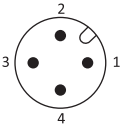


OSM70 SERIES

ARTICLE PROPERTIES

SENSOR TYPE	Photoelectric sensor	CONNECTION TYPES (see table)
SIZE	See dimensions	<ul style="list-style-type: none"> • Cable PVC, 0.34 mm², 2 m** • M12 connector
OPERATING DISTANCE	See table	
DETECTION MODE	Opposed, Retro-reflective, Polarized retro-reflective, BGS TOF	

** Other cable lengths are available on request

TECHNICAL DATA

OPERATING VOLTAGE	10 ... 30 V DC (push-pull), 24 ... 240 V AC/DC (relay)	REVERSE POLARITY PROTECTION	Yes (push-pull)
RIPPLE VOLTAGE	≤ 10 %	OVERLOAD RESISTANCE	Yes
LASER CLASS	Opposed / retroreflective: red laser (655 nm) / class 2; TOF: infrared laser (940 nm) + indication laser (655 nm) / class 1	SHORT CIRCUIT PROTECTION	Yes
LIGHT SPOT SIZE	See beam pattern	ELECTRICAL SURGE PROTECTION	Yes, (relay)
OUTPUT	Push-Pull, Relay	MTTF	
FREQUENCY	See table	• Emitter	323 years
CURRENT CONSUMPTION	≤ 30 mA	• Receiver	284 years
LOAD CURRENT	≤ 450 mA (push-pull), ≤ 3 A (relay)	• Retro-reflective and BGS TOF	141 years
HOUSING MATERIAL	Die cast zinc	• Relay	29 years
VOLTAGE WITHSTANDING	1000 V/AC, 50/60 Hz, 60 s		

ENVIRONMENTAL CONDITIONS

OPERATING ENVIRONMENT HUMIDITY	35 % to 85 % RH (no condensation)	INSULATION IMPEDENCE	≥ 20 MΩ (500 V DC)
PROTECTION CLASS	IP67	SHOCK RESISTANCE (EN 60068-2-27)	500 m/s ² (50 G) 3 times X, Y, Z respectively
STORAGE TEMPERATURE	-25 ... +55 °C	IMPACT RESISTANCE (EN 60068-2-6)	Complex amplitude 1.5 mm 10 ... 50 Hz (2hr X, Y, Z respectively)
AMBIENT TEMPERATURE	-40 ... +70 °C	ANTI-AMBIENT LIGHT	≤ 5000 Lux

STANDARDS AND DIRECTIVES

EMC DIRECTIVE 2014/30/EU	EN IEC 60947-5-2	ROHS DIRECTIVE 2011/65/EU	EN IEC 63000
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OSM70 SERIES

APPROVALS



DETECTION MODE OPPOSED

Article number	Operating distance	Light source	Frequency	Output (wiring diagram)	Switching mode	Connection	Dimensions
OSM70-SL6	150 m	Laser	---	--- (WD1)	---	2 m cable	see Fig. 1
OSM70-ELVB6	150 m	---	800 Hz	Push-Pull (WD6)	L.O + D.O	2 m cable	see Fig. 1
OSM70-SL6Q	150 m	Laser	---	--- (WD2)	---	M12 connector	see Fig. 1
OSM70-SL5	150 m	---	800 Hz	Push-Pull(WD4)	L.O + D.O	M12 connector	see Fig. 2
OSM70-ELVB6Q	150 m	Laser	---	--- (WD3)	---	2 m cable	see Fig. 2
OSM70-ELVR5	150 m	---	50 Hz	Relay (WD5)	L.O + D.O	2 m cable	see Fig. 2

DETECTION MODE RETRO-REFLECTIVE

The detection distance corresponds to the reflector RB50*50-1

Article number	Operating distance	Light source	Frequency	Output (wiring diagram)	Switching mode	Connection	Dimensions
OSM70-RLVB6	30 m	Laser	800 Hz	Push-Pull(WD6)	L.O + D.O	2 m cable	see Fig. 1
OSM70-RLVB6Q	30 m	Laser	800 Hz	Push-Pull(WD4)	L.O + D.O	M12 connector	see Fig. 1
OSM70-RLVR5	30 m	Laser	50 Hz	Relay (WD5)	L.O + D.O	2 m cable	see Fig. 2

