

## **Intrinsically Safe Instrument**

### ➤ **Fluke 725Ex Series Process Calibrator**

The 725Ex is an intrinsically safe multifunction process calibrator for use in explosion endangered areas. It is powerful, yet easy to use. Combine the 725EX with any of the eight Fluke 750PEX Pressure Modules (sold separately), and you'll be able to calibrate almost any process instrument likely to need service in an area where explosive gasses may be present.

## 1. Fluke 725Ex Series Process Calibrator



### ➤ Key Features

- Intrinsically safe multifunction process calibrator
- Meets I.S. Class I, Division 1 Groups B-D, 171°C compliance standards
- Measures volts DC, mA, RTDs, thermocouples, frequency, and ohms
- Sources or simulates volts DC, mA, RTDs, thermocouples, frequency and ohms

## Specifications: Fluke 725Ex Series Process Calibrator

Measurement Accuracy		
Voltage DC	30.000 V	0.02% + 2 counts (upper display)
	10.000 V	0.02% + 2 counts (lower display)
	90.00 mV	0.02% + 2 counts
	-10.00 mV to 75.00 mV	0.025% + 1 count (via TC connector)
Current DC	24.000 mA	0.02% + 2 counts
Resistance	0.0 to 400.0 $\Omega$	0.1 $\Omega$ (4-wire), 0.15 $\Omega$ (2- and 3-wire)
	401 to 1500 $\Omega$	0.5 $\Omega$ (4-wire), 1 $\Omega$ (2- and 3-wire)

	1500 to 3200 Ω	1 Ω (4-wire), 1.5 Ω (2- and 3-wire)
Frequency	2.0 to 1000.0 CPM	0.05% + 1 count
	1.0 to 1100.0 Hz	0.05% + 1 count
	1.00 to 10.00 kHz	0.05% + 1 count
	Sensitivity	1 V peak-to-peak-minimum
Pressure	Accuracy from 0.025% of range using any of 8 intrinsic safe pressure modules (for detailed specifications refer to pressure modules in options and accessories). Modules available for differential, gauge, vacuum, absolute, dual and high pressure.	
Source Accuracy		
Voltage DC	100.00 mV	0.02% + 2 counts
	10.000 V	0.02% + 2 counts
	-10.00 mV to 75.00 mV	0.025% + 1 count (via TC connector)
Current DC	24.000 mA (source)	0.02% + 2 counts
	24.000 mA (simulate)	0.02% + 2 counts
Resistance	15.0 to 400.0 Ω	0.15 Ω (exc. current 0.15 to 0.5 mA), 0.1 Ω (exc. current 0.5 to 2 mA)
	401 to 1500 Ω	0.5 Ω (excitation current 0.05 to 0.8 mA)
	1500 to 3200 Ω	1 Ω (excitation current 0.05 to 0.4 mA)
Frequency	2.0 to 1000.0 CPM	0.05%

	1.0 to 1100.0 Hz	0.05%
	1.00 to 10.00 kHz	0.25%
	Waveform	5 V p-p squarewave, -0.1 V offset

### RTDs and Thermocouples

Measure accuracy	NI-120	0.2°C
	PT-100 (385)	0.33°C
	PT-100 (393)	0.3°C
	PT-100 (JIS)	0.3°C
	PT-200 (385)	0.2°C
	PT-500 (385)	0.3°C
	PT-1000 (385)	0.2°C
	Resolution	0.1°C
	J	0.7°C
	K	0.8°C
	T	0.8°C
	E	0.7°C
	R	1.8°C

	S	1.5°C
	B	1.4°C
	L	0.7°C
	U	0.75°C
	N	0.9°C
	Resolution	J, K, T, E, L, N, U: 0.1°C, 0.1°F B, R, S: 1°C, 1°F
	XK	0.6°C
	BP	1.2°C
Source accuracy	NI-120	0.2°C
	PT-100 (385)	0.33°C
	PT-100 (393)	0.3°C
	PT-100 (JIS)	0.3°C
	PT-200 (385)	0.2°C
	PT-500 (385)	0.3°C
	PT-1000 (385)	0.2°C
	Resolution	0.1°C
		Accuracy stated for 4-wire measurement.

J	0.7°C
K	0.8°C
T	0.8°C
E	0.7°C
R	1.4°C
S	1.5°C
B	1.4°C
L	0.7°C
U	0.75°C
N	0.9°C
Resolution	J, K, T, E, L, N, U: 0.1°C, B, R, S: 1°C
XK	0.6°C
BP	1.2°C

### Specifications

Ramp functions	Source functions	Voltage, current, resistance, frequency, temperature
	Ramps	Slow ramp, Fast ramp, 25% step-ramp
	Voltage	12 V

Loop power function	Accuracy	10%
	Maximum current	22 mA, short circuit protected
Step functions	Source functions	Voltage, current, resistance, frequency, temperature
	Steps	25% of range, 100% of range
Safety specifications		
Agency approvals	I.S. Class I, Division 1 Groups B-D	
Mechanical and General Specifications		
Size	130 x 236 x 61 mm (5.188 x 9.291 x 2.402 in)	
Weight	0.85 kg (1.874 lbs.)	
Batteries	4 AA alkaline batteries	
Warranty	Three year	
Battery replacement	Separate battery compartment, accessible without breaking calibration seal	
Side port connections	Pressure module connector	

