

FLUKE®

Technical Data

Fluke 725 Multifunction Calibrator

Simply Powerful!



The 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, RTD frequency, and ohms to calibrate transmitters



- Source/simulate volts, mA, thermocouples, RTDs frequency, and ohms to calibrate transmitters
- Measure/source pressure using any of 50 Fluke 750Pxx 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 aut 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

Specifications

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	0.02 % Rdg + 2 LSD	Max load, 1 mA
mA	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	2.0 to 1,000 CPM 1 to 1100 Hz 1.0 to 10.0 kHz	0.1 CPM 1 Hz 0.1 kHz	$\pm$.05 % $\pm$.05 % $\pm$.25 %	For frequency source; waveform is 5V p-p squarewave, -0.1V offset
Loop Supply	24 V 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 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

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 °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 0.3 °C
Resolution			
RTD	0.1 °C, 0.1 °F		

General Specifications

Maximum voltage	30V
Storage temperature	-40 °C to 71 °C
Safety	IEC 61010-1: Pollution Degree 2
EMC	IEC 61326-1: Portable Electromagnetic Environment CISPR 11: Group 1, Class A
Shock	30g, 11ms, half-sine shock (or 1 meter drop test)
Size/weight	96 x 200 x 47 mm (3.8 x 7.9 x 1.9 inches) 650g (23 oz)
Battery life	Four AA alkaline batteries. Battery life: 25 hours typical
Warranty	Three years

Ordering information

Model	Description
Model number	664133
Description	Fluke-725 Multifunction Process Calibrator
Includes	TL75 Test Leads, AC70A Test Clips, one pair of stackable test leads



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