

Features

- Motion sensor: RPM, wheel speed.
- Small size and low power.
- Stainless steel housing
- Water-tight mini sure-seal® connector.

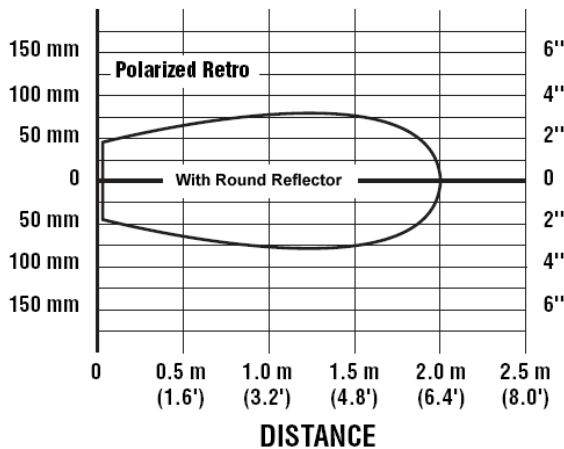
Description

The optical detector sends an infrared beam which is reflected by a polarizing object (adhesive reflective tape supplied). Upon receiving the reflected beam, the detector generates an electrical signal and energizes the indicator LED. The optical detector can be used to sense motion to accurately measure speed.

Two built-in LEDs show the status of the detector.

LED status	Description
Green ON steady	Power is ON
Green flashing	Output overloaded
Yellow ON steady	Light operate (LO) output is energized
Yellow flashing	Excess gain marginal (1-1.5x) in light condition, LO output energized

Beam Pattern:



Installation

- Attach the DTCOP2 to the chassis within 2m of the rotating body.
- Connect the DTCOP2 to a DTC port of the Recorder. Carefully align indexing rib when mating the mini sure-seal® connectors.
- Install the reflective part on the rotating body such that its trajectory intercepts the red beam, emitted by the detector. The reflection angle should be as close as possible to 0°.
- Do not expose the detector to water, oil or fuel.
- Do not install the detector near sources of interference, such as ignition coils, plug leads, electronic modules or antennas.
- Verify that the cable is not pinched or stretched by surrounding moving parts.
- Do not bend cable with curvature radius smaller than 1.60" [40 mm].

Calibration

Refer to Analyzer User Guide to configure the detector

Specifications

Description	Symbol	Min	Typ	Max	Unit
Power Supply					
Input Voltage	V_{in}	10		30	V
Supply Current	I_{in}		30		mA
Operating Temperature	T_{Oper}	-40		70	C
Sensing range		3.5 (0.11)		200 (6.6)	cm (ft)
Output Type			NPN		
Output Response time	T_{res}		1.5		ms
Housing Mechanical Specifications					
Length	L		59.2 (2.33)		mm
Diameter	Dia		18 (0.71)		(in)

DTCOP2 – Optical Detector

