

OS10S-L SERIES

ARTICLE PROPERTIES

SENSOR TYPE	Photoelectric sensor
SIZE	See dimensions
OPERATING DISTANCE	See table
DETECTION MODE	Opposed, Polarized retro-reflective, BGS

CONNECTION TYPES (see table)

- M12 connector, A-coded



** 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	OVERLOAD RESISTANCE	Yes
LIGHT SPOT SIZE	See beam pattern	SHORT CIRCUIT PROTECTION	Yes
OUTPUT	PNP / NPN	MTTF	
FREQUENCY	See table	• Emitter	329 years
CURRENT CONSUMPTION	24 V 25 mA	• Receiver	433 years
LOAD CURRENT	≤ 100 mA	• Retro-reflective	116 years
HOUSING MATERIAL	PC + PBT	• BGS diffused	191 years

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	-40 ... +70 °C	IMPACT RESISTANCE (EN 60068-2-6)	Complex amplitude 1.5 mm 10 ... 50 Hz (2hr X, Y, Z respectively)
AMBIENT TEMPERATURE	-20 ... +60 °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



OS10S-L SERIES

DETECTION MODE OPPOSED, SENSITIVITY ADJUSTMENT

Article number	Operating distance	Light source	Frequency	Output (wiring diagram)	Switching mode	Connection	Dimensions
OS10S-SL6-0.3-Q12	30 m	laser	— —	— — (WD1)	— —	0.3 m cable + M12, 4-pin	see Fig. 1
OS10S-ELCN6-0.3-Q12/AP	30 m	— —	800 Hz	NPN (WD2)	L.O / D.O	0.3 m cable + M12, 4-pin	see Fig. 1
OS10S-ELCP6-0.3-Q12/AP	30 m	— —	800 Hz	PNP (WD3)	L.O / D.O	0.3 m cable + M12, 4-pin	see Fig. 1

DETECTION MODE POLARIZED RETRO-REFLECTIVE, SENSITIVITY ADJUSTMENT

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

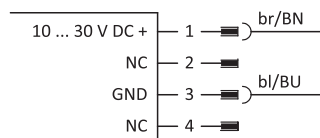
Article number	Operating distance	Light source	Frequency	Output (wiring diagram)	Switching mode	Connection	Dimensions
OS10S-RPLCN6-0.3-Q12/AP	5 m	laser	800 Hz	NPN (WD2)	L.O / D.O	0.3 m cable + M12, 4-pin	see Fig. 2
OS10S-RPLCP6-0.3-Q12/AP	5 m	laser	800 Hz	PNP (WD3)	L.O / D.O	0.3 m cable + M12, 4-pin	see Fig. 2

DETECTION MODE BGS

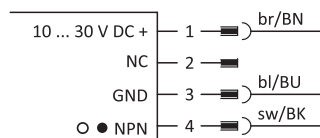
Article number	Operating distance	Light source	Frequency	Output (wiring diagram)	Switching mode	Connection	Dimensions
OS10S-AKL150CN6-0.3-Q12	6 ... 150 mm	laser	300 Hz	NPN (WD2)	L.O / D.O	0.3 m cable + M12, 4-pin	see Fig. 3
OS10S-AKL150CP6-0.3-Q12	6 ... 150 mm	laser	300 Hz	PNP (WD3)	L.O / D.O	0.3 m cable + M12, 4-pin	see Fig. 3
OS10S-AKL350CN6-0.3-Q12	6 ... 350 mm	laser	300 Hz	NPN (WD2)	L.O / D.O	0.3 m cable + M12, 4-pin	see Fig. 3
OS10S-AKL350CP6-0.3-Q12	6 ... 350 mm	laser	300 Hz	PNP (WD3)	L.O / D.O	0.3 m cable + M12, 4-pin	see Fig. 3

