

# LT-880

## Features:

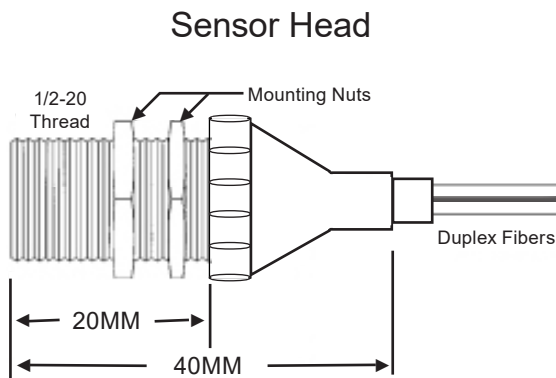
- Remote Sensing of RPM and Angular Vibration
- No Special Reflective Tape Required
- Large 5 Digit LED Display
- Sensing rates to 40 000 PPS
- Ni-mH Powered with Fast Charger
- Measures RPM, RPS, PPS
- Entry of number of encoder sectors



## Laser Tachometer

The LT-880 Laser Tachometer is a hand-held, battery operated device that senses the passage of reflective/non-reflective markings on a rotating or linearly translated piece of machinery in order to determine the target's rotational rate or its linear velocity. The sensing head is remote from the electronics package and is fiber coupled. This permits measurement of objects in hostile environments or in hard-to-get-to locations. The sensed change in reflectivity from black to white generates a transition at its output. This TTL/CMOS compatible signal may be utilized by a spectrum analyzer, computer or electronic counter in order to provide information concerning vibration, angular or linear velocity of the machinery under test. The high speed of the unit, 40,000 PPS, coupled with its small spot size can provide high resolution measurements unattainable with conventional incandescent source tachometers. Use the right angled adapter if it is not possible to aim the standard optical head at the target. The transmissive head is a beam breaking device that allows a <math><1/4</math> inch slotted target to pass through the heads transmitter and receiver. A six digit LCD display indicates the rate of passage of the white/dark areas of the encoder and registers the results in units of revolutions per minute, (RPM), revolutions per second, (RPS), or pulses per

second (PPS). The reading is updated twice per second. The user may input the number of pulses per revolution generated by the encoder for use in the subsequent calculations. They may range from 1 pulse per revolution to 255 pulses per revolution.



LT880OH-RF with RAA-LT880, Right Angled Adapter Installed



RAA-LT880 Transmissive Head



Made In the USA

Terahertz Technologies Inc.

169 Clear Rd., Oriskany NY 13424

Toll Free: 855-TTI-TEAM

Phone: 315-736-3642 Fax: 315-736-4078

E-mail: sales@teratec.us

Web: www.teratec.us

# LT-880 Laser Tachometer

## LT-880 Laser Tachometer Specifications

Units of Measurement	Revolutions per Second, Revolutions per Minute, Pulses per Second
Measurement Update Rate	Twice per Second
Readout Uncertainty	$\pm .02$ % of Reading, $\pm 1$ LSD
Maximum Measurement Rate	40 000 PPS
Range from Sensor to Target	12 to 125 mm (using white copier paper)
Laser Wavelength	650 nm $\pm 10$ nm
Laser Output Power	< 2 milliwatts
Laser Spot Size	< 1.9 mm @ 13 mm range
Laser Beam Divergence	< 13 milliradians
Display	Six Digit LCD, 0.375 height, Six LED annunciators
Frequency Output Port	TTL pulse for each reflective sector sensed, (0 to 5 volts)
Output Impedance	100 Ohms
Standard Fiber Optic Cable Length	5 meters
Standard Fiber Types	Receiver - 400 $\mu$ m core, Transmitter - 62.5 $\mu$ m core
Standard Connector Type	ST Type
Batteries Supplied	Four AA NimH, 2700 mAH
Charger Power Requirements	95 - 260 VAC, 50-60 Hz Universal, < 10 VA
Mains Connectors Supplied	North American, Great Britain, Continental Europe, Australian
Charging Time	Approximately two hours
Dimensions (Controller)	200 mm L x 98 mm W x 38 mm D
Dimensions (Sensor)	40 mm L x 13 mm Diameter, 1/2 by 20 Thread, Jam Nuts Included
Operating Temperature, Electronics, Sensor Head	0 - 50 C, - 40 - 120 C
Weight	0.46 Kg
Accessories Provided	Carrying Case, Batteries, Power Supply/Charger, Operating Manual
Standard Warranty	Two years, Components and Workmanship, 30 Day Satisfaction Guarantee

TTI reserves the right to change specifications without notice.

## Ordering Information

LT-880	Fiber Optic Laser Tachometer (Includes 5 Meter Cable with Reflective Sensor Head)
LT-880-10	Fiber Optic Laser Tachometer (Includes 10 Meter Cable with Reflective Sensor Head)
LT-880-T	Fiber Optic Laser Tachometer (Includes 5 Meter Cable with Transmissive Sensor Head)
LT-880OH-RF	5 Meter Cable w/Reflective Sensor Head for use with LT 880
LT-880OH-T	5 Meter Cable w/Transmissive Sensor Head for use with LT 880
RAA-LT-880	Right Angle Adapter for use with LT-880 Reflective Optical Head



Made In the USA

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