



VS/VE18-2P4440S02

**PHOTOELECTRIC SENSORS** 





# Ordering information

Туре	part no.
VS/VE18-2P4440S02	6011642

Other models and accessories → www.sick.com/V18

Illustration may differ



#### Detailed technical data

#### **Features**

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Functional principle	Through-beam photoelectric sensor
Dimensions (W x H x D)	18 mm x 18 mm x 96 mm
Housing design (light emission)	Cylindrical
Housing length	96 mm
Thread diameter (housing)	M18 x 1
Optical axis	Radial
Sensing range max.	0 m 20 m
Sensing range	0 m 14 m
Type of light	Infrared light
Light source	LED <sup>1)</sup>
Wave length	880 nm
Adjustment	None

 $<sup>^{1)}</sup>$  Average service life: 100,000 h at T<sub>U</sub> = +25 °C.

#### Mechanics/electronics

Supply voltage U <sub>B</sub>	10 V DC 30 V DC <sup>1)</sup>
Ripple	± 10 % <sup>2)</sup>
Current consumption	30 mA <sup>3)</sup>
Switching output	PNP
Switching mode	Light/dark switching
Signal voltage PNP HIGH/LOW	Approx. U <sub>V</sub> - 1.0 V / 0 V

<sup>&</sup>lt;sup>1)</sup> Limit values.

 $<sup>^{2)}\,\</sup>mbox{May}$  not fall below or exceed  $\mbox{U}_{\mbox{\scriptsize V}}$  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> B = inputs and output reverse-polarity protected.

 $<sup>^{7)}</sup>$  D = outputs overcurrent and short-circuit protected.

Output current I <sub>max.</sub>	≤ 100 mA
Response time	≤ 2 ms <sup>4)</sup>
Switching frequency	25 Hz <sup>5)</sup>
Connection type	Male connector M12, 4-pin
Circuit protection	B <sup>6)</sup> D <sup>7)</sup>
Protection class	III
Weight	220 g
Special device	✓
Housing material	Metal, Nickel-plated brass
Optics material	Plastic, PMMA
Enclosure rating	IP67
Ambient operating temperature	-25 °C +70 °C
UL File No.	NMFT2.E175606

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

#### Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cRUus certificate	✓

### Classifications

ECLASS 5.0	27270901
ECLASS 5.1.4	27270901
ECLASS 6.0	27270901
ECLASS 6.2	27270901
ECLASS 7.0	27270901
ECLASS 8.0	27270901
ECLASS 8.1	27270901
ECLASS 9.0	27270901
ECLASS 10.0	27270901
ECLASS 11.0	27270901
ECLASS 12.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716
ETIM 7.0	EC002716

<sup>&</sup>lt;sup>2)</sup> May not fall below or exceed U<sub>V</sub> tolerances.

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

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

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

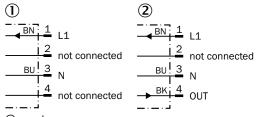
<sup>6)</sup> B = inputs and output reverse-polarity protected.
7) D = outputs overcurrent and short-circuit protected.

ETIM 8.0	EC002716
UNSPSC 16.0901	39121528

# Connection type



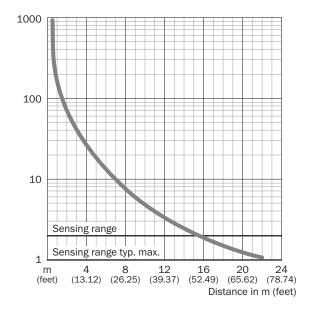
#### Connection diagram Cd-223



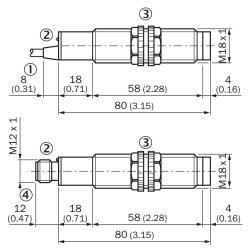
① sender

② receiver

#### Characteristic curve



### Dimensional drawing



Dimensions in mm (inch)

- ① Connection cable
- ② LED signal strength indicator
- ③ Fastening nuts, 22 mm hex (included)
- @ Connector M12, 4- pin

#### Recommended accessories

Other models and accessories → www.sick.com/V18

	Brief description	Туре	part no.
Mounting syst	ems		
40	<ul> <li>Description: Mounting bracket for M18 sensors</li> <li>Material: Steel</li> <li>Details: Steel, zinc coated</li> <li>Items supplied: Without mounting hardware</li> <li>Suitable for: GR18, V180-2, V18, W15, Z1, Z2</li> </ul>	BEF-WN-M18	5308446
	<ul> <li>Description: Plate N11N for universal clamp bracket</li> <li>Material: Stainless steel</li> <li>Details: Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)</li> <li>Items supplied: Universal clamp (5322627), mounting hardware</li> <li>Usable for: DeltaPac, Glare, WTD20E</li> </ul>	BEF-KHS-N11N	2071081

# VS/VE18-2P4440S02 | V18 PHOTOELECTRIC SENSORS

	Brief description	Туре	part no.	
connectors an	connectors and cables			
	<ul> <li>Connection type head A: Female connector, M12, 4-pin, straight, A-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Sensor/actuator cable</li> <li>Cable: 5 m, 4-wire, PVC</li> <li>Description: Sensor/actuator cable, unshielded</li> <li>Application: Zones with chemicals, Uncontaminated zones</li> </ul>	YF2A14-050VB3XLEAX	2096235	
	<ul> <li>Connection type head A: Male connector, M12, 4-pin, straight, A-coded</li> <li>Description: Unshielded</li> <li>Connection systems: Screw-type terminals</li> <li>Permitted cross-section: ≤ 0.75 mm²</li> </ul>	STE-1204-G	6009932	
	Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation	YF2A14-050UB3XLEAX	2095608	

# 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

