



Description

The 8030 is an advanced pressure controller/calibrator suitable for wide workload calibration of pressure devices such as transmitters, sensors and gauges. The standard unit can be configured for multiple ranges from vacuum to 100 bar (1500 psi), integrating up to three high accuracy reference sensors for maximum workload coverage. Additionally a barometric reference option enables absolute pressure emulation. High range versions up to 230 bar (3350 psi) are also available.

Due to its fully configurable design, the 8030 offers the maximum flexibility to end user requirements. Accuracy is 0.01 % FS for each internal sensor fitted, and control stability is 0.005 % FS of the active sensor range. This provides the necessary coverage for applications with outstanding accuracy, control and speed for testing applications.

Applications

With up to three sensors integrated into the instrument the user is always offered an optimal calibration solution over a very wide pressure range. The 8030 is suitable as a high performance pressure standard in process plants, factories and calibration labs. Routine testing of pressure instrumentation is made quick and simple, whether using the 8030 touch screen display or via EasyCal calibration software.

Functionality

The 8030 features a colour touch-screen interface with user-friendly menus designed for simple operation, enabling users to quickly learn and master the operation of the module. Manually specifying pressure set points is made simple with clearly defined controls on the display. The 8030 auto-ranging capabilities enable each sensor to be actuated as pressure increase or decreases, providing optimal control and accuracy when performing applications.

The 8030 is also supplied with a virtual control panel application that provides a simple user interface for remote operation on a laptop or PC. Set and output pressure, and use the primary front panel buttons as per the instrument display.

The 8030 is supplied with a benchtop 2 port manifold and contamination trap as standard. Options include the 7165 compact compressor pumps that can supply pressure up to 70 bar. Vacuum pumps, UUT stands, adaptor kits, fittings and hoses are also available to optimise user set ups and applications.

Features

- Multi-range controller configurable from -1 to 100 bar
- Configured based on end user requirement
- Gauge, compound, absolute, differential
- Up to 3 precision sensors built in
- Control stability 0.005 % FS (of active sensor)
- Auto-ranging capabilities
- Accuracy 0.01 % FS (of active sensor)
- Barometric reference option
- Touch screen user interface
- EasyCal software compatible
- High range pneumatic & hydraulic versions available

EasyCal Calibration Software

The 8030 can be controlled via Time Electronics EasyCal software to automate the calibration process. This provides increased speed of calibration and consistency of results. Produce traceable calibration certificates and test reports for quality standards with additional uncertainty information for ISO 17025 conformance.





Technical Specifications

Pressure ranges	.....-1 to 100 bar (1500 psi). Configured based on customer range requirement.
Internal sensors	.....3 in total plus 1 barometric reference.
Pressure types	.....Gauge, compound, absolute and differential.
Accuracy (per sensor)	.....0.01 % FS 0.03 % FS for low range and differential sensors (30 mbar to 300 mbar).
Precision	.....< 0.005 % FS.
Barometric reference option	.....Enables user to switch from gauge to absolute pressure. Measuring range: 800 to 1,200 mbar absolute. Accuracy: 0.01 % RDG.
Pressure units	.....20 selectable and 1 programmable.
Control stability	.....< 0.005 % FS of the active sensor.
Control time	.....< 10 s.
Pressure ports	.....Minimess type with hoses supplied. BSP and NPT available.
Pressure media	.....Clean, dry, non-corrosive, non-combustible and non-oxidising gases.
Overpressure protection	.....150 % of the largest pressure range.
Screen	.....7 " TFT colour touch-screen (4 wire resistive).
Resolution	.....up to 6 digits (user selectable).
Response time	.....approx. 10 ms.
Warm-up time	.....approx. 10 minutes.
Communication interface	.....RS-232 and ethernet.
Power supply	.....100 to 230 V AC, 50/60 Hz.
Supply port pressure	.....Maximum 105 to 110 % FS.
Test port pressure	.....Maximum 105 % FS.
Operating temperature	.....10 to 40 °C (50 to 104 °F).
Storage temperature	.....0 to 70 °C (32 to 158 °F).
Air humidity	.....0 to 95 % (relative humidity without moisture condensation).
Compensated temperature range	.....15 to 35 °C (59 to 95 °F).
Dimensions/Weight	.....W 235 x H 132 x D 375 mm / Weight: approx 12 kg depending on sensors ordered.
Additional 8030 versions	.....0 to 140 bar (2000 psi), 0 to 200 bar (3000 psi), 0 to 230 bar (3350 psi). High pressure models can have up to 2 internal sensors plus 1 barometric reference. Hydraulic version up to 1000 bar (see 8030-H data sheet).
Supplied with	.....Contamination trap, 2 port manifold, hoses, fittings, power lead, user manuals.

Ordering Information

8030	.....Automatic Pressure Calibrator/Controller Can be configured with up to 3 sensors and a barometric reference.
8030BARO	.....Barometric reference option for 8030
7165	.....8030 compressor pump (17, 35, 50 and 70 bar versions available, range based on 8030 ordered)
7149	.....Electical vacuum pump
7161P	.....Quad port pneumatic manifold (for use up to 200 bar)
ECFLA	.....EasyCal Calibration Software (full user licence, accompanying calibrator discounted price)
Calibration Certificates	.....Traceable calibration certificate (Factory) and Accredited calibration certificate (ISO 17025)
Additional options include instrument UUT stands, fittings, manifolds, pressure adaptor kits, hoses. Available upon request.	

Due to continuous development Time Electronics reserves the right to change specifications without prior notice.