

# 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

 ${\tt M} = {\tt Measure} \qquad {\tt S} = {\tt Source/Simulate}$ 

## 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	O to 100 mV O to 10V (source) O 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, $1000\Omega$
mV (TC terminals)	-10.00 mV to +75.00 mV	.01 mV	.025% of range + 1 LSD	
Resistance	$15\Omega$ to $3200\Omega$	$0.01\Omega$ to $0.1\Omega$	$0.10\Omega$ to $1.0\Omega$	
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,  $\pm .005\%$  of range per °C.

## 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	1.0°C			
	0 to 400°C	0.8°C			
Е	-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 500 to 1750°C	1.8°C 1.5°C			
D.					
В	600 to 800°C 800 to 1000°C	2.2°C 1.8°C			
	1000 to 1800°C	1.4°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 400°C	0.9°C			
Resolution					
J, K, T, E, L, N, U		0.1°C, 0.1°F			
B, R, S		1°C, 1°F			
Notes					
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°℃	0.33°C		
Pt 100 - 3926	-200°C to 630°C	0.3°℃	0.3°C		
Pt 100 - 3916 (JIS)	-200°C to 630°C	0.3°℃	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		
Resolution					
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