WIRING DIAGRAMS

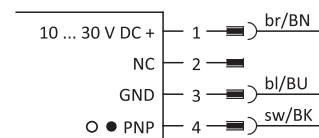
WD1 Emitter



WD2 NPN / Light on | Dark on



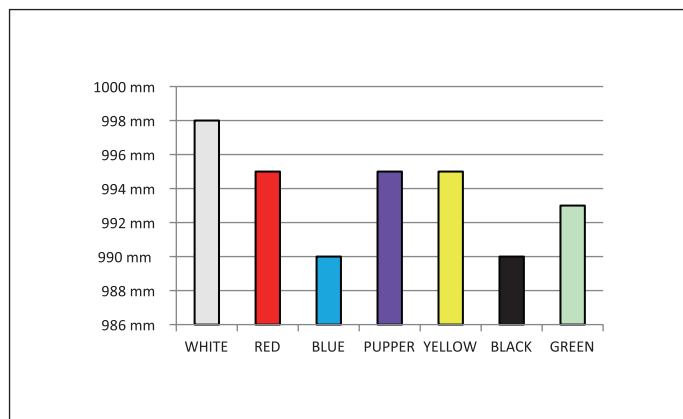
WD3 PNP / Light on | Dark on



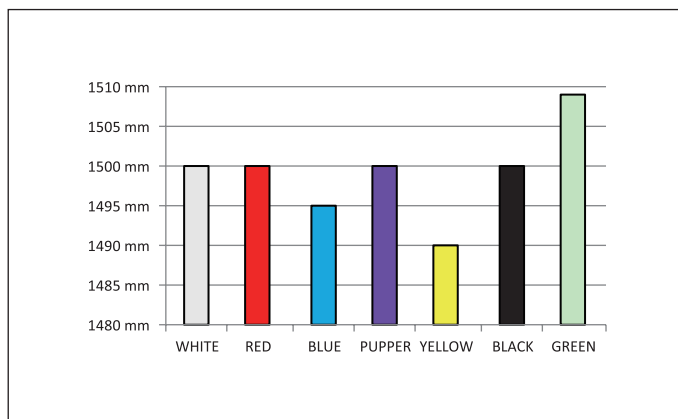
OS10S-L SERIES

ATTENUATION FIGURE

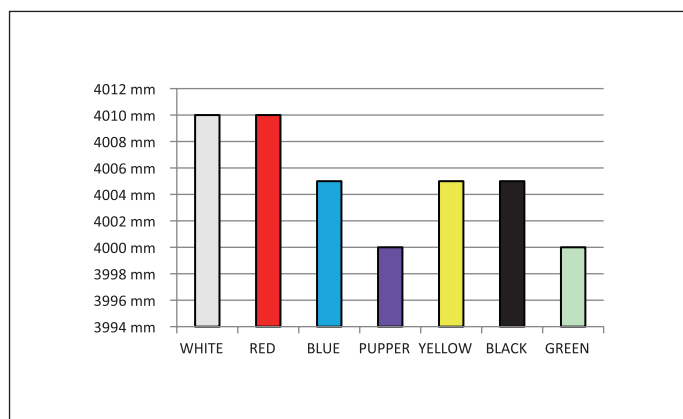
