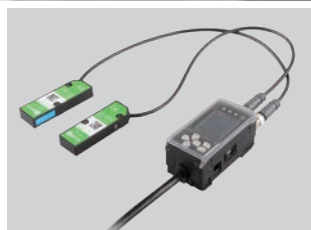


Photoelectric Sensor

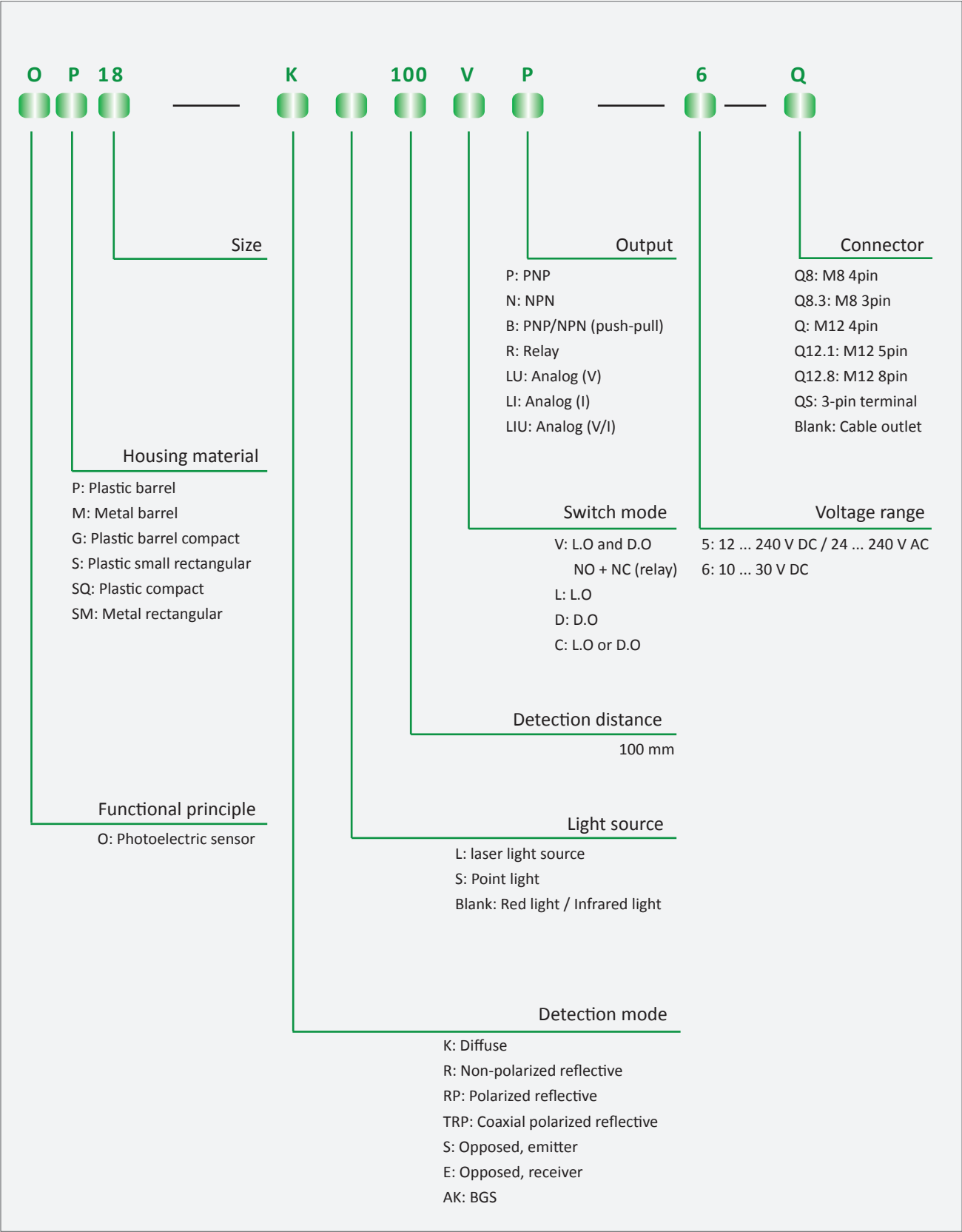


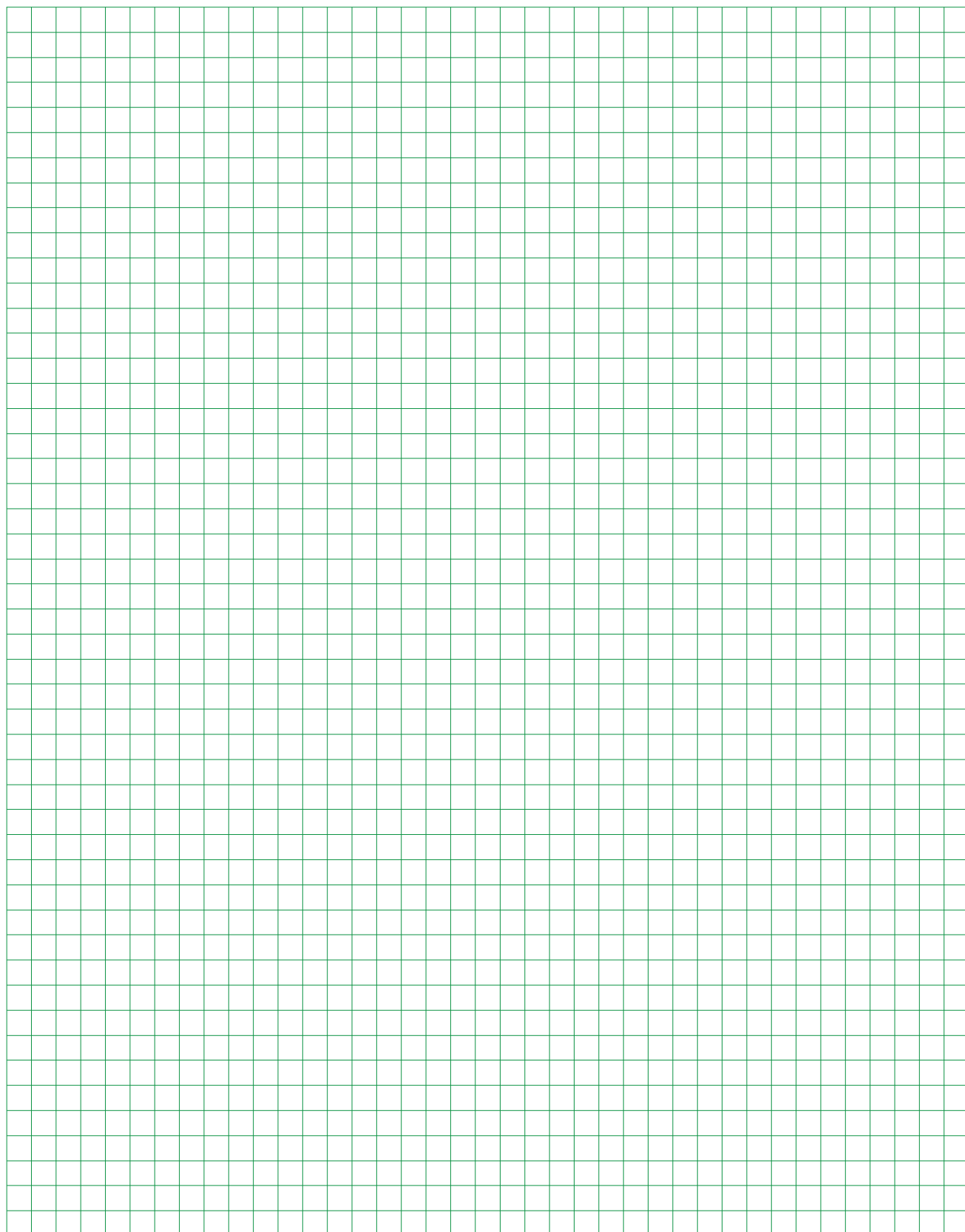




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Model Description





Photoelectric Sensor

	Barrel			Compact
Product picture				
Series	OP12	OP18	OM18	OG18
Features	Barrel	Barrel cost-effective	Barrel long distance laser	Barrel short body
Detection range	Opposed: 5 m	Opposed: 10 m Retro-reflective: 3 m Polarized retro-reflective: 3 m Diffused: 0.6 m	Opposed: 10 m, 60 m Retro-reflective: 3 m Polarized retro-reflective: 3 m Diffused: 0.6 m	Opposed: 30 m Retro-reflective: 4 m Polarized retro-reflective: 4 m Diffused: 0.6 m
Light source	Infrared light	Red light Infrared light	Laser beam Red light Infrared light	Red light Infrared light
Power supply	10 ... 30 V DC	10 ... 30 V DC	10 ... 30 V DC	10 ... 30 V DC
Output	NPN / PNP	NPN / PNP	NPN / PNP	NPN / PNP
Housing material	PC + PMMA	PC + PBT	Nickel plated brass	ABS + PBT
Protection class	IP67	IP67	IP67	IP67

Compact		Rectangular	
			
OSQ18	OS4	OS22	OS10
Round hole mounting screw mounting	Thin and small size	High performance mini size	High precision Laser BGS
Opposed: 30 m Retro-reflective: 3.5 m Polarized retro-reflective: 3.5 m Diffused: 0.6 m BGS: 200 mm	Opposed: 1 m BGS: 15 mm 30 mm	Opposed: 1 m BGS: 15 mm 30 mm 50 mm 120 mm	Opposed: 30 m Polarized retro-reflective: 3 m, 5 m Diffused: 1 m BGS: 350 mm
Laser beam Red light Infrared light	Red light	Red light	Laser beam Red light Infrared light
10 ... 30 V DC	10 ... 30 V DC	10 ... 30 V DC	10 ... 30 V DC
NPN / PNP	NPN / PNP	NPN / PNP	NPN / PNP
ABS + PBT	PC + PBT	PC + ABS	PC + PBT
IP67	IP67	IP67	IP67

