

PROCESS TOOLS SELECTION GUIDE

Models	Process mA Clamp Meter 773	ProcessMeter® Test Tool 789	Loop Calibrator 709H	Pressure Calibrator 719/719PRO	Temperature Calibrator 724	Precision Multifunction Process Calibrator 726	Intrinsically Safe Calibrator 725Ex	Documenting Process Calibrator 754
Measure								
V dc	30 V	1000 V	30 V		30 V	30 V	30 V	300 V
V ac (true-rms)		1000 V						300 V
Resistance		40 MΩ			3200 Ω	4000 Ω	3200 Ω	11 kΩ
A dc max	20.99, 99.9 mA	30 mA, 1 A	24 mA	24 mA	24 mA	24 mA	24 mA	110 mA
A ac max		•						
Frequency		20 kHz				15 kHz	10 kHz	50 kHz
Pressure				2 bar, 10 bar, 20 bar		• ¹	• ³	• ¹
Temperature: RTDs				719Pro optional	7 types	8 types	7 types	8 types
Temperature: TCs					12 types	13 types	12 types	13 types
Source/Simulate								
V dc	10 V				10 V	20 V	10 V	15 V
Resistance					3200 Ω	4000 Ω	3200 Ω	11 kΩ
mA dc	24 mA	24 mA	24 mA	24 mA		24 mA	24 mA	22 mA
mA source; auto step, auto ramp	•	•	•	•		•	•	•
Frequency						15 kHz	10 kHz	50 kHz
Temperature: RTDs					7 types	8 types	7 types	8 types
Temperature: TCs					12 types	13 types	12 types	13 types
Record								
Min/Max		•		•				•
Hold	•	•		719				•
As found/As left results								•
Log data			•					•
Upload data to PC			•					•
Remote operation		•				•		
Features								
24 V loop supply	•	•	•	•	•	•	12 V	26 V
Non-contact mA measurement	•							
HART communication			•					•
Intrinsically safe (ATEX)							•	
Traceable calibration certification			•	•	•	•	•	•
Pressure enabled ²				•		•	• ³	•
Warranty (years)	3	3	3	3	3	3	3	3

¹Fluke 750P Pressure Modules required.

²Fluke Process Calibrators in this guide displaying the Pressure Enabled symbol display readings from the 750P Series Pressure Modules.

³Fluke 700PEX Pressure Module required.

Fluke 771, 772 and 773 mA Process Clamp Meters

Measure output signals without breaking the loop

The Fluke 771, 772 and 773 mA Process Clamp Meters pay for themselves. These meters save time by measuring 4 to 20 mA signals (five) times faster than traditional DMMs without operator intervention, offering loop calibration, voltage testing and eliminate time wasting activities.

Use the Fluke 771, 772 and 773 to:

- Measure 4-20 mA signals without "breaking the loop," save time and money troubleshooting

Use the Fluke 772 and 773 to:

- Source 4-20 mA signals for testing control system I/O or I/Ps
- Simulate 4-20 mA signals for testing control system I/O
- Measure 4-20 mA signals with in-circuit measurement
- Power a transmitter with the 24 V loop power supply
- Automatically ramp and step change the 4-20 mA output for remote testing

Use the Fluke 773 to:

- Measure dc voltage to verify 24 V power supplies or voltage I/O signals
- Source dc voltage to test voltage input devices
- Scaled mA output signal enables a logging DMM (289) or 709H Precision Loop Calibrator to record 4-20 mA signal without breaking the loop
- mA in/out: simultaneously source a mA signal while measuring a mA signal with the clamp



Features

	mA measure w/jaw	mA measure In circuit	mA source	mA sim	Loop power 24 V	DCV source 0-10 V	DCV measure 0-30 V	Scaled mA output to mA input	mA in/out
771	•								
772	•	•	•	•	•				
773	•	•	•	•	•	•	•	•	•

Specifications

	Function	Resolution and range	Accuracy	Notes
771, 772, 773	mA measurement	0 mA to 20.99 mA 21.0 mA to 100.0 mA	0.2% + 5 counts 1% + 5 counts	Measured by clamp
772 and 773	mA measurement	0 mA to 24.00 mA	0.2% + 2 counts	Measured in series with test jacks
772 and 773	mA source	0 mA to 24.00 mA	0.2% + 2 counts	Maximum mA drive: 24 mA into 1,000 ohms
772 and 773	mA simulate	0 mA to 24.00 mA	0.2% + 2 counts	Maximum voltage 50 V dc
773	Voltage source	0 V dc to 10.00 V dc	0.2% + 2 counts	2 mA maximum drive current
773	Voltage measure	0 V dc to 30.00 V dc	0.2% + 2 counts	

General specifications

	771	772	773
Battery	Two 1.5 V, Alkaline, IEC LR6	Four 1.5 V, Alkaline, IEC LR6	
Working hours	20 hours typical	12 hours @ 12 mA source into 500 ohms	
Size (HxWxL)	59 mm x 38 mm x 212 mm (2.32 in x 1.5 in x 8.35 in)	41.3 mm x 76 mm x 248 mm (1.625 in x 3 in x 9.75 in)	
Weight	260 g (9.1 oz)	415 g (14 oz)	
Operating temperature	-10 °C to 50 °C		
IP rating	IP 40		
Warranty	Three-year, one-year on mA clamp assembly and cable		

Ordering information

Models	Included accessories
FLUKE-771 Milliamp Process Clamp Meter	Soft carrying case, users manual
FLUKE-772 Milliamp Process Clamp Meter	Test leads, alligator clips and hanging strap, soft carrying case, users manual
FLUKE-773 Milliamp Process Clamp Meter	



Measure process and other automation 4 to 20 mA signals without breaking the loop.

