Online data sheet



VL18-4N3240

V18

PRODUCT PORTFOLIO

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	Part no.
VL18-4N3240	6013542

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

Detailed technical data

Features

Sensor/ detection principle	Photoelectric retro-reflective sensor
Housing design (light emission)	Cylindrical, straight
Housing length	78 mm
Thread diameter (housing)	M18 x 1
Optical axis	Axial
Sensing range max.	0.05 m ... 3.7 m [1]
Sensing range	0.05 m ... 3 m [1]
Type of light	Visible red light
Light source	LED [2]
Light spot size (distance)	Ø 150 mm (3 m)
Angle of dispersion	Approx. 2.8°
Adjustment	Potentiometer, 270° (Sensitivity)

[1] Reflector C110A.
[2] Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC [1]
Ripple	≤ 10 % [2]
Power consumption	≤ 30 mA [3]

[1] Limit values.
[2] May not exceed or fall below U_V tolerances.
[3] Without load.
[4] Control wire open: light switching L.ON.
[5] Signal transit time with resistive load.
[6] With light/dark ratio 1:1.
[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.

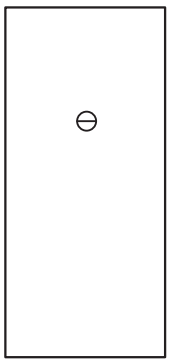
Switching output	NPN [4]
Switching mode	Light/dark switching [4]
Switching mode selector	Selectable via L/D control cable
Output current $I_{max.}$	100 mA
Response time	≤ 2 ms [5]
Switching frequency	250 Hz [6]
Connection type	Male connector M12, 4-pin
Circuit protection	A [7] B [8] C [9] D [10]
Protection class	III
Weight	120 g
Polarisation filter	✓
Housing material	Metal, Nickel-plated brass
Optics material	Plastic, PMMA
Enclosure rating	IP67
Ambient operating temperature	–25 °C ... +70 °C
UL File No.	NMFT2.E175606

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Classifications

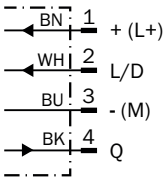
ECl@ss 5.0	27270902
ECl@ss 5.1.4	27270902
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ECl@ss 6.2	27270902
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ECl@ss 8.0	27270902
ECl@ss 8.1	27270902
ECl@ss 9.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
UNSPSC 16.0901	39121528

Adjustments possible

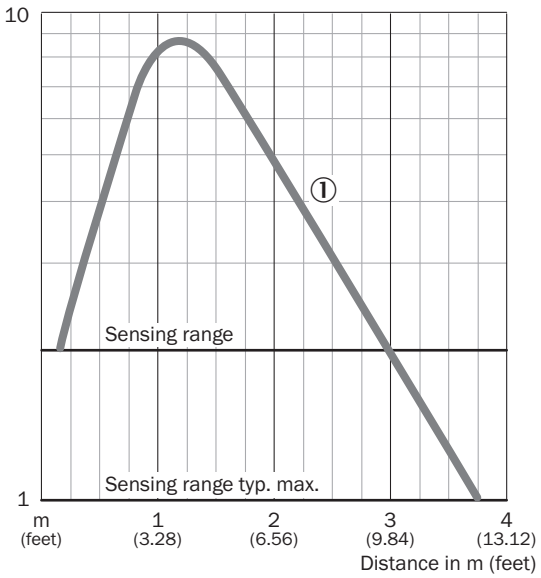


Connection diagram

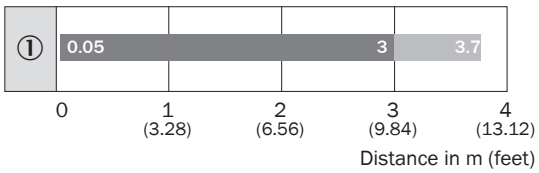
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Characteristic curve



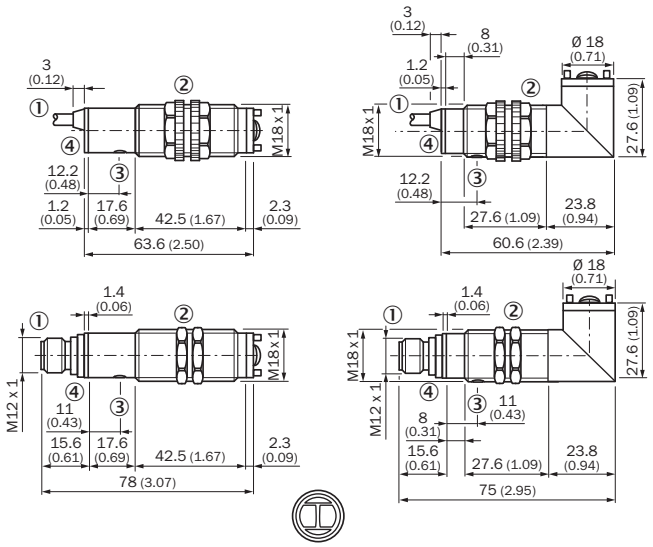
Sensing range diagram



Operating range Scanning range typ. max.

① Reflector type C110

Dimensional drawing (Dimensions in mm (inch))



① Connecting cable or connector
② Fastening nut, 22 mm hex, made of plastic for equipment with plastic housingFastening nut, 24 mm hex, made of metal for equipment with metal housing
③ Sensitivity control
④ Signal strength indicator, LED, yellow

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:

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