

Fluke 725 Multifunction Process Calibrator

Easy-to-use field calibrator with functions to test and calibrate almost anything.



- Small, streamlined shape makes it easy to carry
- Rugged, reliable design stands up to field use
- Easy-to-read measure/source screen lets you view input and output simultaneously
- Measure volts, mA, RTDs, thermocouples, frequency, and ohms to test sensors and transmitters
- Source/simulate volts, mA, thermocouples, RTDs, frequency, ohms, and pressure to calibrate transmitters
- Measure/source¹ pressure using any of 29 Fluke 700Pxx Pressure Modules
- Source mA with simultaneous pressure measurement to conduct valve and I/P tests
- Support flow meter testing with frequency and counts per minute (CPM) functions
- Perform fast linearity tests with auto step and auto ramp features
- Power transmitters during test using 24 V loop supply with simultaneous mA measurement
- Store frequently-used test setups for later use
- Three-year warranty

¹ Requires accessory hand pump



Understanding specifications for process calibrators

Application Note (Literature code 1261947)

Selection of a calibrator is often based on a specification sheet. This application note helps interpret and compare performance specifications typically used for process calibrators.



Simultaneous function capability	Channel A	Channel B
24.000 mA DC	M	M or S ¹
24.000 mA DC with 24 V loop supply	M	
100.00 mV DC		M or S
30.000 V DC measure	M	
20.000 V DC measure 10.000 VDC Source		M or S
15 to 3200 Ohms		M or S
Thermocouple J, K, T, 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 ² (requires Fluke 700PXX Modules)	M	M used as S
Frequency ² ; Squarewave, 1 CPM to 10 kHz; fixed amplitude 5 V p-p		M or S

M = Measure S = Source/Simulate
¹ On 724, mA is measure only
² Pressure and frequency on 725 only

Specifications - 724 & 725 Calibrators

Function Measure or Source	Range or Type	Resolution	Accuracy	Notes
Voltage	0 to 100 mV 0 to 10 V (source) 0 to 30 V (measure)	0.01 mV 0.01 V 0.01 V	.02 % Rdg + 2 LSD	Max load, 1 mA
mA ¹	0 to 24	0.001 mA	.02 % Rdg + 2 LSD	Max load, 1000 Ω
mV (TC terminals)	-10.00 mV to +75.00 mV	.01 mV	.025 % of range + 1 LSD	
Resistance	15 Ω to 3200 Ω	0.01 Ω to 0.1 Ω	0.10 Ω to 1.0 Ω	
Frequency (725 only)	2.0 to 1,000.0 CPM 1 to 1100 Hz 1.0 to 10.0 kHz	0.1 CPM 1 Hz 0.1 kHz	±0.05 % ±0.05 % ±0.25 %	For frequency source; 5 V p-p squarewave, -0.1 V offset
Loop Supply	24 V dc	N/A	10%	
Thermocouples	J, K, T, E, L, N, U	0.1 °C, 0.1 °F	to 0.7 °C	
Thermocouples	B, R, S	1 °C, 1 °F	to 1.4 °C	
RTDs	Ni120 (672) Pt 100, 200, 500, 1000 (385) Pt 100 (3916) Pt 100 (3926)	0.1 °C, 0.1 °F	to 0.2 °C	

¹ On 724, mA is measure only
Storage temperature: -20 °C to 71 °C
Operating temperature: -10 °C to 55 °C
Relative humidity: 90 % (10 °C to 30 °C); 75 % (30 °C to 40 °C); 45 % (40 °C to 50 °C); 35 % (50 °C to 55 °C)
Shock: 1 meter drop test
Safety: CSA C22.2 No. 1010.1:1992
EMC: EN50082-1:1992 and EN55022:1994 Class B
Size (HxWxD): 200 mm x 96 mm x 47 mm (7.9 in x 3.8 in x 1.9 in)
Weight: 650 g (23 oz)
Battery: Four AA alkaline batteries
Battery life: 25 hours typical
Warranty: Three-years

Recommended accessories - 725 Calibrator



Included accessories

TL75 Test Leads, AC72 Test Clips, one pair of stackable test leads, product overview manual (print) and user's manual (CD-ROM) in 14 languages.

Ordering information

Fluke-724 Temperature Calibrator (also see page 26)
 Fluke-725 Multifunction Process Calibrator