

725Ex

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.

EFFICIENT AND
INTRINSICALLY SAFE

ZONE 0 / CLASS I DIV. 1



Multifunction Process Calibrator FLUKE 725Ex FOR ZONE 0

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
- Documentation

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:	approx. 25 hours
Dimensions (HxWxD)	200 x 96 x 47 mm
Weight	650 g

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UNIVERSAL CALIBRATION DEVICE

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 % Rdg + 1 digit	
Resistance	15 Ω to 3200 Ω (Source) 0 Ω to 3200 Ω (Measure)	0.1 Ω to 1 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 wave- form is 5 V p-p squarewave. 0.1 V offset
Loop supply	12 V	n. z.	10 %	





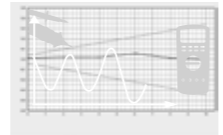
Temperature coefficient: -10 °C to +18 °C. +28 °C to +55 °C. ±0.005 % of range per °C

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 250 °C to 630 °C	0.2 °C 0.8 °C	0.2 °C 0.8 °C
Pt 500 - 385	-200 °C to +500 °C 500 °C to +630 °C	0.3 °C 0.4 °C	0.3 °C 0.4 °C
Pt 1000 - 385	-200 °C to +100 °C 100 °C to +630 °C	0.2 °C 0.3 °C	0.2 °C 0.2 °C
Resolution			
RTD	0.1 °C, 0.1 °F		

THERMOCOUPLE ACCURACY SPECIFICATIONS		
Thermocouple	Measure	or source
J	-200 to 0 °C 0 to +1200 °C	1.0 °C 0.7 °C
K	-200 to 0 °C 0 to +1370 °C	1.2 °C 0.8 °C
T	-200 to 0 °C 0 to +400 °C	1.2 °C 0.8 °C
E	-200 to 0 °C 0 to +950 °C	0.9 °C 0.7 °C
R	-20 to 0 °C 0 to +500 °C +500 to +1750 °C	2.5 °C 1.8 °C 1.4 °C
S	-20 to 0 °C 0 to +500 °C +500 to +1750 °C	2.5 °C 1.8 °C 1.5 °C
B	+600 to +800 °C +800 to +1000 °C +1000 to +1800 °C	2.2 °C 1.8 °C 1.4 °C
L	-200 to 0 °C 0 to +900 °C	0.85 °C 0.7 °C
U	-200 to 0 °C 0 to +400 °C	1.1 °C 0.75 °C
N	-200 to 0 °C 0 to +1300 °C	1.5 °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.

ACCESSORIES

ARTICLE NO.	PRODUCT DESCRIPTION	
A0001493 	Leather Case with carrying strap	
A000... 	i.s. pressure modules from the 700PEx range (see page 20)	
A000...	Various calibrations available on request	

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