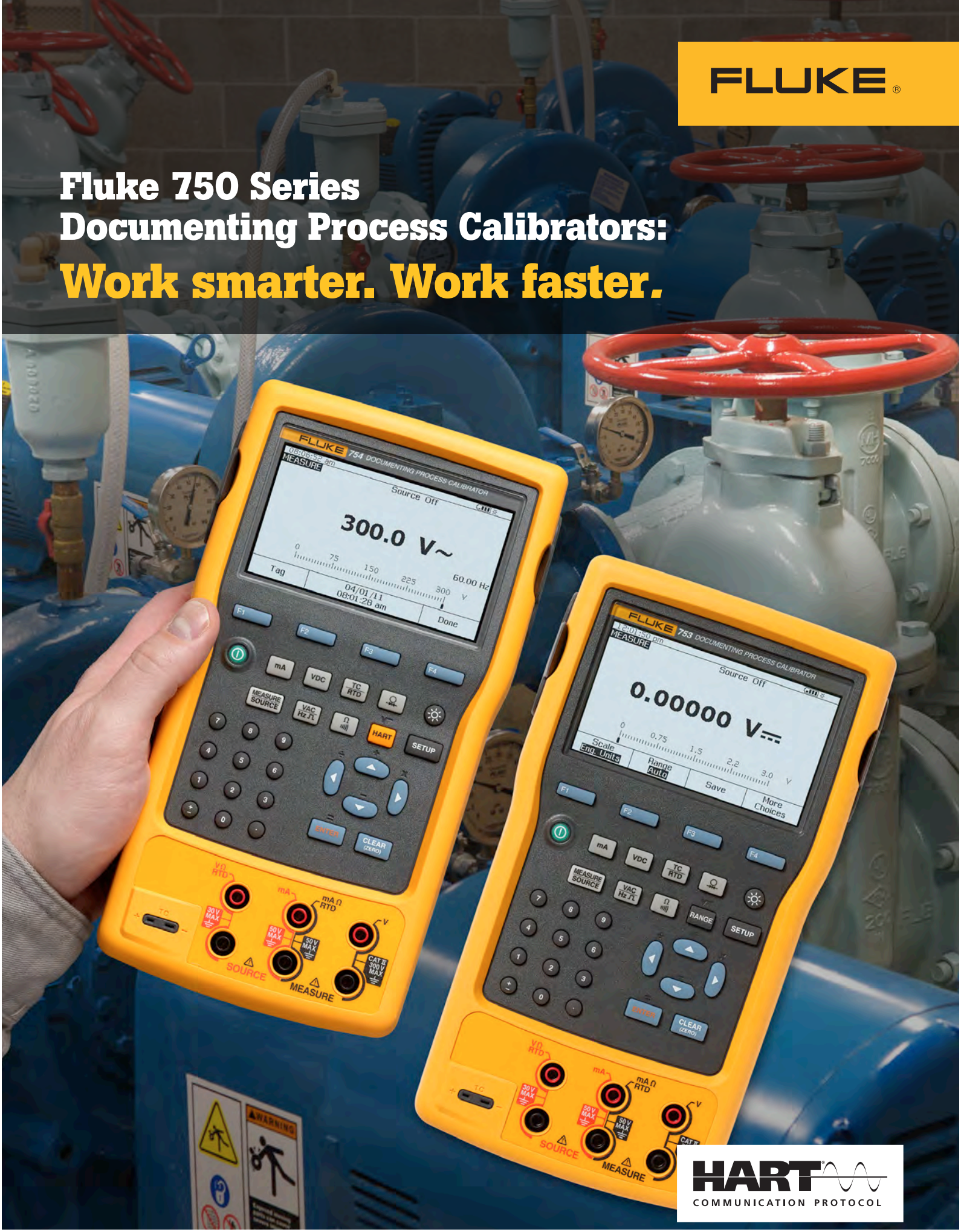


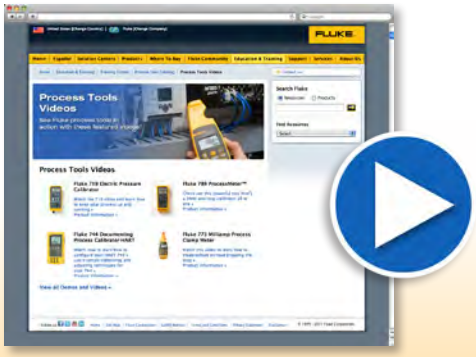
FLUKE®

Fluke 750 Series Documenting Process Calibrators:

Work Smarter. Work Faster.

Whether you're calibrating instruments, troubleshooting a problem or running routine maintenance, Fluke 750 Series process calibrators can help you get the job done faster. It does so many different tasks, so quickly and so well, it's the only process calibrator you need to carry.

- **Multifunctional.** Calibrate temperature, pressure, voltage, current, resistance, and frequency. Since it both measures and sources, you can troubleshoot and calibrate all with one rugged tool.
- **Powerful, yet easy to use.** The easy-to-follow, menu-driven display guides you through any task. Programmable calibration routines enable you to create and run automated as-found/as-left procedures to ensure fast, consistent, calibrations.
- **Records and documents results.** To support your ISO-9000 or regulatory standards, the Fluke 753, and 754 capture your calibration results, eliminating the need to juggle a pen and pad in the field. The USB interface in the Fluke 753 and 754 lets you transfer the results to a PC, thus saving the time of having to manually transcribe them when you return to the shop.
- **Supports popular instrumentation management software.** The 753 and 754 work with the Fluke DPC/TRACK™ software, and with popular programs from Honeywell Meridium, Emerson, Cornerstone, Yokogawa, Prime Technologies, Intergraph and others. It allows you to create procedures, instructions, and action lists to deliver fast, easy documentation.
- **Truly hand-held.** Small enough to fit easily into a tool bag and to use in tight spaces. Runs an entire shift on a rechargeable Li-ion battery pack.
- **Rugged and reliable.** Overmolded urethane case stands up to rough handling in industrial environments. Calibrators offer one- or two-year calibration cycles and three-year warranty.
- **Bright white display** lets you read your results in any kind of light. Backlight has three (3) settings.
- **Soft keys** provide one-touch access to enhanced functions such as task lists, automated procedures, scaling, min/max, stepping and ramping, andreview memory.
- **Three operating modes** Measure, Source, or simultaneous Measure/Source, —enable technicians to troubleshoot, calibrate, or maintain instrumentation with just one tool.
- **Integrated HART communication capability** lets you program and control HART instrumentation (754 only).
- **Use it immediately.** If you've used the Fluke 74X Documenting Process Calibrator you'll be able to pick up the 75X and start using it immediately, without a learning curve.
- **Multi-lingual interface** displays instructions in English, French, German, Spanish, and Italian.
- **AutoStep** allows technicians to set the calibrator for a delayed start and a specific sequence of steps, so it can run unattended as a continuously varying test source.
- **User entered values** enable users to capture readings measured or sourced by other devices.
- **Custom units** allow readings to be scaled and displayed in any user-defined units.
- **Switch calibration procedures** perform fast, automated calibration of one- and two-point switches for voltage, current, temperature, and pressure.
- **Differential pressure flow instrument calibration** routines use a square root function to directly calibrate DP flow instruments.
- **Built-in algebraic calculator** with four functions—plus square root—stores, recalls, and performs calculations required for setting up instruments or evaluating data in the field. Use it to set the source function to a calculated value. There's no need to carry a pencil and paper or a separate calculator.
- **Programmable measurement delay** inside automated procedures permits calibrating instruments that respond slowly.



Get the knowledge straight from the product expert in these process tools videos:

719 Electric Pressure Calibrator
789 ProcessMeter™
773 Milliamp Process Clamp Meter
754 Video Series

Bonus feature available with product registration:
Transmitter mode: simulate a transmitter while you get a replacement.

FLUKE®

Fluke 750 Series Documenting Process Calibrators:
Calibrators as versatile as you are.

The Fluke 750 Calibrators, offered in two models, let you choose the right set of capabilities for your needs.

- The **Fluke 753** offers simultaneous source and measure capabilities for all common process parameters. Create and execute automated procedures and automatically capture the results results. The USB interface enables two-way communication with popular PC-based instrumentation management applications.
- The **Fluke 754** offers all of the capabilities of the 753, plus the ability to maintain and calibrate selected HART transmitters without a second tool.

Capability	753	754
Source/measure	•	•
Automated procedures	•	•
Results capture	•	•
Uses all Fluke pressure modules	•	•
Transmitter mode	•	•
Serial interface	•	•
Data logging	•	•
HART communications		•
Pulsed RTD simulation to 1 ms	•	•
Li-ion battery with "Gas Gauge"	•	•

Fluke 754 HART Documenting Process Calibrator:
Get HART-ability.

Process plants have taken advantage of smart transmitters, the need for a new generation of calibrators has emerged—calibrators that can communicate via industry standard digital protocols. The 754 combines HART communication capability in a documenting process calibrator to deliver an integrated communicating calibrator. This rugged, reliable tool is ideal for calibrating, maintaining, and troubleshooting HART instrumentation. The 754 offers:

- Integrated HART communication functions, permitting you to monitor, control, and calibrate HART instrumentation.
- Handling of fast pulsed RTD transmitters and PLCs, with pulses as short as 1 mS.
- Li-ion battery with 4400 mA hour life and gas gauge.