OS10S-AK1000



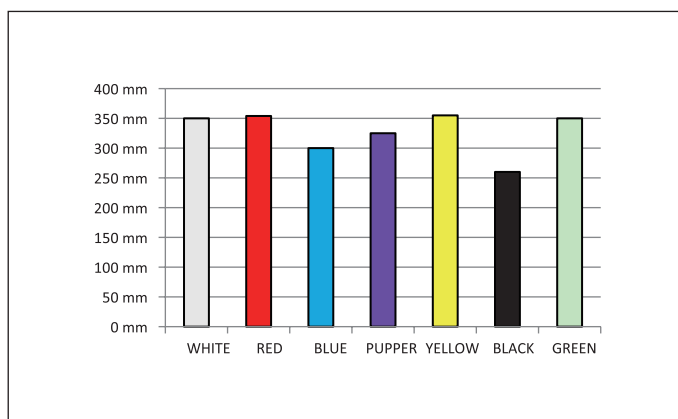
OS10S-AK1500



OS10S-AK4000

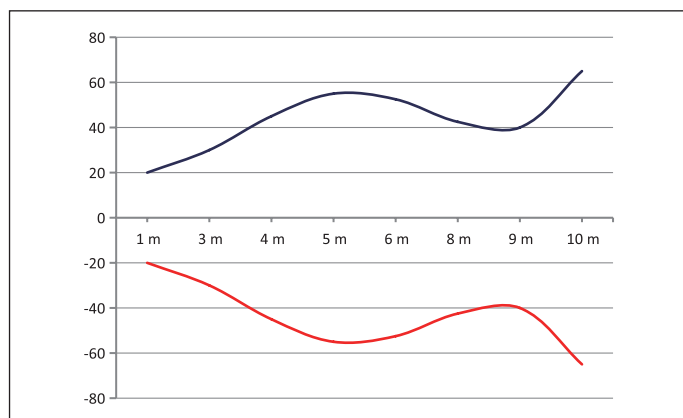


OS10S-AK350

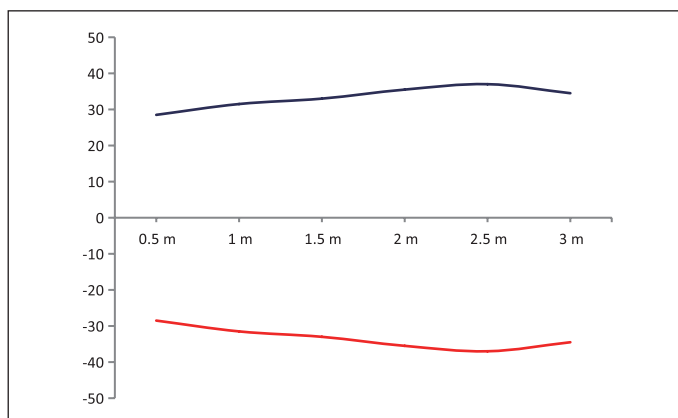


TRANSLATION CHARACTERISTIC CURVE

OS10S-S6 (mm)



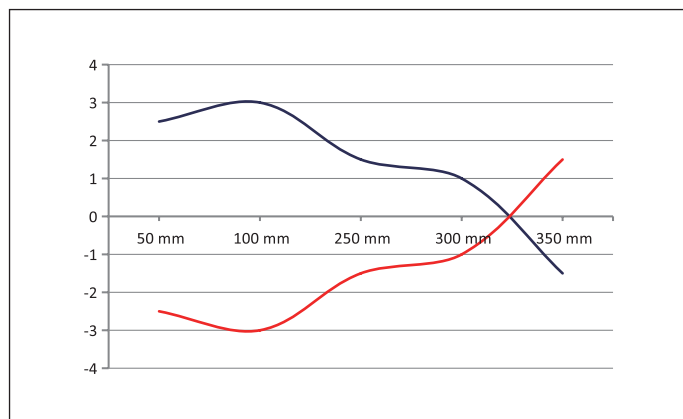
OS10S-RPCP6 (mm)



