


OS10 SERIES

ARTICLE PROPERTIES

SENSOR TYPE	Photoelectric sensor	CONNECTION TYPES (see table)
SIZE	See dimensions	<ul style="list-style-type: none"> Cable PVC, 0.14 mm², 2 m** M8 connector 
OPERATING DISTANCE	See table	
DETECTION MODE	Opposed, Retro-reflective, Polarized retro-reflective, Diffused, BGS Diffused	** Other cable lengths are available on request

TECHNICAL DATA

OPERATING VOLTAGE	10 ... 30 V DC	VOLTAGE WITHSTANDING	1000 V/AC, 50/60 Hz, 60 s
RIPPLE VOLTAGE	≤ 10 %	REVERSE POLARITY PROTECTION	Yes
LASER CLASS	Red laser: 650 nm / class 1 Infrared light: 850 nm Red light: 650 nm	OVERLOAD RESISTANCE	Yes
LIGHT SPOT SIZE	See beam pattern	SHORT CIRCUIT PROTECTION	Yes
OUTPUT	PNP / NPN	MTTF	
FREQUENCY	See table	<ul style="list-style-type: none"> Emitter 845 years Receiver 350 years Retro-reflective and diffused 460 years BGS Diffused 310 years 	
CURRENT CONSUMPTION	≤ 20 mA		
LOAD CURRENT	≤ 100 mA		
HOUSING MATERIAL	PC + PBT		

ENVIRONMENTAL CONDITIONS

OPERATING ENVIRONMENT HUMIDITY	35 % to 85 % RH (no condensation)	INSULATION IMPEDENCE	≥50 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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APPROVALS



OS10 SERIES

DETECTION MODE OPPOSED

Article number	Operating distance	Light source	Frequency	Output (wiring diagram)	Switching mode	Connection	Dimensions
OS10-S6 (emitter)	30 m	Infrared light	— —	— — (WD1)	— —	2 m cable	see Fig. 1
OS10-ECN6 (receiver)	30 m	— —	800 Hz	PNP (WD2)	L.O / D.O	2 m cable	see Fig. 1
OS10-ECP6 (receiver)	30 m	— —	800 Hz	NPN (WD3)	L.O / D.O	2 m cable	see Fig. 1
OS10-ECN6Q8 (receiver)	30 m	Infrared light	— —	— — (WD4)	— —	M8 connector, 4-pin	see Fig. 2
OS10-S6Q8 (emitter)	30 m	— —	800 Hz	PNP (WD5)	L.O / D.O	M8 connector, 4-pin	see Fig. 2
OS10-ECP6Q8 (receiver)	30 m	— —	800 Hz	NPN (WD6)	L.O / D.O	M8 connector, 4-pin	see Fig. 2
OS10-S6/R (emitter)	25 m	Red	— —	— — (WD1)	— —	2 m cable	see Fig. 1
OS10-ECN6/R (receiver)	25 m	— —	800 Hz	PNP (WD2)	L.O / D.O	2 m cable	see Fig. 1
OS10-ECP6/R (receiver)	25 m	— —	800 Hz	NPN (WD3)	L.O / D.O	2 m cable	see Fig. 1
OS10-ECN6Q8/R (receiver)	25 m	Red	— —	— — (WD4)	— —	M8 connector, 4-pin	see Fig. 2
OS10-S6Q8/R (emitter)	25 m	— —	800 Hz	PNP (WD5)	L.O / D.O	M8 connector, 4-pin	see Fig. 2
OS10-ECP6Q8/R (receiver)	25 m	— —	800 Hz	NPN (WD6)	L.O / D.O	M8 connector, 4-pin	see Fig. 2

DETECTION MODE POLARIZED RETRO-REFLECTIVE

(The detection distance corresponds to the reflector RB50*50-1 (purchased separately))

