

VL18-2T1162 V18

PHOTOELECTRIC SENSORS





Ordering information

| Туре | part no. |
|-------------|----------|
| VL18-2T1162 | 6022092 |

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

Illustration may differ



Detailed technical data

Features

| Functional principle | Photoelectric retro-reflective sensor |
|---------------------------------|---|
| Dimensions (W x H x D) | 18 mm x 18 mm x 88 mm |
| Housing design (light emission) | Cylindrical |
| Housing length | 88 mm |
| Thread diameter (housing) | M18 x 1 |
| Optical axis | Axial |
| Sensing range max. | $0.005~\mathrm{m}$ $3.5~\mathrm{m}$ $^{1)}$ |
| Sensing range | 0.01 m 3 m $^{1)}$ |
| Focus | 6° |
| Type of light | Visible red light |
| Light source | LED ²⁾ |
| Light spot size (distance) | Ø 30 mm (3 m) |
| Angle of dispersion | 6° |
| Adjustment | None |

¹⁾ Reflector C110A.

 $^{^{2)}}$ Average service life: 100,000 h at $\rm T_U$ = +25 $^{\circ}\rm C.$

Mechanics/electronics

| Supply voltage \mathbf{U}_{B} | 20 V AC 253 V AC ¹⁾ |
|--|----------------------------------|
| Mains frequency | 50 Hz, 60 Hz |
| Current consumption | 30 mA ²⁾ |
| Switching output | TRIAC |
| Switching mode | Light switching |
| Output current I _{max.} | \leq 300 mA $^{3)}$ |
| Response time | ≤ 20 ms ⁴⁾ |
| Switching frequency | 25 Hz ⁵⁾ |
| Connection type | Cable, 3-wire, 2 m ⁶⁾ |
| Cable material | Plastic, PVC |
| Conductor cross section | 0.34 mm ² |
| Cable diameter | Ø 4.7 mm |
| Circuit protection | C ⁷⁾ |
| Protection class | |
| Weight | 95 g |
| Polarizing filter | √ |
| Housing material | Plastic, PBT/PC |
| Optics material | Plastic, PMMA |
| Enclosure rating | IP67 |
| Ambient operating temperature | -25 °C +70 °C |
| UL File No. | NMFT2.E175606 |

¹⁾ Limit values.

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 | 27270902 |
|--------------|----------|
| ECLASS 5.1.4 | 27270902 |
| ECLASS 6.0 | 27270902 |
| ECLASS 6.2 | 27270902 |
| ECLASS 7.0 | 27270902 |

²⁾ Without load.

³⁾ Depending on supply voltage VS.

⁴⁾ Signal transit time with resistive load.

⁵⁾ With light/dark ratio 1:1.

⁶⁾ Do not bend below 0 °C.

 $^{^{7)}}$ C = interference suppression.

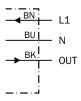
VL18-2T1162 | V18

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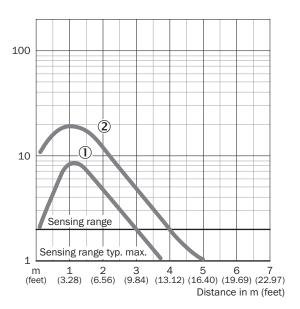
Connection type



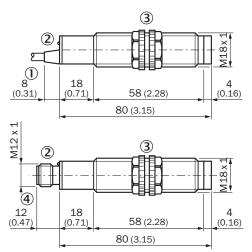
Connection diagram Cd-063



Characteristic curve



Dimensional drawing



Dimensions in mm (inch)

- ① Connection cable
- ② LED signal strength indicator
- 3 Fastening nuts, 22 mm hex (included)
- ④ Connector M12, 4- pin

Recommended accessories

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

| | Brief description | Туре | part no. | |
|-----------------------|--|--------------|----------|--|
| Mounting systems | | | | |
| 40 | Description: Mounting bracket for M18 sensors Material: Steel Details: Steel, zinc coated Items supplied: Without mounting hardware Suitable for: GR18, V180-2, V18, W15, Z1, Z2 | BEF-WN-M18 | 5308446 | |
| 2 A A A | Description: Universal mounting bracket for reflectors Dimensions (W x H x L): 85 mm x 90 mm x 35 mm Material: Steel Details: Steel, zinc coated Suitable for: C110A, P250, PL20, PL30A, PL40A, PL80A | BEF-WN-REFX | 2064574 | |
| | 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 | |
| reflectors and | loptics | | | |
| | Description: Rectangular, screw connection Dimensions: 51 mm 61 mm Ambient operating temperature: -30 °C +65 °C | P250 | 5304812 | |
| connectors and cables | | | | |
| | Connection type head A: Male connector, M8, 3-pin, straight, A-coded Description: Unshielded Connection systems: Screw-type terminals Permitted cross-section: 0.14 mm² 0.5 mm² | STE-0803-G | 6037322 | |

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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."

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