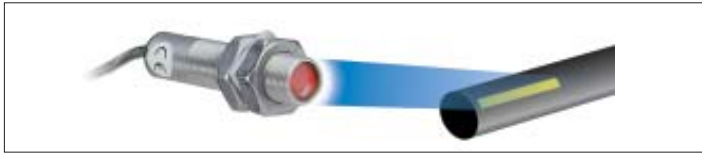


for Tachometer & Stroboscopes or stand alone use



Optical (1-250,000 RPM) Most versatile and popular. CE

ROS (Remote Optical Sensor): Threaded stainless steel remote optical sensors have a visible red LED light source and green LED 'On Target' indicator. Perform over a wide speed range and operating envelope. Modulated and High Temperature versions available.
Common usage: Wide range of general purpose applications in relatively clean environments.



Proximity (1-60,000 RPM) Rugged industrial sensor.

P5-11: A two wire probe style inductive sensor for use up to 0.2 inches (5 mm) from 0.5 inch (12 mm) metallic target such as bolt head or shaft locking key. **Common usage:** Permanent installation in harsh industrial environments. Target is Reflective Tape.



Infrared (1-999,990 RPM) Reliable high speed sensor.

IRS-5W or IRS-5P: Ideal sensor for working 0.5 to 1.0 inch (12 to 25 mm) from high speed equipment or other applications providing only contrasting light and dark surfaces or beam interruption by solid objects.
Common usage: Dentist and other high speed drills, slots or gear teeth. Does not require reflective tape.



Inductive (200-20,000 RPM) Gasoline Engine RPM.

GE-200: Ideal sensor for gasoline engine RPM, working 0.5 to 4.0 inch (12 to 100 mm) from ignition coil or magneto.
Common usage: 2-cycle and 4-cycle gasoline engines.



Magnetic (1-99,999 RPM) Self-powered gear sensor.

M-190W or M190P: Most popular sensor for use with 60 tooth 20 pitch gears. Sensor mounts within 0.005 inches (0.127 mm) of a minimum 0.1 inch (2.5 mm) target. Requires no power from the display module and self-generates an AC signal.
Common usage: Ferrous metals, primarily gear teeth.



Magnetic with Amplifier Module (1-99,999 RPM) Amplifier enhances performance of M-190 magnetic sensor.

MT-190W or MT-190P: Amplifier extends operating gap to 0.25 inches (6.35 mm) from the target. Frequently used on gears as the M-190, but can also sense bolt heads or shaft keys and provides a 0-5V TTL output signal. **Common usage:** Ferrous metals including bolt heads or shaft keys in addition to gear teeth.



CAUTION
 CLASS III LASER PRODUCT
 PEAK POWER 3mW
 WAVELENGTH 650 nm



Laser (1-150,000 RPM) The Ultimate speed sensor!

RLS-5W or RLS-5P: Unmatched capabilities in those difficult applications where other techniques won't work. Operates up to 50 feet (15 m) at 75 degrees from a reflective target, or in some applications, at closer range from contrasting colors. Adjustable sensitivity provides dynamic fine tuning of sensor response.
Common usage: Paper mill felt trade marks, blades, shaft keys or non-metallic targets.

Specifications	ROS W or P	P5-11	IRS-5W or P	M-190W or P	MT-190W or P	RLS-5W or P	GE-200
Operating Distance	3 feet (1 m) and 45° from reflective tape	0.2" (5 mm) from 0.5" (12 mm) metallic target	0.5 to 1.0" (12 to 25 mm) sensing gap	0.005" (0.127 mm) gap or target 0.1" (2.5 mm) minimum	0.25" (6.35 mm) gap or target 0.1" (2.5 mm) minimum	to 50 feet (15 m) and 75° from reflective tape	up to 4 inches (100 mm)
Speed Range	1-250,000 RPM	1-60,000 RPM	1-999,990 RPM	1-99,999 RPM	1-150,000 RPM	200-20K RPM	
Operating Temperature	-10° to 250° F (-23° to 121° C)	-4° to 140° F (-20° to 60° C)	-10° to 212° F (-23° to 100° C)	-100° to 225° F (-73° to 107° C)	-10° to 212° F (-23° to 100° C)	0 to 175° F (-18 to 80° C)	
Power required	3.3 to 15 Vdc @ 45 mA	7.7 to 9 Vdc, 3 mA	5 Vdc, 10 mA	Self Generating	5 Vdc, 4 mA	5 Vdc, 75 mA	5 Vdc, 4 mA
Output Signal	Same as source	Namur (DIN 19 234)	TTL 5-0 Vdc	190V P-P		TTL 5-0 Vdc	
Standard Cable	8 feet (3.5 m)	6 feet (1.8 m)	8 feet (3.5 m)				15 feet (4.7 m)
Dimensions	0.625" x 2.90" (16 x 73 mm)	1.3" (L) x 0.43" (32 x 11 mm)	0.25 x 0.25 x 1.0" (6 x 6 x 25 mm)	2.0" (L) x 0.625" (50 x 16 mm)		4.8" x 2.4" x 1.2" (114 x 62 x 31 mm)	2.16 x 0.82" dia. (55 x 21 mm)

W = tinned wire leads P = 1/8" (3.5 mm) phone plug connector. ROS is available with 8 or 25 foot cable.