



## Photoelectric sensors V12-2, Through-beam photoelectric sensor

VS/VE12-2N430



**Model Name** > VS/VE12-2N430  
**Part No.** > 6026222



*Illustration may differ*

#### At a glance

- Sensing distance up to 5.0 m
- M12 metal housing with an IP 67 enclosure rating
- Long sensing distances, short response times
- 2 teach-in modes: Standard teach mode for basic applications, precise teach mode with small hysteresis for special applications
- Adjustable light or dark switching as complementary outputs
- PNP or NPN output available

#### Your benefits

- The combination of a sender and receiver enables precise switching and positioning
- Reliable product detection over a long sensing distance up to 5 m improves machine performance
- Space-saving mounting due to M12 miniature housing with cable or M12 device connector
- IP 67-rated metal housing offers a long service life that withstands harsh environments, reducing maintenance time and costs



#### Features

|                                  |                                   |
|----------------------------------|-----------------------------------|
| Sensor/detection principle:      | Through-beam photoelectric sensor |
| Housing design (light emission): | Cylindrical, straight             |
| Housing length:                  | 66.3 mm                           |
| Thread diameter (housing):       | Round connector M12 x 1           |
| Sensing range max.:              | 0 m ... 5 m                       |
| Sensing range:                   | 0 m ... 4 m                       |
| Type of light:                   | Infrared light                    |
| Light source:                    | LED <sup>1)</sup>                 |
| Wave length:                     | 880 nm                            |
| Angle of dispersion:             | Ca. 1.4 °                         |
| Light spot size (distance):      | Ø 100 mm (4 m)                    |

<sup>1)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

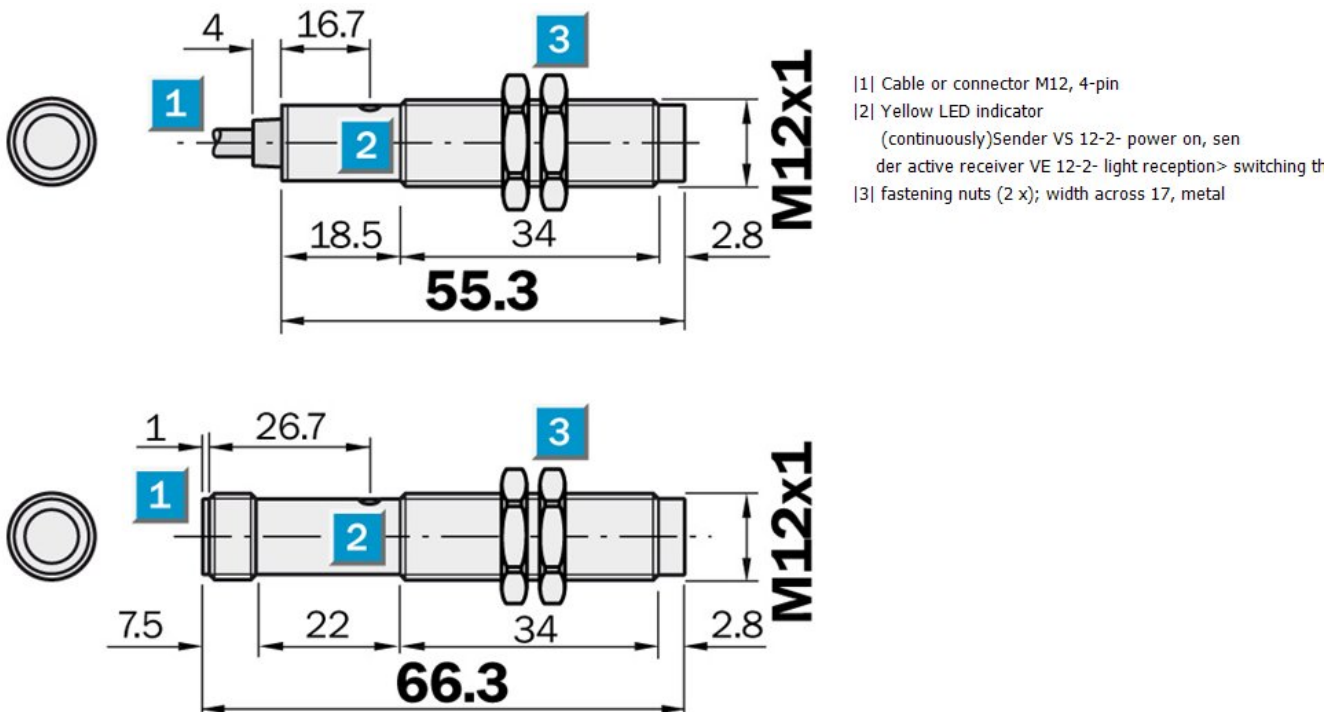
#### Mechanics/electronics

|                    |                              |
|--------------------|------------------------------|
| Supply voltage:    | 10 V DC ... 30 <sup>1)</sup> |
| Ripple:            | ≤ 10 % <sup>2)</sup>         |
| Power consumption: | 20 <sup>3)</sup>             |

