

# Product Information

## LDS-Laser Distance Sensor

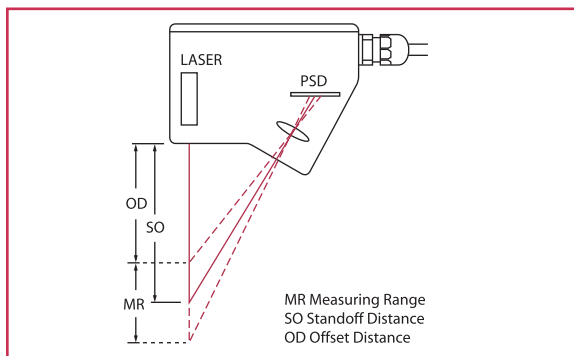


### High Frequency and Accuracy Affordable Triangulation Sensor

- High speed PSD-based triangulation principle
- Measuring range up to 45 mm at frequencies up to 100 kHz
- Low-cost sensor with high sample resolution down to 10 microns
- Accuracy up to 0.020 mm
- High speed applications include vibration, material testing and engine valve dynamics

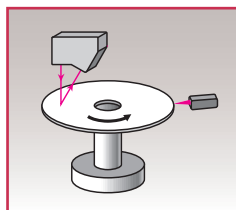
### Options and Accessories

- Continuous version for high frequency response -"C"  
Standard unit 30 kHz response frequency  
Optional high speed to 100 kHz response frequency
- Modulated version for high ambient light application -"M"  
Standard unit with 3 kHz response frequency  
Optional high speed with 10 kHz response frequency  
Note: Effectively cancels any influence from other light sources
- Current output (0/4-20 mA) for modulated version

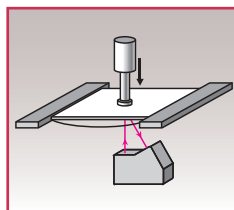


Model		Measurement Range (MR)	Stand Off (SO)	Offset Distance (OD)	Resolution (Worst Case)	Resolution (Typical)	"-C" Version Linearity	"-M" Version Linearity	Triangulation Angle at SO	Spot Size at SO
LDS 80/10	mm	10	80	75	Note 1	Note 2	0.05	0.02	30 deg.	0.2
	in.	0.39	3.15	2.95	0.00039	0.000039	0.002	0.0008		0.008
LDS 80/20	mm	20	80	70	0.02	0.002	0.10	0.04	30 deg.	0.2
	in.	0.79	3.15	2.76	0.00079	0.000079	0.004	0.0016		0.008
LDS 80/30	mm	30	80	65	0.03	0.003	0.15	0.06	30 deg.	0.2
	in.	1.18	3.15	2.56	0.0012	0.00012	0.006	0.0024		0.008
LDS 90/40	mm	40	90	70	0.04	0.004	0.2	0.08	26 deg.	0.25
	in.	1.57	3.54	2.76	0.0016	0.00016	0.008	0.0031		0.01
LDS 90/45	mm	45	90	67.5	0.045	0.0045	0.225	0.09	26 deg.	0.25
	in.	1.77	3.54	2.66	0.0018	0.00018	0.009	0.0035		0.01

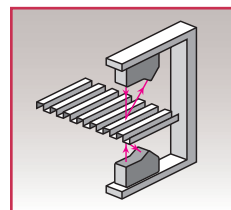
Note 1: Resolution at full bandwidth  
Note 2: Resolution at 128 sample averaging



Oscillation



Material Deflection



Profile

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