



Description

The XTEG range of modules provide users with high accuracy pressure measurement on the Time Electronics CalBench. They feature internal communication to a control centre (standard with 8060 or 7051) and operation is via a dedicated application or EasyCal software. The user interface displays pressure readback allowing the XTEG to be utilised as the master reference standard in various testing applications for instrumentation such as gauges and transmitters.

Pressure input connection is via a minimes port (quick release for differential) situated on the front of the module. Pressure ranges are from vacuum to 700 bar (10,000 psi), with gauge, compound, and differential versions available. Basic accuracy is 0.02 % of full scale, with selectable resolution up to 6 digits (7-digit available on certain ranges).

The modules can be used for pneumatic or hydraulic calibration work, and are suitable for use with the Time Electronics range of benchtop pressure pumps. These include the pneumatic 7194A (vacuum to 200 bar), and hydraulic 7195 (vacuum to 700 bar) that provide users with a convenient method of pressure generation on the CalBench.

XTEG modules can be configured as single, double or triple measurement versions. This means that up to three sensors can be positioned in one compact 50 mm wide module, making them ideal for use in the 7080-HD15 (1500 mm wide) CalBench system.

Specifications

Ranges	Vacuum to 700 bar. See page 2 for available modules and ranges.
Pressure types	Gauge / Compound / Differential.
Accuracy	0.02 or 0.05 % FS. See page 2 for further details.
Pressure units	Minimum of 5 on screen depending on XTEG pressure range. Pa, kPa MPa, Kg/cm ² , mmH ₂ O, inH ₂ O, mmHg, inHg, PSI, mbar, bar.
Measure speed	Display rate: 3 readings per second (default setting).
Display	Pressure control centre application, or EasyCal software (optional).
Resolution	Selectable 4, 5 or 6-digit.
Pressure port	Minimes test point with check valve. Hoses supplied, and configured to work with ordered manifolds or pumps. Quick release fittings on differential XTEG modules (2 port for +/-).
Environmental	Operating temperature: -10 °C to 50 °C (14 °F to 122 °F). Compensation temperature: -10 °C to 50 °C (14 °F to 122 °F). Storage temperature: -20 °C to 70 °C (-4 °F to 158 °F). Relative humidity: < 95 %.
Module width	Gauge and Compound: 50 mm / Differential: 90 mm

Features

- Pressure ranges up to 700 bar (10,000 psi)
- Gauge, compound and differential modules
- Dedicated interface on CalBench control centre
- 0.02 % FS accuracy
- Selectable resolution, up to 6-digit typical
- Unique self-protection capability technology
- 3 times per second measure speed
- Fully temperature compensated accuracy
- Internal communication to control centre module
- EasyCal software compatible

EasyCal Calibration Software

XTEG modules can be used with 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.





Pressure Ranges

Gauge Pressure Modules

Media: Gas only from vac to 700 mbar. Gas or Liquid from 1 bar to 700 bar.
Note: 0.02 % FS for gas media only on 1 bar and 2 bar modules
Burst Pressure: Vacuum to 350 bar = 3x. 600 to 700 bar = 2x.

Module	Range (bar)	Range (psi)	Accuracy (% FS)
XTEG-GVAC	-1 to 0 bar	-15 to 0 psi	0.02
XTEG-G160mb	0 to 160 mbar	0 to 2 psi	0.05
XTEG-G350mb	0 to 350 mbar	0 to 5 psi	0.05
XTEG-G700mb	0 to 700 mbar	0 to 10 psi	0.02
XTEG-G1b	0 to 1 bar	0 to 15 psi	0.02
XTEG-G2b	0 to 2 bar	0 to 30 psi	0.02
XTEG-G3.5b	0 to 3.5 bar	0 to 50 psi	0.02
XTEG-G5b	0 to 5 bar	0 to 70 psi	0.02
XTEG-G7b	0 to 7 bar	0 to 100 psi	0.02
XTEG-G10b	0 to 10 bar	0 to 150 psi	0.02
XTEG-G20b	0 to 20 bar	0 to 300 psi	0.02
XTEG-G35b	0 to 35 bar	0 to 500 psi	0.02
XTEG-G40b	0 to 40 bar	0 to 600 psi	0.02
XTEG-G60b	0 to 60 bar	0 to 870 psi	0.02
XTEG-G70b	0 to 70 bar	0 to 1000 psi	0.02
XTEG-G100b	0 to 100 bar	0 to 1500 psi	0.02
XTEG-G140b	0 to 140 bar	0 to 2000 psi	0.02
XTEG-G160b	0 to 160 bar	0 to 2320 psi	0.02
XTEG-G200b	0 to 200 bar	0 to 3000 psi	0.02
XTEG-G250b	0 to 250 bar	0 to 3625 psi	0.02
XTEG-G300b	0 to 300 bar	0 to 4350 psi	0.02
XTEG-G350b	0 to 350 bar	0 to 5000 psi	0.02
XTEG-G600b	0 to 600 bar	0 to 8700 psi	0.02
XTEG-G700b	0 to 700 bar	0 to 10,000 psi	0.02