DETECTION MODE POLARIZED RETRO-REFLECTIVE

The detection distance corresponds to the reflector RB50*50-1

Article number	Operating distance	Light source	Frequency	Output (wiring diagram)	Switching mode	Connection	Dimensions
OSM70-RPLVB6	25 m	Laser	800 Hz	Push-Pull(WD6)	L.O + D.O	2 m cable	see Fig. 1
OSM70-RPLVB6Q	25 m	Laser	800 Hz	Push-Pull(WD4)	L.O + D.O	M12 connector	see Fig. 1
OSM70-RPLVR5	25 m	Laser	50 Hz	Relay (WD5)	L.O + D.O	2 m cable	see Fig. 2

OSM70 SERIES

DETECTION MODE BGS TOF

Article number	Operating distance	Light source	Frequency	Output (wiring diagram)	Switching mode	Connection	Dimensions
OSM70-AKL3000VB6	3 m	Infrared laser + Laser indication	20 ... 50 Hz	Push-Pull (WD6)	L.O + D.O	2 m cable	see Fig. 1
OSM70-AKL3000VB6Q	3 m	Infrared laser + Laser indication	20 ... 50 Hz	Push-Pull (WD4)	L.O + D.O	M12 connector	see Fig. 1
OSM70-AKL3000VR5	3 m	Infrared laser + Laser indication	20 ... 50 Hz	Relay (WD5)	L.O + D.O	2 m cable	see Fig. 2
OSM70-AKL3000C2B6	3 m	Infrared laser + Laser indication	20 ... 50 Hz	2 x Push-Pull (WD7)	L.O + D.O	2 m cable	see Fig. 2
OSM70-AKL3000C2B6Q	3 m	Infrared laser + Laser indication	20 ... 50 Hz	2 x Push-Pull (WD8)	L.O + D.O	M12 connector	see Fig. 1

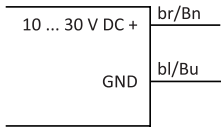
DETECTION MODE BGS TOF

Article number	Operating distance	Light source	Frequency	Output (wiring diagram)	Switching mode	Connection	Dimensions
OSM70-AKL4000VB6	4 m	Infrared laser + Laser indication	20 ... 50 Hz	Push-Pull (WD6)	L.O + D.O	2 m cable	see Fig. 1
OSM70-AKL4000VB6Q	4 m	Infrared laser + Laser indication	20 ... 50 Hz	Push-Pull (WD4)	L.O + D.O	M12 connector	see Fig. 1
OSM70-AKL4000VR5	4 m	Infrared laser + Laser indication	20 ... 50 Hz	Relay (WD5)	L.O + D.O	2 m cable	see Fig. 2
OSM70-AKL4000C2B6	4 m	Infrared laser + Laser indication	20 ... 50 Hz	2 x Push-Pull (WD7)	L.O + D.O	2 m cable	see Fig. 2
OSM70-AKL4000C2B6Q	4 m	Infrared laser + Laser indication	20 ... 50 Hz	2 x Push-Pull (WD8)	L.O + D.O	M12 connector	see Fig. 1

