



DATA SHEET

VT12T-2P112

V12
Photoelectric sensors



Illustration may differ

PHOTOELECTRIC SENSORS

VT12T-2P112

ORDERING INFORMATION

Type	part no.
VT12T-2P112	6026211

Further device versions and accessories at 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 54.5 mm
Housing design (light emission)	Cylindrical
Housing length	54.5 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).

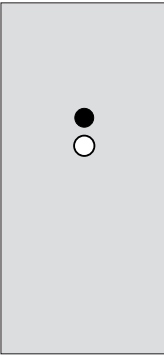
MECHANICS/ELECTRONICS

Supply voltage U_s	10 V DC ... 30 V DC ¹⁾
Ripple	$\pm 10\%$ ²⁾
Current consumption	20 mA ³⁾
Switching output	PNP
Switching mode	Light/dark switching
Switching mode selector	Selectable via control input C
Output current $I_{\max}$	$\leq 100\text{ mA}$ ³⁾
Response time	$\leq 1.25\text{ ms}$ ⁴⁾
Switching frequency	400 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	54 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_s 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	✓
China Compulsory Product Certification (CCC) exempt	✓
cRUus certificate	✓

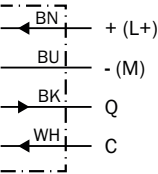
ADJUSTMENTS



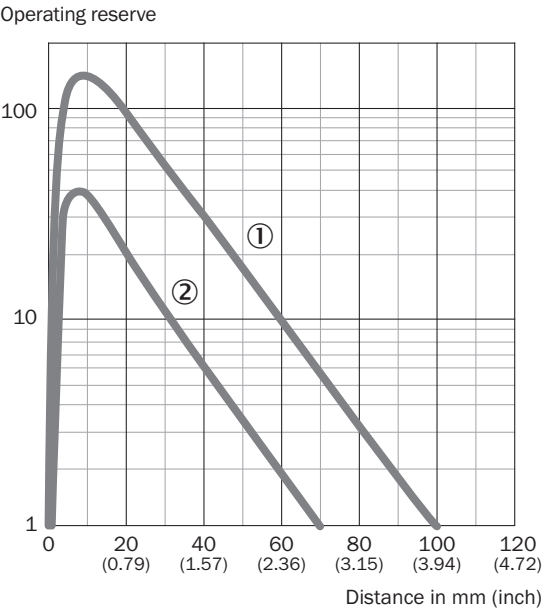
CONNECTION TYPE



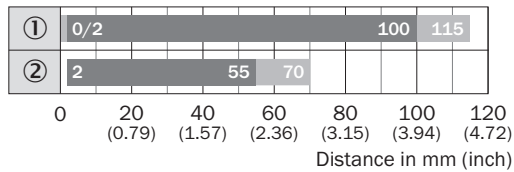
CONNECTION DIAGRAM CD-100



CHARACTERISTIC CURVE



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

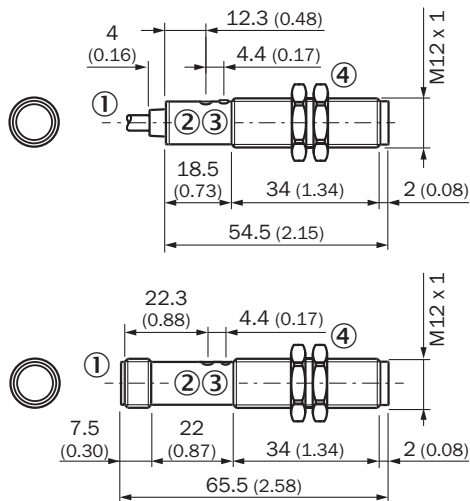
SENSING RANGE DIAGRAM

■ 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:

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

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/6026211



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SICK AT A GLANCE

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