valves, solenoid valves
and manifolds
valvole, elettrovalvole
e connessioni multipolari

components for pneumatic automation

Vesta's concept of Quality: a belief that we can always do things better and that resultant benefits for customers may strongly contribute to the success of the company.

Over 25 years of experience in production of pneumatic components leads Vesta to provide the market with very competitive and reliable solutions.

A whole team working next to you in order to grant the right answer.

componenti per l'automazione pneumatica

Il concetto di Qualità per Vesta consiste nella convinzione che è sempre possibile lavorare meglio, perchè solo la qualità percepita dal cliente è quella che accompagna il successo dell'azienda.

Con oltre 25 anni di esperienza nella progettazione e produzione di apparecchiature per l'automazione pneumatica, Vesta è in grado di offrire al mercato idee e soluzioni affidabili e competitive.

Una azienda al tuo fianco per garantire sempre la giusta risposta.

Designed
TO YOUR NEEDS

Tel. +39 0425.474.838
Fax +39 0425.474.670
www.vesta.it
info@vesta.it

We listen to your voice to grow right technical solutions at competitive prices.

Diamo voce alle tue richieste per sviluppare e fornire giuste soluzioni a prezzi competitivi.

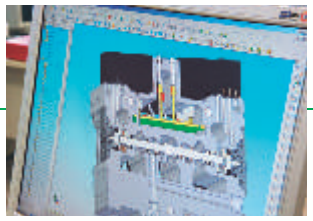
100% made in Italy design and production together with our knowledge and experience in order to offer a wide array of actuators and a complete assortment of valves.

Valvole e cilindri al 100% concepiti e fabbricati in Italia con l'esperienza, la competenza e l'impegno dello staff Vesta.

DESIGN

Developping new products for automation industry **means** to invest day by day on skilled technicians and on innovative tools.

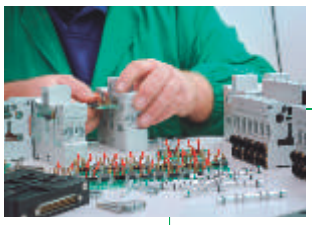
*Ricerca e sviluppo di sistemi e componenti per automazione **significa** investire in tecnici e strumenti selezionati ed innovativi.*



MANUFACTURING

Producing high performing products **means** to pay attention to the choice of the best raw materials and to perform machining of high precision.

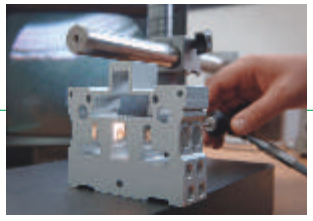
*Una gamma di prodotti ad elevate prestazioni ed alta affidabilità **significa** grande impegno nella scelta dei materiali e nella costanza e precisione delle lavorazioni.*

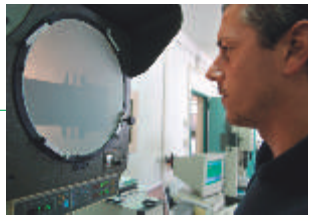


CONTROL

Ensuring high quality products **means** to perform quality and dimensional tests on each single part of which products are made up.

*Garantire la qualità del prodotto **significa** controllare ogni singolo particolare con cui è costruito il prodotto.*

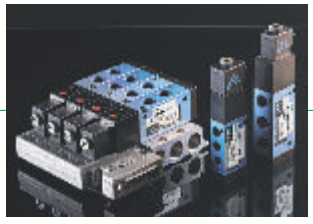




PRODUCTS

The development and production of 100% Made in Italy products **means for Vesta** to accept the challenge of the worldwide competition with the aim of satisfying the needs of our customers.

*Produrre e garantire componenti per automazione al 100% costruiti in Italia **significa per Vesta** accettare la sfida tecnologica sulla competizione globale ed ottenere in cambio la soddisfazione dei clienti.*



Vesta Automation srl - via Martiri di Belfiore, 69/A - 45100 Rovigo (Italy)

SPOT LIGHT

STAINLESS STEEL PNEUMATIC CYLINDERS / *CILINDRI PNEUMATICI INOX*

ROUND MAGNETIC S.S. PNEUMATIC CYLINDERS / CILINDRI PNEUMATICI INOX TONDI CON PISTONE MAGNETICO

RSSC
Standard magnet
Cilindro magnetico

RSSC □□ □□□ □ □□

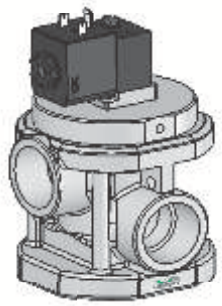
Bore / Alesaggio (mm):
Ø32 32
Ø40 40
Ø50 50
Ø63 63

Stroke / Corsa (mm):

P Through rod cylinder / Cilindro stelo passante

V V Viton all seals / Tutte le guarnizioni in Viton

3/2 POPPET HIGH FLOW VALVES FOR AIR OR VACUUM / VALVOLE 3/2 AD OTTURATORE PER ARIA E VUOTO



PV32 □1S □ □ □□ □

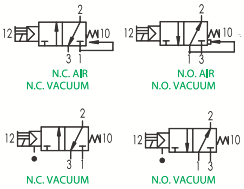
Pmeumatic Pilot / Comando Pneumatico P
Solenoid Pilot / Comando Elettropneumatico W

Normally Closed (NC) / Normalmente Chiusa 6
Normally Open (NO) / Normalmente Aperta 9

Air inlet with servoassisted Air pilot /Alimentazione aria servopilotaggio aria M
External pilot Air Supply / Alimentazione Pilotaggio Esterno E
Vacuum inlet with servoassisted Vacuum pilot / Alim.Vuoto servopilotaggio Vuoto V

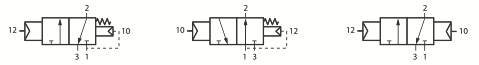
Size / Taglia
12 G 1/2 ″
34 G 3/4 ″
10 G 1 ″
15 G 1 ½ ″
20 G 2 ″

A Air / Aria
V Vacuum / Vuoto



VALVES AND SOLENOID VALVES SERIES JT G1/8, G1/4 / VALVOLE ED ELETTROVALVOLE SERIE JT G1/8, G1/4

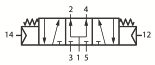
VALVES 3/2, 5/2 AND 5/3 SERIES JT G1/8, G1/4
ELETTROVALVOLE 3/2, 5/2 SERIE JT G1/8, G1/4



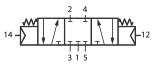
JT32V1P618
JT32V1P614

JT32V1P918
JT32V1P914

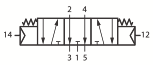
JT32V2P018
JT32V2P014



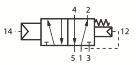
JT53P2318
JT53P2314



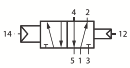
JT53P2618
JT53P2614



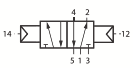
JT53P2918
JT53P2914



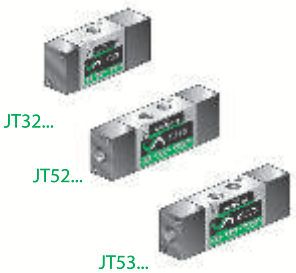
JT52P1018
JT52P1014



JT52DP218
JT52DP214

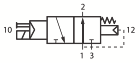


JT52P2018
JT52P2014



SOLENOID VALVES 3/2, 5/2 AND 5/3 SERIES JT G1/8, G1/4

ELETTROVALVOLE 3/2 , 5/2 E 5/3 SERIE JT G1/8 , G1/4



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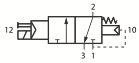
JT32W1S614



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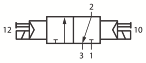
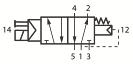
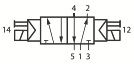
JT32W1S914



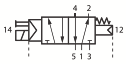
JT32W2S018
JT32W2S014



JT52W1018
JT52W1014



JT52W2018
JT52W2014



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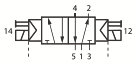
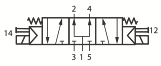
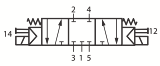
JT52W10E4



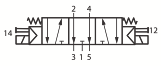
JT52W20E8
JT52W20E4



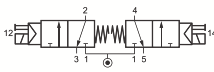
JT53W2S318
JT53W2S314



JT53W2S618
JT53W2S614



JT53W2S918
JT53W2S914



JT66W2018
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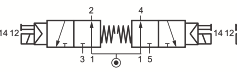
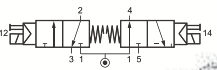
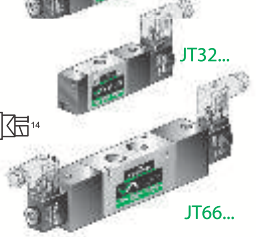
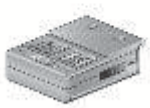


JT99W2018
JT99W2014



JT69W2018
JT69W2014





MPV □□-□

Size 1 Taglia 1 T1
Size 2 Taglia 2 T2

S n° 0-16
D n° 17-32

MPV □□-□ SBD25

Size 1 Taglia 1 T1
Size 2 Taglia 2 T2

S n° 0-16
D n° 17-32

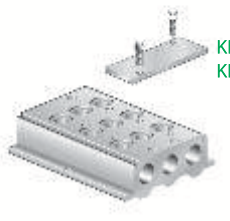
Max 16 valve stations / *Max16 posti valvola*

MPT □□-□□-□□-□□-□-□□

Valves /valvole JT 1/4 14
Valves /valvole JT 1/8 18

B ; C ; D ; E ; F ; M ; V ; W ;
Valve functions and priority sequence
Funzioni valvole e sequenza di assemblaggio

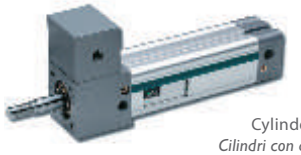
CS Solenoid
Solenoide CS
00 24V dc
50 24V ac



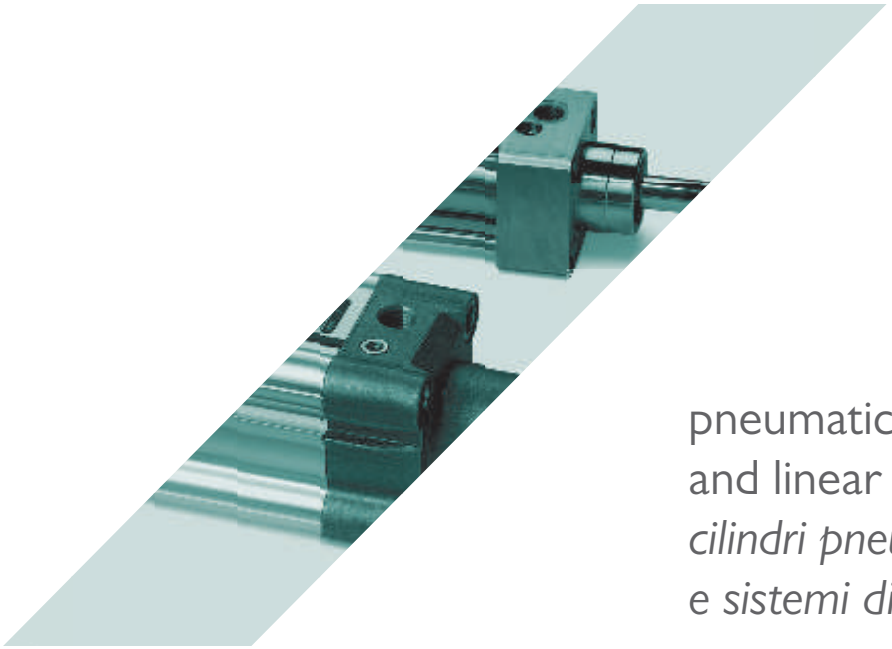
KME .18
KME .14

KPCH018
KPCH014

ENBLOC FOR VALVES SERIES JT G1/8 AND G1/4
BASI PER ELETTROVALVOLE SERIE JT G1/8 E G1/4



index
indice



pneumatic cylinders, actuators
and linear control units
cilindri pneumatici, attuatori
e sistemi di guida

valves, solenoid valves
and manifolds
valvole, elettrovalvole
e connessioni multipolari

air treatment units
gruppi trattamento aria

NOTE / *NOTA*

In case of electric arc welding, please strongly insulate or remove cylinders.
In caso di saldatura ad arco nelle vicinanze, rimuovere il cilindro.

MULTIPOLE CONNECTION SYSTEM
SISTEMA DI CONNESSIONE MULTIPOLARE

SERIE **4HF**

The **4HF system** is Vesta modular solution for multiple connection of valves.
This compact solution grants high flow in small dimensions and easy way of espansion by adding new modules (even odd positions).
The **4HF system** is available in two preassembled electrical configurations: 25 pin Sub-D for a max of 22 solenoids and 37 pin Sub-D for a max of 32 solenoids, suitable for 24 V. DC. and 24 V. AC. with led and varistor protection.

*Il **sistema Vesta 4HF** per il collegamento in isole modulari di elettrovalvole con tecnologia di connessione elettrica integrata, permette soluzioni personalizzate facili da assemblare con espansioni e modifiche veloci e flessibili da realizzare.*
Il sistema molto compatto consente notevole risparmio di spazio pur garantendo portate molto elevate e permette di ridurre in modo considerevole i tempi di assemblaggio.
E' composto di moduli a due posizioni valvola espandibili fino ad un massimo di 8 moduli e quindi un massimo di 16 posizioni di valvole, ognuna delle quali definita e personalizzata nella sua funzione.
E' previsto inoltre, per numero di valvole dispari, un modulo a singolo posto valvola da montare solo come ultima posizione.
*Il **sistema 4HF** è fornibile nelle due versioni di connessione:*
- sub D25, per un massimo di 22 solenoidi collegati;
- sub D37, per un massimo di 32 solenoidi collegati.
Unitamente al voltaggio standard 24V.DC., sono disponibili connessioni e solenoidi in versione 24V.AC. ed entrambe le soluzioni hanno circuito di protezione con led a varistore.

TECHNICAL FEATURES

Standard voltages	24 V. DC. - 24V. AC.
Protection class	IP65
Nominal flow	850 Nl/min.
Power consumption	1 Watt (DC) - 3 VA (AC).
Lubrication	Not required.
Working pressure supply	-0,9 ÷ 10 bar
Pilot pressure supply	2,5 ÷ 8 bar
Connections	Sub-D 25 for 22 solenoid connections Sub-D 37 for 32 solenoid connections
Coil signal	Led + varistor protection.

Working ports	Bottom and side G1/8", or push-in fittings Ø8 on side.
Manual override	Push and with detent.
4HF valve functions	5/2 - 5/3 - 3/2 NO - 3/2 NC.

Average response and frequence (pilot pressure = 6 bar):

Average actioning response	16ms (1 solenoid valve) 12ms (2 solenoids valve)
Average disactioning response	22ms (1 solenoid valve)
Nominal max frequence	22Hz (1 solenoid valve) 35Hz (2 solenoids valve)

CARATTERISTICHE TECNICHE

Tensioni standard	*24 V DC - 24V AC*
Grado di protezione	*IP65*
Portata nominale	*850 Nl/min.*
Potenza assorbita	*1 Watt (DC) - 3 VA (AC).*
Lubrificazione	*Non richiesta.*
Pressione di lavoro	*-0,9 ÷ 10 bar*
Pressione di pilotaggio	*2,5 ÷ 8 bar*
Connessioni	*Sub-D 25 per 22 solenoidi* *Sub-D 37 per 32 solenoidi*
Segnale solenoide	*Circuito di protezione con led a varistore.*

Utilizzi	*Sul fondo e laterali G1/8" o laterali tubo Ø8.*
Comando manuale	*Premere e ruotare per bloccaggio*
Tipo valvola 4HF	*5/2 - 5/3 - 3/2 NO - 3/2 NC.*

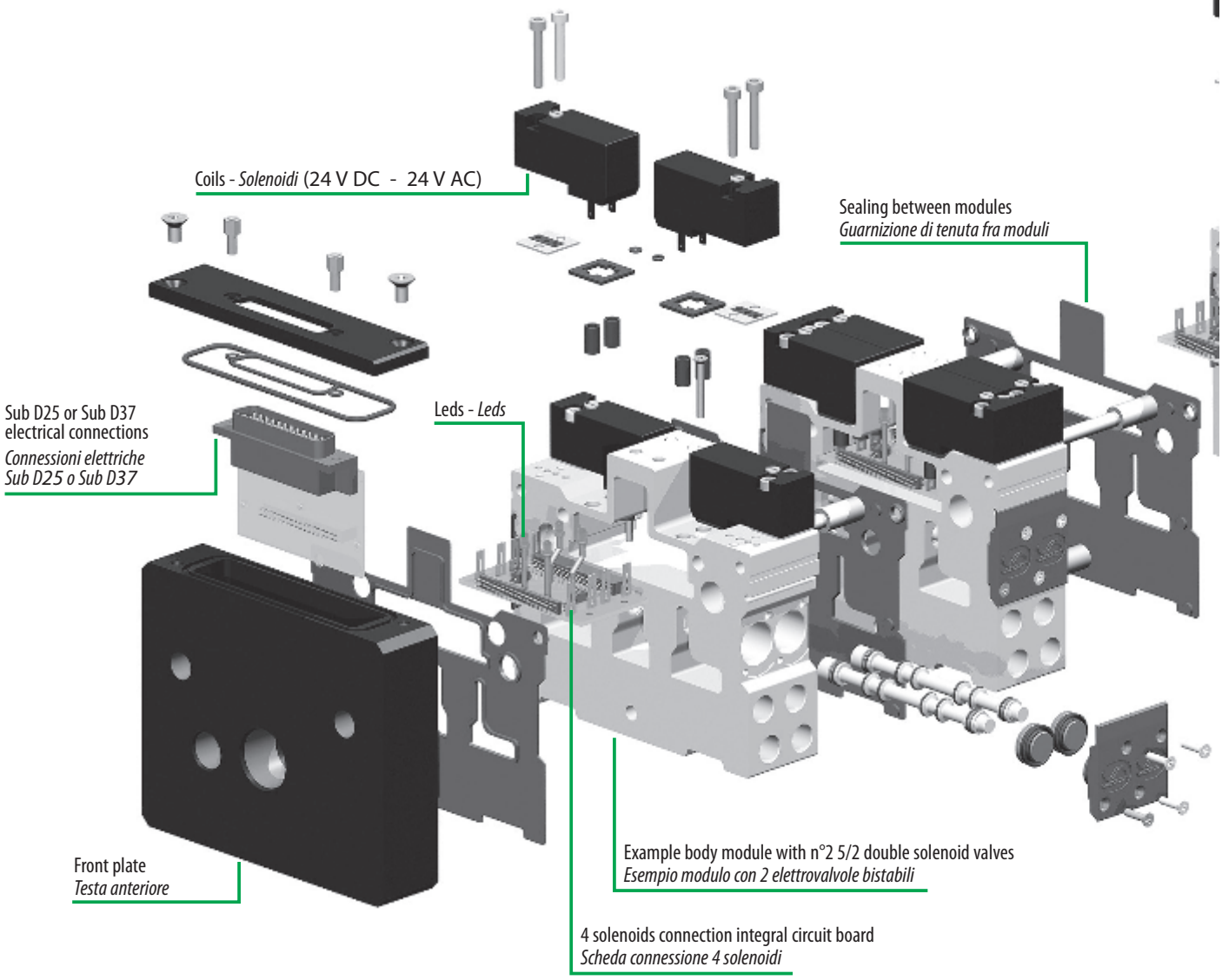
Tempi di risposta e frequenze (con pressione di alimentazione dei pilotaggi = 6 bar):

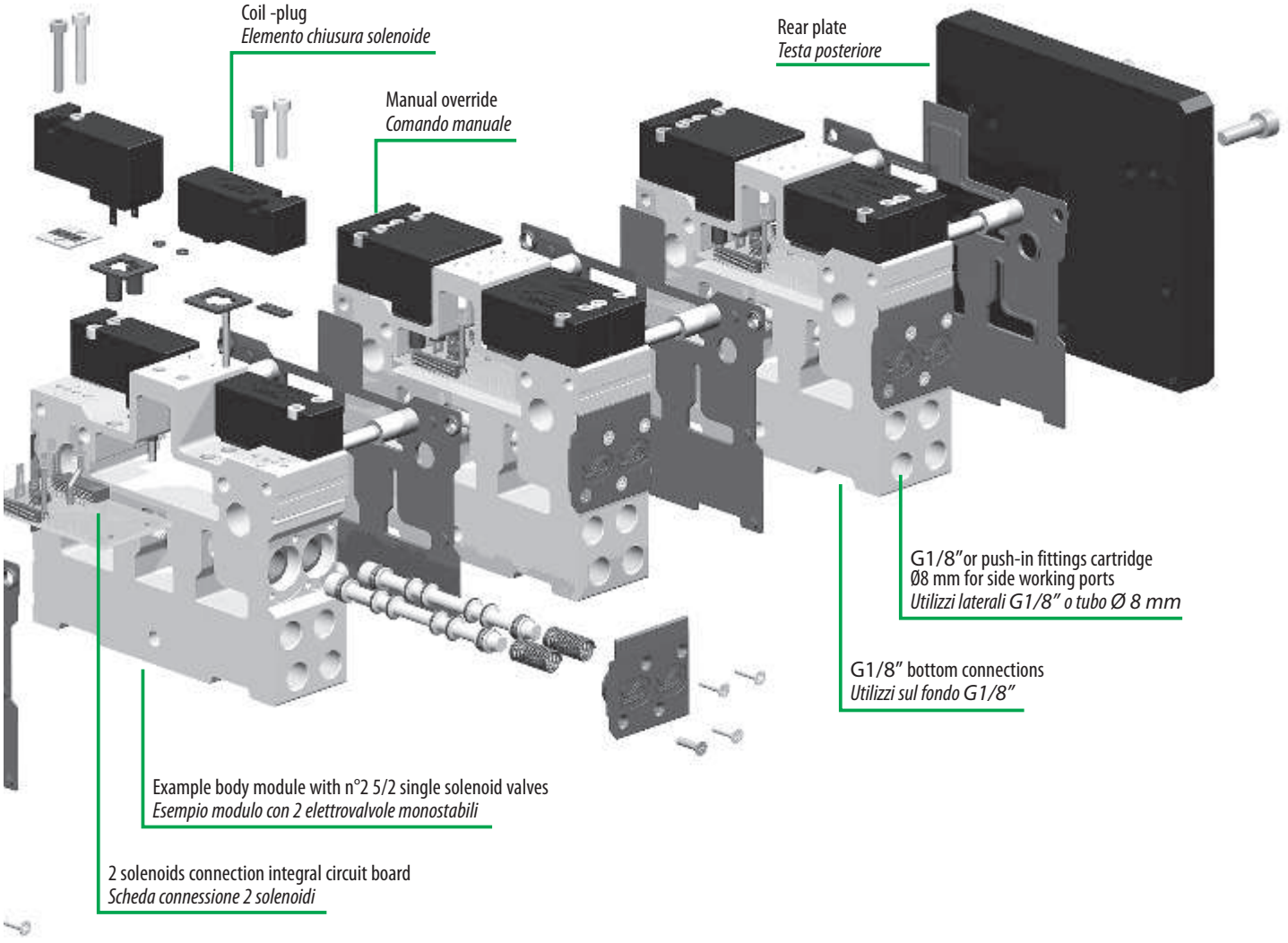
Tempo di inserzione	*16ms (valvole 1 solenoide)* *12ms (valvole 2 solenoidi)*
Tempo di disinserzione	*22ms (valvole 1 solenoide)*
Frequenza massima	*22Hz (valvole 1 solenoide)* *35Hz (valvole 2 solenoidi)*

4HF MODULAR SYSTEM TECHNICAL FEATURES / *CARATTERISTICHE TECNICHE SISTEMA MODULARE 4HF*

Every **4HF** module grants electrical and pneumatic connection of the system through an electronic board (piloted by a main head) and sealing. In each modules two valves are present (except odd positions) according to the following possible configurations: 5/2, 5/3 or double 3/2 valves. 24v DC/AC can be used.

*La composizione del **sistema 4HF** é ottenuta mediante accostamento in tenuta di moduli dotati ognuno di scheda a circuito stampato, con led e varistore di protezione, per il collegamento e la trasmissione dei segnali ai solenoidi secondo posizioni Sub D (rif. pagine B09).*
Ogni modulo é costituito da n°2 posti valvola 5/2 o 5/3 o di max n° 4 posti valvola 3/2, ciascuna delle quali si può definire nella sua funzione individuale e combinare con ognuna delle altre, in modo flessibile e rapido per l'ottenimento di isole personalizzate e flessibili, seguendo schemi di pagg. B-08. Per numero di posizione valvole dispari é disponibile il modulo singolo da montare solo come ultima posizione.

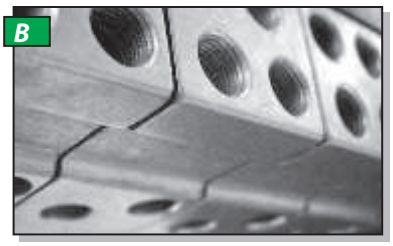




BUILDING FEATURES / *CARATTERISTICHE COSTRUTTIVE*

Manual override push and with detent.

Comando manuale: premere e ruotare per bloccaggio.



Working ports: bottom and side 1/8" ported or push-in fittings Ø8.

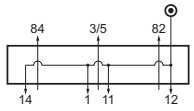
Utilizzi: sul fondo e laterali 1/8" o laterali tubo Ø8.

Sub-D 25 for 22 solenoid connections.
Sub-D 37 for 32 solenoid connections.

Sub-D 25 per 22 solenoidi.
Sub-D 37 per 32 solenoidi.

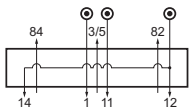
EXAMPLES COMBINATION MODULES / *ESEMPI DI CONFIGURAZIONE MODULI*

4HF..CS-..-... FRONT PLATE
TESTATA ANTERIORE



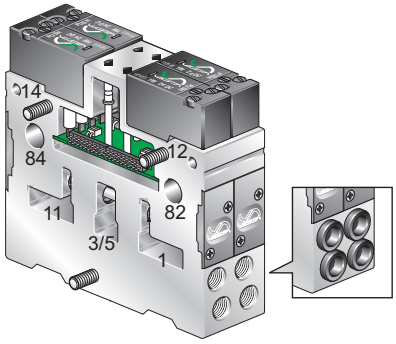
Front plate common supply
Testata anteriore ingressi in comune

4HF..SS-..-... FRONT PLATE
TESTATA ANTERIORE

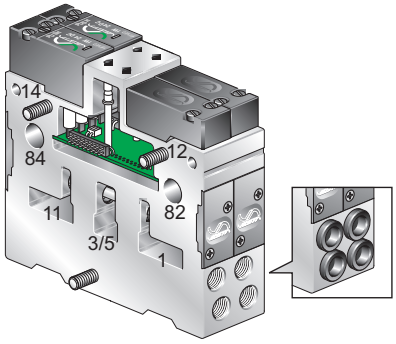


Front plate with three separate supplies
Testata anteriore ingressi separati

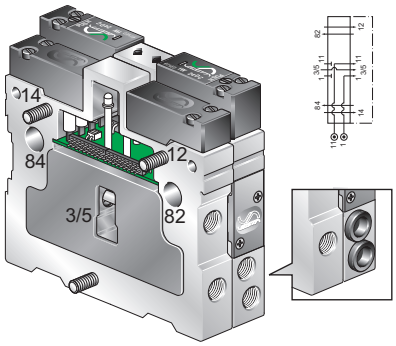
- □□ - DOUBLE SOLENOID VALVES COMBINATION MODULE
CONFIGURAZIONE MODULO VALVOLE A DOPPIO SOLENOIDE



- □□ - SINGLE SOLENOID VALVES COMBINATION MODULE
CONFIGURAZIONE MODULO VALVOLE A SINGOLO SOLENOIDE

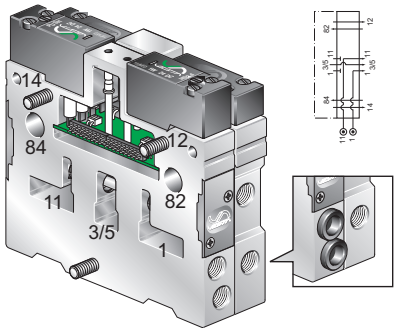


-X□- FRONT INTERMEDIATE PRESSURE SEPARATOR WITH SINGLE VALVE MODULE
ELEMENTO SEPARAZIONE PRESSIONI DISPARI



With intermediate air supplies
Con alimentazioni supplementari

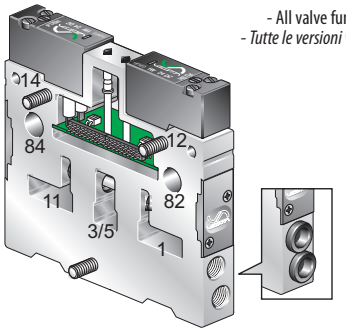
-□Y- FRONT INTERMEDIATE PRESSURE SEPARATOR WITH SINGLE VALVE MODULE
ELEMENTO SEPARAZIONE PRESSIONI PARI



With intermediate air supplies
Con alimentazioni supplementari

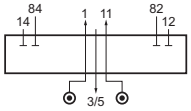
-□- SINGLE VALVE MODULE
POSTO VALVOLA SINGOLO

- All valve functions
- *Tutte le versioni valvola*

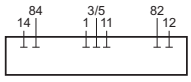


Only rear last odd position on manifold
Solo come ultimo posto dispari

4HF....-..-P.. REAR BLIND PLATE
TESTATA POSTERIORE



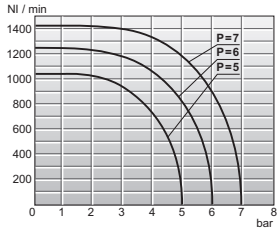
4HF....-..-S.. REAR PLATE
TESTATA POSTERIORE



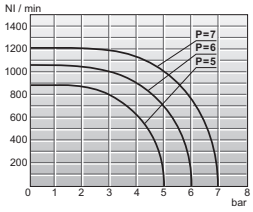
Supplementar exhaust and supplies
Testata posteriore con scarico ed alimentazione supplementari

AIR FLOW DIAGRAM / *DIAGRAMMA DELLE PORTATE*

AIR FLOW DIAGRAM / *DIAGRAMMA DELLE PORTATE*



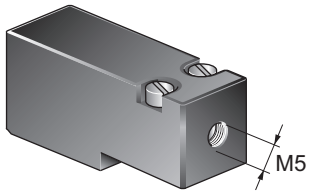
ONLY 5/3 VALVE MID POSITION CLOSED
SOLO VALVOLA 5/3 CENTRI CHIUSI



PNEUMATIC PILOT / *FONDELLO PNEUMATICO*

PNEUMATIC PILOT INTERFACE
CONNESSIONE PER L'AZIONAMENTO PNEUMATICO

PPHF



TECHNICAL FEATURES

Standard tensions	24 V DC; 24 V AC (50/60 Hz)
Duty cicle	100% ED
Power at 20°C	1 Watt DC; 3 VA AC
Operating temperature range	-30 °C ÷ +50 °C
Insulation	Class F
Materials	Glass reinforced Polyamide 6.6

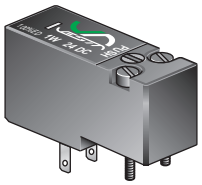
CARATTERISTICHE TECNICHE

Tensioni standard	24 V DC; 24 V AC (50/60 Hz)
Funzionamento	*100% ED*
Potenza assorbita a 20 C°	*1 Watt in DC; 3 VA in AC*
Limiti di temperatura ambiente	*-30 °C ÷ +50 °C*
Bobina	*Bobina completa classe F*
Materiali	*Poliammide 6.6 caricata vetro*

SOLENOID OPERATORS / *ELETTROPILOTI*

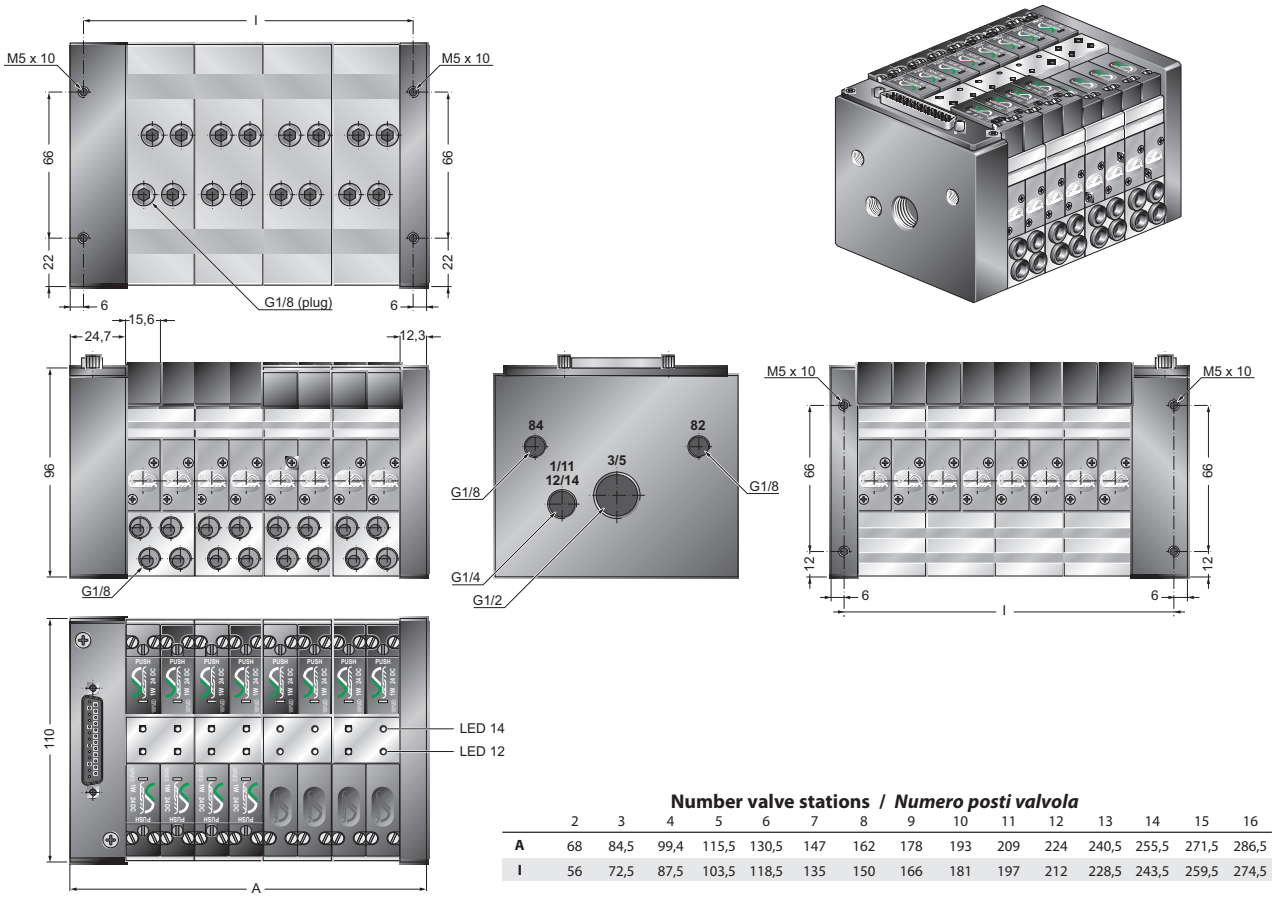
SOLENOID OPERATORS
ELETTROPILOTI

CHF24 . C



Code ordination *Codice ordinazione*	**Voltage** *Tensione*
CHF24DC	24 V DC
CHF24AC	24 V 50/60Hz AC

OVERALL DIMENSIONS / *DIMENSIONI DI INGOMBRO*



Number valve stations / *Numero posti valvola*

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A	68	84,5	99,4	115,5	130,5	147	162	178	193	209	224	240,5	255,5	271,5	286,5
l	56	72,5	87,5	103,5	118,5	135	150	166	181	197	212	228,5	243,5	259,5	274,5

4HF MODULAR SYSTEM IDENTIFICATION CODE / *CODICE DI IDENTIFICAZIONE SISTEMA MODULARE 4HF*

Max 16 valve stations / *Max16 posti valvola*

4HF □□ □□ - □□ - □□ - □□ - □□ - □ - □ □ □

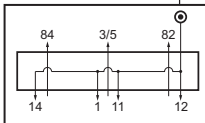
25 25 pin SUB-D connection
Connessione Sub-D 25

37 37 pin SUB-D connection
Connessione Sub-D 37

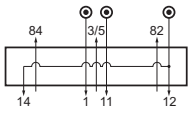
T Thread G1/8" working ports / *Utilizzi filettati G1/8"*
R Push-in fittings (lateral) Ø8 / *Cartucce Ø8 laterali*

0 Solenoid operators / *Solenoidi:* 24 V DC
5 Solenoid operators / *Solenoidi:* 24 V AC

Only last rear station for odd number of valves
Solo come singolo posto valvola finale



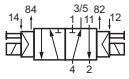
CS
Front plate common supply
Testata anteriore ingressi in comune



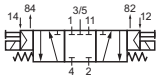
SS Front plate with three separate supplies
Testata anteriore ingressi separati

MANIFOLD VALVE FUNCTIONS PRIORITY FROM FRONT TO REAR
SEQUENZA DI MONTAGGIO FUNZIONI VALVOLE DALLA TESTATA ANTERIORE

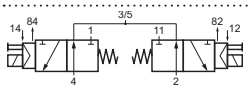
VALVE STATIONS / POSTI VALVOLA



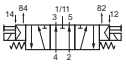
B 5/2 ways double solenoid valve
Valvola 5/2 bistabile doppio solenoide

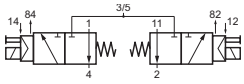


C 5/3 ways valve mid position closed
Valvola 5/3 centri chiusi

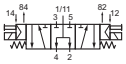


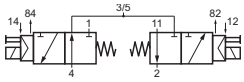
D n°2 3/2 ways valves normally closed
n°2 valvole 3/2 normalmente chiuse
5/3 equivalent / *5/3 equivalente*



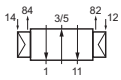


E n°2 3/2 ways valves normally open
n°2 valvole 3/2 normalmente aperte
5/3 equivalent / *5/3 equivalente*

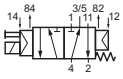




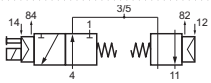
F n°2 3/2 ways valves: 1 normally open and 1 normally closed
n°2 valvole 3/2; 1 normalmente aperta e 1 normalmente chiusa



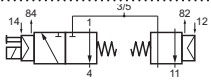
W Free place for double solenoid valve
Posto vuoto bistabile



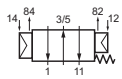
M 5/2 ways single solenoid valve
5/2 monostabile singolo solenoide



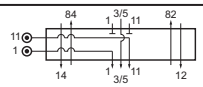
G n°1 3/2 ways single solenoid valve normally closed
n°1 valvola 3/2 normalmente chiusa



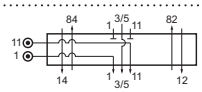
H n°1 3/2 ways single solenoid valve normally open
n°1 valvola 3/2 normalmente aperta



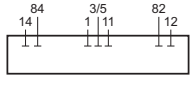
V Free place for single solenoid valve
Posto vuoto monostabile



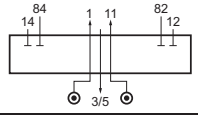
X Intermediate blind separator with supplementary supplies (front side)
Elemento separazione pressioni con ingressi supplementari (dispari)
Example / *Esempio* **- X □ -**



Y Intermediate blind separator with supplementary supplies (rear side)
Elemento separazione pressioni con ingressi supplementari (pari)
Example / *Esempio* **- □ Y -**



P
Blind rear plate
Testata posteriore cieca



S
Rear plate with supplementar exhaust and air supplies
Testata posteriore scarico ed alimentazione supplementari

CODE EXAMPLE / *ESEMPIO DI ORDINAZIONE*

Number 9 valve stations / *Numero 9 posti valvola*

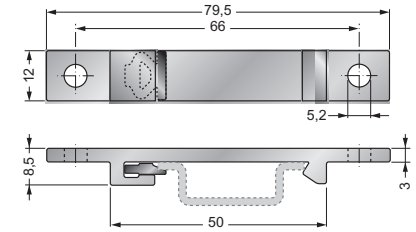
4HF 25 CS - BB - BC - XM - MM - M - P0T

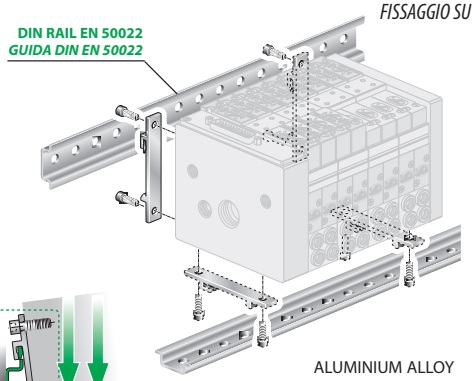
- 25 pin SUB-D connection / *Connessione Sub-D 25*
- Front plate common supply / *Testata anteriore ingressi in comune*
- 5/2 ways double solenoid valve / *Valvola 5/2 bistabile doppio solenoide*
- 5/3 ways valve mid position closed / *Valvola 5/3 centri chiusi*
- Front intermediate pressure separator / *Elemento separazione pressioni con ingressi supplementari (dispari)*
- 5/2 ways single solenoid valve / *5/2 monostabile singolo solenoide*
- 5/2 ways single solenoid valve (single valve module) / *5/2 monostabile singolo solenoide (singolo posto valvola)*
- Blind rear plate / *Testata posteriore cieca*
- Solenoid operators / *Solenoidi:* 24 V DC
- Thread G1/8" working ports / *Utilizzi filettati G1/8"*

FIXING ACCESSORIES / *ACCESSORI DI FISSAGGIO*

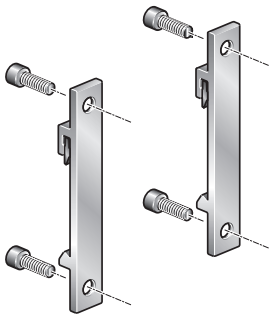
Note: the fixing screws (N°2 M5x10) are included in the supply of the fittings. The brackets are supplied in couple
le viti di fissaggio (N°2 M5x10) *sono comprese nella fornitura degli accessori. Le staffe vengono fornite in coppia.*

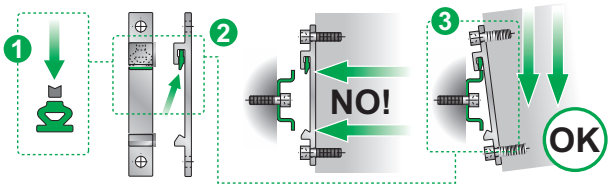
BRACKETS FOR FIXING ON DIN RAIL / *FISSAGGIO SU GUIDA DIN* — **BRHF**



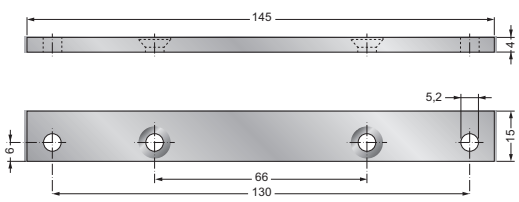


ALUMINIUM ALLOY / *LEGA DI ALLUMINIO*

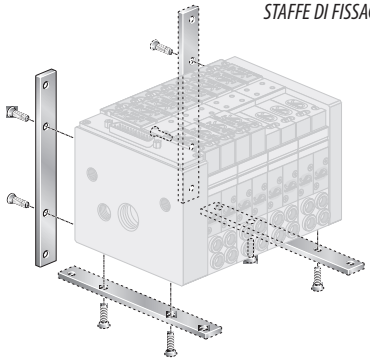


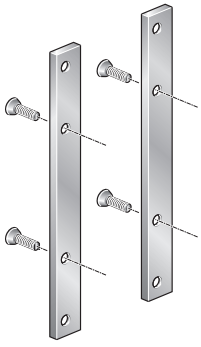


FIXING FOR WALL MOUNTING / *STAFFE DI FISSAGGIO A PARETE* — **FLHF**

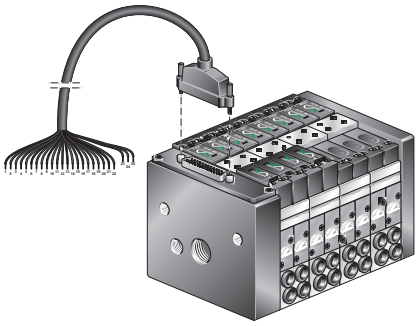


ALUMINIUM ALLOY / *LEGA DI ALLUMINIO*





ELECTRICAL CONNECTIONS / *CONNESSIONI ELETTRICHE*



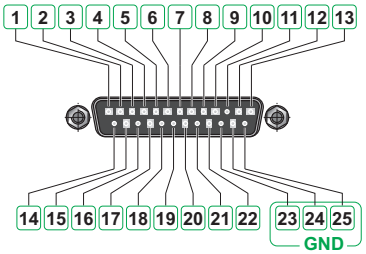
Cable has color coated wires connecting solenoid valves in according to their phisycal position on the manifold.
With a single system you can operate up to 32 solenoids for SUB D 37 or 22 solenoids
for SUB D 25 in any valves configuration.
Pin SUB D sequence number and wires colour are specified in the connection package.

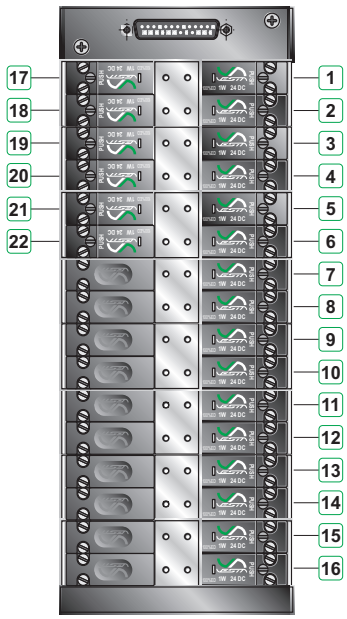
La corrispondenza tra colore del conduttore e elettrovalvola segue la posizione di montaggio fisico della valvola.
Nella configurazione SUB D 37 si possono comandare fino ad un massimo di 32 solenoidi, o un massimo di 22 nella configurazione SUB D 25, in qualsiasi combinazione di valvole adottata.
La corrispondenza tra N° di sequenza dei PIN del SUB-D e colore dei cavi é specificata nel foglio allegato alla confezione del cavo.

SUB D 25

Reference position coils for **Sub D25** connections (max 22 coils).

Riferimento di posizione solenoidi per collegamenti a connessione ***Sub D25*** *(max 22 solenoidi).*

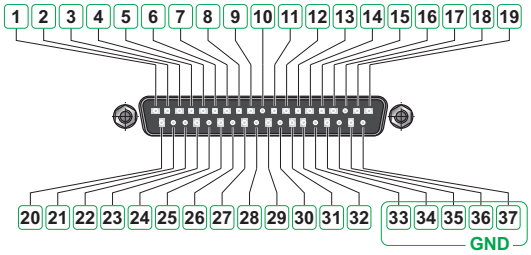


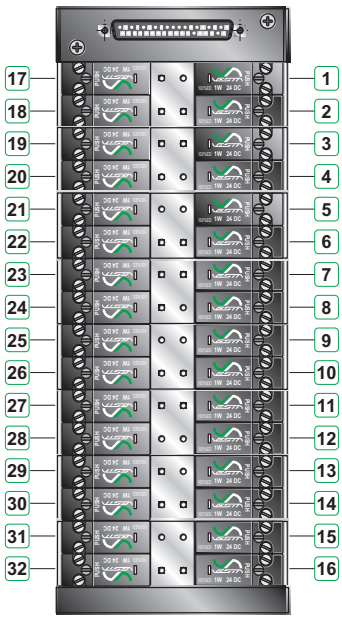


SUB D 37

Reference position coils for **Sub D37** connections (max 32 coils).

Riferimento di posizione solenoidi per collegamenti a connessione ***Sub D37*** *(max 32 solenoidi).*





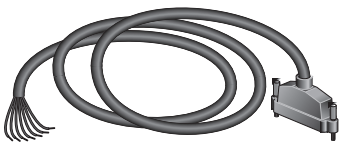
- FRONT -

- REAR -

WPC-..-...

CONNECTION CABLE FOR SUB D
CAVO DI CONNESSIONE SUB D

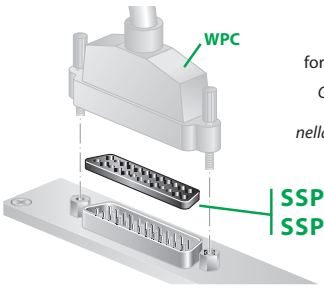
WPC-25-□□□ For / per SUB D 25
WPC-37-□□□ For / per SUB D 37



Standard lenght
Lunghezza standard
025 - 2500 mm
050 - 5000 mm

SSPC-..

CONNECTION SEAL
GUARNIZIONE PER CONNETTORE

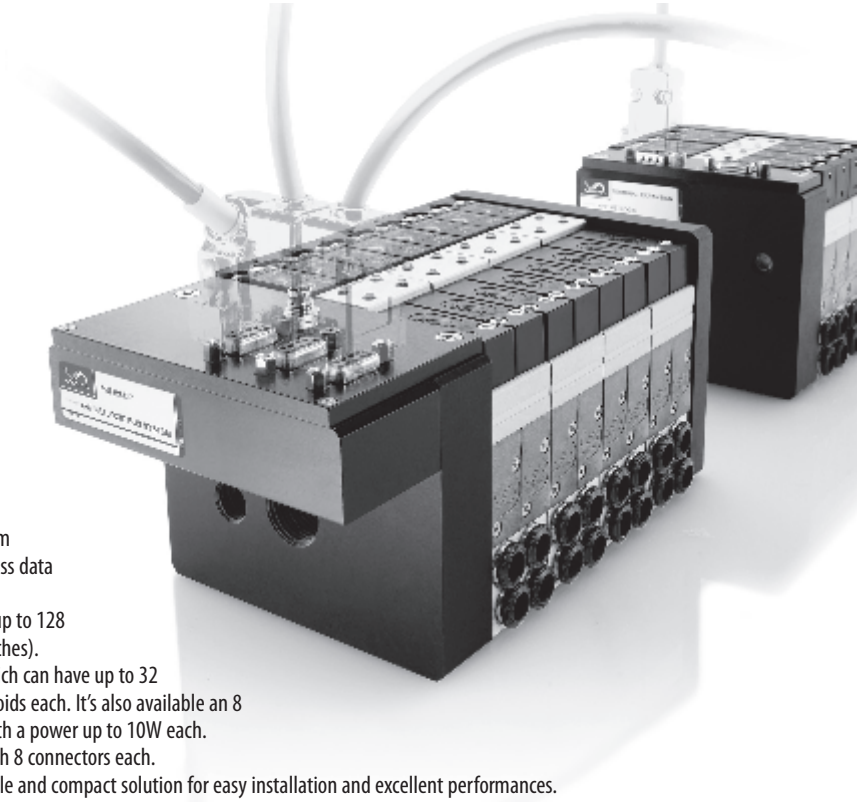


WPC connection seal
for granting IP 65 protection

Guarnizione per garantire
la protezione IP 65
nella connessione del cavo ***WPC***

SSPC-25 For / per **WPC-25**
SSPC-37 For / per **WPC-37**

4hf NETLOGIC



• The 4hf NETLOGIC fieldbus slave node is an integrated system that allows to run and operate a complete set of digital process data in both directions: from/to master to/from field.
• The slave node is made by a bus processor able to manage up to 128 digital outputs (solenoids) and up to 128 digital inputs (switches).
• The bus processor is integrated in the initial slave island which can have up to 32 solenoids and 6 further expansion islands with max 16 solenoids each. It's also available an 8 connections output box to operate remote digital outputs with a power up to 10W each.
• Digital inputs can be connected by input collector boxes with 8 connectors each.
• All the above makes the 4hf NETLOGIC a very flexible, capable and compact solution for easy installation and excellent performances.

• *Il nodo VESTA input/output 4hf-NETOLOGIC realizza uno slave da inserire in una rete fieldbus. Nella sua massima potenzialità è composto da un'isola 4HF iniziale con un processore integrato, da max 6 isole 4HF di espansione, da max 16 ciabatte di raccolta segnali digitali dal campo ed eventuali ciabatte di output per segnali digitali di comando remoti nel campo.*
• *La soluzione intergrata è molto compatta e flessibile, consente il massimo sfruttamento delle potenzialità dello slave grazie alle batterie di espansione alle ciabatte di input e output.*

Expansion strenght (output and input) - *Espandibilità massima (output e input)*

OUTPUT	Max 128 (up to 128 included remote outputs) *Max 128 (Bobine 4hf digitali 24V DC 1 WATT, comprese altre uscite digitali 10W 24V DC con ciabatte di output).*
INPUT	128 (digital 24V dc) - *128 (digitali 24V DC)*

• IP65 (M12 version - *in versione M12*)
• Environment temperature range -10 ÷ +50°C / *Temperatura ambiente -10 ÷ +50°C*
• Bus specific diagnostic leds / *Led di diagnostica di comunicazione specifici del bus*
• Single node electrical supply 24V DC on initial 4hf island / *Unica alimentazione 24V DC su isola 4hf iniziale*

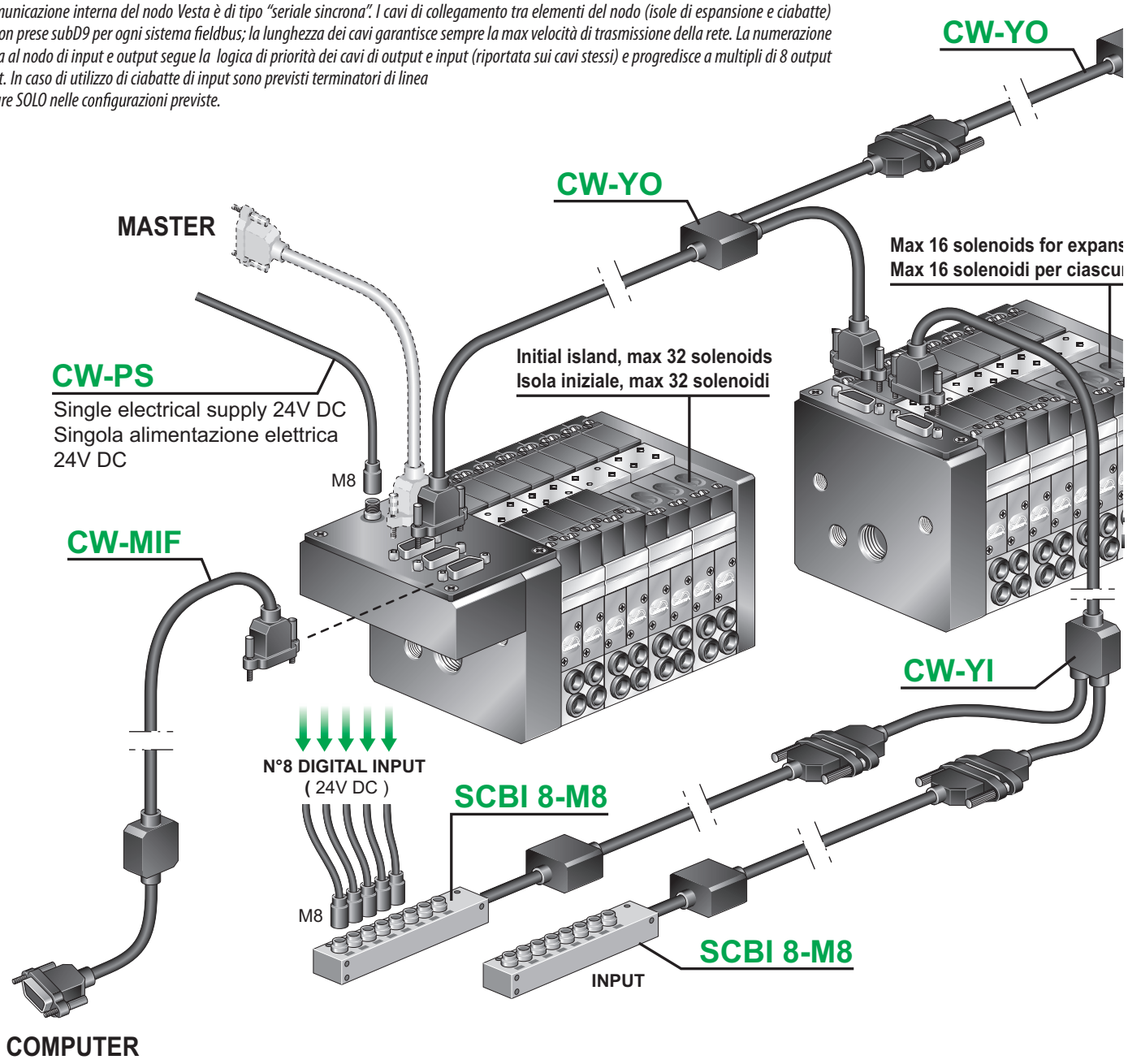
Transmission Protocols - *Protocolli bus*	***PROFIbus***	***DeviceNet***	***Ethernet/IP***	***CANopen***
Baud Rate - *Velocità di trasmissione*	9600bit/s-12Mbit/s	125-500kbit/s	10-100Mbit/s	10kbit/s-1Mbit/s
Suplly Voltage - *Tensione alimentazione*	24V DC (DC±10%)	24V DC (DC±10%)	24V DC (DC±10%)	24V DC
Max current allowed - *Max assorbimento*	3A = max 68 coils contemporary supplied 3A = max n°68 solenoidi contemporaneamente attivati			

(*) Gds file to install and operating instructions are available on www.vesta.it
Per file GSD di installazione e per istruzioni operative consultare il sito www.vesta.it
(**) Dimensions and function of station valves are shown in 4hf system
Per dimensioni e funzioni delle valvole vedere 4hf standard.

4HF NETLOGIC VESTA FIELDBUS SYSTEM

The inner communication of **4HF** Netlogic works as a synchronous serial communication. A SUB-D9 connector is used on every expansion and cable lenght is designed to grant the fastest communication. The system is plug & play and internal addressing of the valves/inputs/outputs is made in function of the connection mode. Please be aware that end line plugs (ELP E/ELP I) are needed for the correct functioning. Read carefully the instructions manual before the installation.

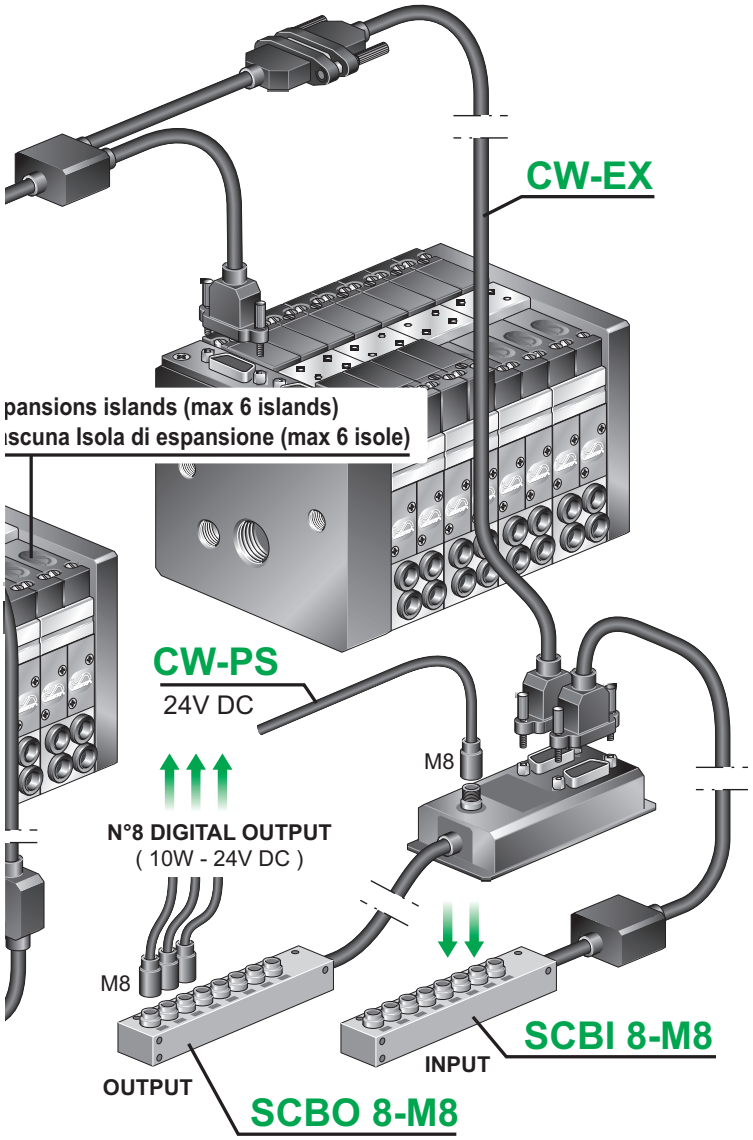
La Comunicazione interna del nodo Vesta è di tipo "seriale sincrona". I cavi di collegamento tra elementi del nodo (isole di espansione e ciabatte) sono con prese subD9 per ogni sistema fieldbus; la lunghezza dei cavi garantisce sempre la max velocità di trasmissione della rete. La numerazione interna al nodo di input e output segue la logica di priorità dei cavi di output e input (riportata sui cavi stessi) e progredisce a multipli di 8 output e input. In caso di utilizzo di ciabatte di input sono previsti terminatori di linea da usare SOLO nelle configurazioni previste.



NODE ADDRESSING AND DIAGNOSTIC

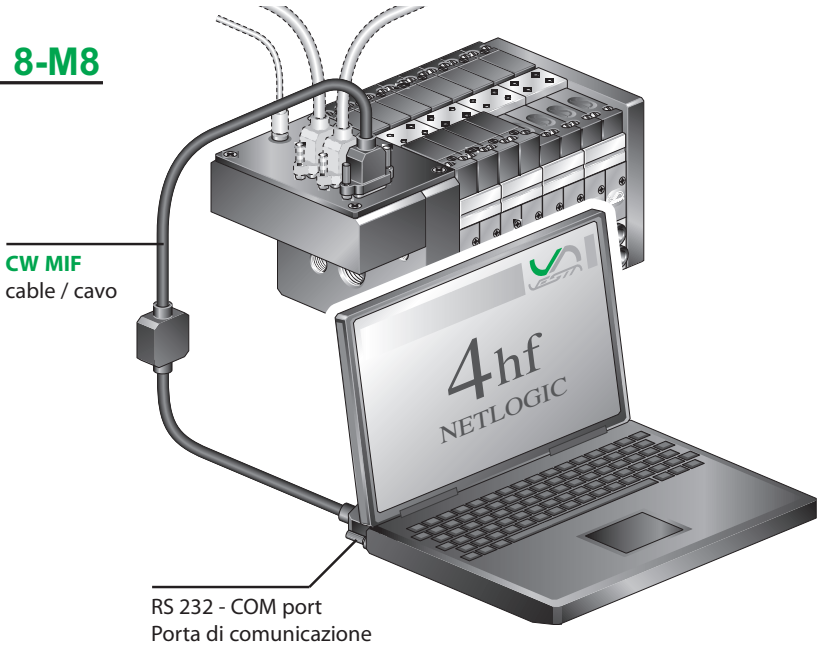
The input SUB-D9 port on the initial island is also used to program the system by using only a Vesta MIF cable (CW MIF). The programming and diagnostic of the island can be made through hyper terminal application of Windows or similar software with other operating systems.

4hf NETLOGIC



The 4hf netlogic system recognises automatically the I/O digital process data and stores them byte by byte (8 bits). In the system this way avoids wrong addresses of I/O.
The bus controller sets automatically baud rate to the same of fieldbus network Profibus, Devicenet or Ethernet. For Canopen the baud rate must be set.

L'occupazione automatica di output e input fatta dal processore 4hf netlogic a multipli di 8bit (con riconoscimento automatico) facilita la programmazione e impedisce l'appropriazione indebita di input ed output della rete fieldbus. La configurazione del nodo slave Vesta è perciò automatica dal punto di vista logico.
Il processore slave adegua in automatico la velocità trasmissione del nodo (baud rate), in funzione della velocità della rete Profibus, Devicenet e Ethernet in cui il nodo Vesta è inserito (per Canopen il baud rate è invece un parametro da configurare).



INDIRIZZAMENTO E DIAGNOSTICA
Sulla testata dell'isola iniziale del nodo (con processore) la presa subD9 di ingresso dei segnali dal campo è anche una porta MIF (Monitor Intreface), che consente l'indirizzamento del nodo collegandosi alla porta seriale COM di un PC con l'apposito cavo MIF di programmazione. Il cavo MIF consente la diagnostica del nodo (verifica hardware del nodo, ossia verifica n° output e n° input collegati; verifica della velocità di trasmissione con il PLC; verifica dello stato di ciascun output e input, cioè controllo passo-passo del ciclo macchina; verifica e scrittura dell'indirizzo dello slave). La diagnostica e l'indirizzamento del nodo vengono fatte da PC con l'applicazione Windows "Hyper Terminal" (o software analogo per altri sistemi operativi).