HART® COMMUNICATION PROTOCOL

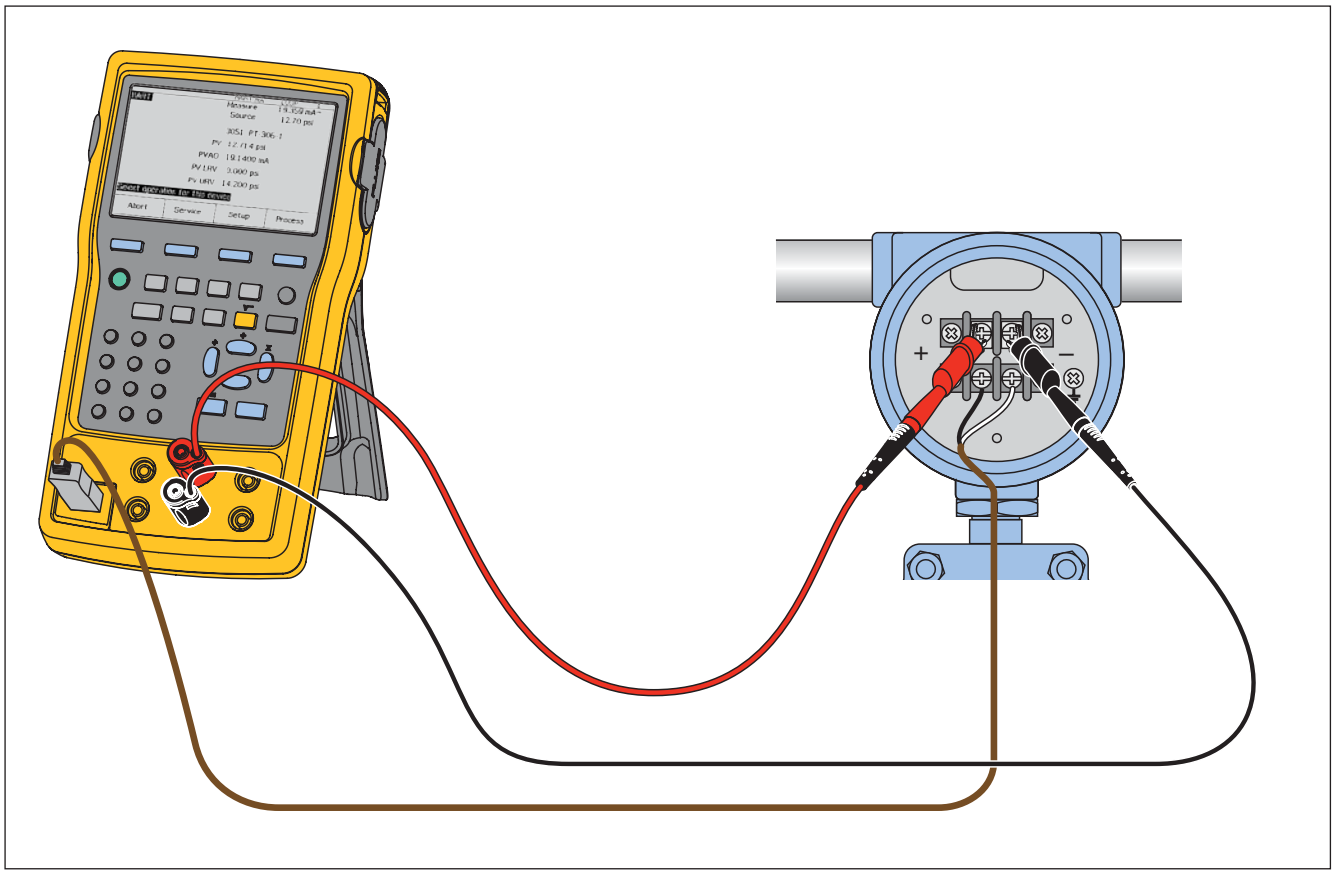
The field calibrator for HART instruments that's both powerful and easy to use.
The 754 offers the most complete HART implementation of any process calibrator. The 754:

- Requires no external box or second tool for everyday HART calibration and maintenance.
- Offers fast HART communication.
- Supports popular models of HART transmitters with device-specific command support.
- Fully complies with the Data Link Layer of the HART protocol, including multiple masters, burst mode, and multi-drop configurations.
- Is easy to update as additional instruments are added and new HART versions are released.
- Is based on the 740 series calibrators, the most rugged, reliable multifunction field calibrators ever made.
- Is backed by the service and support of the Fluke organization, a member of the HART Communications Foundation.

The 754 is designed to take on nearly all the day-to-day tasks you now perform with a separate communicator. In fact, it offers many of the communication capabilities of the 475 HART communicator except for the DD interpreter, which can read command set libraries from any HART supplier. This is not necessary for daily HART maintenance.

FLUKE®

It's easy to calibrate and maintain HART instrumentation with one powerful tool.



With the 754 DPC, you can:

- Generate precision electrical, temperature, or pressure signals for **analog stimulus** or sensor simulation.
- Simultaneously **measure** electrical, temperature, or pressure signals from **transmitter output**.
- Determine type, manufacturer, model, tag ID by interrogating HART devices.
- **Read HART PV** function and smart transmitter **digital output** while measuring **analog mA output**.
- **Read and write HART configuration functions** to make field adjustments to PV range points, damping, and other top-level configuration settings.
- **Change sensor configuration** on supported temperature transmitters.
- **Re-label smart transmitters** by reading and writing HART tag and message fields.
- **Clone additional transmitters** by reading and storing basic HART configurations.
- Perform **automated HART sensor trim** and output trim for selected devices in conjunction with As Found/As Left tests.
- Perform **loop test** with simultaneous analog and digital mA readout.
- Address new, fast, pulsed-excitation smart transmitters and PLCs.
- Fluke Calibration dry block temperature sources and portable temperature baths.

HART applications

Fluke 754: The HART calibrator that is easy to use.

Versatile HART protocol support
The 754 supports the commands contained in HART protocol version 5.7. The 754 supports a substantial set of HART instructions:

- **Universal commands—**provide functions that are implemented in **all field devices**, for example, read manufacturer and device type, read primary variable (PV), or read current output and percent of span
- **Common practice commands—**provide functions that are common to **many but not all field devices**, for example read multiple variables, set damping time, or perform loop test
- **Device-specific commands—**provide functions that are **unique to a particular field device**, for example sensor trim. The 754 supports these devices:

Today's 754 supports device-specific instructions for a variety of popular instruments. Additional support may be added periodically with a simple software update available on diskette or via download for a modest upgrade fee.

Manufacturer	Pressure instruments	Temperature instruments	Coriolis instruments
ABB/Kent-Taylor	600T	658T[1]	
ABB/Hartmann & Braun	Contrans P,[1] AS 800 Series		
Endress & Hauser	CERABAR S, CERABAR M, DELTABAR S	TMT 122[1], TMT 182[1], TMT 162[1]	
Foxboro Eckardt		TI/RTT20[1]	
Foxboro/Invensys	I/A Pressure		
Fuji	FCX, FCXAZ	FRC	
Honeywell	ST3000	STT25T[1], STT25H	
Micro Motion			2000, 2000 IS, 9701, 9712, 9739
Moore Products		344[1]	
Rosemount	1151, 2088, 3001C, 3051, 3051S	3044C, 644, 3144, 3244, 3144P	
Siemens	SITRANS P DS, SITRANS P ES		
SMAR	LD301	TT301[1]	
Viatran	I/A Pressure		
Wika	UNITRANS	T32H[1]	
Yokogawa	EJA	YTA 110, 310, 320	

HART operating modes supported

- For **Point to Point operation**, the most commonly used mode, connects the 754 to a single HART device in a 4-20 mA loop.
- In **Multi-Drop** mode, several HART instruments can be bussed together. The 754 searches for each, identifies addresses in use, and allows you to select the instrument for calibration and related operations.
- In **Burst Mode**, the HART instrument transmits bursts of data without waiting to be interrogated by a master unit. The 754 can take transmitters out of burst mode during test or calibration, then later restore them to burst mode.

[1]Sensor Trim not supported

FLUKE®

Why use "smart" instrumentation?

Like most process plants, your organization is probably facing the dual challenges of maximizing productivity while minimizing maintenance costs. "Smart" digital transmitters offer superior performance and reliability, while saving time and effort in maintenance and calibration. Manufacturers of field instruments have helped accelerate the changeover by offering smart transmitters at prices nearly as low as analog units. As digital instruments using the HART protocol quickly become the standard, communicators and calibrators are becoming essential everyday tools.

What is HART?

HART, the **H**ighway **A**ddressable **R**emote **T**ransducer protocol, uses a 1200 baud Frequency Shift Keying (FSK) signal to superimpose digital information on the conventional 4–20 mA analog signal.

Why use the HART protocol?

HART is an industry standard developed to define the communications protocol between intelligent field devices and a control system, HART is the most widely used digital communication protocol in the process industry. More than five million HART field instruments are installed in more than 100,000 plants worldwide.

