



Model Number

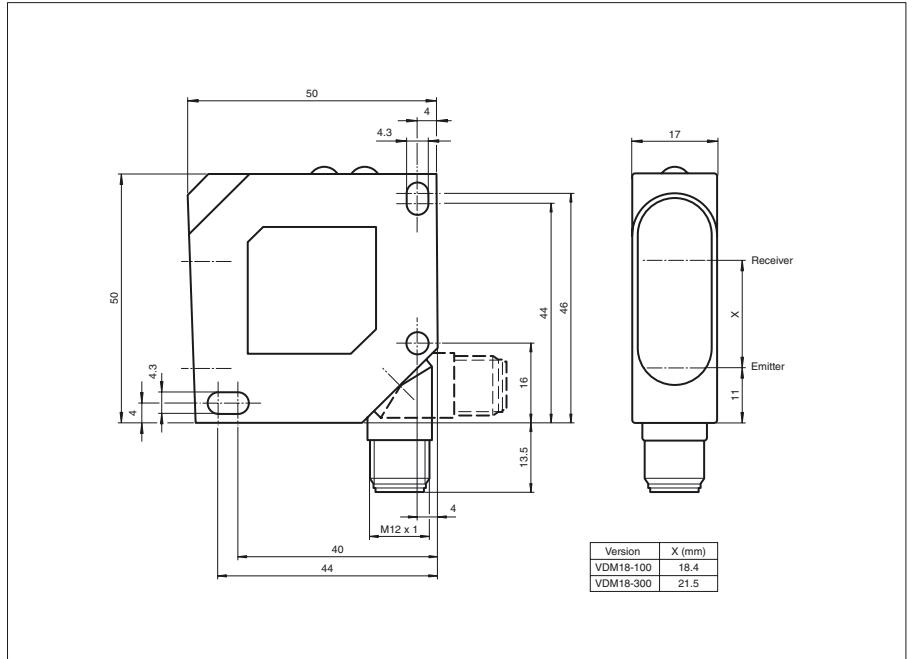
VDM18-300/32/105/122

Distance sensor
with 5-pin, M12 x 1 connector

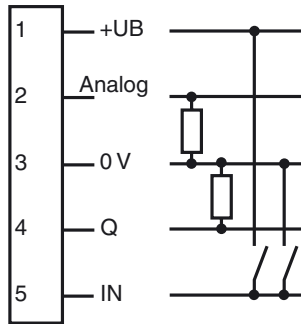
Features

- Analog output 4 mA ... 20 mA
- High resolution
- Very fast response characteristic, suitable for rapid scanning process

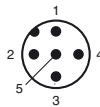
Dimensions



Electrical connection



Pinout



Release date: 2016-07-08 11:33 Date of issue: 2016-07-08 193922_eng.xml

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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Technical data**General specifications**

| | |
|---------------------------|--|
| Measurement range | 80 ... 300 mm |
| Light source | laser diode typ. service life 50,000 h at Ta = +40 °C |
| Light type | modulated visible red light |
| Laser nominal ratings | |
| Note | LASER LIGHT , DO NOT STARE INTO BEAM |
| Laser class | 2 |
| Wave length | 650 nm |
| Light spot representation | approx. 2 mm x 4.5 mm at 300 mm |
| Measuring method | Laser triangulation |
| Linearity error | 0.25 % of the measuring range |
| Ambient light limit | ≤ 5000 Lux |
| Resolution | < 0.1 % of the measuring range |
| Temperature influence | < 0.02% /°C |

Indicators/operating means

| | |
|----------------------------|---|
| Operation indicator | LED green |
| Function indicator | 2 yellow LEDs: Switching status (each output) , 4 green LEDs: Operating mode |
| Control elements | Control panel : Adjuster for switch point , Operating mode , Analog output (S - Set , T - Toggle) |
| Parameterization indicator | LED red |

Electrical specifications

| | | |
|--------------------------------|-------|------------------------------|
| Operating voltage | U_B | 18 ... 30 V DC |
| No-load supply current | I_0 | ≤ 40 mA at 24 V DC |
| Protection class | | II , rated voltage ≤ 50 V DC |
| Time delay before availability | t_v | ≤ 300 ms |

Input

| | |
|---------------|--|
| Control input | Laser off (HIGH +UB) Keypad lock (LOW 0 V) |
|---------------|--|

Output

| | | |
|---------------------|---|---------|
| Signal output | 1 PNP output, short-circuit protected, reverse polarity protected, open collector | |
| Switching current | max. 100 mA | |
| Measurement output | 1 analog output 4 ... 20 mA, short-circuit/overload protected , $R_{max} = 500 \text{ Ohm}$ | |
| Switching frequency | f | ≤ 1 kHz |
| Response time | | 0.4 ms |

Ambient conditions

| | |
|---------------------|-------------------------------|
| Ambient temperature | -10 ... 60 °C (14 ... 140 °F) |
| Storage temperature | -20 ... 80 °C (-4 ... 176 °F) |

Mechanical specifications

| | |
|----------------------|----------------------------------|
| Degree of protection | IP67 |
| Connection | 5-pin, M12 x 1 plastic connector |
| Material | |
| Housing | ABS , impact resistant |
| Optical face | PMMA |
| Mass | approx. 43 g |

Compliance with standards and directives

| | |
|---------------------------|---------------------------------------|
| Directive conformity | |
| EMC Directive 2004/108/EC | EN 60947-5-2 |
| Standard conformity | |
| Laser class | DIN EN 60825-1:2008, IEC 60825-1:2007 |

Approvals and certificates

| | |
|-------------|--------------|
| UL approval | cULus Listed |
|-------------|--------------|

Laserlabel**Accessories****OMH-VDM18-01**

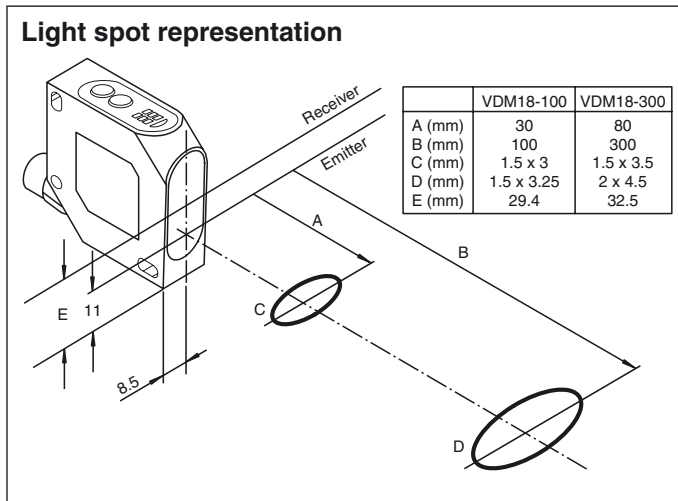
Mounting accessory, distance measuring devices Series VDM18

OMH-VDM18-02

Mounting accessory, distance measuring devices Series VDM18

Other suitable accessories can be found at www.pepperl-fuchs.com

Curves/Diagrams



Laser notice laser class 2

- The irradiation can lead to irritation especially in a dark environment. Do not point at people!
- Caution: Do not look into the beam!
- Maintenance and repairs should only be carried out by authorized service personnel!
- Attach the device so that the warning is clearly visible and readable.
- Caution – Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.