4HF NETLOGIC IDENTIFICATION CODE / *CODICE DI IDENTIFICAZIONE*

4HF NL □□□ □□ - □□ - □□ - □□ - □□ - □ - □ □

Max 32 Solenoids / *Max 32 solenoidi*

For valves code and configurations available see P. B-08 / B-09

Tabella codici valvole e configurazioni disponibili vedere pagina B-08 / B-09

T Thread G1/8" working ports / *Utilizzi filettati G1/8"*

R Push-in fittings (lateral) Ø8 / *Cartucce Ø8 laterali*

P Blind rear plate / *Testata posteriore cieca*

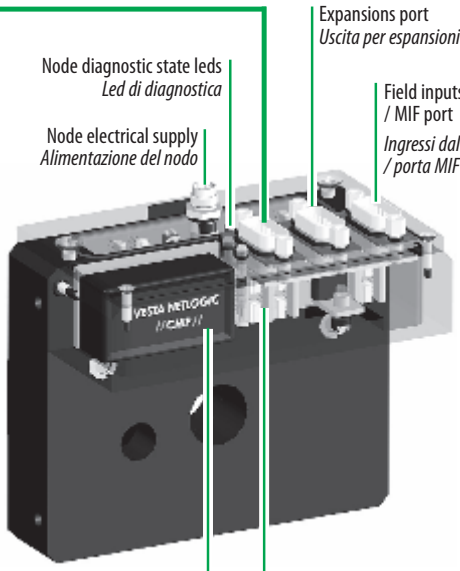
S Rear plate with supplementar exhaust and air supplies / *Testata posteriore scarico ed alimentazione supplementari*

CS Front plate common supply / *Testata anteriore ingressi in comune*

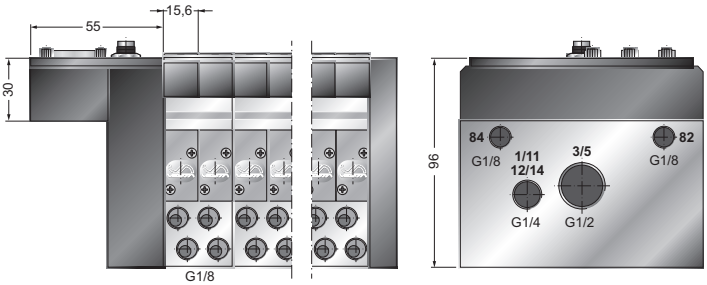
SS Front plate with three separate supplies / *Testata anteriore ingressi separati*

Master input
Ingresso dal master

	**PROFIBUS:** DB9 (IP 54)	**4HF NL PFD -....**
	**ETHERNET/IP:** M12 (IP 65)	**4HF NL ETH -....**
	**PROFIBUS:** M12 (IP 65)	**4HF NL PFM -....**
	**CANOPEN:** M12 (IP 65)	**4HF NL CNO -....**
	**DEVICENET:** M12 (IP 65)	**4HF NL DNM -....**



OVERALL DIMENSIONS / *DIMENSIONI DI INGOMBRO*



4HF NL EX

EXPANSION ISLAND
ISOLA DI ESPANSIONE MODULARE

4HF NL EX - □ □ - □□ - □□ - □ - □

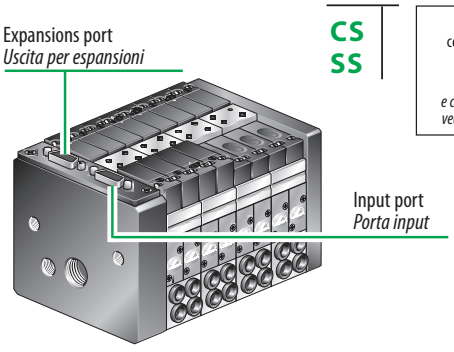
CS / **SS**

For valves code and configurations available see P. B-08 / B-09

Tabella codici valvole e configurazioni disponibili vedere pagina B-08 / B-09

P / **S**

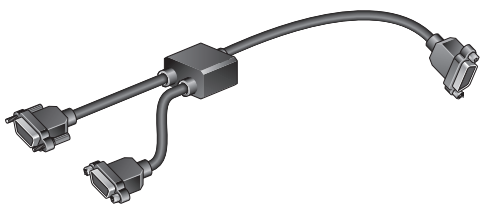
T / **R**



MAX 16 SOLENOIDS
16 SOLENOIDI MAX

CW-MIF

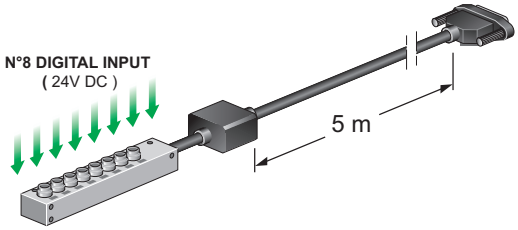
PROGRAMMING CABLE
CAVO DI COLLEGAMENTO PER PROGRAMMAZIONE



Do not use a standard serial cable for programming
Non utilizzare un cavo seriale standard per la programmazione

INPUT COLLECTOR BOX
BOX RACCOLTA INPUT

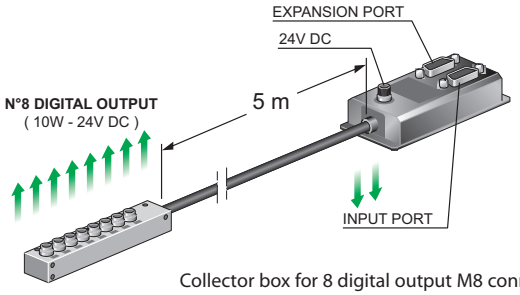
SCBI 8-M8



Collector box for 8 digital input M8 connection
Box raccolta 8 input digitali con connessioni M8

OUTPUT COLLECTOR BOX
BOX DISTRIBUZIONE OUTPUT

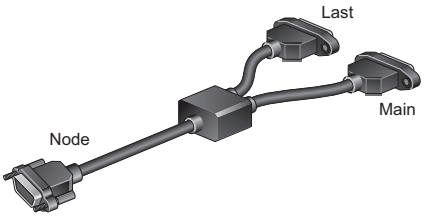
SCBO 8-M8



Collector box for 8 digital output M8 connection
Box distribuzione 8 output digitali con connessioni M8

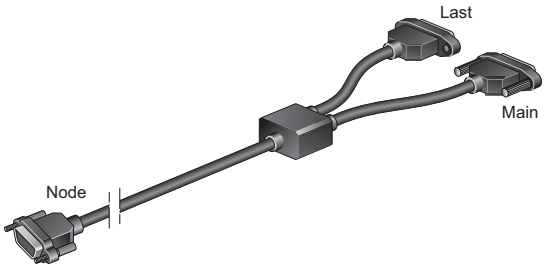
INPUT "Y" CABLE
CAVO AD "Y" PER INPUT

CW-YI



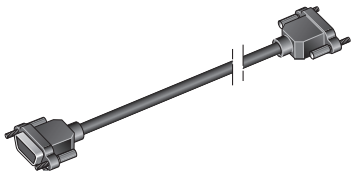
EXPANSION "Y" CABLE
CAVO AD "Y" DI ESPANSIONE

CW-YO



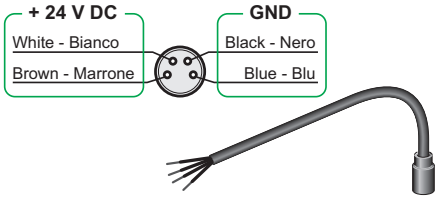
CABLE FOR SINGLE OR LAST EXPANSION
CAVO PER SINGOLA O ULTIMA ESPANSIONE

CW-EX



POWER SUPPLY CABLE M8
CAVO DI ALIMENTAZIONE M8

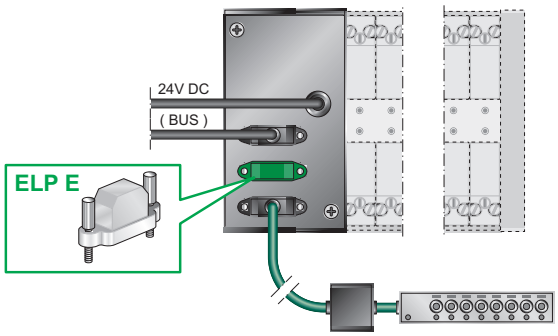
CW-PS



END LINE PLUG FOR EXPANSION PORT
TERMINATORE DI LINEA PER PORTA DI ESPANSIONE

ELP E

Example / Esempio:

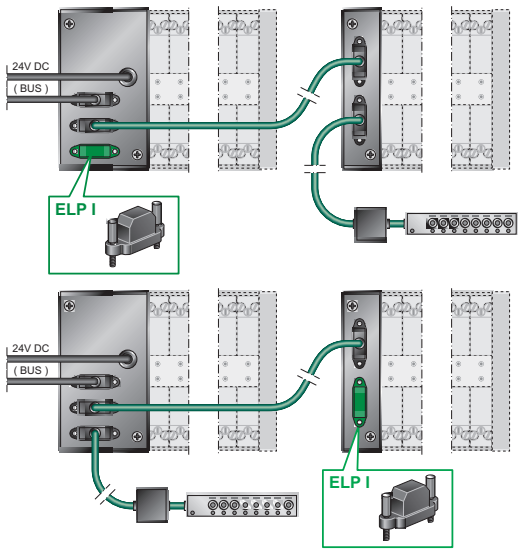


For ELP E connection please see operating instructions available on www.vesta.it
Per connessione dei terminatori vedere istruzioni operative disponibili su www.vesta.it

END LINE PLUG FOR INPUT PORT
TERMINATORE DI LINEA PER PORTA INPUT

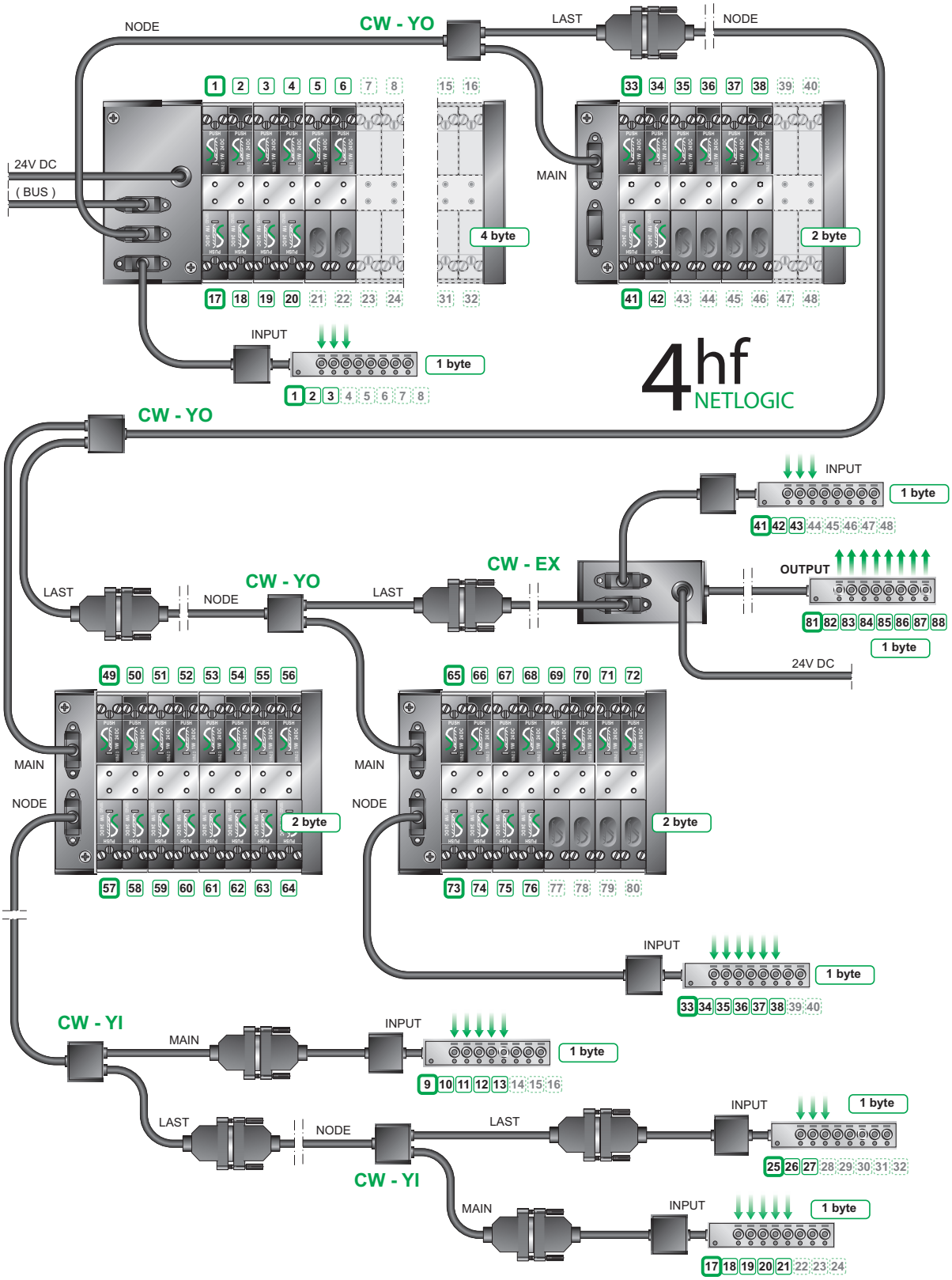
ELP I

Example / Esempio:



For ELP I connection please see operating instructions available on www.vesta.it
Per connessione dei terminatori vedere istruzioni operative disponibili su www.vesta.it

EXAMPLE OF CONNECTIONS / *ESEMPIO DI CONNESSIONE*



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VALVES AND SOLENOID VALVES / *VALVOLE ED ELETTROVALVOLE* G1/8

COMPONENTS FOR ASSEMBLING AND SPARE PARTS / *COMPONENTI PER L'ASSEMBLAGGIO E RICAMBI* G1/8

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(*) **ATEX** versions see / *Versioni* **ATEX** *vedi P.* ***B-113***

G1/4 *VALVES AND SOLENOID VALVES / VALVOLE ED ELETTROVALVOLE*

G1/4 COMPONENTS FOR ASSEMBLING AND SPARE PARTS / *COMPONENTI PER L'ASSEMBLAGGIO E RICAMBI*

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(*) **ATEX** versions see / *Versioni* **ATEX** *vedi P.* ***B-113***

VALVES AND SOLENOID VALVES / *VALVOLE ED ELETTROVALVOLE* G1/2

(*) **ATEX** versions see / *Versioni* **ATEX** *vedi P.* ***B-113***

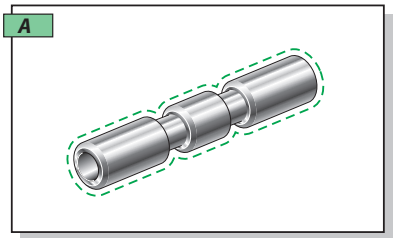
DIRECT ACTING SOLENOID VALVES AND SPARE PARTS / *ELETTROVALVOLE A COMANDO DIRETTO E RICAMBI*

BUILDING FEATURES / *CARATTERISTICHE COSTRUTTIVE*

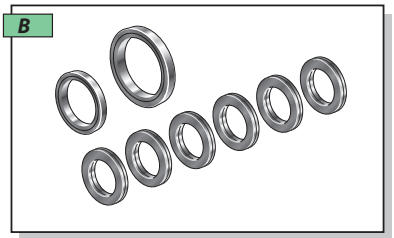
VESTA valves and solenoid valves with **G1/8**,**G1/4** and **G1/2** ports are available in the 3/2, 5/2 and 5/3 versions, with different forms of control (i.e. solenoid / pilot etc).
The choice of high quality materials and technical solutions allows the valves to reach good performances even in harsh environmental conditions.
The spool is made in light aluminium alloy nickel trated with Niploy Process (see fig. **A**).
Its shape grants high nominal flow rates (see fig. **D**). Self lubricating lip seals (see fig. **B**) reduce internal friction (see fig. **C**) and provide the valve with a lasting

Valves and Solenoid valves with connections **G1/8**; **G1/4** and **G1/2** ports can operate continuosly without lubrication (see fig. **E**).

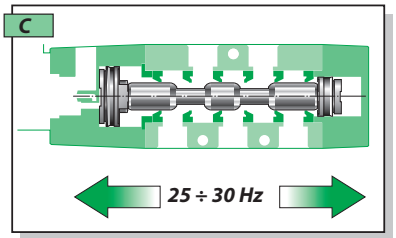
*Le valvole ed elettrovalvole VESTA con connessioni **G1/8**; **G1/4** e **G1/2** sono disponibili nelle versioni 3/2, 5/2 e 5/3 con più sistemi di attuazione e riposizionamento.*
Le soluzioni tecniche adottate ed i materiali impiegati hanno permesso di realizzare un prodotto che presenta elevate prestazioni funzionali anche in condizioni di impiego particolarmente gravose.
*La spola, costruita in lega leggera e progettata per consentire elevate portate nominali (**D**),viene trattata superficialmente al nickel (Niploy Process) (**A**) onde acquisire una durezza maggiore ed una più elevata resistenza agli agenti aggressivi.*
*La combinazione tra la spola e le guarnizioni in elastomero nitrilico con profilo del labbro antiusura (**B**), permette, accanto ad una riduzione degli attriti, un' alta velocità di scambio e cicli di lavoro elevati (**C**), garantendo una maggiore durata della meccanica interna.*
*Tutti i modelli di valvole con connessioni **G1/8**; **G1/4** e **G1/2** possono essere utilizzati anche in assenza di lubrificazione (**E**).*
*L'ermeticità di funzionamento verso l'ambiente di lavoro ne fa inoltre un prodotto adatto all'impiego in settori cosiddetti "difficili" (**F**).*
Nelle pagine che seguono tutte le caratteristiche funzionali di ciascuna valvola sono convalidate dal Dipartimento di Meccanica del Politecnico di Torino.



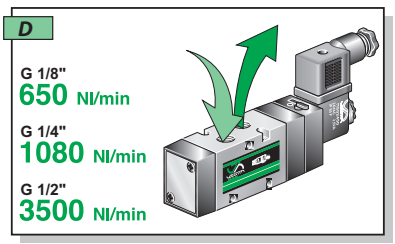
Light alloy spool with Niploy Process treated surface.
Spola in lega leggera con trattamento superficiale Niploy Process.



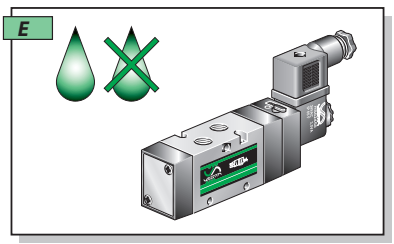
Self lubricating lip rubber seals.
Guarnizioni in elastomero nitrilico con profilo del labbro antiusura.



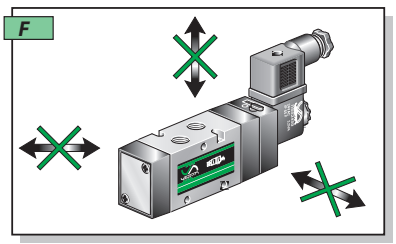
High working frequency.
Alta velocità di scambio per cicli di lavoro elevati.



High nominal air flow.
Alta portata nominale.



Possibility of operating continuosly without lubrication.
Possibilità di funzionamento continuo privo di lubrificazione.



Protected against working environment (no spring return versions).
Protezione di funzionamento verso l'ambiente di lavoro (non nelle versioni con ritorno a molla).

WORKING PRINCIPLE / *PRINCIPIO DI FUNZIONAMENTO*

In the example here below, when the 5/2 valve **E52W1S018 - 02450** stands in the normal position, ports **4** - **5** and **1**- **2** are connected and the position is kept thanks to the pressure assured to the smallest piston (right side of the valve). When the valve is actuated, the same pressure is fed to the biggest piston. Its bigger surface create a force which allows to the spool to move and therefore to connect ports **4** - **1** and **2** - **3**.
In the mechanical spring version, the valve is kept in the normal position by a mechanical spring.
In the bistable versions, the position of the valve remains in its last switched state.

Il principio di funzionamento del distributore 5/2 (nell'esempio la valvola a comando elettropneumatico e riposizionamento a molla pneumatica ***E52W1S018 - 02450*** *) consiste nel mantenere costantemente in pressione il pistone di riposizionamento (fig.* ***1*** *), utilizzando la fonte d'aria compressa presente nel condotto di alimentazione* ***1****, collegando le vie* ***1- 2*** *e* ***4 - 5****.*
L'eccitazione del solenoide mette in comunicazione il condotto in pressione ***1*** *con la camera dove é alloggiato il pistone di comando.*
Quest'ultimo, avendo un'area di spinta maggiore del pistone di riposizionamento, sposta la spola in modo tale da collegare i canali ***1- 4*** *e* ***2- 3*** *(fig.* ***2*** *).*
Diseccitando il solenoide si ripristina la posizione iniziale.
Nei sistemi bistabili (doppio comando elettropneumatico o doppio comando pneumatico) in assenza di segnale rimangono i collegamenti dell'ultimo azionamento.

NORMAL POSITION - ***POSIZIONE A RIPOSO***

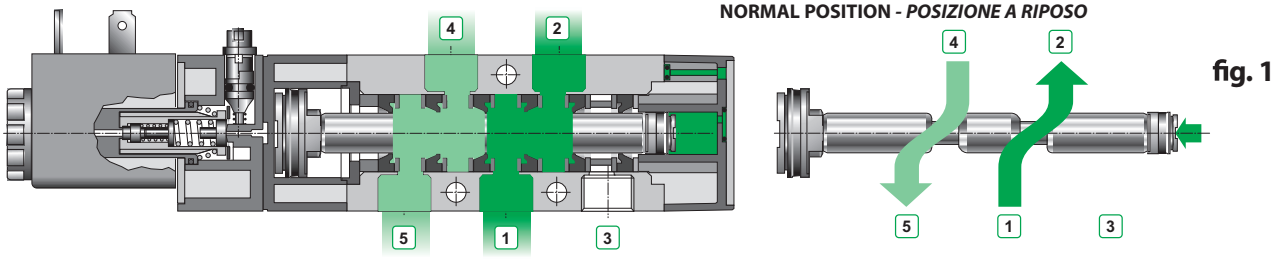


fig. 1

ACTUATED POSITION - ***POSIZIONE DI LAVORO***

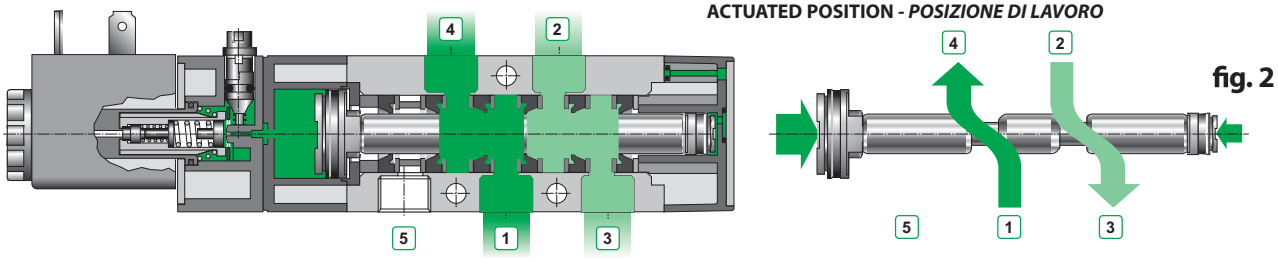
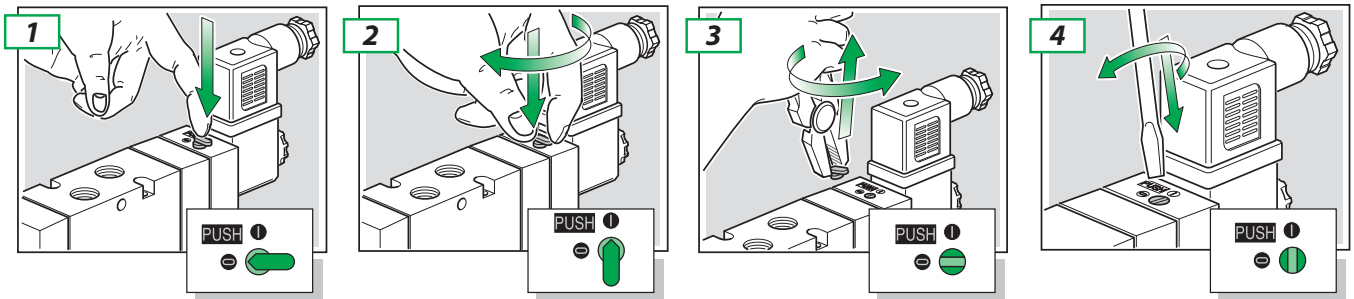


fig. 2

MANUAL OVERRIDING / *AZIONAMENTO COMANDO MANUALE*



Push to actuated valve without locking. ***Release the button to get back to normal position.***

Per azionare la valvola, durante la fase di collaudo con pressione in linea senza collegamento elettrico, premere la leva del comando manuale. ***Rilasciare per ripristinare la condizione di riposo.***

To actuate the valve permanently push the M/O (manual override) and rotate clockwise 90°. ***To return to normal position, push the M/O again and turn 90° anticlockwise.***

Per azionare la valvola in modo permanente premere la leva del comando manuale e ruotare in senso orario sino alla posizione 1. ***Ruotare in senso antiorario per ripristinare la condizione di riposo.***

If the M/O is no longer required, then turn the M/O anticlockwise until it breaks off.

Terminato il collaudo ruotare in senso antiorario la leva sino alla rottura.

If the M/O is required after breaking off a screwdriver can be used.

Per interventi successivi sul comando manuale usare un adeguato cacciavite ed operare come al punto ***1*** *o* ***2****.*

SERIE **G1/8, G1/4, G1/2**

VALVES AND SOLENOID VALVES "E" SERIES
VALVOLE ED ELETTROVALVOLE SERIE "E"

COMMON FEATURES VALVES G1/8 SERIES / *CARATTERISTICHE COMUNI VALVOLE SERIE G1/8*

Port connections	**G1/8**	***Connessioni di lavoro***	***G1/8***
Pilot connections	G1/8	*Connessioni operatori*	*G1/8*
Flow section	Ø 6 mm	*Diametro nominale*	*Ø 6 mm*
Environment temperature range	-10 °C ÷ +50 °C	*Temperatura ambiente*	*-10 °C ÷ +50 °C*
Temperature range of medium	0 °C ÷ +40 °C	*Temperatura fluido*	*0 °C ÷ +40 °C*
Lubrication	Not required	*Lubrificazione*	*Non necessaria*
Medium	Filtered air	*Fluido*	*Aria filtrata*
Reference temperature	+20 °C	*Temperatura nominale*	*+20 °C*
Reference pressure	6 bar	*Pressione nominale*	*6 bar*

G1/8

3/2 VALVES AND SOLENOID VALVES

Fixing	n°3 holes Ø 4,25 manifold system see p. 30.	***VALVOLE ED ELETTROVALVOLE 3/2***	
		Fissaggio	*n°3 fori laterali Ø 4,25* *su collettore vedi p. 32*
Nominal air flow	650 Nl/min	*Portata nominale*	*650 Nl/min*
Fluid conductance "C"	2,7 Nl/s bar	*Valore conduttanza "C"*	*2,7 Nl/s bar*
Critical pressure ratio "b"	0,203	*Rapporto critico delle pressioni "b"*	*0,203*

5/2 VALVES AND SOLENOID VALVES

Fixing	n°3 holes Ø 4,25 manifold system pp. 30 ÷ 32.	***VALVOLE ED ELETTROVALVOLE 5/2***	
		Fissaggio	*n°3 fori laterali Ø 4,25* *su collettore vedi p. 32*
		su base vedi pp. 30 ÷ 31	
Nominal air flow	650 Nl/min	*Portata nominale*	*650 Nl/min*
Fluid conductance "C"	2,7 Nl/s bar	*Valore conduttanza "C"*	*2,7 Nl/s bar*
Critical pressure ratio "b"	0,203	*Rapporto critico delle pressioni "b"*	*0,203*

5/3 VALVES AND SOLENOID VALVES

Fixing	n°3 holes Ø 4,25 manifold system pp. 30 ÷ 32.	***VALVOLE ED ELETTROVALVOLE 5/3***	
		Fissaggio	*n°3 fori laterali Ø 4,25* *su collettore vedi p. 32*
		su base vedi pp. 30 ÷ 31	
Nominal air flow	530 Nl/min	*Portata nominale*	*530 Nl/min*
Fluid conductance "C"	2,17 Nl/s bar	*Valore conduttanza "C"*	*2,17 Nl/s bar*
Critical pressure ratio "b"	0,236	*Rapporto critico delle pressioni "b"*	*0,236*

VALVES AND SOLENOID VALVES G1/4 SERIES / *VALVOLE ED ELETTROVALVOLE SERIE G1/4*

Port connections	**G1/4**	***Connessioni di lavoro***	***G1/4***
Pilot connections	G1/8	*Connessioni operatori*	*G 1/8*
Flow section	Ø 8 mm	*Diametro nominale*	*Ø 8 mm*
Environment temperature range	-10 °C ÷ +50 °C	*Temperatura ambiente*	*-10 °C ÷ +50 °C*
Temperature range of medium	0 °C ÷ +40 °C	*Temperatura fluido*	*0 °C ÷ +40 °C*
Lubrication	Not required	*Lubrificazione*	*Non necessaria*
Medium	Filtered air	*Fluido*	*Aria filtrata*
Reference temperature	+20 °C	*Temperatura nominale*	*+20 °C*
Reference pressure	6 bar	*Pressione nominale*	*6 bar*

G1/4

3/2 VALVES AND SOLENOID VALVES

Fixing	n°3 holes Ø 4,25 manifold system see p. 33.	***VALVOLE ED ELETTROVALVOLE 3/2***	
		Fissaggio	*n°3 fori laterali Ø 4,25* *su collettore vedi p. 33*
Nominal air flow	1080 Nl/min	*Portata nominale*	*1080 Nl/min*
Fluid conductance "C"	4,34 Nl/s bar	*Valore conduttanza "C"*	*4,34 Nl/s bar*
Critical pressure ratio "b"	0,212	*Rapporto critico delle pressioni "b"*	*0,212*

5/2 VALVES AND SOLENOID VALVES

Fixing	n°3 holes Ø 4,25 manifold system pp. 30 ÷ 31, 33.	***VALVOLE ED ELETTROVALVOLE 5/2***	
		Fissaggio	*n°3 fori laterali Ø 4,25* *su collettore vedi p. 33*
		su base vedi pp. 30 ÷ 31	
Nominal air flow	1080 Nl/min	*Portata nominale*	*1080 Nl/min*
Fluid conductance "C"	4,34 Nl/s bar	*Valore conduttanza "C"*	*4,34 Nl/s bar*
Critical pressure ratio "b"	0,212	*Rapporto critico delle pressioni "b"*	*0,212*

5/3 VALVES AND SOLENOID VALVES

Fixing	n°3 holes Ø 4,25 manifold system pp. 30 ÷ 31, 33.	***VALVOLE ED ELETTROVALVOLE 5/3***	
		Fissaggio	*n°3 fori laterali Ø 4,25* *su collettore vedi p. 33*
		su base vedi pp. 24 ÷ 25	
Nominal air flow	800 Nl/min	*Portata nominale*	*800 Nl/min*
Fluid conductance "C"	3,22 Nl/s bar	*Valore conduttanza "C"*	*3,22 Nl/s bar*
Critical pressure ratio "b"	0,265	*Rapporto critico delle pressioni "b"*	*0,265*

VALVES AND SOLENOID VALVES G1/2 SERIES / *VALVOLE ED ELETTROVALVOLE SERIE G1/2*

Port connections	**G1/2**	***Connessioni di lavoro***	***G1/2***
Pilot connections	G1/8	*Connessioni operatori*	*G 1/8*
Flow section	Ø 15 mm	*Diametro nominale*	*Ø 15 mm*
Environment temperature range	-10 °C ÷ +50 °C	*Temperatura ambiente*	*-10 °C ÷ +50 °C*
Temperature range of medium	0 °C ÷ +40 °C	*Temperatura fluido*	*0 °C ÷ +40 °C*
Lubrication	Not required	*Lubrificazione*	*Non necessaria*
Medium	Filtered air	*Fluido*	*Aria filtrata*
Reference temperature	+20 °C	*Temperatura nominale*	*+20 °C*
Reference pressure	6 bar	*Pressione nominale*	*6 bar*

G1/2

3/2 VALVES AND SOLENOID VALVES

Fixing	n°3 holes Ø 5,5	***VALVOLE ED ELETTROVALVOLE 3/2***	
Nominal air flow	3500 Nl/min	*Fissaggio*	*n°3 fori laterali Ø 5,5*
Fluid conductance "C"	12,88 Nl/s bar	*Portata nominale*	*3500 Nl/min*
Critical pressure ratio "b"	0,393	*Valore conduttanza "C"*	*12,88 Nl/s bar*
		Rapporto critico delle pressioni "b"	*0,393*

5/2 VALVES AND SOLENOID VALVES

Fixing	n°3 holes Ø 5,5	***VALVOLE ED ELETTROVALVOLE 5/2***	
Nominal air flow	3500 Nl/min	*Fissaggio*	*n°3 fori laterali Ø 5,5*
Fluid conductance "C"	12,88 Nl/s bar	*Portata nominale*	*3500 Nl/min*
Critical pressure ratio "b"	0,396	*Valore conduttanza "C"*	*12,88 Nl/s bar*
		Rapporto critico delle pressioni "b"	*0,396*

5/3 VALVES AND SOLENOID VALVES

Fixing	n°3 holes Ø 5,5	***VALVOLE ED ELETTROVALVOLE 5/3***	
Nominal air flow	3000 Nl/min	*Fissaggio*	*n°3 fori laterali Ø 5,5*
Fluid conductance "C"	10,76 Nl/s bar	*Portata nominale*	*3000 Nl/min*
Critical pressure ratio "b"	0,42	*Valore conduttanza "C"*	*3,22 Nl/s bar*
		Rapporto critico delle pressioni "b"	*0,265*

PNEUMATIC VALVES FEATURES / CARATTERISTICHE *VALVOLE PNEUMATICHE*

Size *Taglia*	Code *Codice*	Nominal pilot pressure (bar) *Pressione di pilotaggio nominale (bar)*	Nominal max frequence (Hz) *Frequenza max nominale (Hz)*	Operating pressure range (bar) *Pressione di esercizio (bar)*
G 1/8"	V32V1P618	4,5 bar (10 bar)	31 Hz	2,2 ÷ 10 bar
	V32V1P918	4,5 bar (10 bar)	31 Hz	2,2 ÷ 10 bar
	V32V1P6M8	2,7 bar	13 Hz	1,5 ÷ 10 bar
	V32V1P9M8	2,7 bar	13 Hz	1,5 ÷ 10 bar
	V32V2P018	1,3 bar	43 Hz	1,2 ÷ 10 bar
	V52V1P018	4,5 bar (10 bar)	30 Hz	2,5 ÷ 10 bar
	V52V1PM18	2,7 bar	13 Hz	1,5 ÷ 10 bar
	V52V2P018	1,3 bar	42 Hz	1,5 ÷ 10 bar
	V52V2PD18	1,3 bar	42 Hz	1,5 ÷ 10 bar
	V53V2P618	3,2 bar	9 Hz	1,5 ÷ 10 bar
	V53V2P918	3,2 bar	9 Hz	1,5 ÷ 10 bar
G 1/4"	V32V1P614	4 bar (10 bar)	22 Hz	2,2 ÷ 10 bar
	V32V1P914	4 bar (10 bar)	22 Hz	2,2 ÷ 10 bar
	V32V1P6M4	2,85 bar	11 Hz	1,5 ÷ 10 bar
	V32V1P9M4	2,85 bar	11 Hz	1,5 ÷ 10 bar
	V32V2P014	1,3 bar	31 Hz	1,2 ÷ 10 bar
	V52V1P014	4 bar (10 bar)	21 Hz	2,5 ÷ 10 bar
	V52V1PM14	2,85 bar	10 Hz	1,5 ÷ 10 bar
	V52V2P014	1,3 bar	30 Hz	1,5 ÷ 10 bar
	V52V2PD14	1,3 bar	30 Hz	1,5 ÷ 10 bar
	V53V2P614	3,6 bar	8 Hz	1,5 ÷ 10 bar
	V53V2P914	3,6 bar	8 Hz	1,5 ÷ 10 bar
G 1/2"	V32V1P612	4 bar (10 bar)	12 Hz	2,2 ÷ 10 bar
	V32V1P912	4 bar (10 bar)	12 Hz	2,2 ÷ 10 bar
	V32V1P6M2	2,85 bar	8 Hz	1,5 ÷ 10 bar
	V32V1P9M2	2,85 bar	8 Hz	1,5 ÷ 10 bar
	V32V2P012	1,3 bar	14 Hz	1,2 ÷ 10 bar
	V52V1P012	4 bar (10 bar)	12 Hz	2,5 ÷ 10 bar
	V52V1PM12	2,85 bar	7 Hz	1,5 ÷ 10 bar
	V52V2P012	1,3 bar	13 Hz	1,5 ÷ 10 bar
	V53V2P612	3,2 bar	6 Hz	1,5 ÷ 10 bar
	V53V2P912	3,2 bar	6 Hz	1,5 ÷ 10 bar

SOLENOID VALVES FEATURES / CARATTERISTICHE *ELETTROVALVOLE*

Size *Taglia*	Code *Codice*	Average actioning response (ms) *Tempo medio di risposta in eccitazione (ms)*		Average disactioning response (ms) *Tempo medio di risposta in diseccitazione (ms)*		Nominal max frequence (Hz) *Frequenza max nominale (Hz)*		Operating pressure range (bar) *Pressione di esercizio (bar)*
		AC	DC	AC	DC	AC	DC	
G 1/8"	E32W1S618	17 ms	19 ms	20 ms	24 ms	29 Hz	18 Hz	2,2 ÷ 10 bar
	E32W1S918	17 ms	19 ms	20 ms	24 ms	29 Hz	18 Hz	2,2 ÷ 10 bar
	E32W1S6M8	17 ms	19 ms	21 ms	34 ms	13 Hz	13 Hz	3,2 ÷ 10 bar
	E32W1S9M8	17 ms	19 ms	21 ms	34 ms	13 Hz	13 Hz	3,2 ÷ 10 bar
	E32W2S018	10 ms	12 ms	10 ms	12 ms	31 Hz	23 Hz	1,2 ÷ 10 bar
	E52W1S018	10 ms	17 ms	20 ms	24 ms	29 Hz	17 Hz	2,5 ÷ 10 bar
	E52W1SM18	17 ms	19 ms	21 ms	34 ms	13 Hz	13 Hz	3,2 ÷ 10 bar
	E52W2S018	10,5 ms	12,5 ms	10,5 ms	12,5 ms	31 Hz	22 Hz	1,5 ÷ 10 bar
	E53W2S618	16 ms	19 ms	16 ms	19 ms	9 Hz	9 Hz	3 ÷ 10 bar
	E53W2S918	16 ms	19 ms	16 ms	19 ms	9 Hz	9 Hz	3 ÷ 10 bar
G 1/4"	E32W1S614	18 ms	21 ms	33 ms	44 ms	17 Hz	14 Hz	2,2 ÷ 10 bar
	E32W1S914	18 ms	21 ms	33 ms	44 ms	17 Hz	14 Hz	2,2 ÷ 10 bar
	E32W1S6M4	19 ms	21 ms	35 ms	46 ms	11 Hz	11 Hz	2,5 ÷ 10 bar
	E32W1S9M4	19 ms	21 ms	35 ms	46 ms	11 Hz	11 Hz	2,5 ÷ 10 bar
	E32W2S014	11 ms	14 ms	11 ms	14 ms	27 Hz	22 Hz	1,2 ÷ 10 bar
	E52W1S014	18 ms	21 ms	33 ms	44 ms	16 Hz	13 Hz	2,5 ÷ 10 bar
	E52W1SM14	19 ms	21 ms	35 ms	46 ms	11 Hz	11 Hz	2,5 ÷ 10 bar
	E52W2S014	11 ms	14 ms	11 ms	14 ms	27 Hz	21 Hz	1,5 ÷ 10 bar
	E53W2S614	17 ms	20 ms	17 ms	20 ms	8 Hz	8 Hz	3 ÷ 10 bar
	E53W2S914	17 ms	20 ms	17 ms	20 ms	8 Hz	8 Hz	3 ÷ 10 bar
G 1/2"	E32W1S612	43 ms	45 ms	55 ms	55 ms	13 Hz	12 Hz	2,2 ÷ 10 bar
	E32W1S912	43 ms	45 ms	55 ms	55 ms	13 Hz	12 Hz	2,2 ÷ 10 bar
	E32W1S6M2	47 ms	49 ms	60 ms	60 ms	8 Hz	8 Hz	2,5 ÷ 10 bar
	E32W1S9M2	47 ms	49 ms	60 ms	60 ms	8 Hz	8 Hz	2,5 ÷ 10 bar
	E32W2S012	22 ms	26 ms	22 ms	26 ms	16 Hz	15 Hz	1,2 ÷ 10 bar
	E52W1S012	47 ms	49 ms	58 ms	58 ms	11 Hz	10 Hz	2,5 ÷ 10 bar
	E52W1SM12	47 ms	49 ms	60 ms	60 ms	8 Hz	8 Hz	2,5 ÷ 10 bar
	E52W2S012	24 ms	28 ms	24 ms	28 ms	14 Hz	13 Hz	1,5 ÷ 10 bar
	E53W2S612	49 ms	49 ms	60 ms	60 ms	6 Hz	6 Hz	3 ÷ 10 bar
	E53W2S912	49 ms	49 ms	60 ms	60 ms	6 Hz	6 Hz	3 ÷ 10 bar

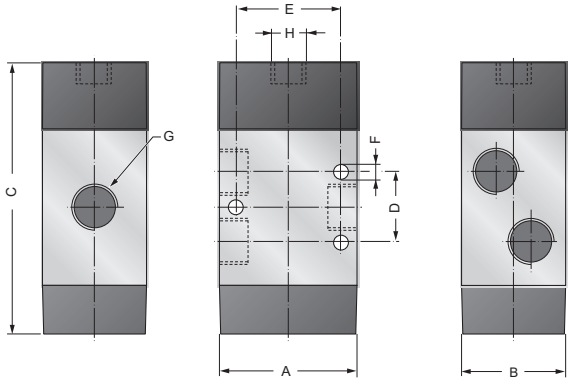
For electrical features solenoid pilot see pp. B-35 and B-37.
Caratteristiche elettriche elettrovalvole per solenoide vedi pp. B-35 e B-37.

V32V1P . 1.

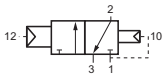
VALVE / *VALVOLA* 3/2

SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN

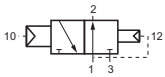
COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA



SIMBOLS / *SIMBOLI*

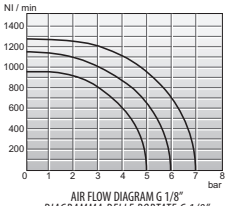


V32V1P61.

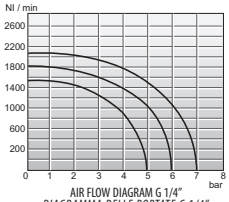


V32V1P91.

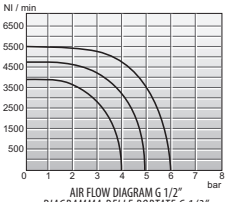
DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM G 1/8"
DIAGRAMMA DELLE PORTATE G 1/8"



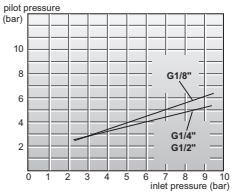
AIR FLOW DIAGRAM G 1/4"
DIAGRAMMA DELLE PORTATE G 1/4"



AIR FLOW DIAGRAM G 1/2"
DIAGRAMMA DELLE PORTATE G 1/2"

Size *Taglia*	A	B	C	D	E	ØF	G	H
G1/8	30	26	74	18	23	4,25	G1/8	G1/8
G1/4	40	30	81,5	20	30	4,25	G1/4	G1/8
G1/2	60	40	127	40	50	5,5	G1/2	G1/8

DIAGRAM / *DIAGRAMMA*



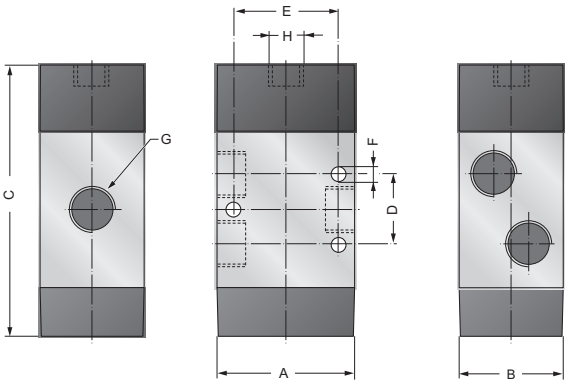
PILOT PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

V32V1P . M.

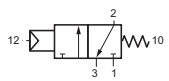
VALVE / *VALVOLA* 3/2

SINGLE PNEUMATIC PILOT - SPRING RETURN

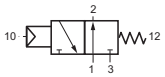
COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA MECCANICA



SIMBOLS / *SIMBOLI*

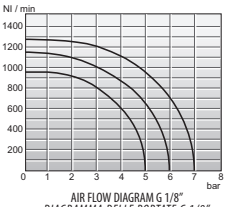


V32V1P6M.

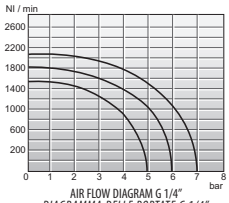


V32V1P9M.

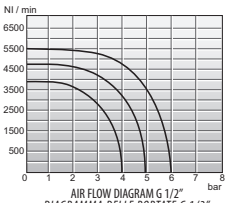
DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM G 1/8"
DIAGRAMMA DELLE PORTATE G 1/8"



AIR FLOW DIAGRAM G 1/4"
DIAGRAMMA DELLE PORTATE G 1/4"

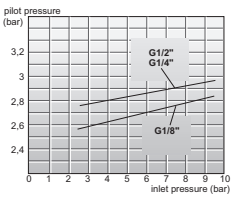


AIR FLOW DIAGRAM G 1/2"
DIAGRAMMA DELLE PORTATE G 1/2"

(*) **ATEX** versions see / *Versioni* **ATEX** *vedi P.* ***B-113***

	Size *Taglia*	A	B	C	D	E	ØF	G	H
	G1/8	30	26	74	18	23	4,25	G1/8	G1/8
(*)	G1/4	40	30	81,5	20	30	4,25	G1/4	G1/8
(*)	G1/2	60	40	118	40	50	5,5	G1/2	G1/8

DIAGRAM / *DIAGRAMMA*

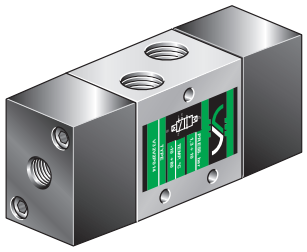


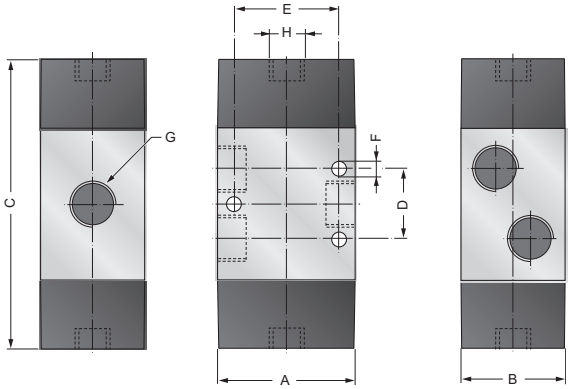
PILOT PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

VALVE / VALVOLA 3/2

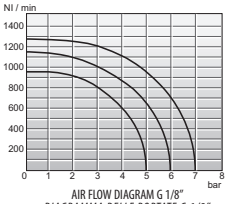
DOUBLE PNEUMATIC PILOT / *DOPPIO COMANDO PNEUMATICO*

V32V2P01.

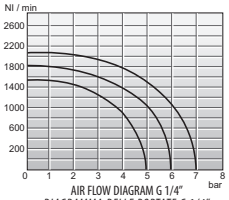




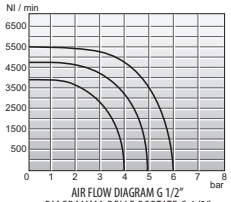
DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM G 1/8"
DIAGRAMMA DELLE PORTATE G 1/8"



AIR FLOW DIAGRAM G 1/4"
DIAGRAMMA DELLE PORTATE G 1/4"



AIR FLOW DIAGRAM G 1/2"
DIAGRAMMA DELLE PORTATE G 1/2"

SIMBOL / *SIMBOLO*

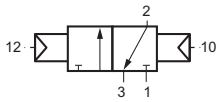
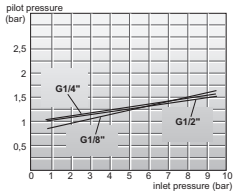


DIAGRAM / *DIAGRAMMA*



PILOT PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

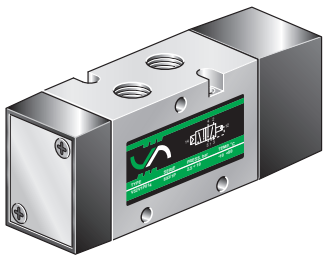
(*) **ATEX** versions see / *Versioni* **ATEX** *vedi P.* ***B-113***

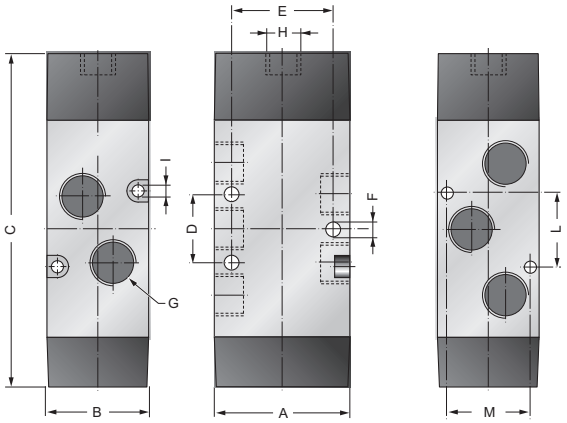
Size / *Taglia*	A	B	C	D	E	ØF	G	H
G1/8	30	26	79	18	23	4,25	G1/8	G1/8
(*) G1/4	40	30	87	20	30	4,25	G1/4	G1/8
(*) G1/2	60	40	132	40	50	5,5	G1/2	G1/8

VALVE / VALVOLA 5/2

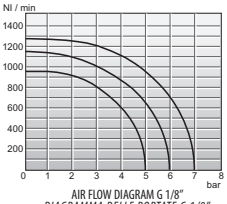
SINGLE PNEUMATIC PILOT / *COMANDO PNEUMATICO*

V52V1P . 1.

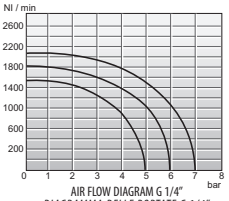




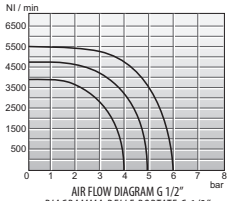
DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM G 1/8"
DIAGRAMMA DELLE PORTATE G 1/8"

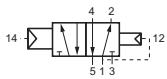


AIR FLOW DIAGRAM G 1/4"
DIAGRAMMA DELLE PORTATE G 1/4"

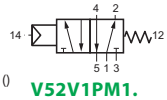


AIR FLOW DIAGRAM G 1/2"
DIAGRAMMA DELLE PORTATE G 1/2"

SIMBOLS / *SIMBOLI*

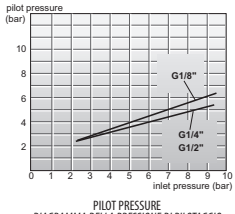


V52V1P01.



() **V52V1PM1.**

DIAGRAM / *DIAGRAMMA*

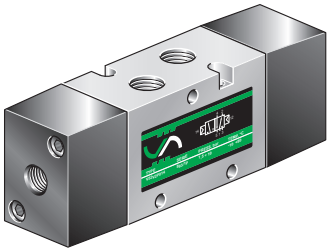


PILOT PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

(*) **ATEX** versions see / *Versioni* **ATEX** *vedi P.* ***B-113***

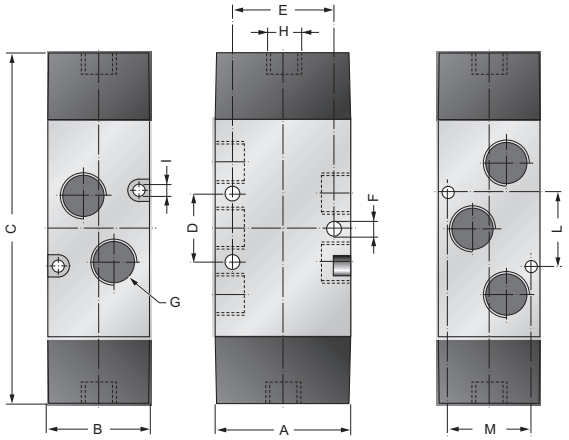
Size / *Taglia*	A	B	C	D	E	ØF	G	H	ØI	L	M
1/8	30	26	91	18	23	4,25	G1/8	G1/8	3,25	28,6	20
(*) 1/4	40	30	100	20	30	4,25	G1/4	G1/8	3,25	21	24,6
(*) 1/2	60	40	167	40	50	5,5	G1/2	G1/8	—	—	—

V52V2P . 1.

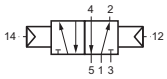


VALVE / *VALVOLA* 5/2

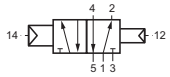
DOUBLE PNEUMATIC PILOT / *DOPPIO COMANDO PNEUMATICO*



SIMBOLS / *SIMBOLI*

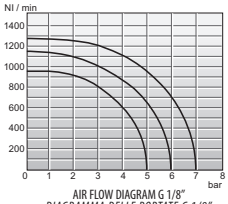


V52V2P01.

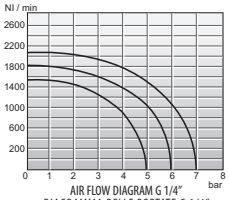


V52V2PD1.

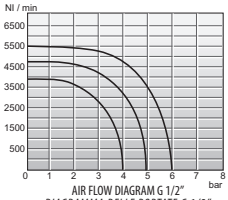
DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM G 1/8"
DIAGRAMMA DELLE PORTATE G 1/8"



AIR FLOW DIAGRAM G 1/4"
DIAGRAMMA DELLE PORTATE G 1/4"

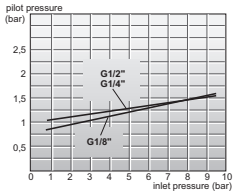


AIR FLOW DIAGRAM G 1/2"
DIAGRAMMA DELLE PORTATE G 1/2"

(*) **ATEX** versions see / *Versioni* **ATEX** *vedi P.* ***B-113***

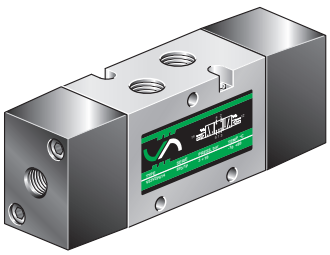
Size *Taglia*	A	B	C	D	E	ØF	G	H	ØI	L	M
1/8	30	26	96	18	23	4,25	G1/8	G1/8	3,25	28,6	20
(*) 1/4	40	30	105	20	30	4,25	G1/4	G1/8	3,25	21	24,6
(*) 1/2	60	40	172	40	50	5,5	G1/2	G1/8	—	—	—

DIAGRAM / *DIAGRAMMA*



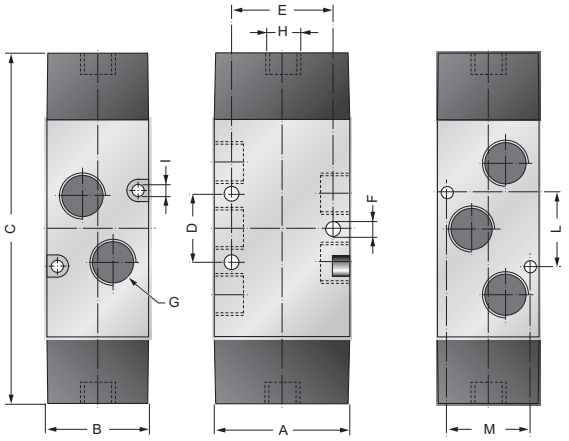
PILOT PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

V53V2P . 1.

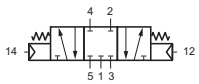


VALVE / *VALVOLA* 5/3

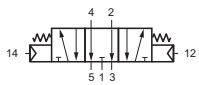
DOUBLE PNEUMATIC PILOT / *DOPPIO COMANDO PNEUMATICO*



SIMBOLS / *SIMBOLI*

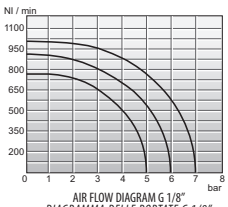


V53V2P61.

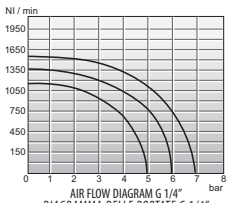


V53V2P91.

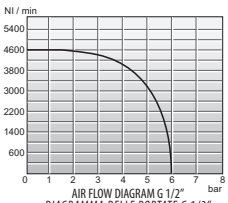
DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM G 1/8"
DIAGRAMMA DELLE PORTATE G 1/8"



AIR FLOW DIAGRAM G 1/4"
DIAGRAMMA DELLE PORTATE G 1/4"

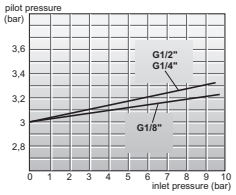


AIR FLOW DIAGRAM G 1/2"
DIAGRAMMA DELLE PORTATE G 1/2"

(*) versions see / *Versioni vedi P.* ***B-113***

Size *Taglia*	A	B	C	D	E	ØF	G	H	ØI	L	M
1/8	30	26	108	18	23	4,25	G1/8	G1/8	3,25	28,6	20
1/4	40	30	105	20	30	4,25	G1/4	G1/8	3,25	21	24,6
1/2	60	40	192	40	50	5,5	G1/2	G1/8	—	—	—

DIAGRAM / *DIAGRAMMA*



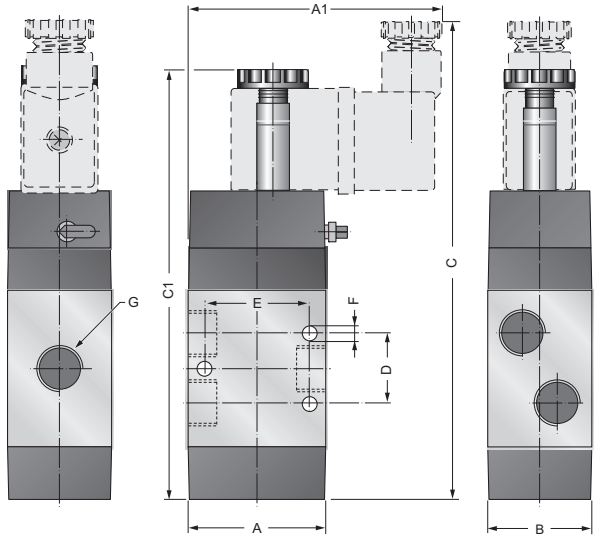
PILOT PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

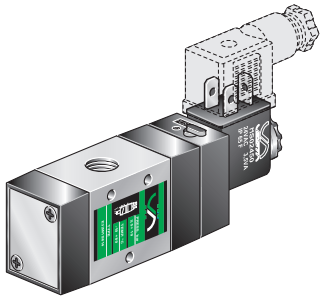
SOLENOID VALVE / 3/2

SINGLE SOLENOID VALVE - INTERNAL PRESSURE RETURN

COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO MOLLA PNEUMATICA

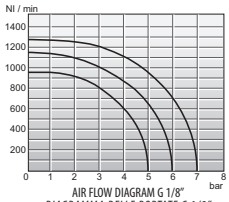
E32W1S . 1. - .....





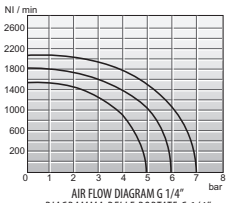
Size *Taglia*	A	A1	B	C	C1	D	E	ØF	G
1/8	30	63	26	133	119	18	23	4,25	G1/8
1/4	40	73	30	140	125	20	30	4,25	G1/4
1/2	60	60	40	181	167	40	50	5,5	G1/2

DIAGRAMS / *DIAGRAMMI*



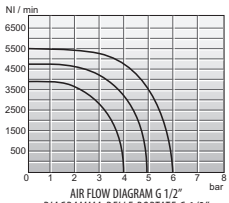
AIR FLOW DIAGRAM G 1/8"

DIAGRAMMA DELLE PORTATE G 1/8"



AIR FLOW DIAGRAM G 1/4"

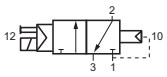
DIAGRAMMA DELLE PORTATE G 1/4"



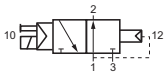
AIR FLOW DIAGRAM G 1/2"

DIAGRAMMA DELLE PORTATE G 1/2"

SIMBOLS / *SIMBOLI*



E32W1S61. -.....



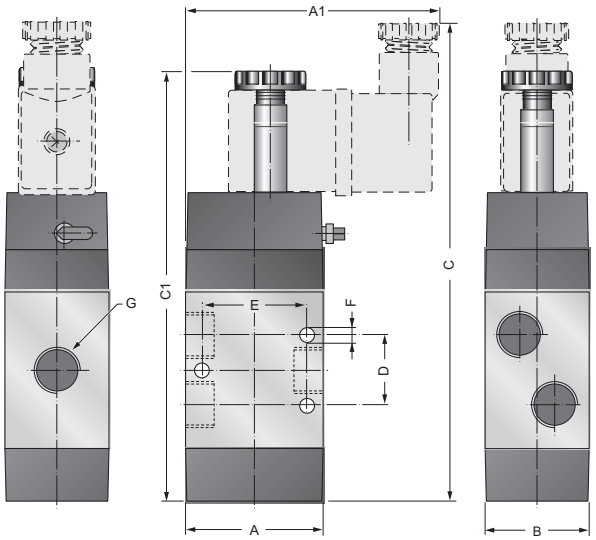
E32W1S91. -.....

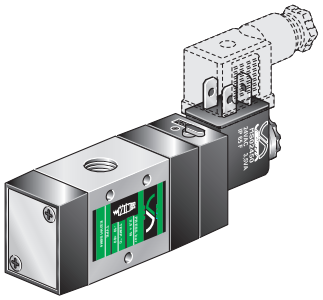
SOLENOID VALVE / *ELETTROVALVOLA* 3/2

SINGLE SOLENOID VALVE - SPRING RETURN

COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO MOLLA MECCANICA

E32W1S . M. - .....

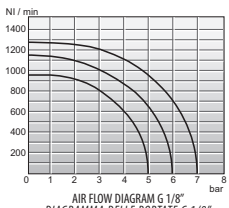




(*) **ATEX** versions see / *Versioni* **ATEX** *vedi P.*

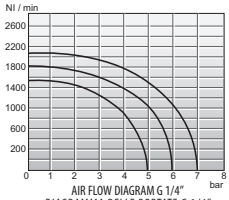
Size *Taglia*		A	A1	B	C	C1	D	E	ØF	G
	1/8	30	63	26	133	119	18	23	4,25	G1/8
(*)	1/4	40	73	30	140	125	20	30	4,25	G1/4
(*)	1/2	60	60	40	172	158	40	50	5,5	G1/2

DIAGRAMS / *DIAGRAMMI*



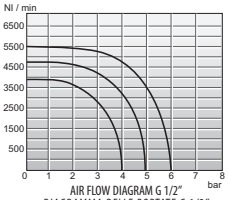
AIR FLOW DIAGRAM G 1/8"

DIAGRAMMA DELLE PORTATE G 1/8"



AIR FLOW DIAGRAM G 1/4"

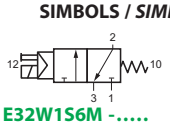
DIAGRAMMA DELLE PORTATE G 1/4"



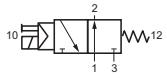
AIR FLOW DIAGRAM G 1/2"

DIAGRAMMA DELLE PORTATE G 1/2"

SIMBOLS / *SIMBOLI*

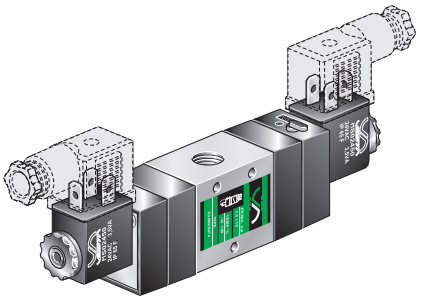


E32W1S6M -.....



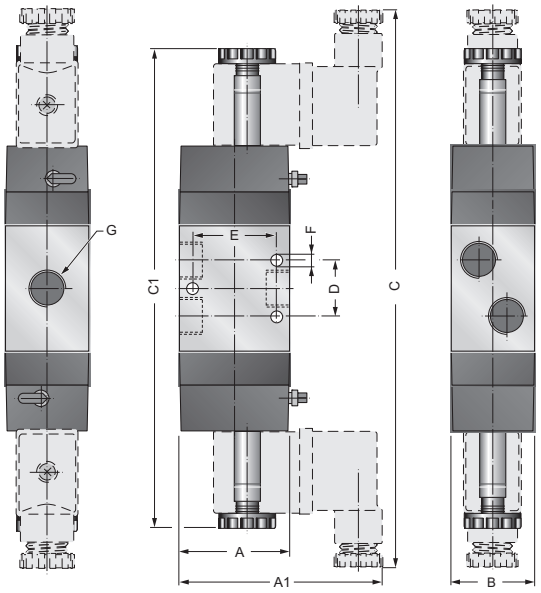
E32W1S9M -.....

E32W2S01. - .....