Photoelectric Sensor

	Rectangular			
Product picture				
Series	OS10S	OS10U	OS20	OS50
Features	High precision Spot light source BGS	Laser Triangulation principle	High performance Laser BGS	Wide voltage Long distance Relay
Detection range	Opposed: 10 m Polarized retro-reflective: 3 m BGS: 350 mm 1 m 4 m	30 ... 300 mm	BGS: 100 mm, 300 mm polarized reflective: 5 m Coaxial polarized reflective: 5 m	Opposed: 60 m Retro-reflective: 10 m Polarized retro-reflective: 6 m Diffused: 1 m, 3.5 m, 7 m
Light source	Red light Infrared laser beam	Red laser	Laser beam Red light	Laser beam Red light Infrared light
Power supply	10 ... 30 V DC	10 ... 30 V DC	10 ... 30 V DC	10 ... 30 V DC 24 ... 240 V AC/DC
Output	NPN / PNP	Push-Pull RS485 IO-Link	NPN / PNP	NPN / PNP, Relay
Housing material	PC + PBT	PC + PMMA	PC + PBT	PBT + ABS
Protection class	IP67	IP67	IP67	IP67

Rectangular

			
OSM70	OSM40	OSM41	OSM42
Metal housing Long distance Relay	Metal housing High precision Laser distance measurement	Metal housing High precision Laser distance measurement	Metal housing Laser distance measurement
Opposed: 150 m Retro-reflective: 30 m Polarized retro-reflective: 25 m BGS: 4 m	Distance measuring: 25 ... 35 mm 35 ... 70 mm 60 ... 160 mm 100 ... 300 mm 150 ... 800 mm	Distance measuring: 30±5 mm 400±200 mm 50±15 mm 50 ... 2500 mm 100±35 mm 50 ... 4000 mm 200±80 mm 0.01 ... 10 m	Distance measuring: 150 ... 1200 mm 150 ... 2000 mm 50 ... 2500 mm 50 ... 4000 mm
Laser beam	Laser beam	Laser beam	Laser beam
10 ... 30 V DC 24 ... 240 V AC/DC	10 ... 30 V DC	10 ... 30 V DC	10 ... 30 V DC
Push-Pull Relay	Push-Pull Analogue IO-Link RS485	NPN / PNP Analogue RS485	2 x Push-Pull
Die-cast zinc	316L	Die-cast zinc	Die-cast zinc
IP67	IP67	IP67	IP67

Photoelectric Sensor

	Rectangular			
Product picture				
Series	OSM45	OSM47	OSM61	OSM300
Features	Metal housing Laser distance measurement	Metal housing Color detection	Metal housing Laser distance measurement	Metal housing Long distance laser measurement
Detection range	Distance measuring: 25 ... 300 mm 35 ... 310 mm	30 ... 500 mm	30±4 mm 50±10 mm 85±20 mm 120±60 mm 250±150 mm	0.15 ... 100 m
Light source	Red laser	White LED	Red laser	Red laser
Power supply	12 ... 24 V DC	10 ... 30 V DC	10 ... 30 V DC	DC 18 ... 30 V
Output	NPN / PNP+ RS485	2 x NPN / PNP	2 x Push-Pull NPN / PNP	—
Housing material	Die-cast zinc	Die-cast zinc	Aluminium alloy	Die-cast zinc
Protection class	IP67	IP67	IP67	IP65

Deviation correction	Optical Data Communication		
			
OSMT60	ODC300		
Metal housing It is equipped with an OSC1 controller	Metal housing Optical data communication		
Measuring width: 10 mm Measuring distance: 300 mm	0.3 ... 120 m		
Red laser	Red laser + Infrared laser Red laser		
12-24 V DC	DC 18 ... 30 V		
—	PNP / NPN		
Aluminium alloy	Aluminium alloy		
IP50	IP65		

Photoelectric Sensors - Barrel OP12



Description:

Compact body, meeting the demand for compact space in industries. Such as electronics, photovoltaics, and semiconductors. The small threaded photoelectric sensor has strong resistance to light interference and adopts the principle of radiation to stably detect all opaque objects.

