



OS10S-L 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** 	
OPERATING DISTANCE	See table	<ul style="list-style-type: none"> M8 connector 3-pin, A-coded 	
DETECTION MODE	Opposed, Polarized retro-reflective, BGS	<ul style="list-style-type: none"> M8 connector 4-pin, 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	<ul style="list-style-type: none"> Emitter 329 years 	
CURRENT CONSUMPTION	24 V 25 mA	<ul style="list-style-type: none"> Receiver 433 years 	
LOAD CURRENT	≤ 100 mA	<ul style="list-style-type: none"> Retro-reflective 116 years 	
HOUSING MATERIAL	PC + PBT	<ul style="list-style-type: none"> 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



DETECTION MODE OPPOSED, SENSITIVITY ADJUSTMENT

Article number	Operating distance	Light source	Frequency	Output (wiring diagram)	Switching mode	Connection	Dimensions
OS10S-SL6	30 m	Red laser	— —	— — (WD1)	— —	2 m cable	see Fig. 1
OS10S-ELCN6/AP	30 m	— —	800 Hz	NPN (WD2)	L.O / D.O	2 m cable	see Fig. 2
OS10S-ELCP6/AP	30 m	— —	800 Hz	PNP (WD3)	L.O / D.O	2 m cable	see Fig. 2
OS10S-SL6Q8	30 m	Red laser	— —	— — (WD4)	— —	M8 connector, 4-pin	see Fig. 4
OS10S-ELCN6Q8/AP	30 m	— —	800 Hz	NPN (WD5)	L.O / D.O	M8 connector, 4-pin	see Fig. 5
OS10S-ELCP6Q8/AP	30 m	— —	800 Hz	PNP (WD6)	L.O / D.O	M8 connector, 4-pin	see Fig. 5
OS10S-SL6Q8.3	30 m	Red laser	— —	— — (WD7)	— —	M8 connector, 3-pin	see Fig. 4
OS10S-ELCN6Q8.3/AP	30 m	— —	800 Hz	NPN (WD8)	L.O / D.O	M8 connector, 3-pin	see Fig. 5
OS10S-ELCP6Q8.3/AP	30 m	— —	800 Hz	PNP (WD9)	L.O / D.O	M8 connector, 3-pin	see Fig. 5

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/AP	5 m	Red laser	800 Hz	NPN (WD2)	L.O / D.O	2 m cable	see Fig. 2
OS10S-RPLCP6/AP	5 m	Red laser	800 Hz	PNP (WD3)	L.O / D.O	2 m cable	see Fig. 2
OS10S-RPLCN6Q8/AP	5 m	Red laser	800 Hz	NPN (WD5)	L.O / D.O	M8 connector, 4-pin	see Fig. 5
OS10S-RPLCP6Q8/AP	5 m	Red laser	800 Hz	PNP (WD6)	L.O / D.O	M8 connector, 4-pin	see Fig. 5
OS10S-RPLCN6Q8.3/AP	5 m	Red laser	800 Hz	NPN (WD8)	L.O / D.O	M8 connector, 3-pin	see Fig. 5
OS10S-RPLCP6Q8.3/AP	5 m	Red laser	800 Hz	PNP (WD9)	L.O / D.O	M8 connector, 3-pin	see Fig. 5

