Built sensor tough

Eaton's complete line of sensing technologies

Powering Business Worldwide

More than just products—real solutions to tough applications

Eaton offers sensor solutions in inductive, photoelectric and capacitive designs, as well as mechanical limit switches, proximity sensors and even electrical current/voltage switches. Regardless of whether the application is in the machine building sector, packaging technology, the food industry or materials handling, Eaton sensor solutions are used wherever target positions have to be measured accurately and reliably.

Eaton delivers what you should expect from a business partner: quick answers, durable products and intelligent solutions.
A partner who understands that building a good relationship is just as important as supplying the right products—that partner is Eaton.

Inductive sensors—the standard for industrial applications

A range of products for every situation

Inductive proximity sensors are rugged products for detecting the presence of metal objects. Eaton provides five different product families in cylindrical, cube or pancake designs in a variety of sizes. The product range starts with the OEM-focused E57G General Purpose Series and goes up to the extreme performance of E56 high-noise immunity for the most challenging application environments.

E52 Series and E56 Series—long sensing ranges in industry-standard sizes

The E52 cube sensors and the E56 pancake sensors offer maximum sensor performance in industry-standard housing sizes. Several housing styles are available. All models include the best potting compound in their class, making them shock resistant and moisture repellent. Both product series are protected to IP66/67. Both the E52 Series and the E56 Series use auto-configure output technology on their DC models. This allows the sensor to automatically adapt to their wiring connection—either NPN (sinking) or PNP (sourcing).

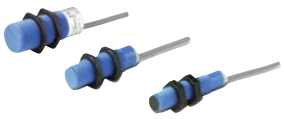
E57P, E57PS, E57G—durable, reliable and safe inductive sensing

Eaton E57P Performance Series, E57PS Short Body Series and E57G General Purpose Series inductive proximity sensors feature a rugged stainless-steel body, shock-resistant front cap, impact-absorbing potting compound and unmatched noise immunity. The E57G was created with high volume OEMs in mind, optimized to include the functions necessary for basic, reliable sensing. The E57P and E57PS offer customers a wider operating voltage and temperature range, higher noise immunity and a more robust environmental rating.

iProx Series—for customized performance

The iProx represents the highest performance, most versatile tubular inductive sensor offered by Eaton. By utilizing an embedded microprocessor and exclusive SmartSense™ technology, iProx can sense up to three times farther than typical sensors of its class, while providing an unmatched level of customization via ProxView™ software.

Capacitive sensors



E53 Series — versatile sensing

The capacitive sensors with 18 or 30 millimeter plastic housings can detect both non-metallic and metallic objects.

DC and AC types are available, as well as NPN or PNP connection types. An LED shows the output status (active, inactive). They can be supplied as required with a cable or with a standard M12 connector.

Safety switches

RS and LS—safety rated

The RS non-contact door interlock is magnetically coded to ensure tamper-proof barrier sensing. Featuring reversible mounting, cable/connector models, side or rear exit models, and two industry standard sizes, these switches are sure to fit the customer's application.

Eaton's LS-Titan safety interlock switches have been specifically designed for monitoring the position of protective guards, such as doors, flaps, hoods and grilles. The switches in this family cannot be defeated using simple tools, such as pliers, screwdrivers and nails.

Mechanical limit switches—proven and reliable

LS-Titan IEC—metal or plastic

Mechanical limit switches are used wherever positions have to be indicated simply and reliably, and safety-rated versions are available for use where a safety disconnect is required to protect people from dangerous machinery. The LS-Titan switches are available in either plastic or a rugged metal design. Exchangeable operating heads enable use in a wide range of applications. Solenoid-operated versions are available for locking safety applications.

E50 NEMA—robust quality

The E50 NEMA-style limit switch with metal housing and unmatched mechanical sealing properties is specially designed for use in aggressive environments. The modular design of the E50 using a common receptacle for the wiring base and offering different and interchangeable switch bodies and operating heads makes installation, reconfiguration and replacement simple. Heavy-duty factory-sealed versions are specifically designed to withstand the penetrating properties of cutting fluids and coolants, such as those used in the automotive industry, as well as extreme shock, vibration and temperature fluctuations.