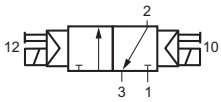


SOLENOID VALVE / 3/2

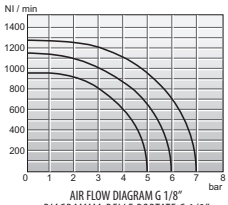
DOUBLE SOLENOID VALVE / *DOPPIO COMANDO ELETTROPNEUMATICO*



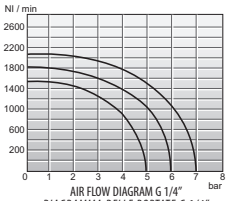
SIMBOL / *SIMBOLO*



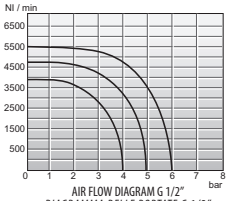
DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM G 1/8"
DIAGRAMMA DELLE PORTATE G 1/8"



AIR FLOW DIAGRAM G 1/4"
DIAGRAMMA DELLE PORTATE G 1/4"

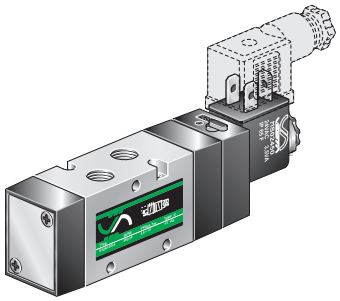


AIR FLOW DIAGRAM G 1/2"
DIAGRAMMA DELLE PORTATE G 1/2"

(⚹) **ATEX** versions see / *Versioni* **ATEX** *vedi P.* ***B-113***

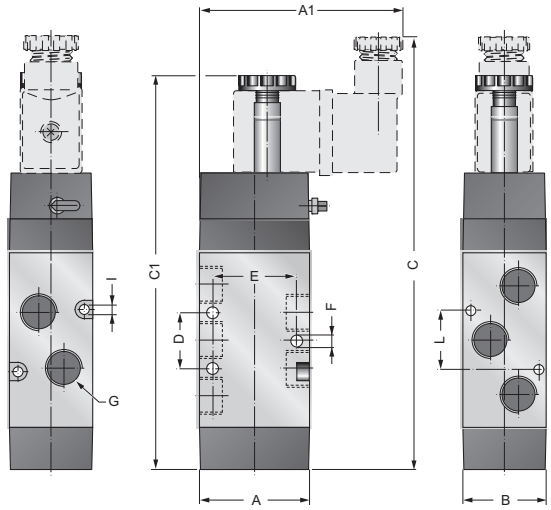
	Size *Taglia*	A	A1	B	C	C1	D	E	ØF	G
	1/8	30	63	26	197	169	18	23	4,25	G1/8
(⚹)	1/4	40	73	30	203	175	20	30	4,25	G1/4
(⚹)	1/2	60	60	40	240	212	40	50	5,5	G1/2

E52W1S . 1. - .....

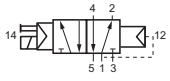


SOLENOID VALVE / 5/2

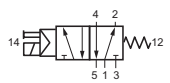
SINGLE SOLENOID VALVE / *COMANDO ELETTROPNEUMATICO*



SIMBOLS / *SIMBOLI*

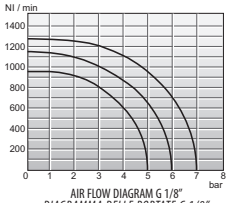


E52W1S01. -.....

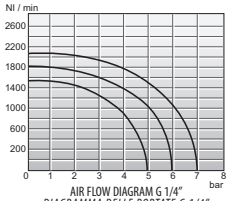


(⚹) **E52W1SM1. -.....**

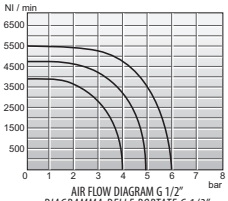
DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM G 1/8"
DIAGRAMMA DELLE PORTATE G 1/8"



AIR FLOW DIAGRAM G 1/4"
DIAGRAMMA DELLE PORTATE G 1/4"



AIR FLOW DIAGRAM G 1/2"
DIAGRAMMA DELLE PORTATE G 1/2"

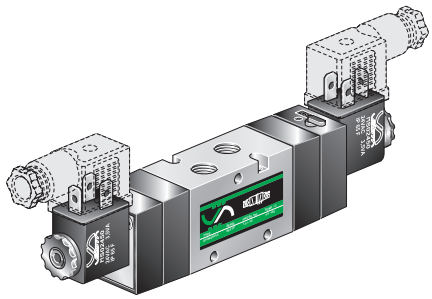
(⚹) **ATEX** versions see / *Versioni* **ATEX** *vedi P.* ***B-113***

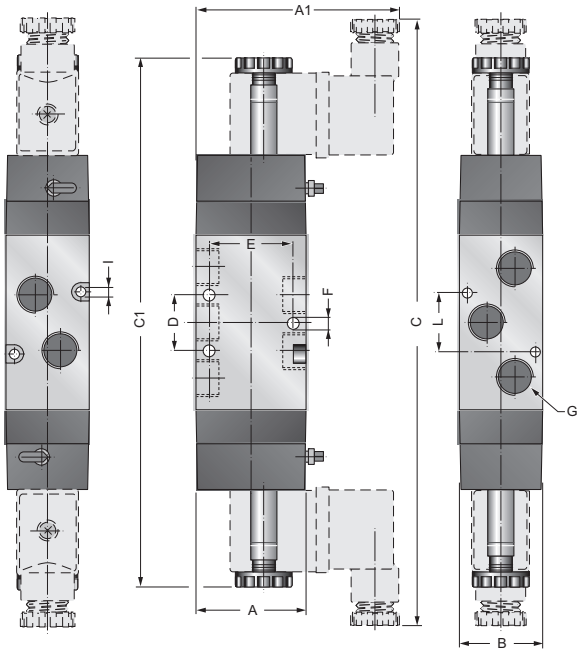
	Size *Taglia*	A	A1	B	C	C1	D	E	ØF	G	ØI	L
	1/8	30	63	26	150	136	18	23	4,25	G1/8	3,25	28,6
(⚹)	1/4	40	73	30	158	143	20	30	4,25	G1/4	3,25	21
(⚹)	1/2	60	60	40	221	207	40	50	5,5	G1/2	—	—

SOLENOID VALVE / 5/2

DOUBLE SOLENOID VALVE / *DOPPIO COMANDO ELETTROPNEUMATICO*

E52W2S01. - .....

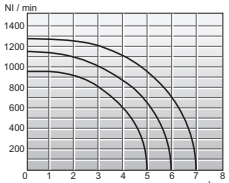




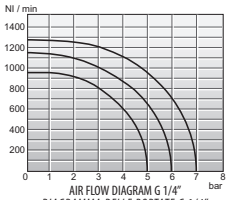
	Size *Taglia*	A	A1	B	C	C1	D	E	ØF	G	ØI	L
	1/8	30	63	26	215	186	18	23	4,25	G1/8	3,25	28,6
(*)	1/4	40	73	30	220	191	20	30	4,25	G1/4	3,25	21
(*)	1/2	60	60	40	280	252	40	50	5,5	G1/2	—	—

(*) **ATEX** versions see P. **B-113**
Versioni **ATEX** *vedi P.* ***B-113***

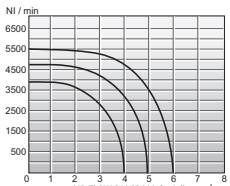
DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM G 1/8"
DIAGRAMMA DELLE PORTATE G 1/8"

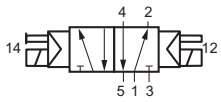


AIR FLOW DIAGRAM G 1/4"
DIAGRAMMA DELLE PORTATE G 1/4"



AIR FLOW DIAGRAM G 1/2"
DIAGRAMMA DELLE PORTATE G 1/2"

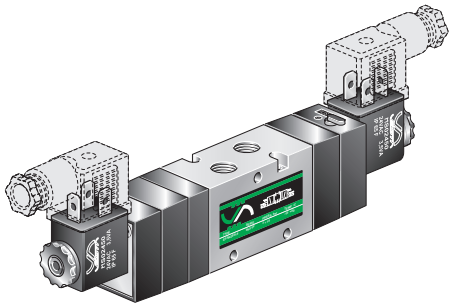
SIMBOL / *SIMBOLO*

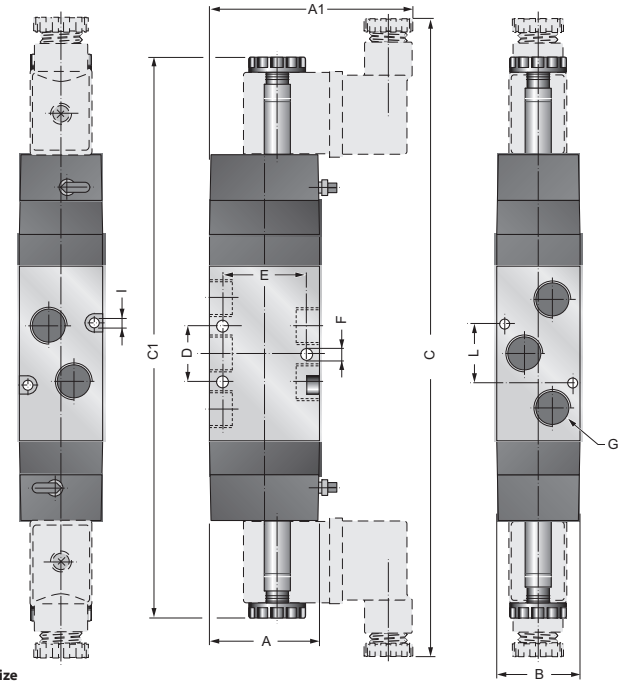


SOLENOID VALVE / 5/3

DOUBLE SOLENOID VALVE / *DOPPIO COMANDO ELETTROPNEUMATICO*

E53W2S . 1. - .....

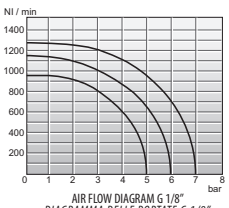




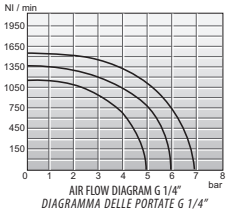
	Size *Taglia*	A	A1	B	C	C1	D	E	ØF	G	ØI	L
	1/8	30	63	26	227	198	18	23	4,25	G1/8	3,25	28,6
	1/4	40	73	30	232	203	20	30	4,25	G1/4	3,25	21
	1/2	60	60	40	280	252	40	50	5,5	G1/2	—	—

(*) **ATEX** versions see P. **B-113**
Versioni **ATEX** *vedi P.* ***B-113***

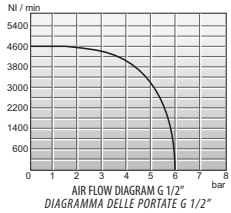
DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM G 1/8"
DIAGRAMMA DELLE PORTATE G 1/8"

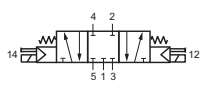


AIR FLOW DIAGRAM G 1/4"
DIAGRAMMA DELLE PORTATE G 1/4"

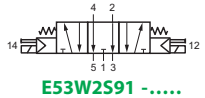


AIR FLOW DIAGRAM G 1/2"
DIAGRAMMA DELLE PORTATE G 1/2"

SIMBOLS / *SIMBOLI*



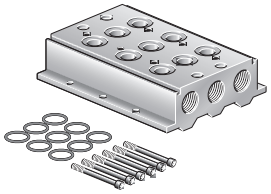
E53W2S61 -.....



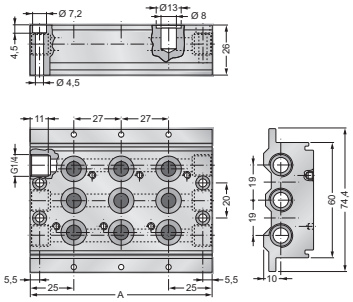
E53W2S91 -.....

ME .18

DOUBLE INLET MANIFOLD FOR ASSEMBLING VALVES AND SOLENOID VALVES G1/8
BASE A DOPPIO INGRESSO PER ASSEMBLAGGIO VALVOLE ED ELETTROVALVOLE G1/8



- Gaskets and screws for assembling valves on manifold are included.
- *Nella confezione sono presenti le guarnizioni e le viti per fissare le valvole alla base.*

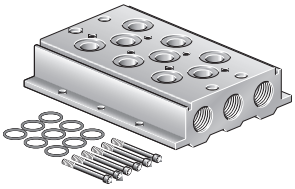


CODES / *CODICI*

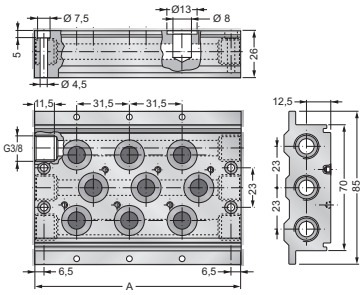
Code *Codice*	A *A*	Place *Posti*
ME 218	77	2
ME 318	104	3
ME 418	131	4
ME 518	158	5
ME 618	185	6
ME 718	212	7
ME 818	239	8
ME 918	266	9
ME 1018	293	10

ME .14

(*) DOUBLE INLET MANIFOLD FOR ASSEMBLING VALVES AND SOLENOID VALVES G1/4
BASE A DOPPIO INGRESSO PER ASSEMBLAGGIO VALVOLE ED ELETTROVALVOLE G1/4



- Gaskets and screws for assembling valves on manifold are included.
- *Nella confezione sono presenti le guarnizioni e le viti per fissare le valvole alla base.*



CODES / *CODICI*

Code *Codice*	A *A*	Place *Posti*
ME 214	91,5	2
ME 314	123	3
ME 414	154,5	4
ME 514	186	5
ME 614	217,5	6
ME 714	249	7
ME 814	280,5	8
ME 914	312	9
ME 1014	343,5	10

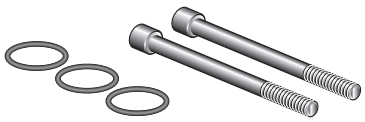
(*) **ATEX** versions see / *Versioni* **ATEX** *vedi P.* ***B-116***

SEALS KIT AND ACCESSORIES FOR VALVES AND SOLENOID VALVES G 1/8 AND G 1/4
RICAMBI ED ACCESSORI PER VALVOLE ED ELETTROVALVOLE G 1/8 E G 1/4

KM 018 (G1/8)

KM 014 (G1/4)

ASSEMBLING KIT
KIT DI ASSEMBLAGGIO

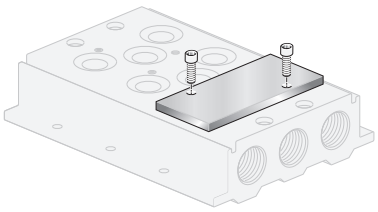


- Subbases are supplied with assembling screws and seals.
  Kit of screws and seals can be supplied also as spare parts with the code **KM 018** and **KM 014**.
- *Le basi sono complete delle viti e delle guarnizioni necessarie per il fissaggio delle valvole.*
  Tuttavia può essere fornito come ricambio il kit **KM 018** *per il fissaggio di singole valvole da G1/8 oppure* **KM 014** *per il fissaggio di singole valvole da G1/4*

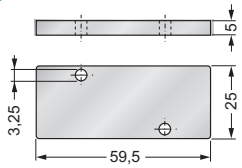
PCH 018 (G1/8)

PCH 014 (G1/4)

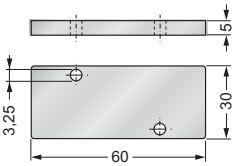
PLUG-FLAT
CHIUSURA POSTO INUTILIZZATO



PCH 018

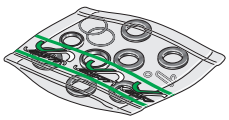


PCH 014



SET .1/4 e 1/2 SG

SEALS KIT
KIT GUARNIZIONI DI RICAMBIO

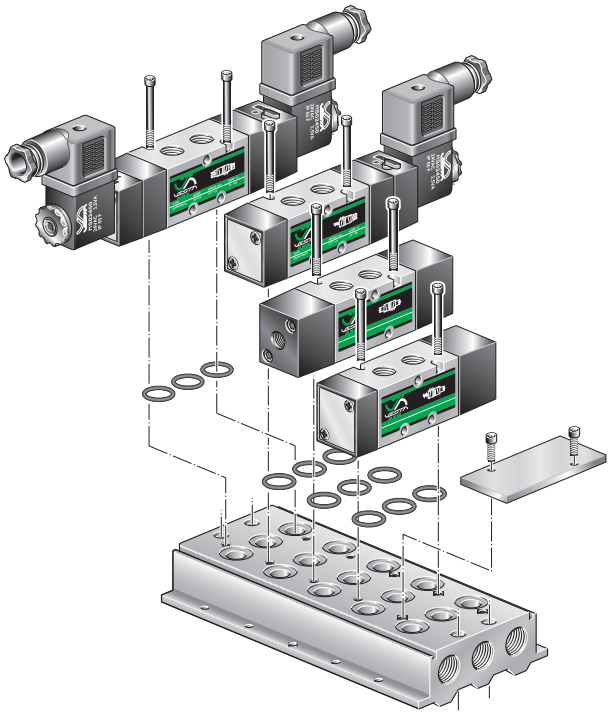


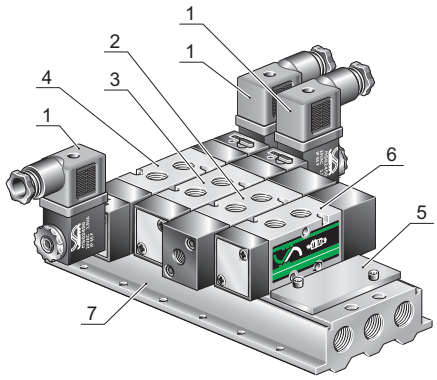
Seals kit code - *Codice del kit*

SET 1 1/4 SG: for G1/4 **mono-stable** valves - *per valvole* ***monostabili*** *G1/4.*
SET 2 1/4 SG: for G1/4 **bi-stable** valves - *per valvole* ***bistabili*** *G1/4*
SET 1 1/2 SG: for G1/2 **mono-stable** valves - *per valvole* ***monostabili*** *G1/2.*
SET 2 1/2 SG: for G1/2 **bi-stable** valves - *per valvole* ***bistabili*** *G1/2.*

Example / *Esempio:* **E52W1SM14-02400 —> SET 1 1/4 SG** **E52W2S014-02400 —> SET 2 1/4 SG**

EXAMPLE OF MODULAR ASSEMBLING OF VALVES AND SOLENOID VALVES G1/8
ESEMPIO DI ASSEMBLAGGIO MODULARE DI VALVOLE ED ELETTROVALVOLE G1/8

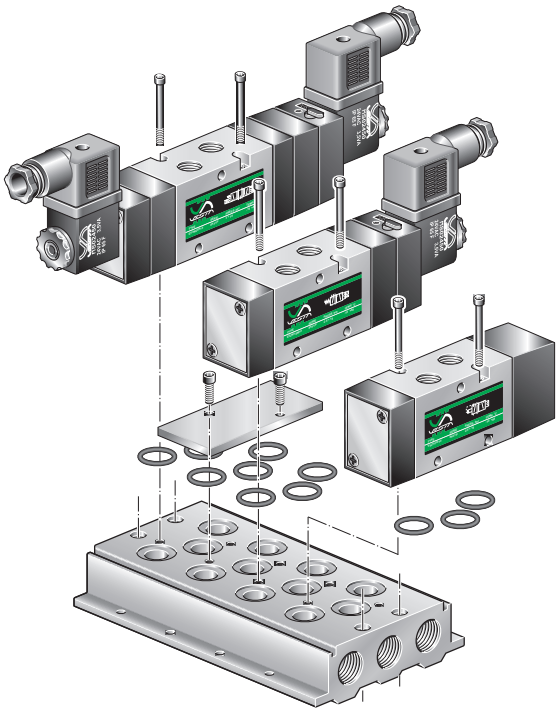


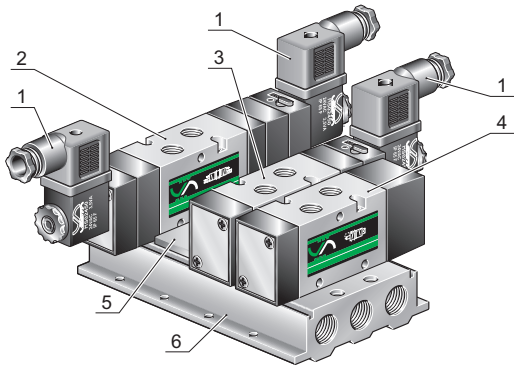


Components needed for assembling the manifold on the picture.
Esempio di componenti necessari a realizzare la batteria raffigurata.

Position *Posizione*	Quantity *Quantità*	Code *Codice*
1	N° 3	CEP/1
2	N° 1	V52V2P018
3	N° 1	E52W1S018 - 02450
4	N° 1	E52W2S018 - 02450
5	N° 1	PCH 018
6	N° 1	V52V1PM18
7	N° 1	ME 518

EXAMPLE OF MODULAR ASSEMBLING OF VALVES AND SOLENOID VALVES G1/4
ESEMPIO DI ASSEMBLAGGIO MODULARE DI VALVOLE ED ELETTROVALVOLE G1/4





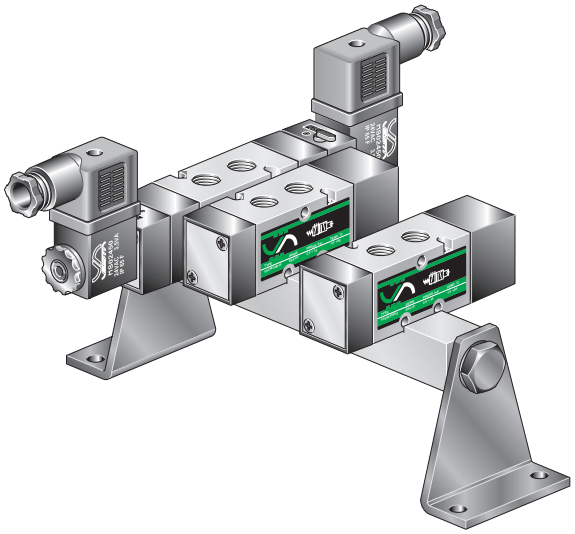
Components needed for assembling the manifold on the picture.
Esempio di componenti necessari a realizzare la batteria raffigurata.

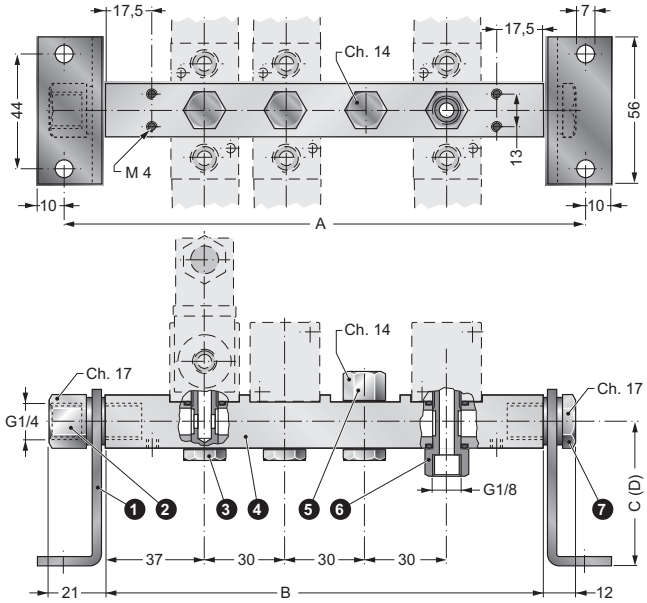
Position *Posizione*	Quantity *Quantità*	Code *Codice*
1	N° 3	CEP/1
2	N° 1	E53W2S914 - 02450
3	N° 1	E52W1SM14 - 02450
4	N° 1	V52V1PM14
5	N° 1	PCH014
6	N° 1	ME 414

COLLECTOR FOR VALVES AND SOLENOID VALVES G1/8
ASSEMBLAGGIO SU COLLETTORE DELLE VALVOLE ED ELETTROVALVOLE G 1/8

RTCOV . 18
SBCOV . 18
SACOV . 18

MANIFOLDS WITH COMMON INLET AIR FOR G1/8 VALVES
COLLETTORI PER VALVOLE FILETTATE G1/8





CODES / *CODICI*

Code *Codice*	A	B	C	D	Place *Posti*
ASSEMBLED MANIFOLD RT018 WITH FITTINGS **COLLETTORE RT018 COMPLETO DI RACCORDI**					
RTCOV218	-	104	-	-	2
RTCOV318	-	134	-	-	3
RTCOV418	-	164	-	-	4
RTCOV518	-	194	-	-	5
ASSEMBLED MANIFOLD RT018 WITH FITTINGS AND LOW SUPPORTS SB018 ***COLLETTORE RT018 COMPLETO DI RACCORDI E SUPPORTI BASSI SB018***					
SBCOV218	134	104	72	-	2
SBCOV318	164	134	72	-	3
SBCOV418	194	164	72	-	4
SBCOV518	224	194	72	-	5
ASSEMBLED MANIFOLD RT018 WITH FITTINGS AND HIGH SUPPORTS SA018 ***COLLETTORE RT018 COMPLETO DI RACCORDI E SUPPORTI ALTI SA018***					
SACOV218	134	104	-	125	2
SACOV318	164	134	-	125	3
SACOV418	194	164	-	125	4
SACOV518	224	194	-	125	5

Position *Posizione*	Code *Codice*	Description *Descrizione*
1	**SB018** (ref. C)	Low supports mounted "C" / *Supporto basso "C"*
	SA018 (ref. D)	High supports mounted "D" / *Supporto alto "D"*
2	**RFS18**	Fixing supports fitting with air inlet *Raccordo fissaggio supporto con connessione*
3	**RT018**	Fixing valve fitting *Raccordo fissaggio valvola*
4	**COV218**	Manifold 2 valves / *Collettore 2 valvole*
	COV318	Manifold 3 valves / *Collettore 3 valvole*
	COV418	Manifold 4 valves / *Collettore 4 valvole*
	COV518	Manifold 5 valves / *Collettore 5 valvole*
5	**TF018**	Closed fitting *Tappo chiusura raccordo*
6	**RTP18**	Fixing valve fitting with air inlet *Raccordo di fissaggio valvola passante*
7	**RC018**	Fixing supports fitting *Raccordo di chiusura collettore*

The maximum allowed numbers of valves you can use on a single collector depends on the air consumation of the valves, number of valves actuated at the same time and the air consumation downstream.
Fittings and supports are supplied with washers

Il numero massimo di valvole dipende dal consumo totale d'aria, da quante valvole vengono azionate contemporaneamente e dalla portata degli utilizzi collegati a valle. I raccordi di fissaggio valvole e supporti vengono forniti completi di rondelle di tenuta.

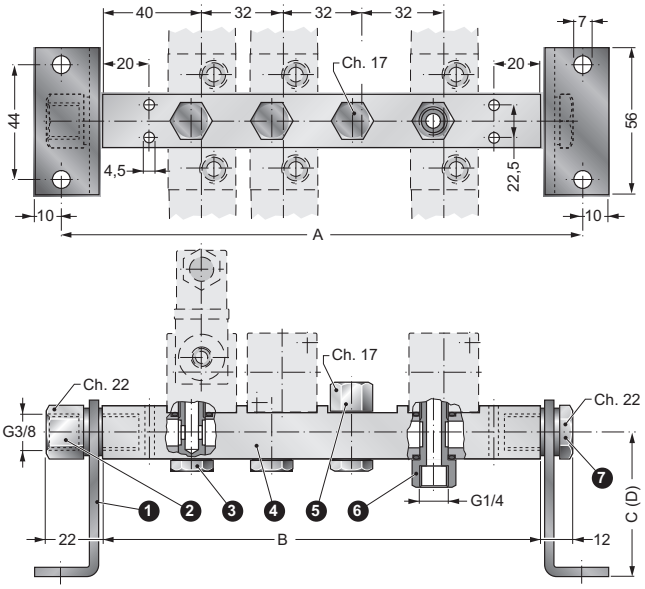
COLLECTOR FOR VALVES AND SOLENOID VALVES G1/4
ASSEMBLAGGIO SU COLLETTORE DELLE VALVOLE ED ELETTROVALVOLE G 1/4

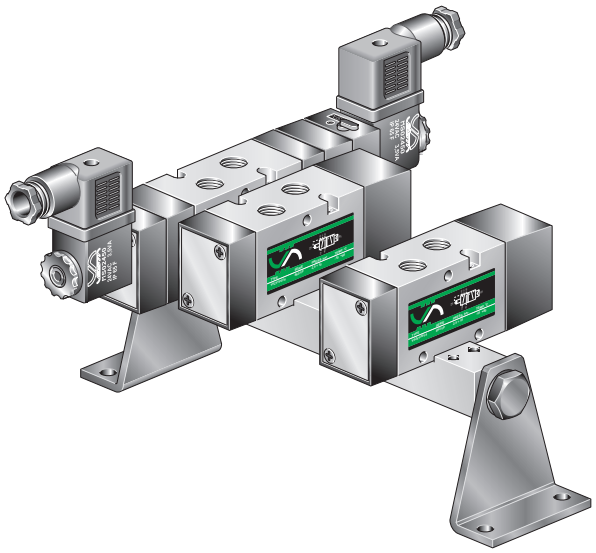
RTCOV . 14

SBCOV . 14

SACOV . 14

MANIFOLDS WITH COMMON INLET AIR FOR G1/4 VALVES
COLLETTORI PER VALVOLE FILETTATE G1/4





CODES / *CODICI*

Code *Codice*	A	B	C	D	Place *Posti*
ASSEMBLED MANIFOLD RT014 WITH FITTINGS					
COLLETTORE RT014 COMPLETO DI RACCORDI					
RTCOV214	-	 112	..... -	..... -	 2
RTCOV314	-	 144	..... -	..... -	 3
RTCOV414	-	 176	..... -	..... -	 4
RTCOV514	-	 208	..... -	..... -	 5
ASSEMBLED MANIFOLD RT014 WITH FITTINGS AND LOW SUPPORTS SB014					
COLLETTORE RT014 COMPLETO DI RACCORDI E SUPPORTI BASSI SB014					
SBCOV214	134	 104	 95	..... -	 2
SBCOV314	164	 134	 95	..... -	 3
SBCOV414	194	 164	 95	..... -	 4
SBCOV514	224	 194	 95	..... -	 5
ASSEMBLED MANIFOLD RT014 WITH FITTINGS AND HIGH SUPPORTS SA014					
COLLETTORE RT014 COMPLETO DI RACCORDI E SUPPORTI ALTI SA014					
SACOV214	134	 104	..... -	 133	 2
SACOV314	164	 134	..... -	 133	 3
SACOV414	194	 164	..... -	 133	 4
SACOV514	224	 194	..... -	 133	 5

Position *Posizione*	Code *Codice*	Description *Descrizione*
1	**SB014** (ref. C)	Low supports mounted "C" / *Supporto basso "C"*
	SA014 (ref. D)	High supports mounted "D" / *Supporto alto "D"*
2	**RFS14**	Fixing supports fitting with air inlet *Raccordo fissaggio supporto con connessione*
3	**RT014**	Fixing valve fitting *Raccordo fissaggio valvola*
4	**COV214**	Manifold 2 valves / *Collettore 2 valvole*
	COV314	Manifold 3 valves / *Collettore 3 valvole*
	COV414	Manifold 4 valves / *Collettore 4 valvole*
	COV514	Manifold 5 valves / *Collettore 5 valvole*
5	**TF014**	Closed fitting *Tappo chiusura raccordo*
6	**RTP14**	Fixing valve fitting with air inlet *Raccordo di fissaggio valvola passante*
7	**RC014**	Fixing supports fitting *Raccordo di chiusura collettore*

The maximum allowed numbers of valves you can use on a single collector depends on the air consumation of the valves, number of valves actuated at the same time and the air consumation downstream.
Fittings and supports are supplied with washers

Il numero massimo di valvole dipende dal consumo totale d'aria, da quante valvole vengono azionate contemporaneamente e dalla portata degli utilizzi collegati a valle. I raccordi di fissaggio valvole e supporti vengono forniti completi di rondelle di tenuta.

DIRECT ACTUATED SOLENOID VALVES 3/2 G1/8 - *ELETTROVALVOLE A COMANDO DIRETTO 3/2 G1/8*

BE □ □-□ □□□□□ □□

Number place of base-plate
Numero posti della base:
1, **2**, **3**, ...

M
with manual control
con controllo manuale

(Standard without manual control
Standard senza controllo manuale)

Coil / *Solenoide*:
00000 .. No coil / *Senza solenoide*
01200 .. 12 V DC
02400 .. 24 V DC
02450 .. 24 V 50/60Hz AC
11550 .. 115 V 50/60Hz AC
23050 .. 230 V 50/60Hz AC

For **NO** versions only 5 Watt coil.
Per versioni ***NO*** *solo solenoidi 5 Watt.*

Flow section / *Diametro nominale*:
2 Ø1,2 mm
5 Ø1,5 mm

NC Normally closed
Normalmente chiusa
NO Normally open
Normalmente aperta

ATEX versions see
Versioni **ATEX** *vedi* P. ***B-113***

TECHNICAL FEATURES

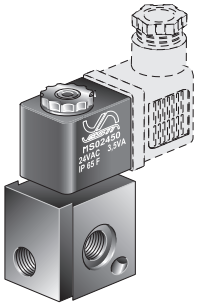
Fixing	n°2 holes Ø3,3.
Connection	G 1/8
Flow section	Ø 1,2 mm (on request Ø1,5 mm)
Environment temperature range	-10 °C ÷ +50 °C
Temperature range of medium	0 °C ÷ +40 °C
Lubrication	Not required.
Medium	Filtered lubricated or non lubr. air
Operating pressure range	0 ÷ 10 bar (0 ÷ 6 bar for Ø1,5 mm)
Reference temperature	+20 °C
Reference pressure	6 bar
Nominal air flow	80 Nl/min (130 Nl/min for Ø1,5 mm)
Electrical characteristics coil	For **NC** valve see **MS** pag. B-36. For **NO** coil 5 Watt.

CARATTERISTICHE TECNICHE

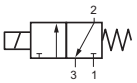
Fissaggio	*n° 2 fori Ø 3,3 superiori.*
Connessioni	*G 1/8*
Diametro nominale	*Ø 1,2 mm (su richiesta Ø1,5 mm)*
Temperatura ambiente	*-10 °C ÷ +50 °C*
Temperatura fluido	*0 °C ÷ +40 °C*
Lubrificazione	*Non necessaria*
Fluido	*Aria filtrata lubrif. e non*
Pressione di esercizio	*0 ÷ 10 bar (0 ÷ 6 bar per Ø1,5 mm)*
Temperatura nominale	*+20 °C*
Pressione nominale	*6 bar*
Portata nominale	*80 Nl/min (130 Nl/min per Ø1,5 mm)*
Caratteristiche elettriche solenoide	*Per valvole* **NC** *vedi* **MS** *pag. B-36. Per valvole* **NO** *bobina 5 Watt.*

BE 1 - .....

DIRECT ACTING SOLENOID VALVE 3/2 G1/8
ELETTROVALVOLA A COMANDO DIRETTO 3/2 G1/8

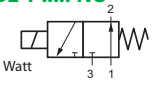


BE 1 ..... NC (*)



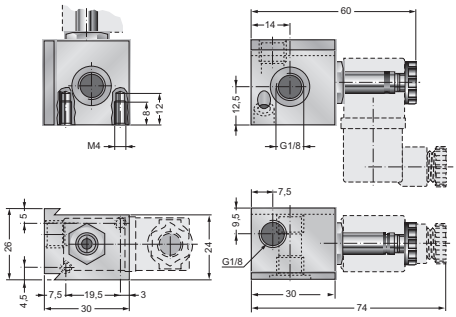
NORMALLY CLOSED *NORMALMENTE CHIUSA*

BE 1 ..... NO



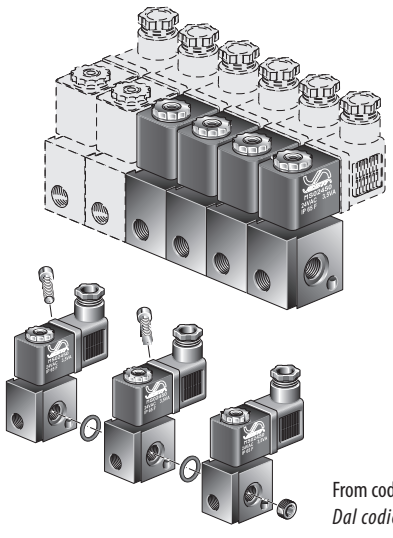
5 Watt

NORMALLY OPEN *NORMALMENTE APERTA*

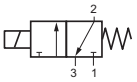


BE _ - .....

DIRECT ACTING SOLENOID VALVES 3/2 G1/8 - MANIFOLD
ELETTROVALVOLE A COMANDO DIRETTO 3/2 G1/8 IN BATTERIA

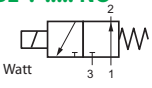


BE . ..... NC (*)



NORMALLY CLOSED *NORMALMENTE CHIUSA*

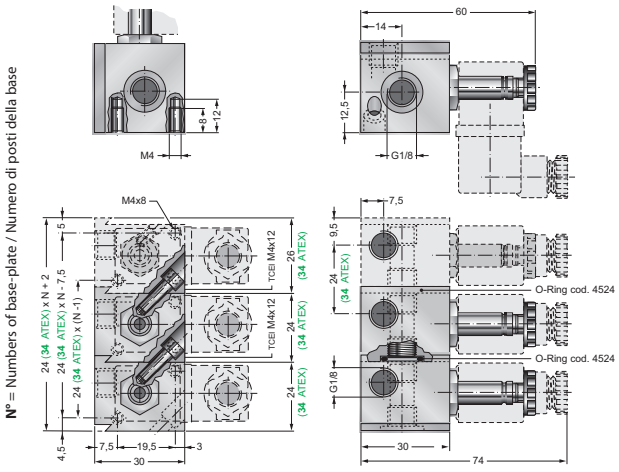
BE . ..... NO



5 Watt

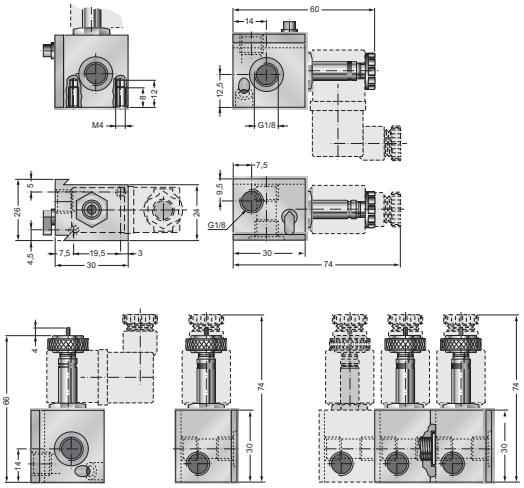
NORMALLY OPEN *NORMALMENTE APERTA*

(*) **ATEX** versions see
Versioni ***ATEX*** *vedi* P. **B-113**



From code **BE2-.....** valves are supplied assembled. Plug (**PL-BE**) not included.
Dal codice ***BE2-.....*** *le valvole vengono fornite assemblate. Il tappo di chiusura (****PL-BE*** *) non è incluso.*

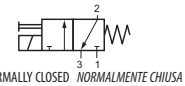
BE.M-.....NC Version



DIRECT ACTING SOLENOID VALVE 3/2 G1/8 WITH MANUAL OVERRIDE
ELETTROVALVOLA A COMANDO DIRETTO 3/2 G1/8 CON COMANDO MANUALE

BE 1M - .....

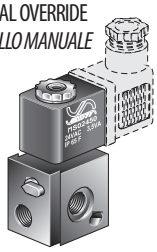
BE 1M ..... NC (*)



NORMALLY CLOSED *NORMALMENTE CHIUSA*

WITH MANUAL OVERRIDE
CON CONTROLLO MANUALE

.. NC



(*) **ATEX** versions see
versioni **ATEX** *vedi* *P.* ***B-113***

COILS AND ACCESSORIES FOR SOLENOID VALVES / *SOLENOIDI ED ACESSORI PER ELETTROVALVOLE*

G1/8 PLUG
TAPPO G1/8

PL-BE

Plug for single valve function (**BE 1**) or for manifold.
Tappo di chiusura per elettropilota singolo oppure per elettropiloti in batteria

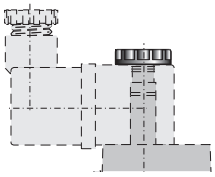
ASSEMBLING KIT
KIT DI ASSEMBLAGGIO

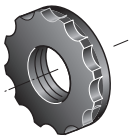
KM-BE

Kit for assembling single valve into multiple station subbase.
kit **KM BE** *composto da 1 vite + 1 O-Ring necessario per il fissaggio di ogni elettropilota* **BE 1** *in batteria.*

STANDARD
STANDARD

GE

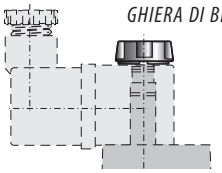




Coil locking nut with open exaust (standard equipement).
Ghiera di bloccaggio bobina con scarico aperto (dotazione standard).

COIL LOCKING NUT **MS**
GHIERA DI BLOCCAGGIO BOBINA ***MS***

GE1



On request, solenoid valves avaiable with coil locking nut with radial exaust valve.
A richiesta le elettrovalvole sono fornite con ghiera di bloccaggio bobina con scarico radiale.

DIRECT ACTUATED VALVES 3/2 NC TUBE Ø4mm *ELETTROVALVOLE A COMANDO DIRETTO 3/2 NC TUBO Ø4mm*

MBE - □ 4- □□□□□

Number of station valves
Numero posti
2, 4, 6, ..., 16

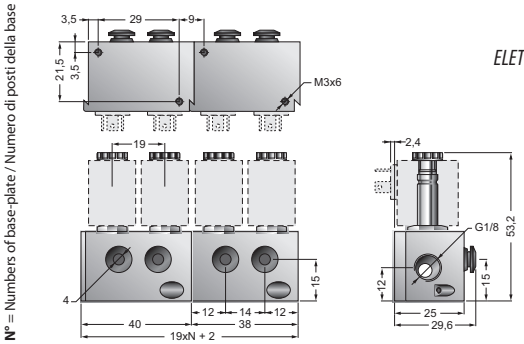
Coil / *Solenoide*: (*see* **CS** */ vedere* **CS** P. **B-52**)
00000 .. No coil / *Senza solenoide*
01200 .. 12 V DC
02400 .. 24 V DC
02450 .. 24 V 50/60Hz AC
11550 .. 115 V 50/60Hz AC
23050 .. 230 V 50/60Hz AC

TECHNICAL FEATURES

Flow section	Ø1mm
Nominal Flow	50Nl/min
Working pressure	0-9bar
Environment temperature range	-10 °C ÷ +50 °C
Temperature range of medium	0 °C ÷ +40 °C
Solenoids	Refer to **CS** series page B-52

CARATTERISTICHE TECNICHE

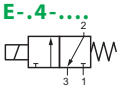
Diametro nominale	*Ø1mm*
Portata nominale	*50Nl/min*
Pressione esercizio	*0-9bar*
Temperatura ambiente	*-10 °C ÷ +50 °C*
Temperatura fluido	*0 °C ÷ +40 °C*
Solenoide	*Vedere* ***CS*** *pag. B-52*



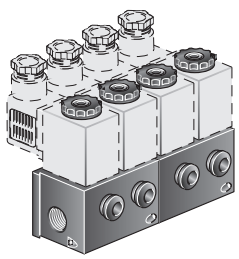
DIRECT ACTING SOLENOID VALVES 3/2 TUBE Ø4mm - MANIFOLD
ELETTROVALVOLE A COMANDO DIRETTO 3/2 TUBO Ø4mm IN BATTERIA

MBE- . 4-.....

MBE-.4-....



NORMALLY CLOSED *NORMALMENTE CHIUSA*



DIRECT ACTUATED VALVES 3/2 NC G1/8 - *ELETTROVALVOLE A COMANDO DIRETTO 3/2 NC G1/8*

MBE - □ 8 - □ - □□□□□ - □□

Number of station valves / *Numero posti*
2, 4, 6, ..., 16

M with manual control / *con controllo manuale*
(Standard without manual control / *Standard senza controllo manuale*)

Coil / *Solenoide:* (*see / vedere* P.)
00000 .. No coil / *Senza solenoide*
01200 .. 12 V DC
02400 .. 24 V DC
02450 .. 24 V 50/60Hz AC
11550 .. 115 V 50/60Hz AC
23050 .. 230 V 50/60Hz AC
For versions only 5 Watt coil. / *Per versioni* **NO** *solo solenoidi 5 Watt.*

NC Normally closed / *Normalmente chiusa*
NO Normally open / *Normalmente aperta*

TECHNICAL FEATURES

Flow section	Ø1,2mm
Nominal Flow	80Nl/min
Working pressure	0-9bar
Environment temperature range	-10 °C ÷ +50 °C
Temperature range of medium	0 °C ÷ +40 °C
Solenoids	Refer to **MS** series page B-36

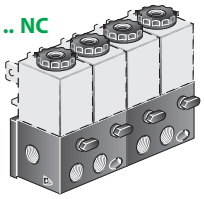
CARATTERISTICHE TECNICHE

Diametro nominale	*Ø1,2mm*
Portata nominale	*80Nl/min*
Pressione esercizio	*0-9bar*
Temperatura ambiente	*-10 °C ÷ +50 °C*
Temperatura fluido	*0 °C ÷ +40 °C*
Solenoide	*Vedere **MS** pag. B-36*

MBE- . 8-..-.-.....

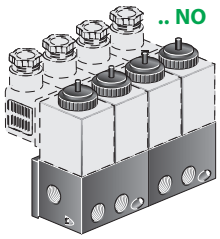
DIRECT ACTING SOLENOID VALVES 3/2 G1/8 - MANIFOLD
ELETTROVALVOLE A COMANDO DIRETTO 3/2 G1/8 IN BATTERIA

.. NC

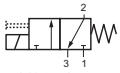


WITH MANUAL OVERRIDE
CON CONTROLLO MANUALE

.. NO

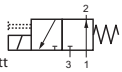


MBE-.8-.-.....-NC

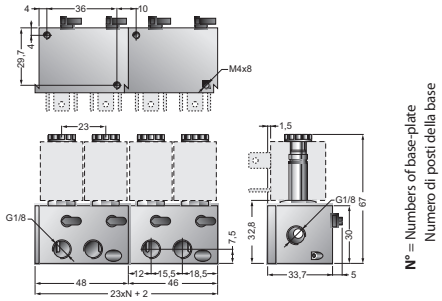


NORMALLY CLOSED *NORMALMENTE CHIUSA*

MBE-.8-.-.....-NO (#)

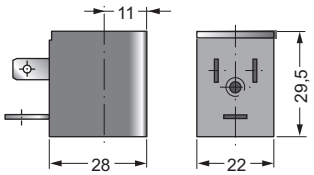


5 Watt
NORMALLY OPEN *NORMALMENTE APERTA*



MS . . . . .

COIL
SOLENOIDE



CODES / *CODICI*

Ordination code / *Codice ordinazione*	Voltage / *Tensione*
MS01200	12 V DC
MS02400	24 V DC
MS02450	24 V 50/60Hz AC
MS11550 (*)	115 V 50/60Hz AC
MS23050 (*)	230 V 50/60Hz AC

(*) Please see page / *Vedi pag.* **B-37**

TECHNICAL FEATURES

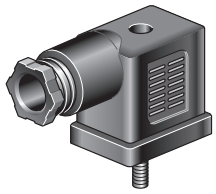
Standard voltage	12, 24 V DC 24,115, 230 V AC (50/60 Hz)
Solenoid characteristics	2,5 Watt in DC; 3,5 V A in AC
Tension	± 10%
Ambient temperature range	-20 °C ÷ +50 °C
Degree of	Class F
Expoy	Incapsulated

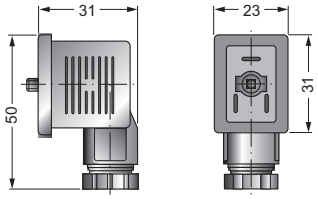
CARATTERISTICHE TECNICHE

Tensione standard	*12, 24 V DC* *24,115, 230 V AC (50/60 Hz)*
Prestazioni bobina	*2,5 Watt in DC; 3,5 V A in AC*
Tensione nominale	*± 10% a bobina calda*
Limiti di temperatura ambiente	*-20 °C ÷ +50 °C*
Protezione	*IP 65 secondo IEC 144 con connettore e guarnizioni montate*
Bobina	*Classe F, Filo rame classe 200 °C*
Sovrastampatura	*Resina epossidica*

CEP-1 . . . . . .

SOLENOID CONNECTOR
CONNETTORE





CODES / *CODICI*

Description / *Descrizione*	Code / *Codice*	Tension / *Tensione*
Universal connector *Connettore universale*	**CEP-1**	All tension *Tutte le tensioni*
Connector with led *Connettore con led*	**CEP-1 L 10 / 50** **CEP-1 L 70 / 250**	10/50 V AC / DC 70/250 V AC / DC
Connector with led and varistor *Connettore con led e varistore*	**CEP-1 LV 24** **CEP-1 LV 110** **CEP-1 LV 220**	24 V AC / DC 115 V AC / DC 230 V AC / DC

TECHNICAL FEATURES

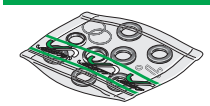
Wire connection	With screwed terminals
Gland thread	PG 9
Number of poles	2 Poles + earth
Housing colour	Black, transparent in the led version.

CARATTERISTICHE TECNICHE

Connessione cavi	*Con morsetti a vite*
Filettatura passacavo	*PG 9*
N° Poli	*2 Poli + terra*
Colori connettore	*Nero, trasparente nelle versioni con led.*

SET . 1/2 SG

SEALS KIT
KIT GUARNIZIONI DI RICAMBIO



Seals kit code - *Codice del kit*
SET 1 1/2 SG: for G1/2 **mono-stable** valves - *per valvole **monostabili** G1/2.*
SET 2 1/2 SG: for G1/2 **bi-stable** valves - *per valvole **bistabili** G1/2.*

Example / *Esempio:* **E52W1SM12-02400 —> SET 1 1/2 SG** **E52W2S012-02400 —> SET 2 1/2 SG**

INSTRUCTIONS MANUAL OF THE FOLLOWING VESTA PRODUCTS
IL PRESENTE MANUALE DI USO E MANUTENZIONE È VALIDO PER I SEGUENTI PRODOTTI VESTA:

SINGLES OR ASSEMBLED COILS ON VALVES / *SOLENOIDI SINGOLI O ASSEMBLATI SU ELETTROVALVOLE:*

MS11550, MS23050, CS11550, CS23050, SCN11050, SCN22050, SCN23050

How to Keep IP65 protection while assembling coils with connectors

Please follow carefully the below instructions:
- Before cabling insert the grommet on the cable and screw the gland nut to the connector.
- Put the seal between coil and connector, then screw the connector to the coil using the supplied screw.
- Mount the coil on the valve and pay attention to put the "O" ring in the housing of the coil.

Prescrizioni di montaggio per preservare il grado di protezione IP65

Per preservare il grado di protezione IP65 del collegamento elettrico è necessario eseguire il montaggio nel seguente modo:
- *Prima di effettuare il collegamento elettrico dei cavi al connettore infilare nel cavo stesso il pressacavo avvitando il serracavo sul connettore.*
- *Montare la guarnizione bobina fra bobina e connettore, quindi fissare il connettore alla bobina con l'apposita vite, avvitandola adeguatamente.*
- *Montare quindi la bobina sulla valvola posizionando l'anello di tenuta (OR) nell'apposita sede della bobina.*

Ground connection

Ground connection must be secure and properly done.

Messa a terra

La bobina prevede il morsetto a terra che deve essere collegato opportunamente all'impianto di messa a terra dell'installazione che deve essere realizzata a regola d'arte.

Electrical connection

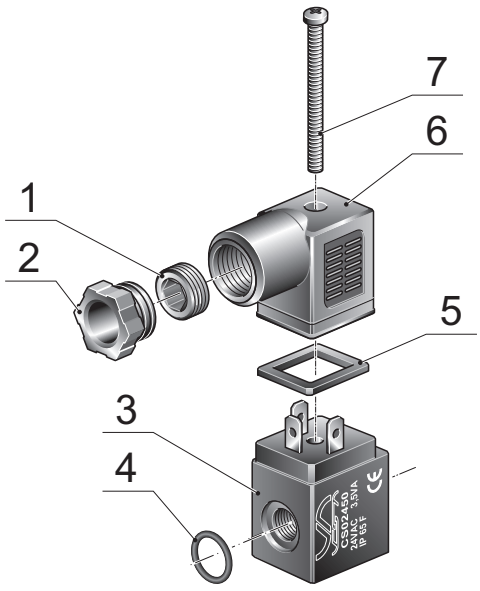
When choosing the cable for electrical connections, take into account the location and environment of the installation as well as the electrical features of the system (rated voltage and current). If possible follow the right and proper normative (ex. CEI EN 60204-1).

Collegamento elettrico

I conduttori utilizzati per il collegamento devono essere scelti e montati a regola d'arte tenuto conto dell'ambiente e delle condizioni di utilizzo nonché delle caratteristiche elettriche di impiego (tensione e corrente di esercizio). Si consiglia di seguire, ove applicabile, la pertinente normativa applicabile (ad es. CEI EN 60204-1).

Instructions must be followed carefully. Vesta Automation s.r.l. cannot be considered responsable for any damage caused by incorrect installation and use.

L'installatore e l'utilizzatore sono tenuti ad attenersi scrupolosamente alle indicazioni impartite.
Qualsiasi omissione solleverà Vesta Automation s.r.l. da ogni responsabilità e danno conseguenti.



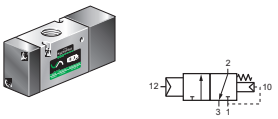
Coils and accessories for solenoid valves.
Solenoidi ed accessori per elettrovalvole.

Position *Posizione*	**Description** *Descrizione*
1	Grommet / *Pressacavo*
2	Gland nut / *Serracavo*
3	Solenoid coil / *Bobina*
4	O-Ring / *OR*
5	Coil seal / *Guarnizione bobina*
6	Connector / *Connettore*
7	Fixing screw / *Vite*

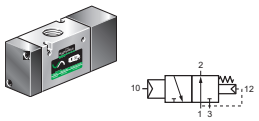
INDEX / *INDICE*

G1/8 MINI VALVES AND MINI SOLENOID VALVES SERIES "K" / MINI *VALVOLE E MINI ELETTROVALVOLE SERIE " K"*

MINI VALVES AND MINI SOLENOID VALVES SERIES "K" / MINI *VALVOLE E MINI ELETTROVALVOLE SERIE "K"* G1/4-G1/2



K32P161.
SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN
COMANDO PNEUMATICO - RIT. MOLLA MECCANICA E PNEUMATICA



K32P191.
SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN
COMANDO PNEUMATICO - RIT. MOLLA MECCANICA E PNEUMATICA

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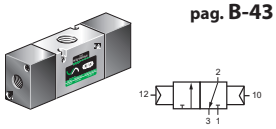

K32P201.
DOUBLE PNEUMATIC PILOT
DOPPIO COMANDO PNEUMATICO

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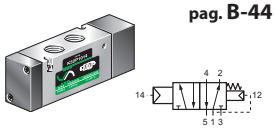

K52P101.
SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN
COMANDO PNEUMATICO - RIT. MOLLA MECCANICA E PNEUMATICA

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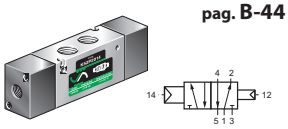
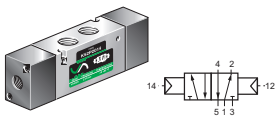
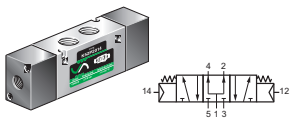


K52DP214
DOUBLE DIFFERENTIAL PNEUMATIC PILOT
DOPPIO COMANDO PNEUMATICO DIFFERENZIALE



K52P201.
DOUBLE PNEUMATIC PILOT
DOPPIO COMANDO PNEUMATICO



K53P231.
DOUBLE PNEUMATIC PILOT (MID-POSITION PRESSURIZED)
DOPPIO COMANDO PNEUMATICO (CENTRI IN PRESSIONE)

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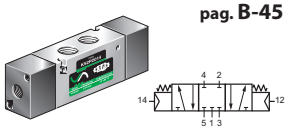

K53P261.
DOUBLE PNEUMATIC PILOT (MID-POSITION CLOSED)
DOPPIO COMANDO PNEUMATICO (CENTRI CHIUSI)

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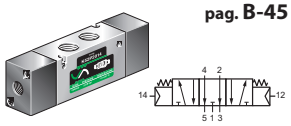
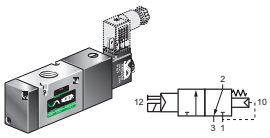
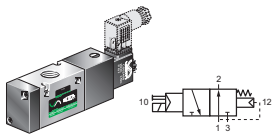


K53P291.
DOUBLE PNEUMATIC PILOT (MID-POSITION EXHAUSTED)
DOPPIO COMANDO PNEUMATICO (CENTRI APERTI)



K32W1S61.
SINGLE SOLENOID PILOT - INTERNAL PRESSURE RETURN
COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO A MOLLA



K32W1S91.
SINGLE SOLENOID PILOT - INTERNAL PRESSURE RETURN
COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO A MOLLA

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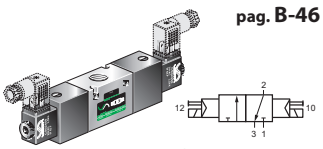
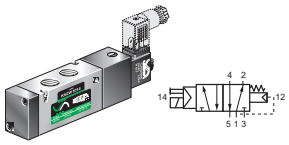


K32W2S01.
DOUBLE SOLENOID PILOT
DOPPIO COMANDO ELETTROPNEUMATICO



K52W101.
SINGLE SOLENOID PILOT - INTERNAL PRESSURE RETURN
COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO A MOLLA

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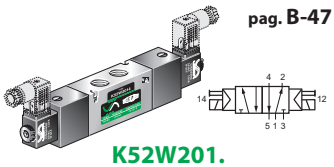
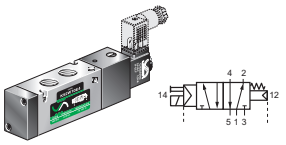


K52W201.
DOUBLE SOLENOID PILOT
DOPPIO COMANDO ELETTROPNEUMATICO



K52W10E.
SINGLE SOLENOID PILOT - EXTERNAL PRESSURE RETURN
COMANDO ELETTROPNEUMATICO - PILOTAGGIO ESTERNO

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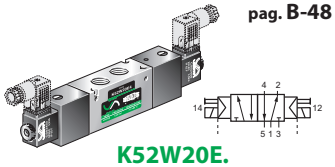
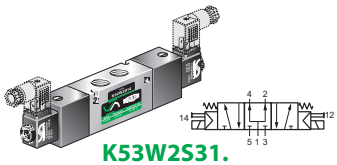
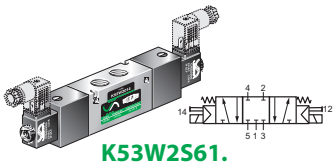


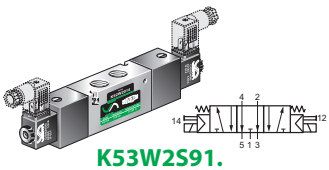
K52W20E.
DOUBLE SOLENOID PILOT - EXTERNAL PRESSURE RETURN
DOPPIO COMANDO ELETTROPNEUM. - PILOTAGGIO ESTERNO



K53W2S31.
DOUBLE SOLENOID PILOT (MID-POSITION PRESSURIZED)
DOPPIO COMANDO ELETTROPNEUM. (CENTRI IN PRESSIONE)



K53W2S61.
DOUBLE SOLENOID PILOT (MID-POSITION CLOSED)
DOPPIO COMANDO ELETTROPNEUMATICO (CENTRI CHIUSI)



K53W2S91.
DOUBLE SOLENOID PILOT (MID-POSITION EXHAUSTED)
DOPPIO COMANDO ELETTROPNEUMATICO (CENTRI APERTI)

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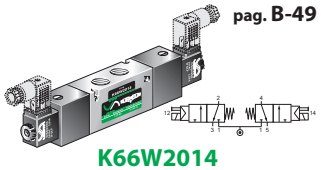
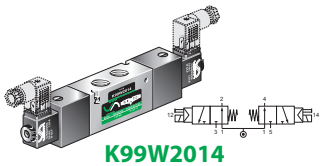


K66W2014
DUBLE 3/2 N.C. SPRING RETURN VALVE
DOPPIA VALVOLA 3/2 N.C. RITORNO A MOLLA MECCANICA



K99W2014
DUBLE 3/2 N.O. SPRING RETURN VALVE
DOPPIA VALVOLA 3/2 N.O. RITORNO A MOLLA MECCANICA

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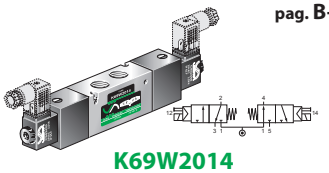

K69W2014
3/2 N.C. + 3/2 N.O. VALVES SPRING RETURN
VALVOLA 3/2 N.C. + VALVOLA 3/2 N.O. RITORNO A MOLLA MECCANICA

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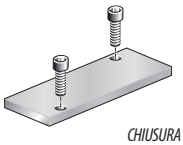
KME . 14
ENBLOC TILL 10 SIZES MAX
BASE DOPPIO INGRESSO FINO A 10 POSTI

ACCESSORIES / *ACCESSORI*



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KPCH0..
PLUG FLAT
CHIUSURA POSTO INUTILIZZATO

CS .....
COILS
SOLENOIDI PER ELETTROVALVOLE

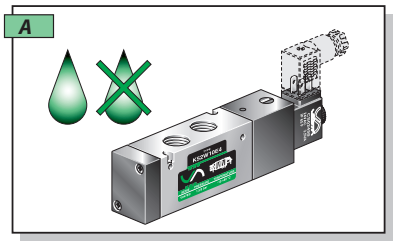
pag. B-52

CEP/0 .. ..
SOLENOID CONNECTORS
CONNETTORI

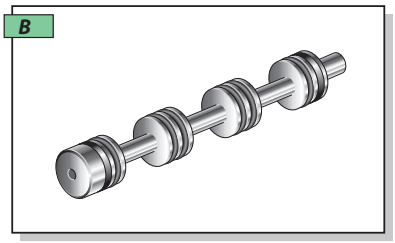
DESIGN FEATURES / *CARATTERISTICHE COSTRUTTIVE*

Mini-valves and solenoid valves of **K** series are designed in compact dimensions and therefore they are proper to be assembled on manifolds.
Every single part and component has been developed to achieve the best performances.
K series can operate continuosly without lubrification (**A**). The spool in light alloy is manifactured to grant low inertia (**B**). All the internal moving parts are designed to reduce friction.
SO, **K** series grants lasting durability and high working frequency (**E**). For a better resistance to external aggressive agents we perform on the body a nickel treatment (**C**).
Despite of its small dimensions, the nominal air flow of the valve is around 730, 1300, 4000 NL/min. (**D**).
The solenoid valves, complete with coil and connector, follow EEC directives on the electromagnetic compatibility (89/336/EEC) and low voltage (73/23/EEC).

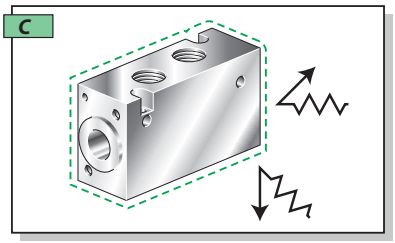
*Le mini valvole ed elettrovalvole Vesta serie **K** funzionano secondo il principio del cassetto bilanciato (vedi fig. **1** e **2**), presentano ingombri molto ridotti e la possibilità di assemblaggio in batterie compatte.*
*Particolare cura è stata prestata nella progettazione e realizzazione di ogni singolo componente del prodotto, al fine di consentire elevate prestazioni funzionali. Caratteristiche comuni a tutte le valvole della serie sono l'alta velocità di scambio (**E**), la possibilità di funzionamento continuo privo di lubrificazione (**A**) ottenuto con l'impiego di materiali particolari come, ad esempio, la spola, realizzata in lega leggera (**B**), ed il corpo, in alluminio trattato al nichel (**C**). Tutto ciò garantisce una elevata frequenza di lavoro e una lunga vita del sistema, grazie ad una riduzione dell' inerzia delle parti mobili, ad una riduzione degli attriti interni e ad un maggior grado di resistenza agli agenti aggressivi esterni. Particolarmente interessante, nonostante le ridotte dimensioni, la portata nominale: 730, 1300, 4000 Nl/min. (**D**).*
Le elettrovalvole complete di bobina e connettore, sono conformi alle direttive CEE relative alla compabilità elettromagnetica (89/336/CEE) ed alla bassa tensione (73/23/CEE).



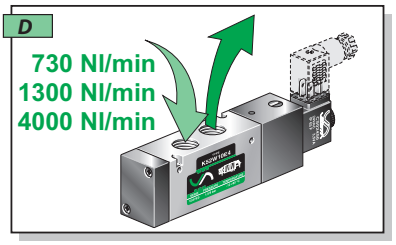
Possibility to operate continuosly without lubrication.
Possibilità di funzionamento continuo privo di lubrificazione.



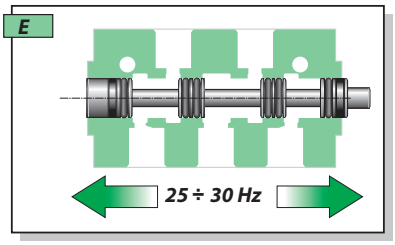
Light alloy spool.
Spola in lega leggera.