Article number	Operating distance	Light source	Frequency	Output (wiring diagram)	Switching mode	Connection	Dimensions
OS10-RPCN6	3 m	Red	800 Hz	PNP (WD2)	L.O / D.O	2 m cable	see Fig. 1
OS10-RPCP6	3 m	Red	800 Hz	NPN (WD3)	L.O / D.O	2 m cable	see Fig. 1
OS10-RPCN6Q8	3 m	Red	800 Hz	PNP (WD5)	L.O / D.O	M8 connector, 4-pin	see Fig. 2
OS10-RPCP6Q8	3 m	Red	800 Hz	NPN (WD6)	L.O / D.O	M8 connector, 4-pin	see Fig. 2

OS10 SERIES

DETECTION MODE RETRO-REFLECTIVE

(The detection distance corresponds to the reflector RB50*50-1 (purchased separately))

Article number	Operating distance	Light source	Frequency	Output (wiring diagram)	Switching mode	Connection	Dimensions
OS10-RCN6	5 m	Red	800 Hz	PNP (WD2)	L.O / D.O	2 m cable	see Fig. 1
OS10-RCP6	5 m	Red	800 Hz	NPN (WD3)	L.O / D.O	2 m cable	see Fig. 1
OS10-RCN6Q8	5 m	Red	800 Hz	PNP (WD5)	L.O / D.O	M8 connector, 4-pin	see Fig. 2
OS10-RCP6Q8	5 m	Red	800 Hz	NPN (WD6)	L.O / D.O	M8 connector, 4-pin	see Fig. 2

DETECTION MODE DIFFUSED

Article number	Operating distance	Light source	Frequency	Output (wiring diagram)	Switching mode	Connection	Dimensions
OS10-K1000CN6	20 ... 1000 mm	Red	800 Hz	PNP (WD2)	L.O / D.O	2 m cable	see Fig. 1
OS10-K1000CP6	20 ... 1000 mm	Red	800 Hz	NPN (WD3)	L.O / D.O	2 m cable	see Fig. 1
OS10-K1000CN6Q8	20 ... 1000 mm	Red	800 Hz	PNP (WD5)	L.O / D.O	M8 connector, 4-pin	see Fig. 2
OS10-K1000CP6Q8	20 ... 1000 mm	Red	800 Hz	NPN (WD6)	L.O / D.O	M8 connector, 4-pin	see Fig. 2

DETECTION MODE BGS

Article number	Operating distance	Light source	Frequency	Output (wiring diagram)	Switching mode	Connection	Dimensions
OS10-AK65CN6	6 ... 65 mm	Red	400 Hz	PNP (WD2)	L.O / D.O	2 m cable	see Fig. 1
OS10-AK65CP6	6 ... 65 mm	Red	400 Hz	NPN (WD3)	L.O / D.O	2 m cable	see Fig. 1
OS10-AK65CN6Q8	6 ... 65 mm	Red	400 Hz	PNP (WD5)	L.O / D.O	M8 connector, 4-pin	see Fig. 2
OS10-AK65CP6Q8	6 ... 65 mm	Red	400 Hz	NPN (WD6)	L.O / D.O	M8 connector, 4-pin	see Fig. 2
OS10-AK150CN6	6 ... 150 mm	Red	400 Hz	PNP (WD2)	L.O / D.O	2 m cable	see Fig. 1
OS10-AK150CP6	6 ... 150 mm	Red	400 Hz	NPN (WD3)	L.O / D.O	2 m cable	see Fig. 1
OS10-AK150CN6Q8	6 ... 150 mm	Red	400 Hz	PNP (WD5)	L.O / D.O	M8 connector, 4-pin	see Fig. 2
OS10-AK150CP6Q8	6 ... 150 mm	Red	400 Hz	NPN (WD6)	L.O / D.O	M8 connector, 4-pin	see Fig. 2
OS10-AK350CN6	6 ... 350 mm	Red	400 Hz	PNP (WD2)	L.O / D.O	2 m cable	see Fig. 1
OS10-AK350CP6	6 ... 350 mm	Red	400 Hz	NPN (WD3)	L.O / D.O	2 m cable	see Fig. 1
OS10-AK350CN6Q8	6 ... 350 mm	Red	400 Hz	PNP (WD5)	L.O / D.O	M8 connector, 4-pin	see Fig. 2
OS10-AK350CP6Q8	6 ... 350 mm	Red	400 Hz	NPN (WD6)	L.O / D.O	M8 connector, 4-pin	see Fig. 2

