

# RLS

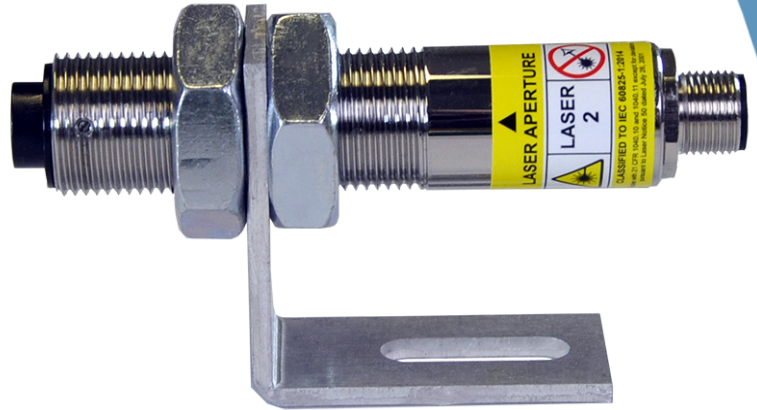
## Rugged Laser Sensor

### Features:

- Measure up to 250,000 RPM
- Rugged IP67 package
- 316L stainless steel housing
- Up to 25 ft. working distance
- Standard TTL pulse output (other outputs available)
- On-Target Indicator
- Includes mounting bracket and hardware
- Includes cable with integrated watertight M12 connector
- Choose flying lead or 1/8" phone plug connection
- Compatible with all Monarch tachometers and stroboscopes

### Common Usage:

- To detect machinery's rotational motion/speed for a wide range of applications where distance to target is large or accidental exposure to water, oil, dust and other contaminants is possible



The RLS Rugged Laser Sensor is based off our hugely popular ROLS Remote Optical Laser Sensor. We've packaged the RLS in a rugged 316L stainless steel IP67 rated enclosure. Although optical speed sensors require a clean environment free of mist, steam, dirt, oil, and other contaminants to function optimally, contamination can occur accidentally. Our Rugged Laser Sensor will survive these unintended episodes. Just clean off the laser and detector windows, and you're up and running again. The RLS utilizes a watertight M12 connector that facilitates easy removal for cleaning. With an operating range of up to 25 feet, the RLS can be used in applications where proximity isn't convenient or safe. The laser light source makes setup incredibly easy. Aim the laser at a reflective tape or high-contrast target, and you're ready to start measuring. The sensor has an On-Target Indicator built-in to confirm that the sensor is detecting the target. The RLS is supplied with a 3 m [9.84 ft.] cable with a choice of tinned flying leads or a 1/8" phone plug connector for use with all of our portable tachometers and stroboscopes. You can also extend the cable length by adding our 25 ft. extension cable.



# RLS Rugged Laser Sensor

Specifications*	RLS Rugged Laser Sensor	Ordering Information
Speed Range	1 - 250,000 RPM	RLS-W 6180-080
Illumination	Visible red laser	Sensor with 3 m cable with tinned wire leads, mounting bracket and 12" of T-5 Reflective Tape (4-15 V dc input power)
Laser Specifications:		RLS-P 6180-081
Classification	Class 2 (per IEC 60825-1:2014) This product complies with IEC60825-1 Ed. 3 and 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50 of June 2007.	Sensor with 3 m cable, 1/8" phone plug, mounting bracket and 12" of T-5 Reflective Tape (4-15 V dc input power)
Laser Output	1 mW max	RLS24-W 6180-082
Laser Operation	Continuous	Sensor with 3 m cable with tinned leads, mounting bracket and 12" of T-5 Reflective Tape (10-24 V dc input power)
Laser Wavelength	650nm (visible red)	RLS24-P 6180-083
Beam Divergence	<18 mrad	Sensor with 3 m cable, 1/8" phone plug, mounting bracket and 12" of T-5 Reflective Tape (10-24 V dc input power)
Beam Diameter	4 x 7 mm typical at 2 m	
Laser Diode Life	8,000 operating hours MTBF (1-year warranty)	
On-Target Indicator	Green LED on tube body - active when pulse present	
Operating Range	Up to 7.6 m [25 ft.] and 60° offset from target	
Power Requirements	RLS-W and RLS-P: 4 - 15 V dc $\pm$ 20% 0.5W RLS24-W and RLS24-P: 10 - 24 V dc $\pm$ 20% 0.5W	
Output	Standard: Open Collector with internal pull up resistor (5600 ohm) to supply voltage; positive pulse when target present Note: On 24 V unit output voltage = input voltage – 5 V.  Optional: Negative pulse, true open collector, 3.3 V output (TTL); contact factory	
Material	Tube: 316L stainless steel Nosepiece: ABS	

\*Specifications are subject to change without notice.

To order, see product's webpage.

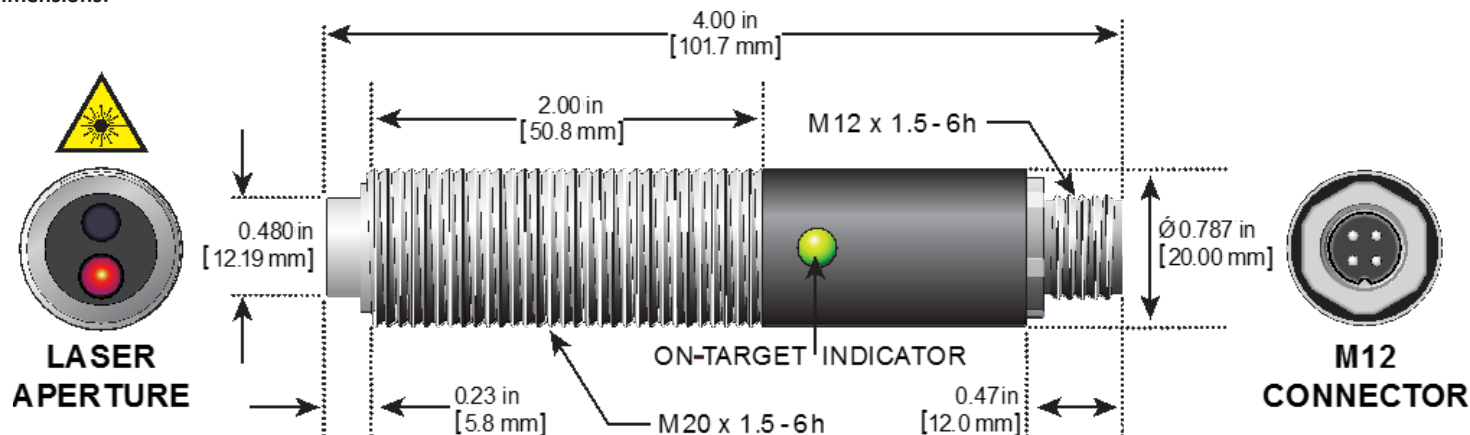


RLS-W



RLS-P

## Dimensions:



RLS 0423



15 Columbia Drive, Amherst NH 03031  
800-999-3390 // 603-883-3390 // Fax 603-886-3300  
[sales@monarchinstrument.com](mailto:sales@monarchinstrument.com)

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