Nickel treated body.
Corpo in alluminio trattato al nichel.



Nominal air flow: (730, 1300, 4000 Nl/min.
Alta portata nominale: (730, 1300, 4000 Nl/min a 6 bar).

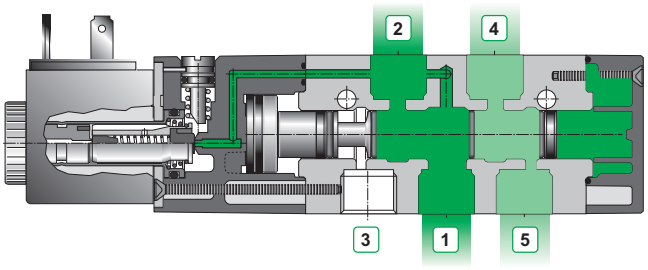


High working frequency.
Alta velocità di scambio.

WORKING PRINCIPLE / *PRINCIPIO DI FUNZIONAMENTO*

In the below example (**K52W1018-02450** - 5/2 valve, single solenoid, spring return), when the valve stands in the normal position, ports **4 - 5** and **1- 2** are connected and the position is kept thanks to the pressure applied to the smallest piston and thanks to the spring force (right side ofthe valve). When the valve is actuated, the same pressure is fed to the biggest piston. Its bigger surface creates a force which allows to the spool to move and therefore to connect ports **4 - 1** and **2 - 3**. Spring return grants the normal position of the spool even without inlet pressure.
In the bistable versions, the position of the valve remains in its last switched state.

Il principio di funzionamento del distributore 5/2 (nell'esempio l'elettrovalvola ***K52W1018-02450*** *con comando elettropneumatico e riposizionamento a molla) consiste nel mantenere la spola in posizione di riposo per azione sia di una molla meccanica che per effetto della pressione creata dalla fonte d'aria compressa presente nel condotto di alimentazione* ***1*** *sulla spola stessa (fig.* ***1****) collegando le vie* ***1- 2*** *e* ***4 - 5****.*
L' eccitazione del solenoide mette in comunicazione il condotto ***1*** *con la camera dove é alloggiato il pistone di comando. Quest'ultimo contrasta l'insieme delle forze create dalla molla e dalla pressione sul lato opposto della spola, spostandola in modo tale da collegare i canali* ***1- 4*** *e* ***2- 3*** *(fig.* ***2****).*
Diseccitando il solenoide si ripristina la posizione iniziale. La combinazione del sistema a molla meccanica con il riposizionamento pneumatico consente di avere sempre la spola in posizione di riposo anche dopo la caduta di pressione del sistema.
Nei sistemi bistabili (doppio comando elettropneumatico o doppio comando pneumatico) in assenza di segnale rimangono i collegamenti formatisi nell'ultimo azionamento.



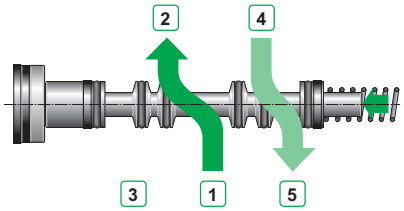
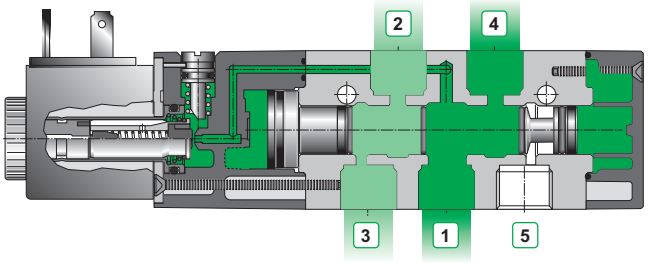


fig. 1

NORMAL POSITION / *POSIZIONE A RIPOSO*



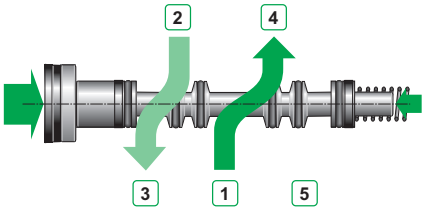
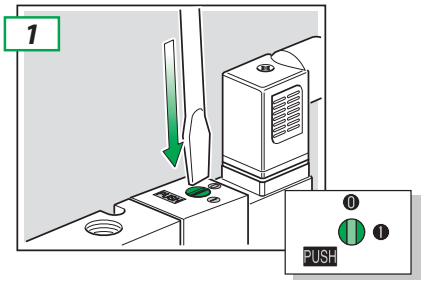


fig. 2

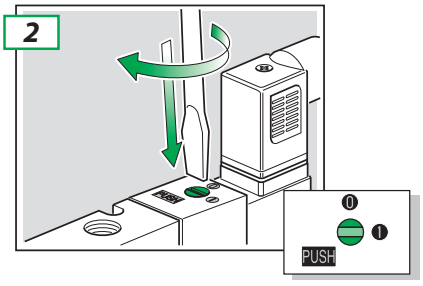
ACTUATED POSITION / *POSIZIONE DI LAVORO*

MANUAL OVERRIDING / *AZIONAMENTO COMANDO MANUALE*



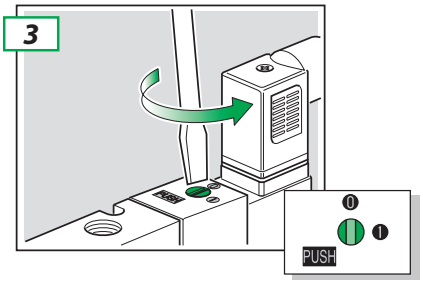
Push to actuate valve without locking. ***Release the button to get back to normal position.***

Per azionare la valvola, durante la fase di collaudo con pressione in linea senza collegamento elettrico, usare un adeguato cacciavite per premere la vite del comando manuale. ***Rilasciare per ripristinare la condizione di riposo.***



To actuate the valve permanently, push the M / O using a screwdriver and rotate clockwise 90°.

Per azionare la valvola in modo permanente premere la vite del comando manuale e ruotare in senso orario sino alla posizione 1.



To get back to normal position push the M/O again and turn 90° anti-clockwise.

Ruotare in senso antiorario la vite del comando manuale per ripristinare la condizione di riposo.

SERIE **K**

TECHNICAL FEATURES / *CARATTERISTICHE TECNICHE*

COMMON TECHNICAL FEATURES K SERIE / *CARATTERISTICHE TECNICHE COMUNI SERIE K*

Port connections	**G1/8, G1/4**
Flow section	**G1/8"** = Ø 6 mm **G1/4"** = Ø 8 mm **G1/2"** = Ø 14 mm
Environment temperature range	-10 °C ÷ +50 °C
Temperature range of medium	0 °C ÷ +40 °C
Lubrication	Not required
Medium	Filtered air
Reference pressure	6 bar
Nominal air flow 3/2 and 5/2 valves (valves 5/3)	**G1/8"**: 730 (552) Nl/min **G1/4"**: 1300 (1040) Nl/min **G1/2"**: 4000 (3500) Nl/min

Connessioni di lavoro	***G1/8, G1/4***
Diametro nominale	***G1/8"*** *= Ø 6 mm* ***G1/4"*** *= Ø 8 mm* ***G1/2"*** *= Ø 14 mm*
Temperatura ambiente	*-10 °C ÷ +50 °C*
Temperatura fluido	*0 °C ÷ +40 °C*
Lubrificazione	*Non necessaria*
Fluido	*Aria filtrata*
Pressione nominale	*6 bar*
Portata nominale valvole 3/2 e 5/2 (valvole 5/3)	***G1/8"****: 730 (552) Nl/min* ***G1/4"****: 1300 (1040) Nl/min* ***G1/2"****: 4000 (3500) Nl/min*

PNEUMATIC VALVES FEATURES / CARATTERISTICHE *VALVOLE PNEUMATICHE*

G 1/8"

	K32P1618	K32P1918	K32P2018	K52P1018	K52DP218	K52P2018	K53P2318	K53P2618	K53P2918
Nominal pilot pressure (bar) ***Pressione di pilotaggio nominale (bar)***	3,1 bar (9 bar)	3,1 bar (9 bar)	0,97 bar	3,1 bar (9 bar)	(12) 1,35 bar (14) 0,97 bar	0,97 bar	3 bar	3 bar	3 bar
Nominal max frequence (Hz) ***Frequenza max nominale (Hz)***	30 Hz	30 Hz	33 Hz	30 Hz	30 Hz	33 Hz	10 Hz	10 Hz	10 Hz
Operating pressure range (bar) ***Pressione di esercizio (bar)***	2,5 ÷ 9 bar	2,5 ÷ 9 bar	0 ÷ 9 bar	2,5 ÷ 9 bar	0 ÷ 9 bar	0 ÷ 9 bar	0 ÷ 9 bar	0 ÷ 9 bar	0 ÷ 9 bar

G 1/4"

	K32P1614	K32P1914	K32P2014	K52P1014	K52DP214	K52P2014	K53P2314	K53P2614	K53P2914
Nominal pilot pressure (bar) ***Pressione di pilotaggio nominale (bar)***	3,1 bar (9 bar)	3,1 bar (9 bar)	0,97 bar	3,1 bar (9 bar)	(12) 1,35 bar (14) 0,97 bar	0,97 bar	3 bar	3 bar	3 bar
Nominal max frequence (Hz) ***Frequenza max nominale (Hz)***	30 Hz	30 Hz	33 Hz	30 Hz	30 Hz	33 Hz	10 Hz	10 Hz	10 Hz
Operating pressure range (bar) ***Pressione di esercizio (bar)***	2,5 ÷ 9 bar	2,5 ÷ 9 bar	0 ÷ 9 bar	2,5 ÷ 9 bar	0 ÷ 9 bar	0 ÷ 9 bar	0 ÷ 9 bar	0 ÷ 9 bar	0 ÷ 9 bar

G 1/2"

	K32P1612	K32P1912	K32P2012	K52P1012	-	K52P2012	K53P2312	K53P2612	K53P2912
Nominal pilot pressure (bar) ***Pressione di pilotaggio nominale (bar)***	3,1 bar (9 bar)	3,1 bar (9 bar)	0,97 bar	3,1 bar (9 bar)	-	0,97 bar	3 bar	3 bar	3 bar
Nominal max frequence (Hz) ***Frequenza max nominale (Hz)***	15 Hz	15 Hz	18 Hz	15 Hz	-	18 Hz	10 Hz	10 Hz	10 Hz
Operating pressure range (bar) ***Pressione di esercizio (bar)***	2,5 ÷ 9 bar	2,5 ÷ 9 bar	0 ÷ 9 bar	2,5 ÷ 9 bar	-	0 ÷ 9 bar	0 ÷ 9 bar	0 ÷ 9 bar	0 ÷ 9 bar

SOLENOID VALVES FEATURES / CARATTERISTICHE *ELETTROVALVOLE*

G 1/8"

	K32W1S618	K32W1918	K32W2S018	K52W1018	K52W2018	K52W10E8	K52W20E8	K53W2S318 K53W2S618 K53W2S918	K66W2018 K99W2018 K69W2018
Nominal max frequence (Hz) ***Frequenza max nominale (Hz)***	27Hz **AC** 17Hz **DC**	27Hz **AC** 17Hz **DC**	42Hz **AC** 34Hz **DC**	27Hz **AC** 17Hz **DC**	42Hz **AC** 34Hz **DC**	27Hz **AC** 17Hz **DC**	42Hz **AC** 34Hz **DC**	12Hz **AC** 10Hz **DC**	27Hz **AC** 17Hz **DC**
Operating pressure range (bar) ***Pressione di esercizio (bar)***	2,5÷9 bar	2,5÷9 bar	1,5÷9 bar	2,5÷9 bar	1,5÷9 bar	0÷9 bar	0÷9 bar	3÷9 bar	3÷9 bar
External pilot port ***Connessione di pilotaggio esterna***	-	-	-	-	-	M5	M5	-	-
Pilot pressure ***Pressione di pilotaggio***	-	-	-	-	-	3÷9 bar	3÷9 bar	-	-

G 1/4"

	K32W1S614	K32W1914	K32W2S014	K52W1014	K52W2014	K52W10E4	K52W20E4	K53W2S314 K53W2S614 K53W2S914	K66W2014 K99W2014 K69W2014
Nominal max frequence (Hz) ***Frequenza max nominale (Hz)***	27Hz **AC** 17Hz **DC**	27Hz **AC** 17Hz **DC**	42Hz **AC** 34Hz **DC**	27Hz **AC** 17Hz **DC**	42Hz **AC** 34Hz **DC**	27Hz **AC** 17Hz **DC**	42Hz **AC** 34Hz **DC**	12Hz **AC** 10Hz **DC**	27Hz **AC** 17Hz **DC**
Operating pressure range (bar) ***Pressione di esercizio (bar)***	2,5÷9 bar	2,5÷9 bar	1,5÷9 bar	2,5÷9 bar	1,5÷9 bar	0÷9 bar	0÷9 bar	3÷9 bar	3÷9 bar
External pilot port ***Connessione di pilotaggio esterna***	-	-	-	-	-	M5	M5	-	-
Pilot pressure ***Pressione di pilotaggio***	-	-	-	-	-	3÷9 bar	3÷9 bar	-	-

G 1/2"

	K32W1S612	K32W1912	K32W2S012	K52W1012	K52W2012	K52W10E2	K52W20E2	K53W2S312	K53W2S612	K53W2S912
Nominal max frequence (Hz) ***Frequenza max nominale (Hz)***	13Hz **AC** 11Hz **DC**	13Hz **AC** 11Hz **DC**	17Hz **AC** 16Hz **DC**	13Hz **AC** 11Hz **DC**	17Hz **AC** 16Hz **DC**	13Hz **AC** 11Hz **DC**	17Hz **AC** 16Hz **DC**	13Hz **AC** 8Hz **DC**	13Hz **AC** 8Hz **DC**	13Hz **AC** 8Hz **DC**
Operating pressure range (bar) ***Pressione di esercizio (bar)***	2,5÷9 bar	2,5÷9 bar	1,5÷9 bar	2,5÷9 bar	1,5÷9 bar	0÷9 bar	0÷9 bar	3÷9 bar	3÷9 bar	3÷9 bar
External pilot port ***Connessione di pilotaggio esterna***	-	-	-	-	-	M5	M5	-	-	-
Pilot pressure ***Pressione di pilotaggio***	-	-	-	-	-	3÷9 bar	3÷9 bar	-	-	-

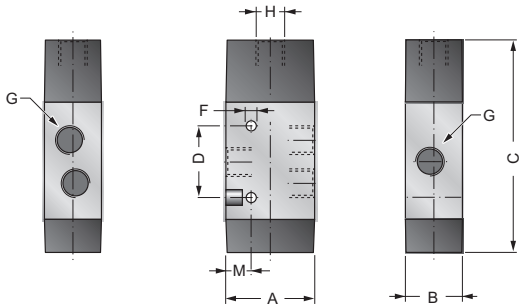
For electrical features solenoid pilot see p. B-52 for G1/8.
Caratteristiche elettriche elettrovalvole per solenoide vedi p. B-52 per G1/8.

VALVE / *VALVOLA* 3/2

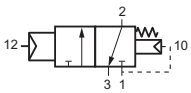
SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN AND SPRING

COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA E MECCANICA

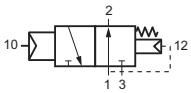
K32P1.1.



SIMBOLS / *SIMBOLI*



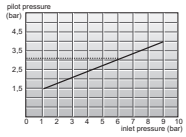
K32P161.



K32P191.

DIAGRAMS / *DIAGRAMMI*

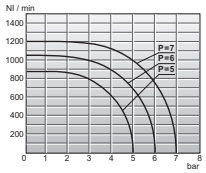
DIAGRAM / *DIAGRAMMA*



PILOT PRESSURE

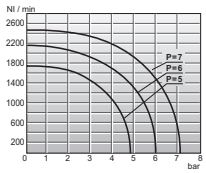
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

Size *Taglia*	A	B	C	D	ØF	G	H	ØI	M
1/8	28	18	66,2	22,2	3,2	G1/8	G1/8	3,2	8
1/4	32	22	75,3	29,3	4,2	G1/4	G1/8	3,5	7,3
1/2	50	30	108	45,6	5,2	G1/2	G1/8	-	11



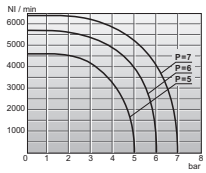
AIR FLOW DIAGRAM G1/8"

DIAGRAMMA DELLE PORTATE G1/8"



AIR FLOW DIAGRAM G1/4"

DIAGRAMMA DELLE PORTATE G1/4"



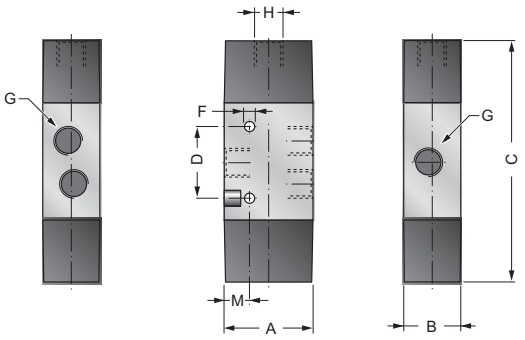
AIR FLOW DIAGRAM G1/2"

DIAGRAMMA DELLE PORTATE G1/2"

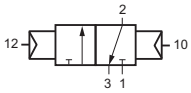
VALVE / *VALVOLA* 3/2

DOUBLE PNEUMATIC PILOT / *DOPPIO COMANDO PNEUMATICO*

K32P201.



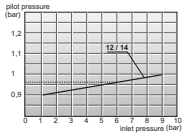
SIMBOL / *SIMBOLO*



K32P201.

DIAGRAMS / *DIAGRAMMI*

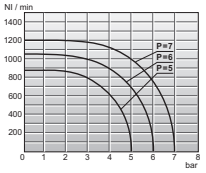
DIAGRAM / *DIAGRAMMA*



PILOT PRESSURE

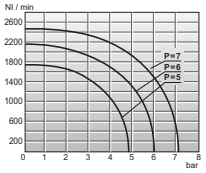
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

Size *Taglia*	A	B	C	D	ØF	G	H	ØI	M
1/8	28	18	76,2	22,2	3,2	G1/8	G1/8	3,2	8
1/4	32	22	88,3	29,3	4,2	G1/4	G1/8	3,5	7
1/2	50	30	121	45,6	5,2	G1/2	G1/8	-	11



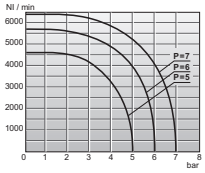
AIR FLOW DIAGRAM G1/8"

DIAGRAMMA DELLE PORTATE G1/8"



AIR FLOW DIAGRAM G1/4"

DIAGRAMMA DELLE PORTATE G1/4"



AIR FLOW DIAGRAM G1/2"

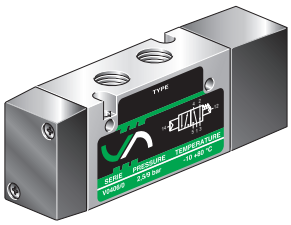
DIAGRAMMA DELLE PORTATE G1/2"

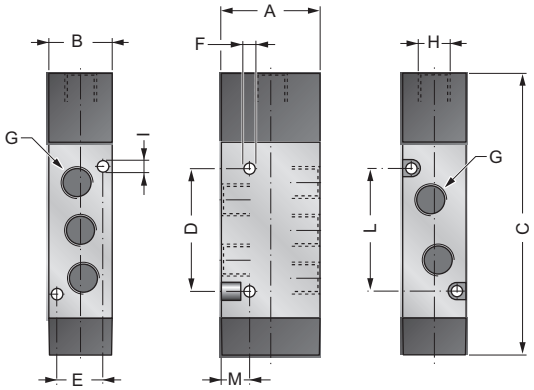
K52P101.

VALVE / *VALVOLA* 5/2

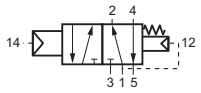
SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN AND SPRING

COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA E MECCANICA

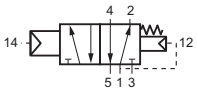




SIMBOLS / *SIMBOLI*

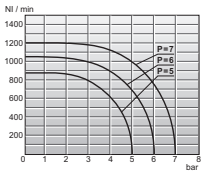


K52P1018

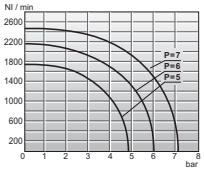


K52P1014 - K52P1012

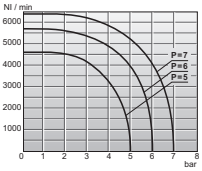
DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM G1/8"
DIAGRAMMA DELLE PORTATE G1/8"



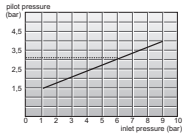
AIR FLOW DIAGRAM G1/4"
DIAGRAMMA DELLE PORTATE G1/4"



AIR FLOW DIAGRAM G1/4"
DIAGRAMMA DELLE PORTATE G1/4"

Size *Taglia*	A	B	C	D	E	ØF	G	H	ØI	L	M
1/8	28	18	80	35	13	3,2	G1/8	G1/8	3,2	35	8
1/4	32	22	96	50	16,2	4,2	G1/4	G1/8	3,5	50	7,3
1/2	50	30	137	74,6	-	5,2	G1/2	G1/8	-	-	11

DIAGRAM / *DIAGRAMMA*

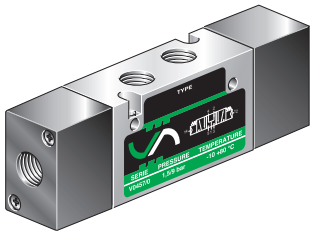


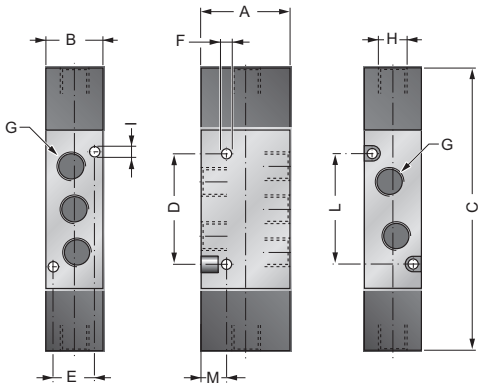
PILOT PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

K52P201.

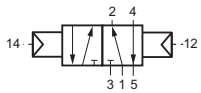
VALVE / *VALVOLA* 5/2

DOUBLE PNEUMATIC PILOT / *DOPPIO COMANDO PNEUMATICO*

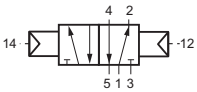




SIMBOLS / *SIMBOLI*

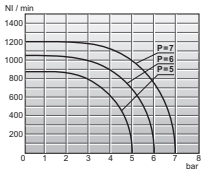


K52P2018

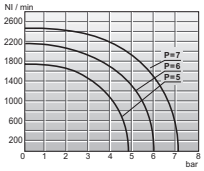


K52P2014 - K52P2012

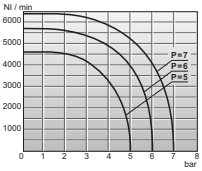
DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM G1/8"
DIAGRAMMA DELLE PORTATE G1/8"



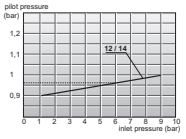
AIR FLOW DIAGRAM G1/4"
DIAGRAMMA DELLE PORTATE G1/4"



AIR FLOW DIAGRAM G1/2"
DIAGRAMMA DELLE PORTATE G1/2"

Size *Taglia*	A	B	C	D	E	ØF	G	H	ØI	L	M
1/8	28	18	89	35	13	3,2	G1/8	G1/8	3,2	35	8
1/4	32	22	109	50	16,2	4,2	G1/4	G1/8	3,5	50	7,3
1/2	50	30	150	74,6	-	5,2	G1/2	G1/8	-	-	11

DIAGRAM / *DIAGRAMMA*



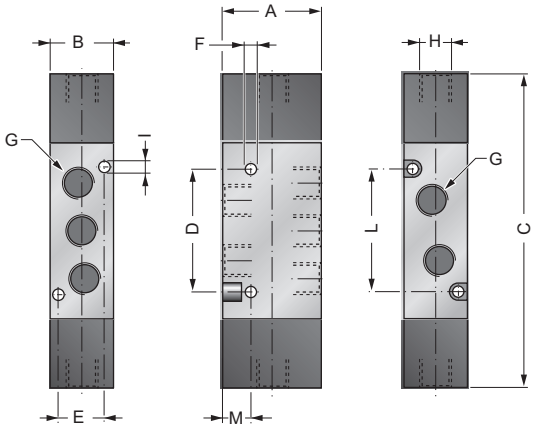
PILOT PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

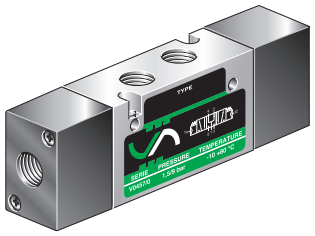
VALVE / 5/2

DOUBLE DIFFERENTIAL PNEUMATIC PILOT

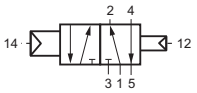
DOPPIO COMANDO PNEUMATICO DIFFERENZIALE

K52DP21.

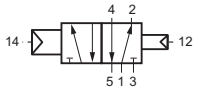




SIMBOLS /



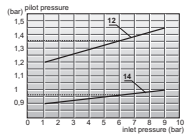
K52DP218



K52DP214

DIAGRAMS / *DIAGRAMMI*

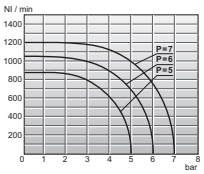
DIAGRAM / *DIAGRAMMA*



PILOT PRESSURE

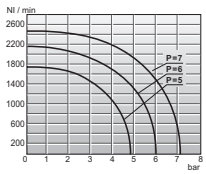
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

Size *Taglia*	A	B	C	D	E	ØF	G	H	Øl	L	M
1/8	28	18	89	35	13	3,2	G1/8	G1/8	3,2	35	8
1/4	32	22	109	50	16,2	4,2	G1/4	G1/8	3,5	50	7,3



AIR FLOW DIAGRAM G1/8"

DIAGRAMMA DELLE PORTATE G1/8"



AIR FLOW DIAGRAM G1/4"

DIAGRAMMA DELLE PORTATE G1/4"

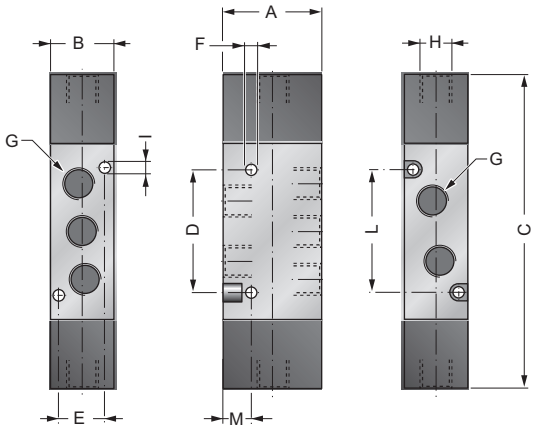
VALVE / *VALVOLA* 5/3

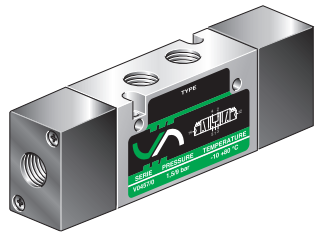
DOUBLE PNEUMATIC PILOT (MID-POSITION PRESSURIZED) / *DOPPIO COMANDO PNEUMATICO (CENTRI IN PRESSIONE)*

DOUBLE PNEUMATIC PILOT (MID-POSITION CLOSED) / *DOPPIO COMANDO PNEUMATICO (CENTRI CHIUSI)*

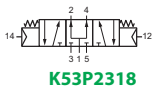
DOUBLE PNEUMATIC PILOT (MID-POSITION EXHAUSTED) / *DOPPIO COMANDO PNEUMATICO (CENTRI APERTI)*

K53P2 . 1.

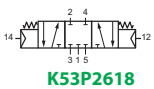




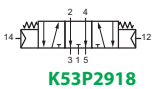
SIMBOLS / *SIMBOLI*



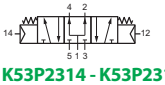
K53P2318



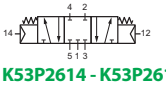
K53P2618



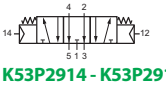
K53P2918



K53P2314 - K53P2312



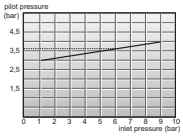
K53P2614 - K53P2612



K53P2914 - K53P2912

DIAGRAMS / *DIAGRAMMI*

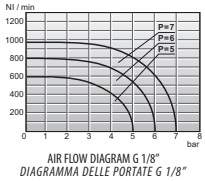
DIAGRAM / *DIAGRAMMA*



PILOT PRESSURE

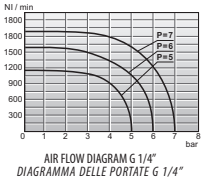
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

Size *Taglia*	A	B	C	D	E	ØF	G	H	Øl	L	M
1/8	28	18	89	35	13	3,2	G1/8	G1/8	3,2	35	8
1/4	32	22	109	50	16,2	4,2	G1/4	G1/8	3,5	50	7,3
1/2	50	30	150	74,6	-	5,2	G1/2	G1/8	-	-	11



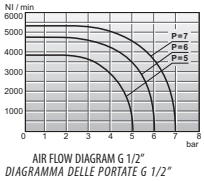
AIR FLOW DIAGRAM G 1/8"

DIAGRAMMA DELLE PORTATE G 1/8"



AIR FLOW DIAGRAM G 1/4"

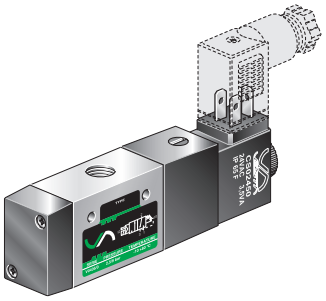
DIAGRAMMA DELLE PORTATE G 1/4"



AIR FLOW DIAGRAM G 1/2"

DIAGRAMMA DELLE PORTATE G 1/2"

K32W1S.1.

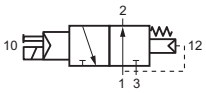


VALVE / 3/2

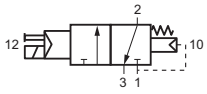
SINGLE SOLENOID PILOT - INTERNAL PRESSURE RETURN AND SPRING

COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA E MECCANICA

SIMBOLS / *SIMBOLI*

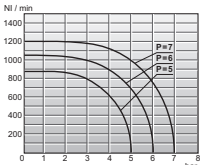


K32W1S918 - K32W1S914
K32W1S912

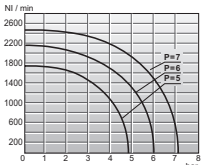


K32W1S618 - K32W1S614
K32W1S612

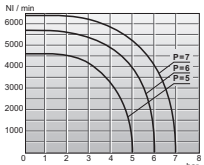
DIAGRAMS / *DIAGRAMMI*



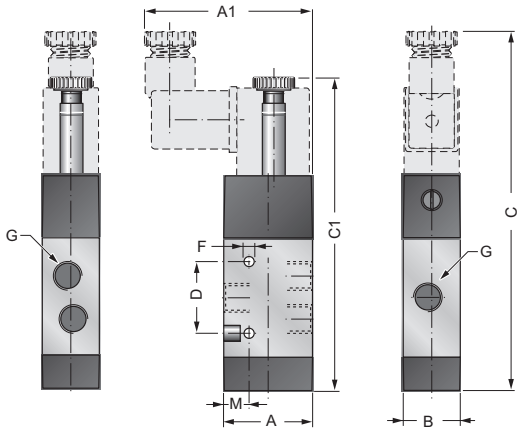
AIR FLOW DIAGRAM G1/8"
DIAGRAMMA DELLE PORTATE G1/8"



AIR FLOW DIAGRAM G1/4"
DIAGRAMMA DELLE PORTATE G1/4"

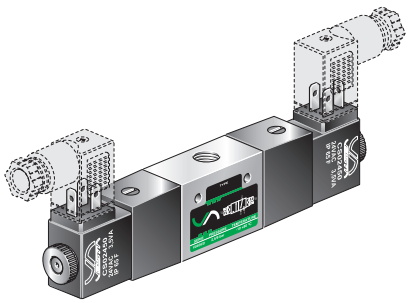


AIR FLOW DIAGRAM G1/2"
DIAGRAMMA DELLE PORTATE G1/2"



Size *Taglia*	A	A1	B	C	C1	D	ØF	G	Øl	M
1/8	28	~53	18	112,5	~99	22,2	3,2	G1/8	3,2	8
1/4	32	~55	22	121	~107,5	29,3	4,2	G1/4	3,5	7,3
1/2	50	~75	30	~150	~137	45,6	5,2	G1/2	-	11

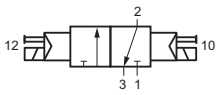
K32W2S01.



VALVE / *VALVOLA* 3/2

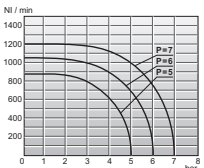
DOUBLE SOLENOID PILOT / *DOPPIO COMANDO ELETTROPNEUMATICO*

SIMBOLS / *SIMBOLI*

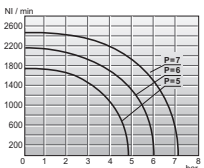


K32W2S018 - K32W2S014 - K32W2S012

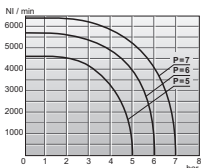
DIAGRAMS / *DIAGRAMMI*



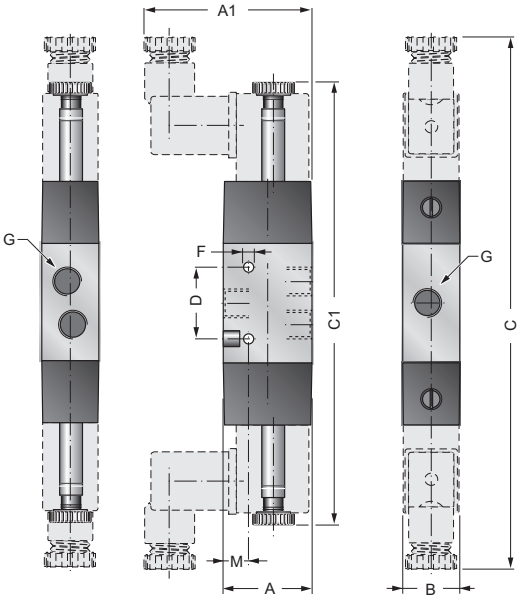
AIR FLOW DIAGRAM G1/8"
DIAGRAMMA DELLE PORTATE G1/8"



AIR FLOW DIAGRAM G1/4"
DIAGRAMMA DELLE PORTATE G1/4"



AIR FLOW DIAGRAM G1/2"
DIAGRAMMA DELLE PORTATE G1/2"

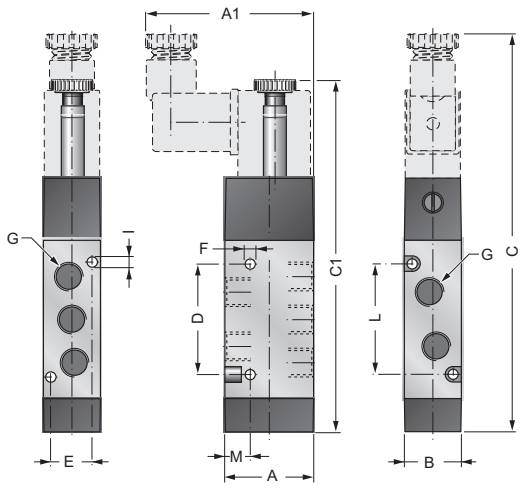


Size *Taglia*	A	A1	B	C	C1	D	ØF	G	Øl	M
1/8	28	~53	18	170	~143	22,2	3,2	G1/8	3,2	8
1/4	32	~55	22	181	~154	29,3	4,2	G1/4	3,5	7,3
1/2	50	~75	30	~210	~180	45,6	5,2	G1/2	-	11

VALVE / *VALVOLA* 5/2

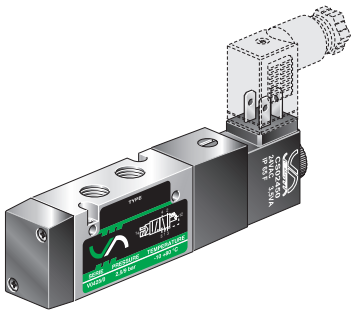
SINGLE SOLENOID PILOT - INTERNAL PRESSURE RETURN AND SPRING

COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA E MECCANICA

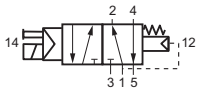


Size *Taglia*	A	A1	B	C	C1	D	E	ØF	G	ØI	L	M
1/8	28	~53	18	~125,5	112	35	13	3,2	G1/8	3,2	35	8
1/4	32	~55	22	142,5	~129	50	16,2	4,2	G1/4	3,5	50	7,3
1/2	50	~75	30	~180	~166	74,6	-	5,2	G1/2	-	-	11

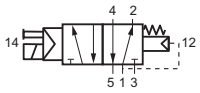
K52W101.



SIMBOLS / *SIMBOLI*

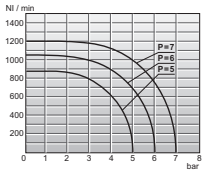


K52W1018

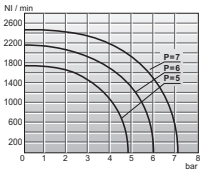


K52W1014 - K52W1012

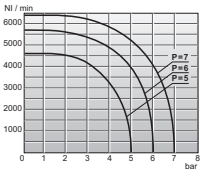
DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM G1/8"
DIAGRAMMA DELLE PORTATE G1/8"



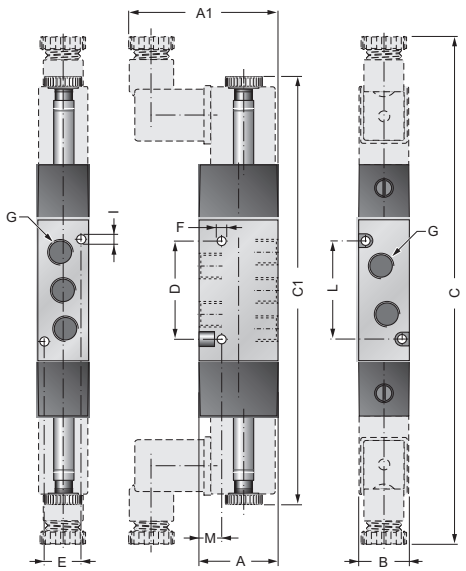
AIR FLOW DIAGRAM G1/4"
DIAGRAMMA DELLE PORTATE G1/4"



AIR FLOW DIAGRAM G1/2"
DIAGRAMMA DELLE PORTATE G1/2"

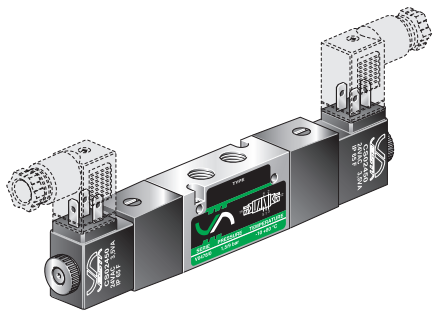
VALVE / 5/2

DOUBLE SOLENOID PILOT / *DOPPIO COMANDO ELETTROPNEUMATICO*

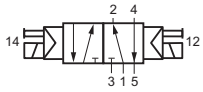


Size *Taglia*	A	A1	B	C	C1	D	E	ØF	G	ØI	L	M
1/8	28	~53	18	180	~152	35	13	3,2	G1/8	3,2	35	8
1/4	32	~55	22	202	~174	50	16,2	4,2	G1/4	3,5	50	7,3
1/2	50	~75	30	~240	~210	74,6	-	5,2	G1/2	-	-	11

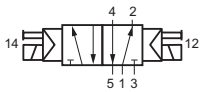
K52W201.



SIMBOLS / *SIMBOLI*

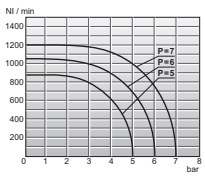


K52W2018

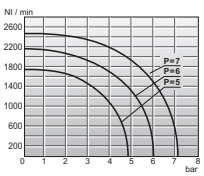


K52W2014 - K52W2012

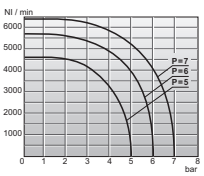
DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM G1/8"
DIAGRAMMA DELLE PORTATE G1/8"

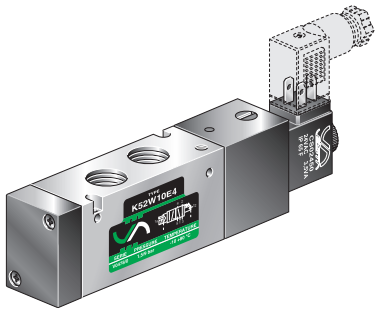


AIR FLOW DIAGRAM G1/4"
DIAGRAMMA DELLE PORTATE G1/4"

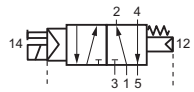


AIR FLOW DIAGRAM G1/2"
DIAGRAMMA DELLE PORTATE G1/2"

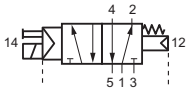
K52W10E.



SIMBOLS / *SIMBOLI*

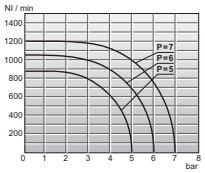


K52W10E8

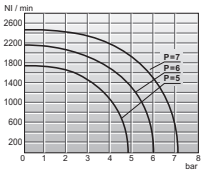


K52W10E4 - K52W10E2

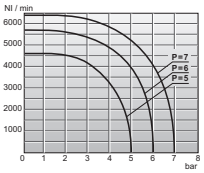
DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM G1/8"
DIAGRAMMA DELLE PORTATE G1/8"



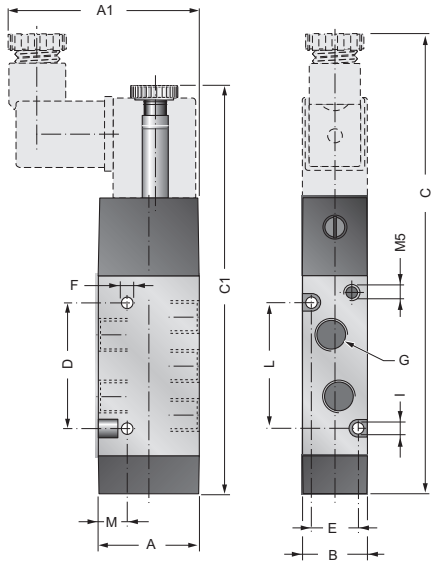
AIR FLOW DIAGRAM G1/4"
DIAGRAMMA DELLE PORTATE G1/4"



AIR FLOW DIAGRAM G1/2"
DIAGRAMMA DELLE PORTATE G1/2"

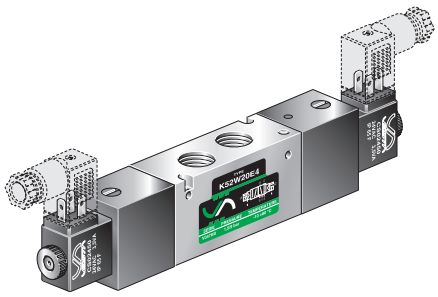
VALVE / 5/2

SINGLE SOLENOID PILOT - EXTERNAL PRESSURE RETURN
COMANDO ELETTROPNEUMATICO - PILOTAGGIO ESTERNO

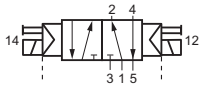


Size *Taglia*	A	B	C	D	E	ØF	G	ØI	L	M	A1	C1
1/8	28	18	127	35	13	3,2	G1/8	3,2	35	8	53	112
1/4	32	22	142,5	50	16,2	4,2	G1/4	3,5	50	7,3	55	129
1/2	50	30	~180	74,6	-	5,2	G1/2	-	-	11	~75	~166

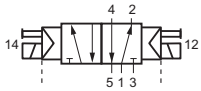
K52W20E.



SIMBOLS / *SIMBOLI*

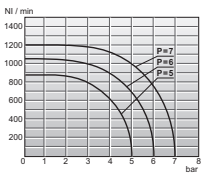


K52W20E8

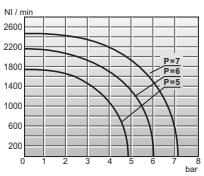


K52W20E4 - K52W20E2

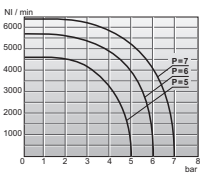
DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM G1/8"
DIAGRAMMA DELLE PORTATE G1/8"



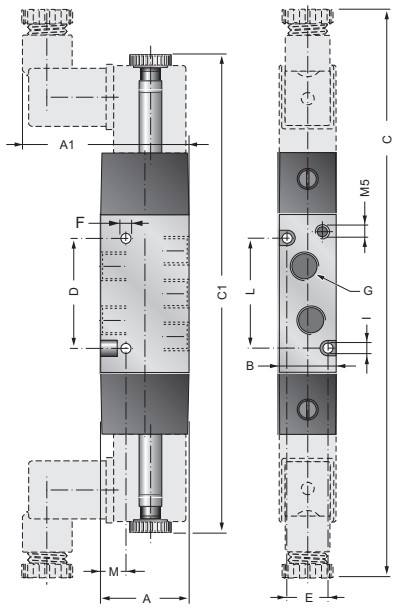
AIR FLOW DIAGRAM G1/4"
DIAGRAMMA DELLE PORTATE G1/4"



AIR FLOW DIAGRAM G1/2"
DIAGRAMMA DELLE PORTATE G1/2"

VALVE / *VALVOLA* 5/2

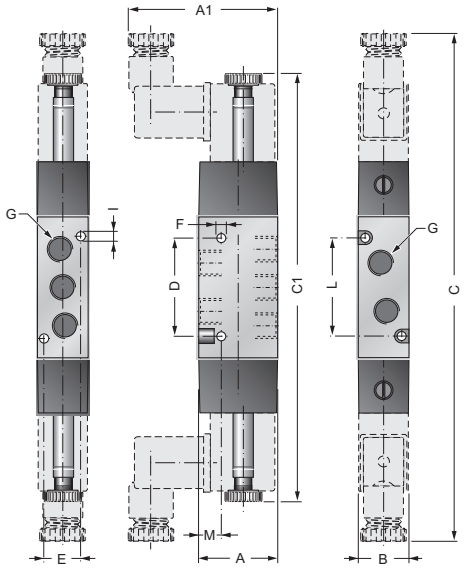
DOUBLE SOLENOID PILOT - EXTERNAL PRESSURE RETURN
DOPPIO COMANDO ELETTROPNEUMATICO - PILOTAGGIO ESTERNO



Size *Taglia*	A	B	C	D	E	ØF	G	ØI	L	M	A1	C1
1/8	28	18	180	35	13	3,2	G1/8	3,2	35	8	53	152
1/4	32	22	202	50	16,2	4,2	G1/4	3,5	50	7,3	55	174
1/2	50	30	~240	74,6	-	5,2	G1/2	-	-	11	~75	~210

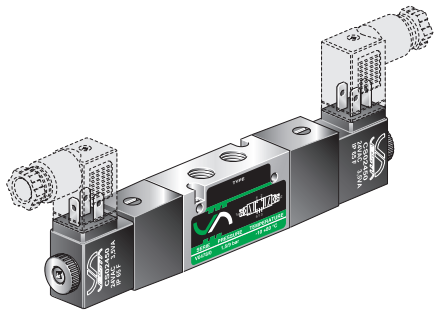
VALVE / 5/3

DOUBLE PNEUMATIC PILOT (MID-POSITION PRESSURIZED) / *DOPPIO COMANDO PNEUMATICO (CENTRI IN PRESSIONE)*
DOUBLE PNEUMATIC PILOT (MID-POSITION CLOSED) / *DOPPIO COMANDO PNEUMATICO (CENTRI CHIUSI)*
DOUBLE PNEUMATIC PILOT (MID-POSITION EXHAUSTED) / *DOPPIO COMANDO PNEUMATICO (CENTRI APERTI)*

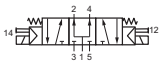


Size *Taglia*	A	A1	B	C	C1	D	E	ØF	G	ØI	L	M
1/8	28	~53	18	180	~152	35	13	3,2	G1/8	3,2	35	8
1/4	32	~55	22	202	~174	50	16,2	4,2	G1/4	3,5	50	7,3
1/2	50	~75	30	~240	~210	74,6	-	5,2	G1/2	-	-	11

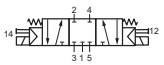
K53W2S . 1.



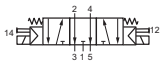
SIMBOLS / *SIMBOLI*



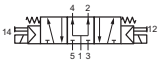
K53W2S318



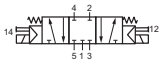
K53W2S618



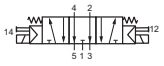
K53W2S918



K53W2S314
K53W2S312

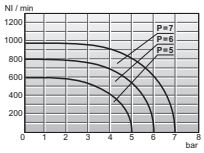


K53W2S614
K53W2S612

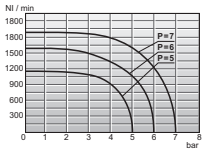


K53W2S914
K53W2S912

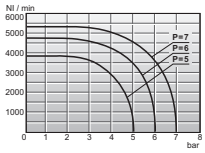
DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM G1/8"
DIAGRAMMA DELLE PORTATE G1/8"



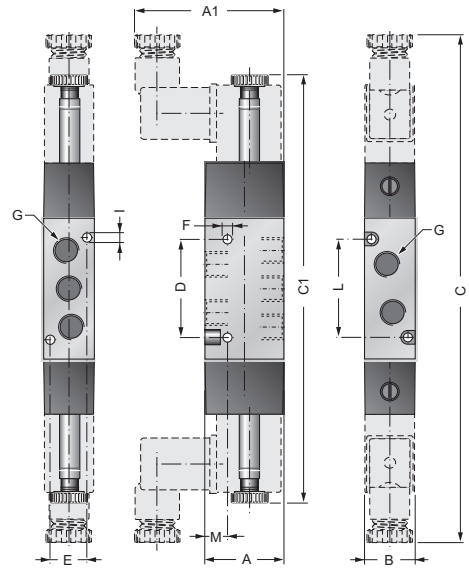
AIR FLOW DIAGRAM G1/4"
DIAGRAMMA DELLE PORTATE G1/4"



AIR FLOW DIAGRAM G1/2"
DIAGRAMMA DELLE PORTATE G1/2"

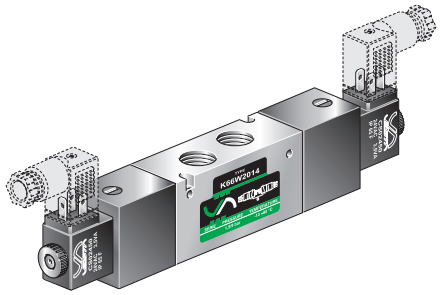
DOUBLE 3/2 VALVE / DOPPIA 3/2

DUBLE 3/2 N.C. SPRING RETURN VALVE
DOPPIA VALVOLA 3/2 N.C. RITORNO A MOLLA MECCANICA

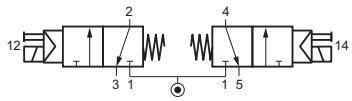


Size *Taglia*	A	A1	B	C	C1	D	E	ØF	G	ØI	L	M
1/8	28	~53	18	180	~152	35	13	3,2	G1/8	3,2	35	8
1/4	32	~55	22	202	~174	50	16,2	4,2	G1/4	3,5	50	7,3

K66W201.

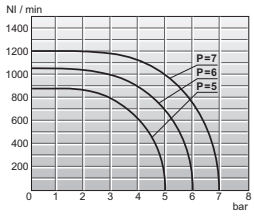


SIMBOLS / *SIMBOLI*

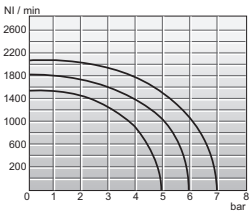


K66W2018 - K66W2014

DIAGRAMS / *DIAGRAMMI*

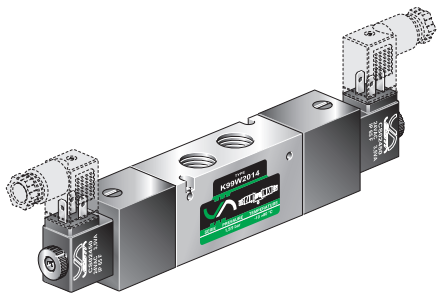


AIR FLOW DIAGRAM G1/8"
DIAGRAMMA DELLE PORTATE G1/8"



AIR FLOW DIAGRAM G1/4"
DIAGRAMMA DELLE PORTATE G1/4"

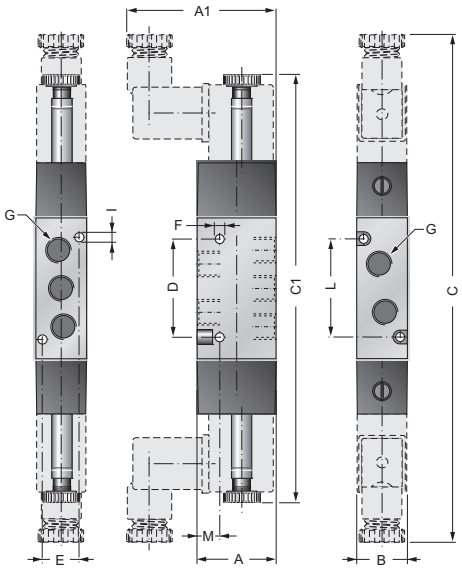
K99W201.



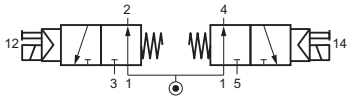
DOUBLE 3/2 VALVE / DOPPIA *VALVOLA* 3/2

DUBLE 3/2 N.O. SPRING RETURN VALVE

DOPPIA VALVOLA 3/2 N.O. RITORNO A MOLLA MECCANICA

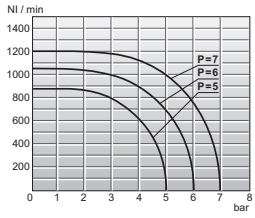


SIMBOLS / *SIMBOLI*

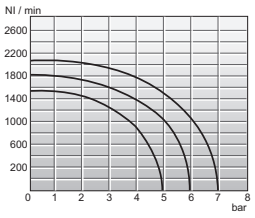


K99W2018 - K99W2014

DIAGRAMS / *DIAGRAMMI*



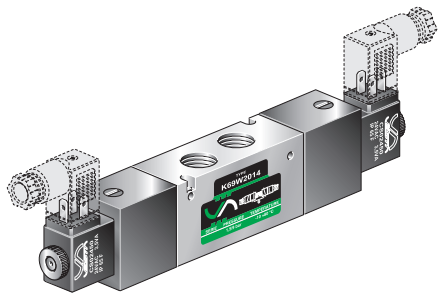
AIR FLOW DIAGRAM G1/8"
DIAGRAMMA DELLE PORTATE G1/8"



AIR FLOW DIAGRAM G1/4"
DIAGRAMMA DELLE PORTATE G1/4"

Size *Taglia*	A	A1	B	C	C1	D	E	ØF	G	ØI	L	M
1/8	28	~53	18	180	~152	35	13	3,2	G1/8	3,2	35	8
1/4	32	~55	22	202	~174	50	16,2	4,2	G1/4	3,5	50	7,3

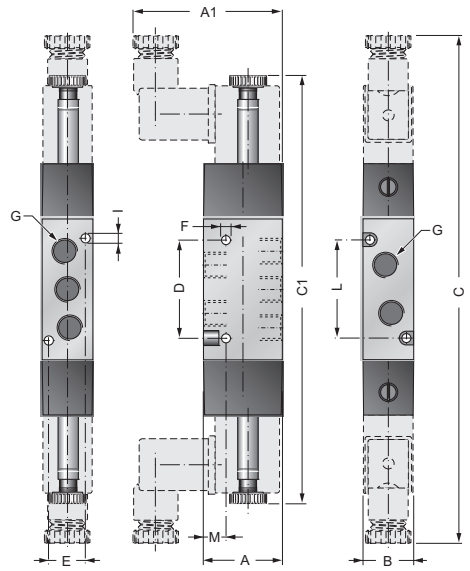
K69W201.



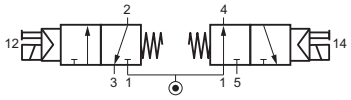
DOUBLE 3/2 VALVE / DOPPIA *VALVOLA* 3/2

3/2 N.C. + 3/2 N.O. VALVES SPRING RETURN

VALVOLA 3/2 N.C. + VALVOLA 3/2 N.O. RITORNO A MOLLA MECCANICA

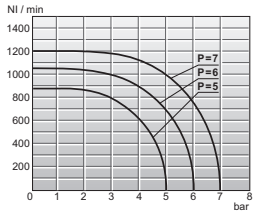


SIMBOLS / *SIMBOLI*

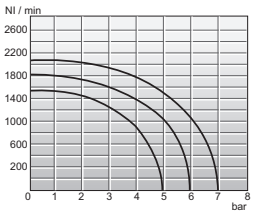


K69W2018 - K69W2014

DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM G1/8"
DIAGRAMMA DELLE PORTATE G1/8"

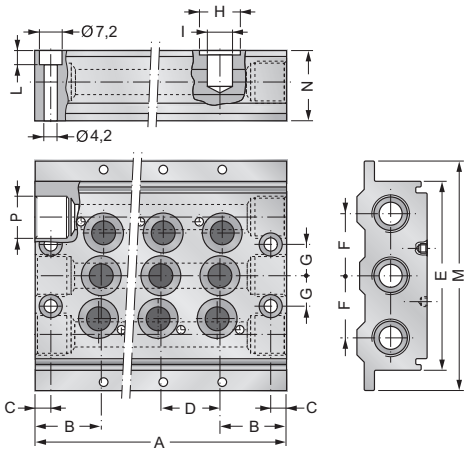


AIR FLOW DIAGRAM G1/4"
DIAGRAMMA DELLE PORTATE G1/4"

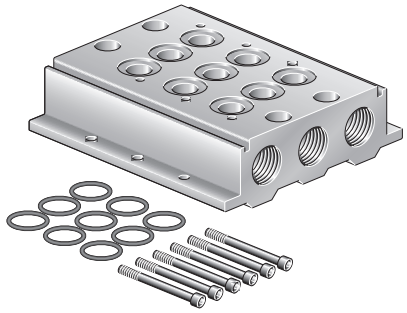
Size *Taglia*	A	A1	B	C	C1	D	E	ØF	G	ØI	L	M
1/8	28	~53	18	180	~152	35	13	3,2	G1/8	3,2	35	8
1/4	32	~55	22	202	~174	50	16,2	4,2	G1/4	3,5	50	7,3

MANIFOLD
BASE A DOPPIO INGRESSO

KME . . .



Size *Taglia*	B	C	D	E	F	G	ØH	ØI	L	M	N	P
1/8	21	5	19	60	19	10	13	8	4,5	74,5	26	G1/4
1/4	25	6,5	23	70	23	11,5	15,9	10	5	85	26	G3/8



- Available upon request manifold up to 20 places.
- Valves fixing screws and seals are supplied with manifold.
- Subbase fixing screws not supplied.
- Manifold suppied assembled on demand.

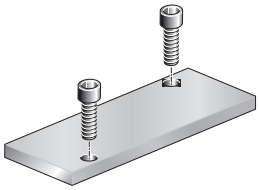
- *A richiesta sono fornibili basi sino a 20 posti*
- *Le viti e le guarnizioni per il fissaggio delle valvole vengono fornite con la base.*
- *Il fissaggio alla base è a cura del cliente.*
- *A richiesta, la base può essere fornita preassemblata.*

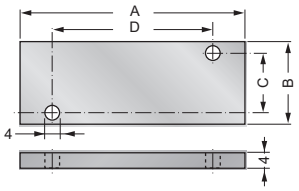
CODES / *CODICI*

Code *Codice*	A	Place *Posti*
KME218	61	2
KME318	80	3
KME418	99	4
KME518	118	5
KME618	137	6
KME718	156	7
KME818	175	8
KME918	194	9
KME1018	213	10
KME1218	251	12
KME1418	289	14
KME1618	327	16
KME214	73	2
KME314	96	3
KME414	119	4
KME514	142	5
KME614	165	6
KME714	188	7
KME814	211	8
KME914	234	9
KME1014	257	10
KME1214	303	12
KME1414	349	14
KME1614	395	16

KPCH01.

PLUG FLAT
CHIUSURA POSTO INUTILIZZATO





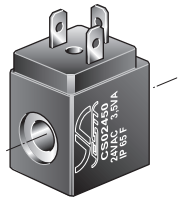
Plug flat includes assembling screws.

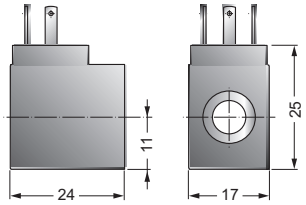
La piastrina di chiusura dei posti non utilizzati della base é fornita con le relative viti di fissaggio.

Size *Taglia*	A	B	C	D	Code *Codice*
1/8	49	18	13	35,5	KPCH018
1/4	60	22	16,2	50	KPCH014

CS . . . . .

COILS
SOLENOIDI PER ELETTROVALVOLE





CODES / *CODICI*

Code ordination *Codice ordinazione*	**Voltage** *Tensione*
CS01200	12 V DC
CS02400	24 V DC
CS02450	24 V 50/60Hz AC
CS11550 (*)	115 V 50/60Hz AC
CS23050 (*)	230 V 50/60Hz AC

(*) Please see page / *Vedi pag.* **B-37**

TECHNICAL FEATURES

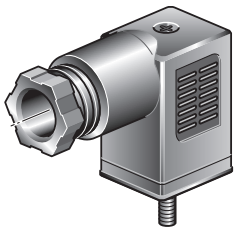
Standard tensions	12, 24, V DC 24, 115, 230 V AC (50/60 Hz)
Other tensions	Contact our commercial department
Duty cicle	100% (continuos)
Power at 20°C	2,4 Watt DC; 3,5 VA AC
Nominal tension	± 10% during normal working
Operating temperature range	-20°C ÷ +50°C
Degree of protection	Fixed plug IP 65 (IEC 144) with connector
Insulation	Class F
Materials	Wire class H - coil moulding glass filled nylon

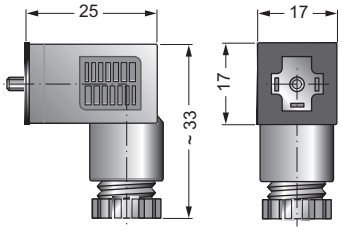
CARATTERISTICHE TECNICHE

Tensioni standard	*12, 24, V DC* *24,115, 230 V AC (50/60 Hz)*
Altre tensioni	*Interpellare il ns. servizio tecnico commerciale*
Funzionamento	*100% ED alla potenza ed alla temperatura ambiente indicata*
Potenza assorbita a 20 C°	*2,4 Watt in DC; 3,5 VA in AC*
Tensione nominale	*± 10% a bobina calda*
Limiti di temperatura ambiente	*-20 °C ÷ +50 °C*
Protezione	*IP 65 secondo IEC 144 con connettore*
Bobina	*Bobina completa classe F*
Materiali	*Rivestimento nylon caricato vetro filo di rame classe H*

CEP/ 0 . . . . . .

SOLENOID CONNECTORS
CONNETTORI





CODES / *CODICI*

Description *Descrizione*	**Code** *Codice*	**Voltage** *Tensione*
Universal connector *Connettore universale*	CEP/0	All tension *Tutte le tensioni*
Connector with led *Connettore con led*	CEP/0 L 10 / 50 CEP/0 L 70 / 250	10/50 V AC / DC 70/250 V AC / DC
Connector with led and varistor *Connettore con led e varistore*	CEP/0 LV 24 CEP/0 LV 110 CEP/0 LV 220	24 V AC / DC 115 V AC / DC 230 V AC / DC

TECHNICAL FEATURES

Wire connection	With screwed terminals
Gland thread	PG 7
Number of poles	2 Poles + earth
Housing colour	Black, transparent in the led version.

CARATTERISTICHE TECNICHE

Connessione cavi	*Con morsetti a vite*
Filettatura passacavo	*PG 7*
N° Poli	*2 Poli + terra*
Colori connettore	*Nero, trasparente nelle versioni con led.*

VERSATILE MULTIPOLE CONNECTION
CONNESSIONE MULTIPOLARE VERSATILE

MPV

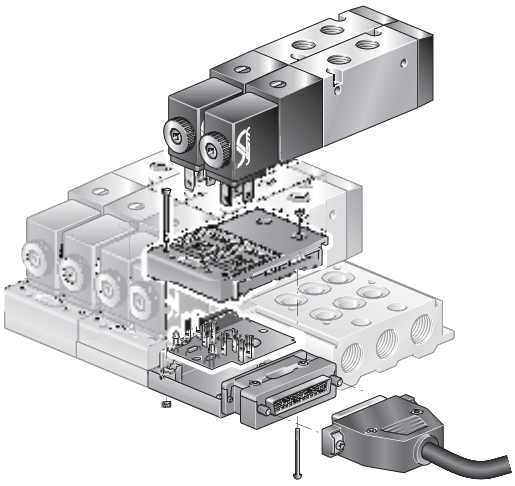
With **Vesta MPV** System, offering integrated electrical connections, it is possible to connect different versions of manifold valves.

Connection Modules are designed for 2 coil connections or for single odd coil connection and they are available in two different sizes: size T1 and size T2.

