

TR150

Portable Loadmeter

- ◆ IP65 (NEMA 4) sealed case
- ◆ Storage for 2 input calibrations
- ◆ Tactile keypad
- ◆ Auto calibration and tare
- ◆ Peak and trough hold
- ◆ RS232 streaming data output



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 50mV/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.

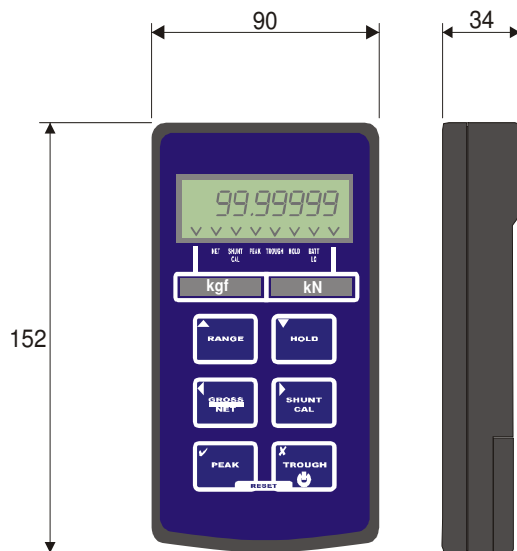
There are 3 calibration options; a single pass auto-calibration, entering of loadcell sensitivity and corresponding display value and entering of offset and gain values for corresponding display values.

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 enabled 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 an 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 protective case, which enables the full operation of the loadmeter whilst fitted in the case.

TR150 Specification

Performance	Input type:	Strain Gauge Full Bridge Sensors
	Input range:	$\pm 5\text{mV/V}$ or $\pm 50\text{mV/V}$
	Non linearity:	$\pm 0.005\%$ FSD
	Span drift:	$< 5 \text{ ppm}/^\circ\text{C}$
	Excitation voltage:	5Vdc ($\pm 4\%$), 59mA maximum current
	Minimum bridge resistance:	85 Ω (4 x 350 Ω sensors in parallel)
	Internal battery:	Two AA size alkaline, access via sealed rear compartment
	Battery life:	Approximately 35 hours, with 350 Ω sensor
	Update rate:	Up to 40mS (can be set in configuration menu)
Indication	Display type:	7½ digit LCD display, 8.8mm high digits
	Display resolution:	1 part in 250,000 at 1Hz update rate 1 part in 65,000 at 10Hz update rate
	Annunciators:	Low Battery warning; peak; trough; hold; net; shunt cal; range
Control Variables	Front panel user keys:	Tactile Keys with recessed rims for: - ON/OFF Switches TR150 power on/off 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 loadmeter testing PEAK Enables peak hold TROUGH Enables valley/trough hold
	Settable parameters:	Tare/Zero value; display resolution/decimal point position; display update rate; low power mode; auto power off;
Mechanical	Electrical connection:	5 pin Binder socket
	Physical size:	See drawing below
	Weight:	260 grams
	Legends:	Insert legends for engineering unit identification
Environmental	Operating temperature:	-10 $^\circ\text{C}$ to +50 $^\circ\text{C}$
	Environmental rating:	IP65 (when mating plug fitted)
	Enclosure type:	ABS, dark grey



Ordering Codes

TR150	Basic meter
TR150-RS232	Meter with RS232 output
TR150-CA	Basic meter with black protective case
TR150-RS232-CA	Meter with RS232 output and black protective case

This loadmeter can be used with any of our loadcells. Details of our other loadcell families can be found in the Product List and the Loadcell Specifier Guide. If you require copies please contact our sales department or look on our web site at www.novatechloadcells.co.uk.

If the TR150 is supplied with a loadcell it will normally be calibrated to read the loadcell output in the same force units as the loadcell calibration. A traceable system certificate will be supplied for the loadmeter and loadcell combination.



This product complies with the requirements of the European EMC directive.

NOVATECH MEASUREMENTS LTD

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