TECHNICAL DATA

Fluke 729 Pro Automatic Pressure Calibrator


600.00
psi
STABLE 23s
Source
4000kPa Max
Gage
Setpoint 600.00
Step Size 0.00
100.0 %
Measure Current
20.000
mA
Turn Loop Power OFF
Log
Source Current
Simulate Current
BACK
SELECT
HOLD
HART
VENT
VDC
TASKS
SETUP
FLUKE
729 Pro
FLK-PWM-400K
FLK-PWM-200K


FLUKE
PRESSURE
MEASUREMENT
MODULE
ACCURACY
0.02%
RANGE
4000 kPa
Li-ion

Key features

- Automatic pressure generation and regulation to 1000psi
- Replaceable pressure control modules
- Built-in test templates, one-key calibration
- HART communication
- Pressure leakage testing
- Automatic fine-pressure adjustment, automatic pressure stabilization
- Powerful, replaceable Li-ion battery
- Quick pressure release valve with a muffler
- Extend measurement range with 750P Series pressure modules
- Measure temperature with 720RTD probe
- Bright dual-three-channel /color graphic display
- Weight <5kg
- Rugged and portable design with standard 3-year warranty
- Absolute and gage pressure modules up to 7MPa.
- Use the modules to change the Fluke 729Pro to a different output pressure range

Product overview: Fluke 729 Pro Automatic Pressure Calibrator

Portable automatic pressure calibrator simplifies pressure calibration

The Fluke 729Pro Automatic Pressure Calibrator has been designed specifically with process technicians in mind to simplify the pressure calibration process and provide faster, more accurate test results. Technicians know that calibrating pressure can be a time-consuming task, but the 729Pro makes it easier than ever with an internal electric pump that provides automatic pressure generation and regulation in an in an easy-to-use, rugged, portable package.

Automatic pressure generation and control

The 729Pro allows you to simply type in a target pressure, and the calibrator will automatically pump to the desired set-point. With plug-in replaceable pressure control modules and pressure generation and regulation up to 1000 psi (70bar, 7000 kPa). Then, internal fine adjustment control automatically stabilizes the pressure at the requested value. You can also fill in a test template and the 729Pro will automatically pump to and document a multiple-point pressure calibration test at the touch of a button.

Easy calibration documentation

The Fluke 729Pro can automatically test multiple pressure test points and automatically document the results. The 729Pro does the work for you by documenting and flagging out-of-tolerance test results in red on the graphical display for:

- Applied pressure
- Measured mA, mV, or digital PV
- % error for each test point

Upload and manage documented calibration results with DPCTrack2™ Calibration Management Software, making it easy to manage your instrumentation, create scheduled tests and reports, and manage calibration data.

HART communication

Built-in HART communication capabilities enable HART transmitter mA adjustments, HART configuration, and the ability to adjust to applied 0% and 100% values. You can also configure various tasks such as changing a transmitter tag, measurement units, and ranging. Other supported HART commands include setting fixed mA outputs for troubleshooting, read device configuration, and variables and read device diagnostics.

Rugged, portable design

The 729Pro is tested and warranted to withstand a 1-meter drop test so it is ready for field instrumentation calibration work. With two models 4M up to 600 psi (40 bar, 4000 kPa), and 7M up to 1000 psi (70 bar, 7000 kPa) to choose from, the Fluke 729Pro Automatic Pressure Calibrators are designed to perform when and where you need them. A standard semi-rigid carrying case designed for field work, with room in the case to store test hoses, fittings, test leads, and small hand tools means it's easy to carry everything needed for field pressure calibrations.

For greater accuracy and resolution on low pressure calibrations, the Fluke 729Pro allows you to select and insert one of 6 Fluke Pressure Modules to expand the pressure range between 0-600 psi (40 bar, 4000 kPa).

