

# 725 Ex

## CERTIFICATION



Ⓜ II 1 G EEx ia IIB 171 °C



I.S. Class 1 Div 1 Groups B-D  
AEx ia IIB 171°C

## VERSATILE AND PRECISE

The 725Ex Intrinsically safe Multifunction Process Calibrator is powerful yet easy-to-use. Combined with the 700PEX Pressure Modules, the calibrator is able to calibrate almost any process instrument likely to need service in an ex-hazardous area.

## Multifunction Process Calibrator **FLUKE 725 Ex** FOR ZONE 0, 1 AND 2

### FEATURES & FUNCTIONS

- Source or simulate volts dc, mA, RTDs, thermocouples, frequency and ohms
- Two channel simultaneous source and measure capability for calibration of transmitters
- Store frequently-used test setups for later use
- Pressure measurement to 3,000 psi/200 bar using any of the 8 intrinsically safe 700PEX Pressure Modules
- Pressure switch test function to capture set, reset and deadband values

### STANDARD DELIVERY

- 725Ex
- Test leads
- Test clips
- One pair of stackable test leads
- Factory calibration certificate
- Batteries
- CD-ROM
- Instruction manual

## EFFICIENT AND INTRINSICALLY SAFE

ZONE 0 / CLASS I DIV. 1



### TECHNICAL DATA

Ambient temperature	-10 °C to +55 °C,
Storage temperature	-40 °C to 71 °C
Maximum Voltage	30 Volt
Relative humidity	90 % (+10 °C... +30 °C); 75 % (+30 °C... +40 °C); 45 % (+40 °C... +50 °C); 35 % (+50 °C... +55 °C)
Power supply	4x AA, type approved
Operating time:	25 hours typical
Dimensions (HxWxD)	200 x 96 x 47 mm
Weight	650 g





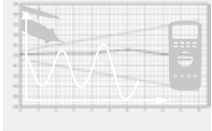
# 725 Ex

## SUMMARY SPECIFICATIONS: (18 °C TO 28 °C FOR ONE YEAR)

Function Measure or Source	Range	Resolution	Accuracy	Notes
Voltage	0 to 100 mV 0 to 10 V (Source) 0 to 30 V (Measure)	0.01 mV 0.001 V 0.001 V	0.02 % Rdg + 2 digits	Max. Load 1 mA
mA	0 to 24 mA	0.001 mA	0.02 % Rdg + 2 digits	Max. Load 250 Ω 20 mA
mV (TC terminals)	-10.00 mV to +75.00 mV	0.01 mV	± (0.025 % + 1 digit)	
Resistance	15 Ω to 3200 Ω (Source) 0 Ω to 3200 Ω (Measure)	0.1 Ω to 1 Ω 0.1 Ω to 1 Ω	0.10 Ω to 1.0 Ω 0.10 Ω to 1.0 Ω	
Frequency	2.0 to 1000.0 CPM 1 to 1000 Hz 1 to 10.0 kHz	0.1 CPM 1 Hz 0.1 kHz	± (0.05 % + 1 digit) ± (0.05 % + 1 digit) ± (0.05 - 0.25 % + 1 digit)	For frequency source waveform is 5 V p-p squarewave. -0.1 V offset
Loop supply	12 V	n. z.	10 %	

Temperature coefficient: -10 °C to 18 °C. 28 °C to 55 °C. ±0.005 % of range per °C

## ACCESSORIES

ARTICLE NO.	PRODUCT DESCRIPTION	
A0001493 	Leather Case with carrying strap	
A000.... 	Explosion protection pressure modules from the 700PEx range  (see page 22)	
A000....	Various calibrations available on request	

# UNIVERSAL MEASURING DEVICE

THERMOCOUPLE ACCURACY SPECIFICATIONS			
Type	Range ...	Accuracy ...	
		Measure (4 wire)	Source
Ni 120	-80 °C to +260 °C	0.2 °C	0.2 °C
Pt 100 - 385	-200 °C to +800 °C	0.33 °C	0.33 °C
Pt 100 - 3926	-200 °C to +630 °C	0.3 °C	0.3 °C
Pt 100 - 3916	-200 °C to +630 °C	0.3 °C	0.3 °C
Pt 200 - 385	-200 °C to +250 °C	0.2 °C	0.2 °C
	250 °C to 630 °C	0.8 °C	0.8 °C
Pt 500 - 385	-200 °C to +500 °C	0.3 °C	0.3 °C
	500 °C to +630 °C	0.4 °C	0.4 °C
Pt 1000 - 385	-200 °C to +100 °C	0.2 °C	0.2 °C
	100 °C to +630 °C	0.3 °C	0.2 °C
Resolution			
RTD	0.1 °C, 0.1 °F		

THERMOCOUPLE ACCURACY SPECIFICATIONS		
Thermocouple	Measure	or source
J	-200 to 0 °C	1.0 °C
	0 to +1200 °C	0.7 °C
K	-200 to 0 °C	1.2 °C
	0 to +1370 °C	0.8 °C
T	-200 to 0 °C	1.2 °C
	0 to +400 °C	0.8 °C
E	-200 to 0 °C	0.9 °C
	0 to +950 °C	0.7 °C
R	-20 to 0 °C	2.5 °C
	0 to +500 °C	1.8 °C
	+500 to +1750 °C	1.4 °C
S	-20 to 0 °C	2.5 °C
	0 to +500 °C	1.8 °C
	+500 to +1750 °C	1.5 °C
B	+600 to +800 °C	2.2 °C
	+800 to +1000 °C	1.8 °C
	+1000 to +1000 °C	1.4 °C
	+1000 to +1800 °C	
L	-200 to 0 °C	0.85 °C
	0 to +900 °C	0.7 °C
U	-200 to 0 °C	1.1 °C
	0 to +400 °C	0.75 °C
N	-200 to 0 °C	1.5 °C
	0 to +1300 °C	0.9 °C
Resolution		
J, K, T, E, L, N, U B, R, S		0.1 °C, 0.1 °F 1 °C, 1 °F
Notes		
Accuracy specifications include 0.2 °C cold junction uncertainty.		

FEATURES		
Simultaneous Function Capability	Channel A	Channel B
24,000 mA DC	M	M or S
24,000 mA DC	M	
100,00 mV DC		M or S
30,000 V DC Measure	M	
20,000 V DC Measure 10,000 V DC Source		M or S
Source: 15 to 3200 Ω, Measure: 0 to 3200 Ω		M or S
Thermocouple J, K, E, R, S, B, L, U, N		M or S
RTD Ni120; Pt100 (392); Pt100 (JIS); Pt100, 200, 500, 1000 (385)		M or S
Pressure (using 700PEX modules)	M	M used as S
Frequency; Squarewave, 1 CPM to 10 kHz; fixed amplitude 5 V p-p		M or S
M = Measure S = Source/Simulate		

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