

# MICROTRAK™ 3



**THICKNESS  
MEASUREMENT**

**DIMENSIONAL  
DISPLACEMENT**

**PART  
PROFILING**



available

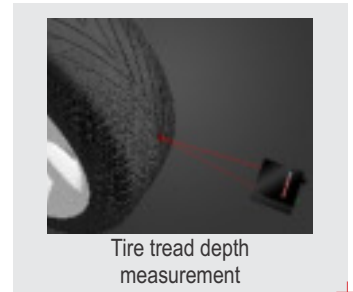
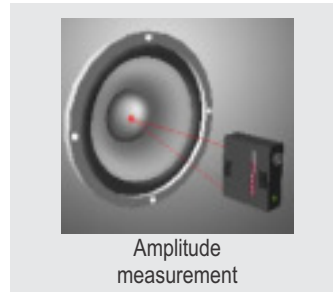
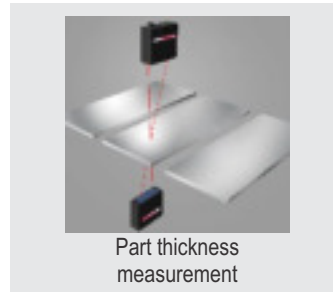
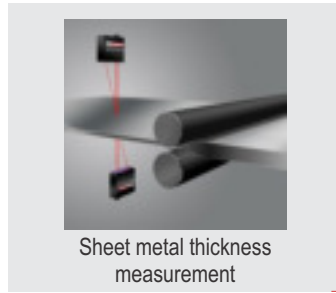
**VIBRATION  
TESTING**

**HIGH SPEED. HIGH RESOLUTION.  
LASER DISPLACEMENT SENSORS**

Accurate and repeatable measurements from  
highly reflective to dull surfaces



with every system shipped!



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.

- **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.

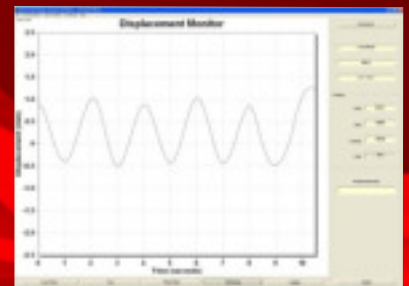


Software Development Kit Available

- **Dual Output** - Analog (0-10V) and Digital (RS-485 and USB).
- **Cut-Time Feature** - Ignore holes and cutouts with its bridging function.
- **Included Microtrak 3 Basic Software** - Intuitive and straight forward buttons makes configuring and acquiring data easy.
- **Specular and Glass Models Available** - Accurate measurement for shiny surfaces

