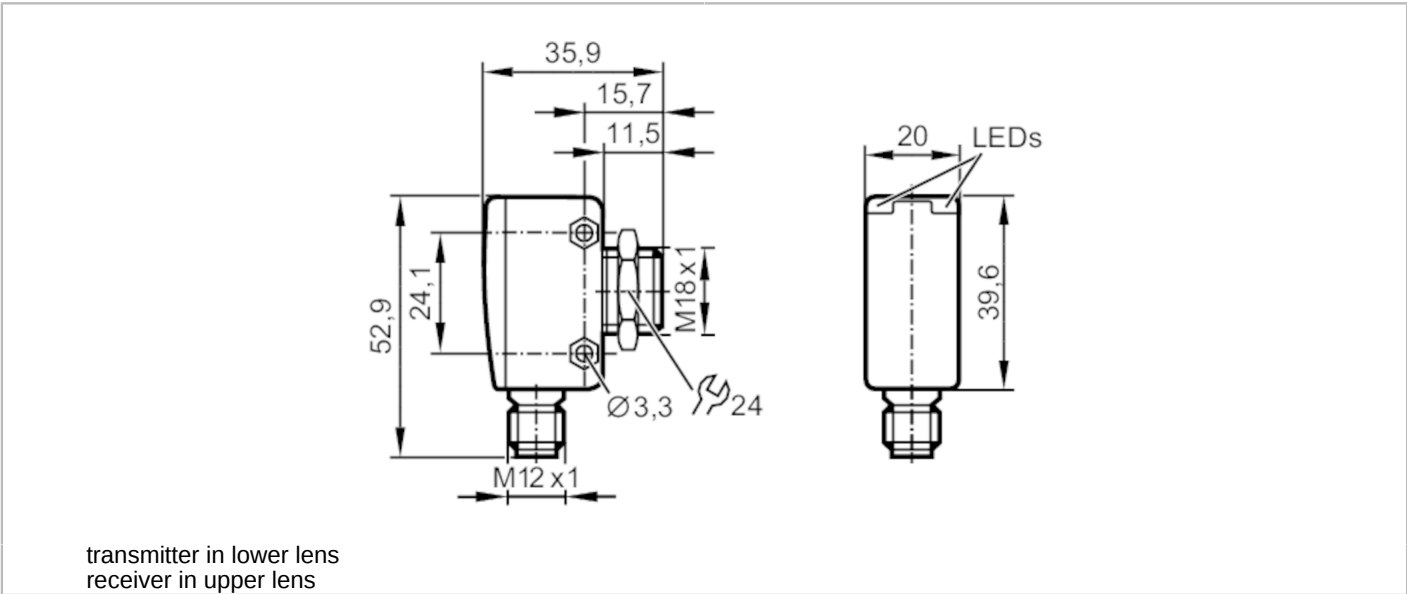




Diffuse reflection sensor with background suppression

OGH-HPKG/US/IV4A/CUBE/200MM



Product characteristics		
Type of light		red light
Housing		rectangular with M18 thread
Application		
Special feature		Background suppression
Function principle		Diffuse reflection sensor
Electrical data		
Operating voltage	[V]	10...30 DC
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
Detection zone		
Range	[mm]	< 200; (white paper 200 x 200 mm 90% remission)



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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...80	
Storage temperature [°C]	-40...80	
Protection	IP 65; IP 67; IP 68; IP 69K	

Tests / approvals		
EMC	EN 60947-5-2	
MTTF [years]	782	
UL approval	Ta	-25...80 °C
	Enclosure type	Type 1
	power supply	Class 2
	File number UL	E174191

Mechanical data		
Weight [g]	77.5	
Housing	rectangular with M18 thread	
Dimensions [mm]	52.9 x 20 x 35.9	
Thread designation	M18 x 1	
Materials	stainless steel (630/1.4542/17-4 PH); PEI	
Lens material	PEI	



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Lens alignment	side lens
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Displays / operating elements

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

Accessories

Items supplied	lock nut: 1
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Remarks

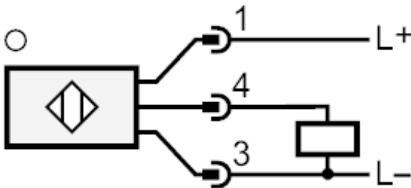
Pack quantity	1 pcs.
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Electrical connection

Connector: 1 x M12; coding: A



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
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	