The HART protocol:

- Is supported by all of the major suppliers of process field instruments supported by the HART Communication Foundation, an industry-wide non-profit organization. See the http://www.hartcomm.org for information on the HART standard.
- Preserves present control strategies.
- Allows traditional 4–20 mA signals and digital communication to share the same two-wire loops.
- Provides important information for installation and maintenance: Tag IDs, measured values, range and span data, product information and diagnostics.
- Reduces operation costs by making it easier to manage and fully utilize "smart" instrument networks.

Fluke 789 ProcessMeter™

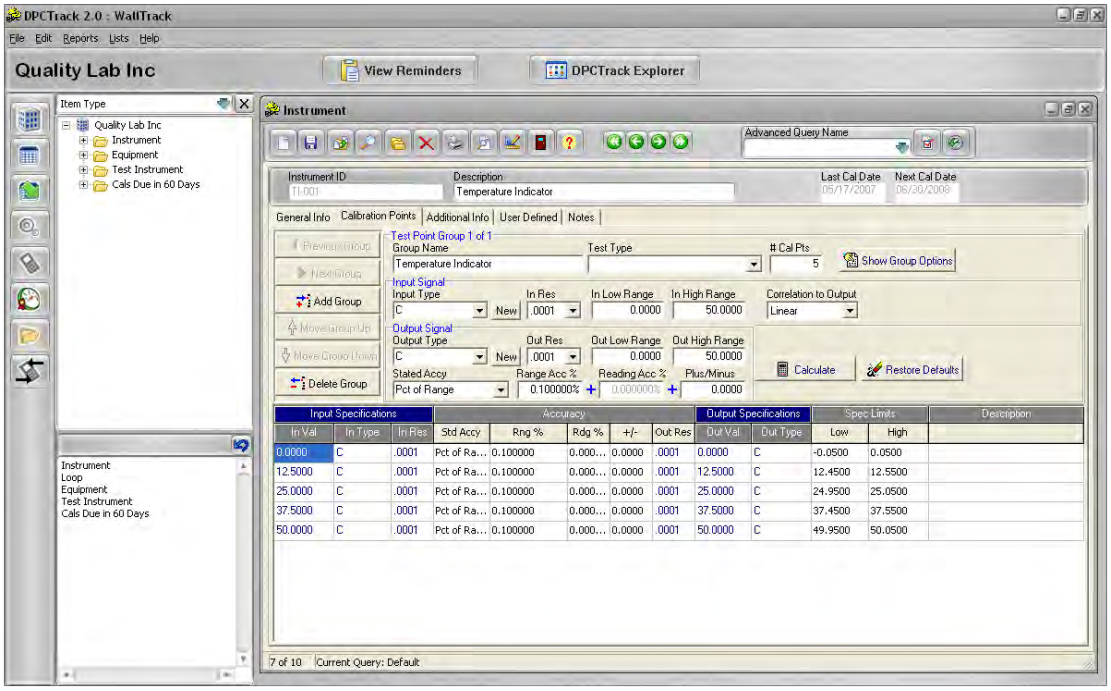
The Fluke 789 doubles your power giving you a multimeter and a loop calibrator in one tool.

Key 789 features:

- 24 V loop power supply
- HART mode setting with loop power (adds 250 ohm resistor)
- 200 % larger dual display
- mA drive up to 1,200 ohms
- Enhanced backlight with (2) brightness settings
- Improved battery power with (4) AA batteries
- 0 % to 100 % mA *Span Check* buttons to toggle from 4 mA to 20 mA
- Infrared I/O serial port compatible with FlukeView Software
- 5 V measurement capability on the 4 V range for precise 1 V to 5 V measurements
- DMM designed to meet 1000 V IEC 1010 CAT III standards
- Precision 1000 V, 400 mA digital multimeter Measure ac and dc volts, ac and dc current, resistance, continuity and frequency
- True-rms ac voltage measurement
- Frequency measurement to 20 kHz
- 20 mA dc current source/loop calibrator/simulator Manual Step (100 %, 25 %, Coarse, Fine) plus Auto Step and Auto Ramp
- Externally accessible battery for easy battery changes
- V overload protection on V, ohms, frequency, mA (backed up by 440 mA 1000 V fuse)

FLUKE ®

Automatically record and document your work



Fluke 750SW DPC/TRACK 2 software includes aninstrumentation data-base that makes it easy to manage your instrumentation, create and schedule tests, load and unload the 753 or 754, print a variety of standard reports, and manage calibration data.

Print standard reports automatically. The software assembles pre-formatted reports from your database files, saving time and reducing errors. Reports include calibration certificates, instruments due for calibration, inventory characteristics, calibration histories, calibration procedures, and traceability to instruments touched.

The Fluke C799 field soft case is included with every 750 series documenting process calibrator. This unique case has many useful features that allow the calibrator to be operated inside the case:

- Clear window protects from the elements but allows access of 75X keyboard
- Input/output slot; bring test leads from inside the case to connect to what you are testing
- Open the side pockets to connect a pressure module
- Ample storage for a pressure module, hand pumps all test leads and interconnect cables

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Measurement function specifications

Confidence Interval: k=3

DC voltage measurement

Range (full scale)	Accuracy (% of reading + floor)	
	1 year	2 years
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

Temperature coefficient: (0.001 % reading + 0.0002 % range)/°C from –10 °C to 18 °C and 28 °C to 50 °C, 100.000 mV range: 0.001 % of reading + 0.001 % of range
Input impedance: >4 MΩ
Maximum input voltage: 300 V rms
Normal mode rejection: >100 dB at 50 Hx or 60 Hx nominal
Specifications are valid to 110 % of range (except for 300 V range)

AC voltage measurement

Range 40 Hz to 500 Hz	Resolution	% of reading + floor	
		1 year	2 year
3.000 V	0.001 V	.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

Input impedance: >4 M Ω and <100 pF
Input coupling: AC
Maximum input voltage: 300 V, IEC 61010 300V CAT II
Temperature coefficient: 5 % of specified accuracy / °C (<18 °C or >28 °C)
Specifications apply for 9 % to 100 % of voltage range.

DC current measurement

Range (full scale)	Accuracy (% of reading + floor)	
	1 year	2 years
30.000 mA	0.01 % + 5 uA	0.015 % + 7 uA
110.00 mA	0.01 % + 20 uA	0.015 % + 30 uA

Temperature coefficient: (3 % of specified accuracy)/°C from –10 °C to 18 °C and 28 °C to 50 °C
Normal mode rejection: 90 dB at 50 or 60 Hz nominal and 60 dB at 1200 Hz and 2200 Hz (HART signals)

Resistance measurement

Range (full scale)	Accuracy (% of reading + ohms)	
	1 year	2 years
10.000 Ω	0.05 % + 50 mΩ	0.07 % + 70 mΩ
100.00 Ω	0.05 % + 50 mΩ	0.07 % + 70 Ω
1.0000 kΩ	0.05 % + 0.5 Ω	0.07 % + 0.5 Ω
10.000 kΩ	0.1 % + 10 Ω	0.15 % + 15 Ω

Temperature coefficient: (3 % of specified accuracy)/°C from –10 °C to 18 °C and 28 °C to 50 °C
Maximum input voltage: 50 V dc
Continuity: Continuous tone < 25 Ω, No tone > 400 Ω
Specifications are valid to 110 % of range

Frequency measurement

Range[1]	Resolution	Accuracy
		2 years
1.00 Hz to 110.00 Hz	0.01 Hz	0.05 Hz
110.1 Hz to 1100.0 Hz	0.1 Hz	0.5 Hz
1.101 kHz to 11.000 kHz	0.001 kHz	0.005 kHz
11.01 kHz to 50.00 kHz	0.01 kHz	0.05 kHz

[1]For frequencies < 109.99 Hz, specification applies for signals with slew rates > 5 V/ms
Minimum amplitude for Hz measurement: (Squarewaves) 1 Hz to 1 kHz, 300 mV p-p; 1 kHz to 30 kHz, 1.4 V p-p; > 30 kHz, 2.8 V p-p
Maximum input: 1 Hz to 1 kHz, 300 V rms; > 1 kHz, 30 V rms
Input impedance: 4 MΩ

Sourcing (simulation) function specifications

Confidence Interval: k=3

DC voltage output

Range (full scale)	Accuracy (% of output + floor)	
	1 year	2years
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

Maximum Output Current: 10 mA, In the 100 mV range add 0.010 mV to specification when sourcing >1 mA.
For sourcing dc voltages <110.000 mV, accuracy is not specified in RF fields > 1 V/m, 80 MHz to 700 MHz.
Temperature Coefficient: 0.001 % of output + 0.001 % of range / °C (<18 °C or >28 °C)

DC current output

Range (full scale)	Accuracy (% of output + floor)	
	1 year	2years
22.000 mA	0.01 % + 0.003 mA	0.02 % + 0.003 mA
Current sint (simulate transmitter)	0.01 % + 0.007 mA	0.04 % + 0.007 mA

Specification applies from 0.1 mA to 22 mA; below 2 mA typical accuracy is 0.15 % of full scale
Maximum burden voltage: 18 V
Temperature coefficient: 3 % of specified accuracy/°C from –10 °C to 18 °C and 28 °C to 50 °C

