



# VL12-2P132

V12-2

PRODUCT PORTFOLIO

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
VL12-2P132	6026219

Other models and accessories → [www.sick.com/V12-2](http://www.sick.com/V12-2)

Illustration may differ



### Detailed technical data

#### Features

<b>Sensor/ detection principle</b>	Photoelectric retro-reflective sensor
<b>Housing design (light emission)</b>	Cylindrical
<b>Housing length</b>	55 mm
<b>Thread diameter (housing)</b>	Round connector M12 x 1
<b>Sensing range max.</b>	0.03 m ... 2.8 m <sup>1)</sup>
<b>Sensing range</b>	0.03 m ... 2.3 m <sup>1)</sup>
<b>Type of light</b>	Visible red light
<b>Light source</b>	LED <sup>2)</sup>
<b>Light spot size (distance)</b>	Ø 80 mm (2 m)
<b>Angle of dispersion</b>	Approx. 2.3°
<b>Wave length</b>	660 nm
<b>Adjustment</b>	None

<sup>1)</sup> Reflector PL80A.

<sup>2)</sup> Average service life: 100,000 h at T<sub>U</sub> = +25 °C.

## Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC <sup>1)</sup>
<b>Ripple</b>	≤ 10 % <sup>2)</sup>
<b>Power consumption</b>	≤ 20 mA <sup>3)</sup>
<b>Switching output</b>	PNP
<b>Switching mode</b>	Light/dark switching
<b>Switching mode selector</b>	Selectable via L/D control cable
<b>Output current I<sub>max.</sub></b>	100 <sup>3)</sup>
<b>Response time</b>	≤ 1.25 ms <sup>4)</sup>
<b>Switching frequency</b>	400 Hz <sup>5)</sup>
<b>Connection type</b>	Cable, 4-wire, 2 m <sup>6)</sup>
<b>Cable material</b>	PVC
<b>Conductor cross-section</b>	0.14 mm <sup>2</sup>
<b>Cable diameter</b>	Ø 3.75 mm
<b>Circuit protection</b>	A <sup>7)</sup> B <sup>8)</sup> C <sup>9)</sup> D <sup>10)</sup>
<b>Protection class</b>	III
<b>Weight</b>	54 g
<b>Polarisation filter</b>	✓
<b>Housing material</b>	Metal, Nickel-plated brass/PA
<b>Optics material</b>	Plastic, PMMA
<b>Enclosure rating</b>	IP67
<b>Ambient operating temperature</b>	-25 °C ... +70 °C
<b>Ambient storage temperature</b>	-25 °C ... +70 °C

<sup>1)</sup> Limit values.

<sup>2)</sup> May not exceed or fall below U<sub>v</sub> tolerances.

<sup>3)</sup> Without load.

<sup>4)</sup> Signal transit time with resistive load.

<sup>5)</sup> With light/dark ratio 1:1.

<sup>6)</sup> Do not bend below 0 °C.

<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.

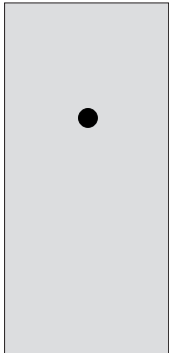
<sup>10)</sup> D = outputs overcurrent and short-circuit protected.

## Classifications

<b>ECl@ss 5.0</b>	27270902
<b>ECl@ss 5.1.4</b>	27270902
<b>ECl@ss 6.0</b>	27270902
<b>ECl@ss 6.2</b>	27270902
<b>ECl@ss 7.0</b>	27270902
<b>ECl@ss 8.0</b>	27270902

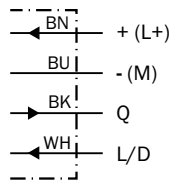
<b>ECl@ss 8.1</b>	27270902
<b>ECl@ss 9.0</b>	27270902
<b>ETIM 5.0</b>	EC002717
<b>ETIM 6.0</b>	EC002717
<b>UNSPSC 16.0901</b>	39121528

### Adjustments possible

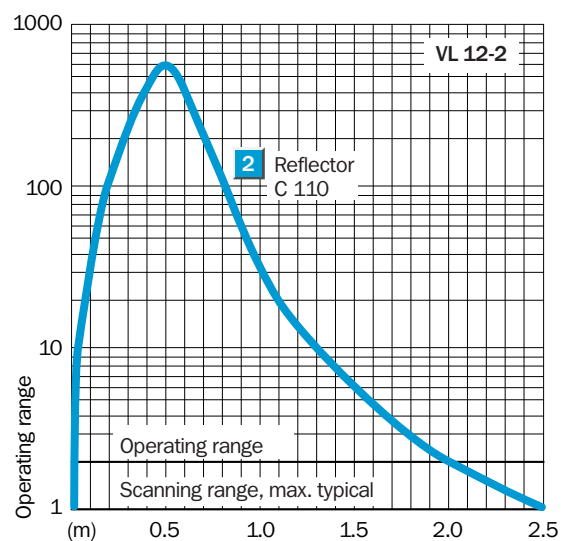


### Connection diagram

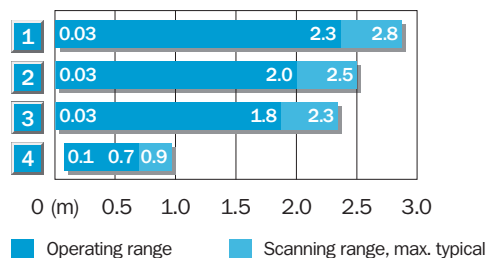
cd-089



### Characteristic curve

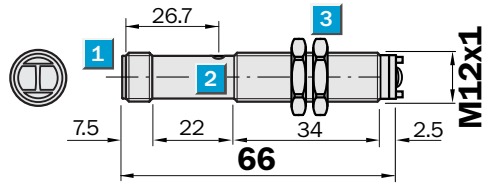
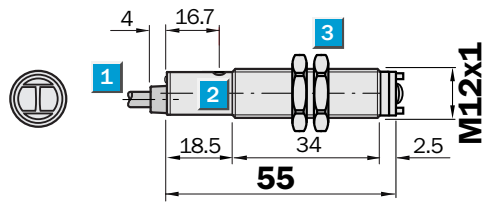


### Sensing range diagram



Reflector type	Operating range
1 PL 80 A	0.03 ... 2.3 m
2 C 110	0.03 ... 2.0 m
3 PL 50 A/PL 40 A/ P 250	0.03 ... 1.8 m
4 Reflective tape Diamond Grade	0.1 ... 0.7 m

### Dimensional drawing (Dimensions in mm (inch))



- ① Cable or connector M12, 4-pin
- ② Yellow LED indicator:- lights continuously:Reception signal> reserve factor 2- blinks: Reception signal< reserve factor 2 but > switching threshold 1
- ③ Fastening nuts (2x); width across 17, metal

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)