

Fully Automated Reliability

PROXIMITY SENSORS

E2A - double distance as standard



Advanced Industrial Automation

OMRON



Omron's E2A series of proximity sensors is designed to provide highly reliable detection of ferrous metal objects. What's unique about these sensors is their construction; Omron has developed a fully automated process that enables these sensors to be produced in a modular way, and which guarantees the highest level of reliability available. And because these sensors are modular in design, Omron can satisfy customer application requirements faster and cost-effectively!

Best-in-class sensors, modular for total solutions!

Housed in metal cylinders, the E2A sensors are available in a full range of standard sizes (M8, M12, M18 and M30, both long and short-barrelled) and with a full range of standard connections (pre-wired, M8 and M12 connectors). Their tough construction and reliability make these sensors ideal for use in diverse applications such as automotive manufacturing, packaging process machines, commercial vehicles and materials handling.



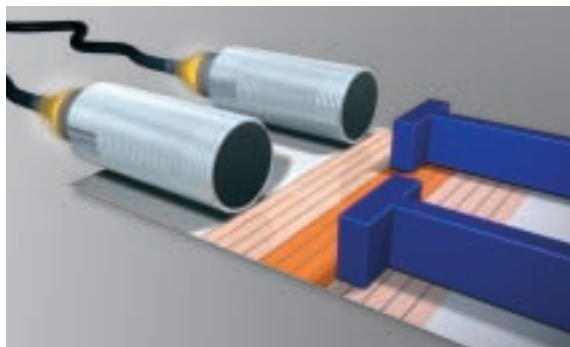


Features at a glance!

- **Standard double sensing distance**
- **Full range of standard sizes (M8, M12, M18, M30, both long and short barrel)**
- **Full range of standard connections (pre-wired, M8 and M12 connector)**
- **Modular construction enables the following specifications to be customised: DC 2-wire output, cable length, cable construction (using various materials like PVC, PUR, Halon-free cabling, and in different strands), voltage range, sensing distance, housing size and material**
- **Laser marking for durable identification**

Double sensing distance increases reliability...

E2A proximity sensors deliver a double distance sensing range capability as standard. This helps to protect against mechanical damage from the machine and moving parts while allowing the E2A to deliver very reliable sensing, even with a build-up of contamination on the sensing face.



... and saves space!

The increased sensing distance of these switches enables you to choose a smaller sized model for the same sensing application! This is very beneficial in machine construction where component size reduction is an important factor.

Fully automated production process

Omron has developed a unique, fully automated process for producing the E2A series that offers many benefits. The sensors are constructed in a modular fashion from four main sections – the sensing module, the output module, the body and the connector. By doing this Omron can adapt the product quickly to suit customised specifications. Product calibration is much higher, tolerances are much tighter, and the manufacturing process is much more efficient. All of which results in a very high quality, cost-effective product!

LED indicator for easy mounting

Each E2A proximity sensor features a LED-mounting facility that enables you to install the sensor quickly, and within the optimal range of the sensing distance.

Reliability – part of the process

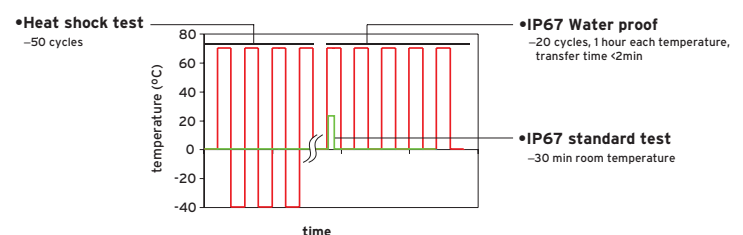
As a pioneer of proximity sensor technology, Omron's product reliability is unrivalled. All E2A sensors are designed to handle temperature conditions ranging from -40°C to $+70^{\circ}\text{C}$, and their ability to withstand temperature extremes in water enables them to easily meet IP67 specifications.

Innovation – an ongoing process

Omron's unique modular construction process has opened up many new possibilities. The company is developing sensors with triple-distance capabilities, aluminium barrels, sensors that connect directly to power lines, and teflon-coated models for use in hazardous environments. All of this is possible with Omron's unique modular construction process!

An environmentally aware company

Omron prides itself on environmental awareness. Lead-free soldering is already a state-of-the-art soldering process for Omron. In addition, packaging material is reduced to a minimum and can be recycled easily.



Even standard proximity sensors have to pass the heat-shock and waterproof test. After 50 cycles of temperature variation from -40°C to $+70^{\circ}\text{C}$, the sensor is submerged alternately in ice-cold and hot water for 20 cycles. Their ability to handle such severe temperature stress proves that these proximity sensors can easily meet the IP67 test.

An overview of Omron's standard range of proximity sensors.

Many additional versions are available in our catalogue. Contact your Omron sales representative for more details.

Size		Sensing distance	Connection	Short barrel	Long barrel
M8	shielded	2.0 mm	Pre-wired	E2A-S08KS02-WP-B1 2M	E2A-S08LS02-WP-B1 2M
			M12-connector	E2A-M08KS02-M1-B1	E2A-M08LS02-M1-B1
			M8-connector	E2A-S08KS02-M5-B1	E2A-S08LS02-M5-B1
	Non-shielded	4.0 mm	Pre-wired	E2A-S08KN04-WP-B1 2M	E2A-S08LN04-WP-B1 2M
			M12-connector	E2A-M08KN04-M1-B1	E2A-M08LN04-M1-B1
			M8-connector	E2A-S08KN04-M5-B1	E2A-S08LN04-M5-B1
M12	shielded	4.0 mm	Pre-wired	E2A-M12KS04-WP-B1 2M	E2A-M12LS04-WP-B1 2M
			M12-connector	E2A-M12KS04-M1-B1	E2A-M12LS04-M1-B1
	Non-shielded	8.0 mm	Pre-wired	E2A-M12KN08-WP-B1 2M	E2A-M12LN08-WP-B1 2M
			M12-connector	E2A-M12KN08-M1-B1	E2A-M12LN08-M1-B1
M18	shielded	8.0 mm	Pre-wired	E2A-M18KS08-WP-B1 2M	E2A-M18LS08-WP-B1 2M
			M12-connector	E2A-M18KS08-M1-B1	E2A-M18LS08-M1-B1
	Non-shielded	16.0 mm	Pre-wired	E2A-M18KN16-WP-B1 2M	E2A-M18LN16-WP-B1 2M
			M12-connector	E2A-M18KN16-M1-B1	E2A-M18LN16-M1-B1
M30	shielded	15.0 mm	Pre-wired	E2A-M30KS15-WP-B1 2M	E2A-M30LS15-WP-B1 2M
			M12-connector	E2A-M30KS15-M1-B1	E2A-M30LS15-M1-B1
	Non-shielded	30.0 mm	Pre-wired		E2A-M30LN30-WP-B1 2M
			M12 connector		E2A-M30LN30-M1-B1

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