

SPSR Self Powered Sensor



The unique **Self-Powered Sensor (SPSR)** provides a TTL compatible pulse output from any of four input sensors: ROLS-P, ROS-P, IRS-P or MT-190P (See pages 15-16 for details). The TTL compatible pulse output is switch selectable as either positive going 0-5V pulses or negative going 5-0V pulses provided on a BNC connector. Internal rechargeable batteries provide 40 hours of operation between charges. For continuous operation, all SPSR configurations can be powered by 115Vac, 230Vac or 9-15Vdc. Self-powered sensors are a critical element for providing one TTL pulse per revolution for vibration analyzers, spectrum analyzers, stroboscopes, data acquisition equipment, tachometers, balancers, waveform analyzers and magnetic tape recorders.

Specifications

Range (RPM):	Same as sensor
Output Signal:	TTL 0-5V or 5-0V (user selectable polarity)
Pulse Width:	Determined by size of target and rotational speed
Output Connector:	BNC connector
Power:	Rechargeable NiMH batteries, 40 hours or continuous with 115/230 Vac supply/recharger or optional 9-15Vdc (cigarette lighter adapter)

Ordering Information

Item	Description	Part No.
SPSR-115/230	SPSR interface module, PSC-2U, ROS-P and 12 inches of T-5 tape	6150-020
SPSR-IM	SPSR interface module, PSC-2U	6150-021

CSLS Compact Smart Laser Sensor



The **Compact Smart Laser Sensor (CSLS)** is a self-contained optical sensor intended to be used to make non-contact speed measurements from rotating targets at distances up to 65 feet (19.8 m). The sensor has both digital pulse and analog outputs to provide non-contact reference points to balancing equipment or signals to a vibration analyzer. The sensor will track surface irregularities on rotating shafts and provide pulse outputs from reflective tape, contrasting colors and keyways. The sensor is IP64 rated and is suitable for use in dusty damp environments. Includes ¼-20 tripod mounting bushing.

Specifications

Optical:	Class 3R (per IEC 60825-1) visible laser 650nm @ 3mW peak power
Operating Range:	Up to 65 feet (19.8m) from T-5 reflective tape
Speed Range:	1-500,000 RPM
Output Signal:	TTL 0-3.0V typical (positive going pulse)
Operating Temp:	32° to 104°F (0° to 40°C)
Dimensions:	5.41(L) x 2.35(W) x 2.14(H) (13.74 x 6.43 x 5.43mm)
Power:	5Vdc ±5% @ 30mA max



Ordering Information

Item	Description	Part No.
CSLS	Compact Smart Laser Sensor, 6 foot power/output cable and 12 inches of T-5 tape	6180-038

SLS Smart Laser Sensor



The **Smart Laser Sensor (SLS)** is an internal battery-powered optical speed sensor utilizing a visible Class 3R Laser for a TTL pulse output. Operating range up to 65 feet (19.8 m) with reflective tape and up to 3 feet (1 m) from contrasting color targets, keyways, bolt heads or blades.

Features

- “Smart” auto gain provides best performance in picking up target reflections
- TTL pulse output signal inverter switch
- Manual sensitivity knob provides dynamic fine tuning of sensor response
- Signal/Pulse/RS232 Output DIN connector port
- External DC power/recharger port for continuous operation (24/7)

Specifications

Optical:	Class 3R (per IEC 60825-1) visible laser 650nm @ 3mW peak power
Operating Range:	Up to 65 feet (19.8m) from T-5 reflective tape
Speed Range:	1-500,000 RPM
Output Signal:	TTL 0-5 or 5-0V (user selectable polarity), RS232
Operating Temp:	32° to 104°F (0° to 40°C)
Dimensions:	5.41(L) x 2.35(W) x 2.14(H) (13.74 x 6.43 x 5.43mm)
Mounting:	¼-20 UNC bushing for tripod



Ordering Information

Item	Description	Part No.
SLS 115/230	Smart Laser Sensor with 115/230 VAC universal power supply/recharger BNC cable, 12 inches of T-5 tape and NIST certificate	6180-022