OS10S-L SERIES

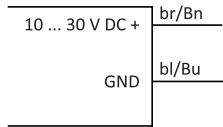
DETECTION MODE BGS

Article number	Operating distance	Light source	Frequency	Output (wiring diagram)	Switching mode	Connection	Dimensions
OS10S-AKL150CN6	6 ... 150 mm	Red laser	300 Hz	NPN (WD2)	L.O / D.O	2 m cable	see Fig. 3
OS10S-AKL150CP6	6 ... 150 mm	Red laser	300 Hz	PNP (WD3)	L.O / D.O	2 m cable	see Fig. 3
OS10S-AKL150CN6Q8	6 ... 150 mm	Red laser	300 Hz	NPN (WD5)	L.O / D.O	M8 connector, 4-pin	see Fig. 6
OS10S-AKL150CP6Q8	6 ... 150 mm	Red laser	300 Hz	PNP (WD6)	L.O / D.O	M8 connector, 4-pin	see Fig. 6
OS10S-AKL150CN6Q8.3	6 ... 150 mm	Red laser	300 Hz	NPN (WD8)	L.O / D.O	M8 connector, 3-pin	see Fig. 6
OS10S-AKL150CP6Q8.3	6 ... 150 mm	Red laser	300 Hz	PNP (WD9)	L.O / D.O	M8 connector, 3-pin	see Fig. 6
OS10S-AKL350CN6	6 ... 350 mm	Red laser	300 Hz	NPN (WD2)	L.O / D.O	2 m cable	see Fig. 3
OS10S-AKL350CP6	6 ... 350 mm	Red laser	300 Hz	PNP (WD3)	L.O / D.O	2 m cable	see Fig. 3
OS10S-AKL350CN6Q8	6 ... 350 mm	Red laser	300 Hz	NPN (WD5)	L.O / D.O	M8 connector, 4-pin	see Fig. 6
OS10S-AKL350CP6Q8	6 ... 350 mm	Red laser	300 Hz	PNP (WD6)	L.O / D.O	M8 connector, 4-pin	see Fig. 6
OS10S-AKL350CN6Q8.3	6 ... 350 mm	Red laser	300 Hz	NPN (WD8)	L.O / D.O	M8 connector, 3-pin	see Fig. 6
OS10S-AKL350CP6Q8.3	6 ... 350 mm	Red laser	300 Hz	PNP (WD9)	L.O / D.O	M8 connector, 3-pin	see Fig. 6

