

Fiber optic sensor

VL18LL-M/30/40a/118

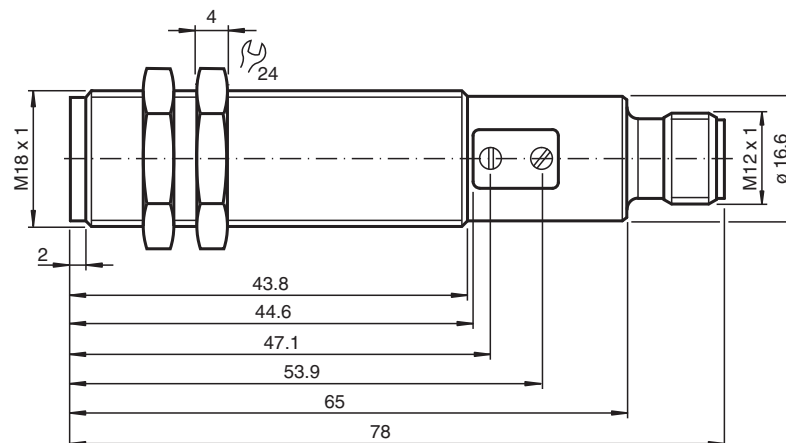


- Strong metallic housing in cylindrical shape M18 x 1
- Degree of protection IP67
- Not sensitive to ambient light, even with switched energy saving lamps
- Multiple device installation possible, no mutual interference (no cross-talk)
- M12 plug connection
- Protection class 2

Fiber optic sensor for glass fiber optics



Dimensions



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

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

Technical Data

General specifications

Sensor range		up to 70 mm (LMR 18-3,2-1,0-K4)
Detection range		up to 300 mm (LME 18-2,3-0,5-K3)
Light source		LED, 650 nm visible red light
Light type		modulated visible red light
Angle of divergence		26 °
Optical face		frontal
Ambient light limit		30000 Lux
Hysteresis	H	< 15 %

Functional safety related parameters

MTTF _d		700 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %

Indicators/operating means

Operation indicator		LED green, flashes in case of short-circuit
Function indicator		LED yellow, lights up with receiver lit
Control elements		Sensitivity adjuster, light/dark switch

Electrical specifications

Operating voltage	U _B	10 ... 30 V DC , class 2
Ripple		10 %
No-load supply current	I ₀	< 35 mA
Protection class		II , rated voltage ≤ 50 V AC with pollution degree 1-2 according to IEC 60664-1

Output

Switching type		light/dark on, switchable
Signal output		1 NPN output, short-circuit protected, reverse polarity protected, open collector
Switching voltage		30 V DC
Switching current		max. 200 mA
Voltage drop	U _d	≤ 2.5 V DC
Switching frequency	f	500 Hz
Response time		1 ms

Conformity

Product standard		EN 60947-5-2
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Approvals and certificates

UL approval		cULus Listed, Type 1 enclosure
CCC approval		CCC approval / marking not required for products rated ≤36 V

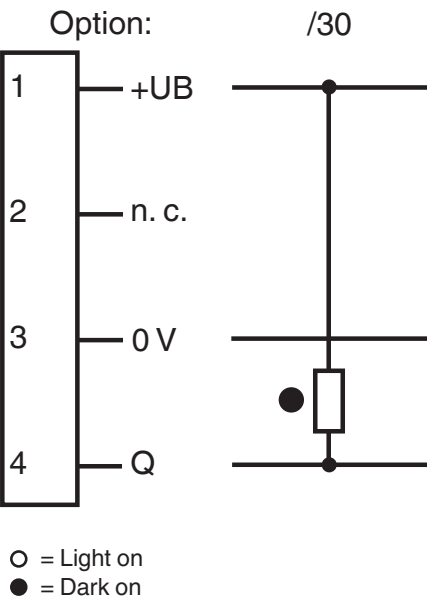
Ambient conditions

Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-30 ... 70 °C (-22 ... 158 °F)

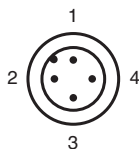
Mechanical specifications

Degree of protection		IP67
Connection		M12 connector, 4-pin
Material		
Housing		brass, nickel-plated
Optical face		plastic
Mass		60 g

Connection Assignment



Connection Assignment



Accessories

	LMR 18-3,2-0,5-K1	Glass fiber optic - diffuse with metal covering
	LCR 18-3,2-0,5-K5	Glass fiber optic - diffuse with PVC covering
	LMR 18-3,2-0,5-K4	Glass fiber optic - diffuse with metal covering
	LME 18-2,3-0,5-K1	Glass fiber optic - thru-beam with metal covering
	LME 18-2,3-0,5-K3	Glass fiber optic - thru-beam with metal covering
	LME 18-2,3-0,5-K5	Glass fiber optic - thru-beam with metal covering
	LSE 18-2,3-0,5-K9	Glass fiber optic - thru-beam with silicon covering
	LME 18-1,9-0,5-K9	Glass fiber optic - thru-beam with metal covering
	V1-G-2M-PUR	Female cordset single-ended M12 straight A-coded, 4-pin, PUR cable grey

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Accessories

	V1-W-2M-PUR	Female cordset single-ended M12 angled A-coded, 4-pin, PUR cable grey
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