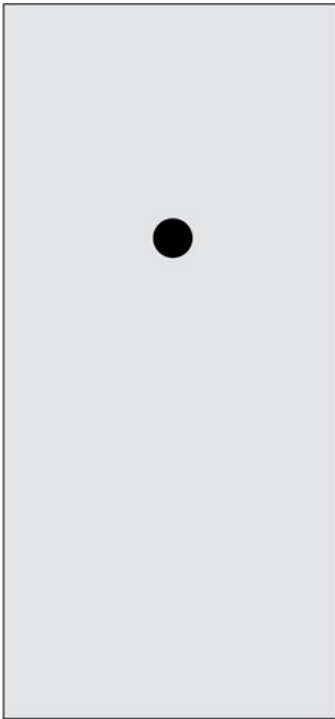
|                                   |                                    |
|-----------------------------------|------------------------------------|
| Output type:                      | NPN                                |
| Switching mode:                   | Light/dark-switching               |
| Switching mode selector:          | Selectable via L/D control wire    |
| Output current I <sub>max</sub> : | 100 <sup>4)</sup>                  |
| Response time:                    | ≤ 2 ms <sup>5)</sup>               |
| Switching frequency:              | 250 <sup>6)</sup>                  |
| Connection type:                  | Connector M12, 4-pin               |
| Circuit protection:::             | A, B, C, D <sup>7) 8) 9) 10)</sup> |
| Protection class:                 | III                                |
| Weight:                           | 36 g                               |
| Special device:                   | -                                  |
| Housing material:                 | Nickel-plated brass/PA, Metal      |
| Optics material:                  | PMMA                               |
| Enclosure rating:                 | IP 67                              |
| Ambient operating temperature:    | -25 ... 70 °C                      |
| Ambient storage temperature:      | -25 ... 70 °C                      |

<sup>1)</sup> Limit values <sup>2)</sup> May not exceed or fall short of V<sub>S</sub> tolerances <sup>3) 4)</sup> Without load <sup>5)</sup> Signal transit time with resistive load <sup>6)</sup> With light/dark ratio 1:1 <sup>7)</sup> A = V<sub>S</sub>  
 connections reverse-polarity protected <sup>8)</sup> B = inputs and output reverse-polarity protected <sup>9)</sup> C = interference suppression <sup>10)</sup> D = outputs overcurrent and short-circuit  
 protected

