

BG80TDL Bolt Tension Monitor

Features

- Range of display & measurement options including: Elongation, Load, Stress, and %Strain, RF, Rectified, Large Digits with Limits Bar
- Temperature compensation to counteract measurement irregularity caused by temperature change
- Data storage capability: 4GB internal memory
- Auto Set feature automatically optimizes detection and adjusts display
- Hi/Lo Alarm tolerance limits work in conjunction with the data port

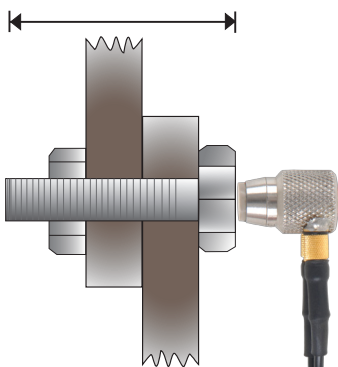


When nuts and bolts are fastened together under load the action of tightening the nut increases the force applied to the bolt causing elongation.

The BG80TDL bolt tension monitor accurately measures this elongation allowing the gauges to accurately measure time (nanoseconds), elongation, load, stress, and %strain of the bolt.

By using ultrasonics, bolt tension monitors are not affected by temperature, friction or resistance factors affecting the accuracy of standard torque measurement techniques - giving the BG80TDL accuracy within 0.0001mm (0.00001 inch).

Using the gauge's USB interface together with the optional shut off accessory the gauge can be programmed to automatically stop the tightening process when the appropriate load has been applied.



How does it work?

As a fastener is tightened it stretches (elongates) in length.

Manual torque wrenches measure the force applied when tightening a fastener, the accuracy can be affected by temperature, friction and resistance.

As the gauge ultrasonically measures the change in length accurately determining the applied load of a fastener as it is tightened, they are not affected by these factors.

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Model & Part Number	BG80TDL
Display Mode: Material thickness digits display	●
Measurement Mode¹	PE & PE with Gate
Measurement Rate: Manual:	8 readings per second
Measuring Range²	25.4 - 15,240mm (1 - 600")
Measurement Resolution	0.001mm (0.0001") or 0.0001mm (0.00001") switchable
Velocity Calibration Range	1250 - 13995m/s (0.0492 - 0.5510 in/μs)
Limit Alarm Mode	●
Data logging	8,000 readings
Calibration Options	fixed, single & 2 point
Transducer Probe Type	single element
Transducer Frequency Range	1 - 10MHz
Display	1/8 VGA
Units (selectable)	mm or inches
LED Backlight	on / off / auto
Repeatability / Stability Indicator	●
Power	3 x AA alkaline and via USB
Battery Life (approximate)	Alkaline 35 hrs, Nicad 10 hrs, NI-MH 35 hrs
Low Battery Indicator	●
Battery Save Mode	auto
Operating Temperature	-10 to 60°C (14 to 140°F)
Size (w x h x d)	63.5 x 165 x 31.5mm 2.5 x 6.5 x 1.24 inches
Weight (including batteries)	383g (13.5oz)
Aluminium case design with gasket sealed end caps, waterproof membrane keypad	●
Transducer Connector Type	LEMO
USB Interface	●
Packing List	Elcometer NDT BG80TDL gauge, couplant, carry case, user manual, test certificate, 3 x AA batteries, DakView software, USB Cable

¹ PE: Pulse-Echo Mode