

Fluke 754 Documenting Process Calibrator-HART
Tech Specs

Measurement Accuracy				
			1 Year	2 Years
Voltage DC	100.000 mV		0.02%+0.005 mV	0.03%+0.005 mV
	3.00000 V		0.02%+0.00005 V	0.03%+0.00005 V
	30.0000 V		0.02%+0.0005 V	0.03%+0.0005 V
	300.00 V		0.05%+0.05 V	0.07%+0.05 V
	Range: 40 to 500 Hz	Resolution	1 Year	2 Years
Voltage AC	3.000 V	0.001 V	0.5%+0.002 V	1.0%+0.004 V
	30.00 V	0.01 V	0.5%+0.02 V	1.0%+0.04 V
	300.0 V	0.1 V	0.5%+0.2 V	1.0%+0.2 V
			1 Year	2 Years
Current DC	30.000 mA		0.01% + 5 uA	0.015%+7 uA
	110.00 mA		0.01% + 20 uA	0.015%+30 uA
			1 Year	2 Years
Resistance	10.000 Ω		0.05% + 50 mΩ	0.07%+70 mΩ
	100.00 Ω		0.05% + 50 mΩ	0.07%+70 mΩ
	1.0000 kΩ		0.05% + 500 mΩ	0.07%+0.5 Ω
	10.000 kΩ		0.1% + 10 Ω	0.15%+15 Ω
		Resolution	Accuracy (2 Years)	
Frequency	1.00 to 110.00 Hz	0.01 Hz	0.05 Hz	
	110.1 to 1100.0 Hz	0.1 Hz	0.5 Hz	
	1.101 to 11.000 kHz	0.001 kHz	0.005 kHz	
	11.01 to 50.00 kHz	0.01 kHz	0.05 kHz	
Source Accuracy				
			1 Year	2 Years
Voltage DC	100.000 mV		0.01%+0.005 mV	0.015%+0.005 mV
	1.00000 V		0.01%+0.00005 V	0.015%+0.0005 V
	15.0000 V		0.01%+0.0005 V	0.015%+0.0005 V
			1 Year	2 Years
Current DC	22.000 mA (Source)		0.01%+ 0.003 mA	0.02%+ 0.003 mA
	Current Sink (Simulate)		0.02% + 0.007 mA	0.04% + 0.007 mA
			1 Year	2 Years
Resistance	10.000 Ω		0.01% + 10 mΩ	0.015% + 15 mΩ
	100.00 Ω		0.01% + 20 mΩ	0.015% + 30 mΩ
	1.0000 kΩ		0.02% + 0.2 Ω	0.03% + 0.3 Ω

	10.000 kΩ	0.02% + 3 Ω	0.03% + 5 Ω
			2 Years
Frequency	0.1 to 10.99 Hz	0.01 Hz	
	0.01 to 10.99 Hz	0.01 Hz	
	11.00 to 109.99 Hz	0.1 Hz	
	110.0 to 1099.9 Hz	0.1 Hz	
	1.100 to 21.999 kHz	0.002 kHz	
	22.000 to 50.000 kHz	0.005 kHz	
Technical Data			
Data Log Functions	Measure functions:	Voltage, current, resistance, frequency, temperature, pressure	
	Reading rate:	1, 2, 5, 10, 20, 30, or 60 readings/minute	
	Maximum record length:	8000 readings (7980 for 30 or 60 readings/minute)	
	Ramp Functions:	Source functions:	Voltage, current, resistance, frequency, temperature
		Rate:	4 steps/second
		Trip detect:	Continuity or voltage (continuity detection only when sourcing current)
Loop Power Function	Voltage:	Selectable, 26 V	
	Accuracy:	10%, 18 V minimum at 22 mA	
	Maximum current:	25 mA, short circuit protected	
	Maximum input voltage:	50 V DC	
Step Functions	Source Functions	Voltage, current, resistance, frequency, temperature	
	Manual Step	Selectable step, change with arrow buttons	
	Autostep	Fully programmable for function, start delay, stepvalue, time per step	
Environmental Specifications			
Operating Temperature	-10 °C to +50 °C		
Storage Temperature	-20 °C to +60 °C		
Dust/water resistance	Meets IP52, IEC 529		
Operating Altitude	3000 m above mean sea level (9842 ft)		
Safety Specifications			
Agency Approvals	CAN/CSA C22.2 No 1010.1-92, ASNI/ISA S82.01-1994, UL3111-1:1993		
Mechanical & General Specifications			
Size	136 x 245 x 63 mm (5.40 x 9.6 x 2.5)		
Weight	1.2 kg (2.7 lb)		
Batteries	Internal Battery Pack Li-ion: 7.2V, 4400mAh, 30 Wh		
Battery Life	>8 hours typical		
Battery Replacement	Replace without opening calibrator; no tools required		
Side port connections	Pressure module connector USB Connector to interface to your PC Digital instrument (HART) connector Connection for optional battery charger/eliminator		

Data storage capacity	1 week of calibration procedures results
90 day specifications	The standard specification interval for the 750 Series are 1 and Typical 90 day measurement and source accuracy can be estim dividing the one year "% of reading" or "%of output" specification Floor specifications, expressed as "% of full scale" or "counts" or "ohms" remain constant.