Resistance sourcing

Range	Accuracy (% of output + ohms)	
	1 year	2 years
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

Temperature coefficient: 0.01 % f.s./°C from –10 °C to 18 °C and 28 °C to 50 °C
Maximum and minimum current through source resistance:

	Maximum	Minimum
10 Ω range:	10 mA dc	0.1 mA dc
100 Ω range:	10 mA dc	0.1 mA dc
1.0 kΩ range:	1 mA dc	0.01 mA dc
10 kΩ range:	1 mA dc	0.01 mA dc

Specifications valid to 110 % of range

Frequency sourcing

Range	Specification
	2 years
Sinewave: 0.1 Hz to 10.99 Hz	0.01 Hz
Squarewave: 0.01 Hz to 10.99 Hz	0.01 Hz
Sine and square 11.00 Hz to 109.99 Hz	0.1 Hz
Sine and square 110.0 Hz to 1099.9 Hz	0.1 Hz
Sine and square 1.100 kHz to 21.999 kHz	0.002 kHz
Sine and square 22.000 kHz to 50.000 kHz	0.005 kHz

Waveform choices: Zero-symmetric sine wave or positive 50 % duty-cycle square wave
Square wave amplitude: 0.1 V to 15 V p-p
Square wave amplitude accuracy:
0.01 kHz to 1 kHz: 1 % p-p output + 75 mV,
1 kHz to 50 kHz: 10 % p-p output + 75 mV
Sine wave amplitude: 0.1 V to 30 V p-p
Sine wave amplitude accuracy, 0.1 Hz to 50 kHz: 3 % p-p output + 75 mV
Maximum input voltage: ± 30 V dc

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Temperature measurement and simulation specifications

Confidence Interval: k=3

Temperature, Resistance Temperature Detectors[1]

Degrees or % of reading							
Type (α)	Range °C	Measure °C[2]		Source current	Source °C		Allowable current[3]
		1 year	2 years		1 year	2 years	
100 Ω Pt (385)	–200 to 100	0.07 °C	0.14 °C	1 mA	0.05 °C	0.10 °C	0.1 mA to 10 mA
	100 to 800	0.02 % + 0.05 °C	0.04 % + 0.10 °C		0.0125 % + 0.04 °C	0.025 % + 0.08 °C	
200 Ω Pt (385)	–200 to 100	0.07 °C	0.14 °C	500 µA	0.06 °C	0.12 °C	0.1 mA to 1 mA
	100 to 630	0.02 % + 0.05 °C	0.04 % + 0.10 °C		0.017 % + 0.05 °C	0.034 % + 0.10 °C	
500 Ω Pt (385)	–200 to 100	0.07 °C	0.14 °C	250 µA	0.06 °C	0.12 °C	0.1 mA to 1 mA
	100 to 630	0.02 % + 0.05 °C	0.04 % + 0.10 °C		0.017% + 0.05 °C	0.034 % + 0.10 °C	
1000 Ω Pt (385)	–200 to 100	0.07 °C	0.14 °C	150 µA	0.06 C	0.12 C	0.1 mA to 1 mA
	100 to 630	0.02 % + 0.05 °C	0.04% + 0.10 °C		0.017 % + 0.05 °C	0.034 % + 0.10 °C	
100 Ω Pt (3916)	–200 to 100	0.07 °C	0.14 °C	1 mA	0.05 °C	0.10 °C	0.1 mA to10 mA
	100 to 630	0.02 % +0.05 °C	0.04 % +0.10 °C		0.0125 % + 0.04 °C	0.025 % + 0.08 °C	
100 Ω Pt (3926)	–200 to 100	0.08 °C	0.16 °C	1 mA	0.05 °C	0.10 °C	0.1 mA to 10 mA
	100 to 630	0.02 % +0.06 °C	0.04 % +0.12 °C		0.0125 % + 0.04 °C	0.025 % + 0.08 °C	
10 Ω Cu (427)	–100 to 260	0.2 °C	0.4 °C	3 mA	0.2 °C	0.4 °C	1 mA to 10 mA
120 Ω Ni (672)	–80 to 260	0.1 °C	0.2 °C	1 mA	0.04 °C	0.08 °C	0.1 mA to 10 mA

[1]**Specifications are valid to k=3**
Sensor inaccuracies not included
[2]*For two and three-wire RTD measurements, add 0.4°C to the specifications.*
Resolution: 0.01 °C except 0.1 °C for 10 Ω Cu (427)
Temperature coefficient: 0.02 °C/°C source, (<18°C or >28°C), 0.01 °C/C for measure
Maximum input voltage: 30 V
[3]Supports pulsed transmitters and PLCs with pulse times as short as 1 ms
RTD reference: Pt(385): IEC 60751, 2008; (3916): JIS C 1604, 1981; Pt(3926), Cu(427), Ni(672): Minco Application Aid #18

Temperature, Thermocouples

Type	Source °C	Measure °C		Source °C	
		1 year	2 years	1 year	2 years
E	–250 to –200	1.3	2.0	0.6	0.9
	–200 to –100	0.5	0.8	0.3	0.4
	–100 to 600	0.3	0.4	0.3	0.4
	600 to 1000	0.4	0.6	0.2	0.3
N	–200 to –100	1.0	1.5	0.6	0.9
	–100 to 900	0.5	0.8	0.5	0.8
	900 to 1300	0.6	0.9	0.3	0.4
J	–210 to –100	0.6	0.9	0.3	0.4
	–100 to 800	0.3	0.4	0.2	0.3
	800 to 1200	0.5	0.8	0.3	0.3
K	–200 to –100	0.7	1.0	0.4	0.6
	–100 to 400	0.3	0.4	0.3	0.4
	400 to 1200	0.5	0.8	0.3	0.4
	1200 to 1372	0.7	1.0	0.3	0.4
T	–250 to –200	1.7	2.5	0.9	1.4
	–200 to 0	0.6	0.9	0.4	0.6
	0 to 400	0.3	0.4	0.3	0.4
B	600 to 800	1.3	2.0	1.0	1.5
	800 to 1000	1.0	1.5	0.8	1.2
	1000 to 1820	0.9	1.3	0.8	1.2
R	–20 to 0	2.3	2.8	1.2	1.8
	0 to 100	1.5	2.2	1.1	1.7
	100 to 1767	1.0	1.5	0.9	1.4
S	–20 to 0	2.3	2.8	1.2	1.8
	0 to 200	1.5	2.1	1.1	1.7
	200 to 1400	0.9	1.4	0.9	1.4
	1400 to 1767	1.1	1.7	1.0	1.5
C	0 to 800	0.6	0.9	0.6	0.9
	800 to 1200	0.8	1.2	0.7	1.0
	1200 to 1800	1.1	1.6	0.9	1.4
	1800 to 2316	2.0	3.0	1.3	2.0
L	–200 to –100	0.6	0.9	0.3	0.4
	–100 to 800	0.3	0.4	0.2	0.3
	800 to 900	0.5	0.8	0.2	0.3
U	–200 to 0	0.6	0.9	0.4	0.6
	0 to 600	0.3	0.4	0.3	0.4

Type	Source °C	Measure °C		Source °C	
		1 year	2 years	1 year	2 years
BP	0 to 1000	1.0	1.5	0.4	0.6
	1000 to 2000	1.6	2.4	0.6	0.9
	2000 to 2500	2.0	3.0	0.8	1.2
XK	–200 to 300	0.2	0.3	0.2	0.5
	300 to 800	0.4	0.6	0.3	0.6

Sensor inaccuracies not included.
Accuracy with external cold junction; for internal junction add 0.2 °C
Resolution: 0.1 °C
Temperature scale: ITS-90 or IPTS-68, selectable (90 is default)
Compensation: ITS-90 per NIST Monograph 175 for B,R,S,E,J,K,N,T; IPTS-68 per IEC 584-1 for B,R,S,E,J,K,T; IPTS-68 per DIN 43710 for L,U. GOST P 8.585-2001 for BP and XK, ASTM E988-96 for C (W5Re/W26Re)
Temperature coefficient: 0.05°C/°C (<18°C or >28°C) 0.07°C/°C for C type > 1800°C and for BP type > 2000°C
Instrument operating temperature: 0 °C to 50 °C for C and BP type thermocouples / –10 °C to 50°C for all other types
Normal mode rejection: 65 dB at 50 Hz or 60 Hz nominal

Why you can depend on Fluke calibrator specifications

Specifications must be carefully considered when comparing calibrators from different vendors.

For example, Fluke specifications use a 3-sigma confidence interval (k = 3). This means that 99.7 % of measurements will remain in specification over the stated period of time. Other manufacturers use a 2-sigma confidence interval (k = 2). This means that 95.4 % of measurements will remain in specification over the stated period of time so one in 20 instruments are statistically likely to fail to perform to their specifications.

