



Photoelectric sensors  
V12-2, Photoelectric proximity sensor, energetic

VT12-2P110S01



**Model Name** > [VT12-2P110S01](#)  
**Part No.** > [6034337](#)



*Illustration may differ*

**At a glance**

- Sensing distance up to 115 mm or 340 mm (90% remission)
- 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
- Complements inductive sensor portfolio
- M12 housing
- 4-pin M12 connector or 2 m cable

**Your benefits**

- Standard M12 miniature housing saves installation space on the machine
- Simple design and time-saving installation due to a standard M12 housing
- Operating reserve display simplifies commissioning and saves maintenance time
- Cost-effective solution due to simple mounting, standardized connection technology and broad application use
- Fast response times ensure reliable detection of objects at high speeds, increasing machine throughput
- Tough metal housing provides a long service life, reducing maintenance time and costs



**Features**

Sensor/detection principle:	Photoelectric proximity sensor, energetic
Housing design (light emission):	Cylindrical, straight
Housing length:	54.5 mm
Thread diameter (housing):	Round connector M12 x 1
Sensing range max.:	0 mm ... 115 mm <sup>1)</sup>
Sensing range:	2 mm ... 100 mm
Type of light:	Infrared light
Light source:	LED <sup>2)</sup>
Wave length:	880 nm
Angle of dispersion:	Ca. 11.4 °
Light spot size (distance):	Ø 20 mm (100 mm)

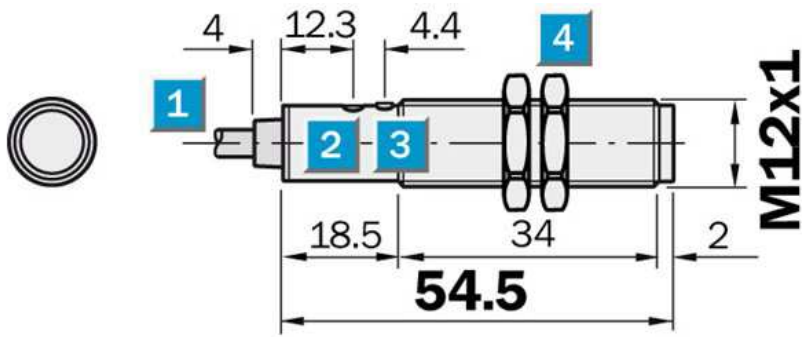
<sup>1)</sup> Object with 90 % reflectance (referred to standard white DIN 5033) <sup>2)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

**Mechanics/electronics**

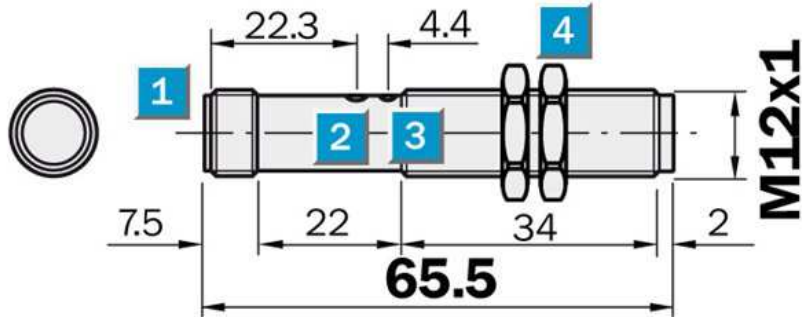
Supply voltage:	10 V DC ... 30 <sup>1)</sup>
Residual ripple:	≤ 10 % <sup>2)</sup>
Power consumption:	20 <sup>3)</sup>
Output type:	PNP
Switching mode:	Light switching
Output current I <sub>max</sub> :	100 <sup>4)</sup>
Response time:	≤ 1.25 ms <sup>5)</sup>
Switching frequency:	400 <sup>6)</sup>
Electrical connection:	Cable, 3-wire, 4 m <sup>7)</sup>
Cable material:	PUR
Conductor cross-section:	0.14 mm <sup>2</sup>
Cable diameter:	3.75 mm
Circuit protection:::::	A, B, C, D <sup>8) 9) 10) 11)</sup>
Protection class:	III
Weight:	54 g
Special device:	✓
Housing material:	Nickel-plated brass/PA, Metal
Optics material:	PMMA
Enclosure rating:	IP 67
Ambient temperature operation:	-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> Do not bend below 0 °C   <sup>8)</sup> A = V<sub>S</sub> connections reverse-polarity protected   <sup>9)</sup> B = inputs and output reverse-polarity protected   <sup>10)</sup> C = interference suppression   <sup>11)</sup> D = outputs overcurrent and short-circuit protected