OS10 SERIES

DETECTION MODE OPPOSED

Article number	Operating distance	Light source	Frequency	Output (wiring diagram)	Switching mode	Connection	Dimensions
OS10-SL6 (emitter)	30 m	Laser	— —	— — (WD1)	— —	2 m cable	see Fig. 1
OS10-ELCN6 (receiver)	30 m	— —	800 Hz	PNP (WD2)	L.O / D.O	2 m cable	see Fig. 1
OS10-ELCP6 (receiver)	30 m	— —	800 Hz	NPN (WD3)	L.O / D.O	2 m cable	see Fig. 1
OS10-ELCN6Q8 (receiver)	30 m	Laser	— —	— — (WD4)	— —	M8 connector, 4-pin	see Fig. 2
OS10-SL6Q8 (emitter)	30 m	— —	800 Hz	PNP (WD5)	L.O / D.O	M8 connector, 4-pin	see Fig. 2
OS10-ELCP6Q8 (receiver)	30 m	— —	800 Hz	NPN (WD6)	L.O / D.O	M8 connector, 4-pin	see Fig. 2

DETECTION MODE POLARIZED RETRO-REFLECTIVE

(The detection distance corresponds to the reflector RB50*50-1 (purchased separately))

Article number	Operating distance	Light source	Frequency	Output (wiring diagram)	Switching mode	Connection	Dimensions
OS10-RPLCN6	5 m	Laser	800 Hz	PNP (WD2)	L.O / D.O	2 m cable	see Fig. 1
OS10-RPLCP6	5 m	Laser	800 Hz	NPN (WD3)	L.O / D.O	2 m cable	see Fig. 1
OS10-RPLCN6Q8	5 m	Laser	800 Hz	PNP (WD5)	L.O / D.O	M8 connector, 4-pin	see Fig. 2
OS10-RPLCP6Q8	5 m	Laser	800 Hz	NPN (WD6)	L.O / D.O	M8 connector, 4-pin	see Fig. 2

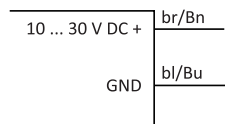
DETECTION MODE BGS

Article number	Operating distance	Light source	Frequency	Output (wiring diagram)	Switching mode	Connection	Dimensions
OS10-AKL150CN6	6 ... 150 mm	Laser	400 Hz	PNP (WD2)	L.O / D.O	2 m cable	see Fig. 1
OS10-AKL150CP6	6 ... 150 mm	Laser	400 Hz	NPN (WD3)	L.O / D.O	2 m cable	see Fig. 1
OS10-AKL150CN6Q8	6 ... 150 mm	Laser	400 Hz	PNP (WD5)	L.O / D.O	M8 connector, 4-pin	see Fig. 2
OS10-AKL150CP6Q8	6 ... 150 mm	Laser	400 Hz	NPN (WD6)	L.O / D.O	M8 connector, 4-pin	see Fig. 2
OS10-AKL350CN6	6 ... 350 mm	Laser	400 Hz	PNP (WD2)	L.O / D.O	2 m cable	see Fig. 1
OS10-AKL350CP6	6 ... 350 mm	Laser	400 Hz	NPN (WD3)	L.O / D.O	2 m cable	see Fig. 1
OS10-AKL350CN6Q8	6 ... 350 mm	Laser	400 Hz	PNP (WD5)	L.O / D.O	M8 connector, 4-pin	see Fig. 2
OS10-AKL350CP6Q8	6 ... 350 mm	Laser	400 Hz	NPN (WD6)	L.O / D.O	M8 connector, 4-pin	see Fig. 2

