



TR150

Battery Powered Load Cell Indicator

- Handheld unit battery powered
- 7 ½ digit LCD
- Optional RS232 output
- Size (HxWxD) 90x152x34mm



Description

The TR150 is a completely portable, precision instrument packaged in a small, robust IP65 (NEMA 4) enclosure, weighing only 260 grams. The TR150 accepts an input range of up to 50 mV/V.

For simplified use, the operator only has access to six keys; on/off, gross/net, peak, trough, hold and shunt cal. Calibration and configuration can be performed from the front panel, with protection against accidental or un-intentional changes. The configuration menu is very simple and enables the setting of a tare value, display resolution, filter rate, auto power off and selection of low power mode.

There are 3 calibration options; a single pass auto-calibration, entering of load cell sensitivity and corresponding display value and entering of offset and gain values for corresponding display values. Two separate ranges are available, which enable the instrument to read and display two separate parameters; i.e. lbs/kg, tonne/kN, high/low resolution, fast/slow response etc. The menu options offer the engineer the ability to tailor the instruments response to the application. In each range all the variables can be set, including zero and filtering.

Annunciators on the display give a constant indication of the operating mode of the TR150.

The TR150 features an innovative power saving facility which when enable can offer up to 450 hours battery life with a 350 ohm bridge connected. In normal power mode up to 35 hours battery life is achieved with a 350 ohm bridge. The TR150 also incorporates a auto power off facility, which can be set during configuration in 1 minute increments up to 99 minutes, or it can be disabled so the instrument is powered on until the off key is depressed.

The TR150 can be supplied with a number of options including a leather carry case, which enables the full operation of the indicator whilst fitted in the case. There are also a number of battery and battery charger options available.

Features

- Powered by 2 off Internal AA Alkaline Batteries
- Environmentally sealed to IP65 (NEMA 4)
- Microprocessor based, allowing single pass calibration facility
- Tactile keyboard, with dual range selection, peak/valley hold, gross/net, shunt calibration and on/off controls
- Dual Range Facility
- Battery life of 450 hours in low power mode, with 350ohm bridge connected
- Auto Sleep facility which can be set to suit or disabled
- TEDS Compatible (IEEE 1451 – template 33)

Specifications

Performance

Input Type:	Strain Gauge Full Bridge Sensors
Input Range:	Up $\pm 5\text{mV/V}$ ($\pm 50\text{mV/V}$ can be supplied, with factory set option)
Non-Linearity:	$\pm 0.005\%$ FSD
Thermal Drift:	$< 5\text{ ppm/K}$
Supply Voltage:	5 VDC ($\pm 4\%$), 59 mA max. current
Min. Bridge Resistance:	85 Ω (4 off 350 Ω sensors in parallel)
Internal Battery:	2 off AA size alkaline, access via sealed rear compartment
Battery Life:	45 h (Typical 450 hours in low power mode), with 350 Ω sensor
Update Rate:	Up to 40ms (can be set in configuration menu)

Indication

Display Type:	7½ digit LCD display, 8.8 mm high digits
Display Resolution:	1 part in 250000 at 1 Hz update rate 1 part in 65000 at 10 Hz update rate
Annunciators:	Low Battery warning; peak; trough; hold; net; shunt cal; range

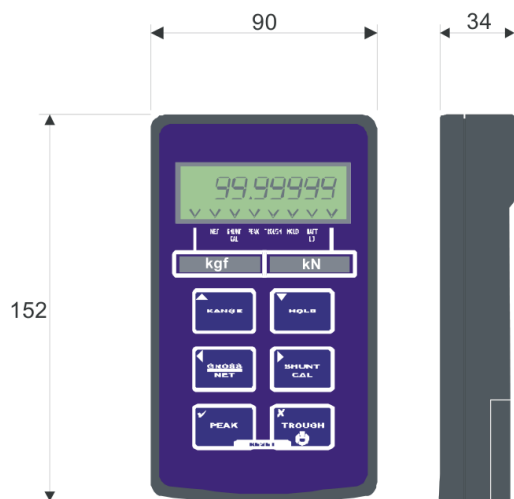
Control Variables

Front Panel User Keys (Tactile Keys with recessed rims)	
RANGE	Selects between two ranges
HOLD	Hold the current display value, press again to release
GROSS/NET	Zero's display ($\pm 100\%$ range)
SHUNT CAL	Generates simulated input for indicator testing
PEAK	Enables peak hold
TROUGH ON/OFF	Enables valley/trough hold Switches TR150 power on/off
Settable Parameters:	Tare/Zero value; display resolution/decimal point position; display update rate; low power mode; auto power off

Mechanical and Environmental

Electrical Connection:	5 pin Binder socket (mating plug supplied)
Size:	see drawing below
Weight approx.:	260 g
Legends:	Insert legends for engineering unit identification (supplied)
Operating Temperature:	-10 °C ... +50 °C
Environmental Sealing:	IP65 (when mating plug fitted)
Enclosure:	ABS, dark grey (Leather Carry Case Optional)

Dimensions



All dimensions are approx. values. Unless otherwise specified dimensions are in mm.
 These drawings are for information only and not intended for construction purpose. Please ask for detailed drawings.

Ordering information

TR150	Battery Powered Load Cell Indicator
TR150-RS232	Battery Powered Load Cell Indicator with RS232 output
TK-midi-6	Hardcase for TR150
Option CA	Black leather case
Option AS/SN	External battery charger with additional battery pack
Option Bi5	5-pol. Binder connector

Customized Requirements

Technical modifications according to customer requirements are available on request. Moreover, we deliver customized special solutions for a lot of measuring tasks in the section pressure, force, position and tilt measuring using our measuring transducers. Do not hesitate to contact us.

We reserve the right to do technical changes without prior notice.

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