Temperature, Resistance Temperature Detectors

Degrees or % of reading

Type (α)	Range °C	Measure °C *1	
		1 year	2 year
100 Ω Pt (385)	-200 to 100	0.07 °C	0.14 °C
	100 to 800	0.02 % + 0.05 °C	0.04 % + 0.10 °C
200 Ω Pt (385)	-200 to 100	0.07 °C	0.14 °C
	100 to 630	0.02 % + 0.05 °C	0.04 % + 0.10 °C
500 Ω Pt (385)	-200 to 100	0.07 °C	0.14 °C
	100 to 630	0.02 % + 0.05 °C	0.04 % + 0.10 °C
1000 Ω Pt (385)	-200 to 100	0.07 °C	0.14 °C
	100 to 630	0.02 % + 0.05 °C	0.04% + 0.10 °C
100 Ω Pt (3916)	-200 to 100	0.07 °C	0.14 °C
	100 to 630	0.02 % +0.05 °C	0.04 % +0.10 °C
100 Ω Pt (3926)	-200 to 100	0.08 °C	0.16 °C
	100 to 630	0.02 % +0.06 °C	0.04 % +0.12 °C
10 Ω Cu (427)	-100 to 260	0.2 °C	0.4 °C
120 Ω Ni (672)	-80 to 260	0.1 °C	0.2 °C

Source current	Source °C		Allowable current ²
	1 year	2 year	
1 mA	0.05 °C	0.10 °C	0.1 mA to 10 mA
	0.0125 % + 0.04 °C	0.025 % + 0.08 °C	
500 μA	0.06 °C	0.12 °C	0.1 mA to 1 mA
	0.017 % + 0.05 °C	0.034 % + 0.10 °C	
250 μA	0.06 °C	0.12 °C	0.1 mA to 1 mA
	0.017% + 0.05 °C	0.034 % + 0.10 °C	
150 μA	0.06 C	0.12 C	0.1 mA to 1 mA
	0.017 % + 0.05 °C	0.034 % + 0.10 °C	
1 mA	0.05 °C	0.10 °C	0.1 mA to 10 mA
	0.0125 % + 0.04 °C	0.025 % + 0.08 °C	
1 mA	0.05 °C	0.10 °C	0.1 mA to 10 mA
	0.0125 % + 0.04 °C	0.025 % + 0.08 °C	
3 mA	0.2 °C	0.4 °C	0.1 mA to 10 mA
1 mA	0.04 °C	0.08 °C	0.1 mA to 10 mA

¹For two and three-wire RTD measurements, add 0.4 °C to the specifications.

²Supports pulsed transmitters and PLCs with pulse times as short as 1 ms

Temperature, Thermocouples				
Type	Source °C	Measure °C		Source °C
		1 year	2 years	
E	-250 to -200	1.3	2	0.6
	-200 to -100	0.5	0.8	0.3
	-100 to 600	0.3	0.4	0.3
	600 to 1000	0.4	0.6	0.2
N	-200 to -100	1	1.5	0.6
	-100 to 900	0.5	0.8	0.5
	900 to 1300	0.6	0.9	0.3
J	-210 to -100	0.6	0.9	0.3
	-100 to 800	0.3	0.4	0.2
	800 to 1200	0.5	0.8	0.3
K	-200 to -100	0.7	1	0.4
	-100 to 400	0.3	0.4	0.3
	400 to 1200	0.5	0.8	0.3
	1200 to 1372	0.7	1	0.3
T	-250 to -200	1.7	2.5	0.9
	-200 to 0	0.6	0.9	0.4
	0 to 400	0.3	0.4	0.3
B	600 to 800	1.3	2	1
	800 to 1000	1	1.5	0.8
	1000 to 1820	0.9	1.3	0.8
R	-20 to 0	2.3	2.8	1.2
	0 to 100	1.5	2.2	1.1
	100 to 1767	1	1.5	0.9
S	-20 to 0	2.3	2.8	1.2
	0 to 200	1.5	2.1	1.1
	200 to 1400	0.9	1.4	0.9
	1400 to 1767	1.1	1.7	1
C	0 to 800	0.6	0.9	0.6
	800 to 1200	0.8	1.2	0.7
	1200 to 1800	1.1	1.6	0.9
	1800 to 2316	2	3	1.3
L	-200 to -100	0.6	0.9	0.3
	-100 to 800	0.3	0.4	0.2
	800 to 900	0.5	0.8	0.2
U	-200 to 0	0.6	0.9	0.4

	0 to 600	0.3	0.4	0.3
BP	0 to 1000	1	1.5	0.4
	1000 to 2000	1.6	2.4	0.6
	2000 to 2500	2	3	0.8
XK	-200 to 300	0.2	0.3	0.2
	300 to 800	0.4	0.6	0.3



temperature

not available

step, repeat

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2 years

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