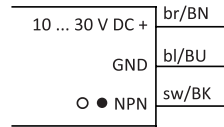
OS10S-L SERIES

WIRING DIAGRAMS cable

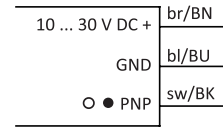
WD1 Emitter



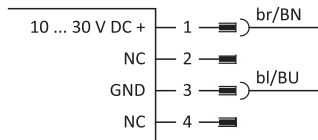
WD2 NPN / Light on | Dark on



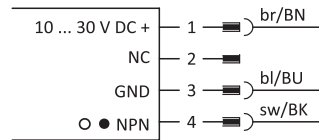
WD3 PNP / Light on | Dark on



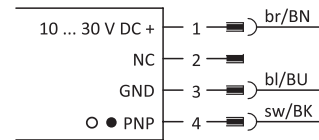
WD4 Emitter



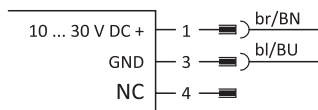
WD5 NPN / Light on | Dark on



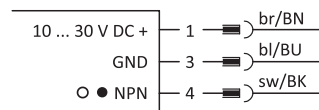
WD6 PNP / Light on | Dark on



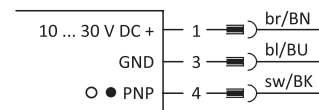
WD7 Emitter



WD8 NPN / Light on | Dark on



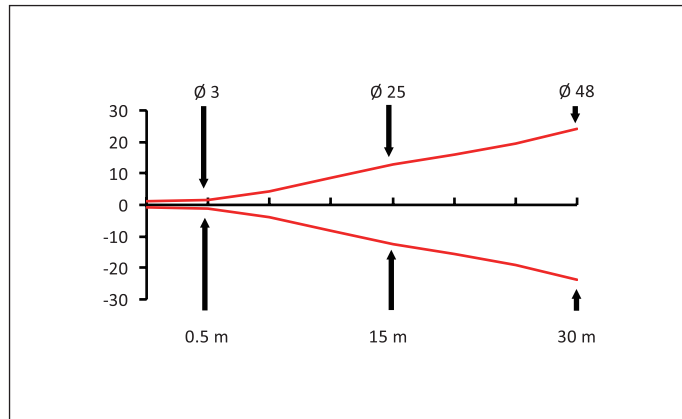
WD9 PNP / Light on | Dark on



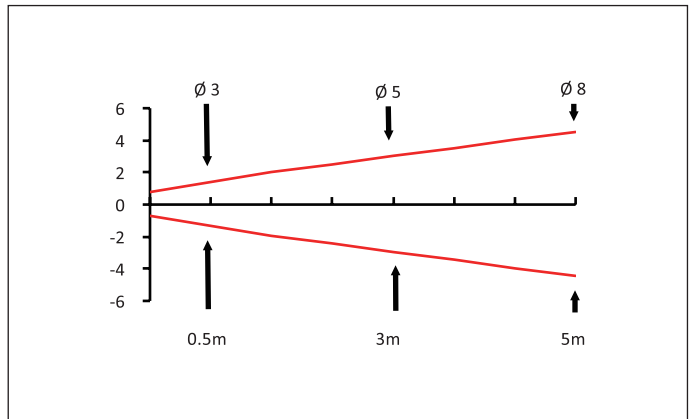
OS10S-L SERIES

BEAM PATTERN

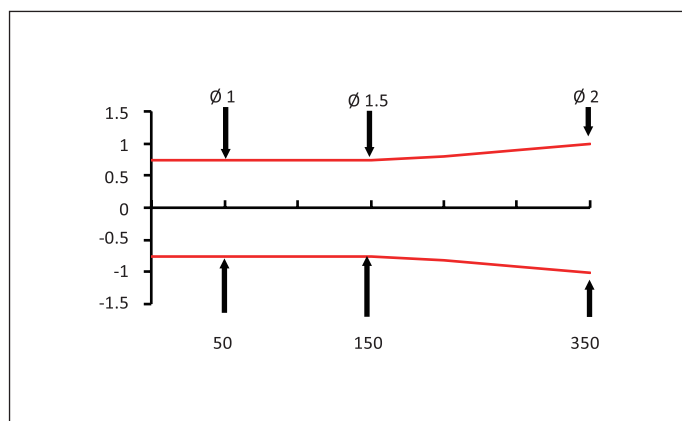
OS10S-SL (mm)



OS10S-RPL (mm)



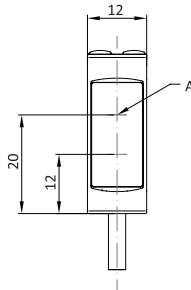
OS10S-AKL (mm)



OS10S-L SERIES

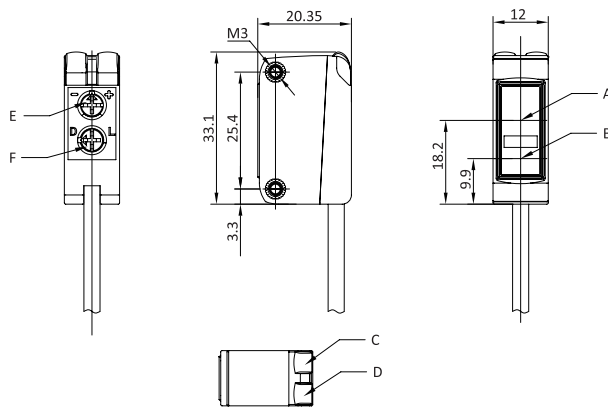
DIMENSIONS (mm)

Fig. 1 Cable, opposed, Sensitivity Adjustment



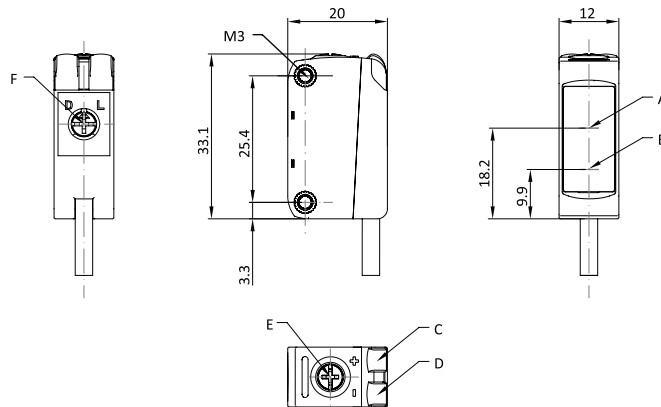
- A: Receiver, emitter
- C: Output indicator
- D: Steady state indicator
- F: Adjustor for LO/DO

Fig. 2 Cable, polarized Retro-reflective, Sensitivity Adjustment



- A: Receiver
- B: Emitter
- C: Output indicator
- D: Steady state indicator
- E: Distance adjustment knob
- F: Adjustor for LO/DO

Fig. 3 Cable, BGS

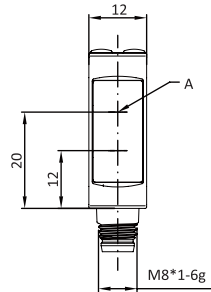


- A: Receiver
- B: Emitter
- C: Output indicator
- D: Steady state indicator
- E: Adjustor for distance
- F: Adjustor for LO/DO

