

Comet series Photoelectric sensors



Enhanced optical performance

The Comet® series photoelectric sensor from Eaton has been the performance benchmark for photoeyes in the flat tubular class. A proven design, the Comet family offers a multitude of sensing modes and ranges for most sensing applications. Enhanced Comet models feature longer ranges and enhanced performance characteristics to keep up with demanding OEM needs.

When an OEM considers selection and application of a photoelectric sensor, the 18 mm tubular package is often the best choice as it is compact enough to fit into most applications, while retaining enough lens area for demanding environments that cause smaller sensors to prematurely fail.

Creating a new performance standard

Comet features the most optical power, giving OEMs a much greater margin to keep a machine running reliably.

Comet has a unique housing that completely encapsulates the sensor circuit board in a highly shock and vibration resistant, unitized package.

Comet does not use plastic tubes or snap-together parts sealed with glue like other offerings. These products can be susceptible to leakage or chemical attack on the sealing epoxy. Plus, the Comet package offers threaded mounting and flat sides to give the OEM the greatest possible flexibility to fit the sensor in most applications on the machine.

Product description

The Comet series is a complete line of high-performance, 18 mm tubular sensors with a variety of models and modes to solve virtually any sensing problem.

The sensors are available in thru-beam, reflex, polarized reflex, diffuse reflective, focused diffuse reflective, wide angle diffuse reflective, Perfect Prox®, fine spot Perfect Prox and fiber optic sensing. Perfect Prox is one of the most powerful problem-solving sensors available. These sensors can reliably detect targets of different color, reflectance, contrast or surface shape at the same range, while ignoring background objects just a fraction of an inch away.

The Comet series includes AC/DC and DC-only models with two-, three- and four-wire circuitry. Choose from cable or micro-connector. Mini-connectors are available on two-wire models for easy retrofit. Each sensor features a light/dark operation switch and a gain control to provide for quick adjustment to peak optical performance.

The unique threaded body with flat sides allows quick mounting in a 3/4-inch hole or against any flat surface. Internal components are rigidly sealed in a solid encapsulated package for excellent performance in high-vibration and high-shock applications.

EATON

Powering Business Worldwide

Features

- Industry standard 18 mm diameter threaded body has flat sides, allowing it to be mounted like a tubular sensor or against any flat surface
- Right-angle viewing models mount in a depth of only 3/8 of an inch
- Perfect Prox technology provides exceptional background rejection and application problem-solving
- Visible sensing beams let you see where the beam is aimed for quick setup and alignment
- Solid polyurethane housing completely encapsulates internal circuits for high resistance to shock and vibration
- Adaptable modulation circuit provides immunity to crosstalk from other closely mounted sensors
- The industry's only background rejection sensors with a two-wire circuit design
- Models available with both AC and DC operation in a single unit—up to 264 Vac
- Four-wire DC sensors offer both NPN and PNP outputs
- Output status indicator is visible from a wide 270° angle

Standards and certifications

- UL® recognized
- cUL® recognized
- CE (except two-wire DC models)

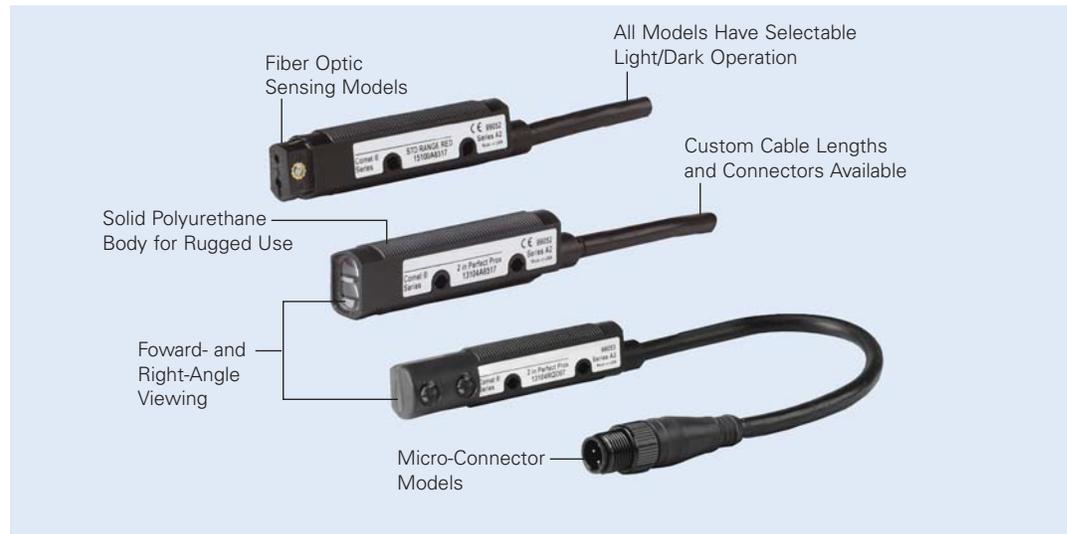
⚠ WARNING

UNLESS OTHERWISE NOTED, THE PRODUCTS CONTAINED IN THIS DOCUMENT ARE NOT DESIGNED OR INTENDED FOR USE IN HUMAN SAFETY APPLICATIONS.

Competitive performance and feature comparison

Sensing Mode/Feature	A-B	Banner	Eaton	Omron	P+F	Sick	SqD
Thru-beam	—	65.6 feet	82 feet 98.4 feet 250 feet	13.1 feet	98.4 feet	75.5 feet	41 feet
Polarized reflex	9.2 feet	6.6 feet	15 feet	13.1 feet	4.9 feet	8.2 feet	6.6 feet
Reflex	23.6 feet	6.6 feet	25 feet	8.2 feet	13.1 feet	10.7 feet	8.2 feet
Standard diffuse	36 inches	12 inches	25 inches 36 inches	16 inches	16 inches	16 inches	12 inches
Background suppression	1/2 inch 1 inch 2 inches	1 inch 2 inches 4 inches	2 inches 4 inches 6 inches 9 inches 12 inches	4 inches	2 inches 4 inches 9 inches	4 inches	3 inches
Clear object detector	—	—	Yes	—	Yes	—	Yes
Fiber optic	—	—	Yes	—	—	—	—
Fine spot PP	—	—	Yes	—	—	—	—

Note: Bolded values denote best in class.



Comet Series

Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

© 2013 Eaton
All Rights Reserved
Printed in USA
Publication No. PA05305003E / Z13424
June 2013

Eaton is a registered trademark.

All other trademarks are property of their respective owners.