



Model Number

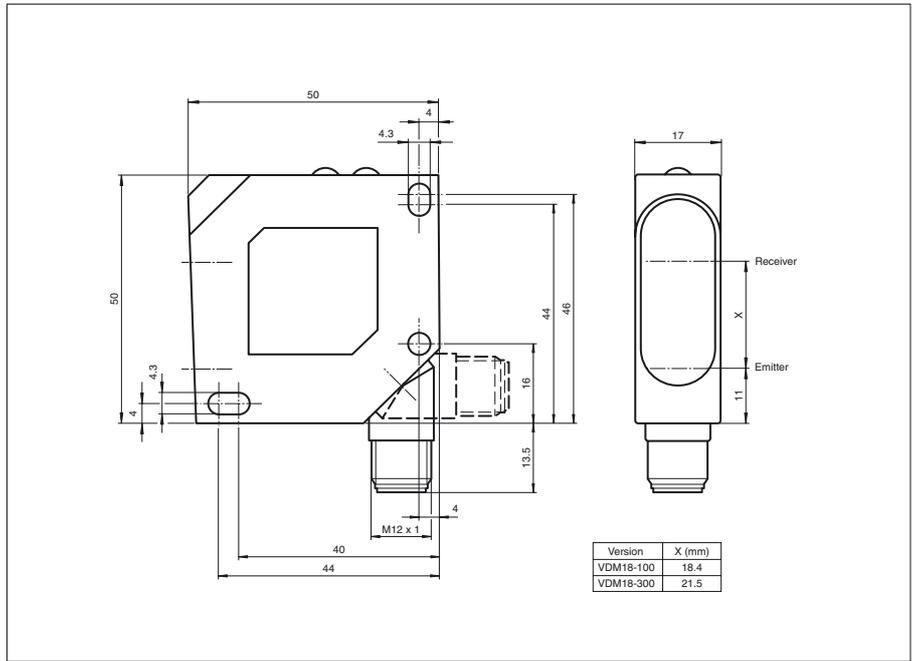
VDM18-100/20/88/122/151

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

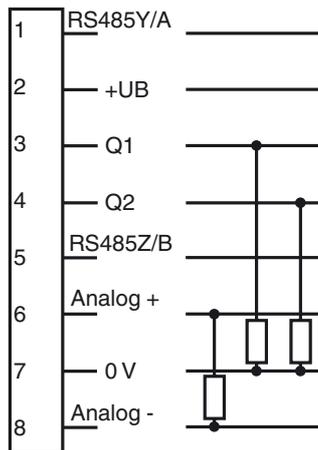
Features

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

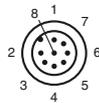
Dimensions



Electrical connection



Pinout



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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 _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 , R _{max} = 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**

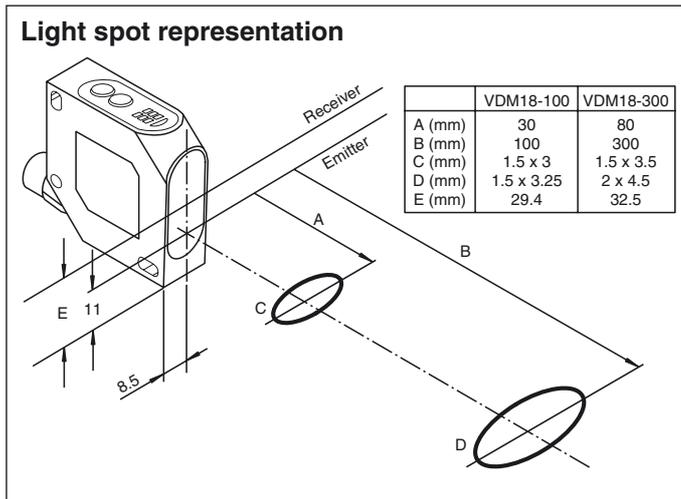
Mounting accessory, distance measuring devices Series VDM18

OMH-VDM18-02

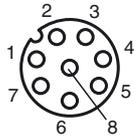
Mounting accessory, distance measuring devices Series VDM18

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

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.