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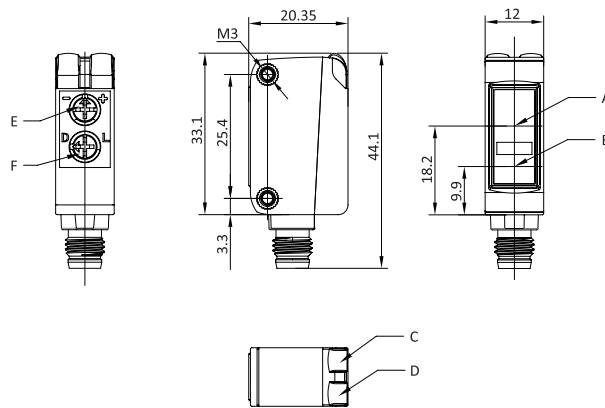
DIMENSIONS (mm)

Fig. 4 M8 connector, opposed, Sensitivity Adjustment



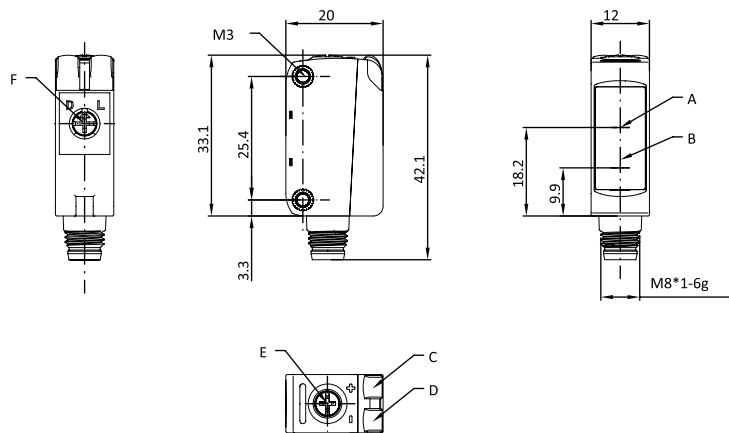
- A: Receiver, emitter
- C: Output indicator
- D: Steady state indicator
- F: Adjustor for LO/DO

Fig. 5 M8 connector, polarized Retro-reflective, Sensitivity Adjustment



- A: Receiver
- B: Emitter
- C: Output indicator
- D: Steady state indicator
- E: Distance adjustment knob
- F: Adjustor for LO/DO

Fig. 6 M8 connector, BGS

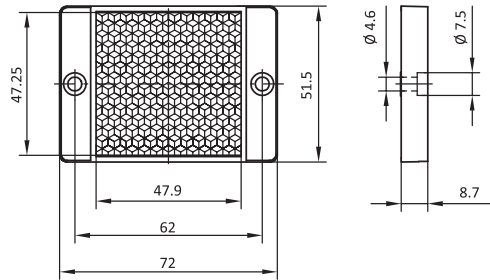


- A: Receiver
- B: Emitter
- C: Output indicator
- D: Steady state indicator
- E: Adjustor for distance
- F: Adjustor for LO/DO

OS10S-L SERIES

REFLECTOR

RB50x50-1



OS10S-L SERIES

SALES AND SERVICE

Tianjin Elco Automation Co., Ltd

No. 12, 4th XEDA Branch Road
Xiqing Economic-Technological Development Area
Tianjin 300385, P.R. China
Office Phone: 022 23788282
E-Mail: info@elco.cn
www.elco-holding.com.cn

Elco Industrie Automation GmbH

Benzstrasse 7
71720 Oberstenfeld,
Deutschland
Office Phone: +49 7062 / 6599-260
E-Mail: info@elco-automation.de
www.elco-automation.de

Elco Automation LLC

1097 Highway 101 South, Suite D-3 Greer
South Carolina 29651, USA
Office Phone: +1 864-581-7431
E-Mail: infousa@elcoautomation.com
www.elcoautomation.com

Elco Industrial Automation Pvt Ltd.

No 80, 1st Main, 2nd Cross, Royal Enclave,
Sidedahalli, Nagasandra Bangalore 560073, India
Office Phone: +91-7259931777
E-Mail: info@elcoautomation.in
www.elcoautomation.com

Elco Automation Korea Ltd.

706, 17 Daehak 4-ro, Yeongtong-gu, Suwon-si,
Gyeonggi-do, Republic of Korea, 16226
Office Phone: +82-31-216-7890
E-Mail: sales@elcoautomation.co.kr
www.elcoautomation.com