



APPLIED MEASUREMENTS LTD.
Transducer Specialists...

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TR150 Series Handheld Digital Display

Key Features:

- 7-Digit LCD Display (± 9999999) with Battery Low, Peak, Trough, Net & Shunt Calibration Indicator
- Input: 5mV/V (50mV/V Optional)
- Environmental Protection: IP65
- 2 Ranges / Engineering Units
- Optional RS232 Serial Data Output
- Integrated TEDS (IEEE1451, Template 33)
- Powered by 2 x AA Batteries
- Compatible with Most Strain Gauge Based Transducers
- Up to 25Hz Display Update Rate
- Battery Life of 450 Hours in Low Power Mode with 350ohm Bridge Connected
- Auto Sleep Facility
- Ex-Stock Availability
- 3 Year Warranty



The [TR150 handheld display](#) is a completely portable high precision instrument designed to work with all types load cells and strain gauge based transducers. The 7-digit LCD display makes it suitable for any monitoring application from general industrial up to high accuracy reference standards.

The TR150 comes packaged in a compact and robust IP65 (NEMA 4) enclosure which weighs only 260grams and is powered by 2x 'AA' batteries that provide up to 450 hours of continuous operation in low power mode with a 350 Ω load cell or strain gauge bridge connected.

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. The display also offers TEDS (Transducer Electronic Data Sheet) functionality allowing automatic calibration with any compatible sensor to which it is connected.

The TR150 has a dual range facility allowing for calibration in two different engineering units, i.e. lbs/kg, tonne/kN which offers the engineer the ability to tailor the instruments response to the application. Alternatively, it is possible to calibrate two separate load cells or sensor with a single TR150 display, please [contact our sales team](#). See our [full range of portable handheld indicators](#).

Options:

- Black Leather Case (see page 3 for image)
- RS232 Serial Communications



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Industries:

- Automotive
- Agriculture
- Silo and Weighing Industry
- Construction
- Alternative Energy
- Civil Engineering
- Lifting and Handling
- Waste Management

Applications:

- Weighing Platforms
- Vessel Weighing Systems
- Weighbridges
- Conveyor Weighing Systems
- Bridge Structure Monitoring
- Waste Management Systems
- Lifting and Handling
- Monitoring of Anchor Loads
- Truck Load Weight Monitoring
- Skip Weighing System
- Multi-Cell or Multi-Transducer Installations
- Monitoring of Building Foundations
- Force Measurement in Formula Racing
- Silo Weighing
- Measuring the Power Output of a Motor
- Vessel Weighing Systems

Specification:

CHARACTERISTICS	TR150	UNITS
Display	7-Digit LCD (± 9999999) 8.8mm high	
Resolution	1 pt. in 250,000 @ 1Hz update, 1 pt. in 65,000 @ 10Hz update	Digit
Accuracy	$\pm 0.005\%$ ($\pm 0.001\%$ typical)	Non-linearity as % of full scale
Bridge Excitation	5.0 $\pm 4\%$	Volts dc
Maximum Excitation Current	59.0	mA
Input Range	Up to $\pm 5\text{mV/V}$ ($\pm 50\text{mV/V}$ can be supplied optionally)	mV/V for display reading of ± 19999
Minimum Bridge Resistance	85ohms (4x 350ohm sensors in parallel) to 5000ohms	
Update Rate	0.5, 1, 3, 10, 25 (selectable)	Hz
Electrical Connection	5-pin binder socket (mating plug supplied)	
Annunciators	Low battery warning, peak, trough, hold, net, shunt, cal, range	
Operating Temperature	-10 to +50	$^{\circ}\text{C}$
Thermal Drift	<12	ppm/ $^{\circ}\text{C}$
Integral Battery	2x AA (1.5V Alkaline)	
Battery Life	35 in normal mode or 450 in power saving mode	Hours
Configurable Auto Power Off	1-99 (in 1 minute steps)	Minutes
Keypad	Tactile, with rim embossed keys	
Environmental Protection	IP65 (when mating plug fitted)	
Enclosure Type	BS, dark grey (leather carry case optional)	
Weight	250 approx	Grams
Communications	RS232 (optional)	
Automatic Sensor Calibration	Via integrated TEDS capability (IEEE1451, template 33)	

Ordering Codes:

Core Product	Details	Example Result
TR150	Standard Version	TR150
TR150	Version with RS232 Output	TR150-RS232



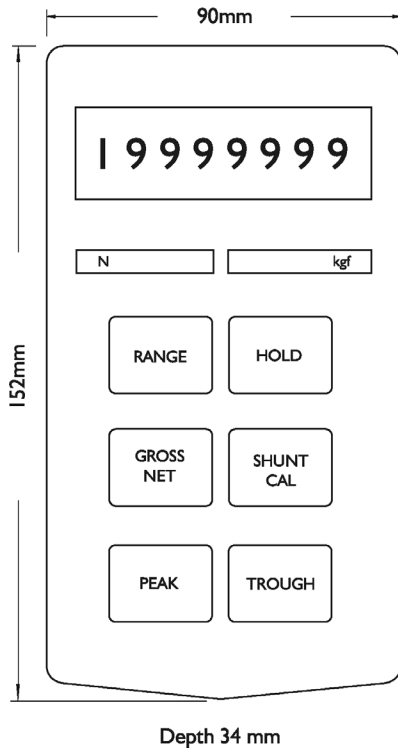
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Dimensions (mm):



Images shows TR150 Handheld Display in Case



Associated Products:



[AML/SGD Displacement Sensor](#)



[Load Cells & Force Sensors](#)



[Torque Transducers & Torque Sensors](#)



[Pi600 Pressure Sensor](#)

Associated Case Studies:

[Complete Tensile Monitoring System Delivered in Under 1 Week](#)



Clark Masts used a DBBSM S-beam load cell and TR150 to enable effective tensile testing of the large loads in the guy cables. The TR150 handheld indicator has an IP65 rating and can be used in the harsh outdoor environments of Clark Masts tensile testing. [Read more...](#)