Product data sheet

VT12T-2N410

V12

CYLINDRICAL PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

Illustration may differ

Ordering information

Type	Part no.
VT12T-2N410	6026210

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

Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	Energetic
Dimensions (W x H x D)	12 mm x 12 mm x 65.5 mm
Housing design (light emission)	Cylindrical
Housing length	65.5 mm
Thread diameter (housing)	Round connector M12 x 1
Sensing range max.	0 mm ... 115 mm [1]
Sensing range	2 mm ... 100 mm
Focus	Approx. 11.4°
Type of light	Infrared light
Light source	LED [2]
Light spot size (distance)	Ø 20 mm (100 mm)
Angle of dispersion	Approx. 11.4°
Wave length	880 nm
Adjustment	Single teach-in button, Selectable via control input C (Sensing range, Sensing range) [3] [4]

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

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

[3] Manual, via teach-in button.

[4] Electronically via control input C (0 V).

Mechanics/electronics

Supply voltage U_B	10 V DC ... 30 V DC [1]
Ripple	± 10 % [2]
Current consumption	20 mA [3]
Switching output	NPN
Switching mode	Light/dark switching
Switching mode selector	Selectable via control input C
Output current $I_{max.}$	≤ 100 mA [3]
Response time	≤ 1.25 ms [4]
Switching frequency	400 Hz [5]
Connection type	Male connector M12, 4-pin
Circuit protection	A [6] B [7] C [8] D [9]
Protection class	III
Weight	18 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.	E175606

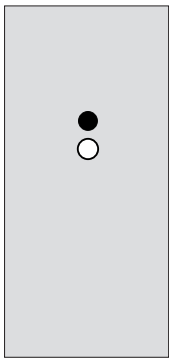
[1] Limit values.
[2] May not exceed or fall below U_V tolerances.
[3] Without load.
[4] Signal transit time with resistive load.
[5] With light/dark ratio 1:1.
[6] A = V_S connections reverse-polarity protected.
[7] B = inputs and output reverse-polarity protected.
[8] C = interference suppression.
[9] D = outputs overcurrent and short-circuit protected.

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

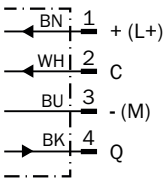
Adjustments



Connection type

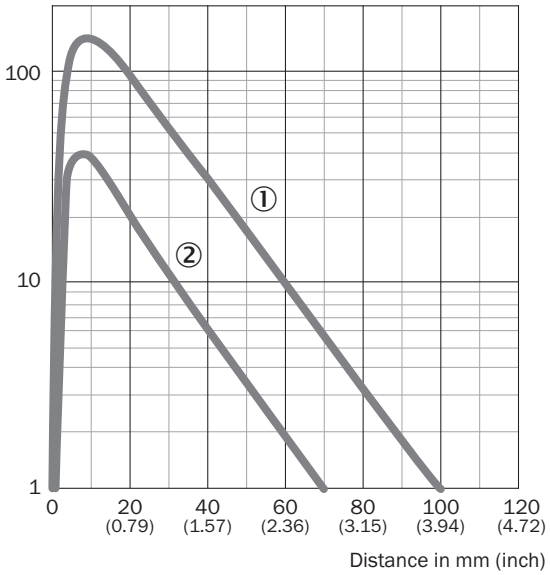
Connection diagram

Cd-099



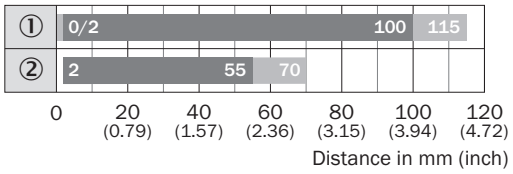
Characteristic curve

Operating reserve



① Sensing range on white, 90% remission factor
② Sensing range on gray, 18% remission factor

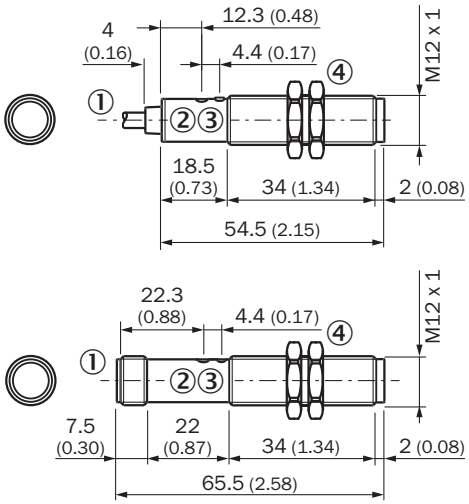
Sensing range diagram



Sensing range Sensing range max.

① Sensing range on white, 90% remission factor
② Sensing range on gray, 18% remission factor

Dimensional drawing (Dimensions in mm (inch))



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

Recommended accessories

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

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting bracket for M12 sensors, steel, zinc coated, without mounting hardware	BEF-WN-M12	5308447
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	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