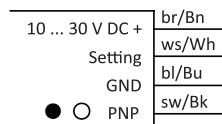
OS10 SERIES

WIRING DIAGRAMS cable

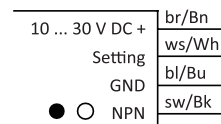
WD1 Emitter



WD2 PNP / Light on | Dark on

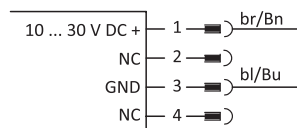


WD3 NPN / Light on | Dark on

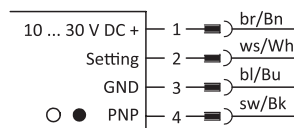


WIRING DIAGRAMS M8 connector

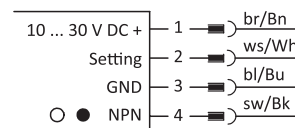
WD4 Emitter



WD5 PNP / Light on | Dark on



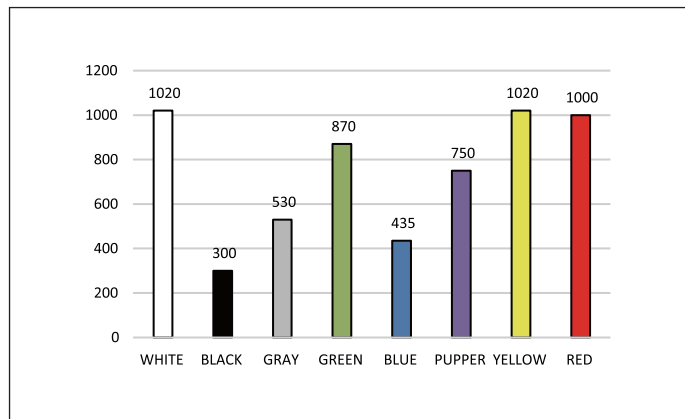
WD6 NPN / Light on | Dark on



