



VS/VE12-2N132

V12

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	part no.
VS/VE12-2N132	6026221

Other models and accessories → www.sick.com/V12

Illustration may differ



Detailed technical data

Features

Functional principle	Through-beam photoelectric sensor
Dimensions (W x H x D)	12 mm x 12 mm x 55.3 mm
Housing design (light emission)	Cylindrical
Housing length	55.3 mm
Thread diameter (housing)	Round connector M12 x 1
Sensing range max.	0 m ... 5 m
Sensing range	0 m ... 4 m
Focus	Approx. 1.4°
Type of light	Infrared light
Light source	LED ¹⁾
Light spot size (distance)	Ø 100 mm (4 m)
Angle of dispersion	Approx. 1.4°
Wave length	880 nm
Adjustment	None

¹⁾ Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

Supply voltage U_B	10 V DC ... 30 V DC ¹⁾
Ripple	$\pm 10 \%$ ²⁾
Current consumption	20 mA ³⁾
Switching output	NPN
Switching mode	Light/dark switching
Switching mode selector	Selectable via L/D control cable
Output current I_{max}	$\leq 100 \text{ mA}$ ³⁾
Response time	$\leq 2 \text{ ms}$ ⁴⁾
Switching frequency	250 Hz ⁵⁾
Connection type	Cable, 4-wire, 2 m ⁶⁾
Cable material	Plastic, PVC
Conductor cross section	0.14 mm ²
Cable diameter	$\varnothing 3.75 \text{ mm}$
Circuit protection	A ⁷⁾ B ⁸⁾ C ⁹⁾ D ¹⁰⁾
Protection class	III
Weight	108 g
Housing material	Metal, Nickel-plated brass/PA
Optics material	Plastic, PMMA
Enclosure rating	IP67
Ambient operating temperature	-25 °C ... +70 °C
Ambient temperature, storage	-25 °C ... +70 °C
UL File No.	NMFT2.E175606

¹⁾ Limit values.

²⁾ May not fall below or exceed U_y tolerances.

³⁾ Without load.

⁴⁾ Signal transit time with resistive load.

⁵⁾ With light/dark ratio 1:1.

⁶⁾ Do not bend below 0 °C.

⁷⁾ A = V_S connections reverse-polarity protected.

⁸⁾ B = inputs and output reverse-polarity protected.

⁹⁾ C = interference suppression.

¹⁰⁾ D = outputs overcurrent and short-circuit protected.

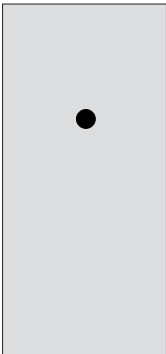
Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA 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
ETIM 8.0	EC002716
UNSPSC 16.0901	39121528

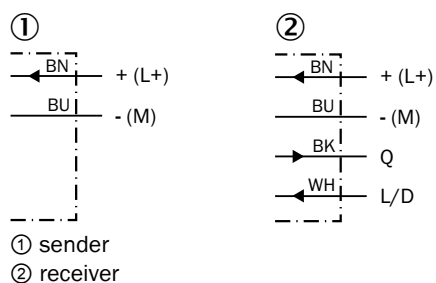
Adjustments



Connection type

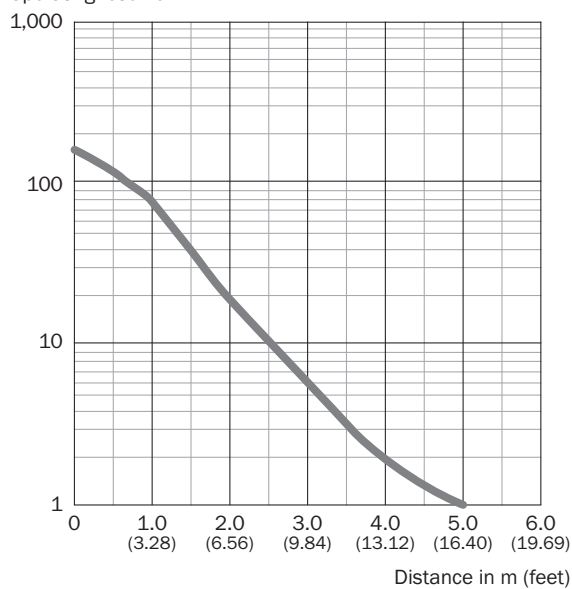


Connection diagram Cd-058

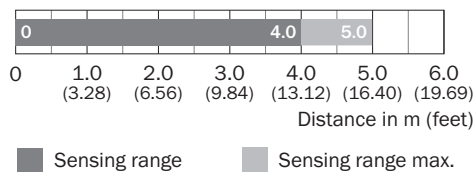


Characteristic curve

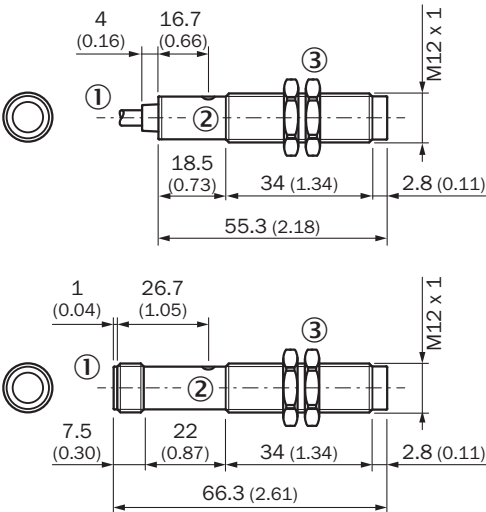
Operating reserve



Sensing range diagram



Dimensional drawing





Dimensions in mm (inch)

- ① Cable or connector M12, 4-pin
- ② yellow LED indicator (permanent) sender VS12-2 power on, sender active receiver VE 12-2 light reception>switching threshold 1
- ③ Fastening nuts (2x); width across 17, metal

Recommended accessories

Other models and accessories → www.sick.com/V12

	Brief description	Type	part no.
Mounting systems			
	<ul style="list-style-type: none">Description: Mounting bracket for M12 sensorsMaterial: SteelDetails: Steel, zinc coatedItems supplied: Without mounting hardware	BEF-WN-M12	5308447
connectors and cables			
	<ul style="list-style-type: none">Connection type head A: Male connector, M12, 4-pin, straight, A-codedDescription: UnshieldedConnection systems: Screw-type terminalsPermitted cross-section: ≤ 0.75 mm²	STE-1204-G	6009932

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