



VT18-2T2450

V18

CYLINDRICAL PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
VT18-2T2450	6022099

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

Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	Energetic
Dimensions (W x H x D)	18 mm x 18 mm x 92 mm
Housing design (light emission)	Cylindrical
Housing length	92 mm
Thread diameter (housing)	M18 x 1
Optical axis	Axial
Sensing range max.	2 mm ... 400 mm ¹⁾
Sensing range	3 mm ... 360 mm
Focus	Approx. 3.5°
Type of light	Infrared light
Light source	LED ²⁾
Light spot size (distance)	Ø 48 mm (400 mm)
Angle of dispersion	Approx. 3.5°
Adjustment	None

¹⁾ Object with 90% remission (based on standard white, DIN 5033).

²⁾ Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

Supply voltage U_B	20 V AC ... 253 V AC ¹⁾
Mains frequency	50 Hz, 60 Hz
Current consumption	30 mA ²⁾

¹⁾ Limit values.

²⁾ Without load.

³⁾ Depending on supply voltage V_S.

⁴⁾ Signal transit time with resistive load.

⁵⁾ With light/dark ratio 1:1.

⁶⁾ C = interference suppression.

Switching output	TRIAC
Switching mode	Dark switching
Output current $I_{\max}$	$\leq 300 \text{ mA}$ ³⁾
Response time	$\leq 20 \text{ ms}$ ⁴⁾
Switching frequency	25 Hz ⁵⁾
Connection type	Male connector M12, 4-pin
Circuit protection	C ⁶⁾
Protection class	II
Weight	30 g
Housing material	Plastic, PBT/PC
Optics material	Plastic, PMMA
Enclosure rating	IP67
Ambient operating temperature	-25 °C ... +70 °C
UL File No.	NMFT2.E175606

1) Limit values.

2) Without load.

3) Depending on supply voltage VS.

4) Signal transit time with resistive load.

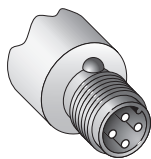
5) With light/dark ratio 1:1.

6) C = interference suppression.

Classifications

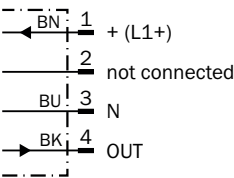
ECLASS 5.0	27270903
ECLASS 5.1.4	27270903
ECLASS 6.0	27270903
ECLASS 6.2	27270903
ECLASS 7.0	27270903
ECLASS 8.0	27270903
ECLASS 8.1	27270903
ECLASS 9.0	27270903
ECLASS 10.0	27270904
ECLASS 11.0	27270904
ECLASS 12.0	27270903
ETIM 5.0	EC001821
ETIM 6.0	EC001821
ETIM 7.0	EC002719
ETIM 8.0	EC002719
UNSPSC 16.0901	39121528

Connection type

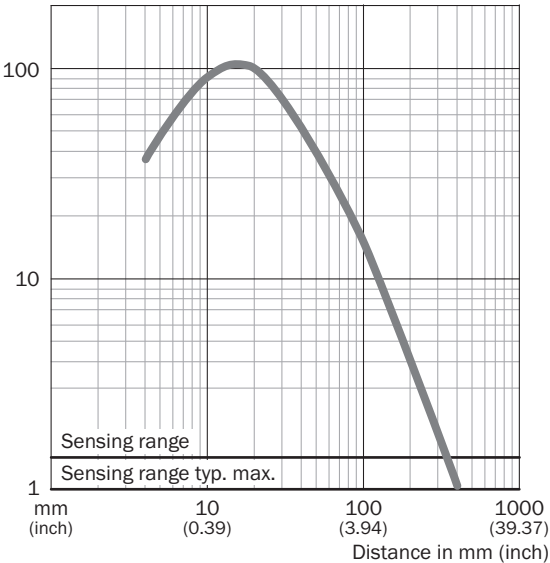


Connection diagram

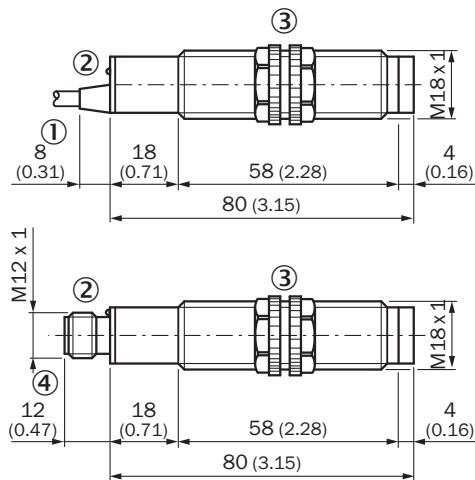
Cd-129



Characteristic curve



Dimensional drawing (Dimensions in mm (inch))



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

Recommended accessories

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

	Brief description	Type	Part no.
Mounting brackets and plates			
	Description: Mounting bracket for M18 sensors Material: Steel Details: Steel, zinc coated Items supplied: Without mounting hardware Suitable for: GR18, V180-2, V18, W15, Z1, Z2	BEF-WN-M18	5308446
Others			
	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, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals, Uncontaminated zones	YF2A14-050VB3XLEAX	2096235
	Connection type head A: Male connector, M12, 4-pin, straight, A-coded Description: Unshielded Connection systems: Screw-type terminals Permitted 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