



**Model Number**

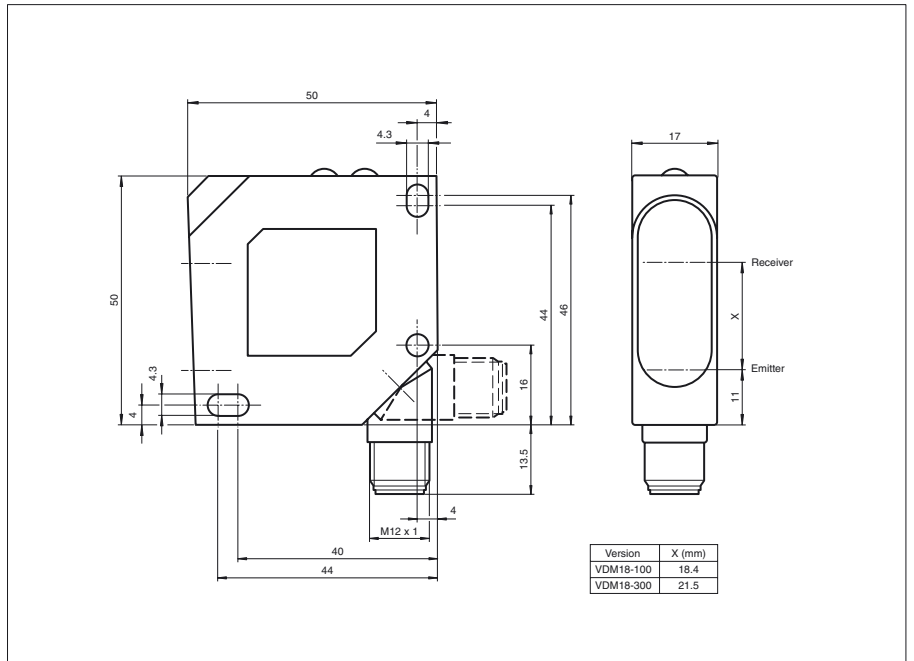
**VDM18-100/20/122/151**

Distance sensor  
8-pin, M12 metal connector, 90° convertible

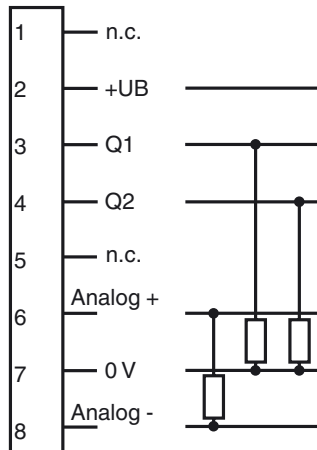
**Features**

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

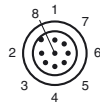
**Dimensions**



**Electrical connection**



**Pinout**



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

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**Technical data****General specifications**

Measurement range	30 ... 100 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. 1.5 mm x 3 mm at 100 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 <sub>B</sub>	18 ... 30 V DC
No-load supply current	I <sub>0</sub>	≤ 40 mA at 24 V DC
Protection class		II , rated voltage ≤ 50 V DC
Time delay before availability	t <sub>v</sub>	≤ 300 ms

**Output**

Signal output		2 PNP outputs, independent
Switching current		max. 100 mA
Measurement output		1 analog output 4 ... 20 mA, short-circuit/overload protected , R <sub>max</sub> = 500 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		M12 connector, 8-pin
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
Approvals		CE, cULus

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

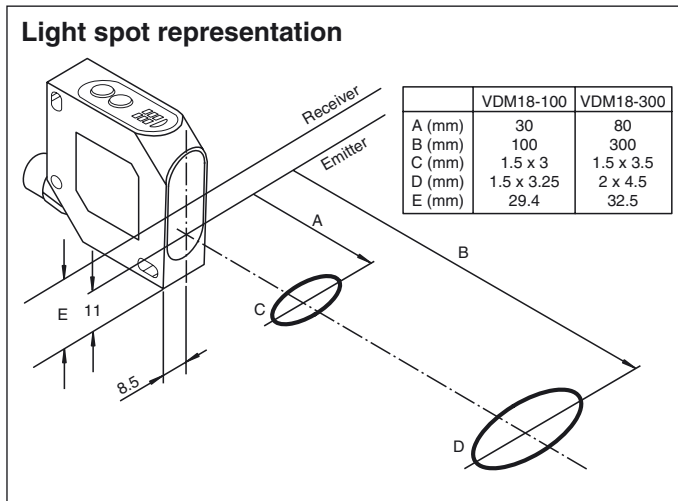
Mounting accessory, distance measuring devices Series VDM18

**OMH-VDM18-02**

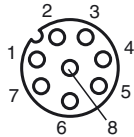
Mounting accessory, distance measuring devices Series VDM18

Other suitable accessories can be found at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com)

## Curves/Diagrams



**Caution: PIN 1 and PIN 5 must not be connected to the operating voltage. Otherwise the device will be destroyed**



## 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.