

スタンダードタイプ近接センサ

E2E-X12B3D18-M1TJ 0.3M



商品概要

Proximity Sensor, DC 3-wire, Sensing distance: 12 mm, Shielded, PNP open collector, NO+NC, COM2 (38.4 kbps), M18, M12 Pre-wired Smartclick Connector, Standard PVC cable, 0.3 m

販売状況

2026/03/30 00:00 情報更新

販売状況	販売中
機種区分	受注生産機種
標準価格(税別)	¥ 12,800

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在庫状況/標準価格の最新情報につきましては、当社Webサイト(www.fa.omron.co.jp)の「在庫状況/標準価格照会」をご覧ください。

詳細情報

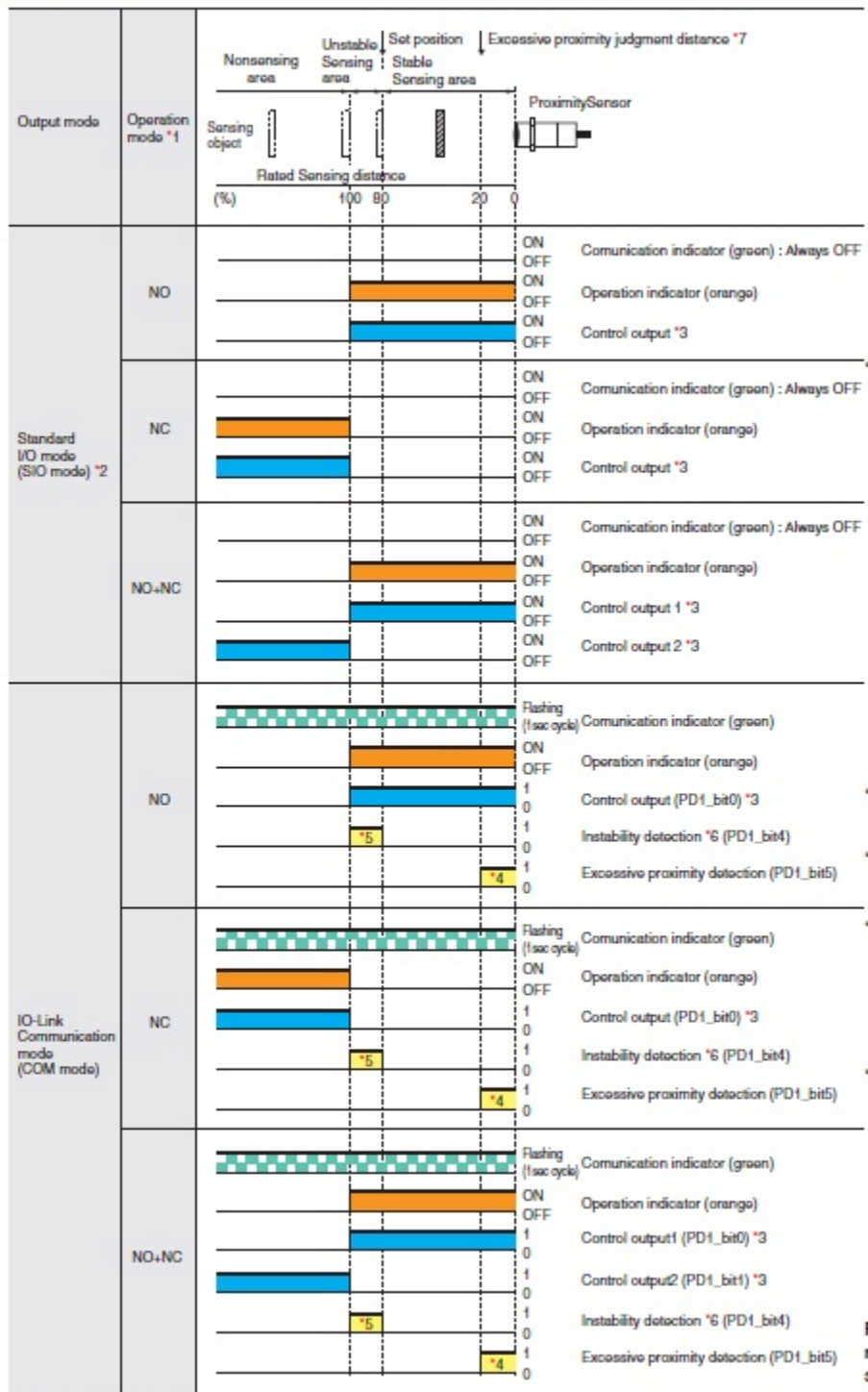
Ratings/Performance

情報更新：2025/09/04

Sensing head size	M18
Type	Cylinder type (with screw), Shielded
Power source	DC Three-wires models
Sensing distance	12 mm ±10%
Setting distance	0 to 9.6 mm
Differential distance	15% max. of sensing distance
Sensing object	Ferrous metal (Sensitivity lowers with non-ferrous metals.)
Standard sensing object	Iron 36 x 36 x 1 mm
Response frequency	500 Hz
Power supply voltage	10 to 30 VDC ripple (p-p) 10% included, Class 2
Current consumption	20 mA max.
Control output (Output type)	PNP open collector
Control output (Switching capacity)	50 mA max.
Control output (Residual voltage)	2 V max. (Load current 50 mA with cable length of 2 m)
Communications	IO-Link Ver 1.1 Transmission speed: COM2 (38.4 kbps) Data length: 2 byte (PD Size)/1 byte (M-sequence type: TYPE_2_2) (OD Size) Minimum cycle time: 2.3 ms
Indicator	Standard I/O mode (SIO mode): Operation indicator (orange, lit) and communication indicator (green, not lit) IO-Link mode (COM mode): Operation indicator (orange, lit) and communication indicator (green, blinking at 1 s intervals)
Operation mode	NO+NC
