

Fluke 721 Precision Pressure Calibrator

Pressure calibration and temperature measurement for custody transfer applications

The Fluke 721 Precision Pressure Calibrator with dual isolated pressure sensors is the ideal tool for gas custody transfer applications allowing you to take simultaneous static and differential pressure measurements with a single tool.



Technical Data

Product highlights

The 721 can be configured by selecting either a 16 PSI (1.1 bar) or 36 psi (2.48 bar) low pressure sensor then add any of 7 high pressure ranges including 100, 300, 500, 1000, 1500, 3000 or 5000 psi (6.9, 20, 24.5, 69, 103.4, 200, 345 bar).

- Ideal for gas flow calibration (custody transfer) applications
- Two isolated, stainless steel, pressure sensors with 0.025 % accuracy
- Pt100 RTD input for temperature measurement, (probe optional)
- Measures 4 to 20 mA signals
- Internal 24 V loop power supply can power a transmitter under test
- Measure up to 30 V dc, check 24 V loop power supplies
- Extend pressure measurement range with connection to external 700 series pressure modules (29 ranges)
- Large backlit graphic display can display up to three inputs simultaneously
- Store five instrument setups for recall and use

Specifications 1-year

		Low pressure sensor			High pressure sensor				
Model	Description	Range sensor 1	Resolution sensor 1	Accuracy sensor 1	Range sensor 2	Resolution sensor 2	Accuracy sensor 2		
Fluke-721-1601	Dual Sensor Pressure Calibrator, 16 PSIG, 100 PSIG	-14 psi to +16 psi -0.97 bar to 1.1 bar	0.001 psi, 0.0001 bar	0.025 % of full scale	-12 psi to +100 psi -0.83 bar to 6.9 bar	0.01 psi 0.0001 bar	0.025 % of full scale		
Fluke-721-1603	Dual Sensor Pressure Calibrator, 16 PSIG, 300 PSIG				-12 psi to +300 psi -0.83 bar to 20 bar	0.01 psi 0.001 bar			
Fluke-721-1605	Dual Sensor Pressure Calibrator, 16 PSIG, 500 PSIG				-12 psi to +500 psi -0.83 bar to 34.5 bar	0.01 psi 0.001 bar			
Fluke-721-1610	Dual Sensor Pressure Calibrator, 16 PSIG, 1000 PSIG				0 psi to +1000 psi 0.00 bar to 69 bar	0.1 psi 0.001 bar			
Fluke-721-1615	Dual Sensor Pressure Calibrator, 16 PSIG, 1500 PSIG				0 psi to +1500 psi 0.00 bar to 103.4 bar	0.1 psi 0.001 bar			
Fluke-721-1630	Dual Sensor Pressure Calibrator, 16 PSIG, 3000 PSIG				0 psi to +3000 psi 0.00 bar to 200 bar	0.1 psi 0.01 bar			
Fluke-721-1650	Dual Sensor Pressure Calibrator, 16 PSIG, 5000 PSIG	-14 psi to +36 psi -0.97 bar to 2.48 bar					0 psi to +5000 psi 0.00 bar to 345 bar	0.1 psi 0.01 bar	0.035 % of full scale
Fluke-721-3601	Dual Sensor Pressure Calibrator, 36 PSIG, 100 PSIG				-12 to +100 psi -0.83 bar to 6.9 bar	.01 psi 0.0001 bar	0.025% of full scale		
Fluke-721-3603	Dual Sensor Pressure Calibrator, 36 PSIG, 300 PSIG				-12 psi to +300 psi -0.83 bar to 20 bar	0.01 psi 0.001 bar			
Fluke-721-3605	Dual Sensor Pressure Calibrator, 36 PSIG, 500 PSIG				-12 psi to +500 psi -0.83 bar to 34.5 bar	0.01 psi 0.001 bar			
Fluke-721-3610	Dual Sensor Pressure Calibrator, 36 PSIG, 1000 PSIG				0 psi to +1000 psi 0.00 bar to 69 bar	0.1 psi 0.001 bar			
Fluke-721-3615	Dual Sensor Pressure Calibrator, 36 PSIG, 1500 PSIG				0 psi to +1500 psi 0.00 bar to 103.4 bar	0.1 psi 0.01 bar			
Fluke-721-3630	Dual Sensor Pressure Calibrator, 36 PSIG, 3000 PSIG				0 psi to +3000 psi 0.00 bar to 200 bar	0.1 psi 0.01 bar			
Fluke-721-3650	Dual Sensor Pressure Calibrator, 36 PSIG, 5000 PSIG				0 psi to +5000 psi 0.00 bar to 345 bar	0.1 psi 0.01 bar	0.035 % of full scale		