With size T1 it is possible to assemble manifolds of K or JT 1/8 valves and direct actuated valves MPB Ø4;
With size T2 it is possible to assemble manifolds of K or JT 1/4 valves and direct actuated valves MPB G1/8.

The **MPV** system is available with solenoid valves K or JT 1/8 and K or JT 1/4 series in all versions 5/2, 5/3 and 2x3/2 functions.

The **Vesta MPV** system is compact, versatile, easy to assemble and can operate up to 24 solenoids.
It is available with 24V DC or 24 V AC voltage solenoids with led and varistor protection as standard.



*Il sistema **Vesta MPV** di connessione elettrica integrata consente di collegare isole di valvole di taglia e tipologia differenti.*

I moduli di collegamento elettrico sono disponibili a 2 collegamenti per solenoidi-valvola o per singolo collegamento solenoide-valvola e sono fornibili in due taglie differenti: la taglia T1 e la taglia T2.

La taglia T1 collega valvole K -JT 1/8 in batteria e valvole ad azionamento diretto della serie MPB Ø4;

La taglia T2 collega valvole K -JT 1/4 in batteria e valvole ad azionamento diretto della serie MPB G1/8.

*Il sistema **MPV** supporta tutte le versioni di elettrovalvole 5/2, 5/3 e 2x3/2 della serie K-JT 1/8 e K-JT 1/4.*

La soluzione compatta, robusta e facile da assemblare consente di controllare fino a 24 solenoidi.

La tensione dei solenoidi è di 24V DC o AC, ogni output è dotato di Led di presenza segnale e varistore di protezione alle sovratensioni.

MPV T1

ELECTRICAL CONNECTION MODULE SIZE T1
MODULO DI COLLEGAMENTO ELETTRICO TAGLIA T1

MODULE FOR ASSEMBLING OF FOLLOWING MANIFOLD:

MODULO PER ASSEMBLARE LE SEGUENTI BATTERIE:

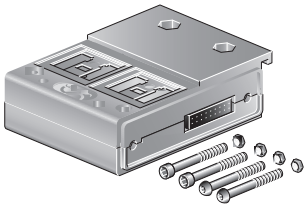
MPK-18

K1/8-JT1/8 SOLENOID VALVES
ELETTROVALVOLE K1/8 JT 1/8

MPB-4

DIRECT ACTUATED VALVES 3/2 TUBE Ø 4

ELETTROVALVOLE A COMANDO DIRETTO 3/2 TUBO Ø 4

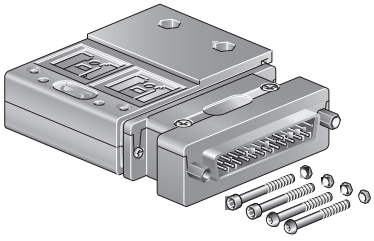


Connection for 2 valve stations
Connessione per 2 valvole

MPV T1 - □

S To use with cable MPW-SD25 Position N°0÷16
Per cavo MPW-SD25 Posizione N°0÷16

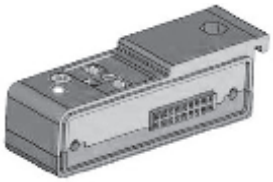
D To use with cable MPW-SD25 Position N°18-25
Per cavo MPW-SD25 Posizione N°18÷25



FRONT connection for 2 valve stations
Connessione FRONTALE per 2 valvole

MPV T1 - S SBD25

To use with cable MPW-SD25 Position N°0÷16
Per cavo MPW-SD25 Posizione N°0÷16



Single connection module for last odd position
Modulo di connessione finale per posizione dispari

MPV T1 - □

SL For single solenoid valve
Per valvole a singolo solenoide

DL For double solenoid valve
Per valvole a doppio solenoide

MANIFOLD OF DIRECT ACTUATED VALVES 3/2 NC TUBE Ø4mm IN MULTIPOLE CONNECTION SYSTEM
BATTERIA MULTIPOLARE DI ELETTROVALVOLE A COMANDO DIRETTO 3/2 NC TUBO Ø4mm

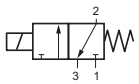
MPB-4-□-□□-□

Number of station valves
Numero posti
2, 4, 6, ..., 16

CS Solenoid (refer to page B-52)
Solenoide CS (vedere pag. B-52)
24V dc: **00**
24V ac: **50**

S To use with cable MPW-SD25 Position N°0÷16
Per cavo MPW-SD25 Posizione N°0÷16

SIMBOL / *SIMBOLO*



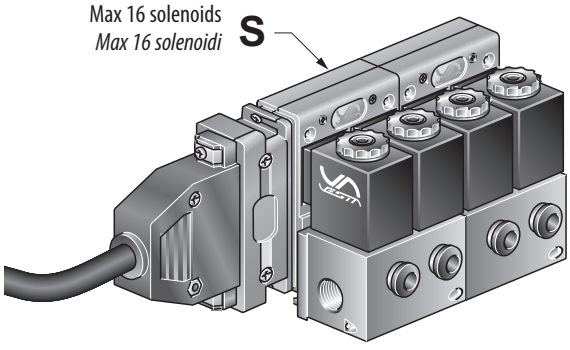
TECHNICAL FEATURES

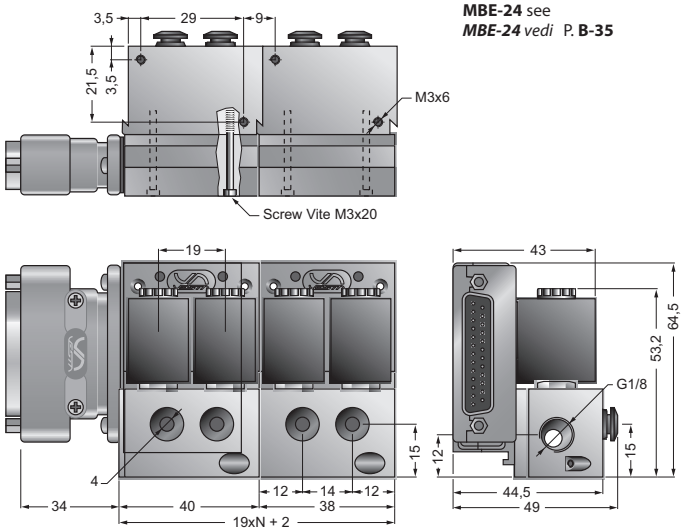
Flow section	Ø1mm
Nominal Flow	50Nl/min
Working pressure	0-9bar
Environment temperature range	-10 °C ÷ +50 °C
Temperature range of medium	0 °C ÷ +40 °C
Solenoids	Refer to CS series page B-52

CARATTERISTICHE TECNICHE

Diametro nominale	*Ø1mm*
Portata nominale	*50Nl/min*
Pressione esercizio	*0-9bar*
Temperatura ambiente	*-10 °C ÷ +50 °C*
Temperatura fluido	*0 °C ÷ +40 °C*
Solenoide	*Vedere CS pag. B-52*

Max 16 solenoids
Max 16 solenoidi **S**





MBE-24 see
***MBE-24** vedi* P. **B-35**

MANIFOLD OF K1/8 VALVES IN MULTIPOLE CONNECTION SYSTEM
BATTERIA MULTIPOLARE DI VALVOLE K1/8

MP □ -18- □□ - □□ - □□ - □□ - □□ - □□ - □□ □□ - □□

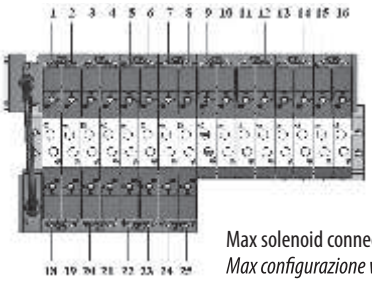
Valve series K / *Valvole serie K* **K**

Valve series JT / *Valvole serie JT* **T**

- **B** 5/2 ways double soilenoid valve(K52W2018) / *5/2 bistabile (K52W2018)*
- **C** 5/3 ways mid position closed (K53W2S618) / *5/3 centri chiusi (K53W2S618)*
- **D** 2x3/2 NC or 5/3 mid position open (K66W2018 o K53W2S918) / *2x3/2 NC o 5/3 centri aperti (K66W2018 o K53W2S918)*
- **E** 2x3/2 NO o 5/3 mid position pressurized (K99W2018 o K53W2S318) / *2x3/2 NO o 5/3 centri in pressione (K99W2018 o K53W2S318)*
- **F** 3/2NC +3/2NO (K96W2018) / *3/2NC +3/2NO (K96W2018)*
- **M** 5/2 ways single solenoid valve (K52W1018) / *5/2 monostabile (K52W1018)*
- **V** free place for single solenoid valve / *posto vuoto singolo solenoide*
- **W** free place for double solenoid valve / *posto vuoto doppio solenoide*

CS Solenoid (refer to page B-52) / *Solenoide CS (vedere pag. B-52)*

- **00** 24V dc
- **50** 24V ac



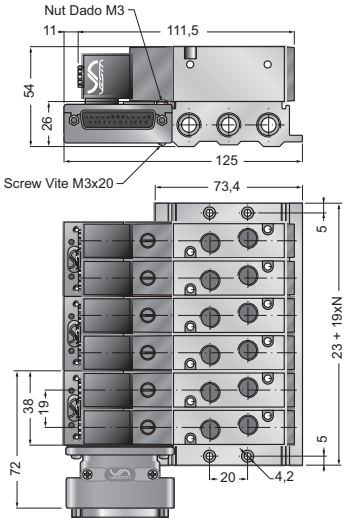
Max solenoid connections / *Max configurazione valvole*

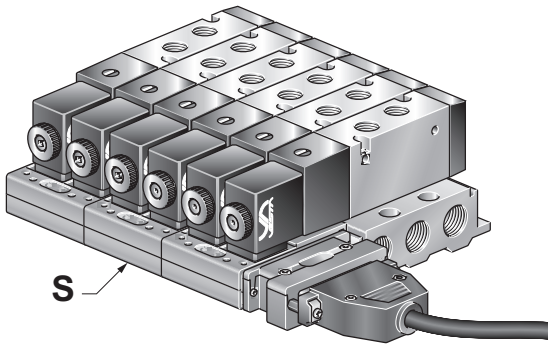
TECHNICAL FEATURES

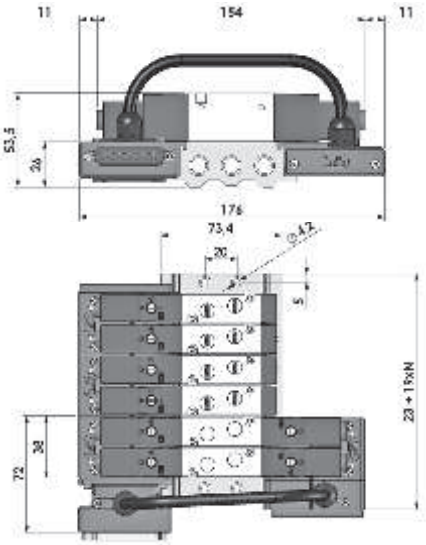
Working pressure	0-9bar
Environment temperature range	-10 °C ÷ +50 °C
Temperature range of medium	0 °C ÷ +40 °C
Valves	Refer to K1/8 series page B-42
Air flow	730Nl/min

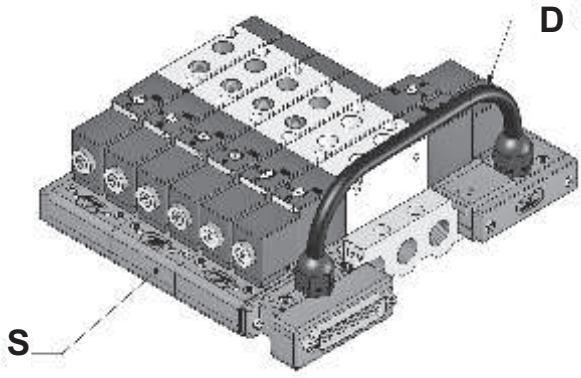
CARATTERISTICHE TECNICHE

Pressione esercizio	*0-9bar*
Temperatura ambiente	*-10 °C ÷ +50 °C*
Temperatura fluido	*0 °C ÷ +40 °C*
Valvole	*Vedere K1/8 pag. B-42*
Portata	*730Nl/min*









MPV T2

ELECTRICAL CONNECTION MODULE SIZE T2
MODULO DI COLLEGAMENTO ELETTRICO TAGLIA T2

MODULE FOR ASSEMBLING OF FOLLOWING MANIFOLD:

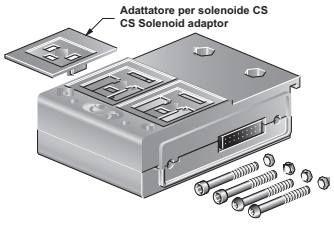
MODULO PER ASSEMBLARE LE SEGUENTI BATTERIE:

MPK-14

K1/4-JT/14 SOLENOID VALVES
ELETTROVALVOLE K1/4 - JT 1/4

MPB-8

DIRECT ACTUATED VALVES 3/2G1/8
ELETTROVALVOLE A COMANDO DIRETTO 3/2 G1/8

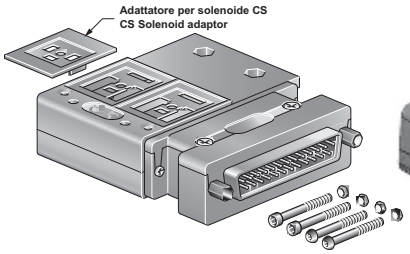


Connection for 2 valve stations
Connessione per 2 valvole

MPV T2 - ☐

S To use with cable MPW-SD25 Position N°0÷16
Per cavo MPW-SD25 Posizione N°0÷16

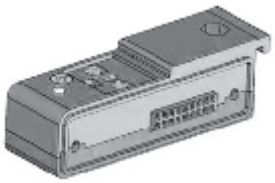
D To use with cable MPW-SD25 Position N°18÷25
Per cavo MPW-SD25 Posizione N°18÷25



FRONT connection for 2 valve stations
Connessione FRONTALE per 2 valvole

MPV T2 - S SBD25

S To use with cable MPW-SD25 Position N°0÷16
Per cavo MPW-SD25 Posizione N°0÷16



Single connection module for last odd position
Modulo di connessione finale per posizione dispari

MPV T2 - ☐

SL For single solenoid valve
Per valvole a singolo solenoide

DL For double solenoid valve
Per valvole a doppio solenoide

MANIFOLD OF DIRECT ACTUATED VALVES 3/2 NC - G1/8 IN MULTIPOLE CONNECTION SYSTEM
BATTERIA MULTIPOLARE DI ELETTROVALVOLE A COMANDO DIRETTO 3/2 NC G1/8

MPB-8- ☐ - ☐ - ☐☐ - ☐

Number of station valves
Numero posti
2, 4, 6, ..., 16

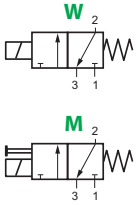
With override **M**
Manuale
Without override **W**
Senza manuale

MS Solenoid (refer to page B-36)
Solenoide MS (vedere pag. B-36)
24V dc: **00**
24V ac: **50**

S To use with cable MPW-SD 25 Position N°0÷16

Per cavo MPW-SD 25 Posizione N°0÷16

SIMBOLS / *SIMBOLI*



(*) Available upon request N.O. solenoid operator max 6 bar
Disponibile anche operatore N.A. su richiesta, max 6 bar

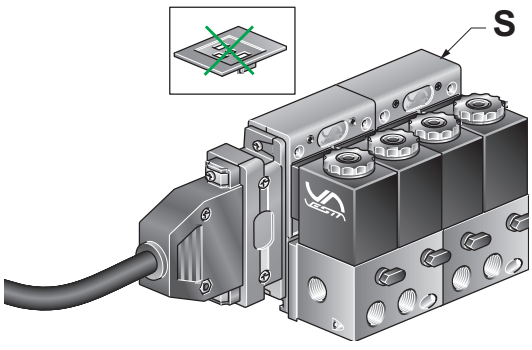
TECHNICAL FEATURES

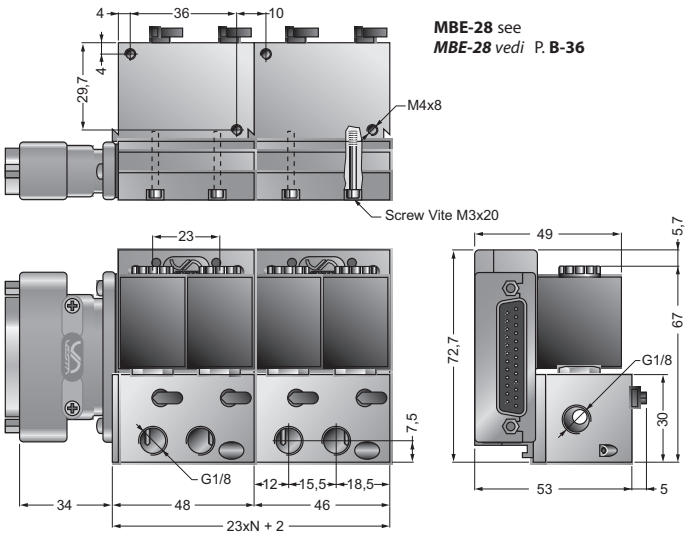
Flow section	Ø1,2mm
Nominal Flow	80Nl/min
Working pressure	0-9bar
Environment temperature range	-10 °C ÷ +50 °C
Temperature range of medium	0 °C ÷ +40 °C
Solenoids	Refer to MS series page B-36

CARATTERISTICHE TECNICHE

Diametro nominale	*Ø1,2mm*
Portata nominale	*80Nl/min*
Pressione esercizio	*0-9bar*
Temperatura ambiente	*-10 °C ÷ +50 °C*
Temperatura fluido	*0 °C ÷ +40 °C*
Solenoide	*Vedere MS pag. B-36*

Max 16 solenoids
Max 16 solenoidi





MBE-28 see
MBE-28 *vedi* P. **B-36**

MANIFOLD OF K1/4 VALVES IN MULTIPOLE CONNECTION SYSTEM
BATTERIA MULTIPOLARE DI VALVOLE K1/4

MP □ -14- □□-□□-□□-□□-□□-□□-□□-□□-□□

Valve series K / *Valvole serie K* **K**

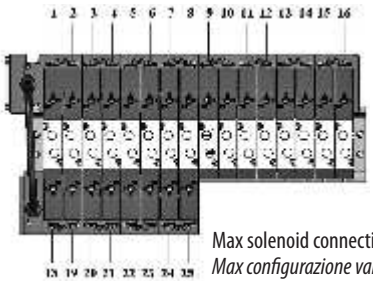
Valve series JT / *Valvole serie JT* **T**

- **B** 5/2 ways double soilenoid valve(K52W2014) / *5/2 bistabile (K52W2014)*
- **C** 5/3 ways mid position closed (K53W2S614) / *5/3 centri chiusi (K53W2S614)*
- **D** 2x3/2 NC o 5/3 mid position open (K66W2014 o K53W2S914) / *2x3/2 NC o 5/3 centri aperti (K66W2014 o K53W2S914)*
- **E** 2x3/2 NO o 5/3 mid position pressurized (K99W2014 o K53W2S314) / *2x3/2 NO o 5/3 centri in pressione (K99W2014 o K53W2S314)*
- **F** 3/2NC +3/2NO (K96W2014) / *3/2NC +3/2NO (K96W2014)*
- **M** 5/2 ways single solenoid valve (K52W1014) / *5/2 monostabile (K52W1014)*
- **V** free place for single solenoid valve / *posto vuoto singolo solenoide*
- **W** free place for double solenoid valve / *posto vuoto doppio solenoide*

CS Solenoid (refer to page B-52) / *Solenoide CS (vedere pag. B-52)*

00 24V dc

50 24V ac



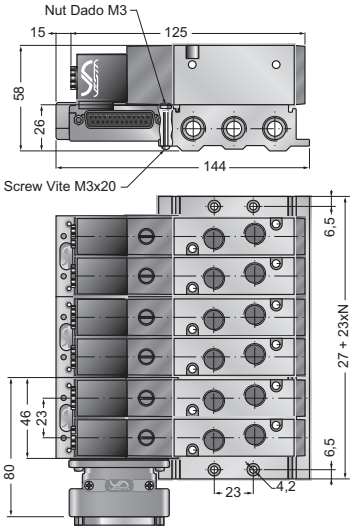
Max solenoid connections / *Max configurazione valvole*

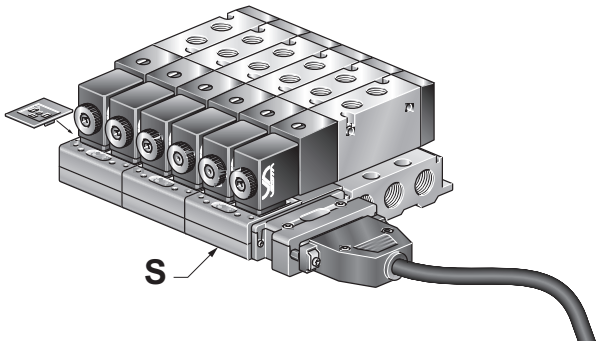
TECHNICAL FEATURES

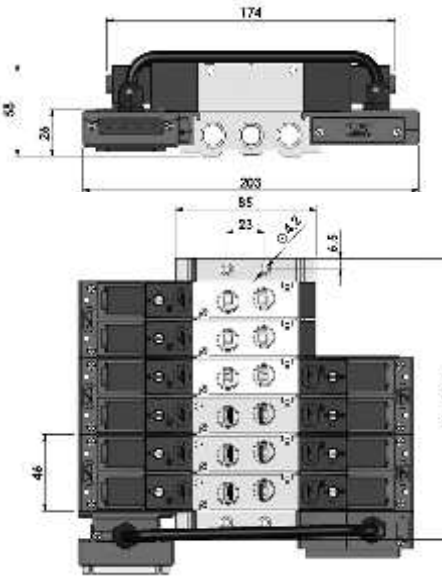
Working pressure	0-9bar
Environment temperature range	-10 °C ÷ +50 °C
Temperature range of medium	0 °C ÷ +40 °C
Valves	Refer to K1/4 series page B-42
Air flow	1300Nl/min

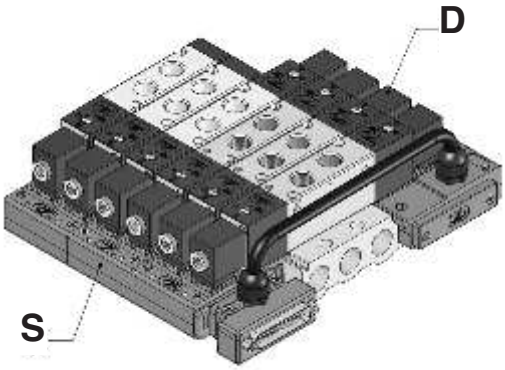
CARATTERISTICHE TECNICHE

Pressione esercizio	*0-9bar*
Temperatura ambiente	*-10 °C ÷ +50 °C*
Temperatura fluido	*0 °C ÷ +40 °C*
Valvole	*Vedere K1/4 pag. B-42*
Portata	*1300Nl/min*



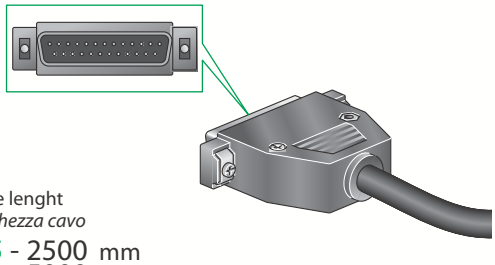






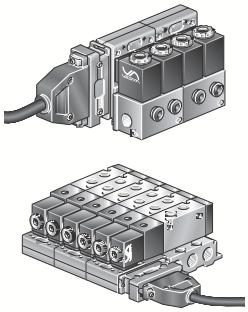
MPW-SD25...

CABLE FOR CONNECTION
CAVO DI CONNESSIONE



Cable lenght
Lunghezza cavo

025 - 2500 mm
050 - 5000 mm

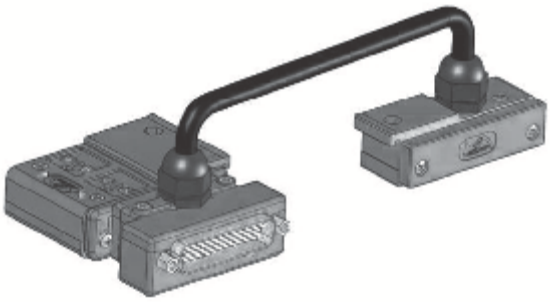


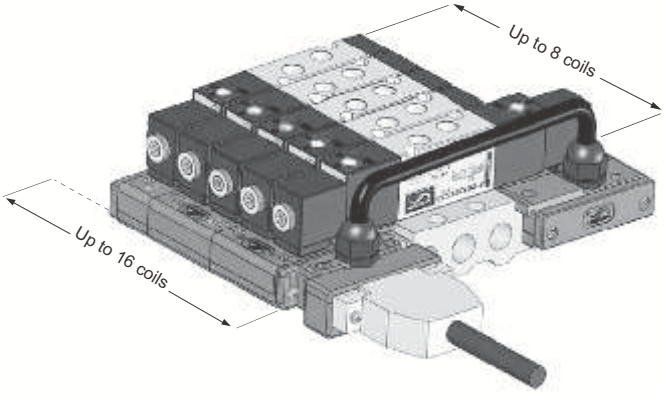
MPV T □ - BK

INITIAL COMMON CONNECTION KIT FOR DOUBLE SOLENOID VALVES
KIT DI CONNESSIONE INIZIALE PER BATTERIE DI VALVOLE A DOPPIO SOLENOIDE

1 For valve G1/8
Per valvole da G1/8

2 For valve G1/4
Per valvole da G 1/4

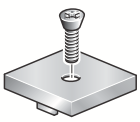




ACCESSORIES / *ACCESSORI*

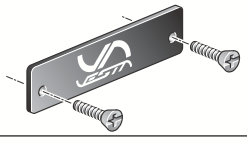
MPS

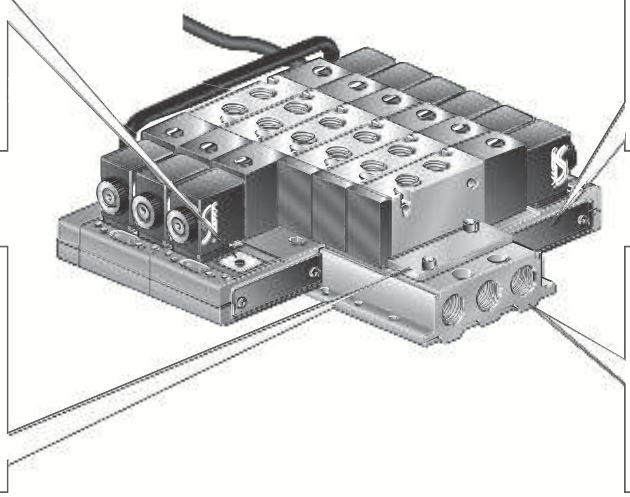
Plug for missing solenoid
Chiusura per solenoide mancante



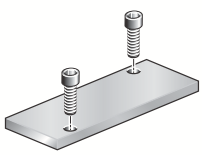
MPFP

End plug
Terminale di chiusura



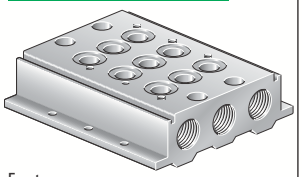


KPCH01 .



Features see:
Caratteristiche vedi: **Pag. B-52**

KME ...



Features see:
Caratteristiche vedi: **Pag. B-51**

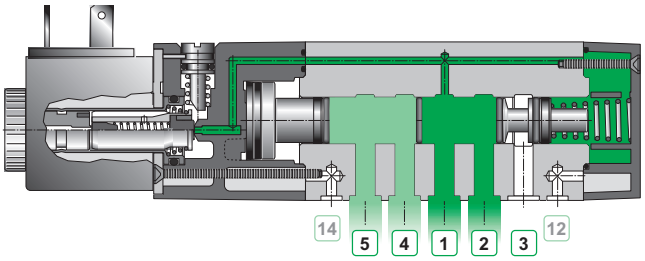
INDEX / *INDICE*

MINI VALVES AND MINI SOLENOID VALVES ISO 18 SERIES / *MINI VALVOLE E MINI ELETTROVALVOLE SERIE ISO 18*

BUILDING FEATURES ISO 24563 / *CARATTERISTICHE COSTRUTTIVE VALVOLE ISO 24563*

Series **SV . 18** valves and solenoid valves are built in compact dimensions for very flexible and small manifolds.
The solenoid valves, complete with coil and connector, follows EEC directives on the electromagnetic compatibility (89/336/EEC) and low voltage (73/23/EEC). The **SV . 18** valves are built with high quality materials and components, and thanks to this the quality, reliability and performances are very high

*Le valvole ed elettrovalvole Vesta serie **SV . 18** funzionano secondo il principio del cassetto bilanciato (vedi fig. **1** e **2**), presentano ingombri molto ridotti per l'assemblaggio in batterie compatte.*
*Le elettrovalvole complete di bobina e connettore, sono conformi alle direttive CEE relative alla compabilità elettromagnetica (89/336/CEE) ed alla bassa tensione (73/23/CEE). L'impiego di materiali e componenti di alta qualità conferisce alla serie **SV . 18** caratteristiche di qualità, prestazioni ed affidabilità molto elevate.*



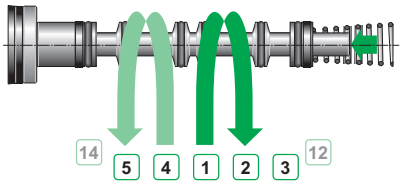
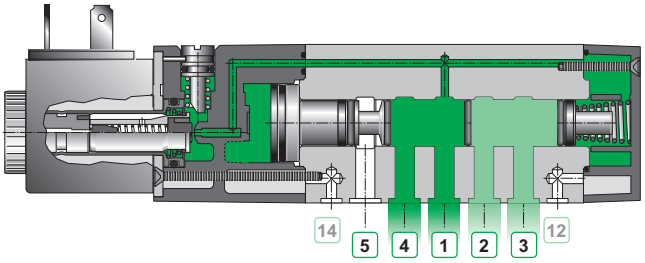


fig. 1

NORMAL POSITION / *POSIZIONE A RIPOSO*



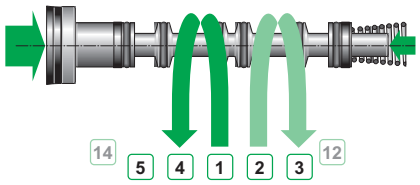


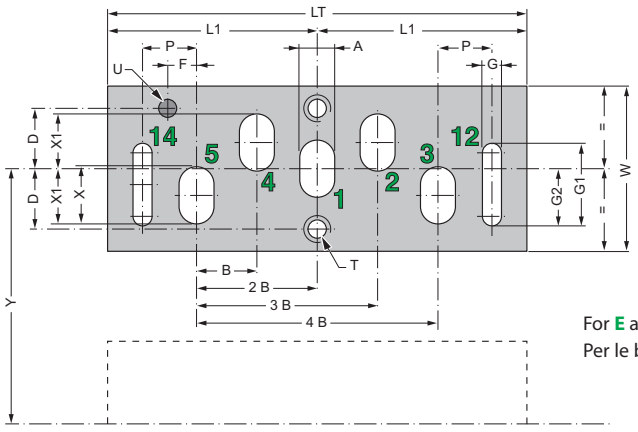
fig. 2

ACTUATED POSITION / *POSIZIONE DI LAVORO*

MOUNTING INTERFACE SURFACE ISO 24563 / *DIMENSIONI DEI PIANI DI POSA ISO 24563*

Standard **ISO - 24563**, indicates the main dimensions of the mounting interface surface; the minimun distance of each subbase and the port connection numbers as figure shows. VESTA subbase design is in complance with the VDMA standards.

*La norma **ISO - 24563**, emanata dall'Organismo Internazionale di Standardizzazione e accettata da tutti i grandi utilizzatori, stabilisce le dimensioni del piano di posa del distributore, l'interasse minimo tra due basi affiancate e la numerazione delle connessioni di entrata e di uscita come da schema a fianco riportato.*
Nella concezione delle basi VESTA, inoltre, si sono seguite le raccomandazioni VDMA che definiscono in maniera più precisa la geometria della base stessa.



For **E** and **EP** manifold version see
Per le basi versione **E** ed **EP** vedi ..... **Pag. B-66**

	A	B	D	F	G	G1	G2	L1	LT	P	T	U	W min.	X	X1	Y	Area mm²
ISO 18 mm	3,5	7	6,25	3	2	8	6	25	50	6	M3	Ø3,2 x 4	18	6,5	5,25	19	20

TECHNICAL FEATURES / *CARATTERISTICHE TECNICHE*

SERIE **SVP18 - SVE18**

COMMON TECHNICAL FEATURES SVP18 AND SVE18

Fixing	2 manifold holes Ø 3,1	Lubrication	Not required
Port connections	ISO -VDMA 24563 standard	Medium	Filtered air
Flow section	Ø 4,5 mm	Reference pressure	6 bar
Ambient temperature range	-10 °C / +50 °C	Nominal air flow 5/2 valves	480 Nl/min
Temperature range of medium	0 °C / +40 °C	Nominal air flow 5/3 valves	390 Nl/min

PNEUMATIC VALVES FEATURES SVP18

SVP18 52 100	Nominal pilot pressure	3,1 bar (9 bar)	
	Nominal max. frequence	30 Hz	
	Operating pressure range	**2,5 ÷ 9 bar**	
SVP18 52 2D0	Nominal pilot (12) pressure	1,35 bar	
	Nominal pilot (14) pressure	0,97 bar	
	Nominal max. frequence	30 Hz	
	Operating pressure range	**0 ÷ 9 bar**	
SVP18 53 260	Nominal pilot pressure	3 bar	
	Nominal max. frequence	10 Hz	
	Operating pressure range	**0 ÷ 9 bar**	
SVP18 52 200	Nominal pilot pressure	0,97 bar	
	Nominal max. frequence	33 Hz	
	Operating pressure range	**0 ÷ 9 bar**	
SVP18 53 230	Nominal pilot pressure	3 bar	
	Nominal max. frequence	10 Hz	
	Operating pressure range	**0 ÷ 9 bar**	
SVP18 53 290	Nominal pilot pressure	3 bar	
	Nominal max. frequence	10 Hz	
	Operating pressure range	**0 ÷ 9 bar**	

SOLENOID VALVES FEATURES SVE18

		AC	DC
SVE18 52 100	Nominal max. frequence	27 Hz	17 Hz
	Operating pressure range	**2,5 ÷ 9 bar**	
SVE18 53 230	Nominal max. frequence	12 Hz	10 Hz
	Operating pressure range	**3 ÷ 9 bar**	
SVE18 53 290	Nominal max. frequence	12 Hz	10 Hz
	Operating pressure range	**3 ÷ 9 bar**	
SVE18 52 200	Nominal max. frequence	42 Hz	34 Hz
	Operating pressure range	**1,5 ÷ 9 bar**	
SVE18 53 260	Nominal max. frequence	12 Hz	10 Hz
	Operating pressure range	**3 ÷ 9 bar**	

For electrical features solenoid pilot SVE18 serie see pp. B-52

CARATTERISTICHE TECNICHE COMUNI SVP18 *E* SVE18

Fissaggio	*2 fori Ø 3,1 per montaggio su base*	*Lubrificazione*	*Non necessaria*
Connessioni	*ISO -VDMA 24563 standard*	*Fluido*	*Aria filtrata*
Diametro nominale	*Ø 4,5 mm*	*Pressione nominale*	*6 bar*
Temperatura ambiente	*-10 °C / +50 °C*	*Portata nominale valvole 5/2*	*480 Nl/min*
Temperatura fluido	*0 °C / +40 °C*	*Portata nominale valvole 5/3*	*390 Nl/min*

CARATTERISTICHE VALVOLE PNEUMATICHE SVP18

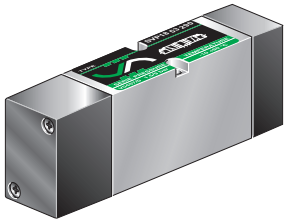
SVP18 52 100	*Pressione di pilotaggio nominale*	*3,1 bar (9 bar)*	
	Frequenza max. nominale	*30 Hz*	
	Pressione di esercizio	***2,5 ÷ 9 bar***	
SVP18 52 2D0	*Pressione di pilotaggio (12) nominale*	*1,35 bar*	
	Pressione di pilotaggio (14) nominale	*0,97 bar*	
	Frequenza max. nominale	*30 Hz*	
	Pressione di esercizio	***0 ÷ 9 bar***	
SVP18 53 260	*Pressione di pilotaggio nominale*	*3 bar*	
	Frequenza max. nominale	*10 Hz*	
	Pressione di esercizio	***0 ÷ 9 bar***	
SVP18 52 200	*Pressione di pilotaggio nominale*	*0,97 bar*	
	Frequenza max. nominale	*33 Hz*	
	Pressione di esercizio	***0 ÷ 9 bar***	
SVP18 53 230	*Pressione di pilotaggio nominale*	*3 bar*	
	Frequenza max. nominale	*10 Hz*	
	Pressione di esercizio	***0 ÷ 9 bar***	
SVP18 53 290	*Pressione di pilotaggio nominale*	*3 bar*	
	Frequenza max. nominale	*10 Hz*	
	Pressione di esercizio	***0 ÷ 9 bar***	

CARATTERISTICHE ELETTROVALVOLE SVE18

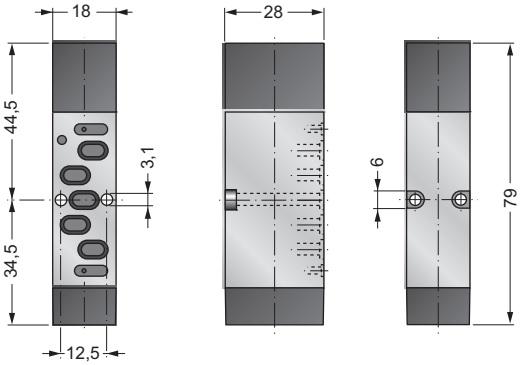
		AC	DC
SVE18 52 100	*Frequenza max. nominale*	*27 Hz*	*17 Hz*
	Pressione di esercizio	***2,5 ÷ 9 bar***	
SVE18 53 230	*Frequenza max. nominale*	*12 Hz*	*10 Hz*
	Pressione di esercizio	***3 ÷ 9 bar***	
SVE18 53 290	*Frequenza max. nominale*	*12 Hz*	*10 Hz*
	Pressione di esercizio	***3 ÷ 9 bar***	
SVE18 52 200	*Frequenza max. nominale*	*42 Hz*	*34 Hz*
	Pressione di esercizio	***1,5 ÷ 9 bar***	
SVE18 53 260	*Frequenza max. nominale*	*12 Hz*	*10 Hz*
	Pressione di esercizio	***3 ÷ 9 bar***	

Caratteristiche elettriche bobina per elettrovalvole* SVE18 *vedi pp. B-52

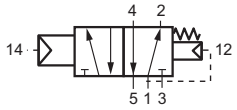
SVP18 52 100



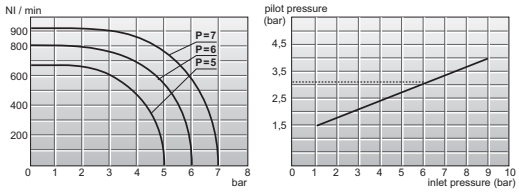
VALVE / *VALVOLA* 5/2
SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN
COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA



SIMBOL / *SIMBOLO*



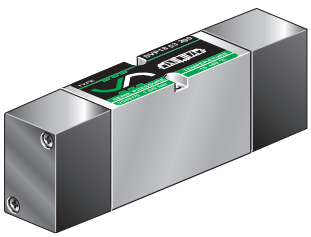
DIAGRAMS / *DIAGRAMMI*



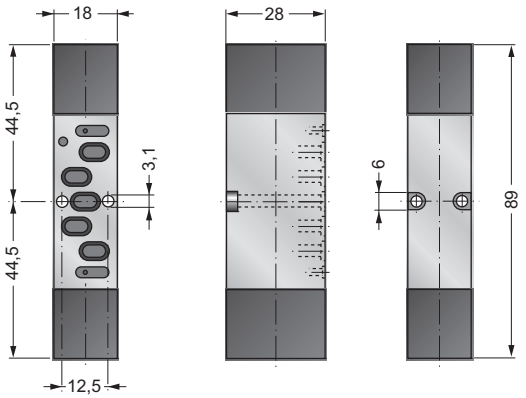
AIR FLOW DIAGRAM
DIAGRAMMA DELLE PORTATE

PILOT PRESSURE / INLET PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

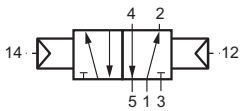
SVP18 52 200



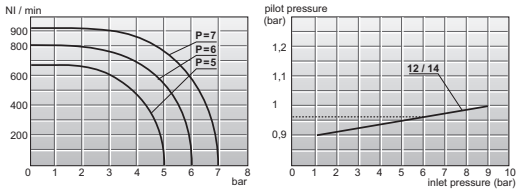
VALVE / *VALVOLA* 5/2
DOUBLE PNEUMATIC PILOT
DOPPIO COMANDO PNEUMATICO



SIMBOL / *SIMBOLO*



DIAGRAMS / *DIAGRAMMI*



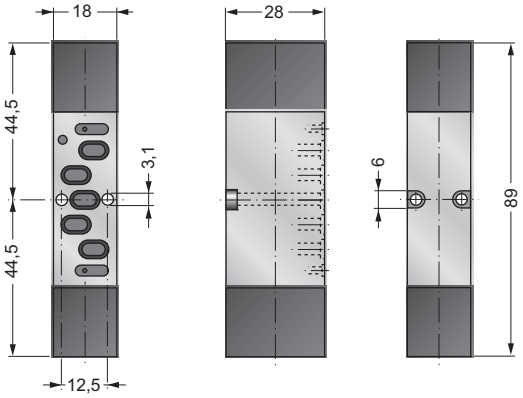
AIR FLOW DIAGRAM
DIAGRAMMA DELLE PORTATE

PILOT PRESSURE / INLET PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

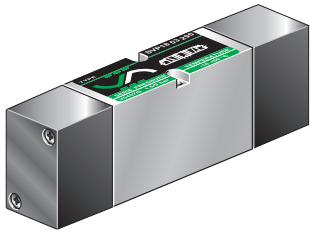
VALVE / *VALVOLA* 5/2

DOUBLE DIFFERENTIAL PNEUMATIC PILOT

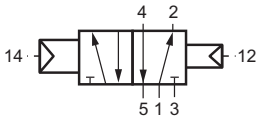
DOPPIO COMANDO PNEUMATICO DIFFERENZIALE



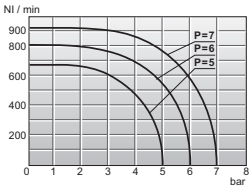
SVP18 52 2D0



SIMBOL / *SIMBOLO*

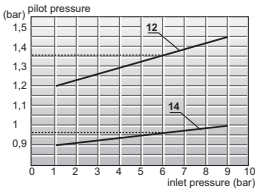


DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM

DIAGRAMMA DELLE PORTATE



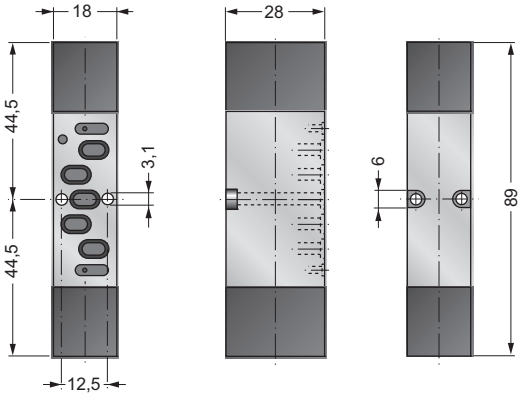
PILOT PRESSURE / INLET PRESSURE

DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

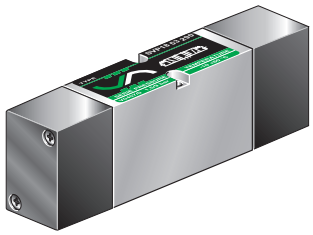
VALVE / *VALVOLA* 5/3

DOUBLE PNEUMATIC PILOT - SPRING RETURN

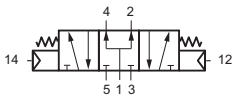
DOPPIO COMANDO PNEUMATICO - RITORNO A MOLLA



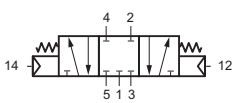
SVP18 53 2 . 0



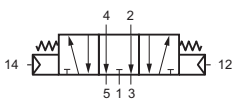
SIMBOLS / *SIMBOLI*



SVP18 53 230

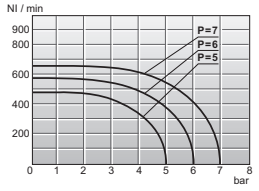


SVP18 53 260

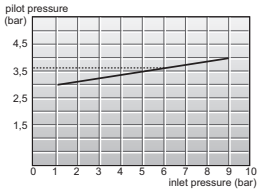


SVP18 53 290

DIAGRAMS / *DIAGRAMMI*



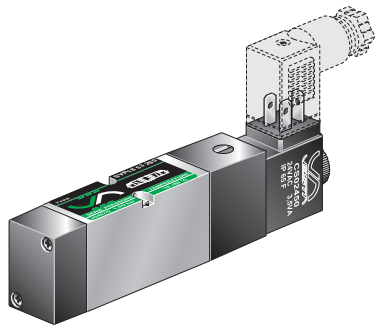
AIR FLOW DIAGRAM / *DIAGRAMMA DELLE PORTATE*



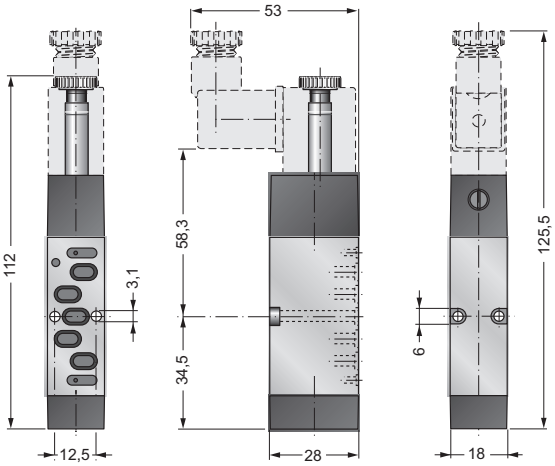
PILOT PRESSURE / INLET PRESSURE

DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

SVE18 52 100 - .....



SOLENOID VALVE / *ELETTROVALVOLA* 5/2
SINGLE SOLENOID PILOT - INTERNAL PRESSURE RETURN
COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA



SIMBOL / *SIMBOLO*

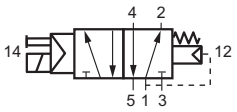
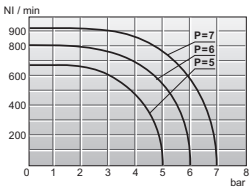


DIAGRAM / *DIAGRAMMA*

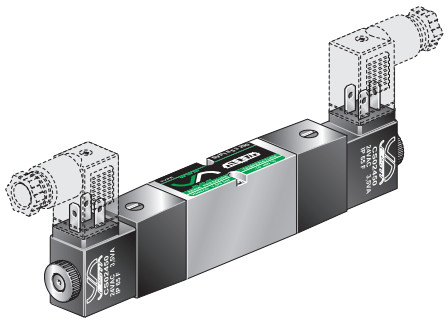


AIR FLOW DIAGRAM / *DIAGRAMMA DELLE PORTATE*

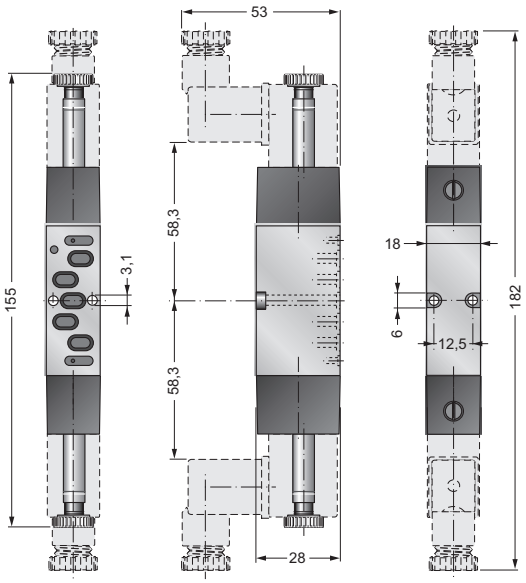
CODES / *CODICI*

Ordination code *Codice ordinazione*	**Voltage** *Tensione*
SVE18 52 100-00000	No coil / *Senza solenoide*
SVE18 52 100-01200	12 V DC
SVE18 52 100-02400	24 V DC
SVE18 52 100-02450	24 V 50/60Hz AC
SVE18 52 100-11550	115 V 50/60Hz AC
SVE18 52 100-23050	230 V 50/60Hz AC

SVE18 52 200 - .....



SOLENOID VALVE / 5/2
DOUBLE SOLENOID PILOT
DOPPIO COMANDO ELETTROPNEUMATICO



SIMBOL / *SIMBOLO*

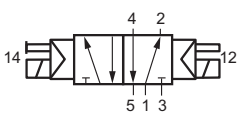
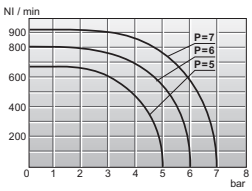


DIAGRAM / *DIAGRAMMA*



AIR FLOW DIAGRAM / *DIAGRAMMA DELLE PORTATE*

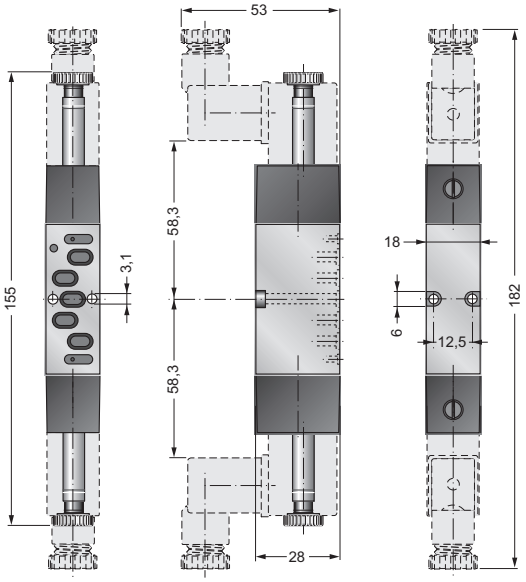
CODES / *CODICI*

Ordination code *Codice ordinazione*	**Voltage** *Tensione*
SVE18 52 200-00000	No coils / *Senza solenoidi*
SVE18 52 200-01200	12 V DC
SVE18 52 200-02400	24 V DC
SVE18 52 200-02450	24 V 50/60Hz AC
SVE18 52 200-11550	115 V 50/60Hz AC
SVE18 52 200-23050	230 V 50/60Hz AC

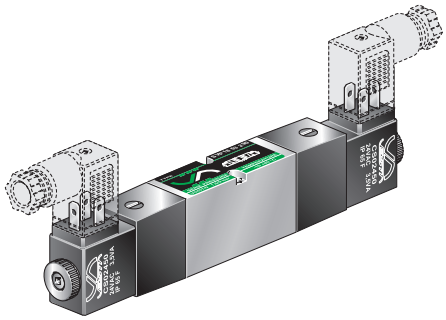
SOLENOID VALVE / *ELETTROVALVOLA* 5/3

DOUBLE SOLENOID PILOT

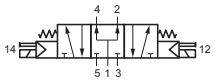
DOPPIO COMANDO ELETTROPNEUMATICO



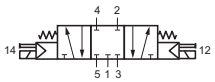
SVE18 53 2 . 0 - .....



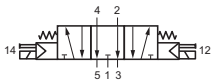
SIMBOL / *SIMBOLO*



SVE18 53 230 -.....

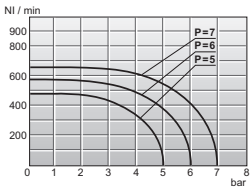


SVE18 53 260 -.....



SVE18 53 290 -.....

DIAGRAM / *DIAGRAMMA*



AIR FLOW DIAGRAM / *DIAGRAMMA DELLE PORTATE*

CODES / *CODICI*

Ordination code *Codice ordinazione*	Voltage *Tensione*
SVE18 53 2 . 0-00000	No coils / *Senza solenoidi*
SVE18 53 2 . 0-01200	12 V DC
SVE18 53 2 . 0-02400	24 V DC
SVE18 53 2 . 0-02450	24 V 50/60Hz AC
SVE18 53 2 . 0-11550	115 V 50/60Hz AC
SVE18 53 2 . 0-23050	230 V 50/60Hz AC

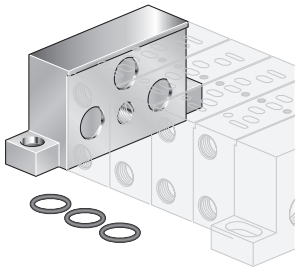
ISO 18 MANIFOLD / *BATTERIA ISO 18*

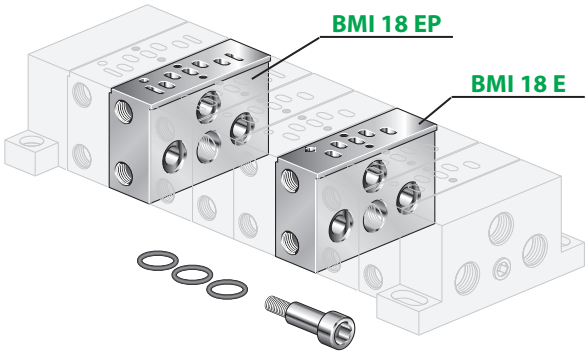
BTC 18 END PLATE
BASE DI CHIUSURA

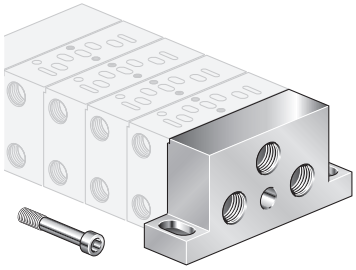
BMI 18 E MIDDLE PLATE FOR SOLENOID VALVE MOUNTING
BASE INTERMEDIA PER IL MONTAGGIO DI ELETTROVALVOLE

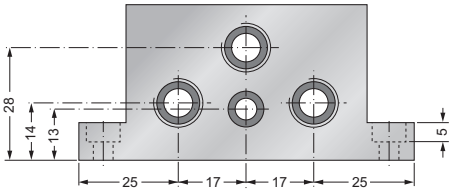
BMI 18 EP MIDDLE PLATE FOR PNEUMATIC AND SOLENOID VALVE MOUNTING
BASE INTERMEDIA PER IL MONTAGGIO DI VALVOLE PNEUMATICHE ED ELETTROPNEUMATICHE

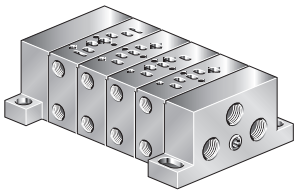
BTI 18 INLET END PLATE
BASE DI INGRESSO

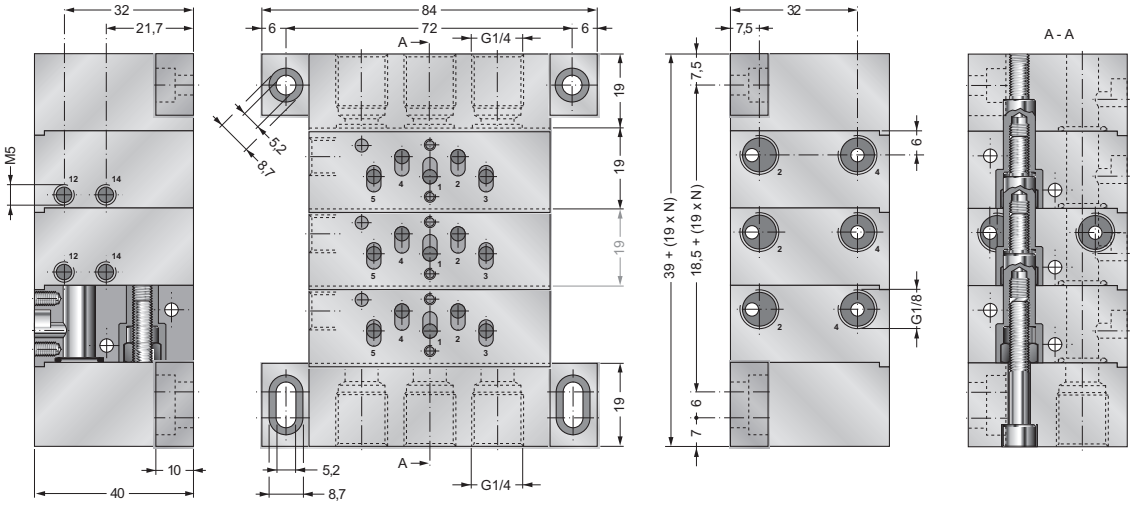






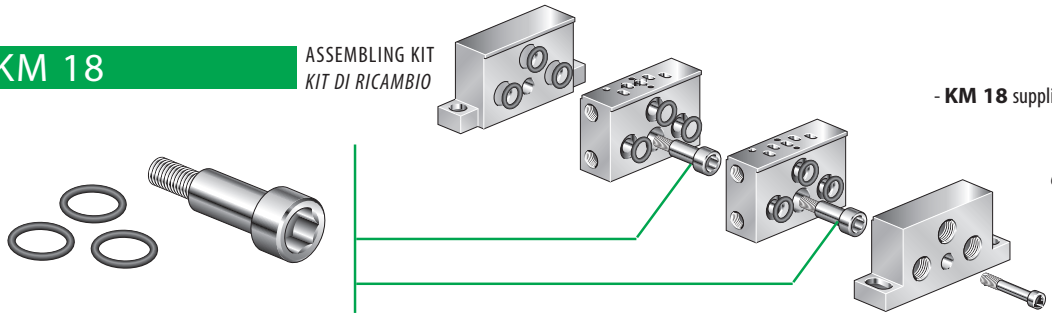






KM 18

ASSEMBLING KIT
KIT DI RICAMBIO



- **KM 18** supplied with **BMI 18 E** and **BTI 18 P**,
- Supplied separatly on demand.

*- Il kit **KM 18** viene fornito con le basi **BMI 18 E** e **BTI 18 P**,*

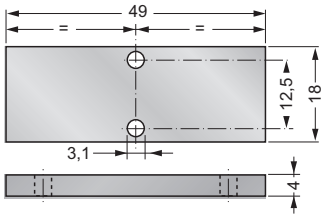
- A richiesta può essere fornito come ricambio.

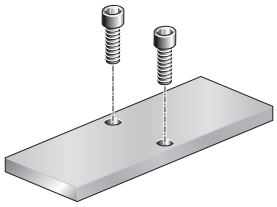
PLUG FLAT
CHIUSURA POSTO INUTILIZZATO

PCBM 18

Plug flat includes assembling screws.

La piastrina di chiusura dei posti non utilizzati della base é fornita con le relative viti di fissaggio.





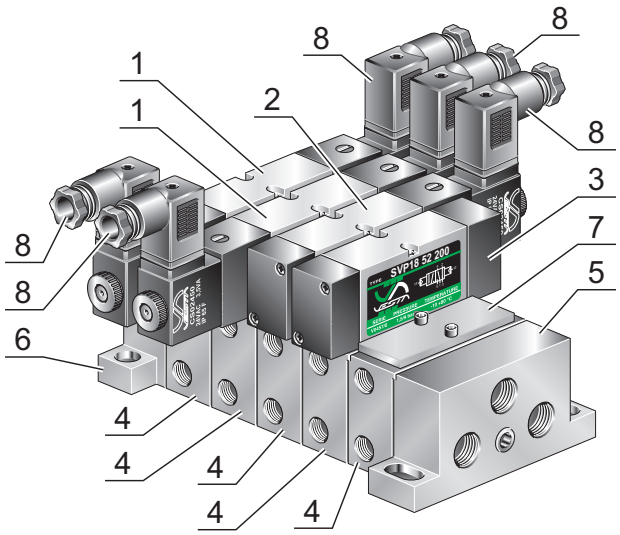
HOW TO ASSEMBLE ISO 18 MANIFOLD / *ESEMPIO DI ASSEMBLAGGIO BATTERIA ISO 18*

Components needed to assemble the manifold in figure.
Esempio di componenti necessari a realizzare la batteria raffigurata.

Position *Posizione*	**Quantity** *Quantità*	**Ordination code** *Codice ordinazione*
1	N° 2	**SVE18 52 200 - 02450**
2	N° 1	**SVE18 52 100 - 02450**
3	N° 1	**SVP18 52 200**
4	N° 5	**BMI 18**
5	N° 1	**BTI 18**
6	N° 1	**BTC 18**
7	N° 1	**PCBM 18**
8	N° 5	**CEP/0**

- Valves fixing screws and seals are supplied with valves.
- Subbase fixing screws not supplied.
- Manifold suppied assembled on demand.
- ***KM 18*** *available as spare part separatly.*

- *Le viti e le guarnizioni per il fissaggio vengono fornite con le valvole.*
- *Il fissaggio alla base è a cura del cliente.*
- *A richiesta, la base può essere fornita preassemblata.*
- *A richiesta, il kit* ***KM 18*** *può essere fornito come ricambio.*

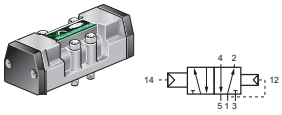


For electrical features solenoid pilot see p. B-52.
Caratteristiche elettriche bobina per elettrovalvole vedi p. B-52.