Photoelectric sensors—versatility with light

Optical sensors—with Perfect Prox technology

Photoelectric sensors come in several product series to meet a wide range of different requirements. Different optical modes are available in every product range—retroreflective, polarized reflex, thru-beam, diffuse and Perfect Prox® modes.

Sensors with Perfect Prox technology provide the user with a highly convenient technology for background rejection. Simply place in the right position, and the sensor will scan all target objects reliably, irrespective of the color, reflectance, contrast or surface shape, while background objects outside the target range are ignored. With more than 30 Perfect Prox models available, there is always one that optimally suits your application.

Comet Series—for unmatched versatility

The Comet® Series offers everything required of a photoelectric sensor line. All optical modes are provided, and even fiber-optic and clear-object detection models are available.

To ensure a simple and flexible setup, the sensors offer visible light beams, light or dark operation, gain adjustment, short-circuit protection, optical crosstalk immunity, and a host of wiring and electrical configurations. An 18 millimeter diameter polyurethane housing completely encapsulates the internal electronics. This design offers outstanding protection from moisture (IP67) and chemicals, as well as from severe vibration and shock.

E58 Series—sealed to perfection

The 18 or 30 millimeter stainless steel housings of the E58 Series were specially designed to prevent leakage problems. The housing materials and its proven mechanical seal make it a sensor that is well-suited to high pressure, high temperature washdown or steam cleaning. The products of this series are resistant to cleaning chemicals, lubricants, coolants and similar substances. In addition to its rugged design, the E58 Series offers unmatched optical performance for reliable detection in harsh environments, as well as a high resistance to vibration and shock. Whether the critical requirement is the long range of a thru-beam or reflex sensor, or the precise background rejection of Perfect Prox technology, the E58 always masters the task it is given.

Models with two-, three- or four-wire circuits, DC or AC, NPN or PNP output, cable or plug connections make it possible to meet any requirements.

SM Series—with TargetLock

The SM Series ensures the most convenient setup possible and is designed for optimum performance in a compact size. The microprocessor-controlled TargetLock™ system ensures fast sensor setup. The LED on the top of the sensor changes from OFF to short flash, long flash and finally solid ON as you approach the optimum operating point of the thru-beam, polarized reflex or diffuse reflective alignment. With TargetLock, lengthy installation times can be reduced.

The LED gives early warning of any vibration or any dust on the lens before the fault affects the entire system.

Current and voltage sensors—measure true rms current with analog outputs

CurrentWatch™ products are perfect for providing improved reliability, predictive diagnostics, feedback and monitoring for all types of electrical equipment. Simply run a conductor wire through the sensing aperture, wire the outputs to your controller, and installation is complete. With features such as split-core housings that wrap around existing wires, industry-standard outputs and self-powered models available, sensing current has never been easier.

The EVT Series VoltageWatch™ products are high-performance true rms sensors for detecting voltage in single- and three-phase installations up to 480 V.

Accessories—solutions for fixing and cabling

An extensive range of mounting brackets is available for securing sensors. Furthermore, preassembled cables are also available with different lengths and connectors, as well as fiber-optic cables.

The multi-sensor terminal blocks offer a simple and safe way to connect 4, 6 or 8 sensors to a controller in one go. Together with the above-mentioned cable solutions, a system can be connected up very quickly—saving time and money. To simplify installation and troubleshooting, LEDs show the state of the power supply and the output status for each channel. The terminal blocks come in a robust design for withstanding extreme temperatures (75 °C) and vibration, as well as for applications requiring protection up to IP68.

We make what matters work.*

* At Eaton, we believe that power is a fundamental part of just about everything people do. Technology, transportation, energy and infrastructure—these are things the world relies on every day. That's why Eaton is dedicated to helping our customers find new ways to manage electrical, hydraulic and mechanical power more efficiently, safely and sustainably. To improve people's lives, the communities where we live and work, and the planet our future generations depend upon. Because that's what really matters. And we're here to make sure it works.

See more at Eaton.com/whatmatters

For more information, visit

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Printed in USA
Publication No. BR053004EN / Z24257
September 2020

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