



MONARCH INSTRUMENT
the professional's choice

ROS-HT-W-25

High Temperature Remote Optical Sensor



SAFEGUARDS AND PRECAUTIONS:



Read and follow all instructions in this instruction sheet carefully, and retain this sheet for future reference.

Do not use this instrument in any manner inconsistent with these operating instructions or under any conditions that exceed the environmental specifications stated.

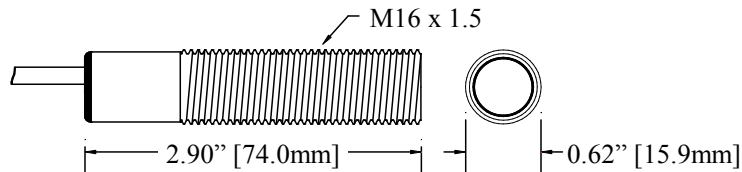
This instrument is not user serviceable. For technical assistance, contact the sales organization from which you purchased the product.

DESCRIPTION:

The High Temperature Remote Optical Sensor has a visible incandescent white light source and can accurately measure speeds from 1-50,000 RPM from a distance of up to 24 inches with a maximum offset angle of 30 degrees from the rotating object. It is ideal for measuring rotational speed in high temperature environments up to 257° F [125° C]. The sensor is housed in a threaded 303 stainless steel tube and supplied with a 90 degree mounting bracket, jam nuts and a 25 foot shielded cable terminated with tinned wires.

SPECIFICATIONS:

Speed Range:	1 to > 50,000 RPM at 24" [0.61 m]
Illumination:	Incandescent lamp
Operating Temp.:	-13° to 257° F [-25° to 125° C]
Operating Range:	up to 24" [0.76 m] and 30 degrees offset from target
Power Requirement:	6 - 24 Vdc @ 40mA
Output Signal:	Positive pulse 0 to input voltage (+V)
Cable Length:	25 feet [7.6 m]
Connection:	Tinned wires
Material:	303 Stainless Steel supplied with two M16 Jam Nuts and Mounting Bracket
Lens:	Glass Pyrex
Dimensions:	Threaded Tube 2.90 in x 0.62 in diameter [M16 x 1.5 x 74 mm] long



CONNECTION DETAIL:

<u>Wire Color</u>	<u>Function</u>	
Red	Positive Power Supply	(+V)
Black	Common	(Com)
White	Signal (0 to + Vdc Pulse)	(Sig)
Shield	Housing Ground	(Gnd)

15 Columbia Drive • Amherst, New Hampshire • USA 03031-2334

TEL: 603-883-3390 • FAX: 603-886-3300 • www.monarchinstrument.com • sales@monarchinstrument.com

OPERATING INSTRUCTIONS:

The ROS-HT-W-25 High Temperature Remote Optical Sensor is capable of detecting a reflected pulse from a target consisting of Reflective Tape at distances of up to 24 inches [0.76 m] from the rotating object and angles up to 30 degrees. For most applications, a ½" [12 mm] square piece of Reflective Tape (T-5) should be applied to a clean area on the rotating object.

NOTE: The T-5 tape supplied with the ROS-HT-W-25 is rated at 175 °F [79.4 °C] for continuous exposure and 250 °F [121 °C] for intermittent exposure (30 minutes). Higher temperature rated tape available upon request.

The Sensor should be mounted and optically aligned to illuminate the target once per revolution. The user must hold "steady" or mount the ROS-HT-W-25 to obtain an accurate measurement. It is recommended that the optical Sensor be placed at a slight angle (15 degrees) from perpendicular, so that the Sensor will receive only pulses from the reflective marker. The ROS-HT-W-25 should be at least 1 inch from the reflective target to avoid false triggering.

The ROS-HT-W-25 will work with all Monarch panel instruments that accept pulse inputs (e.g. ACT Series, F2A Frequency to Analog Converter/Tachometers, DataChart 1250, DataChart 6000).

CAUTION: DO NOT HANDLE SENSOR AT ELEVATED TEMPERATURES.

ACCESSORIES:

T-5	Reflective Tape - 5 foot [1.5 m] roll
T-5WP	Waterproof Reflective Tape - 5 foot [1.5 m] roll
ROS-NUT	Set of two M16 Jam Nuts
ROS-MNT	90° Slotted Mounting Bracket



In order to comply with EU Directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE):

This product may contain material which could be hazardous to human health and the environment. DO NOT DISPOSE of this product as unsorted municipal waste. This product needs to be RECYCLED in accordance with local regulations, contact your local authorities for more information. This product may be returnable to your distributor for recycling - contact the distributor for details.

RoHS Compliant. Meets the safety requirements of EN61010-1. This product is not waterproof.

Monarch Instrument's Limited Warranty applies. See www.monarchinstrument.com for details.

Warranty Registration and Extended Warranty coverage available online at www.monarchinstrument.com.

Monarch Instrument
15 Columbia Drive
Amherst, NH 03031 USA
Phone: (603) 883-3390
Fax: (603) 886-3300

E-mail: support@monarchinstrument.com
Website: www.monarchinstrument.com

1071-4854-313

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