

FLUKE®

Fluke 725 Multifunction  
Calibrator



Simultaneous Function Capability	Channel A	Channel B
24.000 mA DC	M	M or S
24.000 mA DC with 24V loop supply	M	
100.00 mV DC		M or S
30.000V DC Measure	M	
20.000V DC Measure 10.000V DC 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 (requires Fluke 700PXX Modules)	M	M used as S
Frequency; Squarewave, 1 CPM to 10 kHz; fixed amplitude 5V p-p		M or S

M = Measure    S = Source/Simulate

**Cal Power**

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Simply Powerful!

The new Fluke 725 Multifunction Process Calibrator is a powerful yet easy-to-use field calibrator. Use the measure and source functions to test and calibrate almost any process parameter.

- 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, and ohms to calibrate transmitters
- Measure/source pressure using any of 28 Fluke 700Pxx Pressure Modules
- Source mA with simultaneous pressure measurement to conduct valve and I/P tests
- Support flow meter testing with frequency and CPM functions
- Perform fast linearity tests with auto step and auto ramp features
- Power transmitters during test using loop supply with simultaneous mA measurement
- Store frequently-used test setups for later use
- Backlight lets you work in poor light
- Remote interface allows benchtop automated operations
- Large battery capacity of four AA cells
- Battery door for easy changes

**Fluke.** *Keeping your world up and running.*

Ordering information

**Fluke 725 Multifunction Process Calibrator**  
Each calibrator includes: TL75 Test Leads, AC70A Test Clips, one pair of stackable test leads, Users Manuals appropriate to country of destination (English, plus three of: French, German, Spanish, Italian, Dutch, Norwegian, Danish, Swedish, Finnish, Portuguese, Korean, Chinese, and Japanese), Statement of Quality Assurance Practices; CE and CSA markings.

## Specifications

### 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 10V (source) 0 to 30V (measure)	0.01 mV 0.01V 0.01V	.02% Rdg + 2 LSD	Max load, 1 mA
mA	0 to 24	0.001 mA	.02% Rdg + 2 LSD	Max load, 1000Ω
mV (TC terminals)	-10.00 mV to +75.00 mV	.01 mV	.025% of range + 1 LSD	
Resistance	15Ω to 3200Ω	0.01Ω to 0.1Ω	0.10Ω to 1.0Ω	
Frequency	2.0 to 1000.0 CPM 1 to 1000 Hz 1.0 to 10.0 kHz	0.1 CPM 1 Hz 0.1 kHz	±.05% ±.05% ±.25%	For frequency source, waveform is 5V p-p squarewave, -0.1V offset
Loop Supply	24V dc	N/A	10%	

Temperature coefficient, -10°C to 18°C, 28°C to 55°C, ±.005% of range per °C.

### 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	1.0°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 400°C	1.5°C 0.9°C
<b>Resolution</b>		
J, K, T, E, L, N, U		0.1°C, 0.1°F
B, R, S		1°C, 1°F
<b>Notes</b>		
Accuracy specifications include 0.2°C cold junction uncertainty.		

### RTD ranges and accuracy specifications

RTD Types, Ranges and Accuracies			
		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 (JIS)	-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 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
<b>Resolution</b>			
RTD	0.1°C, 0.1°F		

### General specifications

**Maximum voltage:** 30V

**Storage temperature:** -40°C to 71°C

**Operating temperature:** 10°C to 55°C

**Relative humidity:** 95% (10°C to 35°C); 75% (30°C to 40°C); 45% (40°C to 50°C); 35% (50°C to 55°C)

**Shock:** 30g, 11ms, half-sine shock (or 1meter drop test)

**Vibration:** Random, 2g, 5-500 Hz

**Safety:** CSA C22.2 No. 1010.1:1992

**EMC:** EN50082-1:1992 and EN55022:1994 Class B

**Size/weight:** 96 x 200 x 47 mm (3.8 x 7.9 x 1.9 inches)  
650g (23 oz)

**Battery:** Four AA alkaline batteries. Battery life: 25 hours typical

**Warranty:** Three years

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