Features:

- Compact body and structure
- M12 threaded mounting for easy installation
- The product adopts infrared light, which has stronger resistance to environmental light interference

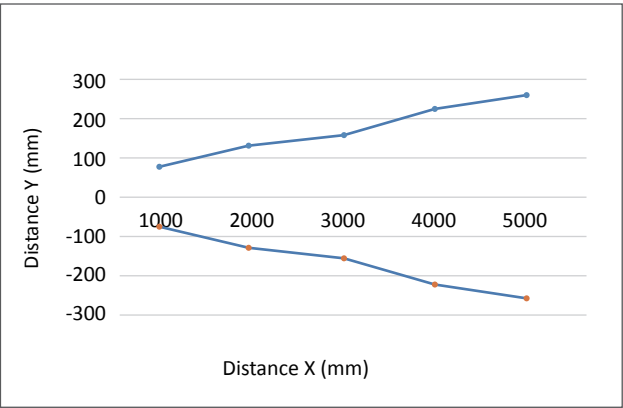
Type:

Detection mode	Type	Distance	Light source	Frequency	Output	Switching mode	Connection	Wiring
Opposed	OP12-S6	5 m	Infrared light	— —	— —	— —	2 m cable	Fig. 1
	OP12-ELN6	5 m	— —	100 Hz	NPN	Light-on	2 m cable	Fig. 2
	OP12-EDN6	5 m	— —	100 Hz	NPN	Dark-on	2 m cable	Fig. 3
	OP12-ELP6	5 m	— —	100 Hz	PNP	Light-on	2 m cable	Fig. 4
	OP12-EDP6	5 m	— —	100 Hz	PNP	Dark-on	2 m cable	Fig. 5

Technical Data:

Operating voltage	10 ... 30 V DC
Ripple voltage	≤ 10%
Light source	850 nm
Output	PNP / NPN
Switching mode	Light-on / Dark-on
Current consumption	≤ 20 mA
load current	≤ 50 mA
Output indicator	Red LED
Power indicator	Green LED
Housing material	PC + PMMA
Storage temperature	-20 ... +70 °C
Ambient temperature	-10 ... +50 °C
Protection class	IP67
Protective circuit	Reverse polarity protection, short circuit protection, overload protection (1 kV / 0.5J)
Voltage withstanding	650 V/AC, 50 / 60 Hz, 60 s
Insulation impedance	≥50 MΩ (500 V DC)
Shock resistance	Complex amplitude 1.5 mm 10 ... 50 Hz (2hr X, Y, Z respectively)
Impact resistance	500 m/s ² (50 G) 3 times X, Y, Z respectively
Environment light immune	Incandescent lamp ≤10000 Lux

Translation characteristic curve:



Wiring:

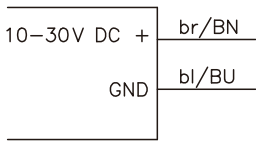


Fig. 1

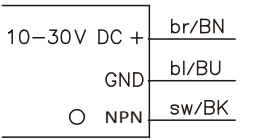


Fig. 2

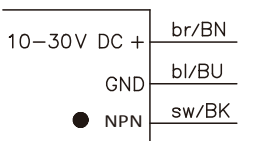


Fig. 3

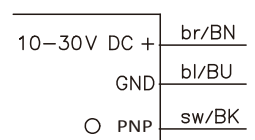


Fig. 4

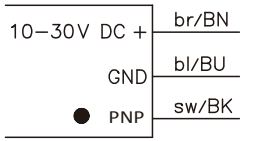
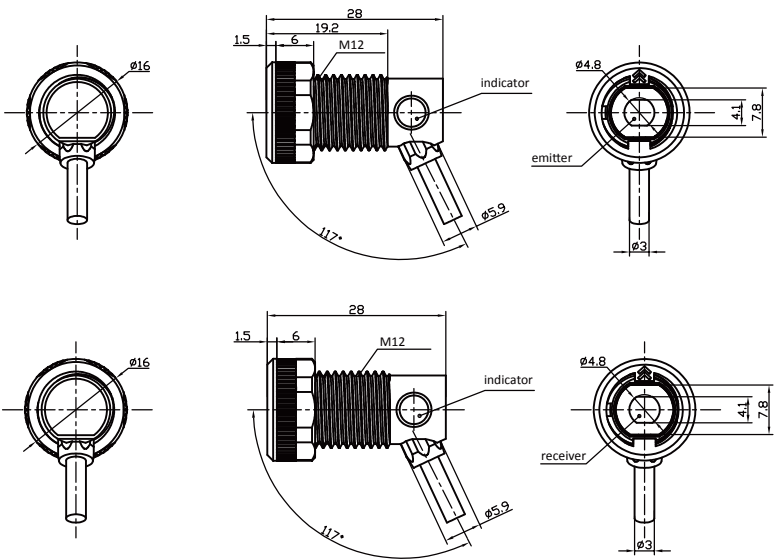


Fig. 5

Dimensions:



Photoelectric Sensors - Barrel OP18



Description:

M18 barrel mounting mode, high cost-effective, OEM variations are optional. Suitable for logistics transportation, textile, garage, electronic industry.