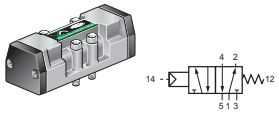
INDEX / *INDICE*

(*) **ATEX** versions see / *Versioni* **ATEX** *vedi P.* ***B-113***

VALVES AND SOLENOID VALVES ISO 5599 SIZE 1 / *VALVOLE E ELETTROVALVOLE ISO 5599 TAGLIA 1*

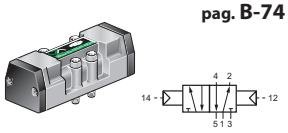


SVP4 52 100
SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN
COMANDO PNEUMATICO - RIPOSIZIONAMENTO PNEUMATICO



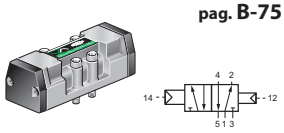
(*) **SVP4 52 1M0**
SINGLE PNEUMATIC PILOT - SPRING RETURN
COMANDO PNEUMATICO - RIPOSIZIONAMENTO MOLLA MECCANICA

pag. **B-74**



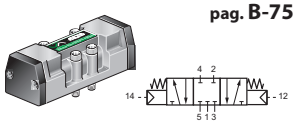
(*) **SVP4 52 200**
DOUBLE PNEUMATIC PILOT
DOPPIO COMANDO PNEUMATICO

pag. **B-75**

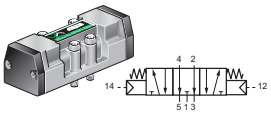


SVP4 52 2D0
DOUBLE DIFFERENTIAL PNEUMATIC PILOT
DOPPIO COMANDO PNEUMATICO DIFFERENZIALE

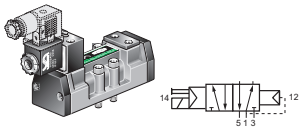
pag. **B-75**



SVP4 53 260
DOUBLE PNEUMATIC PILOT (CENTRE POSITION CLOSED)
DOPPIO COMANDO PNEUMATICO (CENTRI CHIUSI)



SVP4 53 290
DOUBLE PNEUMATIC PILOT (CENTRE POSITION OPEN)
DOPPIO COMANDO PNEUMATICO (CENTRI APERTI)



SVE5 52 100 - .....
SINGLE SOLENOID PILOT - INTERNAL PRESSURE RETURN
COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO PNEUMATICO

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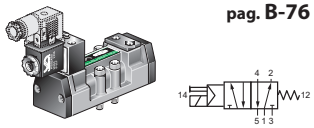
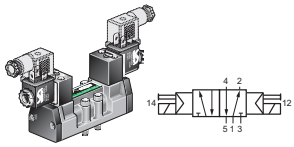
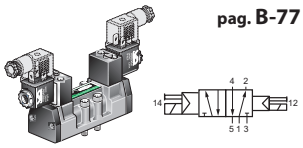


(*) **SVE5 52 1M0 - .....**
SINGLE SOLENOID PILOT - SPRING RETURN
COMANDO ELETTROPNEUMATICO - RIPOSIZ. MOLLA MECCANICO

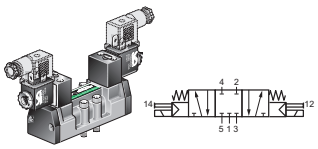


(*) **SVE5 52 200 - .....**
DOUBLE SOLENOID PILOT
DOPPIO COMANDO ELETTROPNEUMATICO

pag. **B-77**



SVE5 52 2D0 - .....
DOUBLE DIFFERENTIAL SOLENOID PILOT
DOPPIO COMANDO ELETTROPNEUMATICO DIFFERENZIALE



SVE5 53 260 - .....
DOUBLE SOLENOID PILOT (CENTRE POSITION CLOSED)
DOPPIO COMANDO ELETTROPNEUMATICO (CENTRI CHIUSI)

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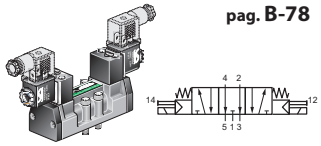

SVE5 53 290 - .....
DOUBLE SOLENOID PILOT (CENTRE POSITION OPEN)
DOPPIO COMANDO ELETTROPNEUMATICO (CENTRI APERTI)

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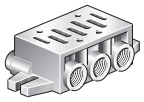
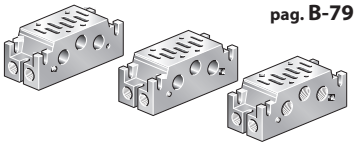
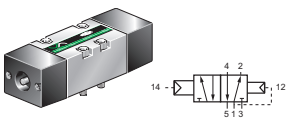


(*) **BS 1**
ISO 5599 SINGLE MANIFOLD BASE SIZE 1
BASE SINGOLA ISO 5599 TAGLIA 1



(*) **BTC 1** (*) **BMI 1** (*) **BTI 1**
ISO 5599 MODULAR MANIFOLD BASES SIZE 1
BASI MODULARI ISO 5599 TAGLIA 1

VALVES AND SOLENOID VALVES ISO 5599 SIZE 2 / *VALVOLE E ELETTROVALVOLE ISO 5599 TAGLIA 2*



SVP2 52 100
SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN
COMANDO PNEUMATICO - RIPOSIZIONAMENTO PNEUMATICO

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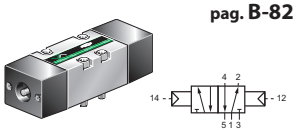
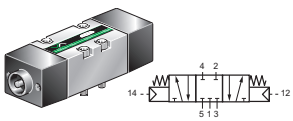
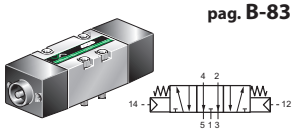


SVP2 52 200
DOUBLE PNEUMATIC PILOT
DOPPIO COMANDO PNEUMATICO

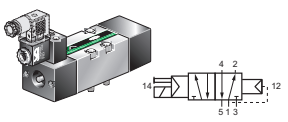


SVP2 53 260
DOUBLE PNEUMATIC PILOT (CENTRE POSITION CLOSED)
DOPPIO COMANDO PNEUMATICO (CENTRI CHIUSI)

pag. **B-83**

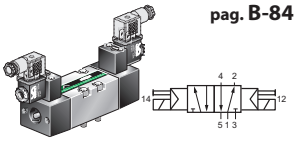


SVP2 53 290
DOUBLE PNEUMATIC PILOT (CENTRE POSITION OPEN)
DOPPIO COMANDO PNEUMATICO (CENTRI APERTI)

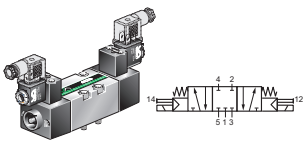


SVE2 52 100 - .....
SINGLE SOLENOID PILOT - INTERNAL PRESSURE RETURN
COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO PNEUMATICO

pag. **B-84**



SVE2 52 200 - .....
DOUBLE SOLENOID PILOT
DOPPIO COMANDO ELETTROPNEUMATICO



SVE2 53 260 - .....
DOUBLE SOLENOID PILOT (CENTRE POSITION CLOSED)
DOPPIO COMANDO ELETTROPNEUMATICO (CENTRI CHIUSI)

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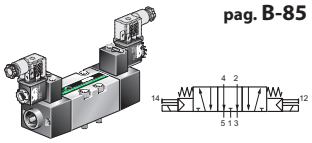
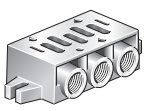


SVE2 53 290 - .....
DOUBLE SOLENOID PILOT (CENTRE POSITION OPEN)
DOPPIO COMANDO ELETTROPNEUMATICO (CENTRI APERTI)



BS 2
ISO 5599 SINGLE MANIFOLD BASE SIZE 2
BASE SINGOLA ISO 5599 TAGLIA 2

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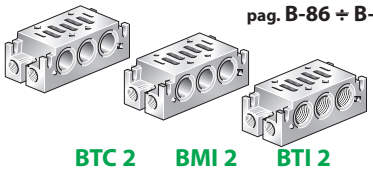
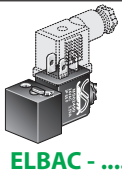
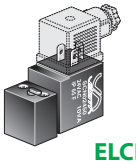


BTC 2 **BMI 2** **BTI 2**
ISO 5599 MODULAR MANIFOLD BASES SIZE 2
BASI MODULARI ISO 5599 TAGLIA 2



ELBAC - .....
CNOMO SOLENOID VALVE 2,5 Watt - 3,5 V A COIL
ELETTROPILOTA CNOMO CON BOBINA 2,5 Watt - 3,5 V A

pag. **B-88 ÷ B-89**

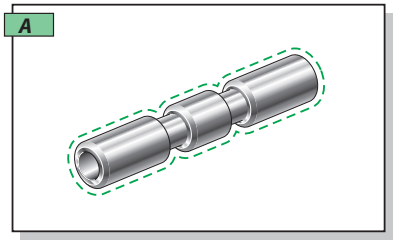


ELCDC - .....
CNOMO SOLENOID VALVE 2,5 Watt - 3,5 V A COIL
ELETTROPILOTA CNOMO CON BOBINA 2,5 Watt - 3,5 V A

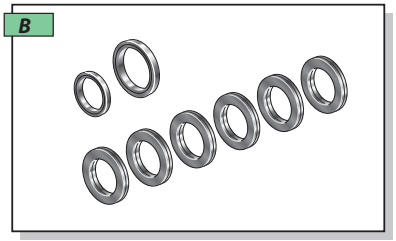
BUILDING FEATURES / *CARATTERISTICHE COSTRUTTIVE*

Valves and solenoid valves series **SVE** and **SVP** are manifactured according to the ISO 5599/1 standards (see here below).
The choice of high quality materials and the technical solution adopted allows to the ISO valves to reach a good performance even in harsh environmental conditions. The spool, made by a light alloy aluminium, nickel treated by Niploy Process (see fig. **A**)to give its surface a smooth finisch and a better resistace to aggressive agent. Its particular shape allows high nominal flow rates (see fig.**D**) and the combination with self lubricating lip rubber seals (see fig.**B**) bring to reduced internal friction (see fig.**C**) and provides the valve with a long lasting durable life span.
The ISO valves can operate continuosly without lubrication (see fig.**E**) and are sealed against working environment.

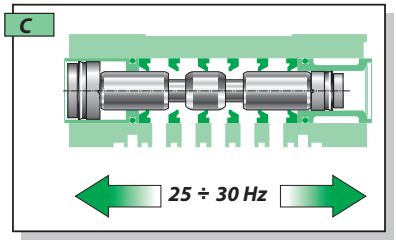
*Le valvole ed elettrovalvole VESTA serie **SVE** e **SVP** sono prodotte in conformità alle normative ISO 5599/1 (si veda la scheda tecnica a fondo pagina).*
Le soluzioni tecniche adottate ed i materiali impiegati hanno permesso di realizzare un prodotto che presenta elevate prestazioni funzionali anche in condizioni di impiego particolarmente gravose.
*La spola, costruita in lega leggera e progettata per consentire elevate portate nominali (**D**),viene trattata superficialmente al nickel (Niploy Process) (**A**)onde acquisire una durezza maggiore ed una più elevata resistenza agli agenti aggressivi. La combinazione tra la spola e le guarnizioni in elastomero nitrilico con profilo del labbro anti-usura (**B**), permette, accanto ad una riduzione degli attriti, una alta velocità di scambio e cicli di lavoro elevati (**C**), garantendo una maggiore durata della meccanica interna. Tutti i modelli di valvola serie **SVE** e **SVP** possono essere utilizzati anche in assenza di lubrificazione (**E**). L'ermeticità di funzionamento verso l'ambiente di lavoro ne fa inoltre un prodotto adatto all'impiego in settori cosiddetti "difficili" (**F**).*
Nelle pagine che seguono tutte le caratteristiche funzionali di ciascuna valvola sono convalidate dal Dipartimento di Meccanica del Politecnico di Torino.



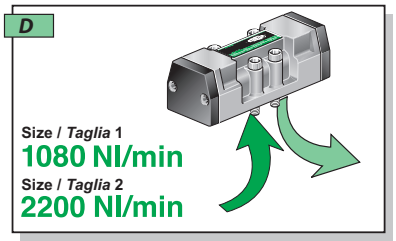
Light alloy spool with Niploy Process treated surface.
Spola in lega leggera con trattamento superficiale Niploy Process.



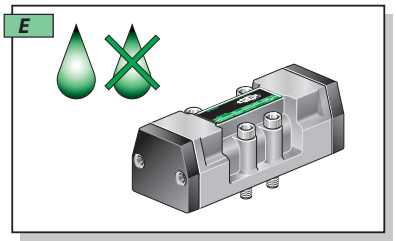
Self lubricating lip rubber seals.
Guarnizioni in elastomero nitrilico con profilo del labbro antiusura.



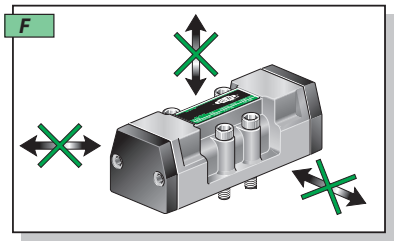
High working frequency.
Alta velocità di scambio per cicli di lavoro elevati.



Nominal air flow (1080 and 2200 Nl/min 5/2 valves).
Alta portata nominale (1080 e 2200 Nl/min per le valvole 5/2).



Possibility of operating continuosly without lubrication.
Possibilità di funzionamento continuo privo di lubrificazione.

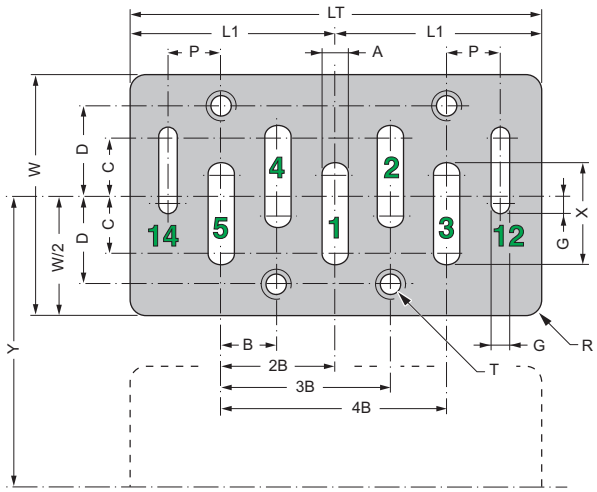


Sealed against working environment.
Ermeticità di funzionamento verso l'ambiente di lavoro.

MOUNTING INTERFACE SURFACE ISO 5599 / 1 / *DIMENSIONI DEI PIANI DI POSA ISO 5599 / 1*

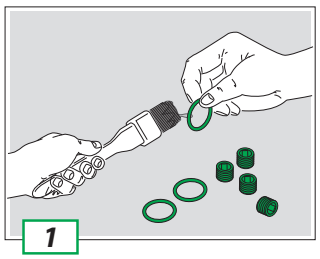
Standard **ISO 5599/1**, indicates the main dimensions of the mounting interface surface; the minimun distance of each subbase and the port connection numbers as figure shows.
While VESTA subbase design is in complance with the CEPTOP standards and the solenoid pilot mounting interface surface follows the CNOMO standard.

*La norma **ISO 5599/1**, emanata dall'Organismo Internazionale di Standardizzazione e accettata da tutti i grandi utilizzatori, stabilisce le dimensioni del piano di posa del distributore, l'interasse minimo tra due basi affiancate e la numerazione delle connessioni di entrata e di uscita come da schema a fianco riportato.*
Nella concezione delle basi VESTA, inoltre, si sono seguite le raccomandazioni CETOP che definiscono in maniera più precisa la geometria della base stessa.
Il piano di posa dell'elettropilota, infine, é conforme a quanto previsto dalle normative CNOMO.



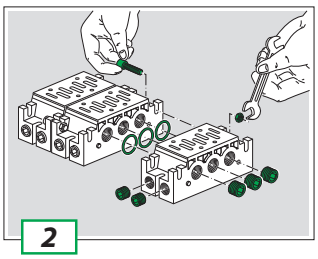
	A	B	C	D	G	L1 min.	LT min.	P	R max	T	W min.	X	Y min.	
SIZE 1	4,5	9	9	14	3	32,5	65	8,5	2,5	M5x0,8	38	16,5	43	*TAGLIA 1*
SIZE 2	7	12	10	19	3	40,5	81	10	3	M6x1	50	22	56	*TAGLIA 2*

HOW TO ASSEMBLE MANIFOLDS AND RELATED ACCESSORIES
CONSIGLI DI MONTAGGIO DELLE BASI MODULARI E RELATIVI ACCESSORI



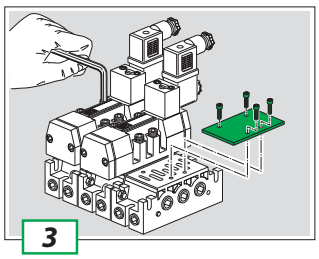
Before assembling the single subbases :
- lubricate seals with grease;
- cover all male thread with teflon or glue.

Prima di assemblare tra di loro le basi lubrificare le guarnizioni con apposito grasso, rivestire la parte filettata dei tappi di chiusura delle connessioni inutilizzate nonché dei raccordi di collegamento con collante fermafiletti o teflon, avendo cura che i residui non vengano dispersi nei condotti.



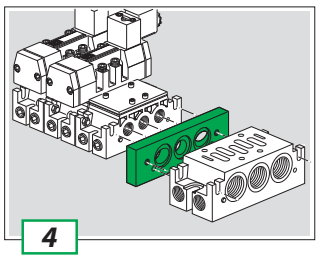
Verify the right position of the seals to avoid leakages.
Fix the fixing screws untill tight.

E' importante verificare il corretto montaggio delle guarnizioni sulle relative sedi per evitare che durante il serraggio delle basi possano subire schiacciamenti o tagli.
Posizionare inoltre i bulloni di fissaggio completamente in fondo alle rispettive asole per garantire la stabilità del fissaggio.



Lubricate coupling valve seals.
Close the unused subbase with a flat plate.

Lubrificare la guarnizione di accoppiamento delle valvole e procedere al montaggio delle stesse.
Chiudere le basi eventualmente inutilizzate con l'apposita piastrina di chiusura.



It is possible to interface manifold size 1 and 2 with the **INTF 1-2** adapter plate, following the assembly instruction above indicated.

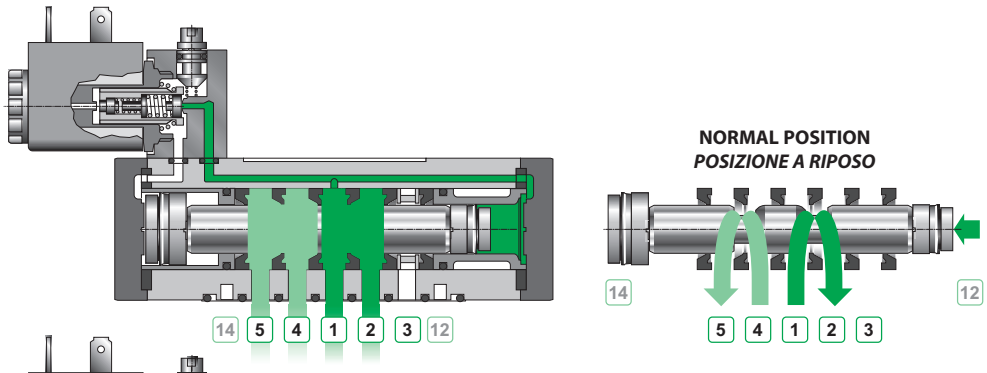
*E' possibile interfacciare basi di taglia 1 con basi di taglia 2 per mezzo dell'interfaccia **INTF 1-2**, seguendo le stesse modalità di montaggio delle basi sopra descritte.*

WORKING PRINCIPLE / *PRINCIPIO DI FUNZIONAMENTO*

In the example below, when the valve stands in the normal position, ports 4 - 5 and 1 - 2 are connected and the position is kept thanks to the pressure assured to the smallest piston (right side of the valve). When the valve is acuated, the same pressure is fed to the biggest piston. It's bigger surface create a force which allows the spool to move and therefore to connect ports 4 - 1 and 2 - 3. In the mechanical spring version, the valve is kept in the normal position by a mechanical spring. In the bistable version, the position of the valve remains in its last switched state.

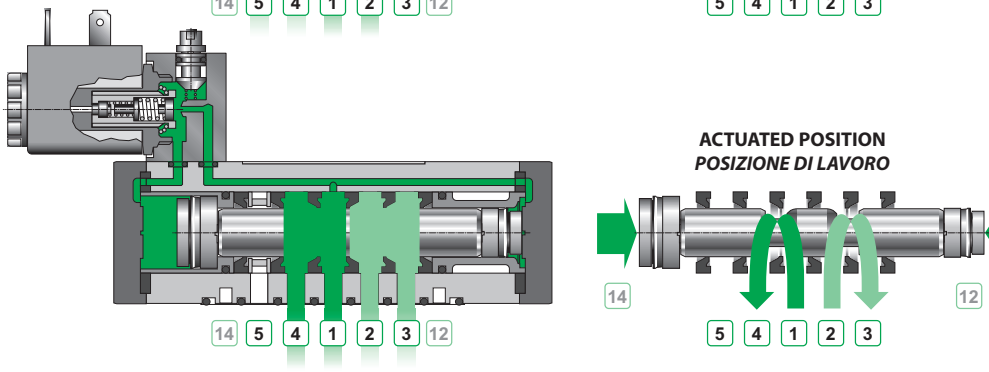
Il principio di funzionamento del distributore 5/2 (nell'esempio l'elettrovalvola ***SVE5 52 100 - 02450*** *con comando elettropneumatico e riposizionamento a molla pneumatica) consiste nel mantenere costantemente in pressione il pistone di riposizionamento (fig.* ***1****), utilizzando la fonte d'aria compressa presente nel condotto di alimentazione* ***1****, collegando le vie* ***1- 2*** *e* ***4 - 5****. L' eccitazione del solenoide mette in comunicazione il condotto* ***1*** *con la camera dove é alloggiato il pistone di comando. Quest'ultimo, avendo un'area di spinta maggiore del pistone di riposizionamento, sposta la spola in modo tale da collegare i canali* ***1- 4*** *e* ***2- 3*** *(fig.* ***2****). Diseccitando il solenoide si ripristina la posizione iniziale.*
Nei sistemi bistabili (doppio comando elettropneumatico o doppio comando pneumatico) in assenza di segnale rimangono i collegamenti formatisi nell'ultimo azionamento.

fig. 1



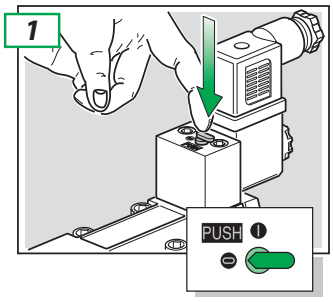
NORMAL POSITION
POSIZIONE A RIPOSO

fig. 2



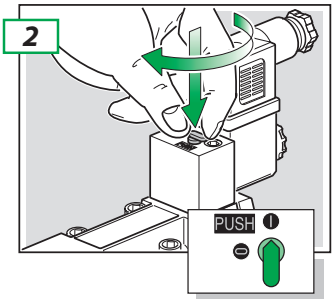
ACTUATED POSITION
POSIZIONE DI LAVORO

MANUAL OVERRIDING / *AZIONAMENTO COMANDO MANUALE*



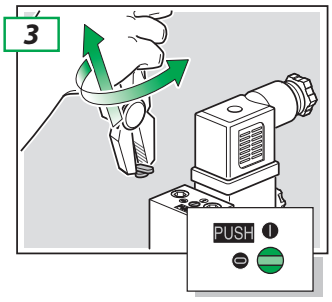
Push to actuated valve without locking. ***Relise the button to get back to normal position.***

Per azionare la valvola, durante la fase di collaudo con pressione in linea senza collegamento elettrico, premere la leva del comando manuale. ***Rilasciare per ripristinare la condizione di riposo.***



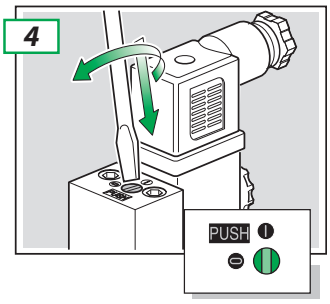
To active the valve permanently push the M/O (manual override) and rotate clockwise 90°. ***To return to normal position, push the M/O again and turn 90° anti-clockwise.***

Per azionare la valvola in modo permanente premere la leva del comando manuale e ruotare in senso orario sino alla posizione 1. ***Ruotare in senso antiorario per ripristinare la condizione di riposo.***



Should the M/O no longer be required, then turn the M/O anticlockwise until it breaks off.

Terminato il collaudo ruotare in senso antiorario la leva sino alla rottura.



Should the M/O be required after breaking off, then a screwdriver may be used.

Per interventi successivi sul comando manuale usare un adeguato cacciavite ed operare come al punto ***1*** *o* ***2****.*

TECHNICAL FEATURES / *CARATTERISTICHE TECNICHE*

SERIE **SVP4 - SVE5**

COMMON TECHNICAL FEATURES SVP4 AND SVE5

Fixing	Single subbase pag. B-71 Manifold mounting pag. B-71
Flow section	Ø 8 mm
Ambient temperature range	-10 °C ÷ +50 °C
Temperature range of medium	0 °C ÷ +40 °C
Lubrication	Not required
Medium	Filtered air
Reference temperature	+20 °C
Reference pressure	6 bar

VALVES AND SOLENOID VALVES 5/2

Nominal air flow	1080 Nl/min
Fluid conductance "C"	4,34 Nl/s bar
Critical pressure ratio "b"	0,212

VALVES AND SOLENOID VALVES 5/3

Nominal air flow	800 Nl/min
Fluid conductance "C".	3,22 Nl/s bar
Critical pressure ratio "b"	0,265

PNEUMATIC VALVES FEATURES SVP4

SVP4 52 100

Nominal pilot pressure	4 bar (10 bar)
Nominal max. frequence	21 Hz
Operating pressure range	**2,5 ÷ 10 bar**

SVP4 52 2D0

Nominal pilot (12) pressure	1,4 bar
Nominal pilot (14) pressure	2,2 bar
Nominal max. frequence	25 Hz

SVP4 52 200

Nominal pilot pressure	1,3 bar
Nominal max. frequence	30 Hz
Operating pressure range	**1,5 ÷ 10 bar**

SVP4 53 260
SVP4 53 290

Nominal pilot pressure	3,6 bar
Nominal max. frequence	8 Hz
Nominal suggested frequence	6 Hz
Operating pressure range	**3 ÷ 10 bar**

SOLENOID VALVES FEATURES SVE5

		AC	DC
SVE5 52 100 **SVE5 52 1D0**	Nominal frequence (max)	16 Hz	13 Hz
	Average actioning response	18 ms	21 ms
	Average disactioning response	33 ms	44 ms
	Operating pressure range	**2,5 ÷ 10 bar**	
SVE5 52 2D0	Nominal frequence (max)	25 Hz	19 Hz
	Average actioning response	11 ms	14 ms
	Average disactioning response	12 ms	15 ms
	Operating pressure range	**2,5 ÷ 10 bar**	

		AC	DC
SVE5 52 200	Nominal frequence (max)	27 Hz	21 Hz
	Average actioning response	11 ms	14 ms
	Average disactioning response	11 ms	14 ms
	Operating pressure range	**1,5 ÷ 10 bar**	
SVE5 53 260 **SVE5 53 290**	Nominal frequence (max)	8 Hz	8 Hz
	Nominal frequence suggested	6 Hz	6 Hz
	Average actioning response	30 ms	35 ms
	Average disactioning response	35 ms	40 ms
	Operating pressure range	**3 ÷ 10 bar**	

For electrical features solenoid SVE5 with CNOMO pilot see pp. B-88.

CARATTERISTICHE TECNICHE COMUNI SVP4 E SVE5

Fissaggio	*Base singola uscite frontali pag. B-71* *Basi in batteria pag. B-71*
Diametro nominale	*Ø 8 mm*
Temperatura ambiente	*-10 °C ÷ +50 °C*
Temperatura fluido	*0 °C ÷ +40 °C*
Lubrificazione	*Non necessaria*
Fluido	*Aria filtrata*
Temperatura nominale	*+20 °C*
Pressione nominale	*6 bar*

VALVOLE ED ELETTROVALVOLE 5/2

Portata nominale	*1080 Nl/min*
Valore conduttanza "C"	*4,34 Nl/s bar*
Rapporto critico delle pressioni "b"	*0,212*

VALVOLE ED ELETTROVALVOLE 5/3

Portata nominale	*800 Nl/min*
Valore conduttanza "C"	*3,22 Nl/s bar*
Rapporto critico delle pressioni "b"	*0,265*

CARATTERISTICHE VALVOLE PNEUMATICHE SVP4

SVP4 52 100

Pressione di pilotaggio nominale	*4 bar (10 bar)*
Frequenza max nominale	*21 Hz*

SVP4 52 2D0

Pressione di pilotaggio (12) nominale	*1,4 bar*
Pressione di pilotaggio (14) nominale	*2,2 bar*
Frequenza max nominale	*25 Hz*
Pressione di esercizio	***2,5 ÷ 10 bar***

SVP4 52 200

Pressione di pilotaggio nominale	*1,3 bar*
Frequenza max nominale	*30 Hz*

SVP4 53 260
SVP4 53 290

Pressione di pilotaggio nominale	*3,6 bar*
Frequenza max nominale	*8 Hz*
Frequenza max consigliata	*6 Hz*
Pressione di esercizio	***3 ÷ 10 bar***

CARATTERISTICHE ELETTROVALVOLE SVE5

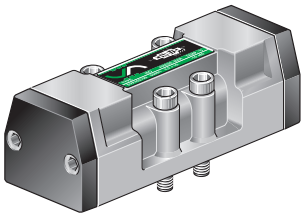
		AC	DC
SVE5 52 100 **SVE5 52 1D0**	*Frequenza max nominale*	*16 Hz*	*13 Hz*
	Tempo medio di risposta in eccitazione	*18 ms*	*21 ms*
	Tempo medio di risp. in diseccitazione	*33 ms*	*44 ms*
	Pressione di esercizio	***2,5 ÷ 10 bar***	
SVE5 52 2D0	*Frequenza max nominale*	*25 Hz*	*19 Hz*
	Tempo medio di risposta in eccitazione	*11 ms*	*14 ms*
	Tempo medio di risp. in diseccitazione	*12 ms*	*15 ms*

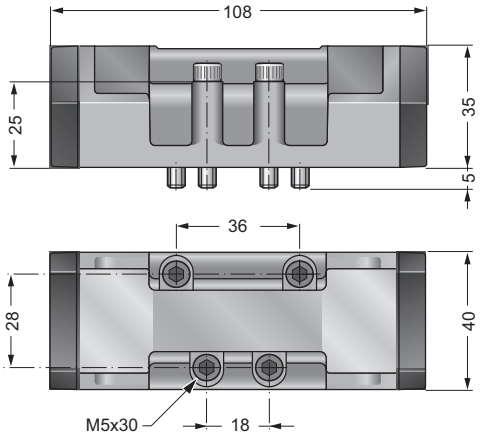
		AC	DC
SVE5 52 200	*Frequenza max nominale*	*27 Hz*	*21 Hz*
	Tempo medio di risposta in eccitazione	*11 ms*	*14 ms*
	Tempo medio di risp. in diseccitazione	*11ms*	*14 ms*
	Pressione di esercizio	***1,5 ÷ 10 bar***	
SVE5 53 260 **SVE5 53 290**	*Frequenza max nominale*	*8 Hz*	*8 Hz*
	Frequenza max nominale consigliata	*6 Hz*	*6 Hz*
	Tempo medio di risposta in eccitazione	*30 ms*	*35 ms*
	Tempo medio di risp. in diseccitazione	*35 ms*	*40 ms*
	Pressione di esercizio	***3 ÷ 10 bar***	

Caratteristiche elettriche bobina per elettrovalvole SVE5 con elettropilota CNOMO vedi pp. B-88

SVP4 52 100
SVP4 52 1M0 (*)

VALVE / *VALVOLA* 5/2
SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN OR SPRING RETURN
COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA O MOLLA MECCANICA

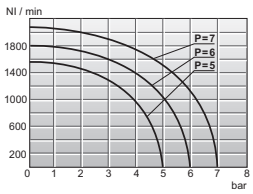




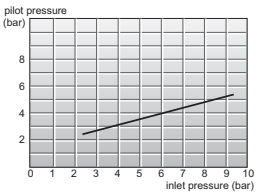
SIMBOL / *SIMBOLO*

SVP4 52 100 (*) **SVP4 52 1M0**

DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM
DIAGRAMMA DELLE PORTATE

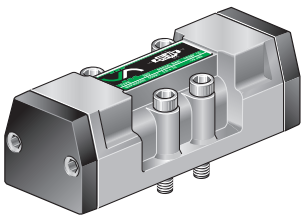


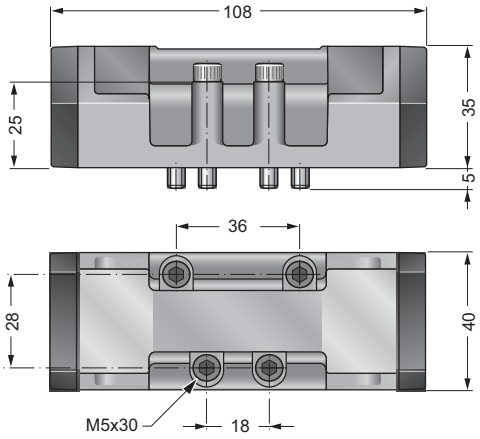
PILOT PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

(*) **ATEX** versions see / *Versioni* **ATEX** *vedi P.* ***B-113***

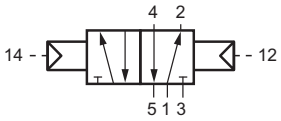
SVP4 52 200 (*)

VALVE / *VALVOLA* 5/2
DOUBLE PNEUMATIC PILOT
DOPPIO COMANDO PNEUMATICO

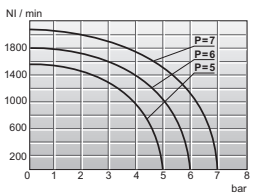




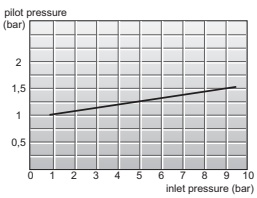
SIMBOL / *SIMBOLO*



DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM
DIAGRAMMA DELLE PORTATE

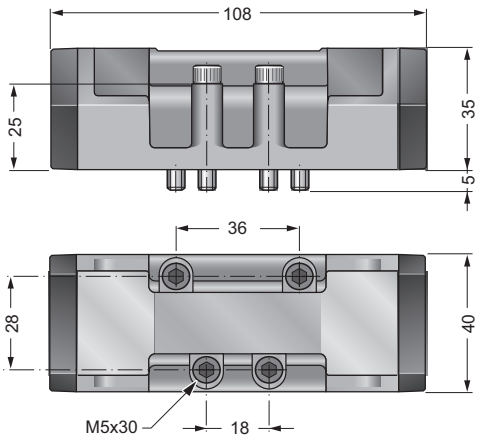


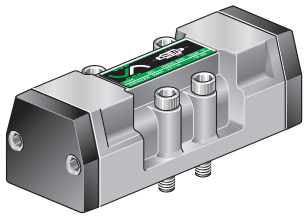
PILOT PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

(*) **ATEX** versions see / *Versioni* **ATEX** *vedi P.* ***B-113***

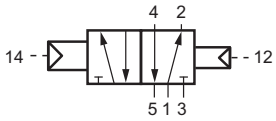
SVP4 52 2D0

VALVE / *VALVOLA* 5/2
DOUBLE DIFFERENTIAL PNEUMATIC PILOT
DOPPIO COMANDO PNEUMATICO DIFFERENZIALE

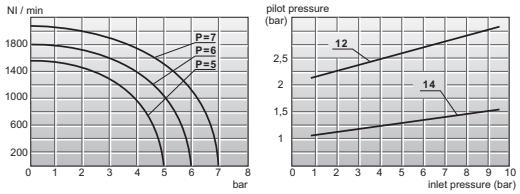




SIMBOL / *SIMBOLO*



DIAGRAMS / *DIAGRAMMI*

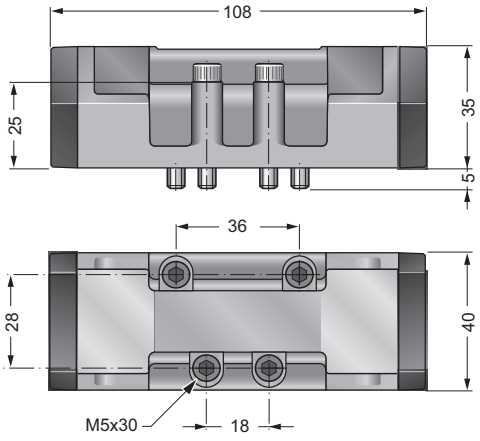


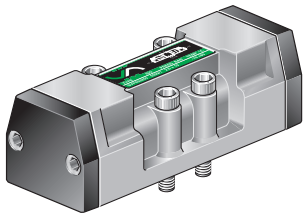
AIR FLOW DIAGRAM
DIAGRAMMA DELLE PORTATE

PILOT PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

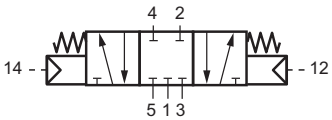
SVP4 53 260

VALVE / *VALVOLA* 5/3
DOUBLE PNEUMATIC PILOT - CENTER POSITIO CLOSED
DOPPIO COMANDO PNEUMATICO - CENTRI CHIUSI

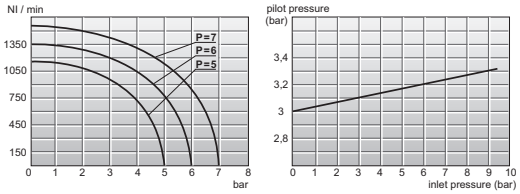




SIMBOL / *SIMBOLO*



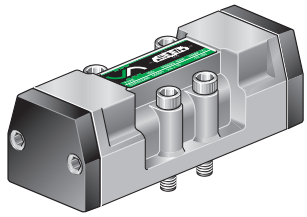
DIAGRAMS / *DIAGRAMMI*



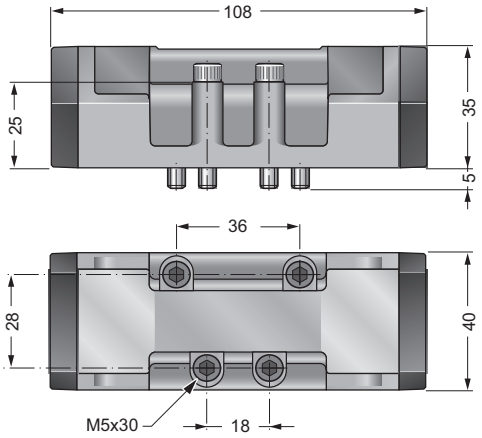
DAIR FLOW DIAGRAM
DIAGRAMMA DELLE PORTATE

PILOT PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

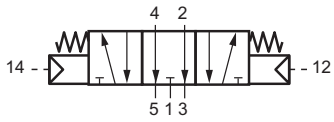
SVP4 53 290



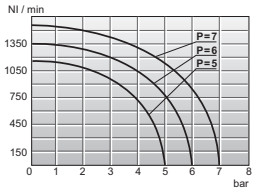
VALVE / *VALVOLA* 5/3
DOUBLE PNEUMATIC PILOT - CENTER POSITION OPEN
DOPPIO COMANDO PNEUMATICO - CENTRI APERTI



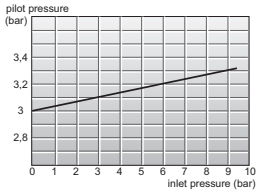
SIMBOL / *SIMBOLO*



DIAGRAMS / *DIAGRAMMI*

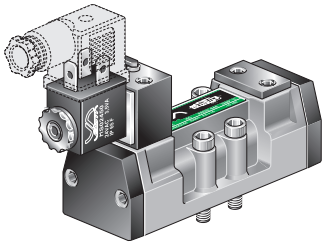


AIR FLOW DIAGRAM
DIAGRAMMA DELLE PORTATE

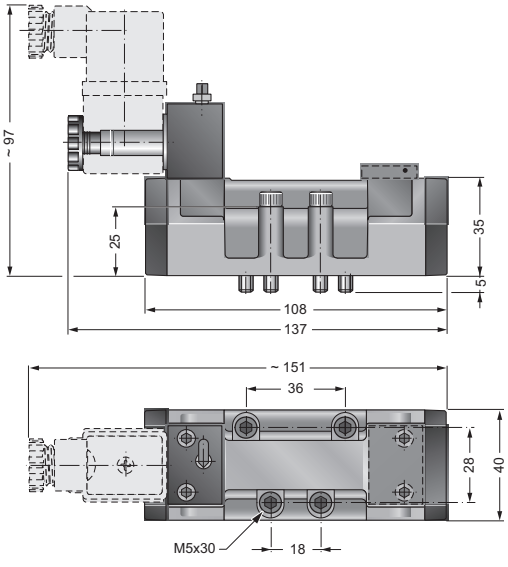


PILOT PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

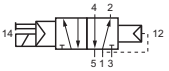
SVE5 52 100 - .....
SVE5 52 1M0 - ..... (*)



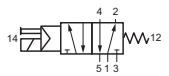
SOLENOID VALVES / *ELETTROVALVOLA* 5/2
SINGLE SOLENOID PILOT - INTERNAL PRESSURE RETURN OR SPRING RETURN
COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO PNEUMATICO O MOLLA MECCANICA



SIMBOL / *SIMBOLO*

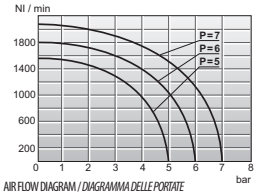


SVE5 52 1.0 -.....



(*) **SVE5 52 1M0 - .....**

DIAGRAM / *DIAGRAMMA*



AIR FLOW DIAGRAM / *DIAGRAMMA DELLE PORTATE*

CODES / *CODICI*

Ordination code *Codice ordinazione*	**Voltage** *Tensione*
SVE5 52 100 -00000	No coil / *Senza solenoide*
SVE5 52 100 -01200	12 V DC
SVE5 52 100 -02400	24 V DC
SVE5 52 100 -02450	24 V 50/60Hz AC
SVE5 52 100 -11550	115 V 50/60Hz AC
SVE5 52 100 -23050	230 V 50/60Hz AC

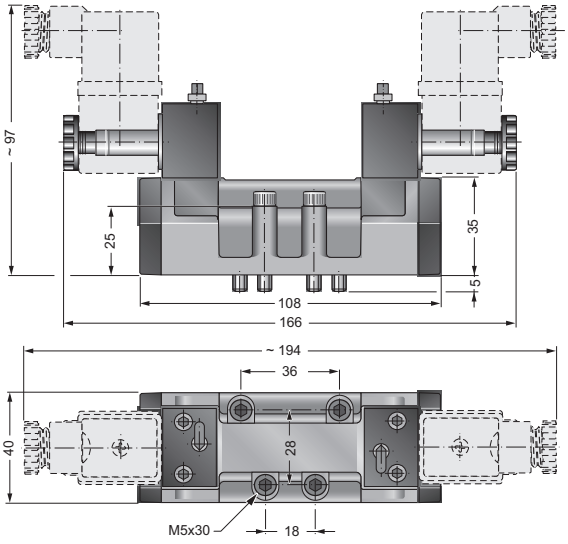
(*) **ATEX** versions see / *Versioni* **ATEX** *vedi P.* ***B-113***

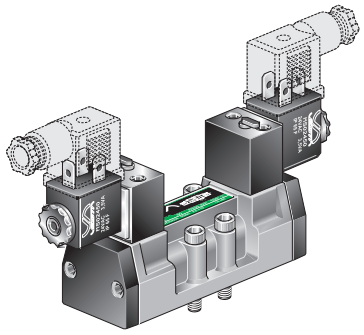
SOLENOID VALVES / *ELETTROVALVOLA* 5/2

DOUBLE SOLENOID PILOT

DOPPIO COMANDO ELETTROPNEUMATICO

(*) SVE5 52 200 - .....





SIMBOL / *SIMBOLO*

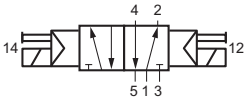
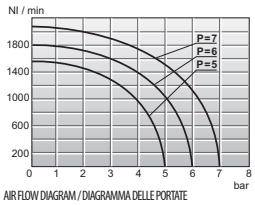


DIAGRAM / *DIAGRAMMA*



AIR FLOW DIAGRAM / DIAGRAMMA DELLE PORTATE

CODES / *CODICI*

Ordination code *Codice ordinazione*	**Voltage** *Tensione*
SVE5 52 200-00000	No coils / *Senza solenoidi*
SVE5 52 200-01200	12 V DC
SVE5 52 200-02400	24 V DC
SVE5 52 200-02450	24 V 50/60Hz AC
SVE5 52 200-11550	115 V 50/60Hz AC
SVE5 52 200-23050	230 V 50/60Hz AC

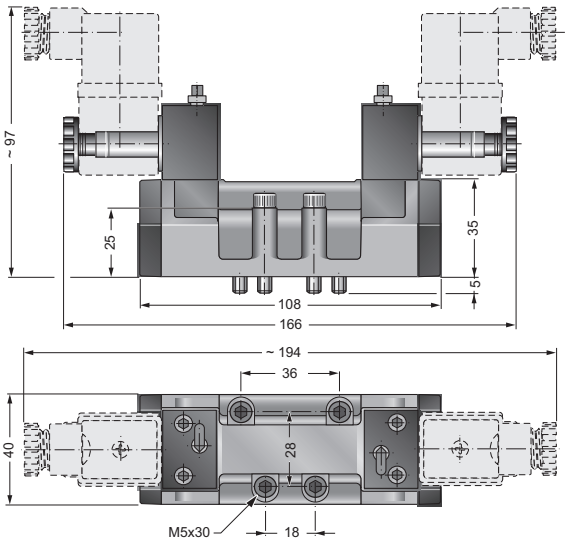
(*) **ATEX** versions see / *Versioni* **ATEX** *vedi P.* ***B-113***

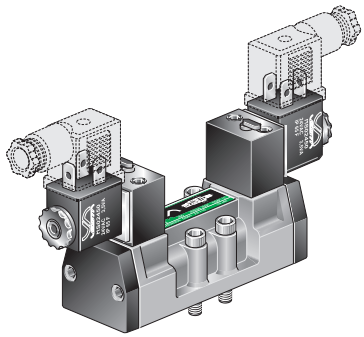
SOLENOID VALVES / *ELETTROVALVOLA* 5/2

DOUBLE DIFFERENTIAL SOLENOID PILOT

DOPPIO COMANDO ELETTROPNEUMATICO DIFFERENZIALE

SVE5 52 2D0 - .....





SIMBOL / *SIMBOLO*

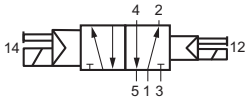
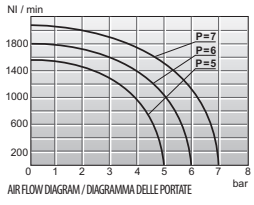


DIAGRAM / *DIAGRAMMA*

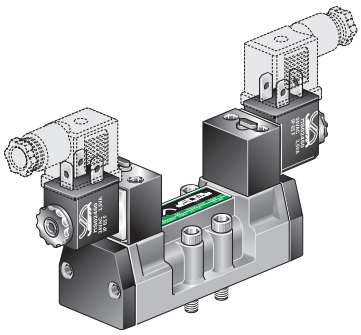


AIR FLOW DIAGRAM / DIAGRAMMA DELLE PORTATE

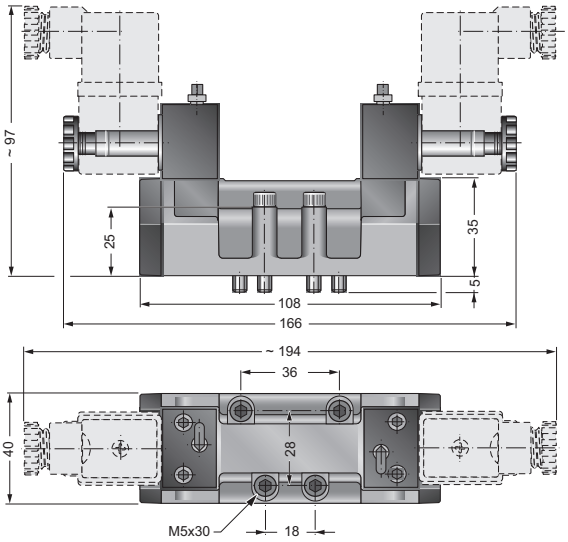
CODES / *CODICI*

Ordination code *Codice ordinazione*	**Voltage** *Tensione*
SVE5 52 2D0-00000	No coils / *Senza solenoidi*
SVE5 52 2D0-01200	12 V DC
SVE5 52 2D0-02400	24 V DC
SVE5 52 2D0-02450	24 V 50/60Hz AC
SVE5 52 2D0-11550	115 V 50/60Hz AC
SVE5 52 2D0-23050	230 V 50/60Hz AC

SVE5 53 260 - .....



SOLENOID VALVES / 5/3
DOUBLE SOLENOID PILOT - CENTER POSITION CLOSED
DOPPIO COMANDO ELETTROPNEUMATICO - CENTRI CHIUSI



SIMBOL / *SIMBOLO*

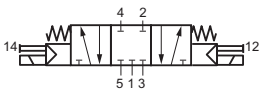
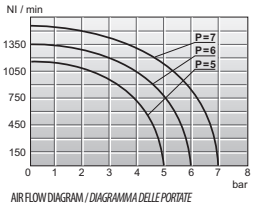


DIAGRAM / *DIAGRAMMA*

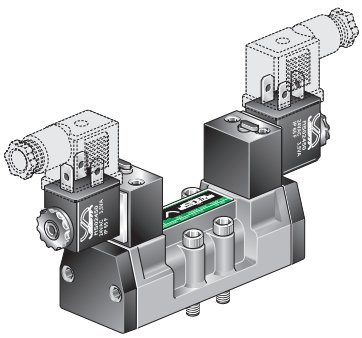


AIR FLOW DIAGRAM / *DIAGRAMMA DELLE PORTATE*

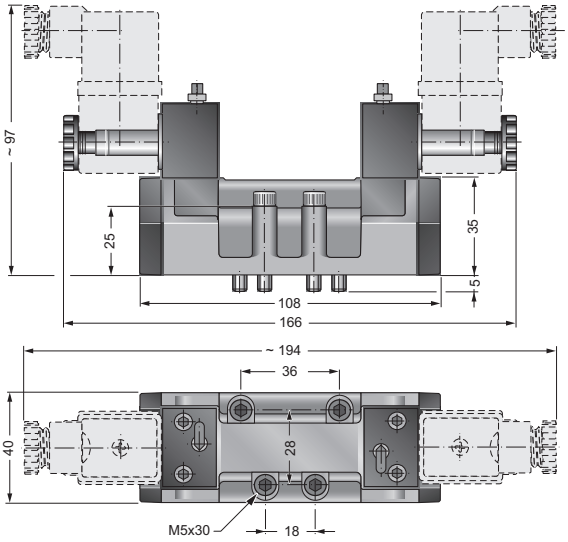
CODES / *CODICI*

Ordination code *Codice ordinazione*	**Voltage** *Tensione*
SVE5 53 260 - 00000	No coils / *Senza solenoidi*
SVE5 53 260 - 01200	12 V DC
SVE5 53 260 - 02400	24 V DC
SVE5 53 260 - 02450	24 V 50/60Hz AC
SVE5 53 260 - 11550	115 V 50/60Hz AC
SVE5 53 260 - 23050	230 V 50/60Hz AC

SVE5 53 290 - .....



SOLENOID VALVES / *ELETTROVALVOLA* 5/3
DOUBLE SOLENOID PILOT - CENTER POSITION OPEN
DOPPIO COMANDO ELETTROPNEUMATICO - CENTRI APERTI



SIMBOL / *SIMBOLO*

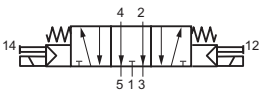
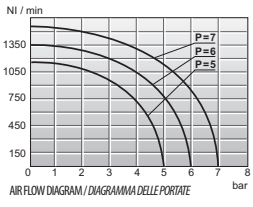


DIAGRAM / *DIAGRAMMA*

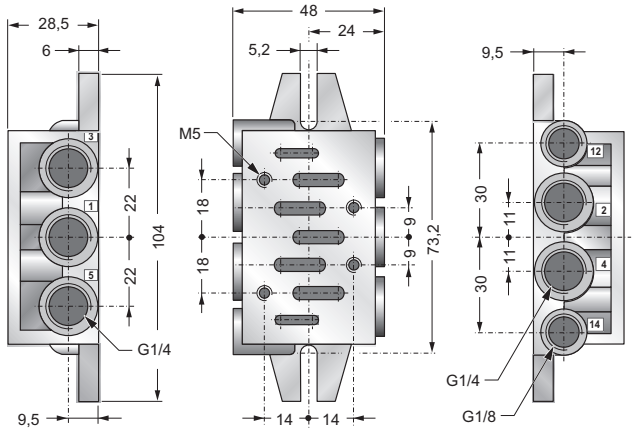


AIR FLOW DIAGRAM / *DIAGRAMMA DELLE PORTATE*

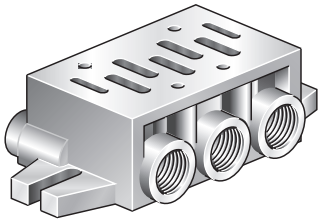
CODES / *CODICI*

Ordination code *Codice ordinazione*	**Voltage** *Tensione*
SVE5 53 290 - 00000	No coils / *Senza solenoidi*
SVE5 53 290 - 01200	12 V DC
SVE5 53 290 - 02400	24 V DC
SVE5 53 290 - 02450	24 V 50/60Hz AC
SVE5 53 290 - 11550	115 V 50/60Hz AC
SVE5 53 290 - 23050	230 V 50/60Hz AC

ISO 5599 SINGLE MANIFOLD SIZE 1
BASE SINGOLA ISO 5599 TAGLIA 1



(*) **BS 1**



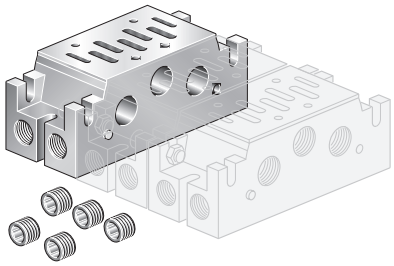
SINGLE SUBBASE
BASE SINGOLA USCITE LATERALI

- Valves fixing screws supplied with valves.
- Subbase fixing screws not supplied.
- Manifold suppied assembled on demand.

- *Le viti di fissaggio vengono fornite con le valvole.*
- *Il fissaggio alla base è a cura del cliente.*
- *La fornitura della base può essere completata, a richiesta, con il montaggio della valvola od elettrovalvola desiderata.*

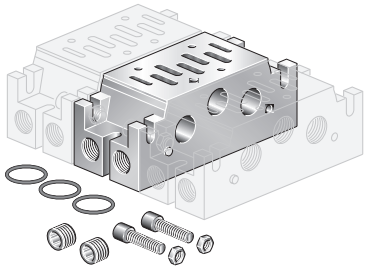
(*) **ATEX** versions see / *Versioni* **ATEX** *vedi P.* ***B-113***

(*) **BTC 1**



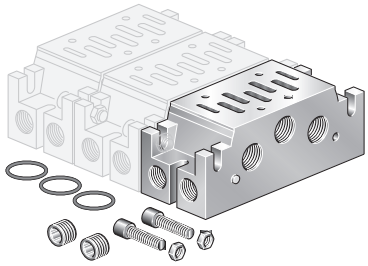
END PLATE / BOTTOM SIDE OUT LET
BASE DI CHIUSURA USCITE FONDO E LATERALI

(*) **BM I 1**



MIDDLE PLATE / BOTTOM SIDE OUT LET
BASE INTERMEDIA USCITE FONDO E LATERALI

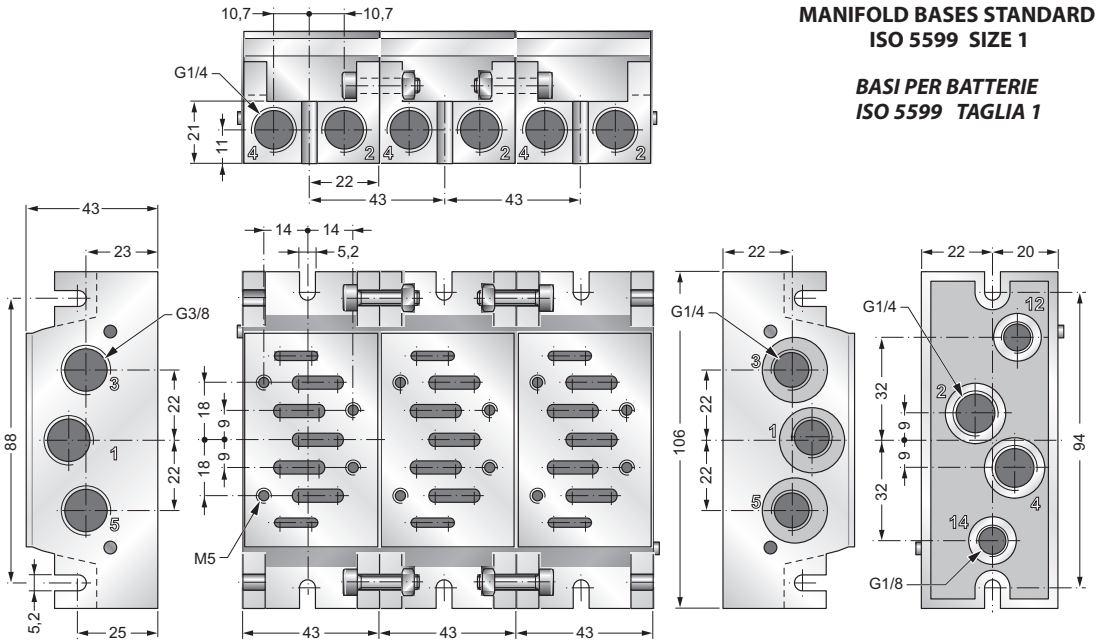
(*) **BTI 1**



INLET END PLATE / BOTTOM SIDE OUT LET
BASE DI INGRESSO USCITE FONDO E LATERALI

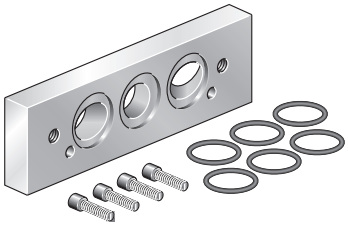
MANIFOLD BASES STANDARD
ISO 5599 SIZE 1

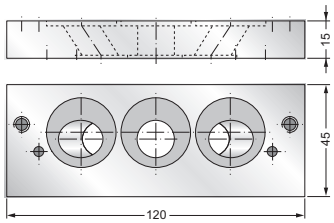
BASI PER BATTERIE
ISO 5599 TAGLIA 1



INTF 1-2

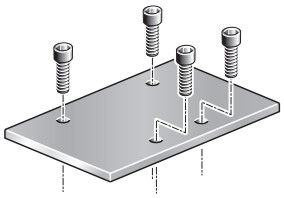
ADAPTOR PLATE FROM **SIZE 1** TO **SIZE 2**
*INTERFACCIA PER BASI DA **TAGLIA 1** A **TAGLIA 2***

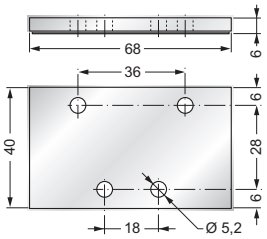




PCBM 1

PLUG FLAT
CHIUSURA POSTO INUTILIZZATO



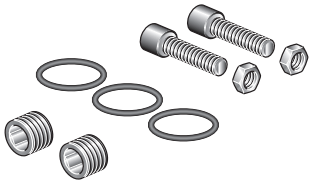


- Supplied with fixing screws.

- La piastrina di chiusura del posto inutilizzato viene fornita con le viti per il fissaggio sulla base.

KM 1

ASSEMBLING KIT
KIT DI RICAMBIO

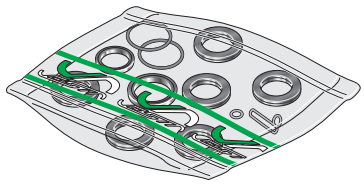


- **KM 1** supplied with **BMI 1 and BTI 1**,
- Supplied separatly on demand.

*- Il kit **KM 1** viene fornito con le basi **BMI 1** e **BTI 1**,*
- A richiesta può essere fornito come ricambio.

SET . 1/4 SG

SEALS KIT
KIT GUARNIZIONI DI RICAMBIO

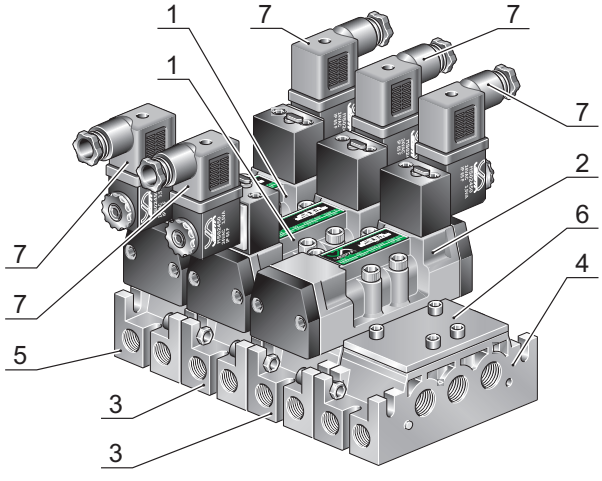


Seals kit code - *Codice del kit*

SET 1 1/4 SG: for ISO 1 **mono-stable** valves - *per valvole **monostabili** ISO 1.*
SET 2 1/4 SG: for ISO 1 **bi-stable** valves - *per valvole **bistabili** ISO 1.*

Example / *Esempio:* **SVE5 52 100 -02400 —> SET 1 1/4 SG**
SVE5 52 200 -02400 —> SET 2 1/4 SG

HOW TO ASSEMBLE A SIZE 1 MANIFOLD / *ESEMPIO DI ASSEMBLAGGIO BATTERIA TAGLIA 1*



Components needed to assemble the manifold in figure.
Esempio di componenti necessari a realizzare la batteria raffigurata.

Pos. *Posizione*	**Quantity** *Quantità*	**Code** *Codice ordinazione*
1	N° 2	**SVE5 52 200 - 02450**
2	N° 1	**SVE5 52 100 - 02450**
3	N° 2	**BMI 1**
4	N° 1	**BTI 1**
5	N° 1	**BTC 1**
6	N° 1	**PCBM 1**
7	N° 5	**CEP/ 1**

- Valves fixing screws and seals are supplied with valves.
- Subbase fixing screws not supplied.
- Manifold suppied assembled on demand.

- Le viti e le guarnizioni per il fissaggio vengono fornite con le valvole.
- Il fissaggio alla base è a cura del cliente.
- A richiesta, la base può essere fornita preassemblata.

TECHNICAL FEATURES / *CARATTERISTICHE TECNICHE*

SERIE **SVP2 - SVE2**

COMMON TECHNICAL FEATURES SVP2 AND SVE2

Fixing	Single subbase pag. B-80 Manifold mounting pag. B-80
Flow section	Ø 8 mm
Ambient temperature range	-10 °C ÷ +50 °C
Temperature range of medium	0 °C ÷ +40 °C
Lubrication	Not required
Medium	Filtered air
Reference temperature	+20 °C
Reference pressure	6 bar

VALVES AND SOLENOID VALVES 5/2

Nominal air flow	2200 Nl/min
Fluid conductance "C"	7,6 Nl/s bar
Critical pressure ratio "b"	0,38

VALVES AND SOLENOID VALVES 5/3

Nominal air flow	1800 Nl/min
Fluid conductance "C"	7,1 Nl/s bar
Critical pressure ratio "b"	0,45

PNEUMATIC VALVES FEATURES SVP2

SVP2 52 100	Nominal pilot pressure	4 bar (10 bar)
	Nominal max. frequence	16 Hz
	Operating pressure range	**2,5 ÷ 10 bar**
SVP2 53 260	Nominal pilot pressure	3,2 bar
	Nominal max. frequence	8 Hz
	Nominal suggested frequence	5 Hz
	Operating pressure range	**3 ÷ 10 bar**
SVP2 52 200	Nominal pilot pressure	1,3 bar
	Nominal max. frequence	25 Hz
	Operating pressure range	**1,5 ÷ 10 bar**
SVP2 53 290	Nominal pilot pressure	3,2 bar
	Nominal max. frequence	8 Hz
	Nominal suggested frequence	5 Hz
	Operating pressure range	**3 ÷ 10 bar**

SOLENOID VALVES FEATURES SVE2

		AC	DC
SVE2 52 100	Nominal frequence (max)	13 Hz	10 Hz
	Average actioning response	21 ms	24 ms
	Average disactioning response	36 ms	47 ms
	Operating pressure range	**2,5 ÷ 10 bar**	
SVE2 53 260	Nominal frequence (max)	8 Hz	8 Hz
	Nominal frequence suggested	5 Hz	5 Hz
	Average actioning response	30 ms	35 ms
	Average disactioning response	35 ms	40 ms
	Operating pressure range	**3 ÷ 10 bar**	
SVE2 52 200	Nominal frequence (max)	24 Hz	18 Hz
	Average actioning response	14 ms	17 ms
	Average disactioning response	14 ms	17 ms
	Operating pressure range	**1,5 ÷ 10 bar**	
SVE2 53 290	Nominal frequence (max)	8 Hz	8 Hz
	Nominal frequence suggested	5 Hz	5 Hz
	Average actioning response	30 ms	35 ms
	Average disactioning response	35 ms	40 ms
	Operating pressure range	**3 ÷ 10 bar**	

For electrical features solenoid SVE5 with CNOMO pilot see pp. B-88.

CARATTERISTICHE TECNICHE COMUNI SVP2 *E* SVE2

Fissaggio	*Base singola uscite frontali pag. B-78* *Basi in batteria pag. B-78*
Diametro nominale	*Ø 8 mm*
Temperatura ambiente	*-10 °C ÷ +50 °C*
Temperatura fluido	*0 °C ÷ +40 °C*
Lubrificazione	*Non necessaria*
Fluido	*Aria filtrata*
Temperatura nominale	*+20 °C*
Pressione nominale	*6 bar*

VALVOLE ED ELETTROVALVOLE 5/2

Portata nominale	*2200 Nl/min*
Valore conduttanza "C"	*7,6 Nl/s bar*
Rapporto critico delle pressioni "b"	*0,38*

VALVOLE ED ELETTROVALVOLE 5/3

Portata nominale	*1800 Nl/min*
Valore conduttanza "C"	*7,1 Nl/s bar*
Rapporto critico delle pressioni "b"	*0,45*

CARATTERISTICHE VALVOLE PNEUMATICHE SVP2

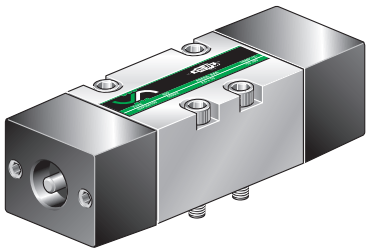
SVP2 52 100	*Pressione di pilotaggio nominale*	*4 bar (10 bar)*
	Frequenza max nominale	*16 Hz*
	Pressione di esercizio	***2,5 ÷ 10 bar***
SVP2 53 260	*Pressione di pilotaggio nominale*	*3,2 bar*
	Frequenza max nominale	*8 Hz*
	Frequenza max consigliata	*5 Hz*
	Pressione di esercizio	***3 ÷ 10 bar***
SVP2 52 200	*Pressione di pilotaggio nominale*	*1,3 bar*
	Frequenza max nominale	*25 Hz*
	Pressione di esercizio	***1,5 ÷ 10 bar***
SVP2 53 290	*Pressione di pilotaggio nominale*	*3,2 bar*
	Frequenza max nominale	*8 Hz*
	Frequenza max consigliata	*5 Hz*
	Pressione di esercizio	***3 ÷ 10 bar***

CARATTERISTICHE ELETTROVALVOLE SVE5

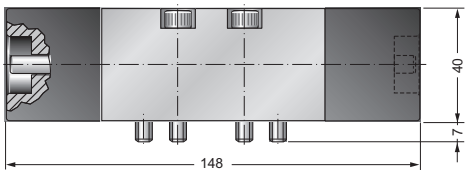
		AC	*DC*
SVE2 52 100	*Frequenza max nominale*	*13 Hz*	*10 Hz*
	Tempo medio di risposta in eccitazione	*21 ms*	*24 ms*
	Tempo medio di risp. in diseccitazione	*36 ms*	*47 ms*
	Pressione di esercizio	***2,5 ÷ 10 bar***	
SVE2 53 260	*Frequenza max nominale*	*8 Hz*	*8 Hz*
	Frequenza max nominale consigliata	*6 Hz*	*5 Hz*
	Tempo medio di risposta in eccitazione	*30 ms*	*35 ms*
	Tempo medio di risp. in diseccitazione	*35 ms*	*40 ms*
	Pressione di esercizio	***3 ÷ 10 bar***	
SVE2 52 200	*Frequenza max nominale*	*24 Hz*	*18 Hz*
	Tempo medio di risposta in eccitazione	*14 ms*	*17 ms*
	Tempo medio di risp. in diseccitazione	*14 ms*	*17 ms*
	Pressione di esercizio	***1,5 ÷ 10 bar***	
SVE2 53 290	*Frequenza max nominale*	*8 Hz*	*8 Hz*
	Frequenza max nominale consigliata	*6 Hz*	*5 Hz*
	Tempo medio di risposta in eccitazione	*30 ms*	*35 ms*
	Tempo medio di risp. in diseccitazione	*35 ms*	*40 ms*
	Pressione di esercizio	***3 ÷ 10 bar***	

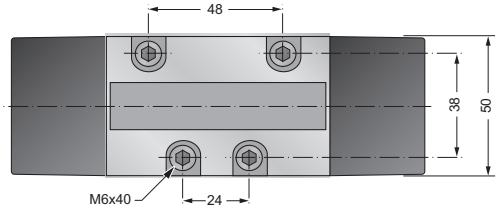
Caratteristiche elettriche bobina per elettrovalvole* SVE5 *con elettropilota CNOMO vedi pp. B-88.

