

Model 7350

Ruska High Pressure Pneumatic Controller/Calibrator

Technical Data



Features

- Pneumatic full scale (FS) ranges to 70 MPa (10 000 psi) absolute
- Precision to 0.01 % of range
- Stability 0.01 % of range per year
- Up to three ranges available in one instrument
- Automates high pressure pneumatic calibrations
- Full Scale pressure ranges of 40 MPa (6000 psi) or 70 MPa (10 000 psi)

The Model 7350 high pressure pneumatic controller provides a safe, easy to use and effective means of automating high pressure test and calibration of a wide range of pressure measuring devices. In control mode, these controllers simultaneously measure and control pressure, and can be used for the calibration and testing of pressure gauges, transducers, pressure switches and production pressure instruments.

Precision and stability

The Model 7350 controller uses a quartz transducer for highly precise and stable performance in conducting automated high pressure testing and calibration. Precision levels are 0.01 % of FS for pressures to 10 000 psi (700 bar). Stability is 0.01 % of FS per year, providing for an annual recalibration interval.

Automating high pressure test and calibration

The Model 7350 features an easy-to-use, menu-driven user interface for straightforward, simple operation.

Step up/down: For calibrations where the increments are fixed intervals, enter a user-defined step value. The controller increases or decreases the pressure by the step amount with a single keystroke. No more lengthy keystroke sequences to program.

Sweep test: For simple exercising routines, as with dial gauges, enter a start value, a stop value and number of times to repeat the cycle. The controller automatically exercises the device under test prior to the calibration run.

Onboard programs: For frequently used or lengthy calibrations, the controller can store up to 20 user-defined programs/profiles with up to a total of 1000 steps in internal memory.

Computer interface: Every controller is provided with both an RS-232 and IEEE-488 interface, and the controller syntax follows SCPI protocol for easy programming. A LabVIEW® driver is also available.

COMPASS® for Pressure Software: Provides complete automation of pressure calibrations. A ready-to-use software package that interfaces with all Fluke pressure controllers to provide full, closed loop calibrations. COMPASS software also provides calibration management solutions by providing a printout of calibration results and performance analysis, and stores historical data.

Triple range option

All ranges can be supplied with the triple scale option to provide three ranges with a single sensor.

Triple scale ranges; MPa (psi)			
Full Scale	Low	Middle	High
40 (6 000)	14 (2 000)	28 (4 000)	40 (6 000)
70 (10 000)	20 (3000)	40 (6 000)	70 (10 000)

Versatility to handle almost any high pressure calibration

The Model 7350 high pressure controller is versatile enough to handle almost any type of high pressure calibration.

Pressure ranges: Available in standard pressure ranges of 40 MPa or 70 MPa (6 000 or 10 000 psi) absolute full scale.

Choice of media: Clean, dry laboratory grade air or nitrogen.

Pressure units/scales: Features two user-defined, programmable units of measure, and twelve standard units: inHg at 0 °C, inHg at 60°C, kPa, bar, psi, inH₂O at 4°C, inH₂O at 20 °C, inH₂O at 60 °F, kg/cm², mmHg at 0 °C or cmH₂O at 4 °C.

Head pressure: Automatic correction for given head pressure differences

Zeroing: With a few keystrokes, the controller will automatically zero the sensor.

Protection of the device under test: Set upper and lower pressure limits to ensure protection of the device under test

The high pressure controllers can easily automate your high pressure test and calibration workload. These controllers are easy to use, easy to maintain and have the reliability, the performance and the features that you want.

Specifications

General		
Electrical power	110 or 220 V ac (± 18 %), 50/60 Hz, single phase	
Temperature	Operating: 5 °C to 50 °C (41 °F to 122 °F) Storage: -20 °C to 70 °C (-4 °F to 158 °F)	
Humidity	5 % to 95 % RH, non-condensing	
Weight	54.5 kg (120 lb)	
Dimensions (H x W x D)	43 cm x 49 cm x 61 cm (17 in x 19 in x 24 in)	
Pressure Medium	Dry, clean air or nitrogen	
Supply pressure	10 % above FS pressure range (may require optional external gas booster system), 100 psi to 110 psi (7 bar to 7.5 bar) industrial grade (shop) air for controller operation	
Standard pressure ranges	40 MPa or 70 MPa (6000 or 10 000 psi) absolute	
Display	TFT, VGA, active matrix, 162.5 mm (6.4 in) 640 x 480 resolution, 65,000 colors	
Warm up time	30 minutes, may be left on indefinitely	
Tare mode	Tare mode included for gauge calibrations	
Performance		
Precision	0.01 % of range	
Stability	0.01 % of range, per year	
Control stability	0.007 % maximum FS for load volume 3 in ³ to 35 in ³ (50 to 570 cm ³); control low limit is 10 % of maximum FS pressure	
Calibration		
A calibration report accredited by NVLAP to ISO 17025 is provided standard with each instrument.		
Communications		
RS-232 and IEEE-488 Syntax: SCPI Ruska Series 6000 and Druck DPI 510	LabVIEW driver MET/CAL® Procedures available COMPASS for Pressure software available emulation	
Pneumatics		
Pneumatic ports	Test port: 1/8 in NPT Supply pressure port: 1/8 in NPT Air supply: 1/4 in NPT	
Overpressure protection	Test port relief valve set at 110 % FS) Gas supply port set at 120 % FS Software limits (set by user)	
Options		
Triple scale		
Accessories		
7350-105	3882218	Lines and Fittings Kit
7615-106	3882366	Rack mount kit
7000-METDRV	3891089	MET/CAL Procedures
COMPASS for Pressure	3070175	Software to automate testing, data acquisition, reporting, and asset management (Single License)

Fluke Calibration. Precision, performance, confidence.™

Electrical	RF	Temperature	Pressure	Flow	Software
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