Features:

- General mounting mode
- Bright status indicator

Technical Data:

Operating voltage	10 ... 30 VDC
Ripple voltage	≤ 10%
No-load current	Opposed: ≤ 25 mA; Others: ≤ 15 mA
Output current	≤ 100 mA
Protective circuit	Reverse polarity protection, short circuit protection, overload protection
Sensitivity	Adjustable, with single-turn knob
Output indicator	Red LED
Steady state indicator	Green LED
Ambient temperature	-25 ... +65 °C
Storage temperature	-40 ... +70 °C
Voltage withstanding	1000 V/AC, 50 / 60 Hz, 60 s
Insulation impedance	≥ 50 MΩ (500 V DC)
Shock resistance	Complex amplitude 1.5 mm 10 ... 50 Hz (2hr X, Y,Z respectively)
Impact resistance	500 m/s ² (50 G) 3 times X, Y, Z respectively
Protection class	IP67
Housing material	PC + PBT

Photoelectric Sensors - Barrel OP18

Type:

Detection mode	Type	Distance	Light source	Frequency	Output	Switching mode	Connection	Wiring
Opposed	OP18-S6 (emitter)	10 m	Infrared	— —	— —	— —	2 m cable	Fig. 1
	OP18-EVP6 (receiver)		— —	100 Hz	PNP	NO + NC	2 m cable	Fig. 7
	OP18-EVN6 (receiver)		— —	100 Hz	NPN	NO + NC	2 m cable	Fig. 8
	OP18-S6Q (emitter)	10 m	Infrared	— —	— —	— —	M12 connector	Fig. 2
	OP18-EVP6Q (receiver)		— —	100 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OP18-EVN6Q (receiver)		— —	100 Hz	NPN	NO + NC	M12 connector	Fig. 10

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

Retro-reflective	OP18-RVP6	3 m	Infrared	100 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OP18-RVN6	3 m	Infrared	100 Hz	NPN	NO + NC	2 m cable	Fig. 4
	OP18-RVP6Q	3 m	Infrared	100 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OP18-RVN6Q	3 m	Infrared	100 Hz	NPN	NO + NC	M12 connector	Fig. 6
Polarized retro-reflective	OP18-RPVP6	3 m	Red	800 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OP18-RPVN6	3 m	Red	800 Hz	NPN	NO + NC	2 m cable	Fig. 4
	OP18-RPVP6Q	3 m	Red	800 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OP18-RPVN6Q	3 m	Red	800 Hz	NPN	NO + NC	M12 connector	Fig. 6

Diffused	OP18-K100VP6	100 mm	Infrared	100 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OP18-K100VN6	100 mm	Infrared	100 Hz	NPN	NO + NC	2 m cable	Fig. 4
	OP18-K100VP6Q	100 mm	Infrared	100 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OP18-K100VN6Q	100 mm	Infrared	100 Hz	NPN	NO + NC	M12 connector	Fig. 6
	OP18-K200VP6	200 mm	Infrared	100 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OP18-K200VN6	200 mm	Infrared	100 Hz	NPN	NO + NC	2 m cable	Fig. 4
	OP18-K200VP6Q	200 mm	Infrared	100 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OP18-K200VN6Q	200 mm	Infrared	100 Hz	NPN	NO + NC	M12 connector	Fig. 6
	OP18-K400VP6	400 mm	Infrared	100 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OP18-K400VN6	400 mm	Infrared	100 Hz	NPN	NO + NC	2 m cable	Fig. 4
	OP18-K400VP6Q	400 mm	Infrared	100 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OP18-K400VN6Q	400 mm	Infrared	100 Hz	NPN	NO + NC	M12 connector	Fig. 6
	OP18-K600VP6	600 mm	Infrared	100 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OP18-K600VN6	600 mm	Infrared	100 Hz	NPN	NO + NC	2 m cable	Fig. 4
	OP18-K600VP6Q	600 mm	Infrared	100 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OP18-K600VN6Q	600 mm	Infrared	100 Hz	NPN	NO + NC	M12 connector	Fig. 6

Diffuse reflective vitreous body detect	OP18-TK50VP6	50 mm	Infrared	100 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OP18-TK50VN6	50 mm	Infrared	100 Hz	NPN	NO + NC	2 m cable	Fig. 4
	OP18-TK50VP6Q	50 mm	Infrared	100 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OP18-TK50VN6Q	50 mm	Infrared	100 Hz	NPN	NO + NC	M12 connector	Fig. 6
	OP18-TK100VP6	100 mm	Infrared	100 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OP18-TK100VN6	100 mm	Infrared	100 Hz	NPN	NO + NC	2 m cable	Fig. 4
	OP18-TK100VP6Q	100 mm	Infrared	100 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OP18-TK100VN6Q	100 mm	Infrared	100 Hz	NPN	NO + NC	M12 connector	Fig. 6

Photoelectric Sensors - Barrel OP18

Wiring:

