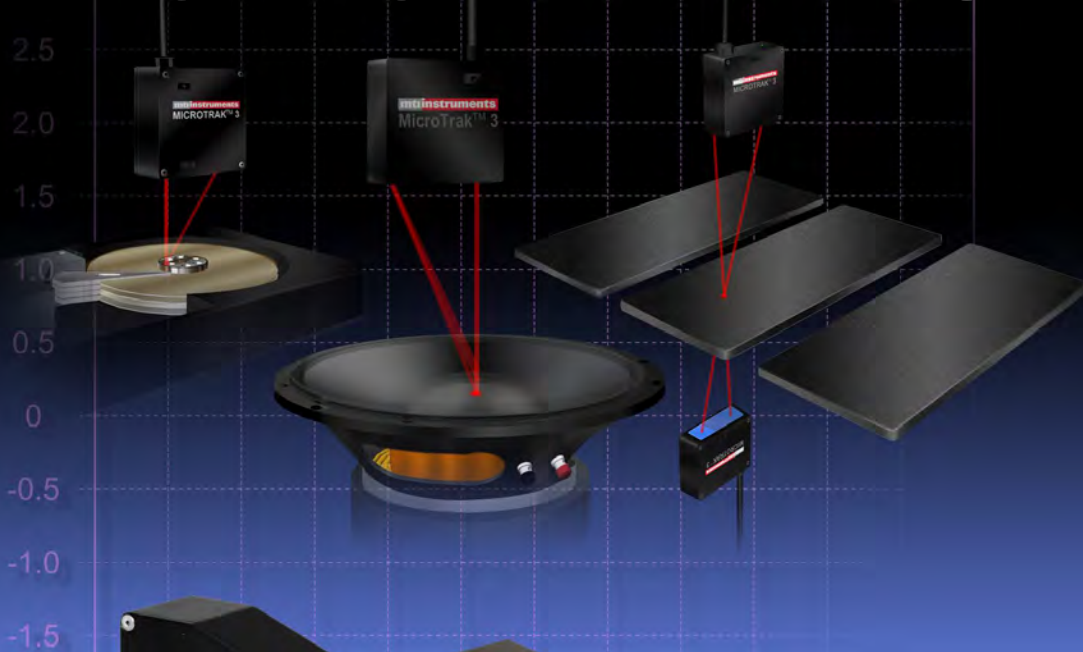




VIBRO-ACOUSTIC
ACUSTICA ARIA ACQUA AMBIENTE

MICROTRAK™ 3



THICKNESS
MEASUREMENT

DIMENSIONAL
DISPLACEMENT

STEP HEIGHT
DISTANCE

VIBRATION
TESTING

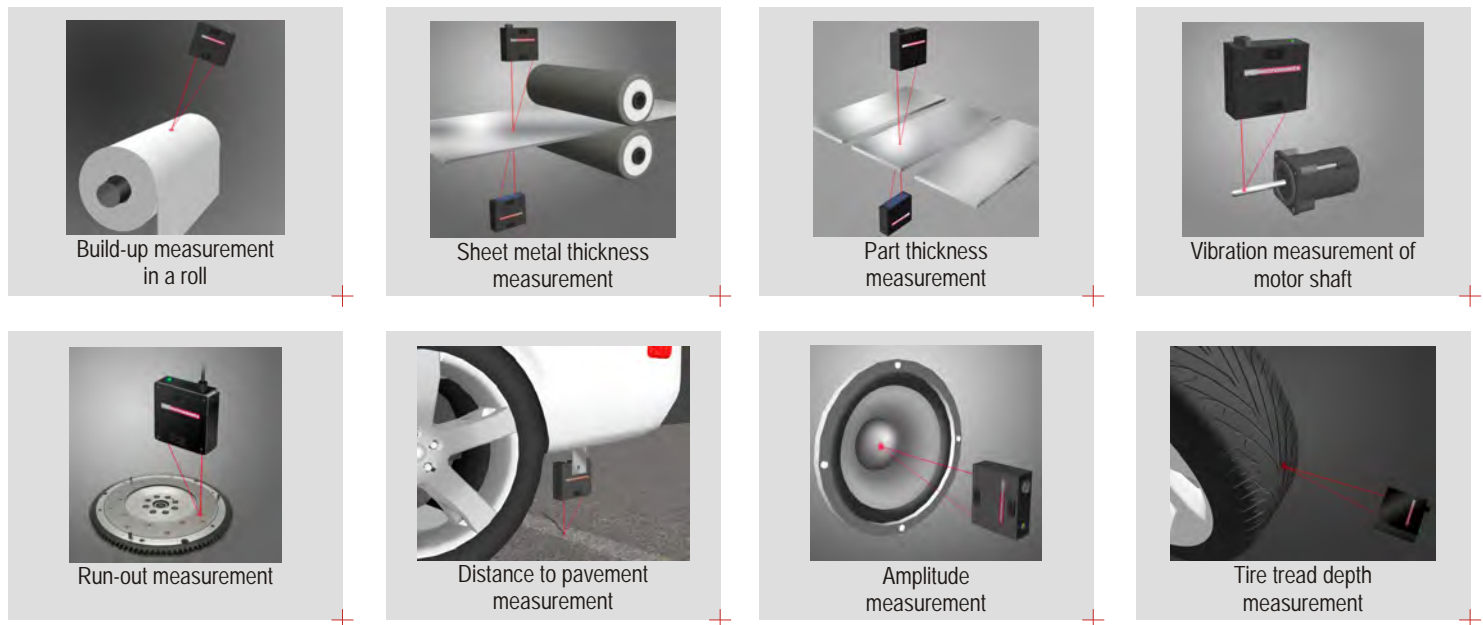
... AND MORE

HIGH SPEED. HIGH RESOLUTION.

LASER DISPLACEMENT SENSORS

Accurate and repeatable measurements from highly reflective to dull surfaces

Unmatched Features for Different Types of Applications



Microtrak™ 3 - High Quality, Compact and Reliable Non-contact Measurement

The Microtrak™ 3 laser displacement sensor head is the ideal solution for quality and process control applications. Using the latest CMOS sensor technology, the Microtrak™ 3 precisely monitors the intensity of light received on a pixel array and optimizes itself to the sensed conditions. This makes Microtrak™ 3 ideal for even for the most difficult measurement challenges such as, black, colored, metallic, wood, ceramic, steel, or plastic surfaces.

Key Features

