



Model Number

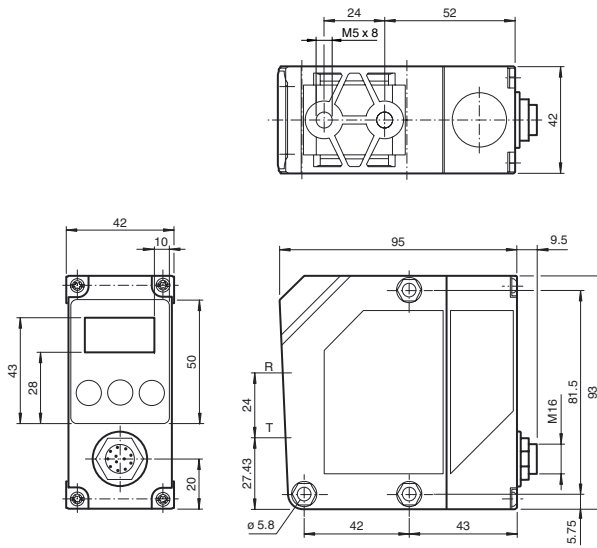
VDM70-10-L/87/122/160

Distance sensor
12-pin M16 connector

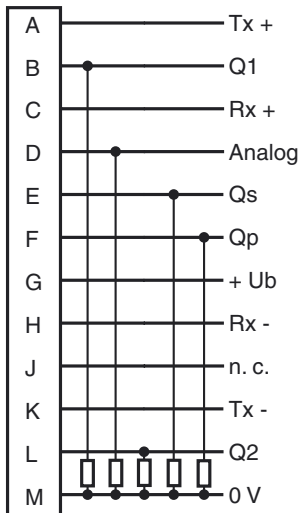
Features

- Distance measurement using object
- Measuring method PRT (Pulse Ranging Technology)
- Can be aligned using an integrated pilot laser
- SSI interface
- Adjustable switch outputs
- Not sensitive to ambient light
- Analog output 4 mA ... 20 mA

Dimensions



Electrical connection



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

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Technical data**General specifications**

Measurement range	0.5 ... 10 m by 90 % reflection (white)
Reference target	Kodak white (90%)
Light source	laser diode
Light type	modulated visible red light modulated infrared light
Laser nominal ratings	
Note	VISIBLE AND INVISIBLE LASER RADIATION , DO NOT STARE INTO BEAM
Laser class	Measurement laser: 1 Alignment laser: 2
Wave length	Measurement laser: 905 nm Alignment laser: 650 nm
Beam divergence	Measurement laser: 2 mrad Alignment laser: 1 mrad
Pulse length	Measurement laser: 6 ns Alignment laser: 0.25 μ s
Repetition rate	Measurement laser: 40 kHz Alignment laser: 1 kHz
Maximum optical power output	Measurement laser: 1.8 W Alignment laser: 3 mW
Measuring method	Pulse Ranging Technology (PRT)
Linearity error	+/- 8 mm
Absolute accuracy	\pm 12 mm
Diameter of the light spot	3 mm x 10 mm at a distance of 4 m
Resolution	0.1 mm or 0.125 mm
Hysteresis	H min. 10 mm (adjustable)
Temperature influence	< \pm 5 mm absolute

Functional safety related parameters

MTTF _d	230 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

Operation indicator	LED green
Function indicator	LED yellow: switching state , LED orange : error message
Control elements	Keypad (3 membrane keys) for parameter settings on the LCD display

Electrical specifications

Operating voltage	U _B	18 ... 30 V DC
Ripple		10 % within the supply tolerance
No-load supply current	I ₀	190 mA

Interface

Interface type	RS 422, SSI
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Output

Interfaces	RS 422, SSI
Signal output	2 PNP, short-circuit protected, reverse polarity protected
Switching current	100 mA
Measurement output	1 analog output 4 ... 20 mA, short-circuit/overload protected
Response time	12 ms
Repeat accuracy	R \pm 4 mm
Other outputs	Service output, plausibility output, PNP, short-circuit protected 50 mA

Ambient conditions

Ambient temperature	-10 ... 50 °C (14 ... 122 °F)
Storage temperature	-30 ... 75 °C (-22 ... 167 °F)

Mechanical specifications

Degree of protection	IP67
Connection	12-pin M16 connector
Material	
Housing	ABS
Optical face	PMMA
Mass	230 g

Compliance with standards and directives

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

Approvals and certificates

Protection class	II
UL approval	cULus

Accessories**OMH-VDM35-01**

Adjustment set series VDM35

VDM35-AR

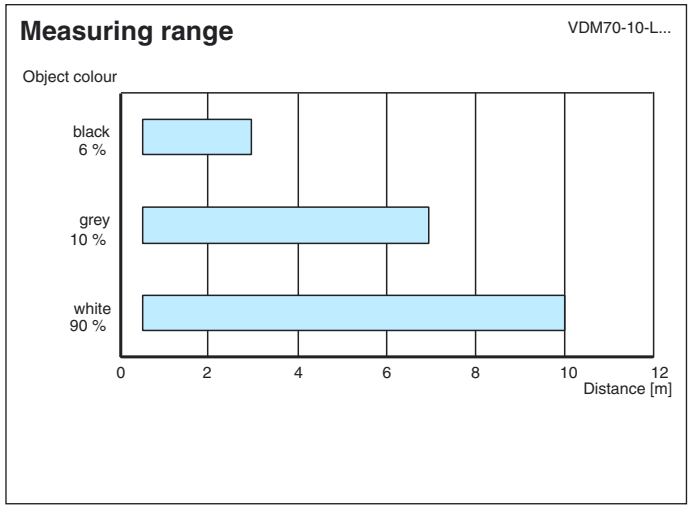
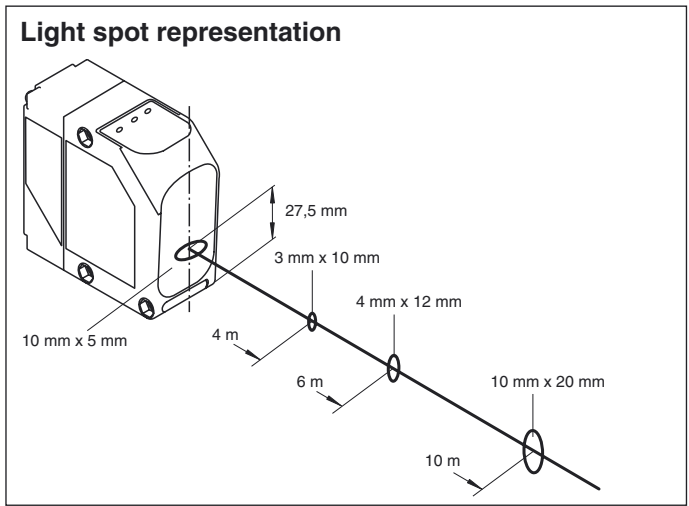
Alignment aid for VDM35 and VDM70 series

OMH-VDM35

Mounting bracket

42312BOther suitable accessories can be found at www.pepperl-fuchs.com

Curves/Diagrams



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