The most important components of a process calibrator specification are:

- **Reference uncertainty.** Performance of a calibrator at 23 °C ± 3 °C at the time it is verified by the manufacturer. This specification does not include the effects of time and temperature, two of the largest components of calibrator error
- **Time.** Fluke 750 Series calibrators are delivered with both one-year and two-year specs, to limit your calibration support costs. You choose your cal interval based upon the performance you need
- **Temperature.** Fluke process calibrator specs reflect performance from 18 °C to 28 °C. Compensation factors are provided to permit specified use of the calibrators over a wide –10 °C to 50 °C range
- **Allowance for traceability.** Fluke specs are not relative specs, but total specs, including an allowance for uncertainty of standards that provide traceability to national standards

For more information, view our interpreting specifications webinar or refer to the application note "Understanding Specifications For Process Calibrators."

FLUKE®

Pressure specifications

The Fluke family of 50 pressure modules:

Covers virtually any pressure application including gage, differential, dual (compound), absolute, and vacuum.

- Display pressure readings in any of ten different pressure units you specify in the calibrator setup.
- Rugged urethane molded cases protect the modules from rough handling and harsh conditions
- Features internal temperature compensation from 0 °C to 50 °C for full-accuracy performance
- Includes traceable calibration certificate
- Modules can be calibrated locally, helping to control costs

Pressure module specifications (all specifications in % of full span. Specifications reflect a confidence interval of 95 %.)

Model	Parameter/Range	Hi Side Media[2]	Lo Side Media[2]	Reference Uncertainty[4]	Total Uncertainty 1-year (15-35 ˚C)	Total Uncertainty 1-year[1]	Total Uncertainty 6-month (15-35 ˚C)
Differential							
750P00	0 to 1 in H_2O (0 to 2.5 mBar)	Dry Air	Dry Air	± 0.15 %	± 0.3 %	± 0.35 %	± 0.25 %
750P01[6]	0 to 10 in H_2O (0 to 25 mBar)	Dry Air	Dry Air	± 0.1 %	± 0.2 %	± 0.3 %	± 0.15 %
750P02	0 to 1 psi (0 to 70 mBar)	Dry Air	Dry Air	± 0.050 %	± 0.1 %	± 0.15 %	± 0.075 %
750P22	0 to 1 psi (0 to 70 mBar)	316 SS	Dry Air	± 0.050 %	± 0.1 %	± 0.15 %	± 0.075 %
750P03	0 to 5 psi (0 to 350 mBar)	Dry Air	Dry Air	± 0.02 %	± 0.04 %	± 0.05 %	± 0.035 %
750P23	0 to 5 psi (0 to 350 mBar)	316 SS	Dry Air	± 0.02 %	± 0.04 %	± 0.05 %	± 0.035 %
750P04	0 to 15 psi (0 to 1 bar)	Dry Air	Dry Air	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %
750P24[6]	0 to 15 psi (0 to 1 bar)	316 SS	Dry Air	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %
750P3IN	0 to 3 Inch H20 (0 to 7.5 mBar)	Dry Air	Dry Air	± 0.15 %	± 0.3 %	± 0.35 %	± 0.25 %
750P5IN	0 to 5 Inch H20 (0 to 12.5 mBar)	Dry Air	Dry Air	± 0.15 %	± 0.3 %	± 0.35 %	± 0.25 %
Gage							
750P05[6]	0 to 30 psi (0 to 2 bar)	316 SS	N/A	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %
750P06[6]	0 to 100 psi (0 to 7 bar)	316 SS	N/A	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %
750P27[6]	0 to 300 psi (0 to 20 bar)	316 SS	N/A	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %
750P07	0 to 500 psi (0 to 35 bar)	316 SS	N/A	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %
750P08	0 to 1000 psi (0 to 70 bar)	316 SS	N/A	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %
750P09[6]	0 to 1500 psi (0 to 100 bar)	316 SS	N/A	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %
750P2000	0 to 2000 psi (0 to 140 bar)	316 SS	N/A	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %
High							
750P29[6]	0 to 3000 psi (0 to 200 bar)	316 SS	N/A	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %
750P30	0 to 5000 psi(0 to 340 bar)	316 SS	N/A	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %
750P31	0 to 10000 psi (0 to 700 bar)	316 SS	N/A	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %
Absolute							
750PA3	0 to 5 psia (0 to 350 mBar)	316 SS	N/A	± 0.03 %	± 0.06 %	± 0.07 %	± 0.05 %
750PA4[6]	0 to 15 psia (0 to 1 bar)	316 SS	N/A	± 0.03 %	± 0.06 %	± 0.07 %	± 0.05 %
750PA5	0 to 30 psia (0 to 2 bar)	316 SS	N/A	± 0.03 %	± 0.06 %	± 0.07 %	± 0.05 %
750PA6	0 to 100 psia (0 to 7 bar)	316 SS	N/A	± 0.03 %	± 0.06 %	± 0.07 %	± 0.05 %
750PA27	0 to 300 psia (0 to 20 bar)	316 SS	N/A	± 0.03 %	± 0.06 %	± 0.07 %	± 0.05 %
750PA7	0 to 500 psia (0 to 35 bar)	316 SS	N/A	± 0.03 %	± 0.06 %	± 0.07 %	± 0.05 %
750PA8	0 to 1000 psia (0 to 70 bar)	316 SS	N/A	± 0.03 %	± 0.06 %	± 0.07 %	± 0.05 %
750PA9	0 to 1500 psia (0 to 100 bar)	316 SS	N/A	± 0.03 %	± 0.06 %	± 0.07 %	± 0.05 %

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Pressure module specifications (cont.) (all specifications in % of full span. Specifications reflect a confidence interval of 95 %.)

Model	Parameter/Range	Hi Side Media[2]	Lo Side Media[2]	Reference Uncertainty[4]	Total Uncertainty 1-year (15-35 ˚C)	Total Uncertainty 1-year[1]	Total Uncertainty 6-month (15-35 ˚C)
Vacuum							
750PV3	-5 psi (-350 mBar)	316 SS	Dry Air	± 0.03 %	± 0.06 %	± 0.07 %	± 0.05 %
750PV4	-15 psi (-1 bar)	316 SS	Dry Air	± 0.03 %	± 0.06 %	± 0.07 %	± 0.05 %
Dual							
750PD2	-1 to 1 psi (-70 to 70 mBar)	316 SS	Dry Air	± 0.05 %	± 0.1 %	± 0.15 %	± 0.075 %
750PD3	-5 to 5 psi (-350 to 350 mBar)	316 SS	Dry Air	± 0.03 %	± 0.06 %	± 0.07 %	± 0.05 %
750PD10	-10 to 10 psi (-700 to 700 mBar)	316 SS	Dry Air	± 0.025 %	± 0.05 %	± 0.07 %	± 0.04 %
750PD4	-15 to 15 psi (-1 to 1 bar)	316 SS	Dry Air	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %
750PD5	-15 to 30 psi (-1 to 2 bar)	316 SS	N/A	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %
750PD50	-15 to 50 psi (-1 to 3.5 bar)	316 SS	N/A	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %
750PD6	-15 to 100 psi (-1 to 7 bar)	316 SS	N/A	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %
750PD7	-15 to 200 psi (-1 to 14 bar)	316 SS	N/A	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %
750PD27	-15 to 300 psi (-1 to 20 bar)	316 SS	N/A	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %
Reference							
750R04[5]	0 to 15 psi (0 to 1 bar)	Dry Air	Dry Air	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS
750R06[5]	0 to 100 psi (0 to 7 bar)	316 SS	N/A	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS
750R27	0 to 300 psi (0 to 20 bar)	316 SS	N/A	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS
750R07	0 to 500 psi (0 to 35 bar)	316 SS	N/A	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS
750R08[5]	0 to 1000 psi (0 to 70 bar)	316 SS	N/A	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS
750R29	0 to 3000 psi (0 to 200 bar)	316 SS	N/A	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS
750R30	0 to 5000 psi (0 to 340 bar)	316 SS	N/A	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS
750R31[5]	0 to 10000 psi (0 to 700 bar)	316 SS	N/A	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS
750RD5	-15 to 30 psi (-1 to 2 bar)	Dry Air	N/A	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS
750RD6[5]	-12 to 100 psi (-1 to 7 bar)	316 SS	N/A	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS
750RD27	-12 to 300 psi (-0.8 to 20 bar)	316 SS	N/A	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS

1.Total uncertainty, % of full span for temperature range 0 °C to +50 °C, one year interval. Total uncertainty, 1.0 % of full span for temperature range -10 °C to 0 °C, one year interval. No 6 month specification available for range -10 °C to 0 °C.

2."NONCORROSIVE GASSES" indicates dry air or non-corrosive gas as compatible media. "Stainless Steel 316-SS" indicates media compatible with Type 316 Stainless Steel.

3.Specifications % of Full Span unless otherwise noted.

4. Reference Uncertainty is the specification for as left data for 24 hours.

5.When reference class modules are used with fixed resolution products (717, 718, 719 series, 725 and 726) calibrators add ± 1 count to the overall accuracy specification.