- Simple Software Interface - Intuitive and straight forward buttons makes configuring and acquiring data a breeze.
- Visible Laser Spot - Allows for easy positioning and alignment of the laser head.
- No Controller Needed - With the built-in 5-color position indicator, there is no need for an external controller to determine the laser mounting location and attain the precise distance placement.
- Auto Gain Circuitry - Automatically determines and adjusts the ideal laser power needed for accurate and repeatable measurements on different surface types.
- Dual Output - Analog (0-10V) and Digital (RS-485 and USB).
- Built-in Low Pass Filter
- Cut-Time Feature - Ignore holes and cutouts with its bridging function.

Applications

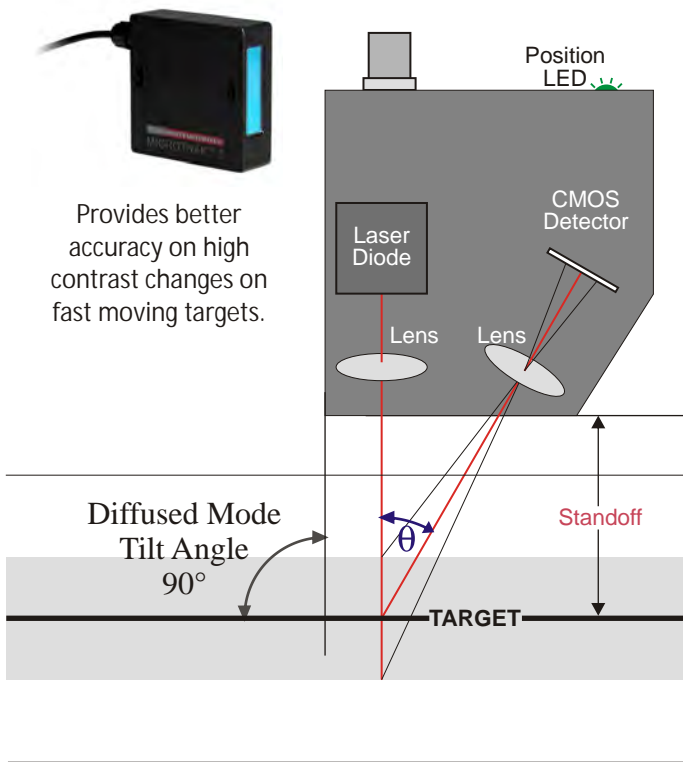
- Thickness
- Warpage
- Alignment
- Displacement
- Vibration
- Step Height
- Shaft Run-out
- Road Profile
- Presence
- Fill Height
- Flatness
- Profiling
- Thermal Expansion/ Contraction
- Structural Dynamics
- Dimensional Gaging

