Cylindrical Proximity Sensor

E2B

Perfect fit for standard environments

- Embody two seemingly contradictory characteristics: value-for-money and high reliability
- All 372 Models
- Four different sizes: M8, M12, M18 and M30
- Single and double sensing distances, Shielded and unshielded
- A choice of short and long bodies, two connecting methods and four output types
- Operating temperature: –25ºC to 70ºC
- Water resistance: IP67
- With an all-round 360º visible indicator

Refer to *Safety Precautions* on page 20.

For the most recent information on models that have been certified for safety standards, refer to your OMRON website.

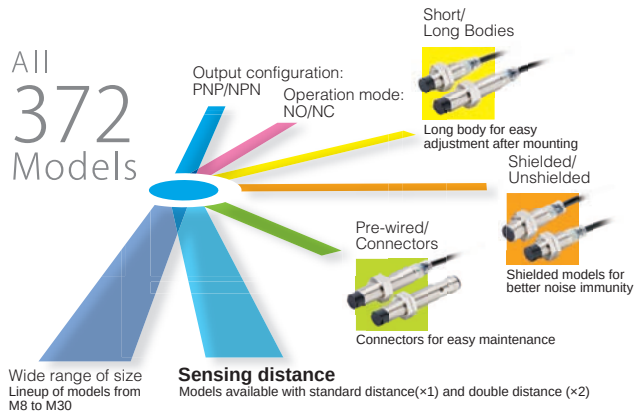
Features

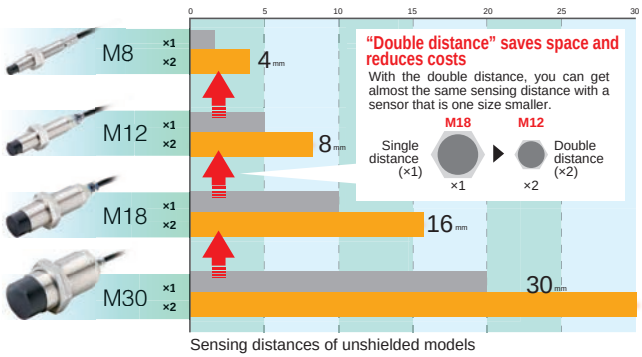
Wide Variation

"Double Distance" Close at Hand

Perfect Fit to Your Application Needs

With no less than 372 models in the family.
You can choose the one that exactly meets your needs.
E2B series can save cost & your time via single source.





Sensing distances of unshielded models

Reliable Performance

360-degree indication

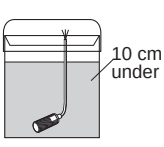
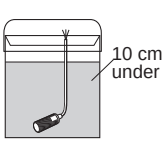
Easy visibility for 360º even in dark locations so you can mount the sensor in any direction.

* The 360-degree indication is only for Pre-wired Models of M12, M18, and M30.
* The other models (Pre-wired Models of M8 and all the Connector Models) have 4 LEDs at 90-degree intervals, which realize clear visibility from a 360-degree angle.

Oil-mist environment resistant!

IP67

We have performed not only a specified test for rating the degree of protection (IP67) for catalogs, but also tests with oil mist which appears onsite. Simulation tests has been performed with attachment of high concentration of oil mist.

Degree of Protection	E2B	E2E (M8/M12/M18/ M30 size)	Small Dia E2E (3 dia./4 dia./ 6.5 dia/M4/M5)
Water resistance	IP67	IP67 IP69K *1	IP67
Oil resistance	In oil-mist of soluble cutting oil diluted, 250 hours, the temperature of atmosphere is 23ºC 	Soaked in oil (soluble type and insoluble) 500 hours, temperature of oil 50ºC 	Soaked in insoluble oil 250 hours, temperature of oil 50ºC 

*1. There are so many kinds of E2E, not all IP69K rated. In detailed part#, please contact your OMRON representative.