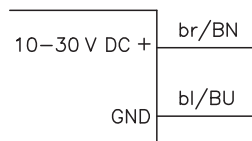


Fig. 1

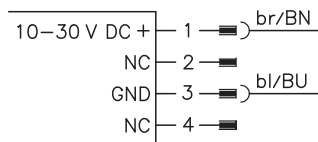


Fig. 2

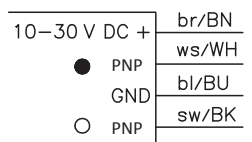


Fig. 3

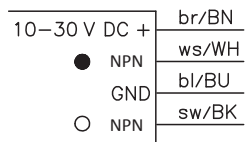


Fig. 4

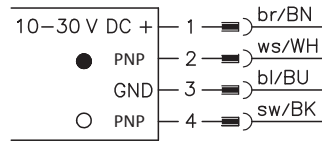


Fig. 5

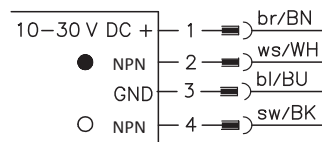


Fig. 6

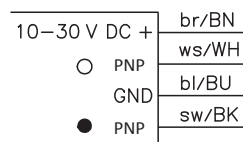


Fig. 7

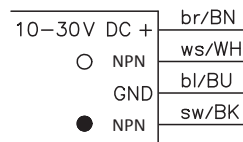


Fig. 8

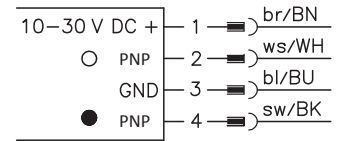


Fig. 9

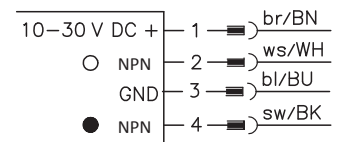
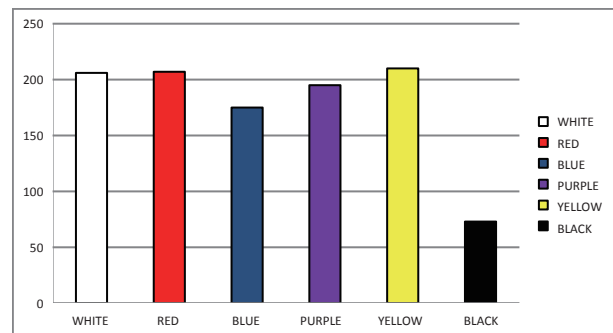


