



Description

The TEG range of precision digital gauges provide high accuracy, resolution and stability. The robust design means that each gauge can be used in critical environments where it is necessary to measure with accuracy, reproducibility, long-term stability and protection against dust. A removable rubber cover provides increased durability and guards against damage.

Gauges are available with accuracy up to 0.02 % of full scale, with simple controls and various features for improved usability. For communication, an RS-232 port situated on the rear of the unit for software readback (EasyCal software from Time Electronics).

Applications include lab and field pressure testing when accompanied by a hand pump for pressure generation (see separate data sheets for available models). Gauges can be utilised for pneumatic or hydraulic calibration work.

Basic Specifications

- Ranges** Vacuum to 2500 bar. See page 2 for available models and ranges.
- Pressure Types** Gauge / Differential / Compound.
- Barometric Pressure Option**..... Internal barometer (600 to 1100 mbar) enables absolute pressure measurement, calculated by gauge pressure and barometric pressure.
- Accuracy** 0.05, 0.02 % FS. See page 2 for further details.
- Pressure Units** Pa, kPa MPa, Kg/cm², mmH₂O, inH₂O, mmHg, inHg, psi, mbar, bar, %.
- Over pressure warning** 120 %
- Measure speed** Display rate: 3 readings per second (default setting).
Adjustable from 10 readings per second to 1 reading every ten seconds.
- Display** Wide viewing angle FSTN segment code LCD, 3 partition design, white backlight
15 mm character height, main display + unit display + fan-shaped section (25 mm).
- Resolution** 5 to 6 digits, selectable.
- Fan-shaped section**..... Includes pressure percentage display, peak-peak values (max, min),
TARE, leak test, ambient temperature, time display.
- Ambient temperature measurement**..... From -10 °C to 50 °C, resolution 0.1 °C.
- Communication Interfaces** RS-232 and USB-C. EasyCal software compatible.
- Pressure Port** 1/4 " G BSP male, 1/2 " G BSP male (>1000 bar). NPT & others available.
Barb fitting for differential pressure models.

Features

- Pressure ranges up to 2500 bar (37500 psi)
- Gauge, compound, and differential models
- 0.02 % and 0.05 % FS accuracy versions
- Easy-to-read display with 6 digit resolution
- Unique self-protection capability technology
- 3 times per second measure speed
- Fully temperature compensated accuracy
- Long working period - low power consumption
- RS-232 and USB-C interfaces
- Removable protective rubber cover supplied

General Specifications

Environmental

Operating temperature: -20 °C to 50 °C (-4 °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: 5 % RH ~ 95 % RH, no condensing.

Power

Battery: 3 AA alkaline batteries (included).
Battery life: 4000 hours (3 reading/s, default), 1000 hours (10 reading/s).
Power auto-off: 120/90/60/45/30/15 minute auto-off options or never.
External power: power supply through USB (optional).

Materials

Case material: 304 SS; Front panel material: anti-static PET;
Rubber boot material: anti-static TPU; Wetted parts: 316 SS.

Dimensions/Weight

Dimensions: Display head: Ø118 × D42 mm, total height: 178 mm.
Weight: 680 g.



Technical Specifications

Gauge Pressure (models above 70 bar = Sealed Gauge Pressure)

Media: Gas only from vac to 700 mbar. Gas or Liquid from 1 bar to 2500 bar.
Burst Pressure: Vacuum to 350 bar = 3x, 600 to 2500 bar = 1.5x.

Model #	Range (bar)	Range (psi)	Accuracy (% FS)		
TEG-GVAC	-1 to 0 bar	-15 to 0 psi	0.02	0.05	
TEG-G160mb	0 to 160 mbar	0 to 2 psi	-	0.05	
TEG-G350mb	0 to 350 mbar	0 to 5 psi	-	0.05	
TEG-G700mb	0 to 700 mbar	0 to 10 psi	0.02	0.05	
TEG-G1b	0 to 1 bar	0 to 15 psi	0.02	0.05	
TEG-G2b	0 to 2 bar	0 to 30 psi	0.02	0.05	
TEG-G3.5b	0 to 3.5 bar	0 to 50 psi	0.02	0.05	
TEG-G7b	0 to 7 bar	0 to 100 psi	0.02	0.05	
TEG-G10b	0 to 10 bar	0 to 150 psi	0.02	0.05	
TEG-G20b	0 to 20 bar	0 to 300 psi	0.02	0.05	
TEG-G35b	0 to 35 bar	0 to 500 psi	0.02	0.05	
TEG-G40b	0 to 40 bar	0 to 600 psi	0.02	0.05	
TEG-G70b	0 to 70 bar	0 to 1000 psi	0.02	0.05	
TEG-G100b	0 to 100 bar	0 to 1500 psi	0.02	0.05	
TEG-G140b	0 to 140 bar	0 to 2000 psi	0.02	0.05	
TEG-G200b	0 to 200 bar	0 to 3000 psi	0.02	0.05	
TEG-G350b	0 to 350 bar	0 to 5000 psi	0.02	0.05	
TEG-G600b	0 to 600 bar	0 to 8700 psi	0.02	0.05	
TEG-G700b	0 to 700 bar	0 to 10000 psi	0.02	0.05	
TEG-G1000b	0 to 1000 bar	0 to 15000 psi	-	0.05	0.1
TEG-G1600b	0 to 1600 bar	0 to 25000 psi	-	0.05	0.1
TEG-G2000b	0 to 2000 bar	0 to 30000 psi	-	0.05	0.1
TEG-G2500b	0 to 2500 bar	0 to 36000 psi	-	0.05	0.1