8 Highly Accurate Models to Choose From

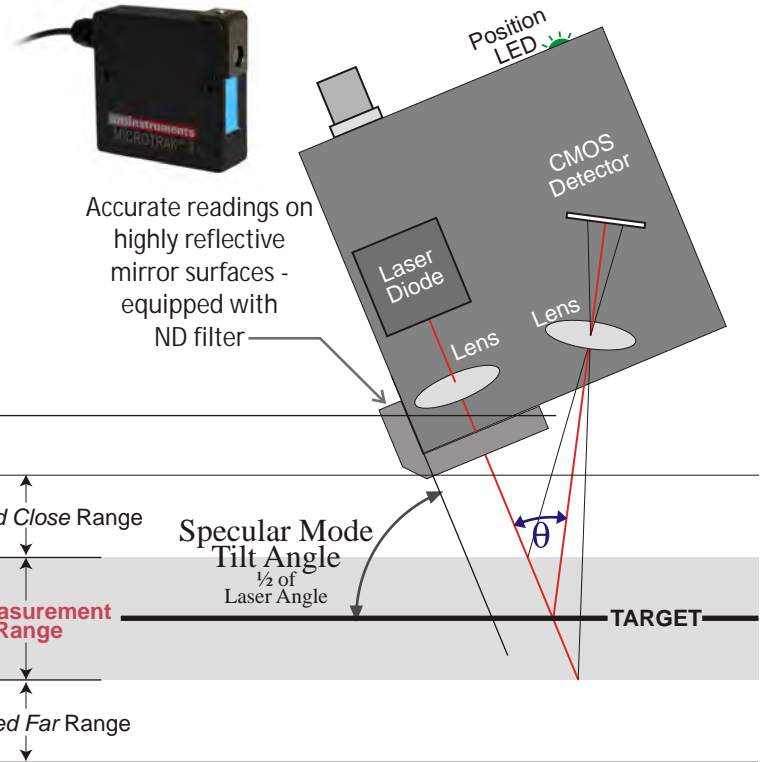
Model	Unit	LTS 25-02	LTS 25-04	LTS 50-10	LTS 50-20	LTS 120-20	LTS 120-40	LTS 200-100	LTS 300-200
		Available in Specular Mode (Laser head with ND filter) - specify when ordering							
Linearity	FSR	±0.03%							
Range	mm	2	4	10	20	40	100	200	
Extended Range ¹	mm	2.5	5.0	12.5	25.0	50.0	125.0	250.0	
Standoff	mm	25		50		120		200	300
Close Range	mm	24	23	45	40	110	100	150	200
Extended Close Range	mm	23.75	22.50	43.75	37.50	107.50	95.00	137.50	175.00
Far Range	mm	26	27	55	60	130	140	250	400
Extended Far Range	mm	26.25	27.50	56.25	62.50	132.50	145.00	262.50	425.00
Noise ²	µm	0.325	0.650	1.625	3.250	6.500	16.500	32.500	
Analog Out Gain ³	µm/mV	0.250	0.500	1.250	2.500	5.000	12.500	25.000	
LSB Resolution ¹	µm	0.038	0.076	0.191	0.382	0.382	0.763	1.907	3.815
Laser Angle		45°	45°	30°	30°	20°	20°	12°	8°
Spot Size ⁴	µm	30		25	36	100		130	

- [1] Extended Range / 65535.
 [2] ±Peak noise at the center range of white photo paper with frame rate of 40kHz.
 [3] Extended Range / 10V.
 [4] Major diameter measured at standoff.

