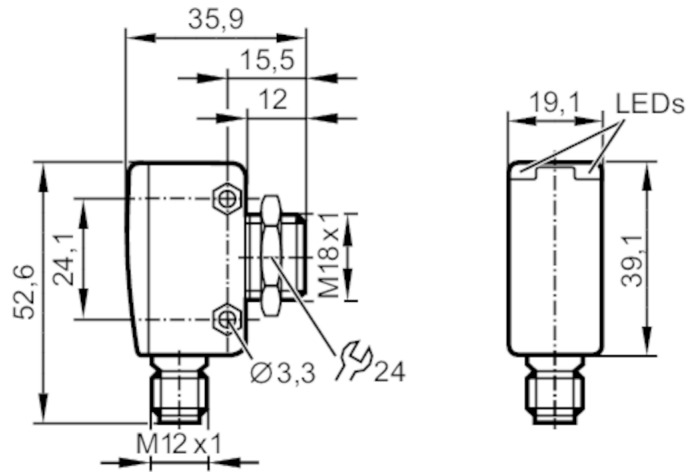


OGH280



Diffuse reflection sensors with background suppression

OGH-HPKG/US/CUBE/100MM



transmitter in lower lens
Receiver in upper lens



Product characteristics

Type of light	red light
Communication interface	IO-Link
Housing	rectangular
Dimensions [mm]	M18 x 1

Application

System	Background suppression
Function principle	Diffuse reflection sensor

Electrical data

Operating voltage [V]	10...30 DC; (cULus - Class 2 source required)
Rated insulation voltage [V]	32
Current consumption [mA]	25
Protection class	III
Reverse polarity protection	yes
Max. power-on delay time [ms]	300
Type of light	red light
Wave length [nm]	645

Outputs

Electrical design	PNP
Output function	light-on mode
Max. voltage drop switching output DC [V]	2.5
Permanent current rating of switching output DC [mA]	200
Switching frequency DC [Hz]	1000
Short-circuit protection	yes
Type of short-circuit protection	yes (non-latching)



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Monitoring range		
Range	[mm]	< 100; (white paper 200 x 200 mm 90 % remission)
Range on white object (90 % remission)	[mm]	< 100
Range on grey object (18 % remission)	[mm]	< 100
Range on black object (6 % remission)	[mm]	< 100
Range adjustable		no
Max. light spot diameter	[mm]	7
Light spot dimensions refer to		at maximum range
Background suppression available		yes

Interfaces		
Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9
IO-Link device ID		1131 d / 00 04 6B h
Profiles		Measuring Sensor, Identification and Diagnosis, Switching Signal Channel, Teach Channel
SIO mode		yes
Required master port class		A
Min. process cycle time	[ms]	10
IO-Link process data (cyclical)	Function	bit length
	process value	16
	device status	4
	binary switching information	1
IO-Link functions (acyclical)		application specific tag; operating hours counter; switching cycles counter
Note		For further information please see the IODD PDF file at "Downloads"

Operating conditions		
Ambient temperature	[°C]	-25...60
Storage temperature	[°C]	-40...60
Protection		IP 67

Tests / approvals		
EMC		EN 60947-5-2
MTTF	[years]	782
UL approval	Ta	-25...60 °C
	Enclosure type	Type 1
	voltage supply	Class 2
	File number UL	E174191

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Mechanical data

Weight [g]	69.1
Housing	rectangular
Dimensions [mm]	M18 x 1
Thread designation	M18 x 1
Material	diecast zinc; PEI
Lens material	PEI

Displays / operating elements

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

Accessories

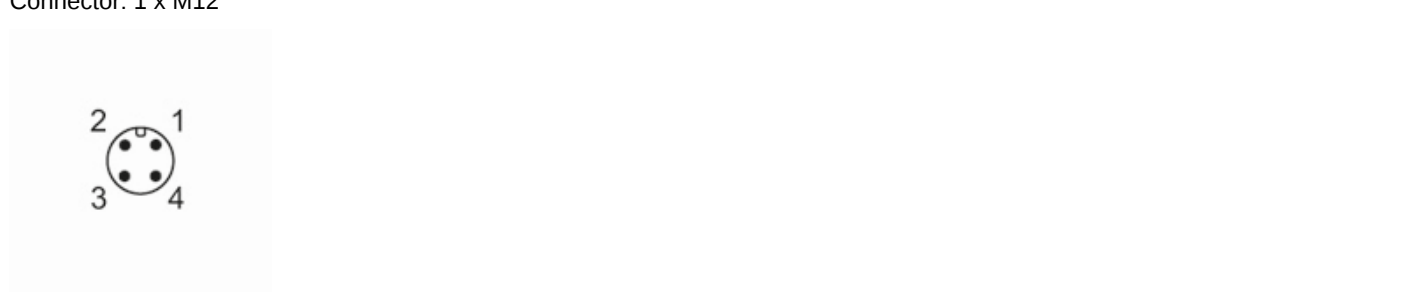
Accessories (supplied)	lock nut: 1 x
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Remarks

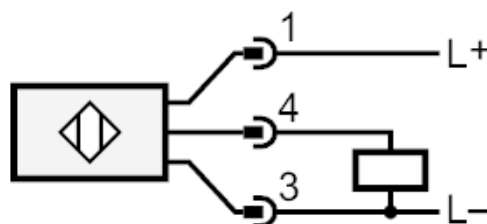
Pack quantity	1 pcs.
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Electrical connection

Connector: 1 x M12



Connection





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Other data

Repeatability / precision: 6 σ

	Repeatability of the measured values	
Abstand	white (90 % remission)	black (6 %...90 % remission)
20 mm	0.5 mm	1.0 mm
50 mm	0.8 mm	2.0 mm
100 mm	1.5 mm	4.5 mm
	Accuracy	
Abstand	white (90 % remission)	black (6 %...90 % remission)
20 mm	± 1.5 mm	± 1.8 mm
50 mm	± 3.0 mm	± 3.5 mm
100 mm	± 5.0 mm	± 6.5 mm

The values apply at

Extraneous light on the object	< 10 klx
constant ambient conditions	23 °C / 960 hPa
minimum power-on time in minutes	10