Ordering Information

Size			Sensing distance	Connecting method (See note 1.)	Body length	Output configuration	Operation mode NO	Operation mode NC
M8 (Stainless steel) (See note 2.)	Single	Shielded	1.5 mm	Pre-wired	Short	PNP	E2B-S08KS01-WP-B1 2M	E2B-S08KS01-WP-B2 2M
						NPN	E2B-S08KS01-WP-C1 2M	E2B-S08KS01-WP-C2 2M
					Long	PNP	E2B-S08LS01-WP-B1 2M	E2B-S08LS01-WP-B2 2M
						NPN	E2B-S08LS01-WP-C1 2M	E2B-S08LS01-WP-C2 2M
				M8 Connector (3-pin)	Short	PNP	E2B-S08KS01-MC-B1	E2B-S08KS01-MC-B2
						NPN	E2B-S08KS01-MC-C1	E2B-S08KS01-MC-C2
					Long	PNP	E2B-S08LS01-MC-B1	E2B-S08LS01-MC-B2
						NPN	E2B-S08LS01-MC-C1	E2B-S08LS01-MC-C2
		Unshielded	2 mm	Pre-wired	Short	PNP	E2B-S08KN02-WP-B1 2M	E2B-S08KN02-WP-B2 2M
						NPN	E2B-S08KN02-WP-C1 2M	E2B-S08KN02-WP-C2 2M
					Long	PNP	E2B-S08LN02-WP-B1 2M	E2B-S08LN02-WP-B2 2M
						NPN	E2B-S08LN02-WP-C1 2M	E2B-S08LN02-WP-C2 2M
				M8 Connector (3-pin)	Short	PNP	E2B-S08KN02-MC-B1	E2B-S08KN02-MC-B2
						NPN	E2B-S08KN02-MC-C1	E2B-S08KN02-MC-C2
					Long	PNP	E2B-S08LN02-MC-B1	E2B-S08LN02-MC-B2
						NPN	E2B-S08LN02-MC-C1	E2B-S08LN02-MC-C2
	Double	Shielded	2 mm	Pre-wired	Short	PNP	E2B-S08KS02-WP-B1 2M	E2B-S08KS02-WP-B2 2M
						NPN	E2B-S08KS02-WP-C1 2M	E2B-S08KS02-WP-C2 2M
					Long	PNP	E2B-S08LS02-WP-B1 2M	E2B-S08LS02-WP-B2 2M
						NPN	E2B-S08LS02-WP-C1 2M	E2B-S08LS02-WP-C2 2M
				M8 Connector (3-pin)	Short	PNP	E2B-S08KS02-MC-B1	E2B-S08KS02-MC-B2
						NPN	E2B-S08KS02-MC-C1	E2B-S08KS02-MC-C2
					Long	PNP	E2B-S08LS02-MC-B1	E2B-S08LS02-MC-B2
						NPN	E2B-S08LS02-MC-C1	E2B-S08LS02-MC-C2
		Unshielded	4 mm	Pre-wired	Short	PNP	E2B-S08KN04-WP-B1 2M	E2B-S08KN04-WP-B2 2M
						NPN	E2B-S08KN04-WP-C1 2M	E2B-S08KN04-WP-C2 2M
					Long	PNP	E2B-S08LN04-WP-B1 2M	E2B-S08LN04-WP-B2 2M
						NPN	E2B-S08LN04-WP-C1 2M	E2B-S08LN04-WP-C2 2M
				M8 Connector (3-pin)	Short	PNP	E2B-S08KN04-MC-B1	E2B-S08KN04-MC-B2
						NPN	E2B-S08KN04-MC-C1	E2B-S08KN04-MC-C2
					Long	PNP	E2B-S08LN04-MC-B1	E2B-S08LN04-MC-B2
						NPN	E2B-S08LN04-MC-C1	E2B-S08LN04-MC-C2

Note: 1. Pre-wired Models are available in the cable lengths of 2 m and 5 m.
2. Material specifications for stainless steel housing case: 1.4305 (W.-No.), SUS 303 (AISI), 2346 (SS).