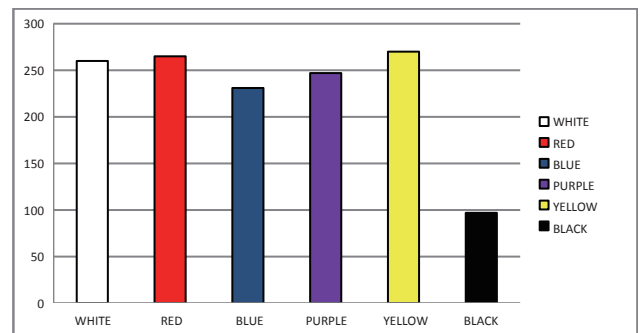
Fig. 10

Attenuation figure

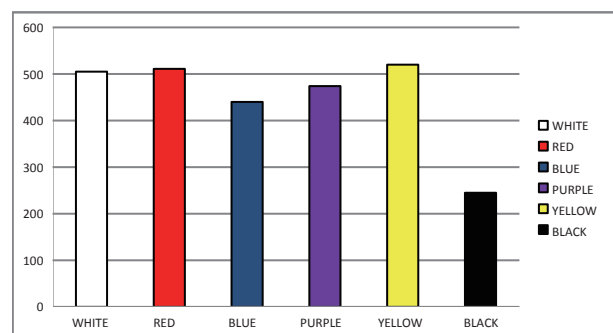
OP18-K100VP6



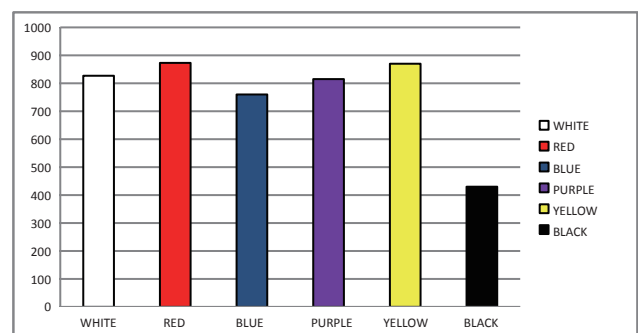
OP18-K200VP6



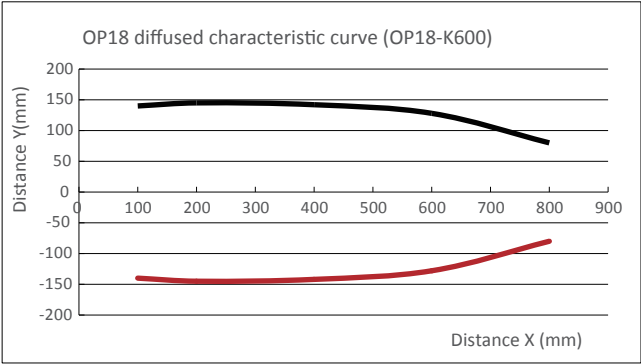
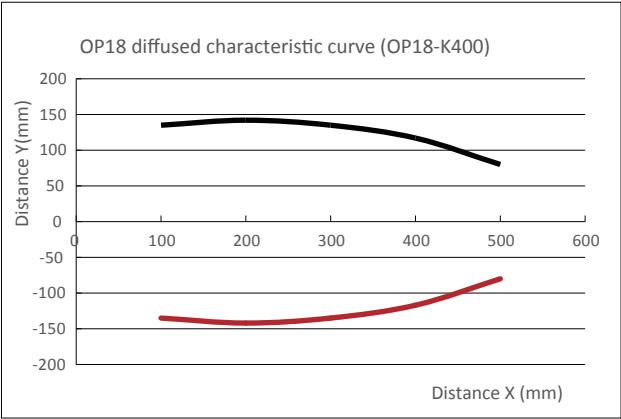
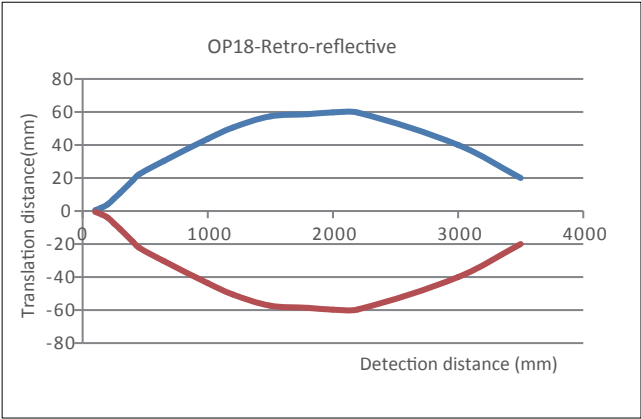
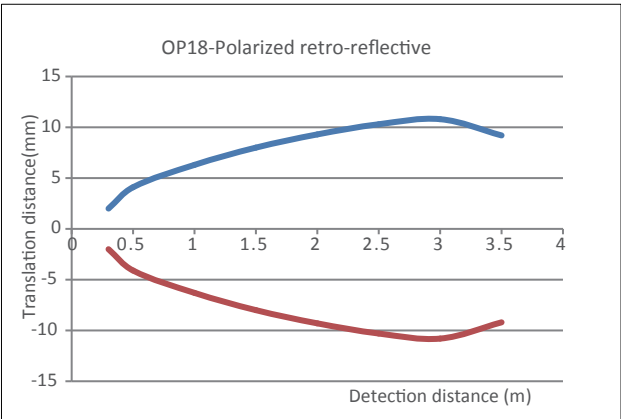
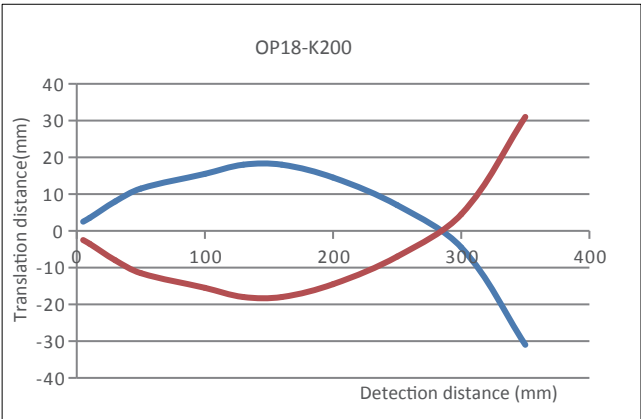
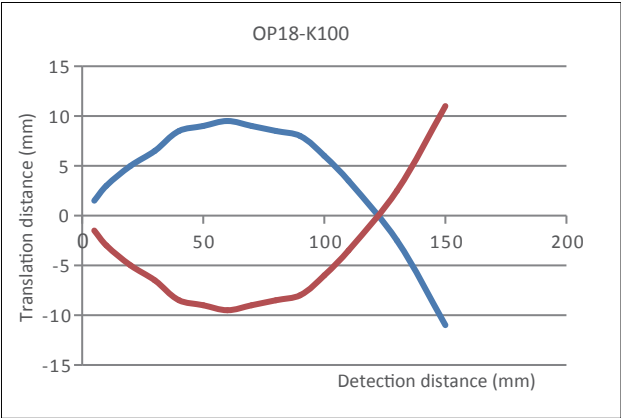
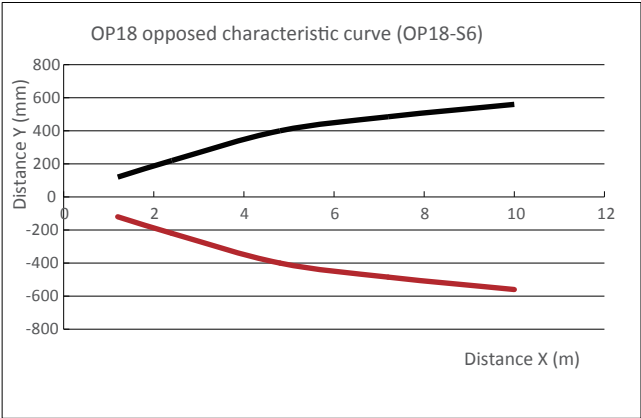
OP18-K400VP6