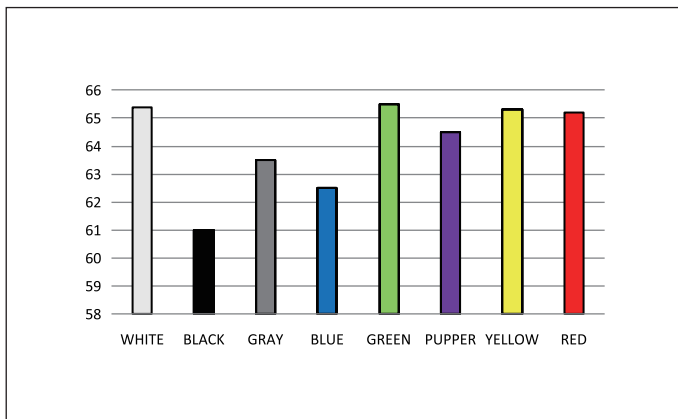
OS10 SERIES

ATTENUATION FIGURE

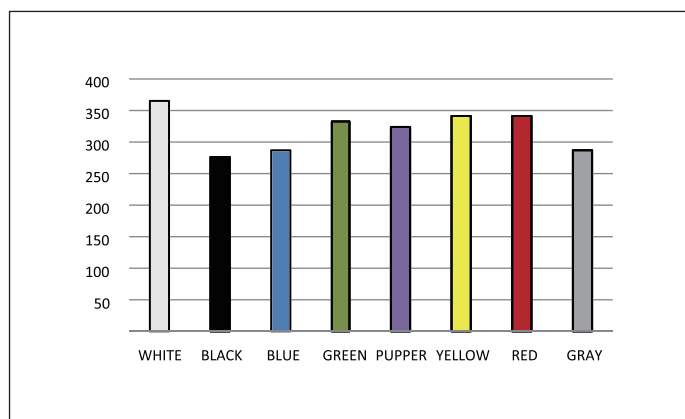
OS10-K1000



OS10-AK65

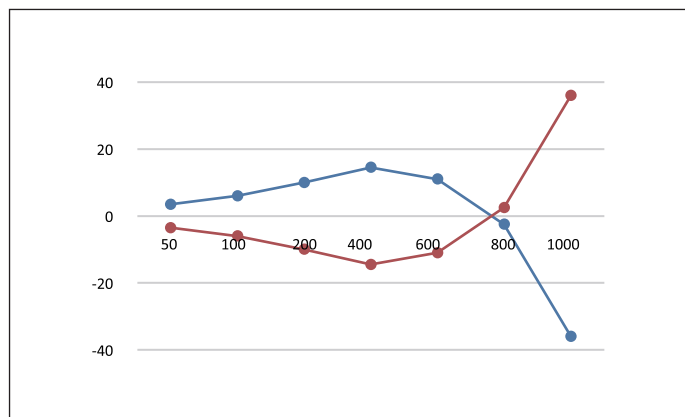


OS10-AK350

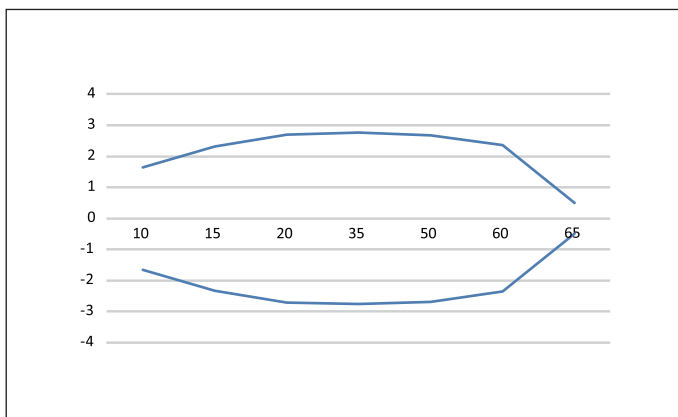


TRANSLATION CHARACTERISTIC CURVE

OS10-K1000 (mm)



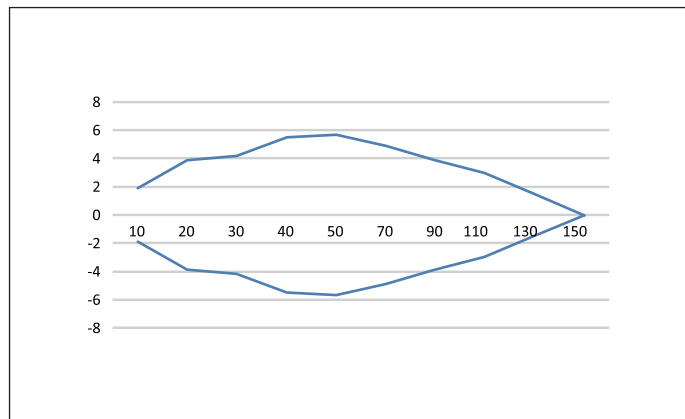
OS10-AK65 (mm)



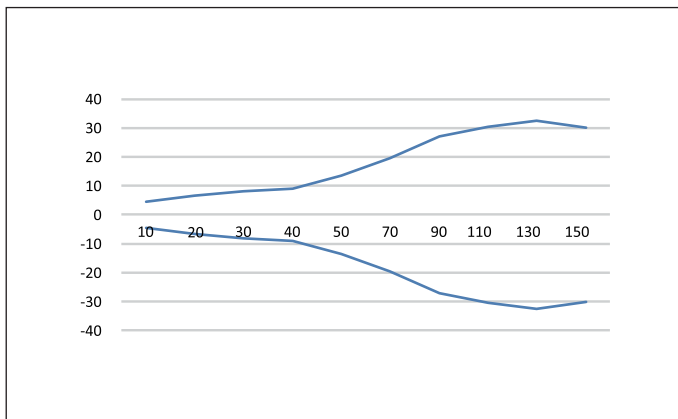
OS10 SERIES

TRANSLATION CHARACTERISTIC CURVE

OS10-AK150 (mm)

