VT12T-2N430

V12

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

VT12T-2N430 | V12

PHOTOELECTRIC SENSORS

Ordering information

Type	part no.
VT12T-2N430	6026214

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

Illustration may differ

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 ... 340 mm [1]
Sensing range	2 mm ... 300 mm
Focus	Approx. 5.3°
Type of light	Infrared light
Light source	LED [2]
Light spot size (distance)	Ø 28 mm (300 mm)
Angle of dispersion	Approx. 5.3°
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 fall below or exceed 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.

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	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
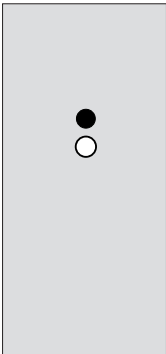
Connection type

Connection diagram Cd-099

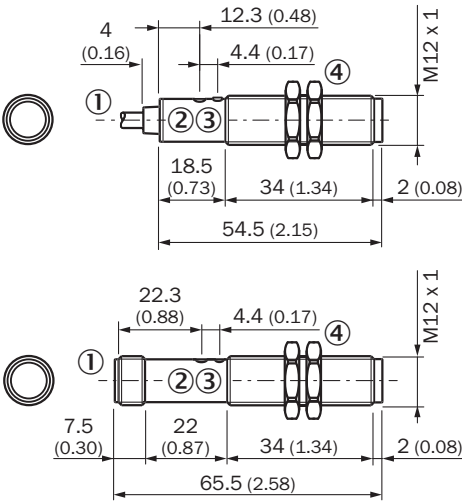|		
BN	1	+ (L+)
WH	2	C
BU	3	- (M)
BK	4	Q
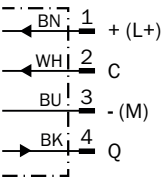
Characteristic curve

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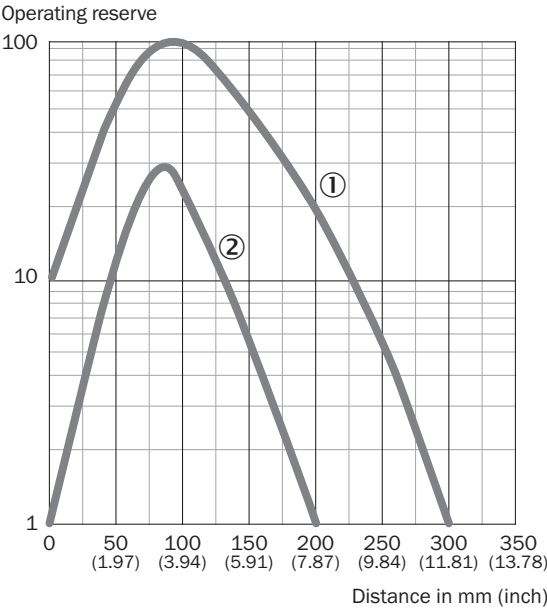
① Sensing range on white, 90% remission factor
② Sensing range on gray, 18% remission factor

Sensing range diagram

Distance in mm (inch)
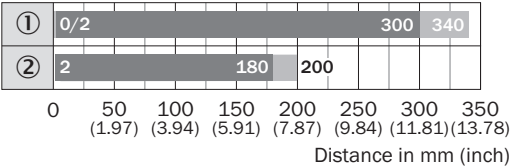
■ Sensing range   ■ Sensing range max.

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:
③ - lights continuously:
③ reception signal> reserve factor 2
③ - 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 systems			
	• **Description:** Mounting bracket for M12 sensors • **Material:** Steel • **Details:** Steel, zinc coated • **Items supplied:** Without mounting hardware	BEF-WN-M12	5308447
	• **Description:** Plate N11N for universal clamp bracket • **Material:** Stainless steel • **Details:** Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp) • **Items supplied:** Universal clamp (5322627), mounting hardware • **Usable for:** DeltaPac, Glare, WTD20E	BEF-KHS-N11N	2071081

Brief description	Type	part no.
connectors and cables		
• **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
• **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**

SICK AG | Waldkirch | Germany | www.sick.com

SICK
Sensor Intelligence.