## Simple Software Interface

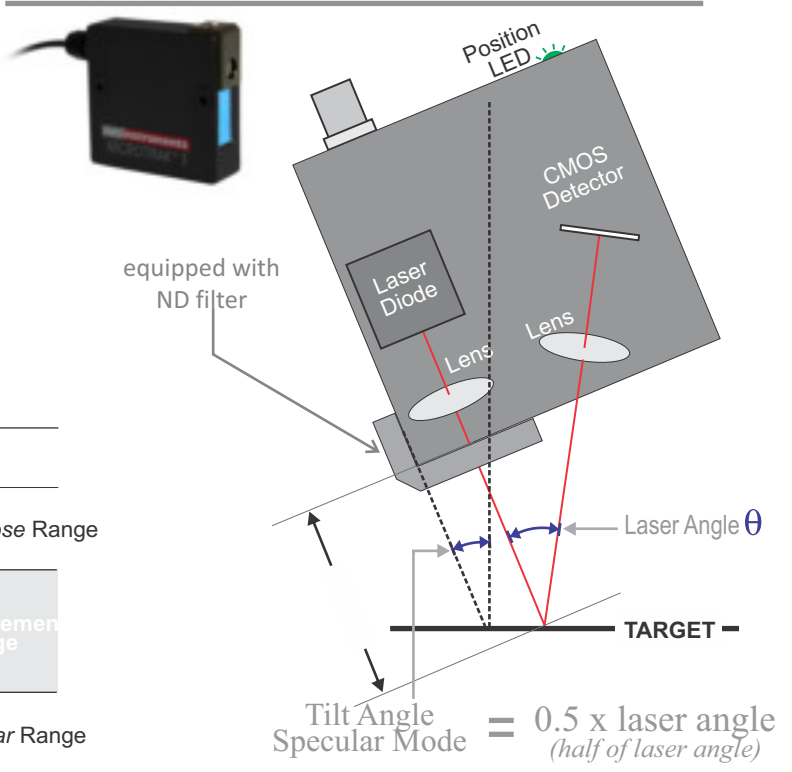
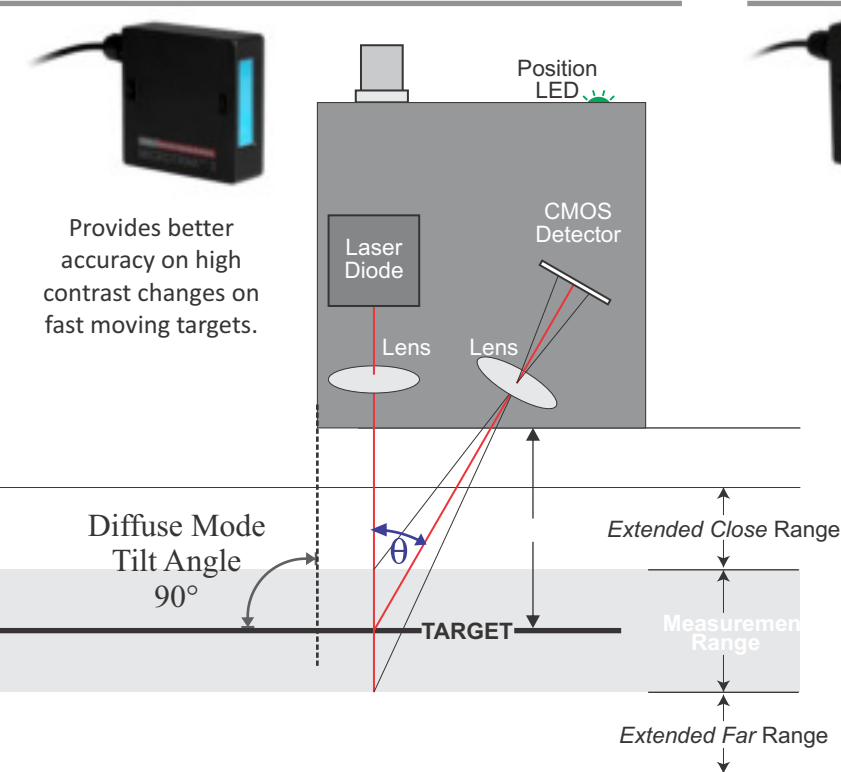
Bundled with the Microtrak™ 3 Basic Support Software, users are presented with graphical displays of displacement signal. Acquired data can also be stored as a widely supported (.csv) format for further analysis. Compatible with Windows® XP, Vista, Windows® 7 and Windows® 8.