Size			Sensing distance	Connecting method (See note 1.)	Body length	Output configuration	Operation mode NO	Operation mode NC
M12 (Brass)	Single	Shielded	2 mm	Pre-wired	Short	PNP	E2B-M12KS02-WP-B1 2M	E2B-M12KS02-WP-B2 2M
						NPN	E2B-M12KS02-WP-C1 2M	E2B-M12KS02-WP-C2 2M
					Long	PNP	E2B-M12LS02-WP-B1 2M	E2B-M12LS02-WP-B2 2M
						NPN	E2B-M12LS02-WP-C1 2M	E2B-M12LS02-WP-C2 2M
				M12 Connector	Short	PNP	E2B-M12KS02-M1-B1	E2B-M12KS02-M1-B2
						NPN	E2B-M12KS02-M1-C1	E2B-M12KS02-M1-C2
					Long	PNP	E2B-M12LS02-M1-B1	E2B-M12LS02-M1-B2
						NPN	E2B-M12LS02-M1-C1	E2B-M12LS02-M1-C2
		Unshielded	5 mm	Pre-wired	Short	PNP	E2B-M12KN05-WP-B1 2M	E2B-M12KN05-WP-B2 2M
						NPN	E2B-M12KN05-WP-C1 2M	E2B-M12KN05-WP-C2 2M
					Long	PNP	E2B-M12LN05-WP-B1 2M	E2B-M12LN05-WP-B2 2M
						NPN	E2B-M12LN05-WP-C1 2M	E2B-M12LN05-WP-C2 2M
				M12 Connector	Short	PNP	E2B-M12KN05-M1-B1	E2B-M12KN05-M1-B2
						NPN	E2B-M12KN05-M1-C1	E2B-M12KN05-M1-C2
					Long	PNP	E2B-M12LN05-M1-B1	E2B-M12LN05-M1-B2
						NPN	E2B-M12LN05-M1-C1	E2B-M12LN05-M1-C2
	Double	Shielded (See note 2.)	4 mm	Pre-wired	Short	PNP	E2B-M12KS04-WP-B1 2M	E2B-M12KS04-WP-B2 2M
						NPN	E2B-M12KS04-WP-C1 2M	E2B-M12KS04-WP-C2 2M
					Long	PNP	E2B-M12LS04-WP-B1 2M	E2B-M12LS04-WP-B2 2M
						NPN	E2B-M12LS04-WP-C1 2M	E2B-M12LS04-WP-C2 2M
				M12 Connector	Short	PNP	E2B-M12KS04-M1-B1	E2B-M12KS04-M1-B2
						NPN	E2B-M12KS04-M1-C1	E2B-M12KS04-M1-C2
					Long	PNP	E2B-M12LS04-M1-B1	E2B-M12LS04-M1-B2
						NPN	E2B-M12LS04-M1-C1	E2B-M12LS04-M1-C2
		Unshielded	8 mm	Pre-wired	Short	PNP	E2B-M12KN08-WP-B1 2M	E2B-M12KN08-WP-B2 2M
						NPN	E2B-M12KN08-WP-C1 2M	E2B-M12KN08-WP-C2 2M
					Long	PNP	E2B-M12LN08-WP-B1 2M	E2B-M12LN08-WP-B2 2M
						NPN	E2B-M12LN08-WP-C1 2M	E2B-M12LN08-WP-C2 2M
				M12 Connector	Short	PNP	E2B-M12KN08-M1-B1	E2B-M12KN08-M1-B2
						NPN	E2B-M12KN08-M1-C1	E2B-M12KN08-M1-C2
					Long	PNP	E2B-M12LN08-M1-B1	E2B-M12LN08-M1-B2
						NPN	E2B-M12LN08-M1-C1	E2B-M12LN08-M1-C2

Note: 1. Pre-wired Models are available in the cable lengths of 2 m and 5 m.
2. There are restrictions that apply to Shielded sensors.
Please refer to “Effects of Surrounding Metal” on page 20.