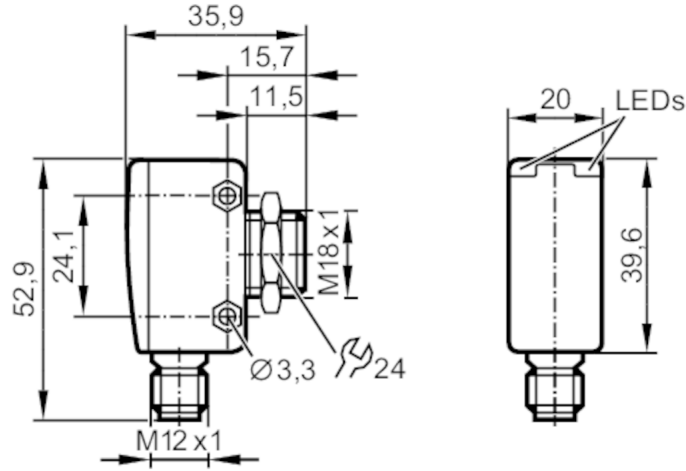


# OGH380



## Diffuse reflection sensor with background suppression

OGH-HPKG/US/V4A/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

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



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Detection zone	
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	
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	1131
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
	voltage supply	Class 2
	File number UL	E174191

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### Mechanical data

Weight	[g]	78.5
Housing		rectangular
Dimensions	[mm]	M18 x 1
Thread designation		M18 x 1
Materials		1.4542 (17-4 PH / 630); 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

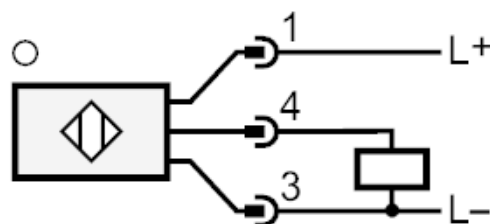
Pack quantity	1 pcs.
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### Electrical connection

Connector: 1 x M12



### Connection



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### Other data

#### Repeatability / precision: 6 $\sigma$

	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	$\pm 1.5$ mm	$\pm 1.8$ mm
50 mm	$\pm 3.0$ mm	$\pm 3.5$ mm
100 mm	$\pm 5.0$ mm	$\pm 6.5$ 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