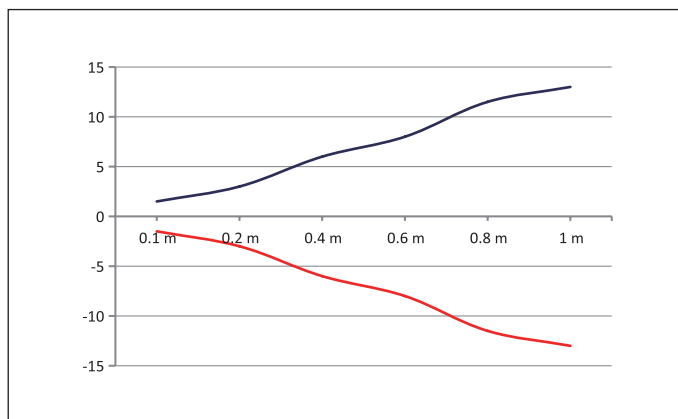
OS10S-L SERIES

TRANSLATION CHARACTERISTIC CURVE

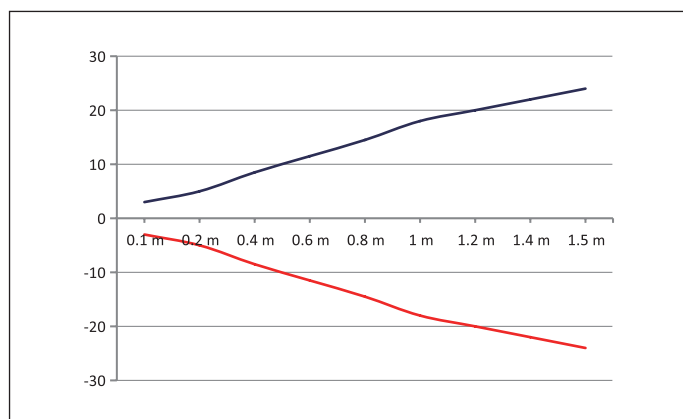
OS10S-AK350 (mm)



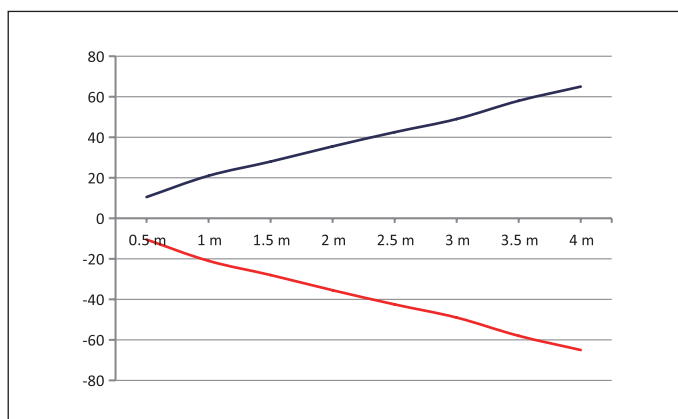
OS10S-AK1000 (mm)



OS10S-AK1500 (mm)

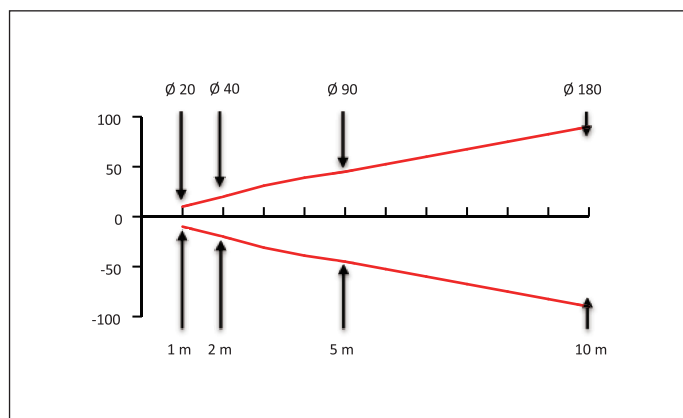


OS10S-AK4000 (mm)