SVP2 52 100

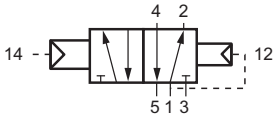


VALVE / *VALVOLA* 5/2
SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN
COMANDO PNEUMATICO - RIPOSIZIONAMENTO MOLLA PNEUMATICA

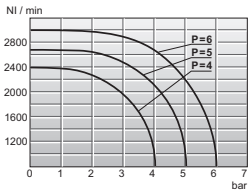




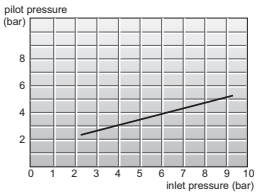
SIMBOL / *SIMBOLO*



DIAGRAMS / *DIAGRAMMI*

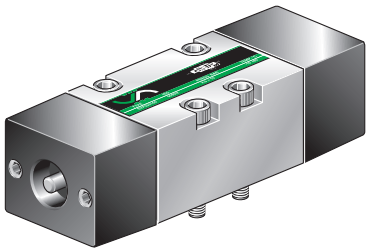


AIR FLOW DIAGRAM
DIAGRAMMA DELLE PORTATE

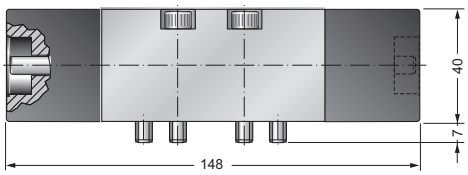


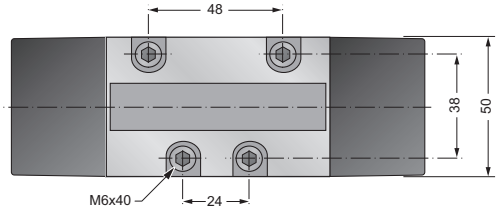
PILOT PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

SVP2 52 200

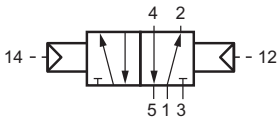


VALVE / *VALVOLA* 5/2
DOUBLE PNEUMATIC PILOT
DOPPIO COMANDO PNEUMATICO

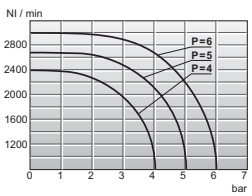




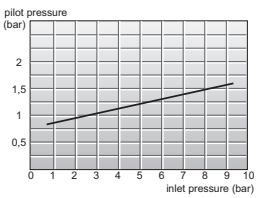
SIMBOL / *SIMBOLO*



DIAGRAMS / *DIAGRAMMI*



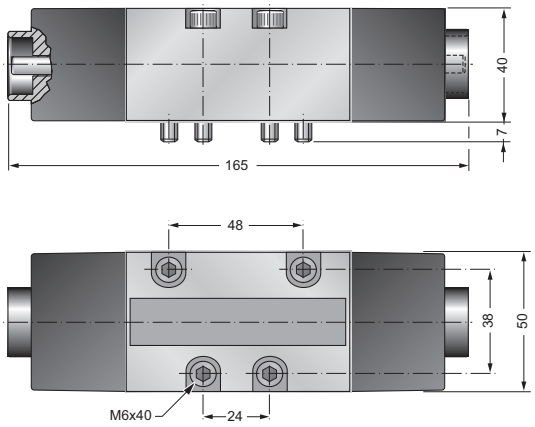
AIR FLOW DIAGRAM
DIAGRAMMA DELLE PORTATE

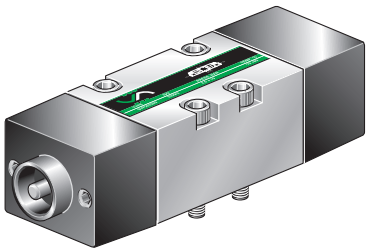


PILOT PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

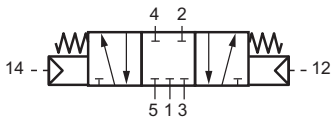
SVP2 53 260

VALVE / *VALVOLA* 5/3
DOUBLE PNEUMATIC PILOT - CENTER POSITION CLOSED
DOPPIO COMANDO PNEUMATICO - CENTRI CHIUSI

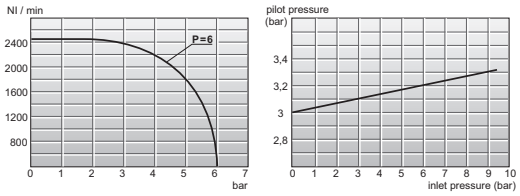




SIMBOL / *SIMBOLO*



DIAGRAMS / *DIAGRAMMI*

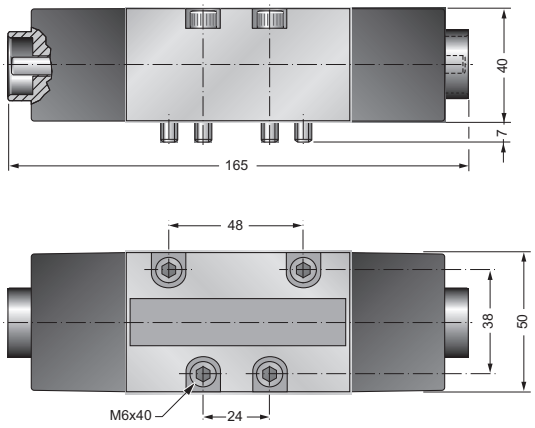


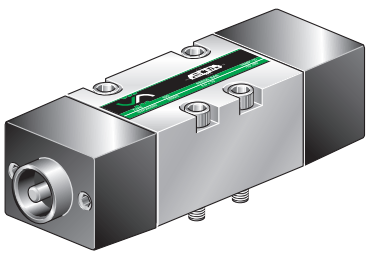
AIR FLOW DIAGRAM
DIAGRAMMA DELLE PORTATE

PILOT PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

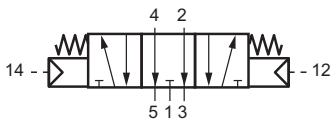
SVP2 53 290

VALVE / *VALVOLA* 5/3
DOUBLE PNEUMATIC PILOT - CENTER POSITION OPEN
DOPPIO COMANDO PNEUMATICO - CENTRI APERTI

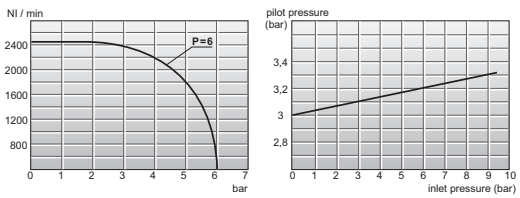




SIMBOL / *SIMBOLO*



DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM
DIAGRAMMA DELLE PORTATE

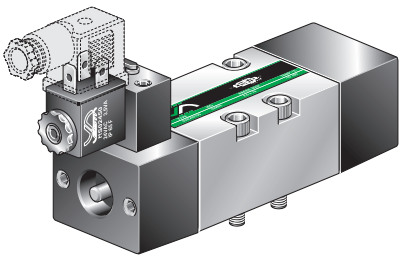
PILOT PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

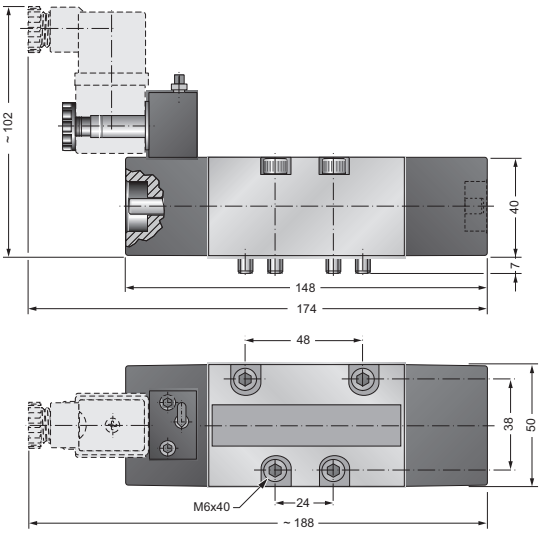
SVE2 52 100 - .....

SOLENOID VALVES / *ELETTROVALVOLA* 5/2

SOLENOID PILOT - INTERNAL PRESSURE RETURN

COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO MOLLA PNEUMATICA





SIMBOL / *SIMBOLO*

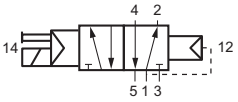
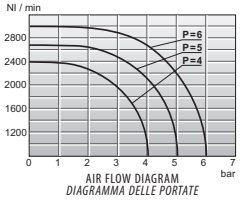


DIAGRAM / *DIAGRAMMA*



CODES / *CODICI*

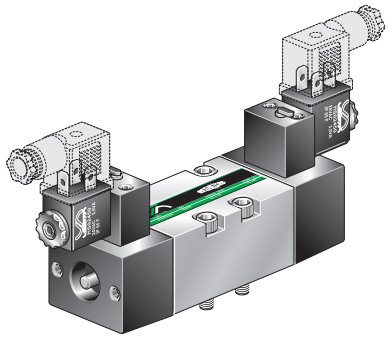
Ordination code *Codice ordinazione*	**Voltage** *Tensione*
SVE2 52 100 - 00000	No coil / *Senza solenoide*
SVE2 52 100 - 01200	12 V DC
SVE2 52 100 - 02400	24 V DC
SVE2 52 100 - 02450	24 V 50/60Hz AC
SVE2 52 100 - 11550	115 V 50/60Hz AC
SVE2 52 100 - 23050	230 V 50/60Hz AC

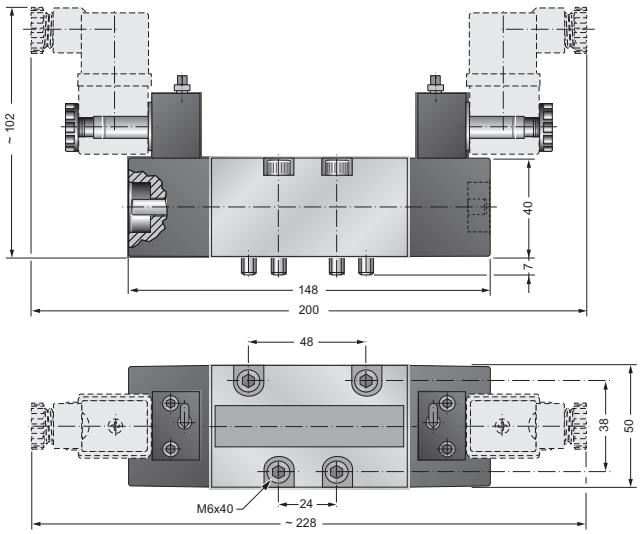
SVE2 52 200 - .....

SOLENOID VALVES / *ELETTROVALVOLA* 5/2

DOUBLE SOLENOID PILOT

DOPPIO COMANDO ELETTROPNEUMATICO





SIMBOL / *SIMBOLO*

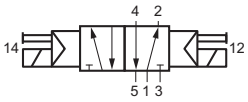
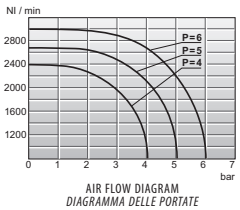


DIAGRAM / *DIAGRAMMA*



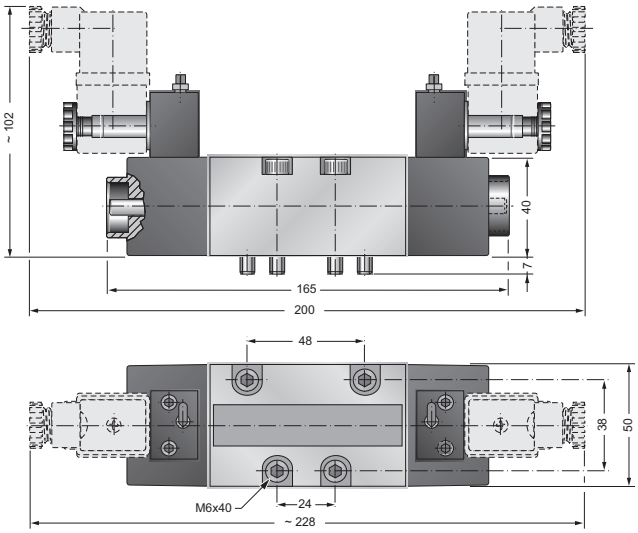
CODES / *CODICI*

Ordination code *Codice ordinazione*	**Voltage** *Tensione*
SVE2 52 200 - 00000	No coils / *Senza solenoidi*
SVE2 52 200 - 01200	12 V DC
SVE2 52 200 - 02400	24 V DC
SVE2 52 200 - 02450	24 V 50/60Hz AC
SVE2 52 200 - 11550	115 V 50/60Hz AC
SVE2 52 200 - 23050	230 V 50/60Hz AC

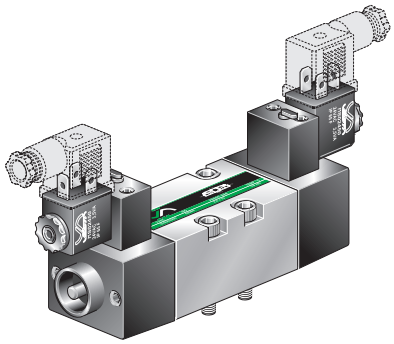
SOLENOID VALVES / *ELETTROVALVOLA* 5/3

DOUBLE SOLENOID PILOT - CENTER POSITION CLOSED

DOPPIO COMANDO ELETTROPNEUMATICO - CENTRI CHIUSI



SVE2 53 260 - .....



SIMBOL / *SIMBOLO*

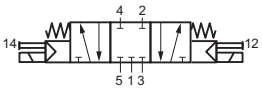
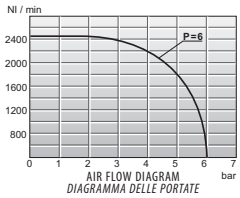


DIAGRAM / *DIAGRAMMA*



AIR FLOW DIAGRAM

DIAGRAMMA DELLE PORTATE

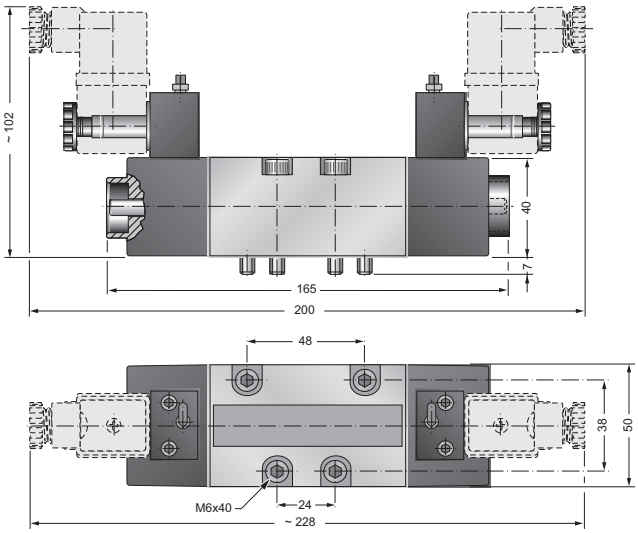
CODES / *CODICI*

Ordination code *Codice ordinazione*	**Voltage** *Tensione*
SVE2 53 260-00000	No coils / *Senza solenoidi*
SVE2 53 260-01200	12 V DC
SVE2 53 260-02400	24 V DC
SVE2 53 260-02450	24 V 50/60Hz AC
SVE2 53 260-11550	115 V 50/60Hz AC
SVE2 53 260-23050	230 V 50/60Hz AC

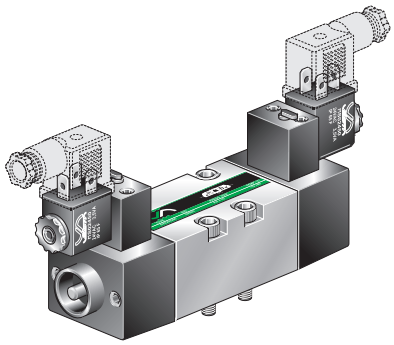
SOLENOID VALVES / *ELETTROVALVOLA* 5/3

DOUBLE SOLENOID PILOT - CENTER POSITION OPEN

DOPPIO COMANDO ELETTROPNEUMATICO - CENTRI APERTI



SVE2 53 290 - .....



SIMBOL / *SIMBOLO*

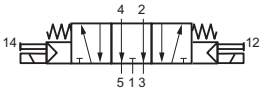
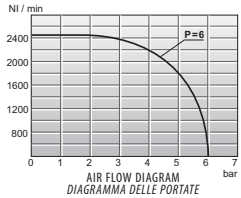


DIAGRAM / *DIAGRAMMA*



AIR FLOW DIAGRAM

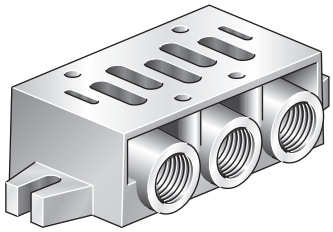
DIAGRAMMA DELLE PORTATE

CODES / *CODICI*

Ordination code *Codice ordinazione*	**Voltage** *Tensione*
SVE2 53 290-00000	No coils / *Senza solenoidi*
SVE2 53 290-01200	12 V DC
SVE2 53 290-02400	24 V DC
SVE2 53 290-02450	24 V 50/60Hz AC
SVE2 53 290-11550	115 V 50/60Hz AC
SVE2 53 290-23050	230 V 50/60Hz AC

BS 2

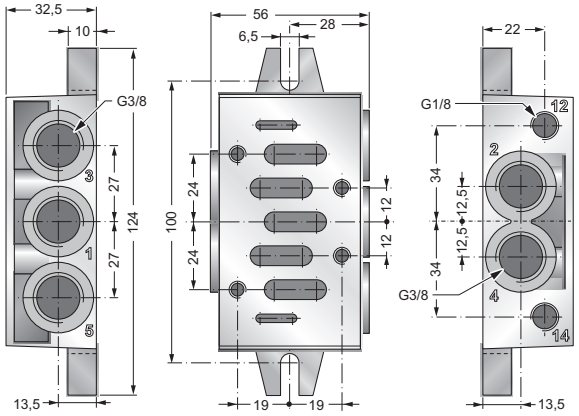
ISO 5599 SINGLE SUBBASE SIZE 2
BASE SINGOLA ISO 5599 TAGLIA 2



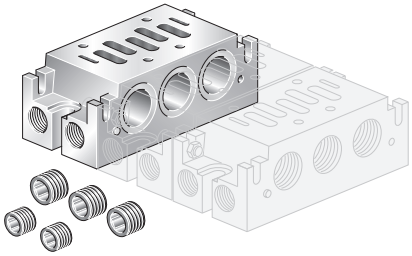
SINGLE MANIFOLD BASE / BASE SINGOLA USCITE LATERALI

- Valves fixing screws supplied with valves.
- Subbase fixing screws not supplied.
- Manifold supplied assembled on demand.

- *Le viti di fissaggio vengono fornite con le valvole.*
- *Il fissaggio alla base è a cura del cliente.*
- *La fornitura della base può essere completata, a richiesta, con il montaggio della valvola od elettrovalvola desiderata.*

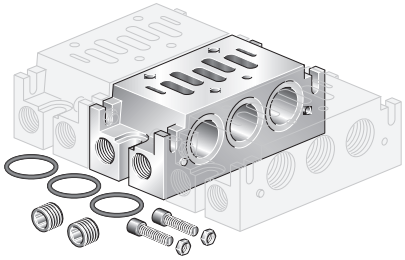


BTC 2



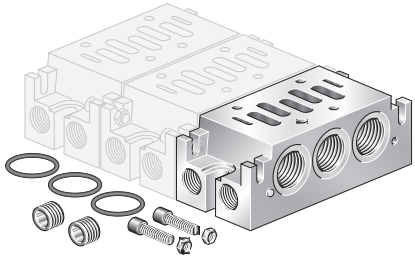
END PLATE / BOTTOM SIDE OUTLET
BASE DI CHIUSURA USCITE FONDO E LATERALI

BM I 2



MIDDLE PLATE / BOTTOM SIDE OUTLET
BASE INTERMEDIA USCITE FONDO E LATERALE LATERALI

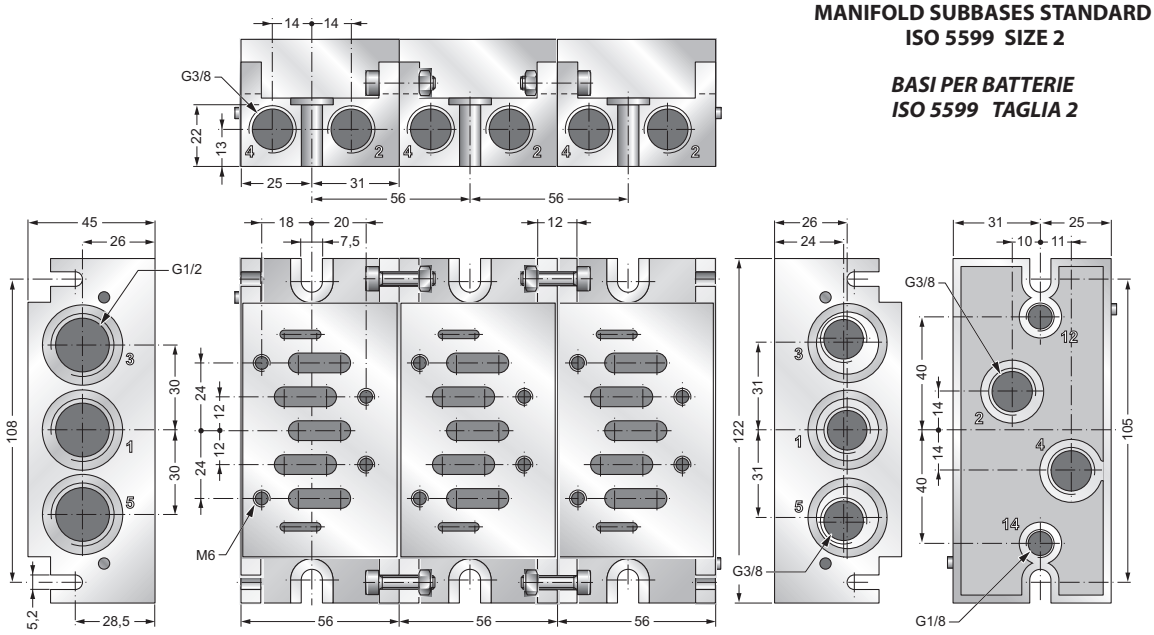
BTI 2



INLET END PLATE / BOTTOM SIDE OUTLET
BASE DI INGRESSO USCITE FONDO E LATERALI

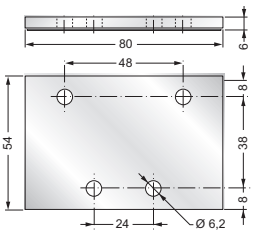
MANIFOLD SUBBASES STANDARD
ISO 5599 SIZE 2

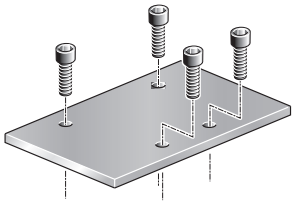
BASI PER BATTERIE
ISO 5599 TAGLIA 2



PLUG FLAT
CHIUSURA POSTO INUTILIZZATO

PCBM 2



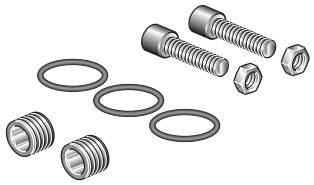


- Supplied with fixing screws.

- *La piastrina di chiusura del posto inutilizzato viene fornita con le viti per il fissaggio sulla base.*

ASSEMBLING KIT
KIT DI RICAMBIO

KM 2

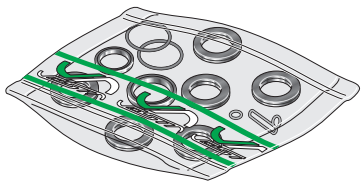


- **KM 2** supplied with **BMI 2 and BTI 2**,
- Supplied separatly on demand.

- *Il kit **KM 2** viene fornito con le basi **BMI 2** e **BTI 2**,*
- *A richiesta può essere fornito come ricambio.*

SEALS KIT
KIT GUARNIZIONI DI RICAMBIO

SET . 1/2 SG



Seals kit code - *Codice del kit*

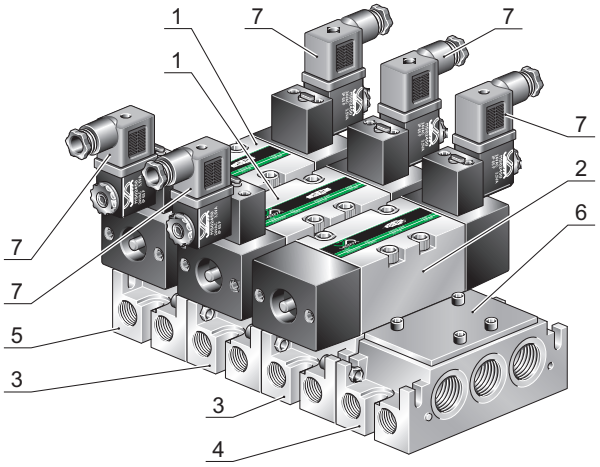
SET 1 1/2 SG: for ISO 2 **mono-stable** valves - *per valvole **monostabili** ISO 2.*
SET 2 1/2 SG: for ISO 2 **bi-stable** valves - *per valvole **bistabili** ISO 2.*

Example / *Esempio:* **SVE2 52 100 -02400 —> SET 1 1/2 SG**
SVE2 52 200 -02400 —> SET 2 1/2 SG

HOW TO ASSEMBLE A SIZE 2 MANIFOLD / *ESEMPIO DI ASSEMBLAGGIO BATTERIA TAGLIA 2*

Components needed to assemble the manifold in figure.
Esempio di componenti necessari a realizzare la batteria raffigurata.

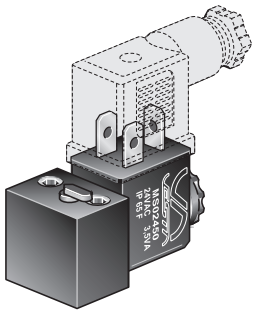
Pos. *Posizione*	**Quantity** *Quantità*	**Code** *Codice ordinazione*
1	N° 2	**SVE2 52 200 - 02450**
2	N° 1	**SVE2 52 100 - 02450**
3	N° 2	**BMI 2**
4	N° 1	**BTI 2**
5	N° 1	**BTC 2**
6	N° 1	**PCBM 2**
7	N° 5	**CEP/1**

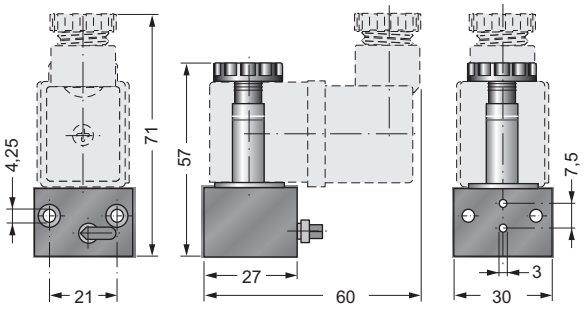


CNOMO PILOT CONTROL SOLENOID VALVES AND ACCESSORIES / *ELETTROPILOTI CNOMO ED ACCESSORI*

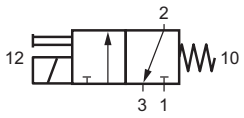
ELBAC - .....

CNOMO PILOT CONTROL SOLENOID VALVE
ELETTROPILOTA CNOMO CON BOBINA ***DIN 43650-A***





SIMBOL / *SIMBOLO*



CODES / *CODICI*

Code *Codice ordinazione*	Voltage *Tensione*
ELBAC - 00000	No coil / *Senza solenoide*
ELBAC - 01200	12 V DC
ELBAC - 02400	24 V DC
ELBAC - 02450	24 V 50/60Hz AC
ELBAC - 11550 (*)	115 V 50/60Hz AC
ELBAC - 22050 (*)	220 V 50/60Hz AC
ELBAC - 23050 (*)	230 V 50/60Hz AC

(*) Please see page / *Vedi pag.* **B-37**

TECHNICAL FEATURES

Flow section	Ø 1 mm
Ambient temperature range	-10 °C ÷ +50 °C
Temperature range of medium	0 °C ÷ +50 °C
Lubrication	Not required
Medium	Filtered air
Operating pressure range	0 ÷ 10 bar
Reference temperature	+20 °C
Reference pressure	6 bar
Nominal air flow	80 Nl/min
Coils electrical features	**See MS ..... (pag. B-35 ÷ B-37)**

CARATTERISTICHE TECNICHE

Diametro nominale	*Ø 1 mm*
Temperatura ambiente	*-10 °C ÷ +50 °C*
Temperatura fluido	*0 °C ÷ +50 °C*
Lubrificazione	*Non necessaria*
Fluido	*Aria filtrata*
Pressione d'esercizio	*0 ÷ 10 bar*
Temperatura nominale	*+20 °C*
Pressione nominale	*6 bar*
Portata nominale	*80 Nl/min*
Caratteristiche elettriche bobina	***Vedi MS ..... (pag. B-35 ÷ B-37)***

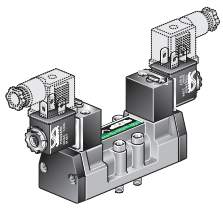
SOLENOID VALVES OPTIONS SERIES SVE 5 .. ... AND SVE 2 .. ...
OPZIONI PER ELETTROVALVOLE SERIE SVE 5 .. ... E SVE 2 .. ...

Series SVE5 ... and SVE2 ... **on request** can mount CNOMO solenoid pilots, with connectors in according DIN 43650 - B (**see ELCDC page B-89**) changing the order codes in:

Le elettrovalvole SVE5 ... e SVE2 ... possono essere equipaggiate ***su richiesta*** *con elettropiloti CNOMO con connettore in accordo alle norme* DIN 43650 - B *(****vedi ELCDC pagina B-89****) sostituendo nell'ordinazione il codice standard:*

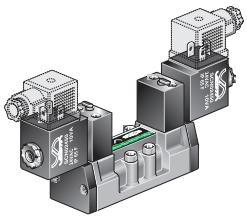
SVE5 ... ----> SVE6 ... (size 1) **SVE2 ... ----> SVE3 ...** (size 2).

example / *esempio*



SVE5 52 200-02450
with CNOMO solenoids
24 V at 50 Hz AC; 2,5 Watt
(**MS..** coil)

con elettropiloti CNOMO solenoidi da 24 V a 50 Hz AC; potenza di 2,5 Watt (bobina **MS..** *)*



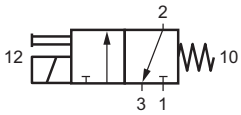
SVE6 52 200-02450
with CNOMO solenoids
24 V at 50 Hz AC; 2,5 Watt
in according DIN 43650 - B (**SCN..** coil)

con elettropiloti CNOMO solenoidi da 24 V a 50 Hz AC; potenza di 2,5 Watt conforme DIN 43650 - B *(bobina* **SCN..** *)*

CNOMO PILOT CONTROL SOLENOID VALVE
ELETTROPILOTA CNOMO CON BOBINA ***DIN 43650-B***

ELCDC - .....

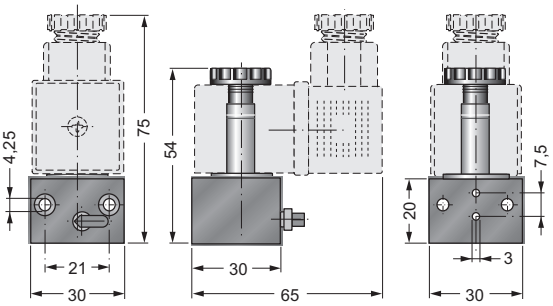
SIMBOL / *SIMBOLO*

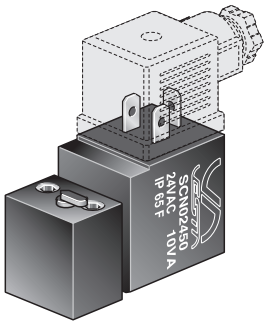


CODES / *CODICI*

Ordination code *Codice ordinazione*	**Voltage** *Tensione*
ELCDC - 00000	No coil / *Senza solenoide*
ELCDC - 01200	12 V DC
ELCDC - 02400	24 V DC
ELCDC - 02450	24 V 50/60Hz AC
ELCDC - 11050 (*)	110 V 50/60Hz AC
ELCDC - 22050 (*)	220 V 50/60Hz AC
ELCDC - 23050 (*)	230 V 50/60Hz AC

(*) Please see page / *Vedi pag.* **B-37**





TECHNICAL FEATURES

Flow section	Ø 1,5 mm
Ambient temperature range	-10 °C ÷ +50 °C
Temperature range of medium	0 °C ÷ +50 °C
Lubrication	Not required
Medium	Filtered air
Operating pressure range	0 ÷ 10 bar
Reference temperature	+20 °C
Reference pressure	6 bar
Nominal air flow	100 Nl/min
Coils electrical features	See **SCN..... (pag. B-89)**

CARATTERISTICHE TECNICHE

Diametro nominale	*Ø 1,5 mm*
Temperatura ambiente	*-10 °C ÷ +50 °C*
Temperatura fluido	*0 °C ÷ +50 °C*
Lubrificazione	*Non necessaria*
Fluido	*Aria filtrata*
Pressione d'esercizio	*0 ÷ 10 bar*
Temperatura nominale	*+20 °C*
Pressione nominale	*6 bar*
Portata nominale	*100 Nl/min*
Caratteristiche elettriche bobina	*Vedi* ***SCN..... (pag. B-89)***

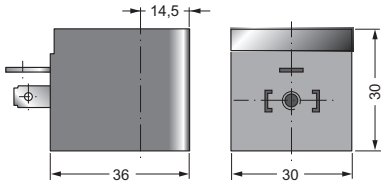
COIL FOR **ELCDC** SOLENOID VALVE
SOLENOIDE PER ELETTROPILOTA

SCN . . . . .

CODES / *CODICI*

Ordination code *Codice ordinazione*	**Voltage** *Tensione*
SCN01200	12 V DC
SCN02400	24 V DC
SCN02450	24 V 50/60Hz AC
SCN11050 (*)	110 V 50/60Hz AC
SCN22050 (*)	220 V 50/60Hz AC
SCN23050 (*)	230 V 50/60Hz AC

(*) Please see page / *Vedi pag.* **B-37**



DIN 43650 - A

TECHNICAL FEATURES

Standard voltage	12, 24 V DC 24,110, 220, 230, V AC (50/60 Hz)
Solenoid characteristics	2,5 Watt in DC; 3,5 V A in AC
Voltage	± 10% (continuos)
Ambient temperature range	-20 °C ÷ +50 °C
Degree of protection	Fixed plug IP 65 with connector
Pins according	DIN 43650 - B
Insulation	Class F
Expoy	Incapsulated

CARATTERISTICHE TECNICHE

Tensione standard	*12, 24 V DC* *24,110, 220, 230 V AC (50/60 Hz)*
Prestazioni bobina	*2,5 Watt in DC; 3,5 V A in AC*
Tensione nominale	*± 10% a bobina calda*
Limiti di temperatura ambiente	*-20 °C ÷ +50 °C*
Protezione	*IP 65 secondo IEC 144 con connettore e guarnizioni montate*
Connessione elettrica	*Secondo norma DIN 43650 - B*
Bobina	*Classe F, Filo rame classe 200 °C*
Sovrastampatura	*Resina epossidica*

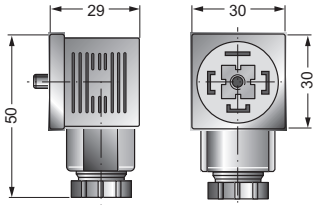
SOLENOID CONNECTOR FOR **SCN** COIL
CONNETTORE PER SOLENOIDE SERIE ***SCN***

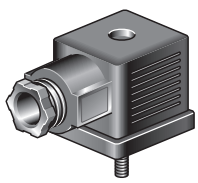
CEP/2 . . . . . .

CODES / *CODICI*

Description *Descrizione*	**Code** *Codice*	**Voltage** *Tensione*
Universal connector *Connettore universale*	**CEP/2**	All tension *Tutte le tensioni*
Connector with led *Connettorecon led*	**CEP/2 L 10 / 50** **CEP/2 L 70 / 250** (*)	10/50 V AC / DC 70/250 V AC / DC
Connector with led and varistor *Connettorecon led e varistore*	**CEP/2 LV 24** **CEP/2 LV 110** (*) **CEP/2 LV 220** (*)	24 V AC / DC 110 V AC / DC 220 V AC / DC

(*) Please see page / *Vedi pag.* **B-37**





TECHNICAL FEATURES

Wire connection	With screwed terminals
Gland thread	PG 11
Number of poles	2 Poles + earth
Housing colour	Black, transparent in the led version

CARATTERISTICHE TECNICHE

Connessione cavi	*Con morsetti a vite*
Filettatura passacavo	*PG 11*
N° Poli	*2 Poli + terra*
Colori connettore	*Nero, trasparente nella versione con led.*

INDEX / *INDICE*

(*) **ATEX** versions see / *Versioni* **ATEX** *vedi P.* ***B-113***

VALVES AND SOLENOID VALVES SERIES NAMUR 3/2 / *VALVOLE ED ELETTOVALVOLE SERIE NAMUR 3/2*

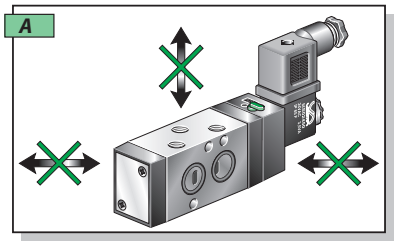
(*) **ATEX** versions see / *Versioni* **ATEX** *vedi P.* ***B-113***

VALVES AND SOLENOID VALVES SERIES NAMUR 5/2 / *VALVOLE ED ELETTOVALVOLE SERIE NAMUR 5/2*

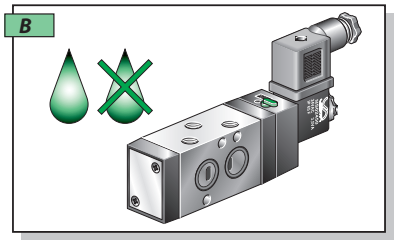
BUILDING FEATURES / *CARATTERISTICHE COSTRUTTIVE*

VESTA "**NAMUR**" valves are available in the 3/2 and 5/2 versions, with different forms of actuation (i.e. solenoid / pilot etc).
This series of valves present a high nominal air flow and no environmental contact between the namur valve and the actuator being switched (See Fig. **A**). These namur valves have a high working frequency and can be used with lubricated or non-lubricated air (See Fig. **B**), thanks to a spool made of a light alloy aluminium, nickel treated by "Niploy Process" (See Fig. **C**) to give the surface a smooth finish. The self lubricating lip rubber seals which the spool runs in, assures the valves of a long lasting durable life span.

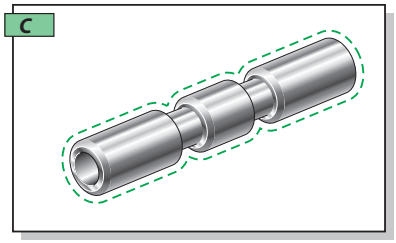
*Le valvole ed elettrovalvole VESTA della serie **NAMUR** funzionano secondo il principio del distributore a cassetto bilanciato (vedi fig. **1** e **2**).*
La serie, realizzata nelle funzioni 3/2 e 5/2, viene fornita con più sistemi di azionamento e riposizionamento.
*Le caratteristiche fondamentali sono: grande portata d'aria, ermeticità di funzionamento verso l' ambiente di lavoro nei modelli bistabili e in quelli con ritorno a molla pneumatica (**A**), alta velocità di scambio, possibilità di funzionamento continuo privo di lubrificazione (**B**) ottenuto con l'impiego di materiali particolari come, ad esempio, la spola realizzata in lega leggera con trattamento Niploy Process che le conferisce notevole durezza superficiale e caratteristiche autolubrificanti (**C**), e le guarnizioni in elastomero nitrilico con profilo a labbro antiusura.*



Protected against working evnironment.
Protezione verso l'ambiente di lavoro.



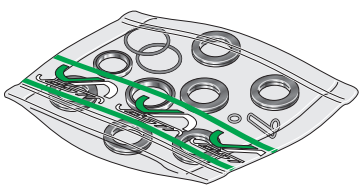
Possibility of operating continuosly without lubrication.
Possibilità di funzionamento continuo privo di lubrificazione.



Light alloy spool with Niploy Process treated surface.
Spola in lega leggera con trattamento speciale Niploy Process.

SET . 1/4 SG

SEALS KIT
KIT GUARNIZIONI DI RICAMBIO



Seals kit code - *Codice del kit*

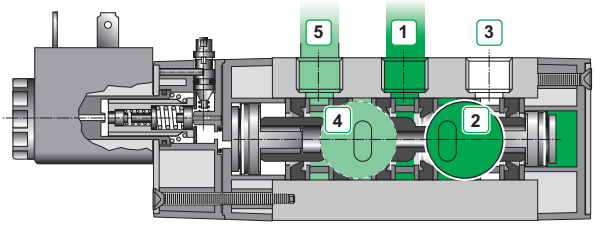
SET 1 1/4 SG for NAMUR **mono-stable** valves - *per valvole NAMUR.*

SET 2 1/4 SG for NAMUR **bi-stable** valves - *per valvole NAMUR.*

Example / *Esempio:* **NM32W1S-SR -02400 ---> SET 1 1/4 SG** **NM32W2S-TP -02400 ---> SET 2 1/4 SG**

In the example here below, when the valve **NM52W1S-PR-02450** (see the draw) stands in the normal position, ports **4 - 5** and **1 - 2** are connected and the position is kept thanks to the pressure assured to the smallest piston (right side of the valve).
When the valve is actuated, the same pressure is fed to the biggest piston. It's bigger surface create a force which allows to the spool to move and therefore to connect ports **4 - 1** and **2 - 3**. In the mechanical spring version, the valve is kept in the normal position by a mechanical spring. In the bistable versions, the position of the valve remains in its last switched state.

Il principio di funzionamento dei distributori 3/2 e 5/2 (nell'esempio l'elettrovalvola **NM52W1S-PR-02450** *con comando elettropneumatico e riposizionamento a molla pneumatica) consiste nel mantenere costantemente in pressione il pistone di riposizionamento (fig.* ***1****), utilizzando la fonte d'aria compressa presente nel condotto di alimentazione* ***1****, collegando le vie* ***1- 2*** *e* ***4 - 5****.*
L' eccitazione del solenoide mette in comunicazione il condotto ***1*** *con la camera dove é alloggiato il pistone di comando. Quest'ultimo, avendo un'area di spinta maggiore del pistone di riposizionamento, sposta la spola in modo tale da collegare i canali* ***1- 4*** *e* ***2- 3*** *(fig.* ***2****).*
Diseccitando il solenoide si ripristina la posizione iniziale. Nel sistema dotato di riposizionamento con molla meccanica il funzionamento é analogo, mentre nei sistemi bistabili (doppio comando elettropneumatico o doppio comando pneumatico) in assenza di segnale rimangono i collegamenti formatisi nell'ultimo azionamento.



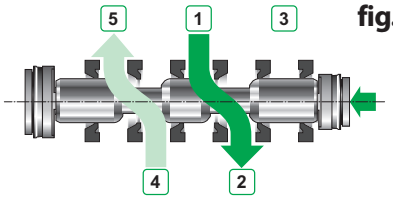
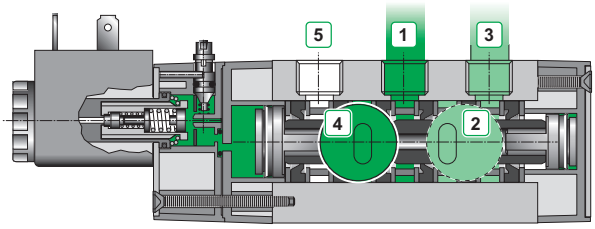


fig. 1

NORMAL POSITION / *POSIZIONE A RIPOSO*



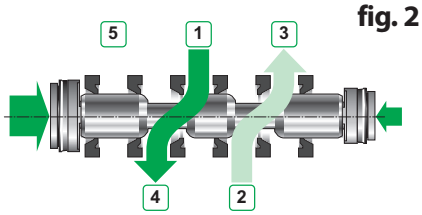
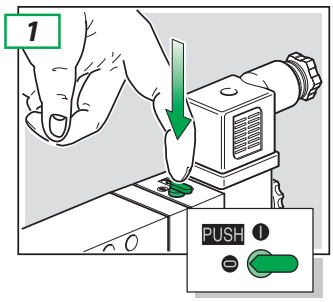


fig. 2

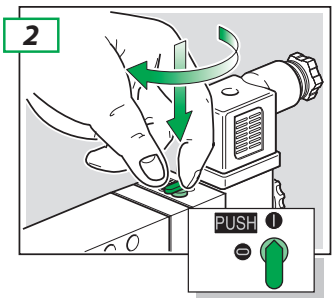
ACTUATED POSITION / *POSIZIONE DI LAVORO*

MANUAL OVERRIDING / *AZIONAMENTO COMANDO MANUALE*



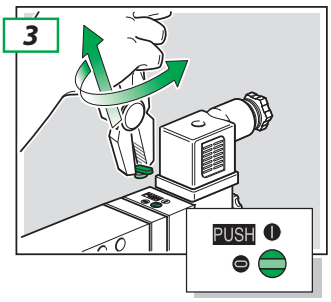
Push to actuated valve without locking. ***Relise the button to get back to normal position.***

Per azionare la valvola, durante la fase di collaudo con pressione in linea senza collegamento elettrico, premere la leva del comando manuale. ***Rilasciare per ripristinare la condizione di riposo.***



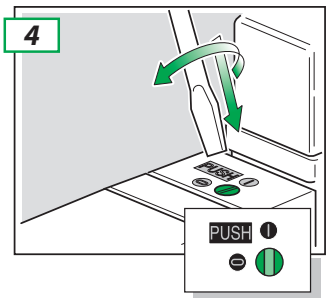
To active the valve permanently push the M/O (manual override) and rotate clockwise 90°. ***To return to normal position, push the M/O again and turn 90° anti-clockwise.***

Per azionare la valvola in modo permanente premere la leva del comando manuale e ruotare in senso orario sino alla posizione 1. ***Ruotare in senso antiorario per ripristinare la condizione di riposo.***



Should the M/O no longer be required, then turn the M/O anticlockwise until it breaks off.

Terminato il collaudo ruotare in senso antiorario la leva sino alla rottura.



Should the M/O be required after breaking off, then a screwdriver may be used.

Per interventi successivi sul comando manuale usare un adeguato cacciavite ed operare come al punto ***1*** *o* ***2****.*

SERIE **NM**

TECHNICAL FEATURES / *CARATTERISTICHE TECNICHE*

COMMON TECHNICAL FEATURES NM

Fixing	N° 2 Holes Ø 5,3	Medium	Filtered air
Port connections	G 1/4	Reference temperature	+20 °C
Flow section	Ø 8 mm	Reference pressure	6 bar
Environment temperature range	-10 °C / +50 °C	Nominal air flow	1080 Nl/min
Temperature range of medium	0 °C / +40 °C	Fluid conductance "C"	4,34 Nl/s bar
Lubrication	Not required	Critical pressure ratio "b"	0,212

PNEUMATIC VALVES FEATURES NM

NM32V1P - SR **NM52V1P - SR**	Nominal max frequence **Operating pressure range**	10 Hz **2,5 ÷ 10 bar**
NM32V2P - TP **NM52V2P - TP**	Nominal max frequence **Operating pressure range**	30 Hz **1,5 ÷ 10 bar**
NM32V1P - PR **NM52V1P - PR**	Nominal max frequence **Operating pressure range**	20 Hz **2,5 ÷ 10 bar**

SOLENOID VALVES FEATURES NM

		AC	DC
NM32W1S - SR **NM52W1S - SR**	Nominal. max frequence	11 Hz	11 Hz
	Response time - swich ON	19 ms	21 ms
	Response time - swich OFF	35 ms	46 ms
	Operating pressure range	**2,5 ÷ 10 bar**	
NM32W2S - TP **NM52W2S - TP**	Nominal. max frequence	27 Hz	21 Hz
	Response time - swich ON	11 ms	14 ms
	Response time - swich OFF	11 ms	14 ms
	Operating pressure range	**1,5 ÷ 10 bar**	

		AC	DC
NM32W1S - PR **NM52W1S - PR**	Nominal. max frequence	16 Hz	13 Hz
	Response time - swich ON	18 ms	21 ms
	Response time - swich OFF	33 ms	44 ms
	Operating pressure range	**2,5 ÷ 10 bar**	

For electrical features solenoid pilot NAMUR serie pp. B-36 ÷ B-37.

CARATTERISTICHE TECNICHE COMUNI NM

Fissaggio	*N° 2 fori Ø 5,3*	*Fluido*	*Aria filtrata*
Connessioni	*G 1/4*	*Temperatura nominale*	*+20 °C*
Diametro nominale	*Ø 8 mm*	*Pressione nominale*	*6 bar*
Temperatura ambiente	*-10 °C / +50 °C*	*Portata nominale*	*1080 Nl/min*
Temperatura fluido	*0 °C / +40 °C*	*Valore conduttanza "C"*	*4,34 Nl/s bar*
Lubrificazione	*Non necessaria*	*Rapporto critico delle pressioni "b"*	*0,212*

CARATTERISTICHE VALVOLE PNEUMATICHE NM

NM32V1P - SR **NM52V1P - SR**	*Frequenza max nominale* ***Pressione di esercizio***	*10 Hz* ***2,5 ÷ 10 bar***
NM32V2P - TP **NM52V2P - TP**	*Frequenza max nominale* ***Pressione di esercizio***	*30 Hz* ***1,5 ÷ 10 bar***
NM32V1P - PR **NM52V1P - PR**	*Frequenza max nominale* ***Pressione di esercizio***	*20 Hz* ***2,5 ÷ 10 bar***

CARATTERISTICHE ELETTROVALVOLE NM

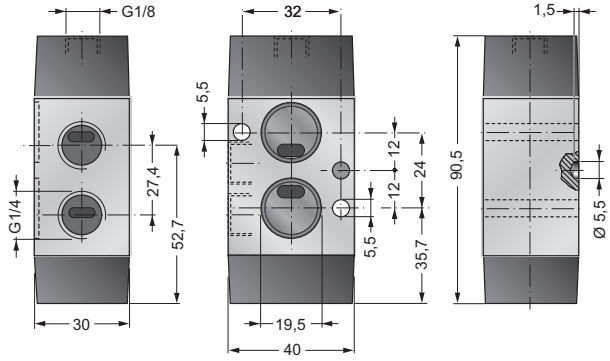
		AC	DC
NM32W1S - SR **NM52W1S - SR**	*Frequenza max nominale*	*11 Hz*	*11 Hz*
	Tempo medio di risposta in eccitazione	*19 ms*	*21 ms*
	Tempo medio di risposta in diseccitazione	*35 ms*	*46 ms*
	Pressione di esercizio	***2,5 ÷ 10 bar***	
NM32W2S - TP **NM52W2S - TP**	*Frequenza max nominale*	*27 Hz*	*21 Hz*
	Tempo medio di risposta in eccitazione	*11 ms*	*14 ms*
	Tempo medio di risposta in diseccitazione	*11 ms*	*14 ms*
	Pressione di esercizio	***1,5 ÷ 10 bar***	

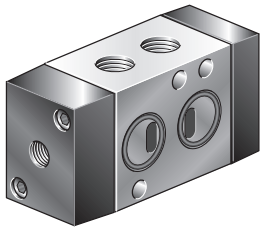
		AC	DC
NM32W1S - PR **NM52W1S - PR**	*Frequenza max nominale*	*16 Hz*	*13 Hz*
	Tempo medio di risposta in eccitazione	*18 ms*	*21 ms*
	Tempo medio di risposta in diseccitazione	*33 ms*	*44 ms*
	Pressione di esercizio	***2,5 ÷ 10 bar***	

***Caratteristiche elettriche bobina per elettrovalvole serie* NAMUR *vedi pp.* B-36 ÷ B-37.**

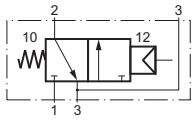
NM32V1P - SR

VALVE / *VALVOLA* 3/2
SINGLE PNEUMATIC PILOT - SPRING RETURN
COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA MECCANICA

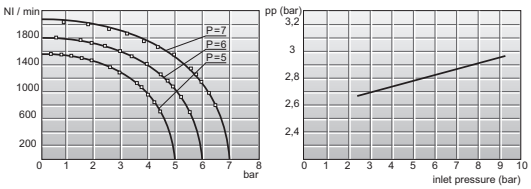




SIMBOL / *SIMBOLO*



DIAGRAMS / *DIAGRAMMI*

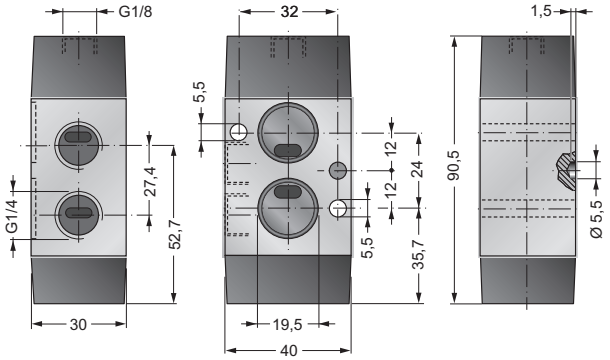


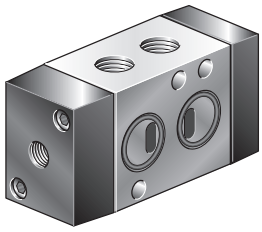
AIR FLOW DIAGRAM
DIAGRAMMA DELLE PORTATE

PILOT PRESSURE / INLET PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO IN RELAZIONE ALLA PRESSIONE DI ALIMENTAZIONE

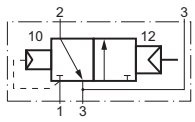
NM32V1P - PR

VALVE / *VALVOLA* 3/2
SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN
COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA

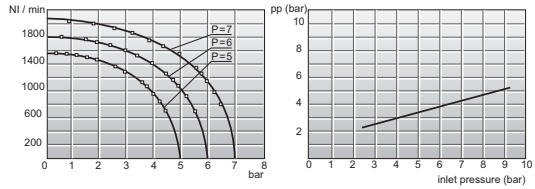




SIMBOL / *SIMBOLO*



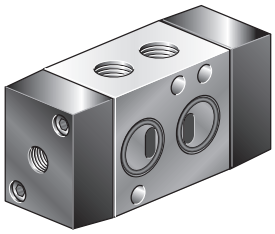
DIAGRAMS / *DIAGRAMMI*



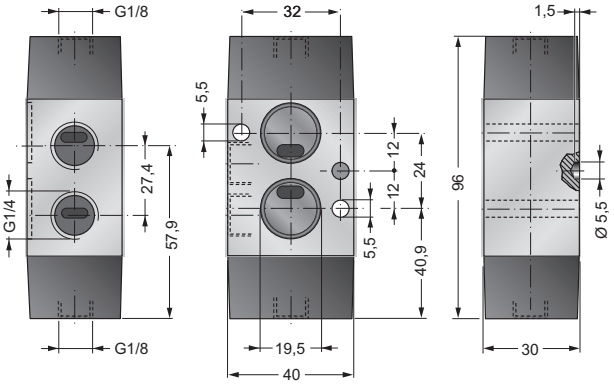
AIR FLOW DIAGRAM
DIAGRAMMA DELLE PORTATE

PILOT PRESSURE / INLET PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO IN RELAZIONE ALLA PRESSIONE DI ALIMENTAZIONE

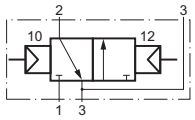
NM32V2P - TP



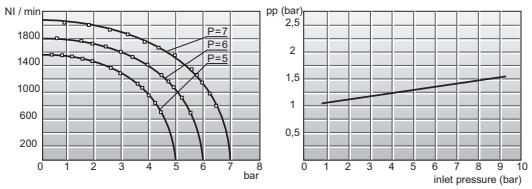
VALVE / *VALVOLA* 3/2
DOUBLE PNEUMATIC PILOT
DOPPIO COMANDO PNEUMATICO



SIMBOL / *SIMBOLO*



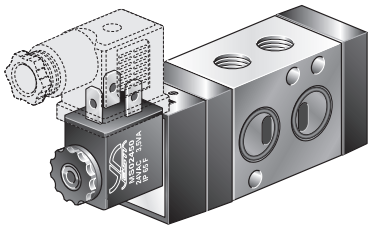
DIAGRAMS / *DIAGRAMMI*



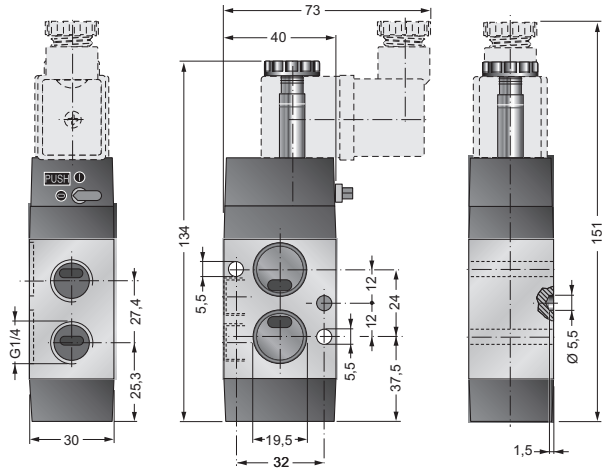
AIR FLOW DIAGRAM
DIAGRAMMA DELLE PORTATE

PILOT PRESSURE / INLET PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO IN RELAZIONE ALLA PRESSIONE DI ALIMENTAZIONE

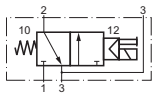
NM32W1S - .R - .....



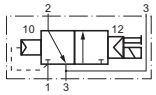
VALVE / *VALVOLA* 3/2
SOLENOID VALVE
COMANDO ELETTROPNEUMATICO



SIMBOLS / *SIMBOLI*

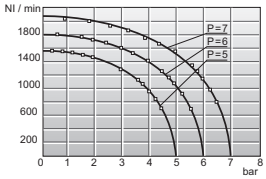


NM32W1S-SR-.....



NM32W1S-PR-.....

DIAGRAM / *DIAGRAMMA*



AIR FLOW DIAGRAM
DIAGRAMMA DELLE PORTATE

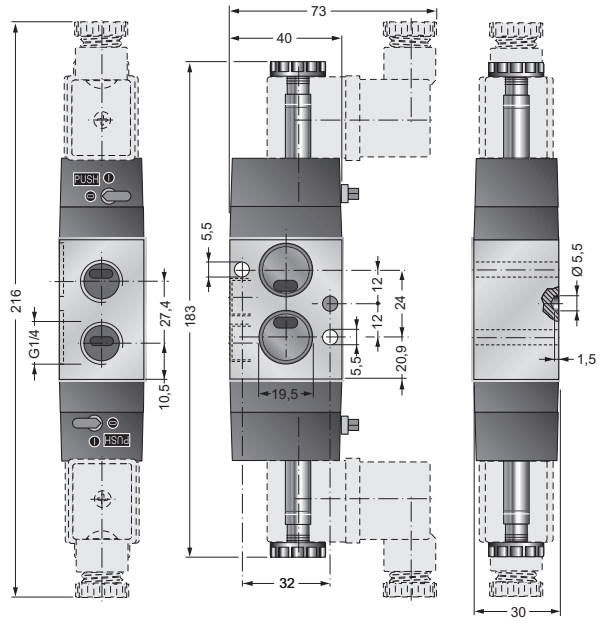
CODES / *CODICI*

Ordination code *Codice ordinazione*	**Voltage** *Tensione*
NM32W1S - .R - 00000	No coil / *Senza solenoide*
NM32W1S - .R - 01200	12 V DC
NM32W1S - .R - 02400	24 V DC
NM32W1S - .R - 02450	24 V 50/60Hz AC
NM32W1S - .R - 11550	115 V 50/60Hz AC
NM32W1S - .R - 22050	220 V 50/60Hz AC

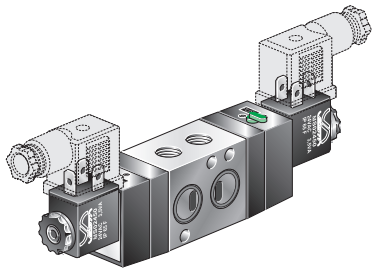
VALVE / *VALVOLA* 3/2

DOUBLE SOLENOID VALVE

DOPPIO COMANDO ELETTROPNEUMATICO



NM32W2S - TP - .....



