

Fiber optic sensor

VL18LL-M/40a/118/128

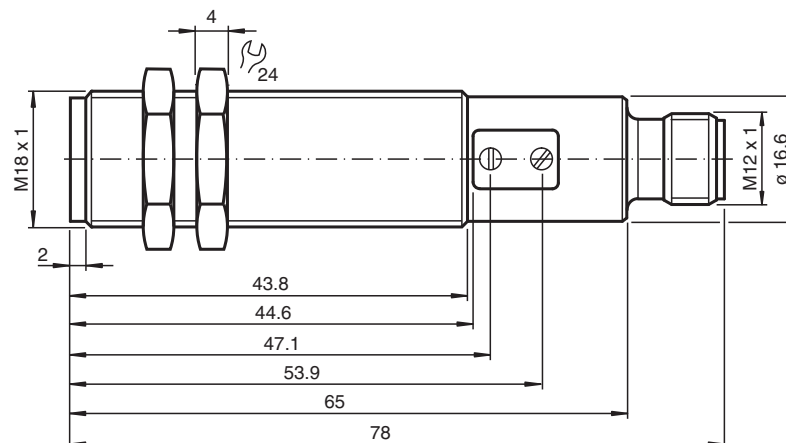


- Strong metallic housing in cylindrical shape M18 x 1
- Degree of protection IP67
- Not sensitive to ambient light, even with switched energy saving lamps
- Multiple device installation possible, no mutual interference (no cross-talk)
- M12 plug connection
- Protection class 2

Fiber optic sensor for glass fiber optics



Dimensions



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

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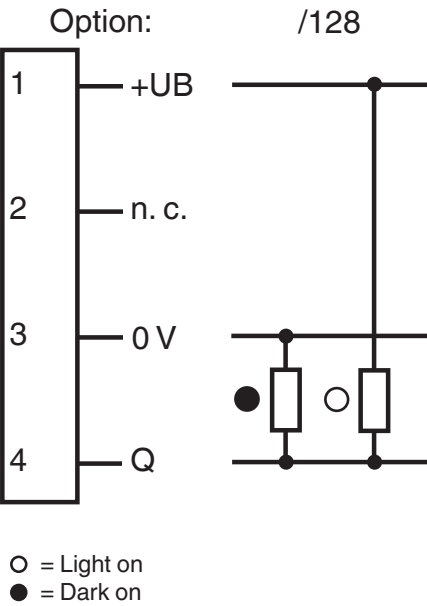
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Technical Data

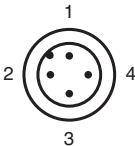
General specifications			
Sensor range			up to 70 mm (LMR 18-3,2-1,0-K4)
Detection range			up to 300 mm (LME 18-2,3-0,5-K3)
Light source			LED, 650 nm visible red light
Light type			modulated visible red light
Opening angle			26 °
Optical face			frontal
Ambient light limit			30000 Lux
Hysteresis	H		< 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			Push-pull (4 in 1) output short-circuit protected overvoltage protected
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
Approvals and certificates			
EAC conformity			TR CU 020/2011
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

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

Accessories

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