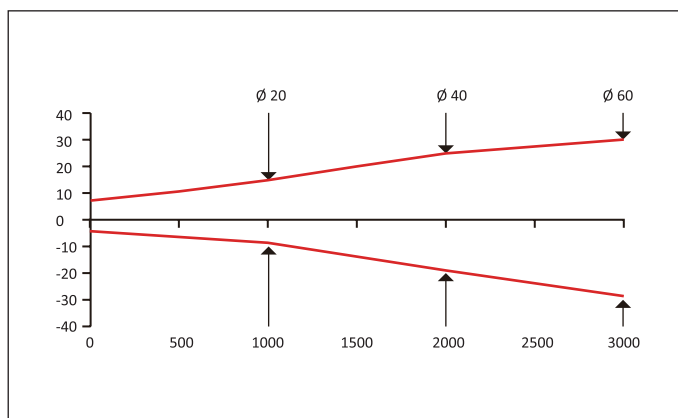


TRANSLATION CHARACTERISTIC CURVE

Beam Pattern



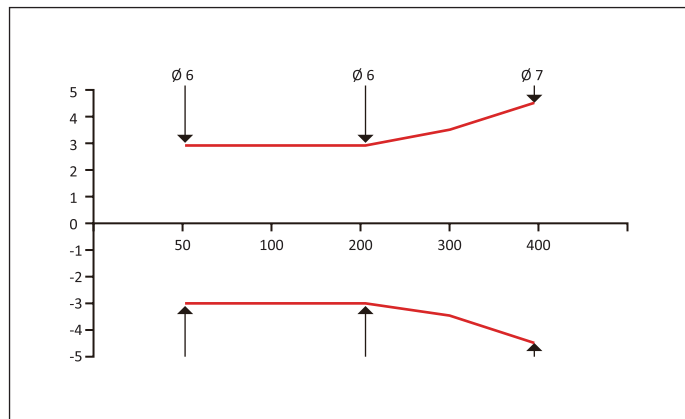
OS10S-PR (mm)



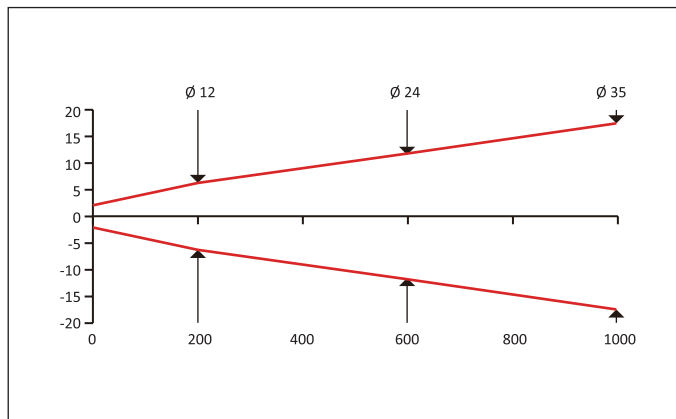
OS10S-L SERIES

BEAM PATTERN

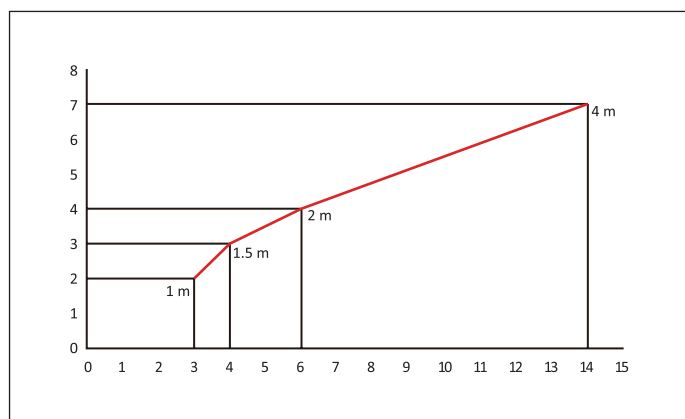
OS10S-AK350 (mm)



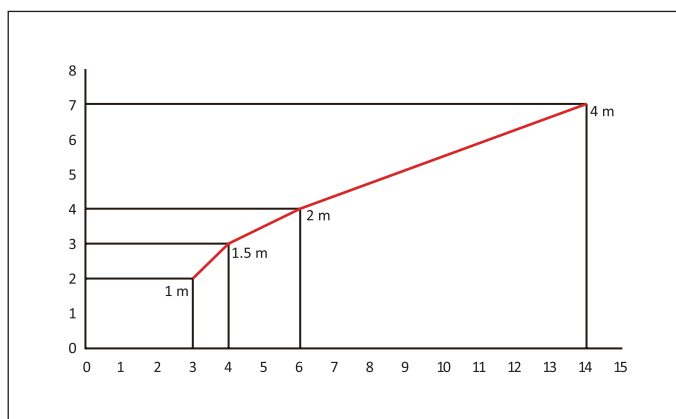
OS10S-AK1000 (mm)



OS10S-AK1500 (mm)