6. Intrinsically Safe pressure module available in this pressure range.

FLUKE®

General specifications

Data log function
Measure functions: Voltage, current, resistance, frequency, temperature, pressure
Reading rate: 1, 2, 5, 10, 20, 30, or 60 readings per minute
Maximum record length: 8000 readings (7980 for 30 or 60 readings per minute)

Ramp function
Source functions: Voltage, current, resistance, frequency, temperature
Rate: 4 steps/second
Trip detect: Continuity* or voltage
**Continuity detection not available when sourcing current*

Loop power function
Voltage: 26 V
Accuracy: 10 %, 18 V minimum at 22 mA
Maximum current: 25 mA, short-circuit protected
Maximum input voltage: 50 V dc
Note: 250 Ω series resistance is automatically supplied whenever loop power is enabled on 754.

HART modem interface (754 only)
Maximum input voltage: 30 V dc

Environmental specifications
All calibrator specifications apply from +18 °C to +28 °C unless stated otherwise.
Operating temperature: -10 °C to 50 °C
Storage temperature: -20 °C to 60 °C
Operating altitude: 3000 m above mean sea level (9842 ft)
90-day specifications: The standard specification intervals for the 750 Series are 1 and 2 years. Typical 90-day measurement and source accuracy can be estimated by dividing the one year "% of reading" or "% of output" specifications by 2. Floor specifications, expressed as "% of f.s." or "counts" or "ohms" remain constant.
Ingress protection: IP-52

Power: Internal battery pack li-ion, 7.2 V, 4400 mAh, 30 Wh; **Battery life:** Typical usage, >8 hours
Dimensions: 136mm x 245mm x 63 mm (5.4 in x 9.6 in x 2.5 in)
Weight: 1.2 kg (2.7 lb)
Side port connections:
- Pressure module connector
- USB connector to interface to your PC
- Digital instrument (HART) connector
- Connection for optional battery charger/eliminator

Safety: Complies with CAN/CSA C22.2 No 1010.1-92, ANSI/ISA S82.01-1994, UL3111, and EN610-1:1993.
Data storage capacity:
1 week of calibration procedures and results

Ordering information

FLUKE-753 Documenting Process Calibrator
FLUKE-754 Documenting Process Calibrator-HART
Standard accessories include: Three sets of stackable test leads, three sets of TP220 test probes with three sets of "extended tooth" alligator clips, two sets AC280 hook clips, BP7240 Li-ion battery pack, BC7240 battery charger, C799 field soft case, USB communication cable, getting started guide, instruction manual, and instruction videos on CDROM, traceable certificate of calibration, DPC/TRACK 2 sample software that enables upload and printing of calibration records. Model Fluke-754 includes HART communication cable. Includes C799 Field Soft Case. Includes three year warranty.

FLUKE-750SW DPC/TRACK 2 Software
Included with DPC/TRACK software:
Software media, Instruction Manual, USB Cable.

FLUKE-750 Pxx Pressure Modules
Included with each Fluke Pressure Module:
BP-ISO, M20 and 1/4 in NPT Adapter(s), Instruction Sheet, traceable calibration report and data, one-year warranty.

Accessories

Fluke-700PMP	Pressure Pump; 100 psi/7 bar
Fluke-700LTP-1	Low Pressure Test Pump
Fluke-700PTP-1	Pneumatic Test Pump; 400 psi/40 bar
Fluke-700HTP-2	Hydraulic Test Pump; 10,000 psi/700 bar
Fluke-700HTH-1	Hydraulic Test Hose
Fluke-700PRV-1	Pressure Relief Valve Kit for HTP
Fluke-700-IV	Current Shunt (for mA/mA applications)
Fluke-700PCK	Pressure Calibration Kit
Fluke-700TC1	TC Mini-Plug Kit, 9 types
Fluke-700TC2	TC Mini-Plug Kit, JKTERS
Fluke-700TLK	Process Test lead kit
754HCC	Smart instrument communication cable
BC7240	Battery Charger
BP7240	Li-on Battery Pack
C700	Hard Carrying Case
C781	Soft Carrying Case
C799	Soft Field Case

Fluke. *Keeping your world up and running.*®

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Fluke 750P Series Pressure Modules

Technical Data

Precision pressure measurement for 75X and 720 series calibrators

The 750P Series Pressure Modules are the ideal pressure modules to enable gage, differential and absolute pressure measurement with Fluke 750 and 740 series DPCs and 725, 726 MPCs to measure pressure.

- 0.025 % reference uncertainty
- 6-month and 1-year specifications
- Temperature compensated 0 °C to 50 °C
- Digital communication to calibrators, no analog losses or errors
- Broad selection of ranges
- Gage, differential, dual range, absolute and vacuum measurement models

A complete family of pressure modules

A family of 48 pressure modules covers pressure calibrations from 0 to 1 in H_2O to 10000 psi (2.5 mBar to 690 bar).

Gage pressure modules have one pressure fitting and measure the pressure with respect to atmospheric pressure. Differential pressure modules have two pressure fittings and measure the difference between the applied pressure on the high fitting versus the low fitting. Each module is clearly labeled for range, overpressure and media compatibility. All modules include NPT, metric (BSP) and M20 adapters.

Quick and easy measurements

Fluke 750P Series Pressure Modules are easy to use. To measure pressure, connect the pressure module to a pressure source or hand pump and then connect the pressure module cable to the calibrator. Apply pressure from the pressure source and it is displayed digitally on the calibrator. At the touch of a button, the pressure may be displayed in up to 11 different engineering units. When used with the 750 Series Documenting Process Calibrators, pressure readings can be date/time stamped and stored electronically for later retrieval. This saves time, eliminates errors, and supports compliance with quality standards and regulations.

Pressure module performance and technology

Fluke 750P Series pressure modules are highly accurate, with specifications that apply from 0 °C to 50 °C (32 °F to 122 °F), a feature that sets them apart from other pressure calibrators. Many ranges have total uncertainties of 0.04 % of full scale and reference uncertainties of 0.01 % of full scale (see specification table).

This performance is possible through the innovative application of mathematics and micro-processor power. Fluke pressure modules have silicon piezo-resistor sensors which consist of a resistive bridge fabricated in a silicon diaphragm. Pressure applied to the diaphragm causes a change in the balance of the bridge which is proportional to the applied pressure. The bridge balance change is not linear and is very sensitive to temperature. However, since these effects are quite stable with time and with repetitive changes of condition, the sensors are carefully characterized.

During manufacture, Fluke pressure module sensors are characterized by reading temperature and pressure at multiple points. A least-squares regression is used to calculate the coefficients of a polynomial expression for pressure. The coefficients, unique to that pressure module, are stored in the module's memory.

Each module has its own microprocessor, allowing it to run the measurement circuitry and to communicate digitally with a calibrator. When connected to the calibrator, the modules coefficients are uploaded from the pressure module to the calibrator. Then, as pressure measurements are made, raw sensor values for pressure and temperature are digitally loaded to the calibrator, where the raw sensor values and coefficients are manipulated to derive and display the pressure reading.

This innovative technique provides several benefits:

1. Digital communication eliminates errors due to poor connections and electrical interference.
2. The modules are inherently temperature-compensated from 0 °C to 50 °C (32 °F to 122 °F).
3. The modules are fully interchangeable because all measurements are completed in the pressure module itself and then communicated to the calibrator in digitized form. Modules are calibrated independently of the calibrator, and can be used with any 740, 750 or compatible 720 or 710 series calibrator. Each module has its own serial number to maintain independent traceability.

Sensor protection in isolated modules

Many of these modules (see table) incorporate a stainless steel diaphragm to isolate the sensor. With these modules, any medium that is compatible with stainless steel can be used on the high side of the module.

Rugged construction

A urethane overmolding protects against shock if a module is accidentally dropped and also seals against dirt, dust, and moisture. Pressure connections are 1/8" NPT female connection. A ¼" NPT Male, ¼" BSP/ISO and M20 male adapter are also provided with each pressure module.

Convenient setup

A one-meter cable between the pressure module and calibrator reduces the length of connecting tubing to the pressure source. The remote pressure head also provides an extra margin of safety and convenience by removing the calibrator and operator from the pressure source in the event or need for semi-remote measurements.