Barometric Pressure Option

Media = Gas. Burst Pressure: 3x.

Code	Range (mbar)	Range (kPa)	Accuracy	
BP	600 to 1100	60 to 110	0.55 mbar	55 Pa

Ordering Information

How to Order: **Model Number/Accuracy** (eg. TEG-G1b/0.02). Add /BP for barometric pressure option (eg. TEG-G1b/0.02/BP). Add "-NPT" for 1/4 " NPT male thread (eg. TEG-G1b/0.02-NPT).

Options

C202 Traceable calibration certificate (Factory) for TE gauge

C203 Accredited calibration certificate (ISO 17025) for TE gauge

Also available: Carry cases, power adaptors, pneumatic and hydraulic pumps (handheld and benchtop models), and pressure fittings and adaptors kit.

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

Compound Pressure

Media: Gas only for 160 mbar. Gas or Liquid from 350 mbar to 70 bar.
Burst Pressure: 3x

Model #	Range (bar)	Range (psi)	Accuracy (% FS)	
TEG-C160mb	0 to ± 160 mbar	0 to ± 2 psi	-	0.05
TEG-C350mb*	0 to ± 350 mbar	0 to ± 5 psi	0.02	0.05
TEG-C700mb*	0 to ± 700 mbar	0 to ± 10 psi	0.02	0.05
TEG-C1b*	0 to ± 1 bar	0 to ± 15 psi	0.02	0.05
TEG-CV2b*	-1 to 2 bar	-15 to 30 psi	0.02	0.05
TEG-CV3.5b	-1 to 3.5 bar	-15 to 50 psi	0.02	0.05
TEG-CV7b	-1 to 7 bar	-15 to 100 psi	0.02	0.05
TEG-CV10b	-1 to 10 bar	-15 to 150 psi	0.02	0.05
TEG-CV20b	-1 to 20 bar	-15 to 300 psi	0.02	0.05
TEG-CV35b	-1 to 35 bar	-15 to 500 psi	0.02	0.05
TEG-CV40b	-1 to 40 bar	-15 to 600 psi	0.02	0.05
TEG-CV70b	-1 to 70 bar	-15 to 1000 psi	0.02	0.05

* 0.02 % FS for gas media only on these models.

Differential Pressure

Media = Gas.

Burst Pressure: 2.5mb: 50x / 5mb: 25x / 10,75,125,350mb: 10x / 25,250,700mb: 5x

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



Description

In addition to the precision TEG models, the industrial range of digital pressure gauges provide a robust and simple operation solution for lab and field calibration work.

Gauges are available with accuracies of 0.1 % or 0.2 % of full scale. Each gauge features a clear and easy-to-read backlit display, making the units particularly suitable for use outdoors, as well as in the workshop or lab.

The durable design makes these gauges ideal for long term use in arduous conditions. The membrane buttons provide a solid feel and are easy to clean and maintain. A rubber boot is supplied and fitted as standard for increased protection against accidental damage.

Accompanying hand pumps are available for pressure generation (see separate data sheets). Also available are pressure fittings and adaptor kits.

For software interfacing, an RS-232 port is situated on the rear of the unit. When utilised in the calibration lab, all TEG gauges 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.