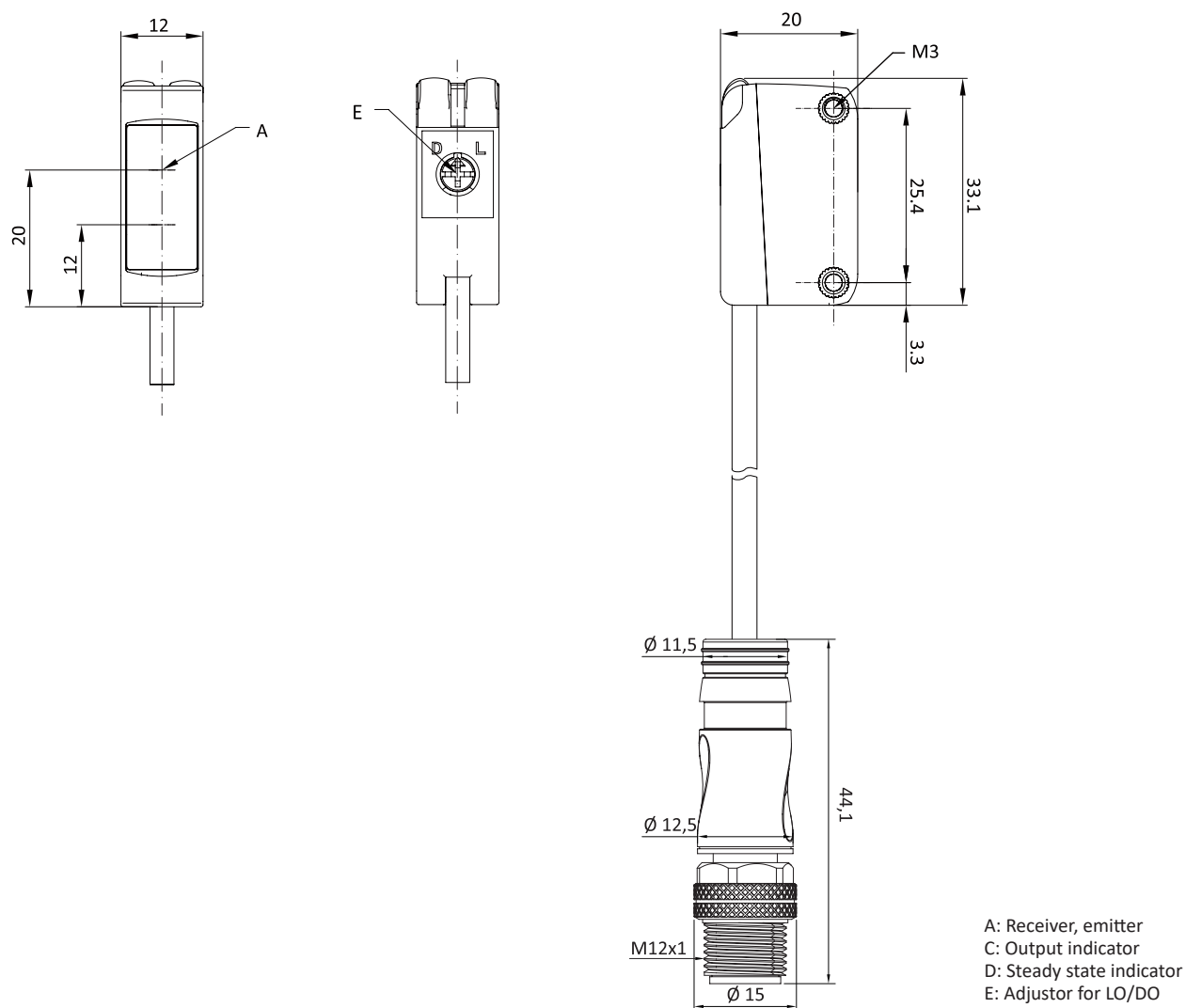
OS10S-AK4000 (mm)



OS10S-L SERIES

DIMENSIONS (mm)