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Pressure accessories

Image	Description	Application
Fluke 700PTP-1 Pneumatic Test Pump		
	The Fluke 700PTP-1 is a handheld pressure pump designed to generate either vacuum to -13 psi/-0.9 bar or pressure to 600 psi/40 bar The Fluke 700PTP-1 has two pressure ports: • ¼" NPT female parallel thread fitting for the reference gauge or pressure module • ¼" NPT female parallel thread fitting for the unit under test	The Fluke 700PTP-1 features an integral pressure adjustment vernier which varies the pressurized volume by 2.0 cc over approximately eleven turns of the vernier knob. The pressure variation achievable with the vernier will depend on the nominal pressure and total pressurized volume, but with a minimum volume and maximum pressure, the vernier provided 600 ± 20 psi adjustment range. With a minimum volume and no pressure applied, the vernier can also be used to provide a 0 to 70" H20 range. Larger volumes will provide a smaller range of adjustment, but greater resolution. The length of the stroke can be adjusted to limit the maximum output pressure. Maximum output pressure is adjustable from 2.5 psi to 600 psi. **For use with:** Fluke 700 and 750P Series Pressure Modules and the Fluke 710 and 720 Series Pressure Calibrators
Fluke 700HTP-2 Hydraulic Test Pump		
	The Fluke 700HTP-1 is designed to generate pressures up to 10000 psi/700 bar. The Fluke 700HTP-1 has two pressure ports: • ¼" NPT female parallel thread fitting for the reference gauge or pressure module • ¼" NPT female parallel thread fitting for the unit under test **Note:** The user must provide a hose with appropriate end fittings from this port to the unit under test.	This pump can provide up to 10000 psi using distilled water or mineral-based hydraulic oil. The pump is operated by pumping several strokes to prime the system, then switching to high pressure mode when the resistance increases. An integral pressure adjustment vernier knob varies the pressurized volume by 0.6 cc. The pressure variation achievable with the vernier will depend on the nominal pressure and total pressurized volume, but with a minimum volume, the vernier provided 150 psi to 3000 psi (at 150 psi nominal) and 3000 psi to 10000 psi (at 3000 psi nominal) adjustment ranges. With a minimum volume and no pressure applied, the vernier can also be used to provide a 0 to 1.7 psi range. Larger volumes will provide a smaller range of adjustment, but greater resolution. **For use with:** Fluke 700 and 750P Series Pressure Modules and the Fluke 710 and 720 Series Pressure Calibrators
Fluke 700LTP-1 Low-Pressure Test Pump		
	The Fluke 700LTP-1 is a hand operated pressure pump designed to generate either vacuum to -12 psi/-.85 bar or pressures to 100 psi/6.9 bar. The Fluke 700LTP-1 has two pressure ports with push fit connectors. These push fit connectors, one for the reference port for connection to a Fluke 700 Series Pressure Module and one to connect to a unit under test, connect to the supplied test hoses.	The Fluke 700LTP-1 is primarily intended for low pressure applications. It features a fine adjust vernier with .00145 psi resolution at low pressures. The pressure variation achievable with the vernier will depend on the nominal pressure and total pressurized volume, but with minimum volume and maximum pressure the vernier provides 30 psi ± 6 psi. The adjustable pressure relief valve features a slow-bleed capability that allows the user to slowly release pressure at a controlled rate to achieve a desired pressure.
Fluke 700HTH-1 Hydraulic Test Hose		
	The Fluke 700HTH-1 Hydraulic Test Hose is a 10000 psi, 700 bar working pressure test hose. The hose uses self-sealing fittings with easy finger tight connections.	The Fluke 700HTH-1 allows connections to a unit under test from a Fluke 700HTP-1 hydraulic test pump in use with the Fluke 700 and 750P Series Pressure Modules. The 700HTH-1 is compatible with water and non-corrosive oil.
Fluke 71X Hose Kit		
	The Fluke 71X hose kit includes (2) quick disconnect fittings to connect to the 718 or 719, (3) 1-meter translucent hoses and one BSP adapter.	For use with: Fluke 718 and 719 Pressure Calibrators
Fluke 700PRV-1 Pressure Relief Valve Kit		
	The Fluke 700PRV-1 consists of two relief valves (1360 and 5450 psi) to be used with the 700HTP-1 Hydraulic Test Pump. These relief valves will protect the Fluke pressure modules from damage due to over-pressurization. 1/4 BSP male parallel thread to fit Fluke 700HTP-1.	Repeatability ± 10 % of nominal setting. Multiturn adjustment screw to set preload on internal disc springs. **For use with:** Fluke 700HTP-1 Hydraulic Test Pump.
Fluke 700 PMP Pressure Pump		
	The Fluke 700PMP is a hand-operated pressure pump to provide pressures up to 150 psi/1000 kPa. Output fitting is 1/8 FNPT.	Linear stroke of 1.6 in (4 cm). Multi-turn vernier for fine adjustment of pressure. Includes controlled pressure bleed valve. **For use with:** Fluke 700 and 750P Series Pressure Modules and the Fluke 710 and 720 Series Pressure Calibrators.

FLUKE®

General specifications

Model	Parameter/ Range	Burst Rating[6]	Hi Side Media[2]	Lo Side Media[2]	Reference Uncertainty[4]	Total Uncertainty 1-year (15-35 ˚C)	Total Uncertainty 1-year[1]	Total Uncertainty 6-month (15-35 ˚C)	Total Uncertainty 6-month[1]
Differential									
750P00	0 to 1 in H_2O (0 to 2.5 mBar)	30X	Dry Air	Dry Air	±0.15 %	± 0.3 %	± 0.35 %	± 0.25 %	± 0.30 %
750P01	0 to 10 in H_2O (0 to 25 mBar)	3X	Dry Air	Dry Air	±0.1 %	± 0.2 %	± 0.3 %	± 0.15 %	± 0.25 %
750P02	0 to 1 psi (0 to 70 mBar)	3X	Dry Air	Dry Air	±0.050 %	± 0.1 %	± 0.15 %	± 0.075 %	± 0.125 %
750P22	0 to 1 psi (0 to 70 mBar)	3X	316 SS	Dry Air	±0.050 %	± 0.1 %	± 0.15 %	± 0.075 %	± 0.125 %
750P03	0 to 5 psi (0 to 350 mBar)	3X	Dry Air	Dry Air	±0.02 %	± 0.04 %	± 0.05 %	± 0.035 %	± 0.04 %
750P23	0 to 5 psi (0 to 350 mBar)	4X	316 SS	Dry Air	±0.02 %	± 0.04 %	± 0.05 %	± 0.035 %	± 0.04 %
750P04	0 to 15 psi (0 to 1 bar)	3X	Dry Air	Dry Air	±0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
750P24	0 to 15 psi (0 to 1 bar)	4X	316 SS	Dry Air	±0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
Gage									
750P05	0 to 30 psi (0 to 2 bar)	4X	316 SS	N/A	±0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
750P06	0 to 100 psi (0 to 7 bar)	4X	316 SS	N/A	±0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
750P27	0 to 300 psi (0 to 20 bar)	4X	316 SS	N/A	±0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
750P07	0 to 500 psi (0 to 35 bar)	4X	316 SS	N/A	±0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
750P08	0 to 1000 psi (0 to 70 bar)	3X	316 SS	N/A	±0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
750P09	0 to 1500 psi (0 to 100 bar)	3X	316 SS	N/A	±0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
750P2000	0 to 2000 psi (0 to 140 bar)	3X	316 SS	N/A	±0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
High									
750P29	0 to 3000 psi (0 to 200 bar)	3X	316 SS	N/A	±0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
750P30	0 to 5000 psi (0 to 340 bar)	3X	316 SS	N/A	±0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
750P31	0 to 10000 psi (0 to 700 bar)	2X	316 SS	N/A	±0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
Absolute									
750PA3	0 to 5 psia (0 to 350 mBar)	4X	316 SS	N/A	±0.03 %	± 0.06 %	± 0.07 %	± 0.05 %	± 0.06 %
750PA4	0 to 15 psia (0 to 1 bar)	4X	316 SS	N/A	±0.03 %	± 0.06 %	± 0.07 %	± 0.05 %	± 0.06 %
750PA5	0 to 30 psia (0 to 2 bar)	4X	316 SS	N/A	±0.03 %	± 0.06 %	± 0.07 %	± 0.05 %	± 0.06 %
750PA6	0 to 100 psia (0 to 7 bar)	4X	316 SS	N/A	±0.03 %	± 0.06 %	± 0.07 %	± 0.05 %	± 0.06 %
750PA27	0 to 300 psia (0 to 20 bar)	4X	316 SS	N/A	±0.03 %	± 0.06 %	± 0.07 %	± 0.05 %	± 0.06 %
750PA7	0 to 500 psia (0 to 35 bar)	4X	316 SS	N/A	±0.03 %	± 0.06 %	± 0.07 %	± 0.05 %	± 0.06 %
750PA8	0 to 1000 psia (0 to 70 bar)	3X	316 SS	N/A	±0.03 %	± 0.06 %	± 0.07 %	± 0.05 %	± 0.06 %
750PA9	0 to 1500 psia (0 to 100 bar)	3X	316 SS	N/A	±0.03 %	± 0.06 %	± 0.07 %	± 0.05 %	± 0.06 %

General specifications (continued)