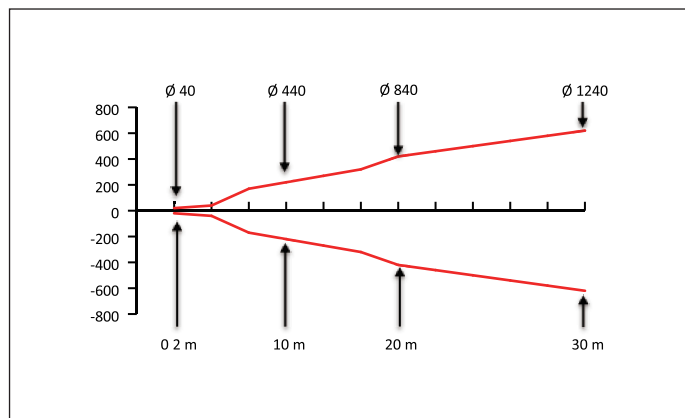


OS10-AK350 (mm)

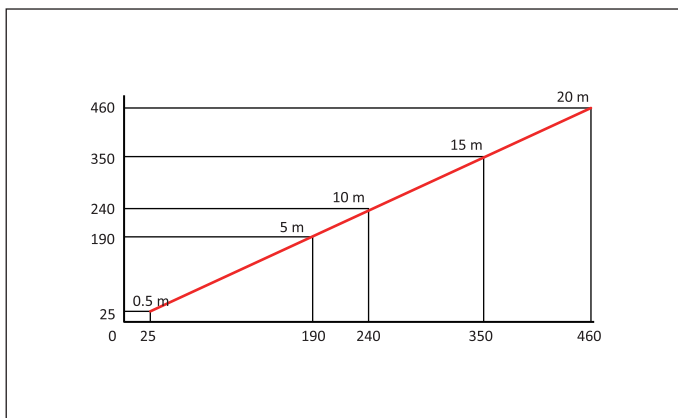


BEAM PATTERN

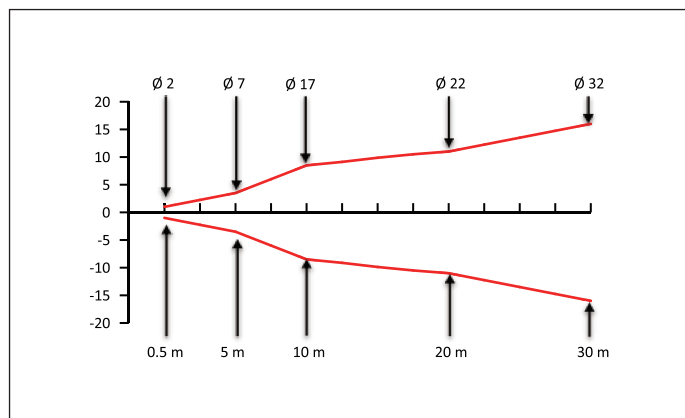
OS10-S6 (mm)



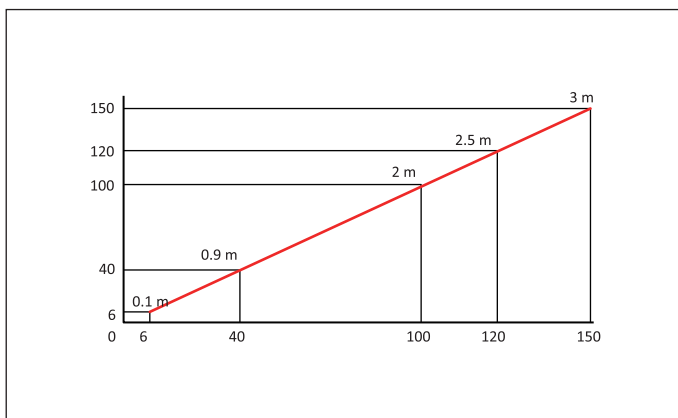
OS10-S6/R (mm)



OS10-SL6 (mm)