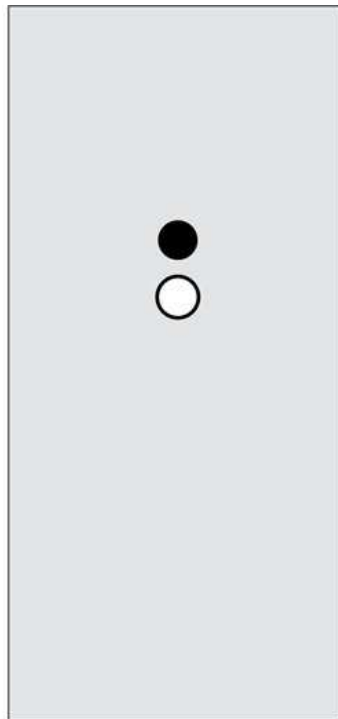
**Dimensional drawing**



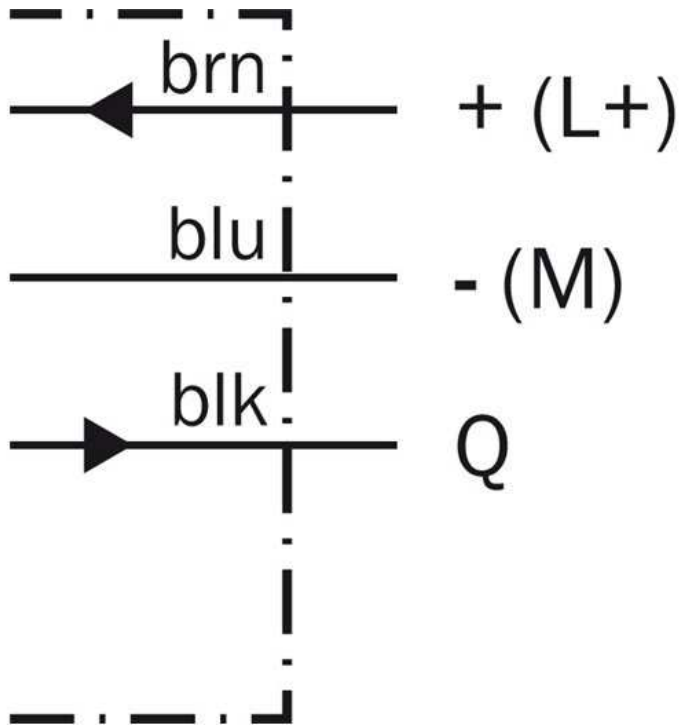
- |1| Cable or connector M12, 4-pin
- |2| Sensitivity setting; single teach button
- |3| Yellow LED indicator:- lights continuously:reception signal> reserve factor 2- b links: Reception signal< reserve factor 2 but > switching
- |4| fastening nuts (2 x); width across 17, metal



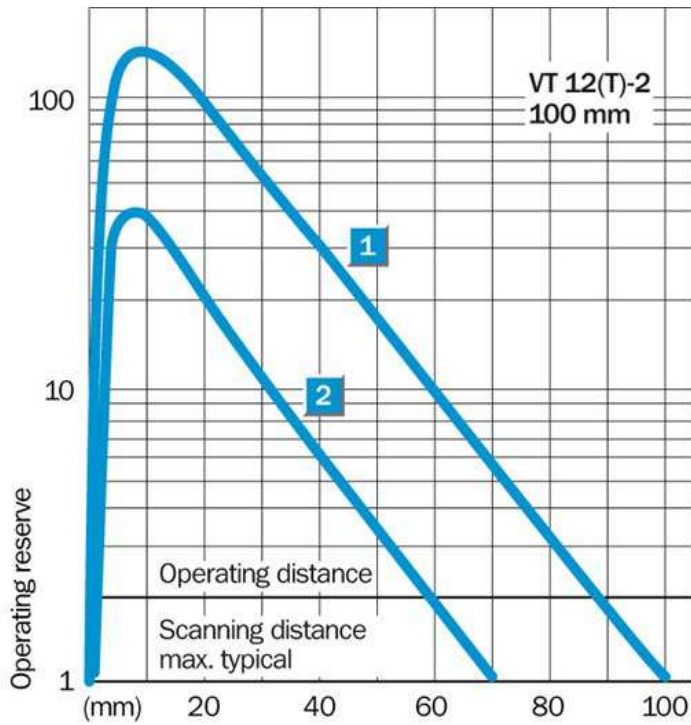
**Adjustments possible**



Connection diagram



Characteristic curve



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