tensionpro
THE BOLT TENSIONER EXPERTS

DATASHEET DS-91

sonar Technical Specification

Fast analogue and/or digital out control
- Windowing (hi res) analog output, scaled to SETUP parameters, 0-10V
- Digital, isolated I/O for external control
- SSR switched on programmable limits
- SSR EN50130-4 compliant

Real time oscilloscope trace of echo
- Can be stored with each reading
- Automatic signal acquisition
- Full control of receiver option

Batteries
- 4 sealed 3.4mAH Li Ion 18650 cells, twin smart chargers with SOC monitoring.
- SONAR can be sent or carried onboard airplanes as it meets current ITAR/FAA: Lithium Metal Batteries contained in equipment regulations: UN3481, P.I. 967, Section II.
  - Acceptable to all locations.
  - Cells equal to or less than 20Wh; and Batterie sequal to less than 100Wh
  - "...these packages do not require a lithium battery handling label."
- Operating time 20+hrs
- Dual charger inputs (USB and 115/230 VAC)
- Fast 9V standard 2.1mm power supply input
- Mini USB charge/operation

Additional Features
- Real time clock: date-time stored with every reading
- Sleep mode and auto shut off
- Continuous read on bolt
- Power/sleep LED

Intuitive operation
- Programmable touch pad QWERTY alpha-numeric input. Creation, storage, and retrieval of individual projects
- Bolt types for projects (geometry, material, etc.) stored individually for repeated use/retrieval
- Unlimited bolts/readings per project
- Temperature, signal parameters, scope trace and date/time stored with each reading
- Optional password protected restricted operating mode; locks selected variables

Data Storage
- Secure data file area – operator controlled public file area
- Password protected
- No special PC software required
- Flexible bolt data storage options, no limits on bolts or load data
- 256MB memory
- Store and display echo traces of every signal for every reading, date/time stored with each reading

Weight & Dimensions
- Small, lightweight, rugged
- 7x7x1.7 in / 175x175x42 mm
- 3.19 lb / 1.45 kg

Fast digital signal detection
- Real time signal tracking
- Storage of individual signal parameters for qualitative comparison

Connectors
- Lemo 00: ultrasonic and 0B: temperature and I/O communication.
- USB - Rugged, sealed USB micro-B

Display
- 3.8x2.2 in / 97x56 mm 480x272 - 24bit colour, sunlight readable touch panel display
- -20 to +70°C operating range
- Full touch panel program operation
- Rugged/sealed display module (IP 44)

Temperature transducer
- Class A PT100

Microprocessor
- ARM® Cortex™-M4

Analogue to Digital System
- Single shot at 200 MHz
- Time resolution to 0.1ns or better
- 100dB receiver
- Programmable pulser: amplitude, frequency, cycles

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