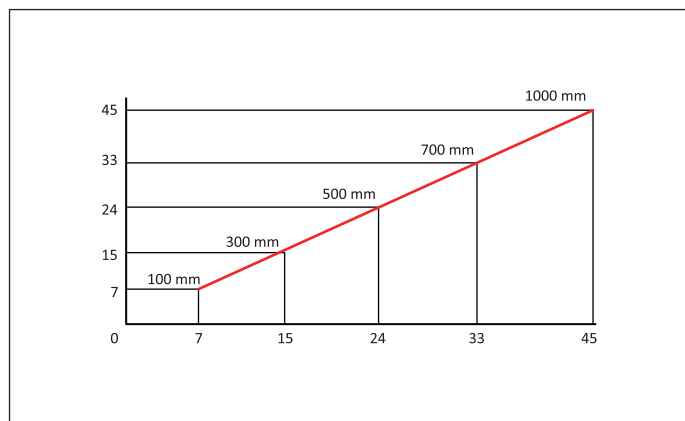
OS10-RP (mm)



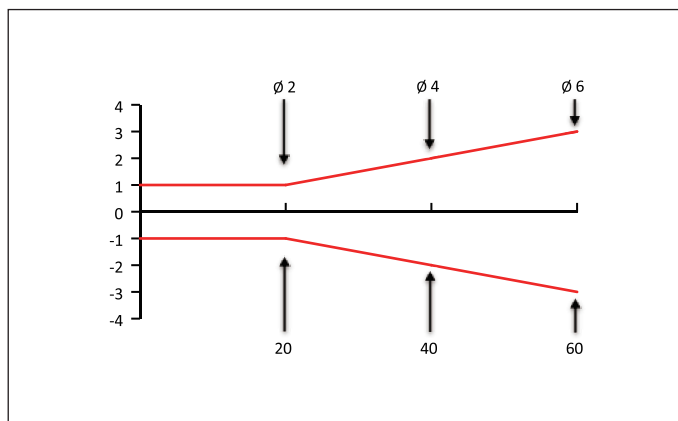
OS10 SERIES

BEAM PATTERN (mm)

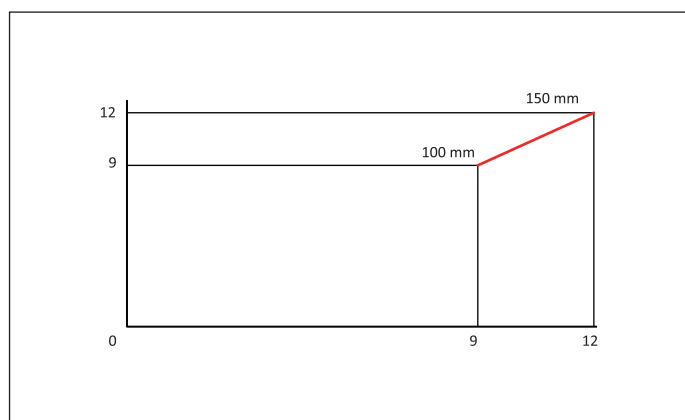
OS10-K1000 (mm)



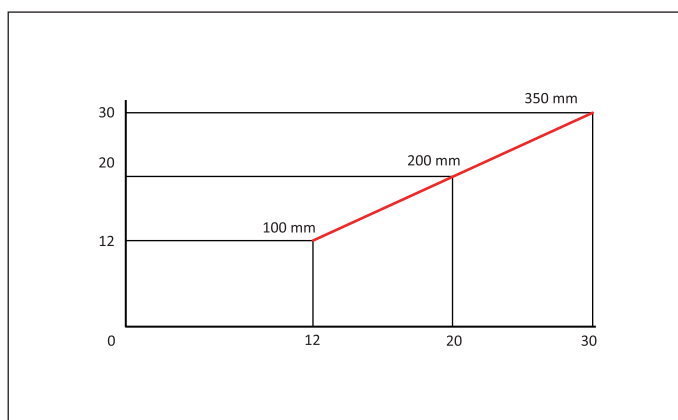
OS10-AK65 (mm)



