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Fluke 725 Multifunction Process Calibrator. Simply Powerful.

The Fluke 725 Multifunction Process Calibrator is a versatile, easy-to-use field calibrator. Use the measure and source 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/source pressure using any of the 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 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

Simultaneous Function Capability	Channel A	Channel B
24.000 mA DC	M	M or S
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 V DC Source		M or S
3200 Ohms		M or S
Thermocouple J, K, T, E, R, S, B, L, U, N		M or S
RTD Ni120; Pt100 (3926); Pt100 (JIS); Pt100, 200, 500, 1000 (385)		M or S
Pressure (requires Fluke 700Pxx Modules)	M	M used as S
Frequency; Squarewave, 1 CPM to10 kHz; fixed amplitude 5 V p-p		M or S

M = Measure S = Source/Simulate

Ordering information

Fluke 725 Multifunction Process Calibrator

Each calibrator includes: TL75 Test Leads, AC70 Test Clips, one pair of stackable test leads, 4 AA batteries; Product Overview Manuals in English, French, German, Spanish, Italian, Dutch, Norwegian, Danish, Swedish, Finnish, Portuguese, Korean, Chinese, and Japanese, Users Manuals on CD-ROM; NIST-traceable certificate of calibration; CE and CSA markings.

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	.02 % Rdg + 2 LSD	Max load, 1 mA
mA (on 724, measure only)	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	0 Ω to 3200 Ω (measure) 15 Ω to 3200 Ω (source)	0.01 Ω to 0.1 Ω	0.10 Ω to 1.0 Ω	
Frequency (source) (725 only)	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 % of setting ±.05 % of setting ±.25 % of setting	For frequency source, waveform is 5 V p–p squarewave, –0.1 V offset
Frequency (measure) (725 only)	1 CPM to 10 kHz	5 digits	0.05 % Rdg + 1 count	1 V p–p min.
Loop Supply	24 V dc	N/A	10 %	

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

Thermocouple accuracy specifications (Fluke 724/725)

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 1300 °C	1.5 °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 (Fluke 724/725)

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 °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 0.2 °C	0.2 °C 0.2 °C
Resolution			
RTD	0.1 °C, 0.1 °F		

General specifications for Fluke 724 and 725 calibrators

Maximum voltage: 30 V
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: 30 g, 11ms, half-sine shock
Vibration: Random, 2 g, 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) 650 g (23 oz)
Battery: Four AA alkaline batteries. Battery life: 25 hours typical
Warranty: Three years

Process Tools Selection Guide

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	MPC*	Documenting Process Calibrators			Pressure Calibrators				T
Model *See page*	**725** *6–7*	**744** *8–12*	**743B** *8–12*	**741B** *8–9*	**718 100G** *14–15*	**718 30G** *14–15*	**717 100G** *14–15*	**717 30G** *14–15*	**724** *16*
Measure									
V dc	30 V	300 V	300 V	300 V					30 V
V ac (true-rms)		300 V	300 V	300 V					
Resistance	3200 Ω	11 kΩ	11 kΩ	11 kΩ					3200 Ω
A dc	24 mA	110 mA	110 mA	110 mA	24 mA	24 mA	24 mA	24 mA	24 mA
A ac									
Frequency	10 kHz	50 kHz	50 kHz	50 kHz					
Pressure	•[1]	•[1]	•[1]	•[1]	100 psig/ 7 bar[2]	30 psig/ 2 bar[2]	100 psig/ 7 bar[2]	30 psig/ 2 bar[2]	
Temperature: RTDs	7 types	8 types	8 types	8 types					7 types
Temperature: TCs	10 types	11 types	11 types	11 types					10 types
Temperature: Infrared									
Capacitance									
Two Channel Connect-and-View™ Scope									
Power Measurement/Harmonics Analysis									
Source/Simulate									
V dc	10 V	15 V	15 V	15 V					10 V
Resistance	3200 Ω	11 kΩ	11 kΩ	11 kΩ					3200 Ω
mA dc/% scale	24 mA	22 mA	22 mA	22 mA					
mA source; auto step, auto ramp	•	•	•	•					
Frequency	10 kHz	50 kHz	50 kHz	50 kHz					
Temperature: RTDs	7 types	8 types	8 types	8 types					7 types
Temperature: TCs	10 types	11 types	11 types	11 types					10 types
Record									
Min Max		•	•	•	•	•	•	•	
Hold					•	•	•	•	
As Found/As Left Results		•	•	•					
Log Data		•	•						
Upload Data to PC		•	•						
Features									
24 V Loop Supply	•	•	•	•	•	•	•	•	•
Hart Communication		•							
Integrated Hand Pressure Pump					•	•			
Warranty	3 year	3 year	3 year	3 year	3 year	3 year	3 year	3 year	3 year
Accessories[4]	A/B				C	C	C	C	A/B