Protective circuit	Output short-cut protection Output reverse polarity protection Power supply reverse polarity protection Surge suppressor
Ambient temperature (Operating)	-25 to 70 °C (with no freezing or condensation)
Ambient temperature (Storage)	-25 to 70 °C (with no freezing or condensation)
Ambient humidity (Operating)	35 to 95 % (with no condensation)
Ambient humidity (Storage)	35 to 95 % (with no condensation)
Temperature influence	±10% max. of sensing distance at 23 °C in the temperature range of -25 to 70 °C

Voltage influence	±1% max. of sensing distance at rated voltage in the rated voltage ±15% range
Insulation resistance	Between charged parts and the case: 50 MΩ min. at 500 VDC
Dielectric strength	Between charged parts and the case: 1,000 VAC 50/60 Hz 1 min
Vibration resistance	Destruction: 10 to 55 Hz, 1.5 mm double amplitude each in X, Y, and Z directions for 2 h
Shock resistance	Destruction: 1000 m/s ² 10 times each in X, Y, and Z directions
Degree of protection	IEC: IP67 Company standard: Passed OMRON's Oil-resistant Component Evaluation Standards IP67G (JIS C 0920 Annex 1) IP69K (ISO 20653 (old standard: DIN 40050 PART9))
Connection method	Prewired M12 smart click connector model (0.3 m)
Weight	Package: Approx. 115 g
Material	Case: Brass nickel plating Sensing surface: Polybutylene terephthalate (PBT) Clamping nuts: Brass nickel plating Toothed washers: Iron zinc plating Cable: PVC
Accessories	Instruction manual, Clamping nuts, Toothed washers

PNP output



*3. The timer function of the control output can be set up by the IO-Link communications. (It is able to select ON delay, OFF delay, or one-shot function and select a timer time of 1 to 16,383ms (T).)