Model	Parameter/ Range	Burst Rating[6]	Hi Side Media[2]	Lo Side Media[2]	Reference Uncertainty[4]	Total Uncertainty 1-year (15 °C to 35 °C)	Total Uncertainty 1-year[1]	Total Uncertainty 6-month (15 °C to 35 °C)	Total Uncertainty 6-month[1]
Vacuum									
750PV3	-5 psi (-350 mBar)	4X	316 SS	Dry Air	± 0.03 %	± 0.06 %	± 0.07 %	± 0.05 %	± 0.06 %
750PV4	-15 psi (-1 bar)	4X	316 SS	Dry Air	± 0.03 %	± 0.06 %	± 0.07 %	± 0.05 %	± 0.06 %
Dual									
750PD2	-1 to 1 psi (-70 to 70 mBar)	4X	316 SS	Dry Air	± 0.05 %	± 0.1 %	± 0.15 %	± 0.075 %	± 0.125 %
750PD3	-5 to 5 psi (-350 to 350 mBar)	4X	316 SS	Dry Air	± 0.03 %	± 0.06 %	± 0.07 %	± 0.05 %	± 0.06 %
750PD10	-10 to 10 psi (-700 to 700 mBar)	4X	316 SS	Dry Air	± 0.025 %	± 0.05 %	± 0.07 %	± 0.04 %	± 0.06 %
750PD4	-15 to 15 psi (-1 to 1 bar)	4X	316 SS	Dry Air	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
750PD5	-15 to 30 psi (-1 to 2 bar)	4X	316 SS	—	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
750PD50	-15 to 50 psi (-1 to 3.5 bar)	4X	316 SS	—	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
750PD6	-15 to 100 psi (-1 to 7 bar)	4X	316 SS	—	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
750PD7	-15 to 200 psi (-1 to 14 bar)	4X	316 SS	—	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
750PD27	-15 to 300 psi (-1 to 20 bar)	4X	316 SS	—	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
Reference									
750R04[5]	0 to 15 psi (0 to 1 bar)	3X	Dry Air	Dry Air	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS	± 0.035 % of FS
750R06[5]	0 to 100 psi (0 to 7 bar)	4X	316 SS	—	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS	± 0.035 % of FS
750R27	0 to 300 psi (0 to 20 bar)	4X	316 SS	—	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS	± 0.035 % of FS
750R07	0 to 500 psi (0 to 35 bar)	4X	316 SS	—	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS	± 0.035 % of FS
750R08[5]	0 to 1000 psi (0 to 70 bar)	3X	316 SS	—	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS	± 0.035 % of FS
750R29	0 to 3000 psi (0 to 200 bar)	3X	316 SS	—	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS	± 0.035 % of FS
750R30	0 to 5000 psi (0 to 340 bar)	3X	316 SS	—	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS	± 0.035 % of FS
750R31[5]	0 to 10000 psi (0 to 700 bar)	2X	316 SS	—	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS	± 0.035 % of FS
750RD5	-15 to 30 psi (-1 to 2 bar)	4X	Dry Air	—	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS	± 0.035 % of FS
750RD6[5]	-12 to 100 psi (-1 to 7 bar)	4X	316 SS	—	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS	± 0.035 % of FS
750RD27	-12 to 300 psi (-0.8 to 20 bar)	4X	316 SS	—	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS	± 0.035 % of FS

1. Total uncertainty, % of full span for temperature range 0 °C to +50 °C, one year interval. Total uncertainty, 1.0% of full span for temperature range -10 °C to 0 °C, one year interval. No 6 month specification available for range -10 °C to 0 °C.
2. "NONCORROSIVE GASSES" indicates dry air or non-corrosive gas as compatible media. "Stainless Steel 316-SS" indicates media compatible with Type 316 Stainless Steel.
3. Specifications % of Full Span unless otherwise noted.
4. * Reference Uncertainty is the specification for as left data for 24 hours.
5. When reference class modules are used with fixed resolution products (717, 718, 719 series, 725 and 726) calibrators add ± 1 count to the overall accuracy specification.
6. Burst rating specification refers to the multiplier times full scale of the module for the rated burst pressure.

FLUKE®

Ordering information

FLUKE-750P00	Pressure Module, 0 psi to 1 psi in H_2O (0 to 2.5 mBar), (0 to 0.25 kPa)
FLUKE-750P01	Pressure Module, 0 psi to 10 psi in H_2O (0 to 25 mBar),(0 to 2.5 kPa)
FLUKE-750P22	Pressure Module, 0 psi to 1 psi (0 to 70 mBar), (0 to 7 kPa)
FLUKE-750P23	Pressure Module, 0 psi to 5 psi (0 to 350 mBar), (0 to 35 kPa)
FLUKE-750P04	Pressure Module, 0 psi to 15 psi (0 to 1 bar), (0 to 100 kPa)
FLUKE-750P24	Pressure Module, 0 psi to 15 psi (0 to 1 bar), (0 to 100 kPa)
FLUKE-750P05	Pressure Module, 0 psi to 30 psi (0 to 2 bar), (0 to 200 kPa)
FLUKE-750P06	Pressure Module, 0 psi to 100 psi (0 to 7 bar), (0 to 700 kPa)
FLUKE-750P27	Pressure Module, 0 psi to 300 psi (0 to 20 bar), (0 to 2000 kPa)
FLUKE-750P07	Pressure Module, 0 psi to 500 psi (0 to 35 bar), (0 to 3500 kPa)
FLUKE-750P08	Pressure Module, 0 psi to 1000 psi (0 to 70 bar), (0 to 7000 kPa)
FLUKE-750P09	Pressure Module, 0 psi to 1500 psi (0 to 100 bar), (0 to 10 MPa)
FLUKE-750P2000	Pressure Module, 0 psi to 2000 psi (0 to 140 bar), (0 to 14 MPa)
FLUKE-750P29	Pressure Module, 0 psi to 3000 psi (0 to 200 bar), (0 to 20 MPa)
FLUKE-750P30	Pressure Module, 0 psi to 5000 psi (0 to 340 bar), (0 to 34 MPa)
FLUKE-750P31	Pressure Module, 0 psi to 10000 psi (0 to 700 bar), (0 to 70 MPa)
FLUKE-750PA3	Pressure Module, 0 psi to 5 psi (0 to 350 mBar), (0 to 35 kPa)
FLUKE-750PA4	Pressure Module, 0 psi to 15 psi (0 to 1 bar), (0 to 100 kPa)
FLUKE-750PA5	Pressure Module, 0 psi to 30 psi (0 to 2 bar), (0 to 200 kPa)
FLUKE-750PA6	Pressure Module, 0 psi to 100 psi (0 to 7 bar), (0 to 700 kPa)
FLUKE-750PA27	Pressure Module, 0 psi to 300 psi (0 to 20 bar), (0 to 2000 kPa)
FLUKE-750PA7	Pressure Module, 0 psi to 500 psi (0 to 35 bar), (0 to 3500 kPa)
FLUKE-750PA8	Pressure Module, 0 psi to 1000 psi (0 to 70 bar), (0 to 7000 kPa)
FLUKE-750PA9	Pressure Module, 0 psi to 1500 psi (0 to 100 bar), (0 to 10 MPa)
FLUKE-750PV3	Pressure Module, -5 psi (-350 mBar), (-35 kPa)
FLUKE-750PV4	Pressure Module, -15 psi (-1 bar), (-100 kPa)
FLUKE-750PD2	Pressure Module, -1 psi to 1 psi (-70 to 70 mBar), (-7 to 7 kPa)
FLUKE-750PD3	Pressure Module, -5 psi to 5 psi (-350 to 350 mBar), (-35 to 35 kPa)
FLUKE-750PD10	Pressure Module, -10 psi to 10 psi (-0.7 to 0.7 bar), (-70 to 70 kPa)
FLUKE-750PD4	Pressure Module, -15 psi to 15 psi (-1 to 1 bar), (-100 to 100 kPa)
FLUKE-750PD5	Pressure Module, -15 psi to 30 psi (-1 to 2 bar), (-100 to 200 kPa)
FLUKE-750PD50	Pressure Module, -15 psi to 50 psi (-1 to 3.5 bar), (-100 to 350 kPa)
FLUKE-750PD6	Pressure Module, -15 psi to 100 psi (-1 to 7 bar), (-100 to 700 kPa)
FLUKE-750PD7	Pressure Module, -15 psi to 200 psi (-1 to 14 bar), (-100 to 1400 kPa)
FLUKE-750PD27	Pressure Module, -15 psi to 300 psi (-1 to 20 bar), (-100 to 2000 kPa)
FLUKE-750R04	Pressure Module, 0 psi to 15 psi (0 to 1 bar) (0 to 100 kPa)
FLUKE-750R06	Pressure Module, 0 psi to 100 psi (0 to 7 bar), (0 to 700 kPa)
FLUKE-750R27	Pressure Module, 0 psi to 300 psi (0 to 20 bar), (0 to 2000 kPa)
FLUKE-750R07	Pressure Module, 0 psi to 500 psi (0 to 35 bar), (0 to 3500 kPa)
FLUKE-750R08	Pressure Module, 0 psi to 1000 psi (0 to 70 bar), (0 to 7000 kPa)
FLUKE-750R29	Pressure Module, 0 psi to 3000 psi (0 to 200 bar), (0 to 20 MPa)
FLUKE-750R30	Pressure Module, 0 psi to 5000 psi (0 to 340 bar), (0 to 34 MPa)
FLUKE-750R31	Pressure Module, 0 psi to 10000 psi (0 to 700 bar), (0 to 70 MPa)
FLUKE-750RD5	Pressure Module, -15 psi to 30 psi (-1 to 2 bar), (-100 to 200 kPa)
FLUKE-750RD6	Pressure Module, -12 psi to 100 psi (-0.8 to 7 bar), (-80 to 700 kPa)
FLUKE-750RD27	Pressure Module, -12 psi to 300 psi (-0.8 to 20 bar), (-80 to 2000 kPa)
FLUKE-750P03	Pressure Module, 0 psi to 5 psi (0 to 350 mBar), (0 to 35 kPa)
FLUKE-750P02	Pressure Module, 0 psi to 1 psi (0 to 70 mBar), (0 to 7 kPa)

Included equipment

Manual, traceable calibration certificate, and adapters.