



# LT-880 Laser Tachometer

Benefits: \_\_\_\_\_

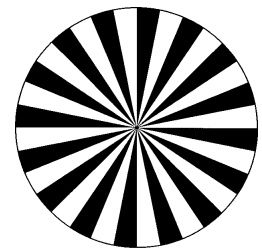
- No special reflective tape required
- Custom cable length to 300 M
- TTL compatible output
- Rep rate to 40 KHz
- Ni-Mh powered with quick recharge

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 KHz, coupled with its small spot size can provide high resolution measurements unattainable with conventional incandescent source tachometers.

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 of the encoder for use in the subsequent calculations. They may range from 1 pulse per revolution to 255 pulses per revolution.

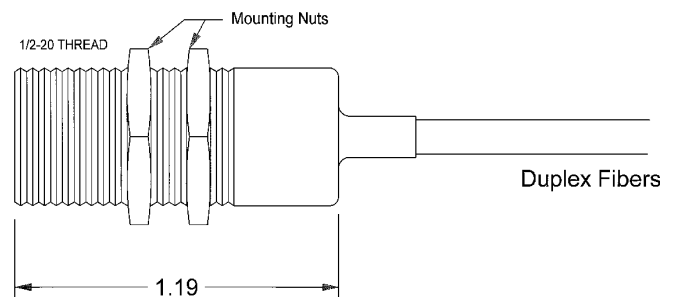


Sample Encoder  
Target



16 PPr Encoder

## Sensor Head



# LT-880 Specifications

TTI reserves the right to change specifications w/o notice

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Units of measurement.....	RPM, RPS, PPS
Display.....	6 digit LCD, 0.375 " hi, 6 LED annunciators
Readout Accuracy.....	0.02% of reading,+/- 1 least significant digit
Measurement update rate.....	twice per second
Range....(using white copier paper).....	12 to 125 mm from exit aperture
Measurement Bandwidth.....	2 Hz - 40 KHz
Laser Wavelength.....	650 +/- 10 nm
Laser Power.....	< 3 mW
Laser Spot Size.....	<1.9 mm @ 13 mm range
Laser Beam Divergence.....	< 13 milliradians
Output Impedance.....	100 $\Omega$
Standard Fiber Optic Cable Length.....	5 m
Standard Fiber Types.....	Receiver - 3 M FT-400-EMT 400 $\mu$ m core, Low OH ion content fused silica, Transmitter - 62.5 $\mu$ m core fused silica fiber
Fiber Optic Connectors.....	ST Type
Display.....	6 Digit LCD, 6 LED annunciators
Batteries Supplied .....	4 AA 2000 A-Hr Ni-Mh cells
Charger Power Requirements.....	108-125 VAC, 50-60 Hz, 16 VA Max
Charge Time.....	Approximately 2 hours
Optical Head Dimensions (mm).....	35 L x 13 D
Electronics Package Dimensions (cm).....	200 L x 98 W x 38 D
Total Weight.....	0.46 Kg
Operating Temperature.....	0 - 50 C (Electronics), -40 - 120 C (Optics)

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