

Model 7350

Ruska High Pressure Pneumatic Controller

Technical Data



Features

- Pneumatic full scale (FS) ranges to 10 000 psia (700 bara)
- 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
- Available in bench top or cart-mounted configurations
- FS pressure ranges of 6 000 psi (415 bar) or 10 000 psi (700 bar)

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 unmatched 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.

Intecal Software: Provides complete automation of pressure calibrations. A ready-to-use software package that interfaces with all Ruska controllers, along with popular digital multi-meters to provide full, closed loop calibrations. Intecal 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; psi (bar)			
Full Scale	Low	Middle	High
6 000 (415)	2 000 (140)	4 000 (280)	6 000 (415)
10 000 (700)	3 000 (200)	6 000 (400)	10 000 (700)

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 6 000 or 10 000 psia (415 or 700 bara) FS.

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

Options: The Model 7350 is an absolute instrument and includes a tare feature for simulated gauge mode operation. The following option is available: Triple scale option provides three ranges with single sensor

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	(FS, bara) 6 000 psia to 10 000 psia (415 bara to 700 bara)
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; to 10 000 psi (700 bar)
Stability	0.01 % of range, per year
Control stability	0.007 % maximum FS for load volume 3 in ³ to 35 in ³ (7.5 to 89 cm ³); control low limit is 10 % of maximum FS pressure
Calibration	
A calibration report providing traceability to the National Institute of Standards and Technology (NIST) is provided with each instrument. NVLAP accredited calibration to ISO 17025 is available as an option. Recommended calibration interval is one year.	
Communications	
RS-232 and IEEE-488 Syntax: SCPI Ruska Series 6000 and Druck DPI 510 emulation LabVIEW driver available at www.gesensing.com MET/CAL® driver available Intecal software available	
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	
Intecal software	

Fluke Calibration. Precision, performance, confidence.™

Electrical	RF	Temperature	Pressure	Flow	Software
------------	----	-------------	----------	------	----------

Fluke Calibration
PO Box 9090,
Everett, WA 98206 U.S.A.

Fluke Europe B.V.
PO Box 1186, 5602 BD
Eindhoven, The Netherlands

For more information call:
In the U.S.A. (800) 443-5853 or Fax (425) 446-5116
In Europe/M-East/Africa +31 (0) 40 2675 200 or Fax +31 (0) 40 2675 222
In Canada (800)-36-FLUKE or Fax (905) 890-6866
From other countries +1 (425) 446-5500 or Fax +1 (425) 446-5116
Web access: <http://www.fluke.com>

©2010 Fluke Corporation. Specifications subject to change without notice.
Printed in U.S.A. 9/2010 3890521A D-EN-N

Modification of this document is not permitted without written permission from Fluke Corporation.