Specifications

- Pressure Ranges / Types**.....Vacuum to 2500 bar. Gauge and compound types available. See below table for models and ranges.
- Accuracy** 0.1 or 0.2 % FS.
- Pressure units**..... Pa, kPa MPa, bar, mbar, psi, kgf/cm², mmH₂O, inH₂O, mmHg, inHg. Some units not enabled depending on range.
- Measure speed**..... Display rate: 3 readings per second (default setting). Adjustable from 10 readings per second to 1 reading every ten seconds.
- Display** Wide viewing angle FSTN segment code LCD with backlight, three partition design, 16 mm numeral display height.
- Resolution** 4 to 5 digits selectable.
- Pressure % indicator**..... Pressure percentage is shown at the bottom of the display.
- Peak detection**..... Maximum and minimum peak values can be displayed.
- Pressure Port**..... 1/4 " G BSP male, 1/2 " G BSP male (> 1000 bar). NPT & others available. and configured to work with ordered manifolds or pumps.
- Power**..... 3 AA alkaline batteries (included). Power Auto-off Options: 120, 90, 60, 45, 30, or 15 minutes. Battery life up to 4000 hours.
- Communication Interface** RS-232. EasyCal software compatible.
- Materials**..... Case material: 304 SS; Front panel material: anti-static PET; Rubber boot material: anti-static TPU; Wetted parts: 316 SS.
- Dimensions/Weight**..... Dimensions: Display head: Ø105 × D46.5 mm, total height: 148.5 mm. Weight: 580 g.
- 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). Humidity: 5%-95%, no condensation. Working altitude: < 3000 m.

Gauge Pressure (models above 70 bar = Sealed Gauge Pressure)

Media: Gas or liquid. Burst Pressure: -1 to 350 bar = 3x. ≥ 700 bar = 1.5x.

Model #	Range (bar)	Range (psi)	Accuracy (% FS)	
TEG-GVAC	-1 to 0 bar	-15 to 0 psi	0.1	0.1
TEG-G350mb	0 to 350 mbar	0 to 5 psi	0.1	0.2
TEG-G700mb	0 to 700 mbar	0 to 10 psi	0.1	0.2
TEG-G1b	0 to 1 bar	0 to 15 psi	0.1	0.2
TEG-G2b	0 to 2 bar	0 to 30 psi	0.1	0.2
TEG-G3.5b	0 to 3.5 bar	0 to 50 psi	0.1	0.2
TEG-G7b	0 to 7 bar	0 to 100 psi	0.1	0.2
TEG-G10b	0 to 10 bar	0 to 150 psi	0.1	0.2
TEG-G20b	0 to 20 bar	0 to 300 psi	0.1	0.2
TEG-G35b	0 to 35 bar	0 to 500 psi	0.1	0.2
TEG-G40b	0 to 40 bar	0 to 600 psi	0.1	0.2
TEG-G70b	0 to 70 bar	0 to 1000 psi	0.1	0.2
TEG-G100b	0 to 100 bar	0 to 1500 psi	0.1	0.2
TEG-G140b	0 to 140 bar	0 to 2000 psi	0.1	0.2
TEG-G200b	0 to 200 bar	0 to 3000 psi	0.1	0.2
TEG-G350b	0 to 350 bar	0 to 5000 psi	0.1	0.2
TEG-G700b	0 to 700 bar	0 to 10000 psi	0.1	0.2
TEG-G1000b	0 to 1000 bar	0 to 15000 psi	0.1	0.2
TEG-G1600b	0 to 1600 bar	0 to 25000 psi	0.1	0.2
TEG-G2000b	0 to 2000 bar	0 to 30000 psi	0.1	0.2
TEG-G2500b	0 to 2500 bar	0 to 36000 psi	0.1	0.2

Compound Pressure

Media: Gas or liquid. Burst Pressure = 3x.

Model #	Range (bar)	Range (psi)	Accuracy (% FS)	
TEG-C350mb	0 to ± 350 mbar	0 to ± 5 psi	0.1	0.2
TEG-C700mb	0 to ± 700 mbar	0 to ± 10 psi	0.1	0.2
TEG-C1b	0 to ± 1 bar	0 to ± 15 psi	0.1	0.2
TEG-CV2b*	-1 to 2 bar	-15 to 30 psi	0.1	0.2
TEG-CV3.5b	-1 to 3.5 bar	-15 to 50 psi	0.1	0.2
TEG-CV7b	-1 to 7 bar	-15 to 100 psi	0.1	0.2
TEG-CV10b	-1 to 10 bar	-15 to 150 psi	0.1	0.2
TEG-CV20b	-1 to 20 bar	-15 to 300 psi	0.1	0.2
TEG-CV35b	-1 to 35 bar	-15 to 500 psi	0.1	0.2
TEG-CV40b	-1 to 40 bar	-15 to 600 psi	0.1	0.2
TEG-CV70b	-1 to 70 bar	-15 to 1000 psi	0.1	0.2

Ordering Information

How to Order: **Model Number/Accuracy (eg. TEG-G1b/0.2)**. Add "NPT" for 1/4 " NPT male thread (eg. TEG-G1b/0.2-NPT).

Options

- C202** Traceable calibration certificate (Factory) for TE gauge
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