iProx Sensors

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Product Description

The iProx represents the highest performance, most versatile tubular inductive sensor offered by Eaton's Electrical Sector. By utilizing an embedded micro-processor and exclusive SmartSense™ technology, iProx can sense up to three times farther than typical sensors of its class, while providing an unheard-of level of customization.

Both shielded and unshielded versions of iProx feature extended sensing ranges. This allows the sensor to be mounted farther from the target, thereby reducing the potential for target impacts and increasing the sensing reliability of your application.

The iProx also includes a wide range of advanced features that can be enabled via optional programming tools. Using the ProxView Windows-based software package, an entirely custom sensor can be programmed to perfectly fit an application.

Sensor characteristics, such as sensing range, can be customized down to the nearest tenth of a millimeter. Outputs can be changed from NO to NC. The iProx even features built-in timing delays and speed detection logic—no PLC programming is necessary.

With extended sensing range, quality construction and the ability to adapt to its environment, iProx is the ideal choice for even the most demanding inductive sensing applications.

Application Description

Typical Applications

- Automotive
- Machine tool
- Material handling
- Metalworking

Features

- Available in AC two-wire, DC three-wire and unique DC four-wire with complementary (NO-NC) or dual NO outputs
- Reliably detect metal targets at up to three times the range of conventional shielded or unshielded tubular inductive sensors
- Quality construction using a stainless steel barrel, 360-degree dual-color LED indicator, Ryton® impact-resistant face cap and vibration-absorbing potting compound
- Auto-configure technology automatically detects a sinking (NPN) or sourcing (PNP) connection and switches the sensor accordingly, without any user intervention
- Exclusive SmartSense embedded microprocessor technology allows for customizable range, band sensing, nuisance metal rejection, timing delays and over/under speed detection
- Optional computer programming cable and Windows-based ProxView configuration software makes it easy to customize sensors
- Withstands high electrical noise (up to 20 V/m)
- Resistant to extreme temperatures (–40 °F [–40 °C])

Standards and Certifications

- cUL Listed
- CE

c UL Listed

CE

⚠ DANGER

THIS SENSOR IS NOT A SAFETY DEVICE AND IS NOT INTENDED TO BE USED AS A SAFETY DEVICE. This sensor is designed only to detect and read certain data in an electronic manner and perform no use apart from that, specifically no safety-related use. This sensor product does not include self-checking redundant circuitry, and the failure of this sensor product could cause either an energized or de-energized output condition, which could result in death, serious bodily injury, or property damage.

For the most current information on this product, visit our Web site: www.eaton.com

For Customer Service in the U.S. call 1-877-ETN CARE (386-2273), in Canada call 1-800-268-3578.
For Application Assistance in the U.S. and Canada call 1-800-426-9184.

Product Selection

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Note: Custom iProx models can also be ordered directly from the factory with pre-set ranges, outputs and connectors. Consult the Eaton Application Engineers at 1-800-426-9184 for more information.

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Two-Wire Sensors

	Operating Voltage	Sensing Range	Shielding	Connection Type ①	NO Output Catalog Number ②	NC Output Catalog Number ②
Standard Range	**12 mm Diameter**					
	20–132 Vac	4 mm	Shielded	3-pin micro AC connector	**E59-M12A105A01-A1** ♣	**E59-M12A105A01-A2** ♣
				3-pin micro AC pigtail ③	**E59-M12A105A01P-A1** ♣	**E59-M12A105A01P-A2** ♣
				3-pin mini AC pigtail ③	**E59-M12A105A01PB-A1** ♣	**E59-M12A105A01PB-A2** ♣
				2-meter cable	**E59-M12A105C02-A1**	**E59-M12A105C02-A2**
Extended Range		10 mm	Unshielded	3-pin micro AC connector	**E59-M12C110A01-A1** ♣	**E59-M12C110A01-A2** ♣
				3-pin micro AC pigtail ③	**E59-M12C110A01P-A1** ♣	**E59-M12C110A01P-A2** ♣
				3-pin mini AC pigtail ③	**E59-M12C110A01PB-A1** ♣	**E59-M12C110A01PB-A2** ♣
				2-meter cable	**E59-M12C110C02-A1**	**E59-M12C110C02-A2**
Standard Range	**18 mm Diameter**					
	20–132 Vac	8 mm	Shielded	3-pin micro AC connector	**E59-M18A109A01-A1** ♣	**E59-M18A109A01-A2** ♣
				3-pin micro AC pigtail ③	**E59-M18A109A01P-A1** ♣	**E59-M18A109A01P-A2** ♣
				3-pin mini AC pigtail ③	**E59-M18A109A01PB-A1** ♣	**E59-M18A109A01PB-A2** ♣
				2-meter cable	**E59-M18A109C02-A1**	**E59-M18A109C02-A2**
Extended Range		18 mm	Unshielded	3-pin micro AC connector	**E59-M18C118A01-A1** ♣	**E59-M18C118A01-A2** ♣
				3-pin micro AC pigtail ③	**E59-M18C118A01P-A1** ♣	**E59-M18C118A01P-A2** ♣
				3-pin mini AC pigtail ③	**E59-M18C118A01PB-A1** ♣	**E59-M18C118A01PB-A2** ♣
				2-meter cable	**E59-M18C118C02-A1**	**E59-M18C118C02-A2**
Standard Range	**30 mm Diameter**					
	20–132 Vac	15 mm	Shielded	3-pin micro AC connector	**E59-M30A115A01-A1** ♣	**E59-M30A115A01-A2** ♣
				3-pin micro AC pigtail ③	**E59-M30A115A01P-A1** ♣	**E59-M30A115A01P-A2** ♣
				3-pin mini AC pigtail ③	**E59-M30A115A01PB-A1** ♣	**E59-M30A115A01PB-A2** ♣
				2-meter cable	**E59-M30A115C02-A1**	**E59-M30A115C02-A2**
Extended Range		29 mm	Unshielded	3-pin micro AC connector	**E59-M30C129A01-A1** ♣	**E59-M30C129A01-A2** ♣
				3-pin micro AC pigtail ③	**E59-M30C129A01P-A1** ♣	**E59-M30C129A01P-A2** ♣
				3-pin mini AC pigtail ③	**E59-M30C129A01PB-A1** ♣	**E59-M30C129A01PB-A2** ♣
				2-meter cable	**E59-M30C129C02-A1**	**E59-M30C129C02-A2**

Notes

♣ See listing of compatible connector cables on **Page V8-T3-15**.

① For sensors with custom cable lengths or PUR jackets, contact Application Engineering at 1-800-426-9184.

② Sensors are ordered with pre-set outputs from the factory, but can be later programmed either NO or NC using the ProxView software.

③ Standard pigtail cable length is 12 in.