



**Model Number**

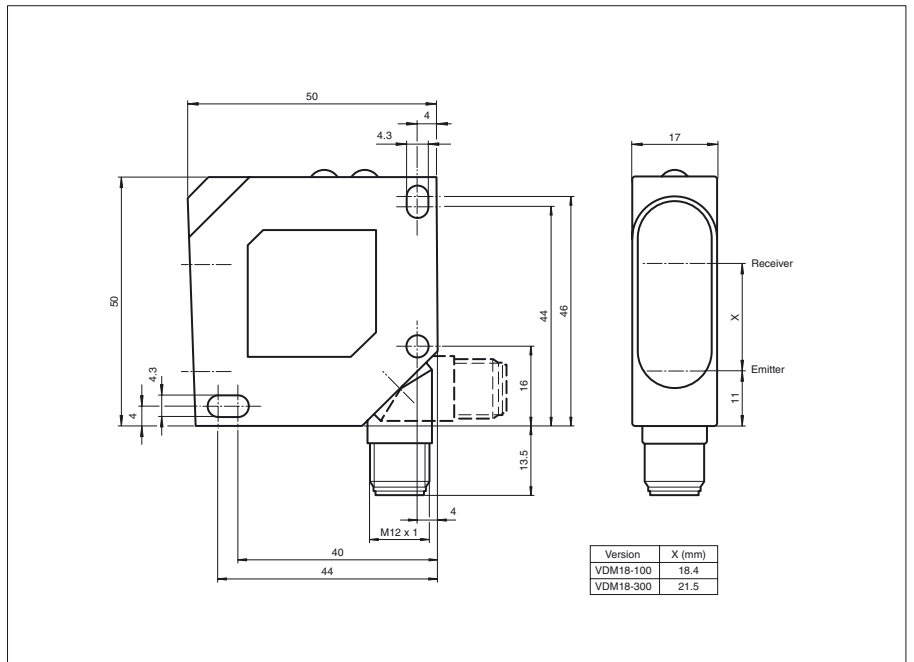
**VDM18-100/20/88/122/151**

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

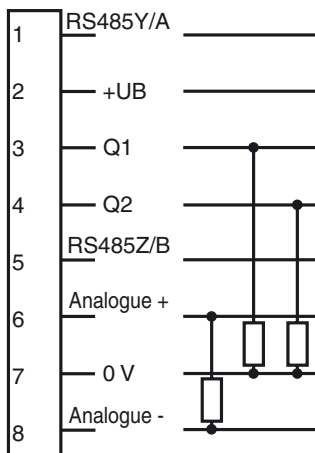
**Features**

- Analog output 4 mA ... 20 mA
- High resolution
- Very fast response characteristic, suitable for rapid scanning process
- Interface RS 485

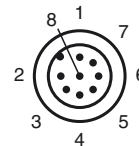
**Dimensions**



**Electrical connection**



**Pinout**



Release date: 2011-08-31 12:38 Date of issue: 2011-08-31 193921\_eng.xml

**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
Approvals	CE, cULus
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**

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

**Interface**

Interface type	RS 485
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**Output**

Interfaces	RS 485	
Signal output	2 PNP outputs, independent , short-circuit protected, reverse polarity protected	
Switching current	max. 100 mA	
Measurement output	1 analog output 4 ... 20 mA, short-circuit/overload protected , Rmax = 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**

Protection degree	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	IEC 60825-1:2001

**Approvals and certificates**

UL approval	cULus Listed
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**Accessories****OMH-VDM18-01**

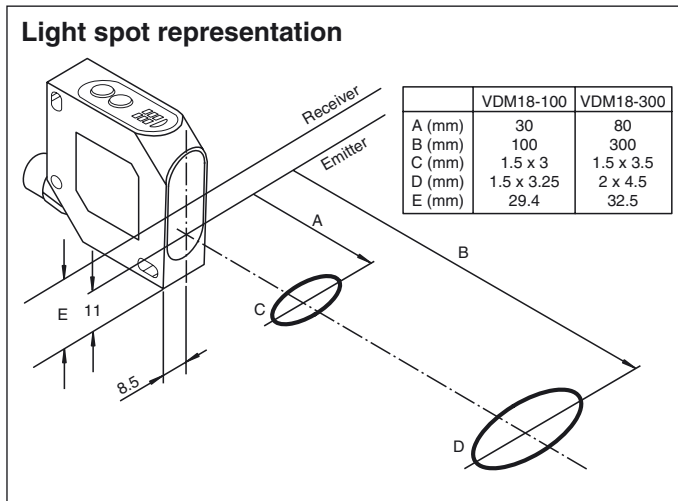
Mounting accessory, distance measuring devices Series VDM18

**OMH-VDM18-02**

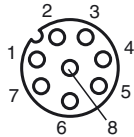
Mounting accessory, distance measuring devices Series VDM18

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.