



Retro-reflective sensor

OFR-FNKG/US-100



1 potentiometer



Application

Function principle	Retro-reflective sensor
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Electrical data

Operating voltage	[V]	10...36 DC
Current consumption	[mA]	< 35
Protection class		II
Reverse polarity protection		yes
Type of light		infrared light
Wave length	[nm]	880

Outputs

Electrical design		NPN
Output function		light-on/dark-on mode; (programmable)
Max. voltage drop switching output DC	[V]	2.5
Function check output		yes
Max. voltage drop of function check output	[V]	3.5
Max. current load for function check output	[mA]	10
Permanent current rating of switching output DC	[mA]	200
Switching frequency DC	[Hz]	320
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes

Detection zone

Range referred to prismatic reflector	[m]	0.05...2; (Prismatic reflector Ø 80 E20005)
Range adjustable		yes
Max. light spot diameter	[mm]	140
Light spot dimensions refer to		at maximum range

OF5051



Retro-reflective sensor

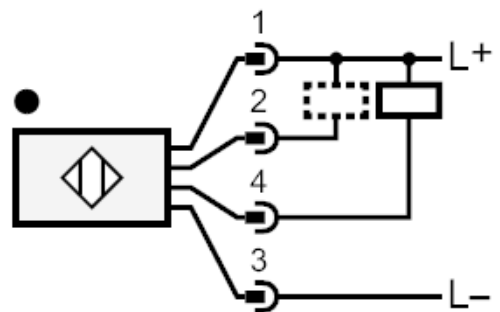
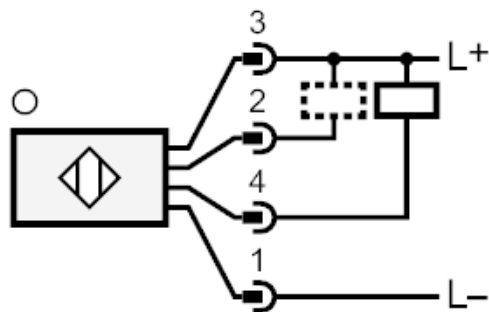
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Operating conditions		
Ambient temperature	[°C]	-25...60
Protection		IP 65
Tests / approvals		
EMC	EN 60947-5-2	
	EN 55011	class B
MTTF	[years]	601
Mechanical data		
Weight	[g]	47.6
Housing		threaded type
Dimensions	[mm]	M12 x 1 / L = 74
Thread designation		M12 x 1
Materials		brass nickel-plated
Lens material		PMMA
Displays / operating elements		
Display	switching status	1 x LED, yellow
	operation	1 x LED, green
	function	1 x LED, red
Accessories		
Accessories (supplied)		lock nuts: 2 x
		screwdrivers
Remarks		
Pack quantity		1 pcs.
Electrical connection		
Connector: 1 x M12		
		

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Connection



2 Function check output

Diagrams and graphs

excess gain graph

