

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: -25°C to 70°C
- Water resistance: IP67
- With an all-round 360° visible indicator

 Refer to *Safety Precautions* on page 20.

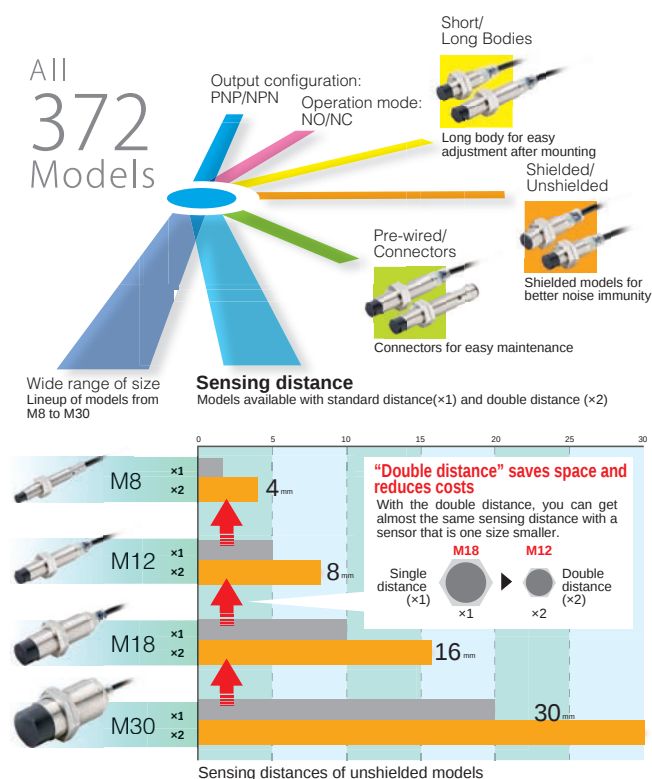
Features

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.



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

Reliable Performance

360-degree indication

Easy visibility for 360° 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 23°C	Soaked in oil (soluble type and insoluble) 500 hours, temperature of oil 50°C	Soaked in insoluble oil 250 hours, temperature of oil 50°C

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

E2B

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.

Size			Sensing distance	Connecting method (See note 1.)	Body length	Output configuration	Operation mode NO	Operation mode NC
M18 (Brass)	Single	Shielded	5 mm	Pre-wired	Short	PNP	E2B-M18KS05-WP-B1 2M	E2B-M18KS05-WP-B2 2M
					Long	NPN	E2B-M18KS05-WP-C1 2M	E2B-M18KS05-WP-C2 2M
				M12 Connector	Short	PNP	E2B-M18KS05-M1-B1	E2B-M18KS05-M1-B2
					Long	NPN	E2B-M18KS05-M1-C1	E2B-M18KS05-M1-C2
		Unshielded	10 mm	Pre-wired	Short	PNP	E2B-M18KN10-WP-B1 2M	E2B-M18KN10-WP-B2 2M
					Long	NPN	E2B-M18KN10-WP-C1 2M	E2B-M18KN10-WP-C2 2M
				M12 Connector	Short	PNP	E2B-M18LN10-WP-B1 2M	E2B-M18LN10-WP-B2 2M
					Long	NPN	E2B-M18LN10-WP-C1 2M	E2B-M18LN10-WP-C2 2M
	Double	Shielded (See note 2.)	8 mm	Pre-wired	Short	PNP	E2B-M18KS08-WP-B1 2M	E2B-M18KS08-WP-B2 2M
					Long	NPN	E2B-M18KS08-WP-C1 2M	E2B-M18KS08-WP-C2 2M
				M12 Connector	Short	PNP	E2B-M18KS08-M1-B1	E2B-M18KS08-M1-B2
					Long	NPN	E2B-M18KS08-M1-C1	E2B-M18KS08-M1-C2
		Unshielded	16 mm	Pre-wired	Short	PNP	E2B-M18KN16-WP-B1 2M	E2B-M18KN16-WP-B2 2M
					Long	NPN	E2B-M18KN16-WP-C1 2M	E2B-M18KN16-WP-C2 2M
				M12 Connector	Short	PNP	E2B-M18LN16-WP-B1 2M	E2B-M18LN16-WP-B2 2M
					Long	NPN	E2B-M18LN16-WP-C1 2M	E2B-M18LN16-WP-C2 2M

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.