Specifications: Fluke 729 Pro Automatic Pressure Calibrator

Key parameters	729 Pro 7M	729 Pro 4M
Pressure cool range	-13 to 1000 psi, -90 to 7000 kPa, -0.90 to 70 bar	-13 to 600 psi, -90 to 4000 kPa, -0.90 to 40 bar
Pressure type	Gauge/absolute (Depends on the type of inteal or exteal pressure module	
Pressure accuracy and Cool stability	0.02% of FS, 0.005% of FS	
Replaceable pressure measurement modules	Yes, 6 modules	Yes, 4 modules
mA sourcing/measurement	Yes	
Voltage measurement	Yes	
Loop power	24 V dc	
Pressure switch testing	Yes	

Pressure leakage testing	Yes
HART Communication	Yes, basic commands supported
Autostep / auto ramp	Yes (with customizable speed, mode and style)
Baery	Rechargeable lithium baery with charge indication (charged in the instrument or separately)
Language	English
Electrical specification	
All specifications are valid to 110% of range, except 24 mA source and simulate which are valid to 100% of range.	
Ranges	
mA measure, source and simulate	0 mA to 24 mA
Volts dc measurement	0 V dc to 30 V dc
Resolution	
mA dc source, simulate and measure	1 µA
Voltage dc measurement	1 mV
Accuracy	0.01% FS ±2 LSD all ranges (at 23 °C ±5 °C)
Stability	20 ppm FS /°C (-10 °C to +18 °C and 28 °C to 50 °C)
mA simulation working voltage	12 V dc to 30 V dc
Loop compliance voltage	24 V dc @ 20 mA
Temperature measurement , 100 Ω Pt(385) RTD	-50 °C to 150 °C
Temperature resolution	0.01 °C
Temperature accuracy	±0.1 °C ±0.25 °C combined uncertainty when using 720 RTD probe (optional accessory)
Drive capability (mA source)	1200 Ω (without HART resistor), 950 Ω (with inteal HART resistor)
Mechanical specification	
Dimension (HxWxL)	290 x 215 x100 mm, (4.3 x 4.4 x 9.4 in)
Weight	4.9 kg, (10.8 lbs)
Environmental specification	
Operating temperature	-10 °C to 50 °C
Pressure cool	0 °C to 50 °C
Baery charging	0 °C to 40 °C
Storage temperature	-20 °C to 60 °C
Operating altitude	<3000 m
Storage altitude	<13000 m
Operating humidity	Non-condensing (<10°C) ≤90 % RH (10 °C to 30 °C) ≤75 % RH (30 °C to 40 °C) ≤45 % RH (40 °C to 50 °C)

Pressure Module Selection Table						
Pressure module	**Pressure type**	**Range**	**Resolution**	**Overall uncertainty**	**729Pro 4M**	**729Pro 7M**
FLK-PMM-200K	Gauge	(-15 to 30) psi	0.0001 psi	0.02 % FS / year, maximum	•	•
		(-100 to 200) kPa	0.001 kPa			
		(-1 to 2) bar	0.00001 bar			
FLK-PMM-200KA	Absolute	(0 to 30) psi	0.0001 psi	0.05 % FS / year, maximum	•	•
		(0 to 200) kPa	0.001 kPa			
		(0 to 2) bar	0.00001 bar			
FLK-PMM-2000K	Gauge	(-13 to 300) psi	0.001 psi	0.02 % FS / year, maximum	•	•
		(-90 to 2000) kPa	0.01 kPa			
		(-0.90 to 20) bar	0.0001 bar			
FLK-PMM-4000K	Gauge	(-13 to 600) psi	0.01 psi	0.02 % FS / year, maximum	•	•
		(-90 to 4000) kPa	0.01 kPa			
		(-0.90 to 40) bar	0.0001 ba			
FLK-PMM-7000K	Gauge	(-13 to 1000) psi	0.01 psi	0.02 % FS / year, maximum		•
		(-90 to 7000) kPa	0.01 kPa			
		(-0.90 to 70) bar	0.0001 ba			
FLK-PMM-7000KA	Absolute	(0 to 1000) psi	0.01 psi	0.02 % FS / year, maximum		•
		(0 to 7000) kPa	0.01 kPa			
		(0 to 70) bar	0.0001 ba			
Dry air or non-corrosive gases only / 15 °C to 35 °C, all ranges						

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