

OF5051



Retro-reflective sensor

OFR-FNKG/US-100



1 potentiometer



Product characteristics

Type of light	Infrared light
Housing	Threaded type

Application

System	Function check output
Function principle	Retro-reflective sensor

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		yes (non-latching)
Overload protection		yes

Monitoring range

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

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]	40.6
Housing	Threaded type
Dimensions [mm]	M12 x 1 / L = 74
Thread designation	M12 x 1
Material	brass nickel-plated
Lens material	PMMA

Displays / operating elements

Display	Switching status	1 x LED, yellow
	Power	1 x LED, green
	Function	1 x LED, red

Accessories

Items supplied	lock nuts: 2
	screwdrivers

Remarks

Pack quantity	1 pcs.
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Electrical connection

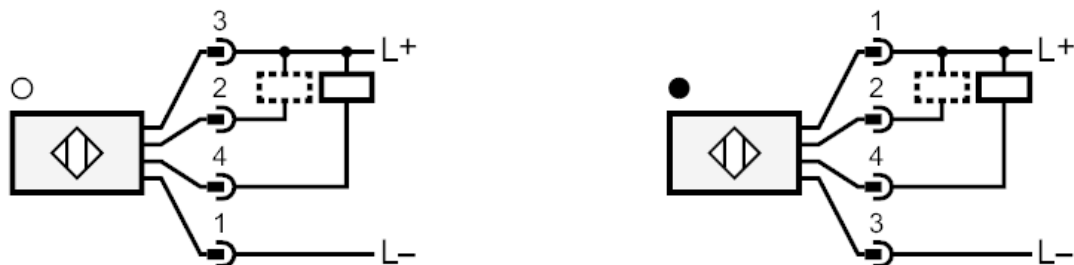
Connector: 1 x M12; coding: A



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Connection



2 Function check output

Diagrams and graphs

excess gain graph