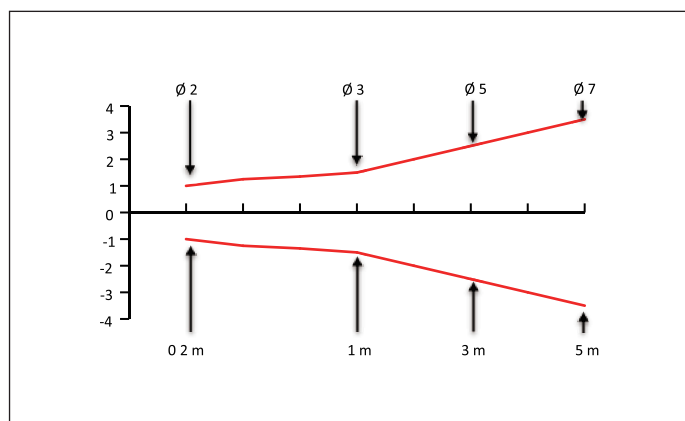
OS10-AK150 (mm)



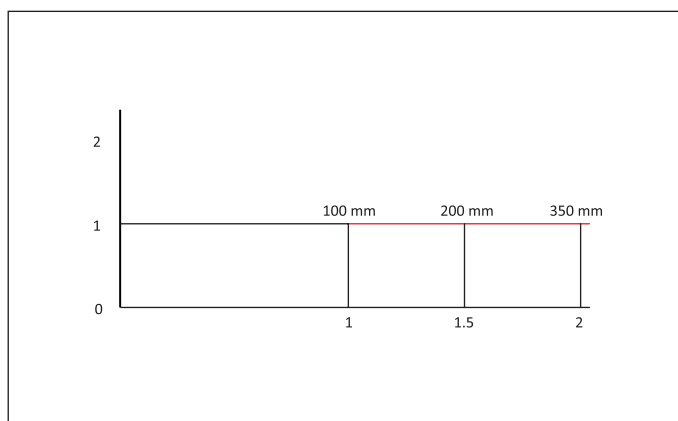
OS10-AK350 (mm)



OS10-RPL (mm)



OS10S-AKL (AKL150 | AKL350) (mm)



OS10 SERIES

DIMENSIONS

Fig. 1 OS10 with cable

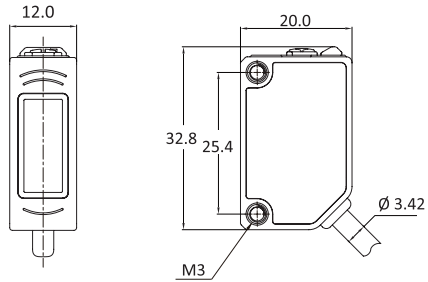
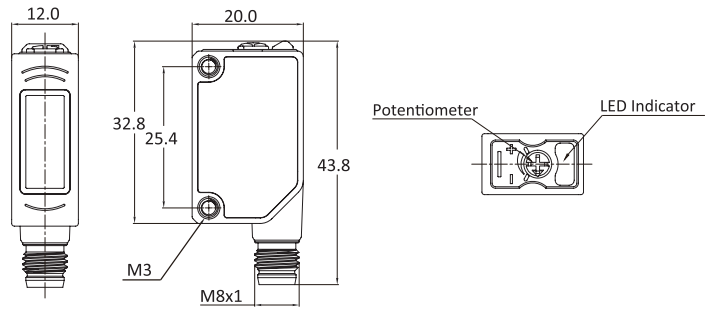
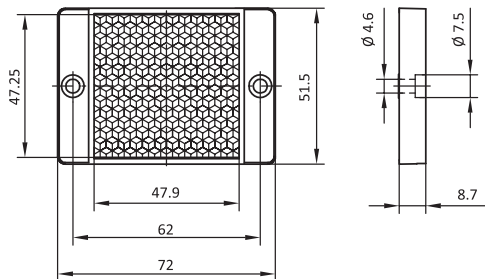


Fig. 2 OS10 with M8 connector



REFLECTOR (OPTIONAL)

RB50x50-1



OS10 SERIES

SALES AND SERVICE

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