- *4. The excessive proximity diagnosis function can be selected by the IO-Link communications.
- *5. The instability detection diagnosis can be selected by the IO-Link communications.
- *6. The judgment time for the instability detection diagnosis can be selected by the IO-Link communications. (For the ON delay timer function, the setting can be selected from 0 (invalid), 10, 50, 100, 300, 500, or 1000 ms.)
- *7. The judgment distance of the excessive proximity diagnosis function can be selected by the IO-Link communications. (The distance can be selected as a combination of the material of the object detected, such as iron, aluminum, or SUS and the judgment distance of approximately 10, 20, or 30%. However, it is not allowed to select a combination of aluminum and 30%.)

Please contact your OMRON sales representative regarding the IO-Link setup file (IODD file).

Please contact your OMRON sales representative regarding assignment of data.

*1. For models with IO-Link, the operation mode can be changed by the IO-Link communications.
*2. If using a model with IO-Link as a general sensor or using a model without IO-Link, it operates in the standard I/O mode (SIO mode).

Mutual interference

情報更新：2025/09/04

Mutual interference

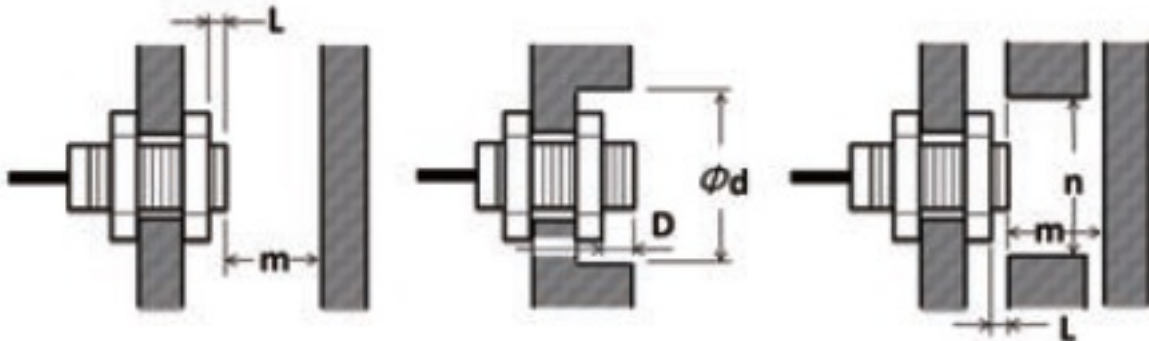


A: 70 mm min., B: 45 mm min.

Effects of surrounding metals

情報更新：2025/09/04

Effects of surrounding metals



L: 0 mm min., dia. d: 50 mm min., D: 0 mm min., m: 36 mm min., n: 54 mm min.

Metal embedded



l: 4 mm min., dia. d: 50 mm min., D: 4 mm min., m: 36 mm min., n: 54 mm min.

Characteristic chart

情報更新：2025/09/04

Sensing distance vs. size and material of sensing object

Size: M18 E2E(Q)-X12□18



Sensing range

Shielded



RoHS/REACH対応状況

情報更新：2026/4/15

EU RoHS

対応状況 ※1	対応予定月 ※2	非含有証明書 ※3
		ダウンロードはこちら

中国 RoHS

中国 RoHS表 ※1※2										
Pb	Hg	Cd	Cr(VI)	PBBs	PBDEs	DBP	DIBP	BBP	DEHP	環境保護 使用期限
X	0	0	0	0	0	0	0	0	0	10

- ・“対応済み”や非含有の記載がされた商品であっても、流通在庫等で未対応品が混在する可能性があります。
- ・非含有品が必要な際は、弊社営業部門もしくは販売店へお問い合わせください。

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規格認証/適合状況

UL認証	CSA認証	CEマーキング適合	CCC認証	電波法
Yes	Yes	Yes	N/A	N/A

LR型式承認 (イギリス 船舶規格)	DNV型式承認 (ノルウェー 船舶規格)	BV型式承認 (フランス 船舶規格)	KR型式承認 (韓国 船舶規格)	NK型式承認 (日本 船舶規格)	ABS型式承認 (アメリカ 船舶規格)
No	No	No	No	No	No

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