#### Dimensional drawing

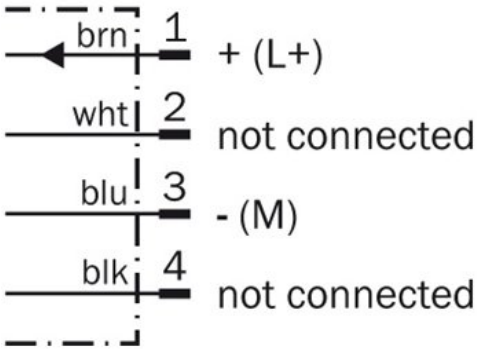


Adjustments possible

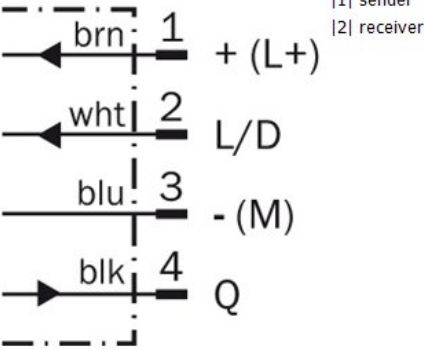


Connection diagram

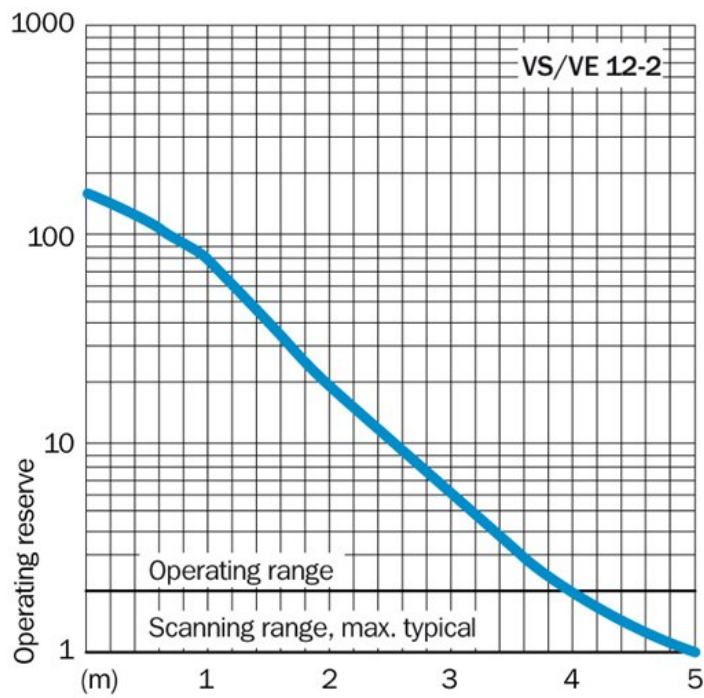
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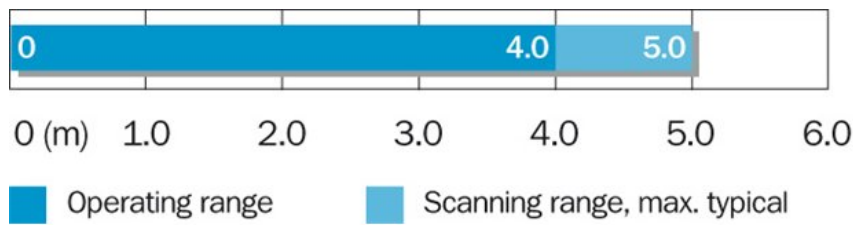
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Characteristic curve



Sensing range diagram



## Connection type

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**Australia**

Phone +61 3 9457 0600  
1800 334 802 – tollfree  
E-Mail sales@sick.com.au

**Belgium/Luxembourg**

Phone +32 (0)2 466 55 66  
E-Mail info@sick.be

**Brasil**

Phone +55 11 3215-4900  
E-Mail sac@sick.com.br

**Canada**

Phone +1 905 771 14 44  
E-Mail information@sick.com

**Ceská Republika**

Phone +420 2 57 91 18 50  
E-Mail sick@sick.cz

**China**

Phone +86 4000 121 000  
E-Mail info.china@sick.net.cn  
Phone +852-2153 6300  
E-Mail ghk@sick.com.hk

**Danmark**

Phone +45 45 82 64 00  
E-Mail sick@sick.dk

**Deutschland**

Phone +49 211 5301-301  
E-Mail kundenservice@sick.de

**España**

Phone +34 93 480 31 00  
E-Mail info@sick.es

**France**

Phone +33 1 64 62 35 00  
E-Mail info@sick.fr

**Great Britain**

Phone +44 (0)1727 831121  
E-Mail info@sick.co.uk

**India**

Phone +91-22-4033 8333  
E-Mail info@sick-india.com

**Israel**

Phone +972-4-6801000  
E-Mail info@sick-sensors.com

**Italia**

Phone +39 02 27 43 41  
E-Mail info@sick.it

**Japan**

Phone +81 (0)3 3358 1341  
E-Mail support@sick.jp

**Magyarország**

Phone +36 1 371 2680  
E-Mail office@sick.hu

**Nederlands**

Phone +31 (0)30 229 25 44  
E-Mail info@sick.nl

**Norge**

Phone +47 67 81 50 00  
E-Mail austefjord@sick.no

**Österreich**

Phone +43 (0)22 36 62 28 8-0  
E-Mail office@sick.at

**Polska**

Phone +48 22 837 40 50  
E-Mail info@sick.pl

**România**

Phone +40 356 171 120  
E-Mail office@sick.ro

**Russia**

Phone +7-495-775-05-30  
E-Mail info@sick.ru

**Schweiz**

Phone +41 41 619 29 39  
E-Mail contact@sick.ch

**Singapore**

Phone +65 6744 3732  
E-Mail admin@sicksgp.com.sg

**Slovenija**

Phone +386 (0)1-47 69 990  
E-Mail office@sick.si

**South Africa**

Phone +27 11 472 3733  
E-Mail info@sickautomation.co.za

**South Korea**

Phone +82 2 786 6321/4  
E-Mail info@sickkorea.net

**Suomi**

Phone +358-9-25 15 800  
E-Mail sick@sick.fi

**Sverige**

Phone +46 10 110 10 00  
E-Mail info@sick.se

**Taiwan**

Phone +886-2-2375-6288  
E-Mail sales@sick.com.tw

**Türkiye**

Phone +90 (216) 528 50 00  
E-Mail info@sick.com.tr

**United Arab Emirates**

Phone +971 (0) 4 8865 878  
E-Mail info@sick.ae

**USA/México**

Phone +1(952) 941-6780  
1 800-325-7425 – tollfree  
E-Mail info@sickusa.com

More representatives and agencies  
at [www.sick.com](http://www.sick.com)