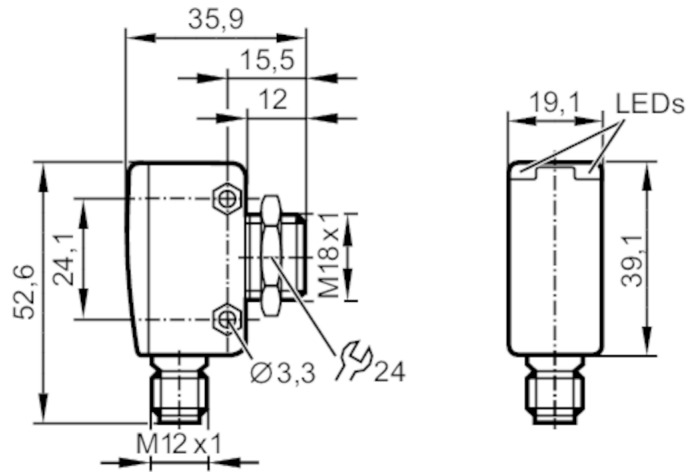




Diffuse reflection sensor with background suppression

OGH-HPKG/US/CUBE/200MM



transmitter in lower lens
receiver in upper lens



Product characteristics

Type of light	red light
Housing	rectangular

Application

Special feature	Background suppression
Function principle	Diffuse reflection sensor

Electrical data

Operating voltage	[V]	10...30 DC; ("supply class 2" to cULus)
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		pulsed



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Detection zone	
Range	[mm] < 200; (white paper 200 x 200 mm 90% remission)
Range on white object (90 % remission)	[mm] < 200
Range on grey object (18 % remission)	[mm] < 200
Range on black object (6 % remission)	[mm] < 190
Range adjustable	no
Max. light spot diameter	[mm] 13
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	
Profiles	Measuring Sensor, Identification and Diagnosis, Switching Signal Channel, Teach Channel	
SIO mode	yes	
Required master port type	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	
Supported DeviceIDs	Type of operation	DeviceID
	Default	1132
Note	For further information please see the IODD PDF file under "Downloads"	

Operating conditions	
Ambient temperature	[°C] -25...60
Storage temperature	[°C] -40...60
Protection	IP 65; 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]	58.5
Housing		rectangular
Dimensions	[mm]	M18 x 1
Thread designation		M18 x 1
Materials		diecast zinc; PEI
Lens material		PEI

Displays / operating elements

Display	switching status	1 x LED, yellow
	operation	1 x LED, green

Accessories

Items supplied	lock nut: 1 x
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Remarks

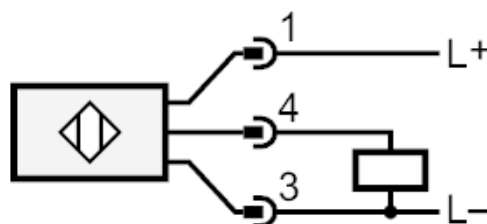
Pack quantity	1 pcs.
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Electrical connection

Connector: 1 x M12; coding: A



Connection



OGH281



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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
150 mm	3.0 mm	9.0 mm
200 mm	6.0 mm	20.0 mm

	Accuracy	
Abstand	white (90 % remission)	black (6 %...90 % remission)
20 mm	± 2.0 mm	± 2.5 mm
50 mm	± 3.5 mm	± 4.5 mm
100 mm	± 6.0 mm	± 7.5 mm
150 mm	± 7.5 mm	± 11.0 mm
200 mm	± 10.0 mm	± 17.0 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