Size			Sensing distance	Connecting method (See note 1.)	Body length	Output configuration	Operation mode NO	Operation mode NC
M30 (Brass)	Single	Shielded	10 mm	Pre-wired	Short	PNP	E2B-M30KS10-WP-B1 2M	E2B-M30KS10-WP-B2 2M
					Long	NPN	E2B-M30KS10-WP-C1 2M	E2B-M30KS10-WP-C2 2M
				M12 Connector	Short	PNP	E2B-M30LS10-WP-B1 2M	E2B-M30LS10-WP-B2 2M
					Long	NPN	E2B-M30LS10-WP-C1 2M	E2B-M30LS10-WP-C2 2M
		Unshielded	20 mm	Pre-wired	Short	PNP	E2B-M30KN20-WP-B1 2M	E2B-M30KN20-WP-B2 2M
					Long	NPN	E2B-M30KN20-WP-C1 2M	E2B-M30KN20-WP-C2 2M
				M12 Connector	Short	PNP	E2B-M30LN20-WP-B1 2M	E2B-M30LN20-WP-B2 2M
					Long	NPN	E2B-M30LN20-WP-C1 2M	E2B-M30LN20-WP-C2 2M
	Double	Shielded (See note 2.)	15 mm	Pre-wired	Short	PNP	E2B-M30KS15-WP-B1 2M	E2B-M30KS15-WP-B2 2M
					Long	NPN	E2B-M30KS15-WP-C1 2M	E2B-M30KS15-WP-C2 2M
				M12 Connector	Short	PNP	E2B-M30LS15-WP-B1 2M	E2B-M30LS15-WP-B2 2M
					Long	NPN	E2B-M30LS15-WP-C1 2M	E2B-M30LS15-WP-C2 2M
		Unshielded	30 mm	Pre-wired	Long	PNP	E2B-M30KN30-WP-B1 2M	E2B-M30KN30-WP-B2 2M
					Long	NPN	E2B-M30KN30-WP-C1 2M	E2B-M30KN30-WP-C2 2M
				M12 Connector	Long	PNP	E2B-M30LN30-WP-B1 2M	E2B-M30LN30-WP-B2 2M
					Long	NPN	E2B-M30LN30-WP-C1 2M	E2B-M30LN30-WP-C2 2M

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.

Accessories (Order Separately)

Sensor I/O Connectors

Size	Cable	Shape	Cores	Cable length (m)	Model
M8 (3-pin)	PVC	Straight	3	2	XS3F-M8PVC3S2M
				5	XS3F-M8PVC3S5M
		Right-angle		2	XS3F-M8PVC3A2M
				5	XS3F-M8PVC3A5M
	PVC Robot	Straight		2	XS3F-M321-302-R
				5	XS3F-M321-305-R
		Right-angle		2	XS3F-M322-302-R
				5	XS3F-M322-305-R
M12 (4-pin)	PVC	Straight	4	2	XS2F-M12PVC4S2M
				5	XS2F-M12PVC4S5M
		Right-angle		2	XS2F-M12PVC4A2M
				5	XS2F-M12PVC4A5M
	PVC Robot	Straight		2	XS2F-D421-D80-F
				5	XS2F-D421-G80-F
		Right-angle		2	XS2F-D422-D80-F
				5	XS2F-D422-G80-F

Model Number Legend

E2B-□□□□□□-□□□□
 1 2 3 4 5 6 7 8 9 10

Example: E2B-M12LS04-M1-B1

E2B-S08KN02-WP-C2 5M

M12, Brass, Long body, Shielded, Sn = 4 mm, M12 connector, PNP, NO

M8, stainless steel, Short body, Unshielded, Sn = 2 mm, Pre-wired PVC cable, NPN, NC,
 Cable length = 5 m

1. Basic name

E2B

2. Housing shape and material

M: Cylindrical, metric threaded, brass

S: Cylindrical, metric threaded, stainless steel

3. Housing size

08: 8 mm

12: 12 mm

18: 18 mm

30: 30 mm

4. Barrel length

K: Short body

L: Long body

5. Shield

S: Shielded

N: Unshielded

6. Sensing distance

Numeral: Sensing distance:

01 = 1.5 mm, 02 = 2 mm, 04 = 4 mm, 05 = 5 mm,
 08 = 8 mm, 10 = 10 mm, 15 = 15 mm, 16 = 16 mm,
 20 = 20 mm, 30 = 30 mm

7. Kind of connection

WZ: Pre-wired, PVC, dia 4 mm

Conductor cross section : 0.3 mm²

Insulator diameter : 1.3 mm

(See note 1.)

WP: Pre-wired, PVC, dia 4 mm

Conductor cross section : 0.141 mm²

Insulator diameter : 0.85 mm

M1: M12 connector

MC: M8 connector (3 pin)

(See note 2.)

8. Power source and output

B: PNP

C: NPN

9. Operation mode

1: NO (Normally open)

2: NC (Normally closed)

10. Cable length

Blank: Connector type

Numeral: Cable length (2M and 5M are available.)

Note: 1. Only M12, M18, M30 type.

2. "WP", "M1" and "MC" are listed products of UL.