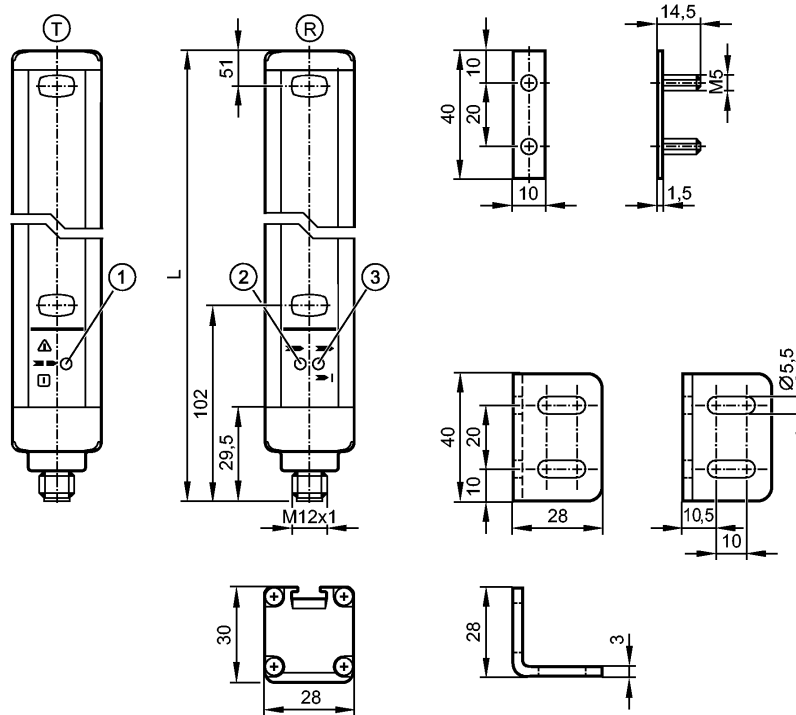


OY120S

OYA0510-02-4-20-P-1

Photoelectric sensors

Please note the wiring of the sensor and the sockets (see data sheet) as for 8-pole sockets the core colours are not standardised.



- T: Transmitter
- R: Receiver
- 1: LED 3 colours (red/green/orange)
- 2: LED 2 colours (yellow/blue)
- 3: LED 2 colours (red/green)



Product characteristics

Safety light grid	
Length L: 653 mm	
Connector	
Complies with the requirements:	
type 4 (IEC 61496-1)	
SIL 3 (IEC 61508)	
SILcl 3 (IEC 62061)	
PL e (EN ISO 13849-1)	

Electrical data

Electrical design		DC PNP
Operating voltage	[V]	24 DC (19.2...28.8)
Current consumption		
- Transmitter	[mA]	42
- Receiver	[mA]	83
Type of light		Infrared light 950 nm
Protection class		III
Reverse polarity protection		yes
Power-on delay time	[s]	< 2

Outputs

OY120S

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Photoelectric sensors

Outputs (OSSDs)	2 x PNP
Max. current load per output [mA]	400 (24 V)
Short-circuit protection	yes

Range	
Protected area height [mm]	510
Number of beams	2
Protected area width (range) [m]	0...10 / 3...20

Reaction times	
Response time [ms]	2.5

Environment	
Applications	Class C to EN 60654-1 weatherproof application
Ambient temperature [°C]	-10...55
Max. relative air humidity [%]	95
Protection	IP 65 / IP 67

Tests / approvals	
EMC	IEC 61496-1
Shock resistance	IEC 61496-1
Vibration resistance	IEC 61496-1

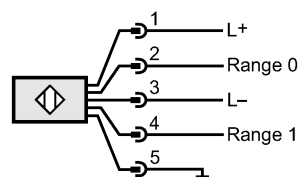
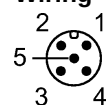
Safety classification	
Mission time TM [h]	175200
Test interval T1 [Years]	20
Safety-related reliability PFHd [1/h]	9.2E-09
MTTFd [Years]	100
DC/CCF/Cat.	95.8 % / 80 % / 4

Mechanical data	
Length L [mm]	653
Housing materials	housing: aluminium; window: PC
Weight [kg]	2.355

Displays / operating elements	
Display	LED yellow LED green LED red LED blue LED orange

Electrical connection	
Transmitter	
Connection	M12 connector

Wiring Transmitter



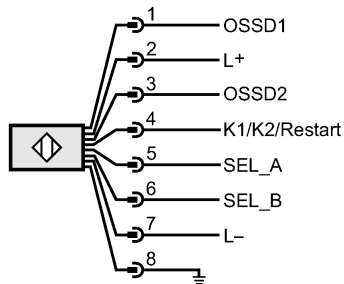
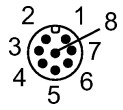
Receiver	
Connection	M12 connector

OY120S

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Photoelectric sensors

Wiring Receiver



Max. connection cable length [m]	100 *)
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Accessories

Accessories (included)	4 mounting brackets; 4 mounting nuts; nuts
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Remarks

Remarks	*) for wire cross-section 0.34 mm ²
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Pack quantity [piece]	1
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ifm electronic gmbh • Friedrichstraße 1 • 45128 Essen — We reserve the right to make technical alterations without prior notice. — GB — OY120S — 10.11.2009

Please note the wiring of the sensor and the sockets (see data sheet) as for 8-pole sockets the core colours are not standardised.