General specifications	
Instrument setup recall	Last used on power-up
Environmental	Operating temperature -10 °C to +50 °C Storage temperature (without batteries) -20 °C to +60 °C
Altitude	2,000 meters
Ingress protection	IP-40
Power requirements	6.0 v dc
Battery life	>35 hours, typical usage
Batteries required	(4) Standard AA cells
Dimensions (HxWxD)	7.9" X 4.3" X 2.3" (20 cm X 11 cm X 5.8 cm)
Weight	0.3539 kg (1 lb 3 oz)
Connectors/ports pressure	Two, 1/8 in NPT, 700P Series Pressure Module; RTD Probe

Electrical and temperature measurement 1-year			
Function	Range	Resolution	Accuracy
mA measure	0 to 24 mA	0.001 mA	±0.015% of rdg ±0.002mA
VDC measure	0 to 30 VDC	0.001V	±0.015% of rdg ±0.002V
*Temperature measure (RTD/Ohms)	-40 °C to 150 °C (-40 °F to 302 °F)	0.01 °C, 0.01 °F	±0.015% of rdg ±0.02 ohms; ±0.1°C (±0.2°F) ±0.25 degC (±0.45 degF) combined uncertainty when using 720 RTD probe accessory
Loop power supply	24V	N/A	24 mA @ 24V
*Temperature measurement requires optional Fluke-720RTD Pt-100 RTD probe available as an accessory			

Temperature effect
No effect on accuracy on all functions from 15 °C to 35 °C
Add ± 0.002 % F.S./°C for temps outside of 15 °C to 35 °C

Available pressure engineering units

psi, bar, mbar, kPa, kgcm ² ,
cmH ₂ O@4°C, cmH ₂ O@20°C,
mH ₂ O@4°C, mH ₂ O@20°C,
inH ₂ O@4°C, inH ₂ O@20°C,
inH ₂ O@60°F, mmHg@0°C,
inHg@0°C, ftH ₂ O@4°C,
ftH ₂ O@20°C, ftH ₂ O@60°F

Ordering information

Fluke-721-1601	Dual Sensor Pressure Calibrator 16 PSIG, 100 PSIG
Fluke-721-1603	Dual Sensor Pressure Calibrator 16 PSIG, 300 PSIG
Fluke-721-1605	Dual Sensor Pressure Calibrator 16 PSIG, 500 PSIG
Fluke-721-1610	Dual Sensor Pressure Calibrator 16 PSIG, 1000 PSIG
Fluke-721-1615	Dual Sensor Pressure Calibrator 16 PSIG, 1500 PSIG
Fluke-721-1630	Dual Sensor Pressure Calibrator 16 PSIG, 3000 PSIG
Fluke-721-1650	Dual Sensor Pressure Calibrator 16 PSIG, 5000 PSIG
Fluke-721-3601	Dual Sensor Pressure Calibrator 36 PSIG, 100 PSIG
Fluke-721-3603	Dual Sensor Pressure Calibrator 36 PSIG, 300 PSIG
Fluke-721-3605	Dual Sensor Pressure Calibrator 36 PSIG, 500 PSIG
Fluke-721-3610	Dual Sensor Pressure Calibrator 36 PSIG, 1000 PSIG
Fluke-721-3615	Dual Sensor Pressure Calibrator 36 PSIG, 1500 PSIG
Fluke-721-3630	Dual Sensor Pressure Calibrator 36 PSIG, 3000 PSIG
Fluke-721-3650	Dual Sensor Pressure Calibrator 36 PSIG, 5000 PSIG
Fluke-720RTD	RTD Probe for 721 and 719Pro
Fluke-720URTD	Universal RTD adapter for Fluke-721 and 719Pro

Included:

- Soft case
- Four (4) AA batteries
- Manual
- Traceable calibration certificate
- Test leads