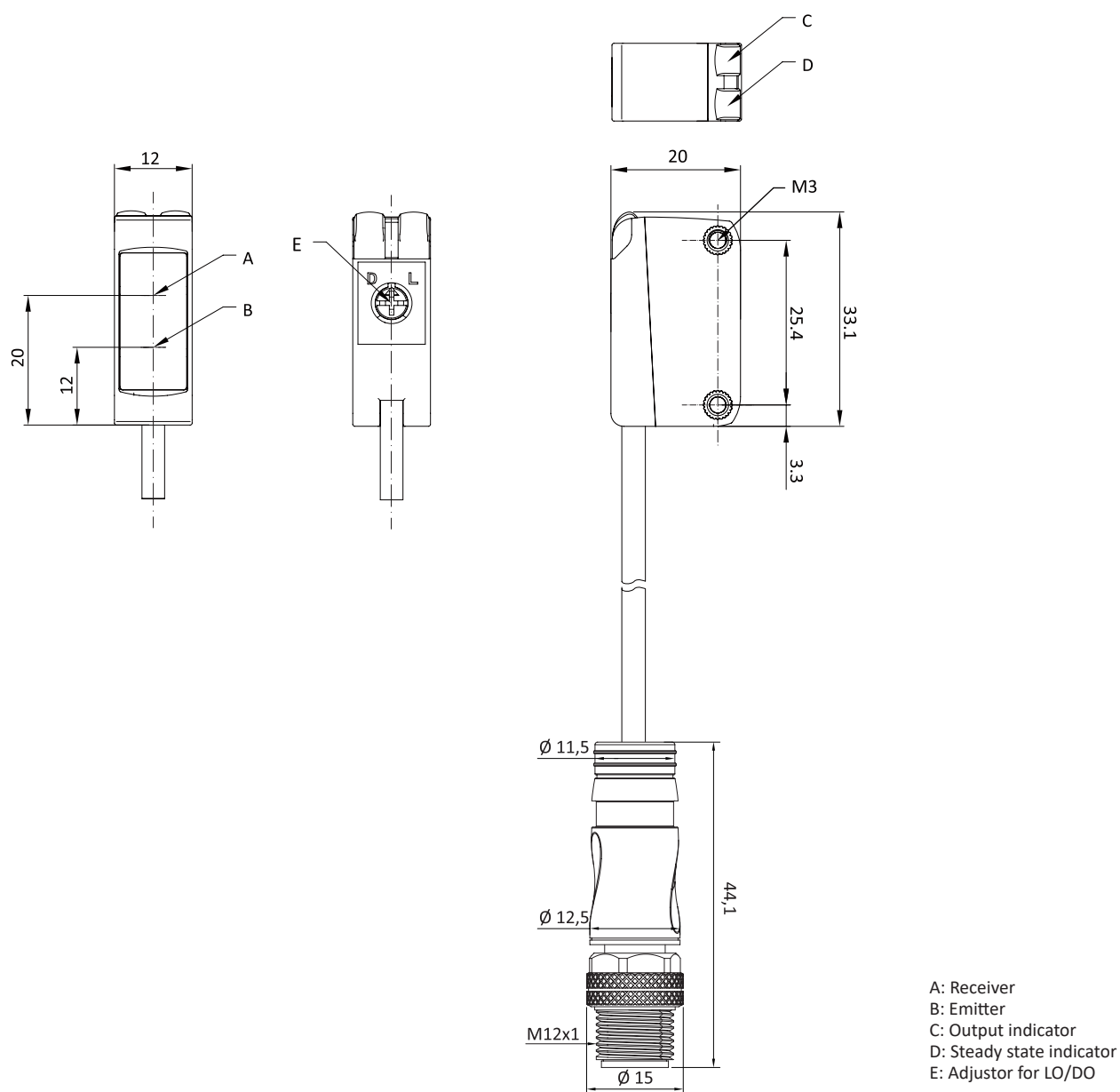
Fig. 1 Opposed



OS10S-L SERIES

DIMENSIONS (mm)