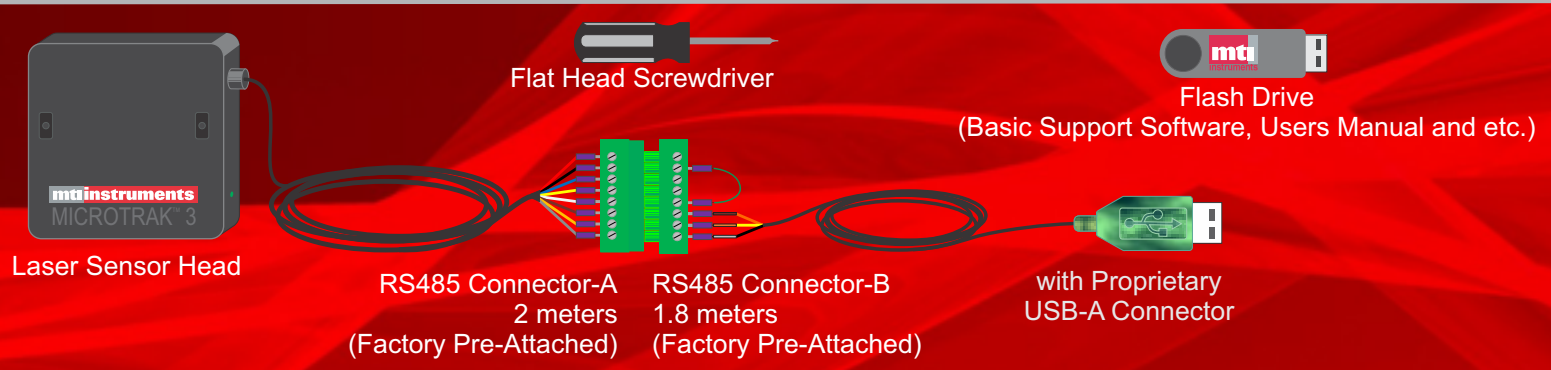
Model		LTS 25-02	LTS 25-04	LTS 50-10	LTS 50-20	LTS 120-20	LTS 120-40	LTS 200-100	LTS 300-200
	Max. Linearity Error	$\mu\text{m}$	0.6	1.2	3.0	6.0	12.0	30.0	60.0
Extended Range <sup>1</sup>	mm	2.5	5.0	12.5	25.0	50.0	125.0	250.0	
Standoff	mm	25	50	120	200	300			
Extended Close Range	mm	23.75	22.50	43.75	37.50	107.50	95.00	137.50	175.00
Close Range	mm	24	23	45	40	110	100	150	200
Range	mm	2	4	10	20	40	100	200	
Extended Far Range	mm	26.25	27.50	56.25	62.50	132.50	145.00	262.50	425.00
Far Range	mm	26	27	55	60	130	140	250	400
Noise <sup>2</sup>	$\mu\text{m RMS}$	0.325	0.650	1.625	3.250	6.500	16.500	32.500	
Analog Out Scale Factor	$\mu\text{m/mV}$	0.250	0.500	1.250	2.500	5.000	12.500	25.000	
Digital Resolution <sup>3</sup>	$\mu\text{m}$	0.038	0.076	0.191	0.382	0.382	0.763	1.907	3.815
Laser Angle	$\theta$	45°	45°	30°	30°	20°	20°	12°	8°
Spot Size <sup>4</sup>	$\mu\text{m}$	30	36	36	100	100	130	130	

[1] Linearity guaranteed at standard range  
 [2]  $\pm$ White photo paper at 500Hz

[3] Minimum Digital Resolution = FSO/65535  
 [4] Major diameter measured at standoff



## What's in the box?



- Laser Power<sup>1</sup>: <5mW
- Laser Class (IEC 60825): 3R
- Frequency Response: Up to 20kHz<sup>2</sup>
- Measurement Rate: 40,000/sec.
- 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: SELV<sup>3</sup>: 15 to 28VDC
- Nominal Supply Voltage: SELV<sup>3</sup> 24VDC
- Maximum Power Draw: 2.8W
- Output Impedance: 50Ω
- 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 Wavelength<sup>4</sup>: 670nm

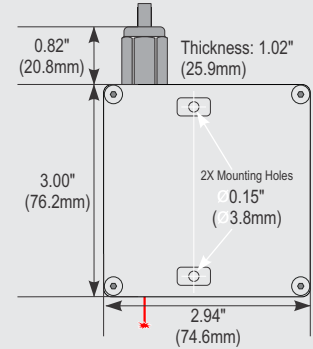
<sup>[1]</sup>Laser power is based on standard products.

<sup>[2]</sup>Measurement based on analog output

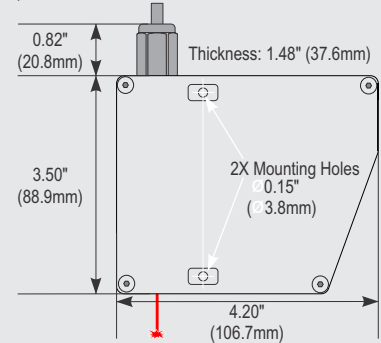
<sup>[3]</sup>Safety Extra Low Voltage

<sup>[4]</sup>Nominal laser wavelength is based on standard products.

### 25 and 50mm Standoff Models



### 120, 200, and 300mm Standoff Models



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



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

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



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



Includes power cord and 24VDC harness (specify country for correct line cord)

Other Accessories	Product Number
SDK with LabVIEW included	2075-0066
Replacement Connector-A	2100-2085
Replacement Connector-B	2100-2086
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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