Barometric Pressure Module

Media = Gas. Burst Pressure: 3x.

Module	Range (mbar)	Range (kPa)	Accuracy
XTEG-BP	600 to 1100	60 to 110	0.55 mbar, 55 Pa

Ordering Information

How to Order: **Module Code/Accuracy/M** (eg. XTEG-G1b/0.02/M)

Options

- C202:** Traceable calibration certificate (Factory) for XTEG module
- C203:** Accredited calibration certificate (ISO 17025) for XTEG module

For additional ranges, please contact Time Electronics.

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

Compound Pressure Modules

Media = Gas. Burst Pressure: 3x.

Module	Range (bar)	Range (psi)	Accuracy (% FS)
XTEG-C160mb	0 to ± 160 mbar	0 to ± 2 psi	0.05
XTEG-C350mb	0 to ± 350 mbar	0 to ± 5 psi	0.02
XTEG-C700mb	0 to ± 700 mbar	0 to ± 10 psi	0.02
XTEG-C1b	0 to ± 1 bar	0 to ± 15 psi	0.02
XTEG-CV2b	-1 to 2 bar	-15 to 30 psi	0.02
XTEG-CV5b	-1 to 5 bar	-15 to 70 psi	0.02
XTEG-CV7b	-1 to 7 bar	-15 to 100 psi	0.02
XTEG-CV10b	-1 to 10 bar	-15 to 150 psi	0.02
XTEG-CV20b	-1 to 20 bar	-15 to 300 psi	0.02
XTEG-CV40b	-1 to 40 bar	-15 to 600 psi	0.02
XTEG-CV70b	-1 to 70 bar	-15 to 1000 psi	0.02
XTEG-CV140b	-1 to 140 bar	-15 to 2000 psi	0.02
XTEG-CV200b	-1 to 200 bar	-15 to 3000 psi	0.02
XTEG-CV350b	-1 to 350 bar	-15 to 5000 psi	0.02
XTEG-CV700b	-1 to 700 bar	-15 to 10,000 psi	0.02

Differential Pressure Modules

Media = Gas.

Burst Pressure: 2.5 & 5 mbar: 100x. 10 mbar: 50x. 25 to 75 mbar: 20x.
125 to 700 mbar: 3x.

Module	Range (mbar)	Range (inH ₂ O)	Accuracy (% FS)
XTEG-DP2.5mb	0 to ± 2.5 mbar	0 to ± 1 inH ₂ O	0.05
XTEG-DP5mb	0 to ± 5 mbar	0 to ± 2 inH ₂ O	0.05
XTEG-DP10mb	0 to ± 10 mbar	0 to ± 4 inH ₂ O	0.05
XTEG-DP25mb	0 to ± 25 mbar	0 to ± 10 inH ₂ O	0.05
XTEG-DP50mb	0 to ± 50 mbar	0 to ± 20 inH ₂ O	0.05
XTEG-DP75mb	0 to ± 75 mbar	0 to ± 30 inH ₂ O	0.05
XTEG-DP125mb	0 to ± 125 mbar	0 to ± 50 inH ₂ O	0.05
XTEG-DP250mb	0 to ± 250 mbar	0 to ± 100 inH ₂ O	0.02
XTEG-DP350mb	0 to ± 350 mbar	0 to ± 150 inH ₂ O	0.02
XTEG-DP700mb	0 to ± 700 mbar	0 to ± 300 inH ₂ O	0.02

Note: For low range XTEGs from 2.5 to 25 mbar, 0.05% FS accuracy includes 6 months stability. One year accuracy is 0.05% FS calibration accuracy combined with 0.05% FS one year stability.

