

**Designed for Reflective Surfaces**  
**Unprecedented Sub-Micron Resolution**

- Specially designed for mirror to semi-specular surfaces
- 10 micron laser spot for small features
- Optical and electronic design suppresses speckle noise
- Optional video camera simplifies spot alignment and feature measurement setup
- High speed PSD-based specular reflective sensor
- Fast automatic light control for varying surfaces
- Analog and digital outputs
- Rugged industrial packaging
- Control box included

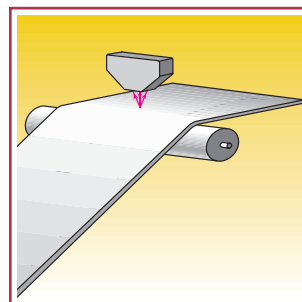
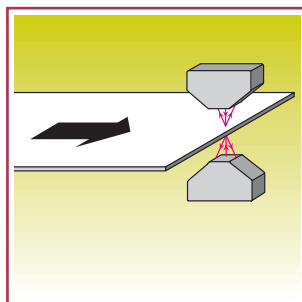
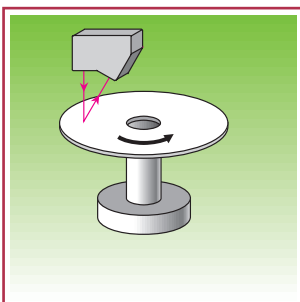
**Options & Accessories**

- Integrated video camera for precise spot location
- User selectable averaging from 1-1024 values for resolution improvement
- +24 V DC power supply unit

**Technical Specification**

Model Number	Measurement Range (MR)	Stand Off (SO)	Offset Distance (OD)	Resolution (Worst Case) <small>Note 1</small>	Resolution (Typical) <small>Note 2</small>	Linearity <small>Note 3</small>	Triangulation Angle at SO	Spot Size at SO
SLS 7001/15	mm	1	14.5	0.00025	0.000025	0.0005	86 deg.	0.010-0.020
	in.	0.04	0.59	0.00001	0.000001	0.00002		

Note 1: Worst Case Resolution - at full bandwidth.  
 Note 2: Typical Resolution - at 128 sample averaging.  
 Note 3: Linearity Specified Using a Mirror Target



# Selcom - SLS 7000

## LASER SOURCE

Laser Class	2 (IEC)	Enclosure	IP 50, NEMA 12	
	II (FDA)	Temperature - operating	°C	0-50
			°F	32-122
Wavelength	Visible Red	Temp. Stability	% of MR / °C	0.01
Lifetime expectancy	hr	Relative humidity	%	<95 non-condensing

## ENVIRONMENTAL

## ELECTRICAL

Power supply voltage	V DC	+18 to +32	Dimensions	mm	120 x 95 x 40
Current draw	mA	<350		in.	4.72 x 3.74 x 1.57
In rush current	A	1 during 50ms	Weight	kg	0.75
Sampling rate	Hz	16 000		lbs.	1.65
Frequency response	Hz	2 000	Cable length to control box	m	1.5
Detector type	PSD			ft.	4

## PHYSICAL

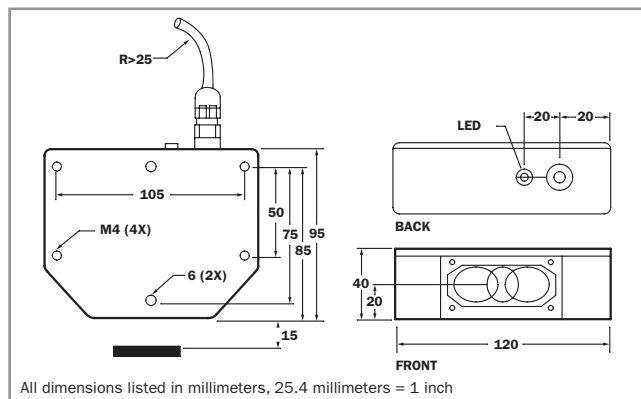
## OUTPUT INTERFACES

Interface analog / digital	0-20mA	4-20mA	RS-232	RS-422	Selcom (Digital)
Data update rate	16 kHz	16kHz	≤100 Hz	≤1 kHz	16 kHz
Max cable length	m	100	15	100	100
	ft.	328	49	328	328

## CONNECTION WIRING (from interface box)

DSUB 15-pin outputs / IP 65 connector

- 1 Receive Data, RS-232
- 3 Clock, Selcom or RS-422
- 4 Clock-inv, Selcom or RS-422
- 5 Data, Selcom or RS-422
- 6 Data-inv, Selcom or RS-422
- 8 Invalid out-
- 9 Transmit Data, RS-232
- 11 Ground
- 12 Invalid out+
- 13 Analog out (0-20mA, 4-20mA)
- 14 Laser ON (+18 to +32V)
- 15 Power (+18 to +32V)
- 2, 7, 10 NC



## 1- YEAR LIMITED WARRANTY

The company will replace or, at the company's option, repair any system or p with respect to such system or parts shall be limited to repair and replacement, F.O.B: our facilities, and in no event shall the company be liable for incidental, consequential or special damages, or for transportation, installation, adjustment or other expenses which may arise in connec including warranties of merchantability and fitness. No waiver, alteration, or modification of the foregoing warranty shall be valid unless made in writing and signed by an executive of the company.

LMI vision sensors are manufactured under one 5,114,230; 5,164,579; 5,362,970; 5,51 foreign patents pending.

[www.lmint.com](http://www.lmint.com)

Complies with FDA performance standards for laser products except for deviations pursuant to Laser Notice No. 50, dated July 26, 2001.