Diffused Mode

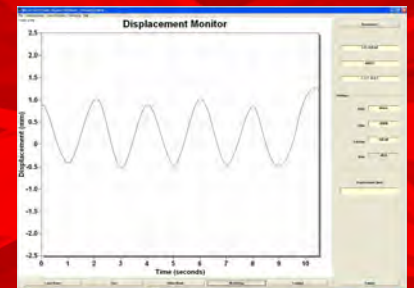


Specular Mode (recommended for shiny surfaces)



Simple Software Interface

Bundled with the Microtrak™ 3 Basic Support Software, users are presented with graphical displays of displacement signal. Acquired data can also be stored as a widely supported (.csv) format for further analysis. Compatible with Windows® XP, Vista and Windows® 7.



Technical Specifications

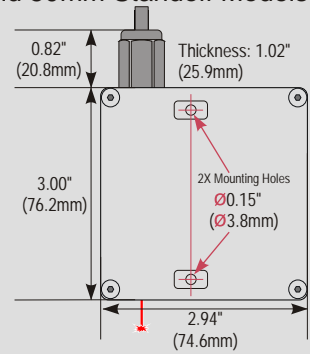
- Laser Power¹: <5mW
- Laser Class (IEC 60825): 3R
- Frequency Response: Up to 20kHz
- Sampling Frequency: 40kHz
- Operating Temperature Range: 0°C to 40°C
- Storage Temperature Range: -20°C to 70°C
- Humidity Range: 10 to 95% Non-Condensing
- Temperature Stability: 0.05% FSR/°C
- Digital Interface: RS-485/USB (Half Duplex)
- Supplied Cable Length: 2m ±0.025m (*other cable length optional*)
- Supply Voltage: SELV²: 15 to 28VDC
- Nominal Supply Voltage: SELV² 24VDC
- Maximum Power Draw: 2.8W
- Output Impedance: 50
- Nameplate Range Voltage Output: 1 to 9V
- Extended Range Voltage Output: 0 to 10V
- Software Selectable Filters: 0.1Hz, 1Hz, 25Hz, 200Hz, 1kHz, 4kHz, 20kHz
- Nominal Laser Wavelength³: 670nm

^[1]Laser power is based on standard products.

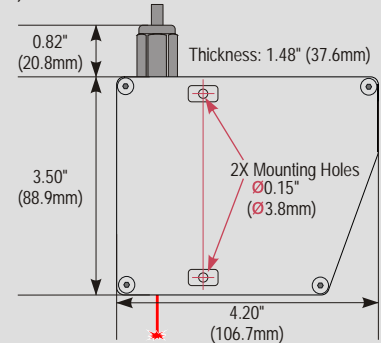
^[2]Safety Extra Low Voltage

^[3]Nominal laser wavelength is based on standard products.

25 and 50mm Standoff Models



120, 200, and 300mm Standoff Models



Optional Accessories

FS-5 Laser Head Mount
and Positioner
P/N: 8000-6725



FS6-1 Right Angle Bracket
(25/50) P/N: 8000-6431

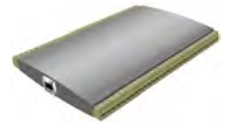
FS6-2 Right Angle Bracket
(120/200/300) P/N: 8000-6432



Universal Input Power Supply
(DIN Mount) Assembly
P/N: 8000-6925



Multifunction ADC
P/N: 2025-5160



Other Accessories

Other Accessories	Product Number
Laser Side Connector	2100-2085
Mating Connector	2100-2086
RS-232 to RS-485 Converter Assembly	8000-6924
Extension Cable 1m	8000-6923-001
Extension Cable 2m	8000-6923-002
Extension Cable 5m	8000-6923-005

BNC to Ferrule Converter
P/N: 8000-6782



Digital Display
P/N: 8000-6227



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