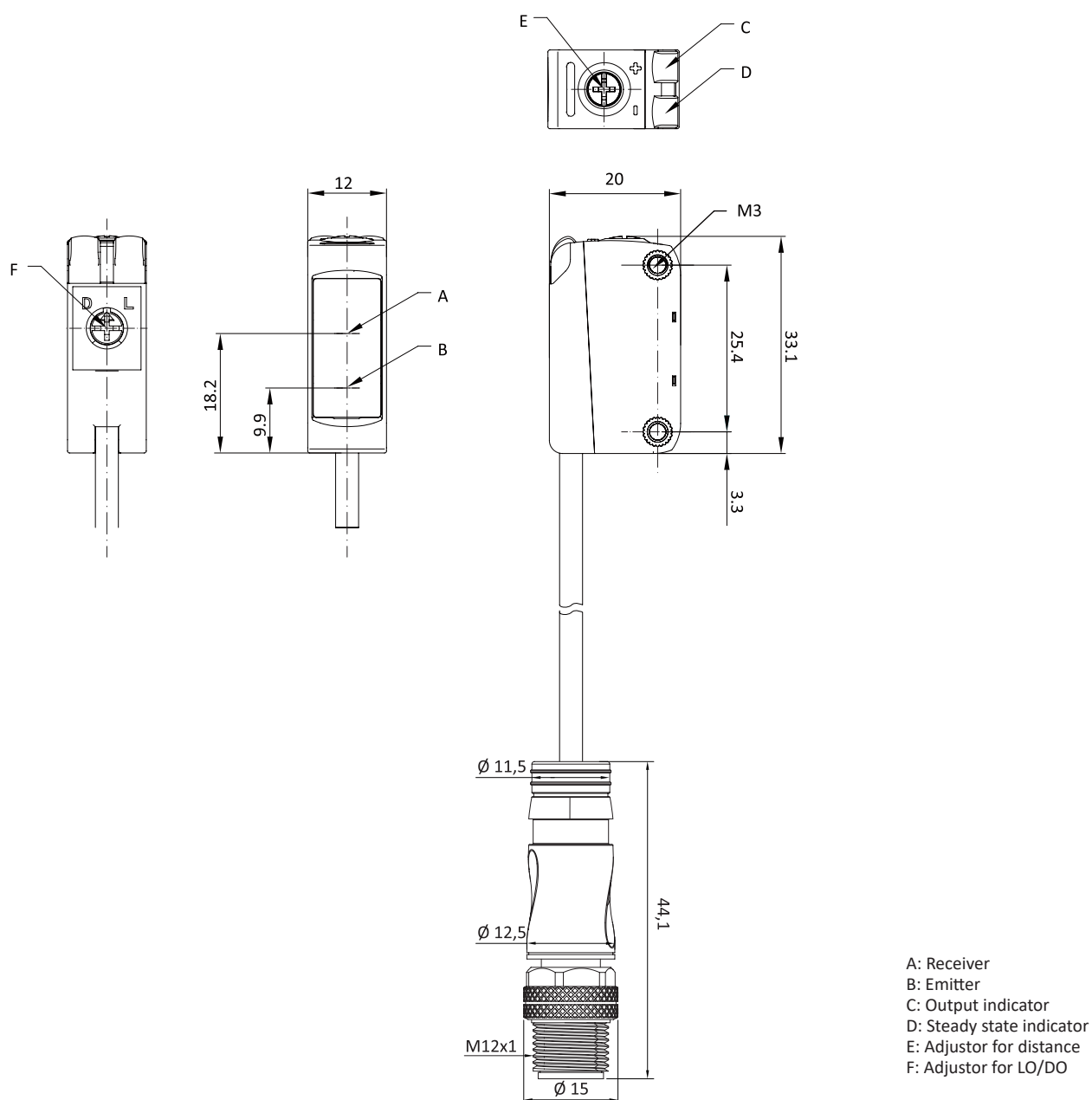
Fig. 2 Polarized retroreflective



OS10S-L SERIES

DIMENSIONS (mm)

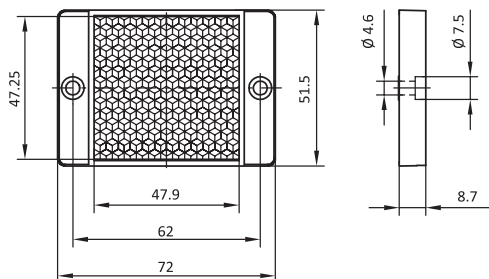
Fig. 3 BGS



OS10S-L SERIES

REFLECTOR

RB50x50-1



OS10S-L SERIES

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