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DATA SHEET

VL12-2P132

V12
Photoelectric sensors

SICK Sensor Intelligence

Illustration may differ

PHOTOELECTRIC SENSORS

VL12-2P132

ORDERING INFORMATION

Type	part no.
VL12-2P132	6026219

Further device versions and accessories at www.sick.com/V12

DETAILED TECHNICAL DATA

FEATURES

Functional principle	Photoelectric retro-reflective sensor
Dimensions (W x H x D)	12 mm x 12 mm x 55 mm
Housing design (light emission)	Cylindrical
Housing length	55 mm
Thread diameter (housing)	Round connector M12 x 1
Sensing range max.	0.03 m ... 2.8 m [1]
Sensing range	0.03 m ... 2.3 m [1]
Focus	Approx. 2.3°
Type of light	Visible red light
Light source	LED [2]
Light spot size (distance)	Ø 80 mm (2 m)
Angle of dispersion	Approx. 2.3°
Wave length	660 nm
Adjustment	None

[1] Reflector PL80A.

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

MECHANICS/ELECTRONICS

Supply voltage U_B	10 V DC ... 30 V DC [1]
Ripple	± 10 % [2]
Current consumption	20 mA [3]
Switching output	PNP
Switching mode	Light/dark switching
Switching mode selector	Selectable via L/D control cable
Output current $I_{max.}$	≤ 100 mA [3]
Response time	≤ 1.25 ms [4]
Switching frequency	400 Hz [5]
Connection type	Cable, 4-wire, 2 m [6]
Cable material	Plastic, PVC
Conductor cross section	0.14 mm²
Cable diameter	Ø 3.75 mm
Circuit protection	A [7] B [8] C [9] D [10]
Protection class	III
Weight	54 g
Polarisation filter	✓
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.	NMFT2.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] 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.

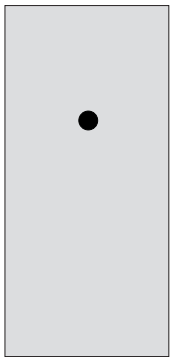
[10] D = outputs overcurrent and short-circuit protected.

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	✓

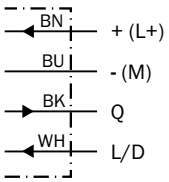
cRUus certificate	✓

ADJUSTMENTS

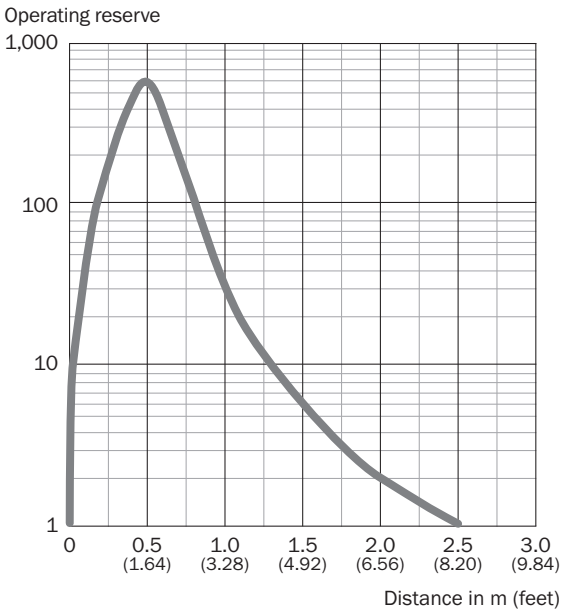


CONNECTION TYPE

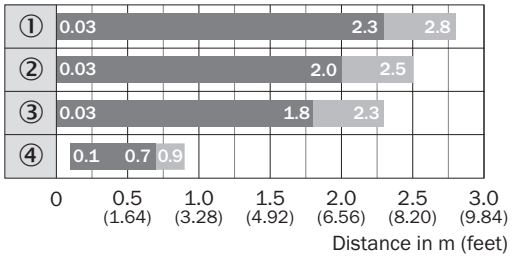
CONNECTION DIAGRAM CD-089



CHARACTERISTIC CURVE



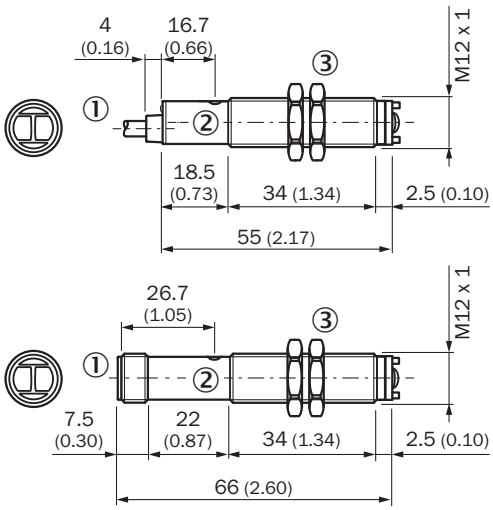
SENSING RANGE DIAGRAM



Sensing range Sensing range max.

① Reflector PL80A
② Reflector C110
③ Reflector PL50A, PL40A, P250
④ Reflective tape Diamond Grade

DIMENSIONAL DRAWING



Dimensions in mm (inch)
① Cable or connector M12, 4-pin
② Yellow LED indicator:
② - lights continuously:
② reception signal> reserve factor 2
② - blinks: Reception signal< reserve factor 2 but > switching threshold 1
③ 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/6026219

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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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