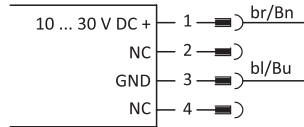
OSM70 SERIES

WIRING DIAGRAMS

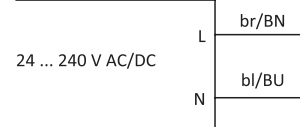
WD1 Emitter



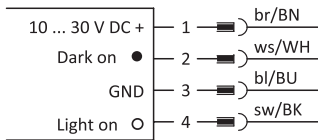
WD2 Emitter



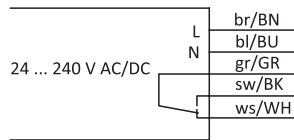
WD3 Emitter



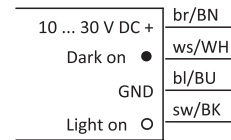
WD4 Light on | Dark on



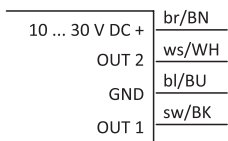
WD5 Relay / Light on | Dark on



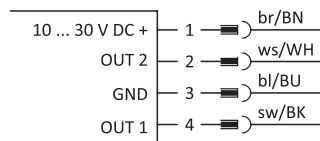
WD6 Light on | Dark on



WD7 Light on | Dark on

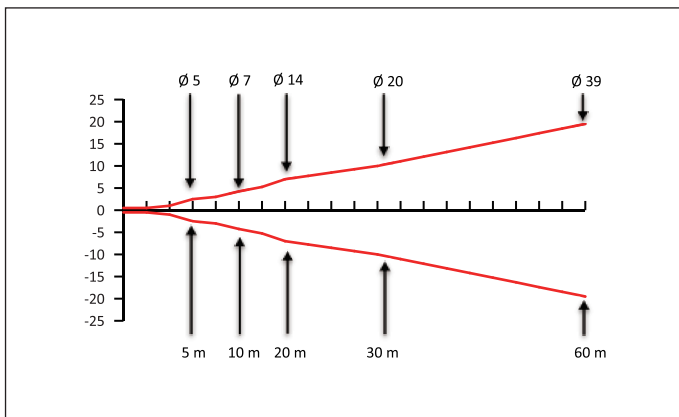


WD8 Light on | Dark on

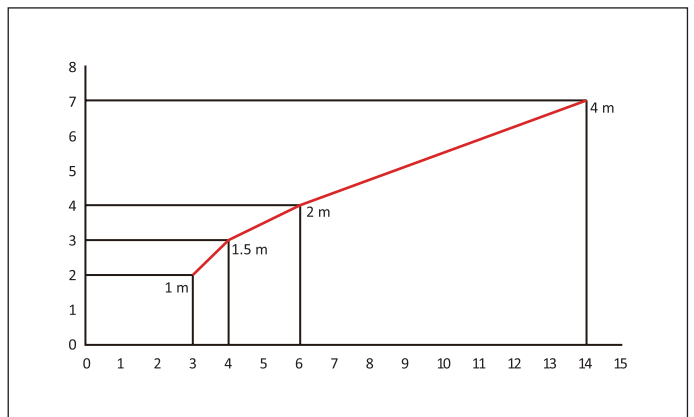


BEAM PATTERN

OSM70-SL/RL/RPL (mm)



OSM70-AKL (cm)



OSM70 SERIES

DIMENSIONS

Fig. 1 OSM70 with cable

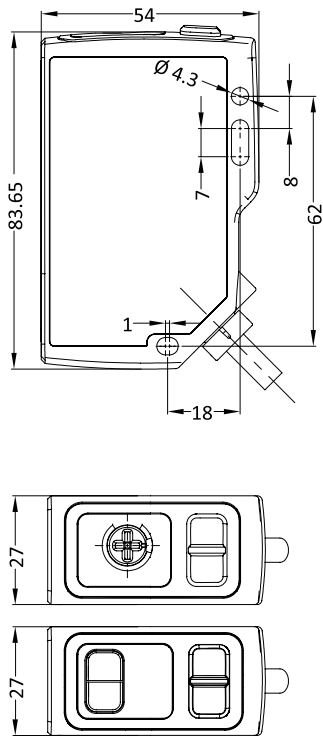
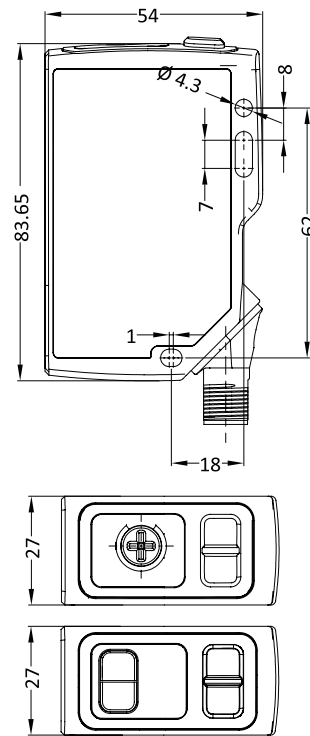
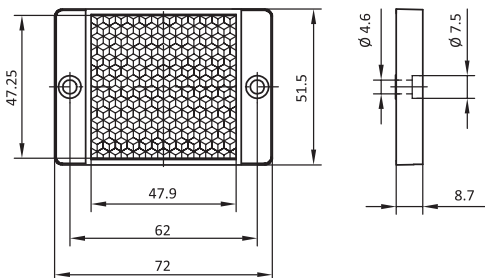


Fig. 2 OSM70 with M12 connector



REFLECTOR (OPTIONAL)

RB50x50-1



OSM70 SERIES

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