

MICROTRAK™ II-SA

STAND-ALONE LASER HEADS

CMOS detection
technology for fast,
accurate and reliable
measurements



Microtrak™ Stand-alone Laser Heads – Versatile, Reliable, Easy to Use

With the new Microtrak Stand-alone Laser Heads, a controller is no longer required to obtain fast, accurate and reliable measurements from a laser triangulation sensor. MTI Instruments Inc. now offers a complete family of Microtrak II laser heads capable of operating independently without a signal processing controller. These “stand-alone” sensors provide the performance you expect from MTII at a fraction of the cost, making them ideal for high-volume OEM, Production and Quality Control applications. Parameters such as measurement units, frequency response and cut times are easily configurable through the RS-485 connection and MTII’s proprietary Remote Control Software program.

Application Solutions for Manufacturing, Quality and Process Control

- Thickness
- Warpage
- Alignment
- Displacement
- Vibration
- Step Height
- Run-out
- Go/No-Go Decisions
- Presence/Absence
- Fill Height
- Flatness
- Profile
- Thermal Expansion/Contraction
- Structural Dynamics
- Dimensional Gauging

mti instruments

Specifications

- Power Requirement: 12-30 Vdc, 0.4 A max
- Analog Voltage Output: 0-10 Vdc
- Analog Current Output: 4-20 mA
- Digital Output: RS-485 interface
- Baud Rate: 57.5 kb asynchronous
- Filter Settings: 20 kHz, 4 kHz, 1 kHz, 200 Hz, 25 Hz, 1 Hz, 0.1 Hz
- Frequency Response: 20 kHz max
- Sampling Frequency: 40 kHz
- Laser Power: Class II and Class IIIA, 2-5 mW
- Laser Wavelength: 670 nm
- Laser Cable: standard 9', other lengths available on request
- Temp. Stability: 0.05% full scale/°C
- Ambient Temp.: 0-40°C
- Laser Head Enclosure: IP 67
- Linearity: 0.05% Full Scale range or better

Performance Specifications

Head Model	Standoff	Range	Resolution*	Spot Size**	Laser Angle
LTC-025-02-SA	25 mm	± 1 mm	± 0.12 µm	30 µm	45°
LTC-025-04-SA	25 mm	± 2 mm	± 0.25 µm	30 µm	45°
LTC-050-10-SA	50 mm	± 5 mm	± 1.25 µm	25 µm	30°
LTC-050-20-SA	50 mm	± 10 mm	± 2.5 µm	25 µm	30°
LTC-120-20-SA	120 mm	± 10 mm	± 2.5 µm	100 µm	20°
LTC-120-40-SA	120 mm	± 20 mm	± 5 µm	100 µm	20°
LTC-200-100-SA	200 mm	± 50 mm	± 9 µm	100 µm	12°
LTC-300-200-SA	300 mm	± 100 mm	± 20 µm	130 µm	8°

* Resolution at 20 kHz. Resolution improves at lower filter setting. ** Spot diameter at 86.5% down from peak.

