



Model Number

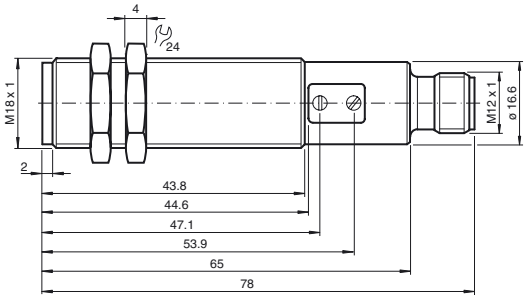
VL18LL-M/40a/118/128

Fiber optic sensor
with 4-pin, M12 x 1 connector

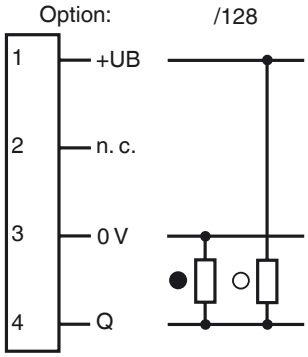
Features

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

Dimensions

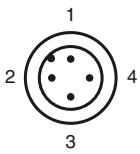


Electrical connection



○ = Light on
● = Dark on

Pinout



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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
Approvals		CE, cULus
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		
Operating display		LED green, flashes in case of short-circuit
Function display		LED yellow, lights up with receiver lit
Controls		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 ≤ 300 V AC with pollution degree 1-2 according to IEC 60664-1
Output		
Switching type		light/dark on, switchable
Signal output		Push-pull output short-circuit protected overvoltage protected
Switching voltage		30 V DC
Switching current		max. 200 mA
Switching frequency	f	500 Hz
Response time		1 ms
Standard conformity		
Standards		EN 60947-5-2
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-30 ... 70 °C (-22 ... 158 °F)
Mechanical specifications		
Protection degree		IP67
Connection		M12 connector, 4-pin
Material		
Housing		brass, nickel-plated
Optical face		plastic
Mass		60 g
Approvals and certificates		
CCC approval		Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval.

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

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

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