SIMBOL / *SIMBOLO*

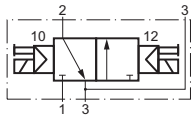
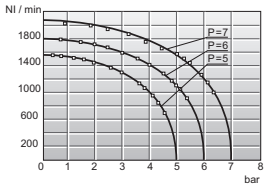


DIAGRAM / *DIAGRAMMA*



AIR FLOW DIAGRAM

DIAGRAMMA DELLE PORTATE

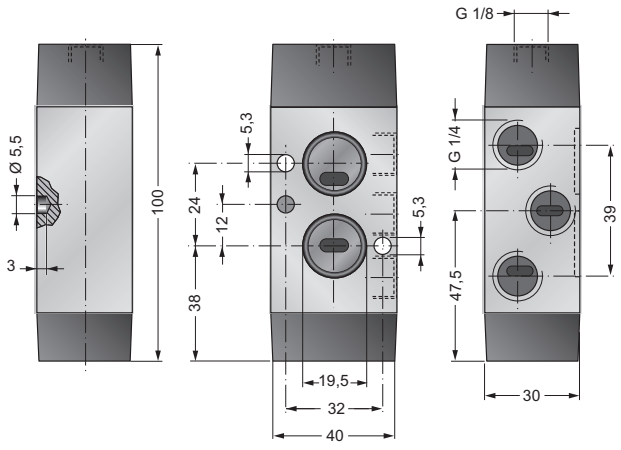
CODES / *CODICI*

Ordination code *Codice ordinazione*	Voltage *Tensione*
NM32W2S - TP - 00000	No coils / *Senza solenoidi*
NM32W2S - TP - 01200	12 V DC
NM32W2S - TP - 02400	24 V DC
NM32W2S - TP - 02450	24 V 50/60Hz AC
NM32W2S - TP - 11550	115 V 50/60Hz AC
NM32W2S - TP - 22050	220 V 50/60Hz AC

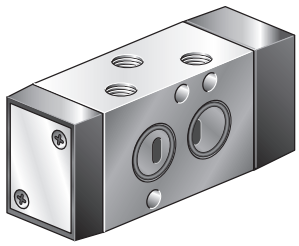
VALVE / *VALVOLA* 5/2

SINGLE PNEUMATIC PILOT - SPRING RETURN

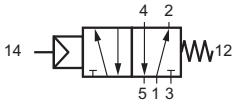
COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA MECCANICA



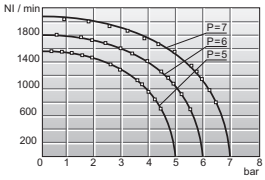
NM52V1P - SR



SIMBOL / *SIMBOLO*

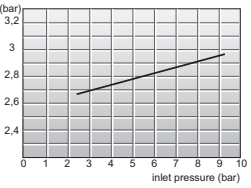


DIAGRAMS / *DIAGRAMMI*



AIR FLOW DIAGRAM

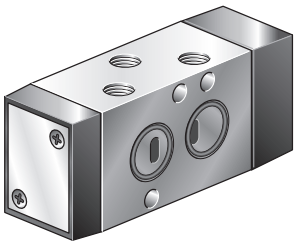
DIAGRAMMA DELLE PORTATE



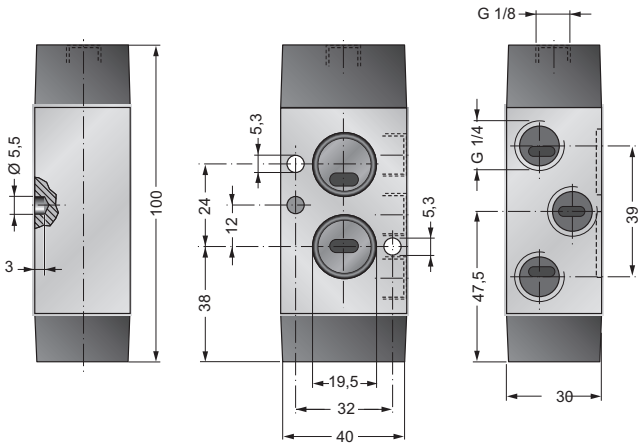
PILOT PRESSURE / INLET PRESSURE

DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO IN RELAZIONE ALLA PRESSIONE DI ALIMENTAZIONE

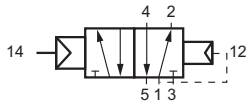
NM52V1P - PR



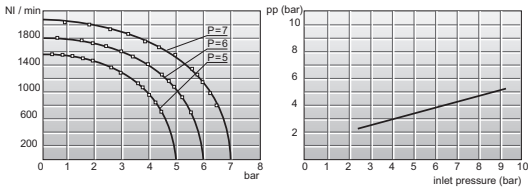
VALVE / *VALVOLA* 5/2
SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN
COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA



SIMBOL / *SIMBOLO*



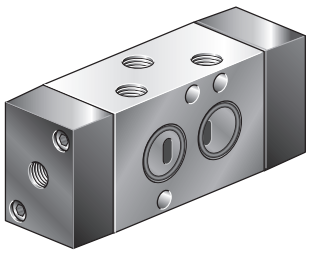
DIAGRAMS / *DIAGRAMMI*



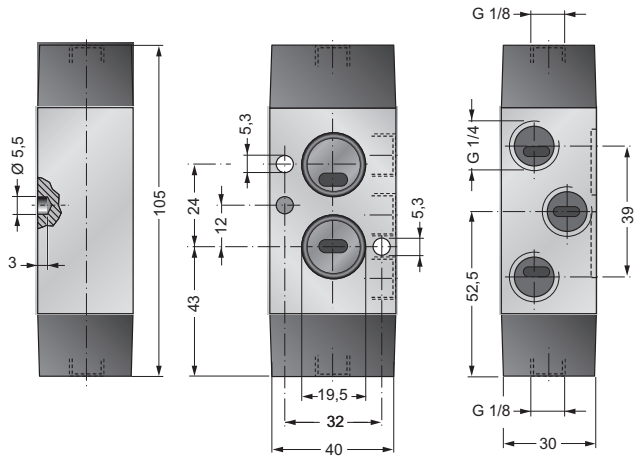
AIR FLOW DIAGRAM
DIAGRAMMA DELLE PORTATE

PILOT PRESSURE / INLET PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO IN RELAZIONE ALLA PRESSIONE DI ALIMENTAZIONE

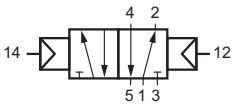
NM52V2P - TP



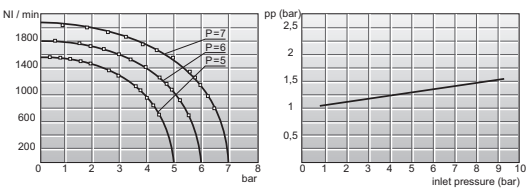
VALVE / *VALVOLA* 5/2
DOUBLE PNEUMATIC PILOT
DOPPIO COMANDO PNEUMATICO



SIMBOL / *SIMBOLO*



DIAGRAMS / *DIAGRAMMI*



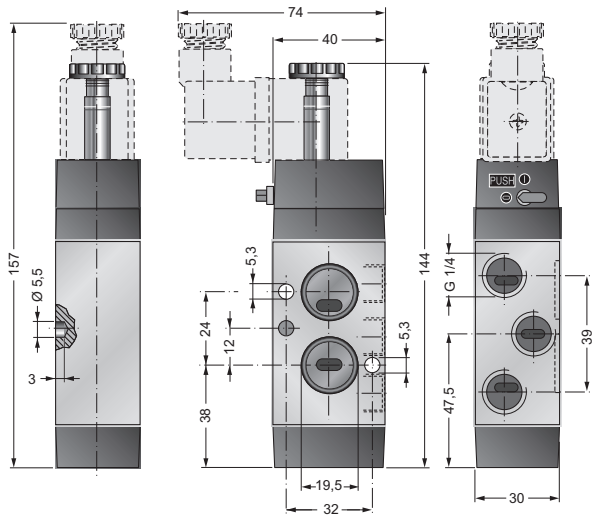
AIR FLOW DIAGRAM
DIAGRAMMA DELLE PORTATE

PILOT PRESSURE / INLET PRESSURE
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO IN RELAZIONE ALLA PRESSIONE DI ALIMENTAZIONE

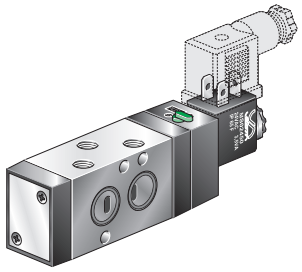
VALVE / *VALVOLA* 5/2

SOLENOID VALVE - SPRING RETURN

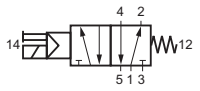
COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO A MOLLA MECCANICA



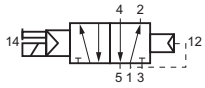
NM52W1S - .R -.....



SIMBOLS / *SIMBOLI*

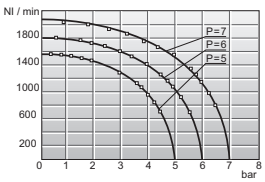


NM52W1S-SR-.....



NM52W1S-PR-.....

DIAGRAM / *DIAGRAMMA*



AIR FLOW DIAGRAM

DIAGRAMMA DELLE PORTATE

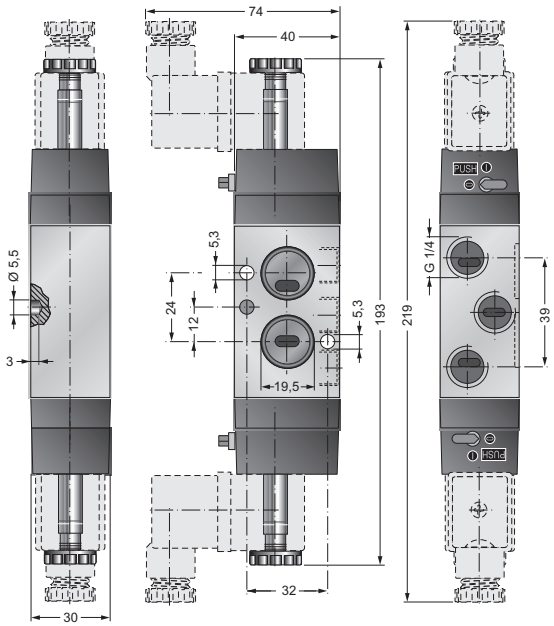
CODES / *CODICI*

Ordination code	Voltage
NM52W1S - .R - 00000	No coil / *Senza solenoide*
NM52W1S - .R - 01200	12 V DC
NM52W1S - .R - 02400	24 V DC
NM52W1S - .R - 02450	24 V 50/60Hz AC
NM52W1S - .R - 11550	115 V 50/60Hz AC
NM52W1S - .R - 22050	220 V 50/60Hz AC

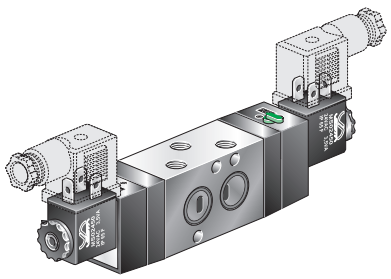
VALVE / 5/2

DOUBLE SOLENOID VALVE

DOPPIO COMANDO ELETTROPNEUMATICO



NM52W2S TP -.....



SIMBOL / *SIMBOLO*

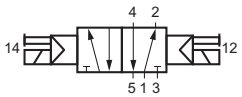
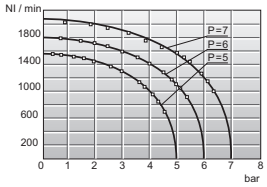


DIAGRAM / *DIAGRAMMA*



AIR FLOW DIAGRAM

DIAGRAMMA DELLE PORTATE

CODES / *CODICI*

Ordination code *Codice ordinazione*	Voltage *Tensione*
NM52W2S - TP - 00000	No coils / *Senza solenoidi*
NM52W2S - TP - 01200	12 V DC
NM52W2S - TP - 02400	24 V DC
NM52W2S - TP - 02450	24 V 50/60Hz AC
NM52W2S - TP - 11550	115 V 50/60Hz AC
NM52W2S - TP - 22050	220 V 50/60Hz AC

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MECHANICAL VALVES / *VALVOLE A COMANDO MECCANICO*

MECHANICAL VALVES / *VALVOLE A COMANDO MECCANICO*

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VALVOLA 5/2, *COMANDO A PUNTALE*

VCMS52S18
VALVE 5/2, CAM ACTUATED VALVE
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VCLL52M18
LATERAL ROLLER-LEVEL VALVE
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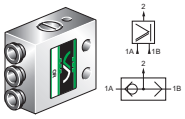
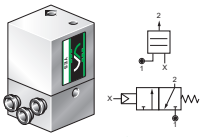
AUTOMATIC VALVES / *VALVOLE AUTOMATICHE*

AND
LOGIC ELEMENT "AND" FUNCTION
UNITA' LOGICA FUNZIONE "AND"



OR
LOGIC ELEMENT "OR" FUNCTION
UNITA' LOGICA FUNZIONE "OR"



YES
LOGIC ELEMENT "YES" FUNCTION
UNITA' LOGICA FUNZIONE "YES"

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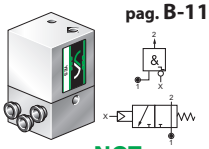
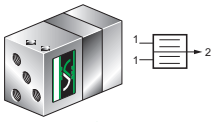


NOT
LOGIC ELEMENT "NOT" FUNCTION
UNITA' LOGICA FUNZIONE "NOT"



SBI
TWO - HAND SAFETY VALVE
SICUREZZA BIMANUALE

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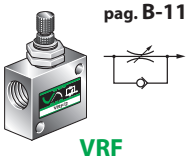


VRF
FLOW REGULATORS
REGOLATORE DI FLUSSO

MANUAL - MECHANICAL OPERATED VALVES / *VALVOLE MANUALI MECCANICHE*

The choice of high quality materials and the technical solution adopted allows to the VESTA valves to reach good performances even in harsh environmental conditions. The spool is made in stainless steel. Its particular shape allows high nominal flow rates, and the combination with self lubricating lip rubber seals, reduce internal friction and provides the valve with a long lasting durable life span.
VESTA manual valves can operate continuosly without lubrication.

Le valvole manuali e meccaniche VESTA sono disponibili in una vasta gamma di modelli e di taglie.
Le soluzioni tecniche adottate ed i materiali impiegati hanno permesso di realizzare un prodotto che presenta elevate prestazioni funzionali anche in condizioni di impiego particolarmente gravose. La combinazione tra la spola in acciaio inox e le guarnizioni in elastomero nitrilico con profilo del labbro anti-usura, permette, accanto ad una riduzione degli attriti, un' alta velocità di scambio e cicli di lavoro elevati, garantendo una maggiore durata della meccanica interna. Tutti i modelli di valvole possono essere utilizzati anche in assenza di lubrificazione.

TECHNICAL FEATURES / *CARATTERISTICHE TECNICHE*

SERIE **VC..**

COMMON TECHNICAL FEATURES VALVES VCM - VCP - VCLR - VCLL

Fixing	n°3 holes Ø 4,3
Port connection	G1/8 G1/4
Flow section	Ø 6 mm for G1/8 Ø 8 mm for G1/4
Ambient temperature range	-10 °C ÷ +50 °C
Temperature range of medium	0 °C ÷ +40 °C
Lubrication	Not required
Medium	Filtered air
Operating pressure range	0 ÷ 10 bar
Reference temperature	+20 °C
Reference pressure	6 bar
Nominal air flow	650 Nl/min for G1/8 1080 Nl/min for G1/4

CARATTERISTICHE COMUNI VALVOLE VCM - VCP - VCLR - VCLL

Fissaggio	*n°3 fori laterali Ø 4,3*
Connessioni	*G1/8* *G1/4*
Diametro nominale	*Ø 6 mm per G1/8* *Ø 8 mm per G1/4*
Temperatura ambiente	*-10 °C ÷ +50 °C*
Temperatura fluido	*0 °C ÷ +40 °C*
Lubrificazione	*Non necessaria*
Fluido	*Aria filtrata*
Pressione d'esercizio	*0 ÷ 10 bar*
Temperatura nominale	*+20 °C*
Pressione nominale	*6 bar*
Portata nominale	*650 Nl/min per G1/8* *1080 Nl/min per G1/4*

MANUAL MICROVALVES PUSH-IN Ø4 mm / *MICROVALVOLE TUBO Ø4 mm*

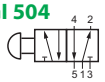
PGI ..4

PUSH BUTTON - SPRING RETURN
COMANDO A PULSANTE

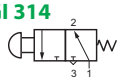
PGI ..4 R
Red - *Rosso*

PGI ..4 B
Black - *Nero*

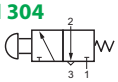
PGI 504



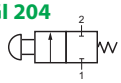
PGI 314

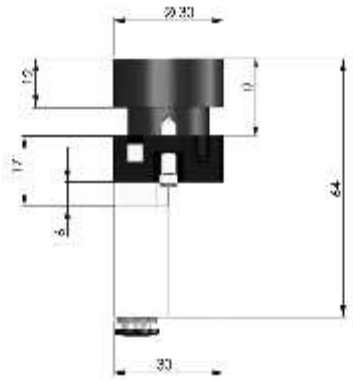


PGI 304



PGI 204

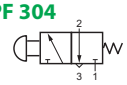




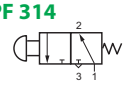
PF ..4

MUSHROOM PUSH BUTTON - SPRING RETURN
COMANDO A FUNGO

PF 304



PF 314



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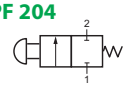
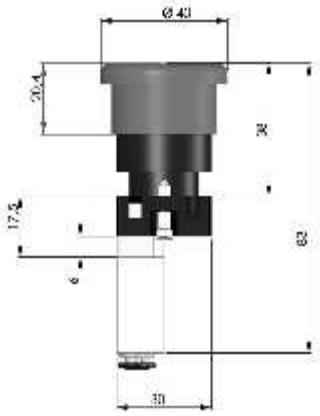
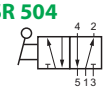




SR ..4

SHORT LEVER SELECTOR - MANUAL RETURN
COMANDO A SELETTORE

SR 504



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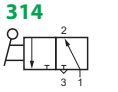

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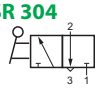

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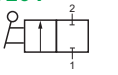
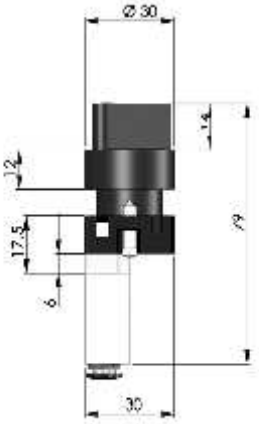
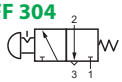




PFF ..4

EMERGENCY PUSH BUTTON
PULSANTE D' EMERGENZA

PFF 304



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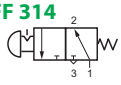

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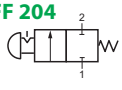
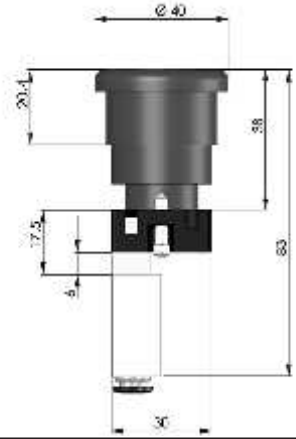


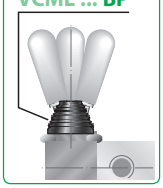


LEVER VALVES / *VALVOLE COMANDO A LEVA*

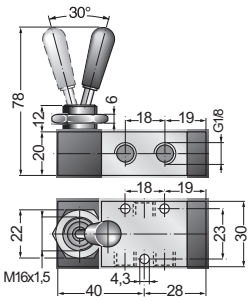
PORT CONNECTION G1/8 - LEVER VALVE
CONNESSIONI G1/8 - COMANDO MANUALE A LEVA

VCML32..8

on request bellow protection
a richiesta soffietto di protezione
VCML ... BP

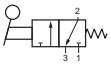


VALVE / *VALVOLA 3/2*

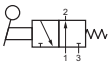


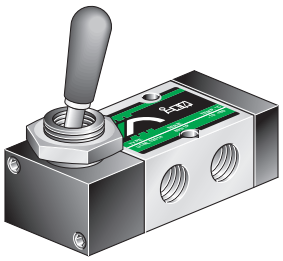
VCML32018

VCML326M8



VCML329M8

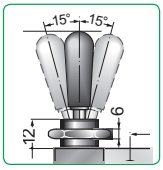




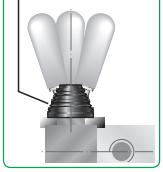
Available with rubber bellow protection
Disponibile con soffietto di protezione

PORT CONNECTION G1/8 - LEVER VALVE
CONNESSIONI G1/8 - COMANDO MANUALE A LEVA

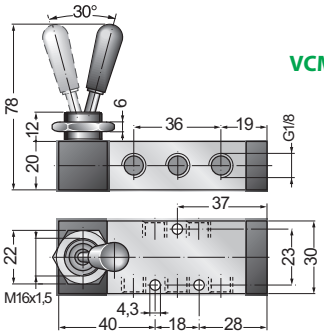
VCML5 ... 8



on request bellow protection
a richiesta soffietto di protezione
VCML ... BP

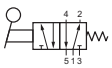


VALVE / *VALVOLA 5/2 - 5/3*

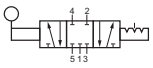


VCML52018

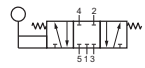
VCML52M18



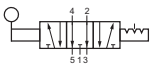
VCML53618



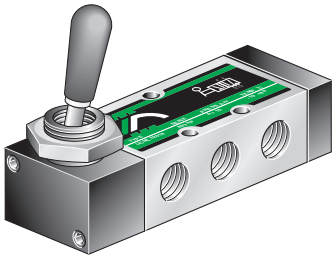
VCML536M8



VCML53918



VCML539M8

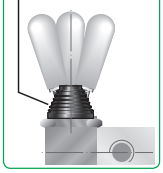


Available with rubber bellow protection
Disponibile con soffietto di protezione

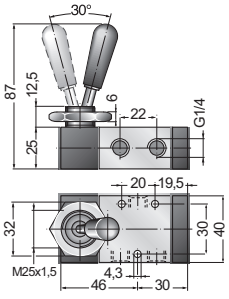
PORT CONNECTION G1/4 - LEVER VALVE
CONNESSIONI G1/4 - COMANDO MANUALE A LEVA

VCML32..4

on request bellow protection
a richiesta soffietto di protezione
VCML ... BP

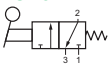


VALVE /*VALVOLA 3/2*

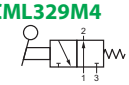


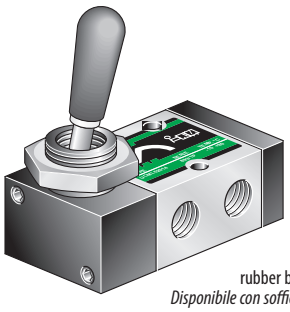
VCML32014

VCML326M4



VCML329M4

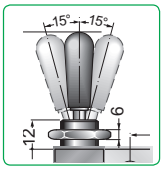




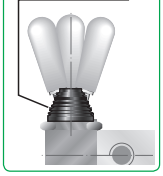
Available with
rubber bellow protection
Disponibile con soffietto di protezione

PORT CONNECTION G1/4 - LEVER VALVE
CONNESSIONI G1/4 - COMANDO MANUALE A LEVA

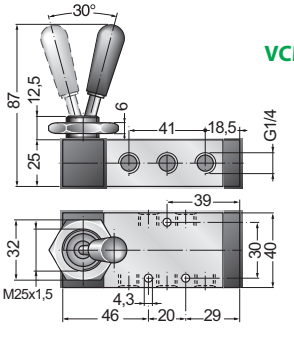
VCML5 ... 4



on request bellow protection
a richiesta soffietto di protezione
VCML ... BP

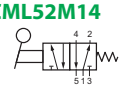


VALVE /*VALVOLA 5/2 - 5/3*



VCML52014

VCML52M14



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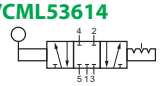
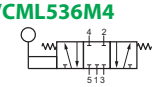
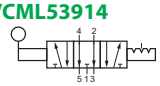


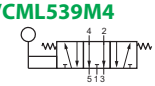
VCML536M4

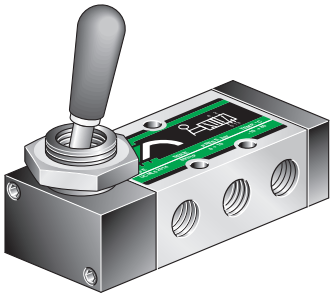


VCML53914



VCML539M4





Available with rubber bellow protection
Disponibile con soffietto di protezione

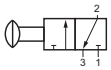
BUTTON VALVES / *VALVOLE COMANDO A TIRETTO*

VCMT32..8

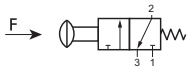
PORT CONNECTION G1/8 - BUTTON VALVE
CONNESSIONI G1/8 - COMANDO A TIRETTO

F min = 20N
F max = 40N

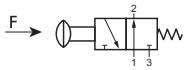
VCMT32018



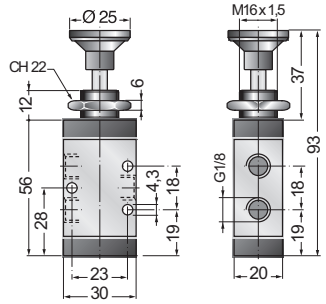
VCMT326M8



VCMT329M8



VALVE /*VALVOLA 3/2*

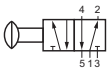


VCMT52.18

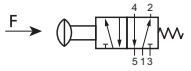
PORT CONNECTION G1/8 - BUTTON VALVE
CONNESSIONI G1/8 - COMANDO A TIRETTO

F min = 20N
F max = 40N

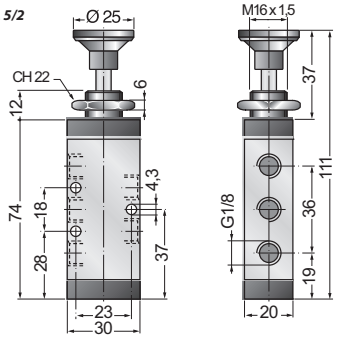
VCMT52018



VCMT52M18



VALVE /*VALVOLA 5/2*

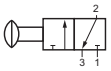


VCMT32..4

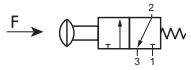
PORT CONNECTION G1/4 - BUTTON VALVE
CONNESSIONI G1/4 - COMANDO A TIRETTO

F min = 40N
F max = 60N

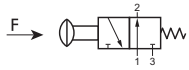
VCMT32014



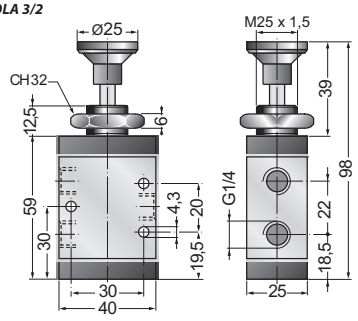
VCMT326M4



VCMT329M4



VALVE /*VALVOLA 3/2*

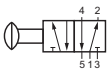


VCMT52.14

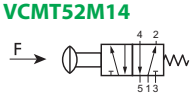
PORT CONNECTION G1/4 - BUTTON VALVE
CONNESSIONI G1/4 - COMANDO A TIRETTO

F min = 40N
F max = 60N

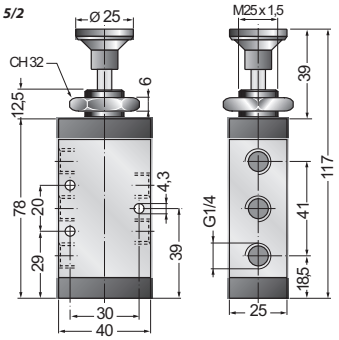
VCMT52014



VCMT52M14



VALVE /*VALVOLA 5/2*

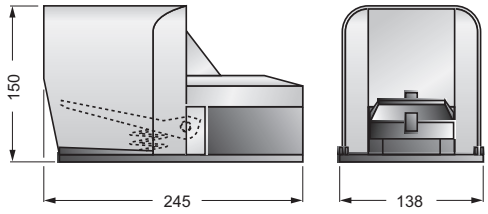


FOOT-PEDAL VALVES / *VALVOLE COMANDO A PEDALE*

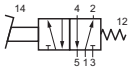
PORT CONNECTION G1/4 - FOOT-PEDAL VALVE
CONNESSIONI G1/4 - COMANDO A PEDALE

VFPP52..4

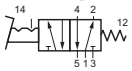
VALVE /*VALVOLA 5/2*

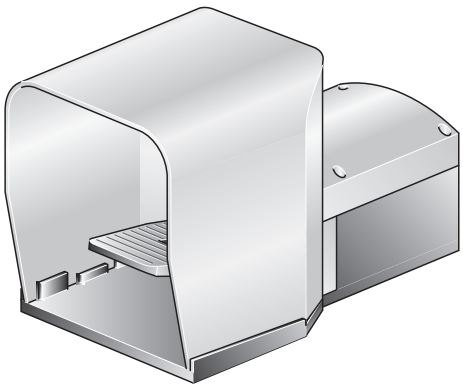


VFPP52M14



VFPP52FP4

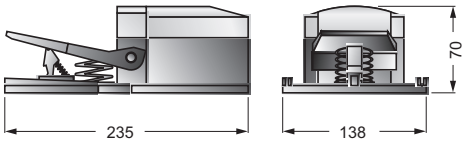




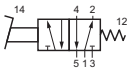
PORT CONNECTION G1/4 - FOOT-PEDAL VALVE
CONNESSIONI G1/4 - COMANDO A PEDALE

VFP52..4

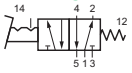
VALVE /*VALVOLA 5/2*

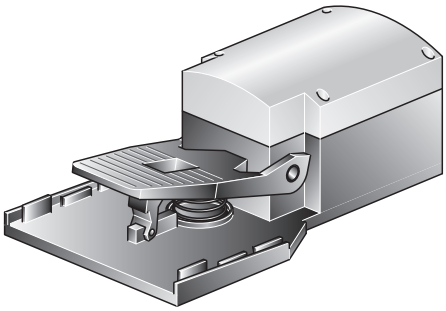


VFP52M14



VFP52FP4

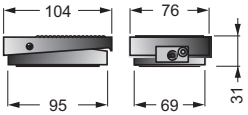




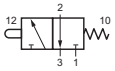
PORT CONNECTION Ø4 - FOOT-PEDAL VALVE
CONNESSIONI Ø4 - COMANDO A PEDALE

VFPMA304

VALVE /*VALVOLA 3/2*



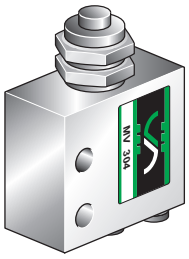
VFPMA304



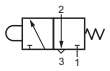
MECHANICAL MICROVALVES PUSH-IN Ø4 mm / *VALVOLE A COMANDO MECCANICO TUBO Ø4 mm*

MV ..4

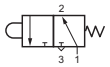
MECHANICAL VALVE
MICROVALVOLA FINECORSA



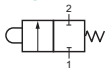
MV 304



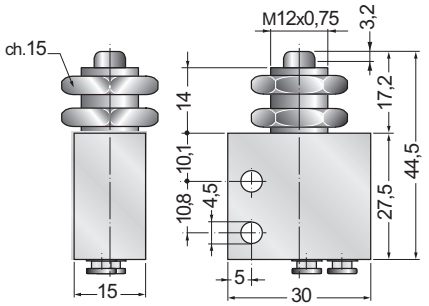
MV 314



MV 204

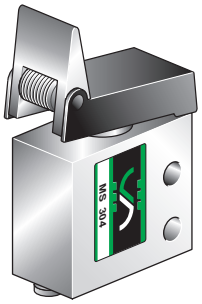


VALVE /*VALVOLA 3/2 e 2/2*

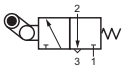


MS ..4

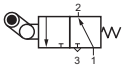
MECHANICAL VALVE
MICROVALVOLA FINECORSA



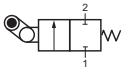
MS 304



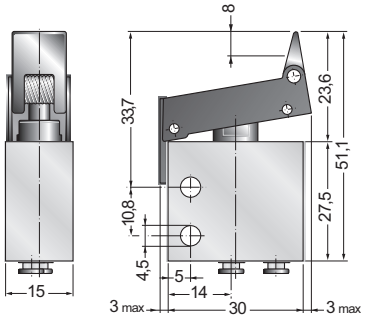
MS 314



MS 204

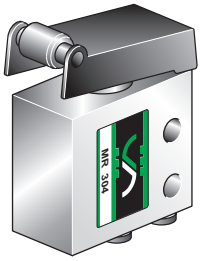


VALVE /*VALVOLA 3/2 e 2/2*

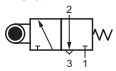


MR ..4

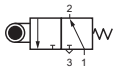
MECHANICAL VALVE
MICROVALVOLA FINECORSA



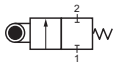
MR 304



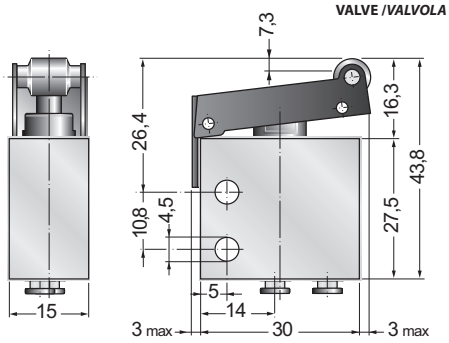
MR 314



MR 204

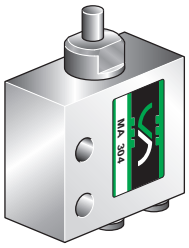


VALVE /*VALVOLA 3/2 e 2/2*

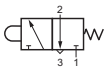


MA ..4

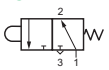
MECHANICAL VALVE
MICROVALVOLA FINECORSA



MA 304



MA 314



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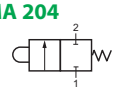
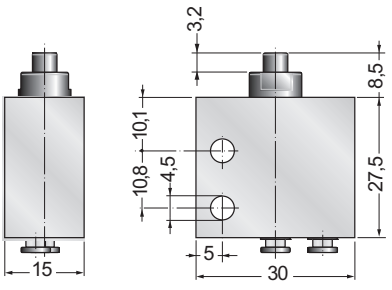


VALVE /*VALVOLA 3/2 e 2/2*

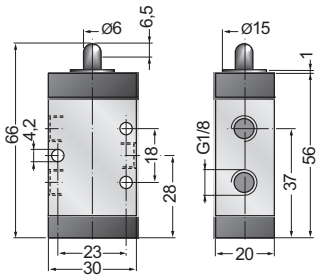


CAM ACTUATED VALVES G1/8 / *VALVOLE COMANDO A PUNTALE G1/8*

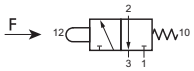
VALVE /*VALVOLA 3/2*

PORT CONNECTION G1/8 - CAM ACTUATED VALVE
CONNESSIONI G1/8 - COMANDO A PUNTALE

VCMS32.M8

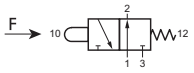


VCMS326M8



F min = 20N
F max = 40N

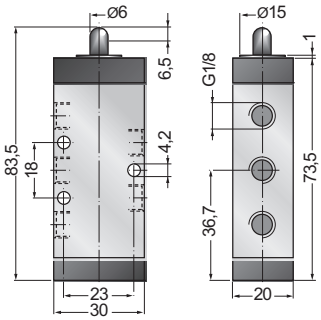
VCMS329M8



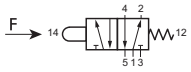
VALVE /*VALVOLA 5/2*

PORT CONNECTION G1/8 - CAM ACTUATED VALVE
CONNESSIONI G1/8 - COMANDO A PUNTALE

VCMS52M18



VCMS52M18

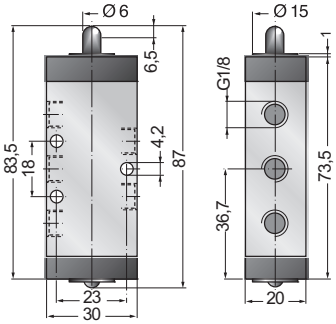


F min = 20N
F max = 40N

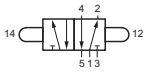
VALVE /*VALVOLA 5/2*

PORT CONNECTION G1/8 - CAM ACTUATED VALVE
CONNESSIONI G1/8 - COMANDO A PUNTALE

VCMS52S18



VCMS52S18

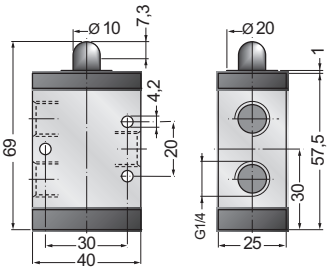


CAM ACTUATED VALVES G1/4 / *VALVOLE COMANDO A PUNTALE G1/4*

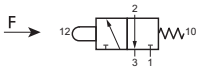
VALVE /*VALVOLA 3/2*

PORT CONNECTION G1/4 - CAM ACTUATED VALVE
CONNESSIONI G1/4 - COMANDO A PUNTALE

VCMS32.M4

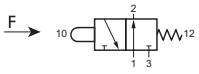


VCMS326M4



F min = 40N
F max = 60N

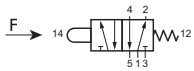
VCMS329M4



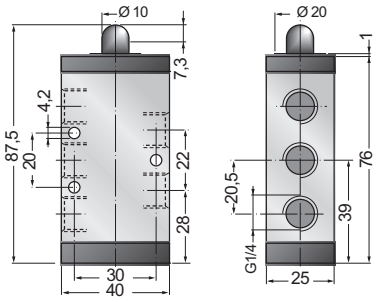
VCMS52M14

PORT CONNECTION G1/4 - CAM ACTUATED VALVE
CONNESSIONI G1/4 - COMANDO A PUNTALE

VCMS52M14



F min = 40N
F max = 60N

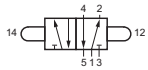


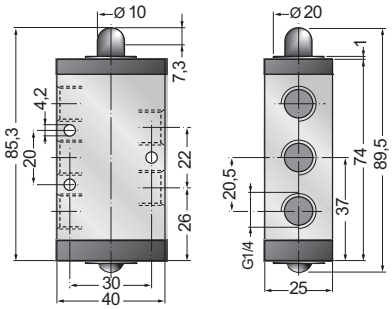
VALVE /*VALVOLA 5/2*

VCMS52S14

PORT CONNECTION G1/4 - CAM ACTUATED VALVE
CONNESSIONI G1/4 - COMANDO A PUNTALE

VCMS52S14





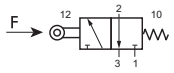
VALVE /*VALVOLA 5/2*

ROLLER-LEVER MECHANICAL VALVES / *VALVOLE AD AZIONAMENTO MECCANICO A LEVA-RULLO*

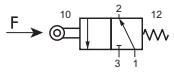
VCLR32 . M8

ROLLER-LEVER VALVE
VALVOLA AD AZIONAMENTO LEVA-RULLO

VCLR326M8



VCLR329M8



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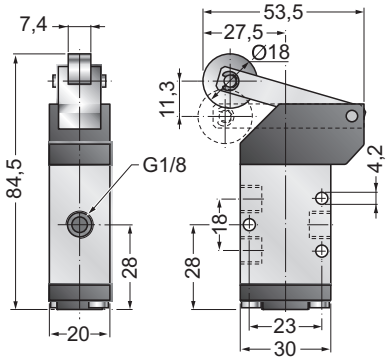
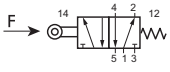


VALVE /*VALVOLA 3/2*

VCLR52M18

ROLLER-LEVER VALVE
VALVOLA AD AZIONAMENTO LEVA-RULLO

VCLR52M18



F min = 10N
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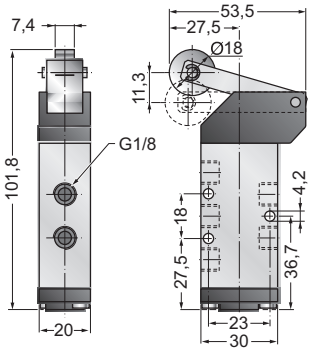
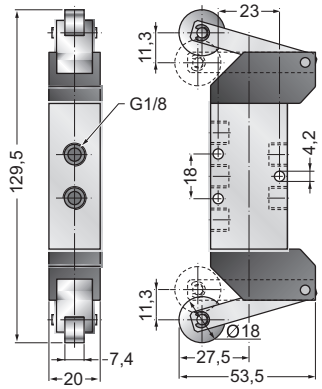


VALVE /*VALVOLA 5/2*

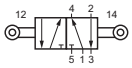
DUAL ROLLER-LEVER VALVE
VALVOLA A DOPPIO AZIONAMENTO LEVA-RULLO

VCLR52018

VALVE /*VALVOLA 5/2*



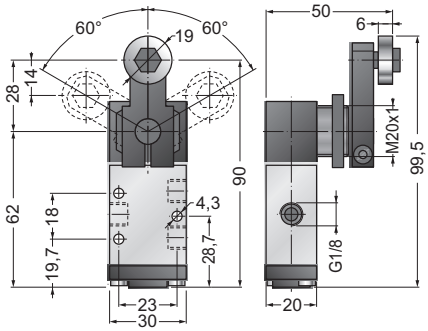
VCLR52018



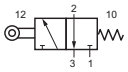
LATERAL ROLLER-LEVER VALVE
VALVOLA AD AZIONAMENTO LEVA-RULLO LATERALE

VCLL32 . M8

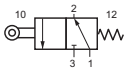
VALVE /*VALVOLA 3/2*



VCLL326M8



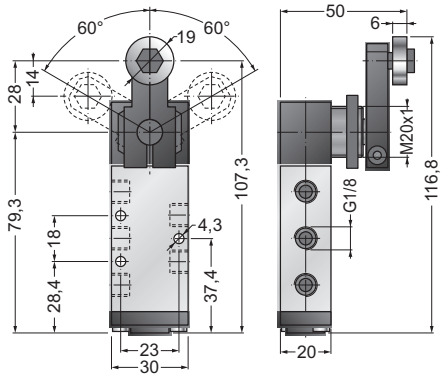
VCLL329M8



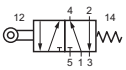
LATERAL ROLLER-LEVER VALVE
VALVOLA AD AZIONAMENTO LEVA-RULLO LATERALE

VCLL52M18

VALVE /*VALVOLA 3/2*



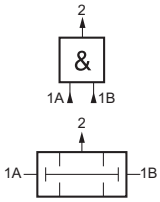
VCLL52M18

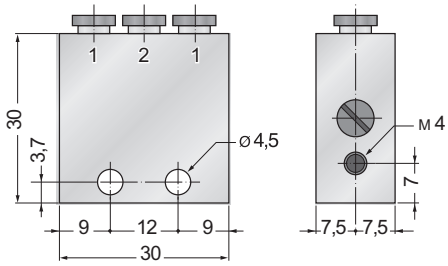


AND 42

LOGIC ELEMENT
UNITA' LOGICA

AND

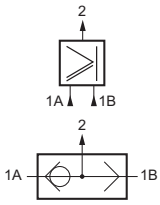


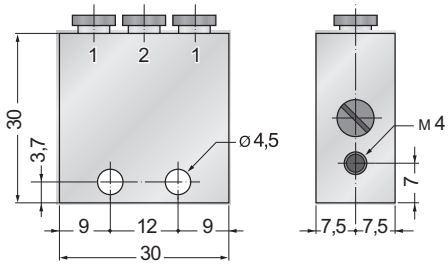


OR 42

LOGIC ELEMENT
UNITA' LOGICA

OR

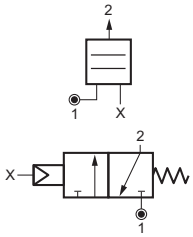


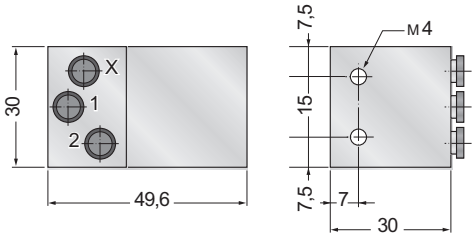


YES

LOGIC ELEMENT
UNITA' LOGICA

YES

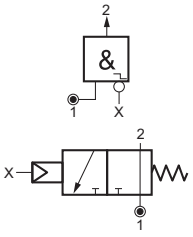


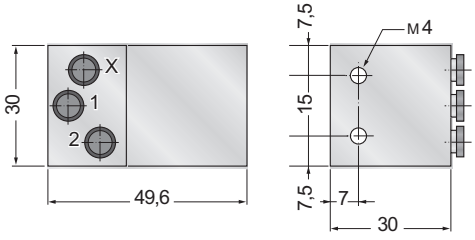


NOT

LOGIC ELEMENT
UNITA' LOGICA

NOT

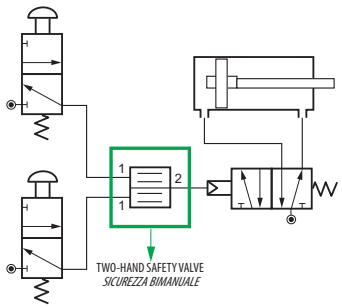




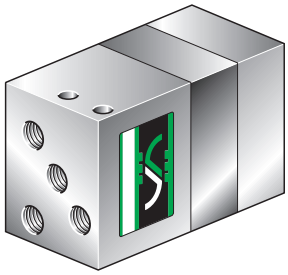
TWO - HAND SAFETY VALVE
SICUREZZA BIMANUALE

SBI

APPLICATION SKETCH / *SCHEMA APPLICATIVO*



SBI

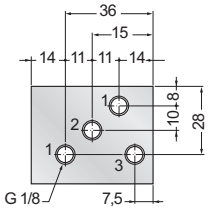


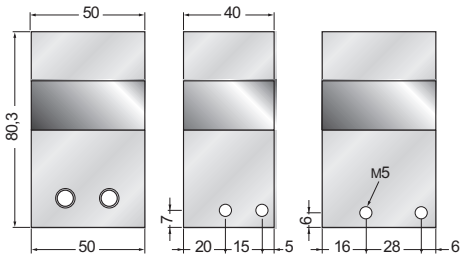
TECHNICAL FEATURES

Maximun flow rate	100 NL/min
Ports	G1/8"
Working pressure	3 ÷ 8 bar; 0.3 ÷ 0.8 MPa
Temperature range	Max +60°C
Safety	As per EN 574 type 3A
Delay between two actuating signals	Dt < 0.5 s
Fluid	50m µ. filtered air
Lubrication	Not required

CARATTERISTICHE TECNICHE

Portata massima	*100 NL/min*
Attacchi	*G1/8"*
Pressione d' esercizio	*3 ÷ 8 bar; 0.3 ÷ 0.8 MPa*
Temperatura di esercizio	*Max +60°C*
Sicurezza	*Conforme alla norma EN 574 tipo 3A*
Intervallo di tempo tra due segnali di comando	*Dt < 0.5 s*
Fluido	*Aria filtrata 50m µ.*
Lubrificazione	*Non necessaria*





MATERIALS

Body	Aluminium 11S
Springs	Stainless steel
Seals	NBR
Internal parts	Ottone OT58

MATERIALI

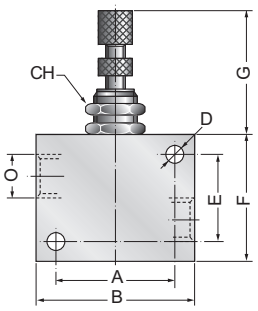
Corpo	*Alluminio 11S*
Molle	*INOX*
Guarnizioni	*NBR*
Parti interne	*Ottone OT58*

This valve is used to pilot high-flow directional control valves connected to machines which have a high risk of injuries to the hands.
The machine operator must simultaneously operate, in a safe area, two three-way manual valves for correct operation. The safety valve will ignore a single depression of one of the manual valves.
To repeat the cycle both pilot signals must be exhausted and the manual valves simultaneously actuated again.

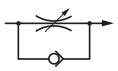
E' utilizzabile per il comando di valvole di potenza connesse a macchine che presentano un elevato rischio di infortunio alle mani. Impone all' operatore di utilizzare entrambe le mani per inviare l'impulso alla valvola di potenza, evitando in questo modo che esse vengano accidentalmente a trovarsi nell' area dei meccanismi in movimento.
L'impulso di comando viene generato dalla sicureza bimanuale solo in presenza di due segnali di azionamento contemporanei provenienti da microvalvole a tre vie NC da collegare ai due attacchi indicati con 1. L' intervallo Dt tra questi due segnali, comunque inferiore a 0,5 sec., varia a seconda della pressione di alimentazione e può essere determinato facendo riferimento al grafico "risposta tempo-pressione".
La sicurezza bimanuale è dotata di un dispositivo antiripetitivo che garantisce la generazione di un solo impulso in presenza dei due segnali e procedere a un nuovo azionamento.

FLOW REGULATORS
REGOLATORE DI FLUSSO

VRF

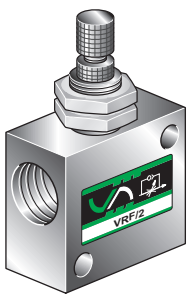


VRF .

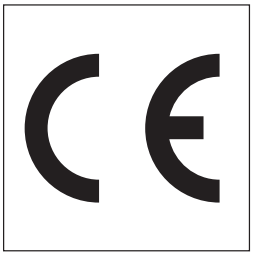


Code *Codice*	A	B	CH	D	E
VRF 8	23	30	15	4,5	13
VRF 4	30	40	15	4,5	22
VRF 3	43	56	24	6,5	27
VRF 2	43	56	24	6,5	27

Code *Codice*	F	G	O	Thicness *Spessore*
VRF 8	20	35	1/8	17
VRF 4	30	35	1/4	22
VRF 3	40	43	3/8	30
VRF 2	40	43	1/2	30



TECHNICAL FEATURES / *CARATTERISTICHE COSTRUTTIVE*



The 94/9/EC directive - ATEX (atmosphere explosive)

Since the 1st July 2003 the 94/9/EC Directive is the only certification for devices used in certain explosive zones. Aim of the directive is to achieve a uniform level of safety and removing barriers to trade. The new requirements of the 94/9/EC have extended the safety level to the mechanical devices, taking in consideration the presence of dust in potentially explosive atmosphere. The marking of the device has become necessary in order to certificate the products into the classifying zones. Sparks, arcs, hot surfaces, adiabatic compression, are some of the sources of ignition considered for Vesta Atex production.

Group II

These equipments are used in areas where probability an explosive atmosphere (consisting of a mixture of air and gases, vapours or mixture of dust and air) will occur.

Vesta Automation gives all indications about group and categories of its Atex products, furthermore advises users to an accurate classification of the zones into the specific case of use in which a potentially explosive atmosphere could be present. For a right and safety classification of the zones it's a good rule to follow the below European standard:

EN 60079-10 Classification of hazardous areas
EN 50281-3 Classification of areas where combustible dusts are or may be present

La direttiva 94/9/CE - ATEX (atmospheres explosive)

A partire dal 1-7-2003 la Direttiva dell'unione Europea 94/9/CE è l'unica certificazione valida per le apparecchiature antideflagranti immesse nel mercato dell'UE. Obbiettivo di tale direttiva è garantire la sicurezza e la salute delle persone e dei beni promuovendo la libera circolazione dei prodotti sopra citati su tutto il territorio della comunità europea fornendo un unico riferimento per impianti sotterranei (gruppo I) e di superficie (gruppo II).

Le novità introdotte dalla direttiva hanno ampliato il campo della sicurezza estendendolo agli apparecchi non elettrici e alla presenza di polveri combustibili introducendo delle zone di rischio e imponendo la marcatura CE.

Tra le fonti di accensioni non elettriche contemplate troviamo scintille, archi, superfici calde, compressioni adiabatiche, scariche elettrostatiche.

Gruppo II

Apparecchi destinati ad essere utilizzati in luoghi in cui è probabile che si presentino atmosfere esplosive causate da miscele di aria e gas, vapori o nebbie o da miscele di aria/polveri.

***Vesta Automation** fornisce le indicazioni relative al gruppo e categoria del prodotto, e consiglia l'utilizzatore ad un'attenta classificazione delle zone nel proprio contesto in termini di luoghi e attività lavorative che contengono o possono dar luogo a pericolo di esplosione. Per una corretta e sicura classificazione delle zone è buona regola riferirsi alle norme tecniche relative ai settori specifici, tra queste citiamo:*

EN 60079-10 Classificazione dei luoghi per atmosfere esplosive per la presenza di gas
EN 50281-3 Classificazione dei luoghi dove sono o posssono essere presenti polveri combustibili

ATEX SERIE

ATEX VALVES RANGE
GAMMA VALVOLE ATEX

NON ELECTRICAL DEVICE MARKING EXAMPLE / *ESEMPIO DI MARCATURA DI APPARECCHIO NON ELETTRICO*

CE Ex II 2 GD c T3 T130°C -15°≤Ta≤60°C

- **CE** — CE symbol / *Simbolo CE*
- **Ex** — Ex symbol for use in hazardous areas / *Simbolo antideflagrante*
- **II** — Equipement group / *Gruppo area di utilizzo*
- **2** — Equipement category / *Categoria*
- **GD** — Explosive atmosphere (G=gas, D=dust) / *Tipo di atmosfera potenzialmente esplosiva (G=gas, D= polvere)*
- **c** — **Ignition protection category** constructional safety - **c** encapsulation m, level mb - **m** / ***Tipo di protezione specifica*** *protezione attraverso la sicurezza costruttiva - **c** protezione attraverso incapsulamento, livello mb - **m***
- **T3** — Max surface temperature for use in dust-hazard areas / *Classe di temperatura in riferimento alle polveri*
- **T130°C** — Max surface temperature for use in dust-hazard areas / *Classe di temperatura in riferimento alle polveri*
- **-15°≤Ta≤60°C** — Environment temperature range in which the product can be used / *Temperatura ambiente di esercizio*

Temperature class for gas ***Classe di temperatura per gas***	Max surface temperature ***Temperatura max di superfice***
T1	450°C
T2	300°C
T3	200°C
T4	135°C
T5	100°C
T6	85°C

GROUP II non mining areas - *GRUPPO II impianti non minerari*

Zone - *Zona*	Type of atmosphere *Tipo di atmosfera*	Presence of explosive atmosphere *Presenza di atmosfera esplosiva*	Category of devices *Categoria*
0 20	gas (G) dust - polveri (D)	continuous, long period continuo	1
1 21	gas (G) dust - polveri (D)	occasional occasionale	2
2 22	gas (G) dust - polveri (D)	seldom, short periods breve	3

The class of an entire assembled system is the one of the lowest classified item.
Un assieme appartiene alla classe più bassa tra quelle dei particolari che lo compongono.

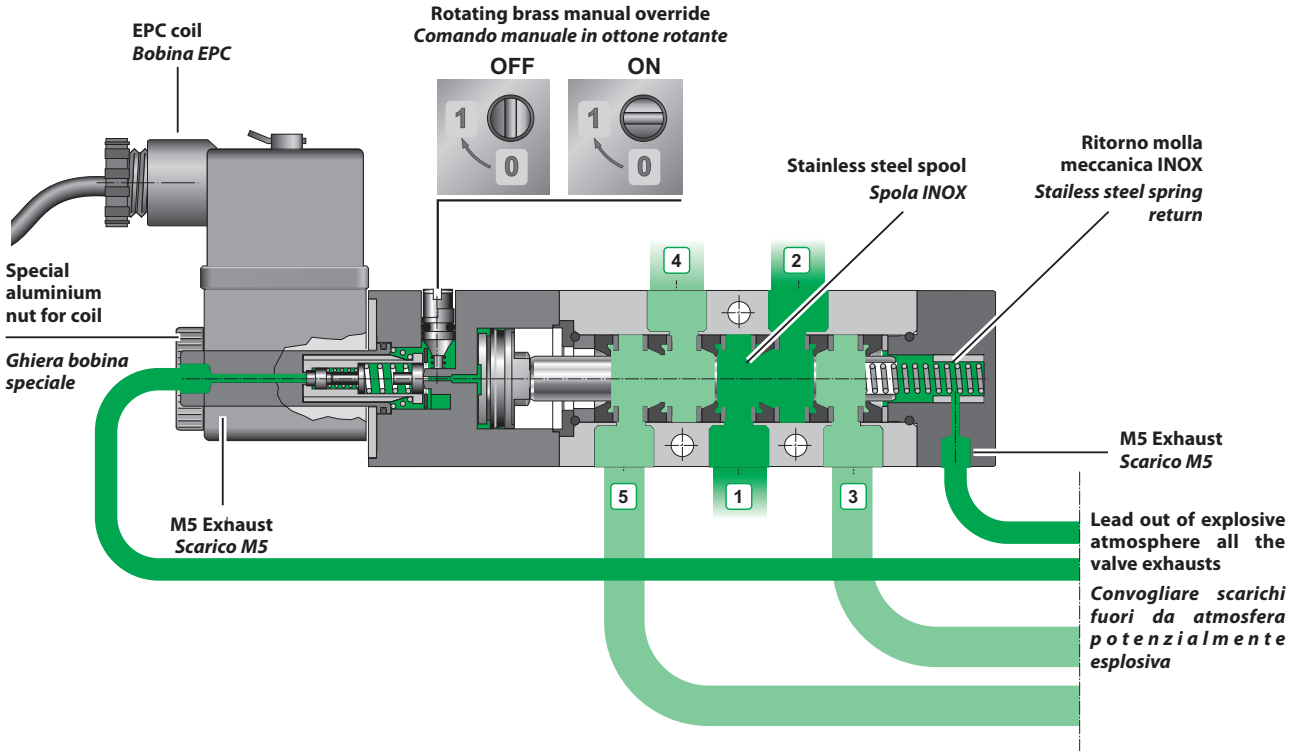
Power valve - *Valvola*	Coil - *Solenoide*	Resulting category - *Categoria risultante*
II 2GD .... T4 T150°C	II 2GD T5	II 2GD .... T4 T150°C
II 2GD .... T4 T150°C	II 3GD .... T150°	II 3GD .... T4 T150°
II 2G T4	II 2GD T5	II 2G T4
II 2G T4	II 2GD .... IIC T6	II 2G ..... IIC T4

ATEX VALVES RANGE
GAMMA VALVOLE ATEX

SERIE **ATEX**

Vesta ATEX valves satisfy all directives 94/9/EC to avoid mechanical risks of ignition in explosive atmosphere (category II2GD and II3GD). Design, materials and technical solutions are made to prevent mechanical sparks, electrostatic charges, heating of surfaces due to friction, etc. All these solutions make Vesta A TEX valves in "constructional safety". They grant the earthing of all their parts, due to alodine surface treatment of body and head operator. All the parts are Atex compliant and valves have overcome Atex impact tests and protection degree IP65 tests. Use only EPC or XSCN coils on Vesta ATEX solenoid valves.

Le valvole ATEX VESTA rispettano tutti i requisiti di sicurezza previsti dalla direttiva 94/9/CE per evitare il rischio meccanico di accensione di atmosfere potenzialmente esplosive di categoria II2GD e II3GD. Questo risultato si è ottenuto con la scelta progettuale di materiali e di soluzioni tecniche atti a prevenire scintillii, accumuli di cariche elettrostatiche, surriscaldamenti locali per attrito o sfregamento, ecc; pertanto la protezione viene garantita attraverso la sicurezza costruttiva. Le valvole Atex vesta consentono la messa a terra di tutte le loro parti, grazie al trattamento alodine sul corpo e sui fondelli che permette la conduzione elettrica e la protezione dagli agenti esterni. Tutta la componentistica utilizzata soddisfa i requisiti Atex. Le valvole hanno superato i test d'impatto previsti dalla direttiva, nonché il test del grado di protezione IP 65. Le elettrovalvole ATEX VESTA devono essere equipaggiate esclusivamente con solenoidi ATEX serie EPC o XSCN.



TECHNICAL FEATURES - *CARATTERISTICHE TECNICHE*

- Atex category II2GD
- IP65 protection degree
- Aluminium body and heads operator with alodine surface treatment.
- NBR seals
- Brass spacers
- Medium T: 0°<Tfluido<25°C
- Enviroment T: -5°<Tamb<50°C
- Medium: filtered air (quality 5 ISO 8573-1)
- Lubrication not required
- For technical features of atex valves please see the corrispondent non atex valves
- For use instructions please see **www.vesta.it**
- For 94/9/EC atex directive please see pag B-113

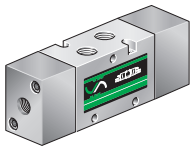
- *Classificazione atex II2GD*
- *Protezione IP65*
- *Fondelli e corpo alluminio con trattamento alodine*
- *Guarnizioni NBR*
- *Distanziali ottone*
- *T fluido: 0°<Tfluido<25°C*
- *T ambiente: -5°<Tamb<50°C*
- *Fluido: aria filtrata (qualità 5 secondo ISO 8573-1)*
- *Lubrificazione non necessaria*
- *Per caratteristiche pneumatiche vedere codici corrispondenti senza la "X"*
- *Per manuale di uso e manutenzione consultare il sito **www.vesta.it***
- *Per informazioni su direttiva 94/9/CE atex vedere pag B-113*

ATEX SERIE

ATEX VALVES RANGE
GAMMA VALVOLE ATEX

XV 14
PNEUMATIC VALVES
VALVOLE PNEUMATICHE

XV 12
PNEUMATIC VALVES
VALVOLE PNEUMATICHE



G1/2 - G1/4; 3/2 - 5/2 - 5/3

CE Ex

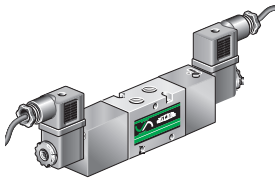
II 2GD c T4 T 160 °C

CODES G1/4 / *CODICI G1/4:*

CODES G1/2 / *CODICI G1/2:*

XE 14
SOLENOID VALVES
ELETTROVALVOLE

XE 12
SOLENOID VALVES
ELETTROVALVOLE



G1/2 - G1/4; 3/2 - 5/2 - 5/3

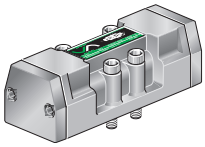
CE Ex

II 2GD c T4 T 160 °C

CODES G1/4 / *CODICI G1/4:*

CODES G1/2 / *CODICI G1/2:*

XSVP ....
PNEUMATIC VALVES
VALVOLE PNEUMATICHE



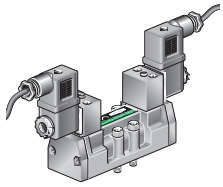
ISO 1; 5/2

CE Ex

II 2GD c T4 T 155 °C

CODES / *CODICI:*

XSVE ....
SOLENOID VALVES
ELETTROVALVOLE



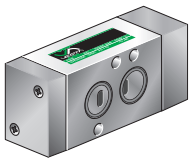
ISO 1; 5/2

CE Ex

II 2GD c T4 T 155 °C

CODES / *CODICI:*

XNM .... P
NAMUR VALVES SERIES
VALVOLE SERIE NAMUR



NAMUR; 3/2 - 5/2

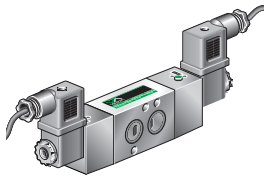
CE Ex

II 2GD c T4 T 160 °C

CODES / *CODICI:*

CODES / *CODICI:*

XNM .... S
NAMUR VALVES SERIES
VALVOLE SERIE NAMUR



NAMUR; 3/2 - 5/2

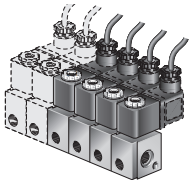
CE Ex

II 2GD c T4 T 160 °C

CODES / *CODICI:*

CODES / *CODICI:*

XBE .... NC
DIRECT ACTING SOLENOID VALVE 3/2 NC
ELETTROVALVOLA A COMANDO DIRETTO 3/2 NC



3/2 - 2/2

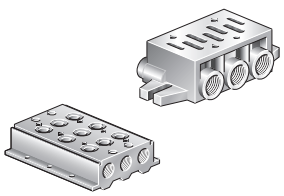
CE Ex

II 2GD c T4 T 160 °C

CODES / *CODICI:*

CODES / *CODICI:*

ATEX Manifold / Basi ATEX



CE Ex

II 2GD c T4 T 160 °C

CODES / *CODICI:*

CODES / *CODICI:*

ATEX VALVES RANGE
GAMMA VALVOLE ATEX

SERIE **ATEX**

CE Ex

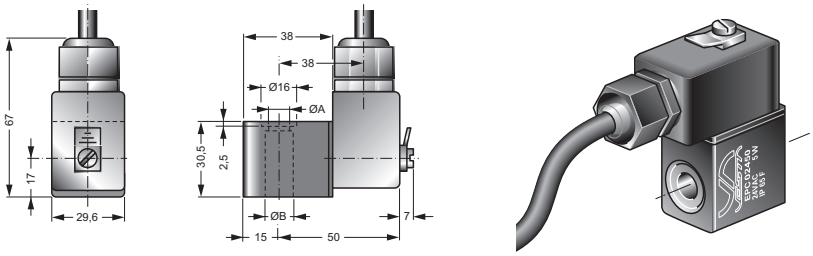
CE 0722 Ex II 2GD EEX mb T5 T100°C IP66

EXPLOSION PROOF COILS
SOLENOIDE ANTIDEFLAGRANTE

EPC . . . . .

CODES / *CODICI*

Code ordination *Codice ordinazione*	**Voltage** *Tensione*
EPC01200	12 V DC
EPC02400	24 V DC
EPC02450	24 V 50/60Hz AC
EPC04850	48 V 50/60Hz AC
EPC11050	110 V 50/60Hz AC
EPC22050	220 V 50/60Hz AC
EPC23050	230 V 50/60Hz AC



TECHNICAL FEATURES

Standard voltage	24 V DC 24, 48, 110, 220, 230 V AC (50/60 Hz)
Power	2,5 Watt in DC; 3 V A in AC
Voltage	± 10%
Ambient temperature range	-15 °C ÷ +50 °C
Electrical connection	By triple cable, 3m length

Solenoids **EPC** series follow Ex II 2GD EEX mb T5 T100°C IP66, according to standard *ATEX 94/9/CE* :

EEx	Component following the EN 50015 ...EN50028 standards
m	Resin Incapsulated
II	For surface application
T5	Maximum working temperature (see technical features).

Coils series EPC are supplied with solenoid connector and cable.

CARATTERISTICHE TECNICHE

Tensioni standard	*24 V DC* *24, 48, 110, 220, 230, V AC (50/60 Hz)*
Potenza assorbita	*2,5 Watt in DC; 3 V A in AC*
Tensione nominale	*± 10% a bobina calda*
Limiti di temperatura ambiente	*-15 °C ÷ +50 °C*
Connessione elettrica	*Cavo tripolare, lunghezza 3m*

Il solenoide serie ***EPC*** *risponde alle specifiche* Ex II 2GD EEX mb T5 T100°C IP66 *in accordo con la normativa ATEX 94/9/CE:*

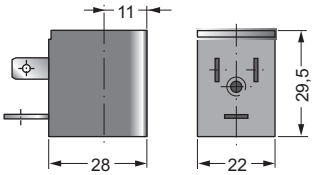
EEx	*Simbolo per apparecchiatura protetta secondo le norme EN 50015 ...EN50028*
m	*Incapsulamento in resina*
II	*Per applicazioni in superficie*
T5	*Max temperatura ambiente (vedi caratteristiche tecniche).*

Le bobine serie EPC sono fornite complete di connettore e cavo.

CE Ex nA II3GD T6

COIL
SOLENOIDE

XMS . . . . .



CODES / *CODICI*

Ordination code *Codice ordinazione*	**Voltage** *Tensione*
XMS01200	12 V DC
XMS02400	24 V DC
XMS02450	24 V 50/60Hz AC
XMS11550 (*)	115 V 50/60Hz AC
XMS23050 (*)	230 V 50/60Hz AC

(*) Please see page / *Vedi pag.* **B-37**

TECHNICAL FEATURES

Standard voltage	12, 24 V DC 24,115, 230 V AC (50/60 Hz)
Solenoid characteristics	3 Watt in DC; 5 V A in AC
Tension	± 10%
Ambient temperature range	-20 °C ÷ +50 °C
Degree of	Class F
Expoy	Incapsulated

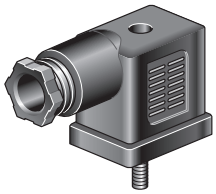
CARATTERISTICHE TECNICHE

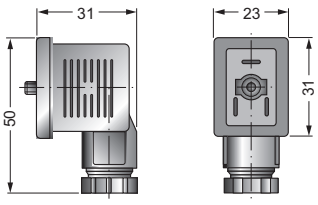
Tensione standard	*12, 24 V DC* *24,115, 230 V AC (50/60 Hz)*
Prestazioni bobina	*3 Watt in DC; 5 V A in AC*
Tensione nominale	*± 10% a bobina calda*
Limiti di temperatura ambiente	*-20 °C ÷ +50 °C*
Protezione	*IP 65 secondo IEC 144 con connettore e guarnizioni montate*
Bobina	*Classe F, Filo rame classe 200 °C*
Sovrastampatura	*Resina epossidica*

Ex II3GD ATEX 94/9/CE

SOLENOID CONNECTOR
CONNETTORE

XCEP-1 . . . . . .





CODES / *CODICI*

Description *Descrizione*	**Code** *Codice*	**Tension** *Tensione*
Universal connector		All tension
Connettore universale	**CEP-1**	*Tutte le tensioni*

TECHNICAL FEATURES

Wire connection	With screwed terminals
Gland thread	PG 9
Number of poles	2 Poles + earth
Housing colour	Black, transparent in the led version.

Connessione cavi	*Con morsetti a vite*
Filettatura passacavo	*PG 9*
N° Poli	*2 Poli + terra*
Colori connettore	*Nero, trasparente nelle versioni con led.*