OP18-K600VP6



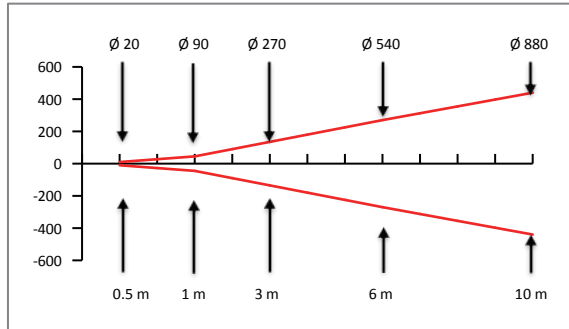
Translation characteristic curve



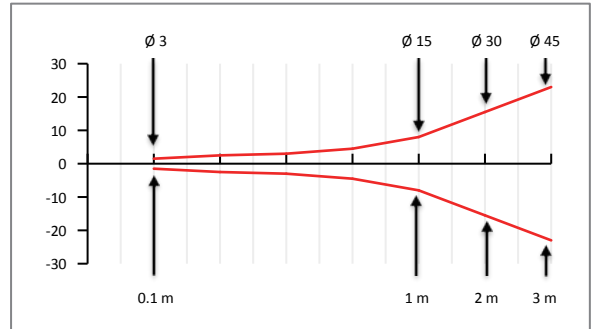
Photoelectric Sensors - Barrel OP18

Beam Pattern:

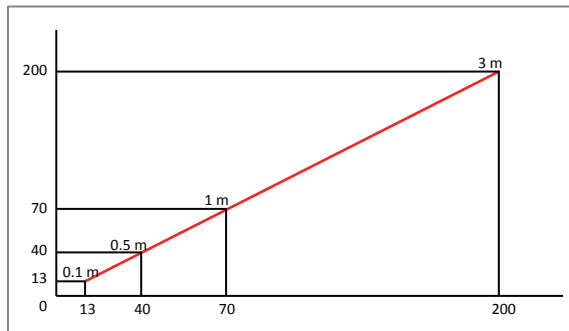
OP18-S6 (mm)



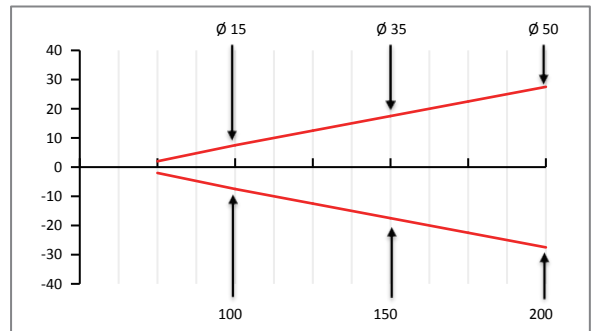
OP18-R (mm)



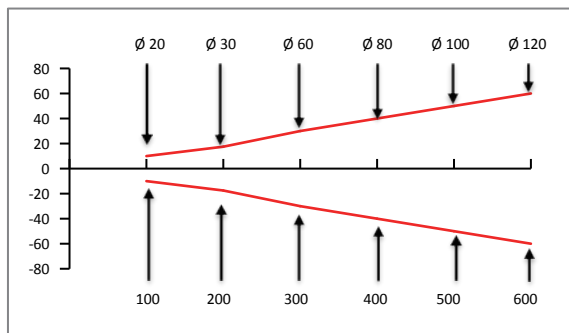
OP18-RP (mm)



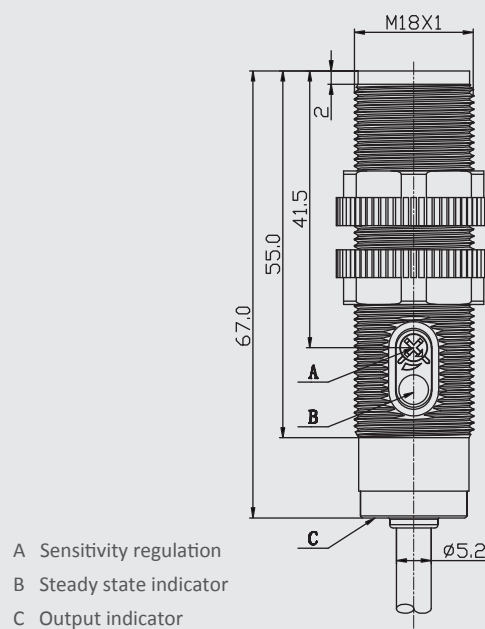
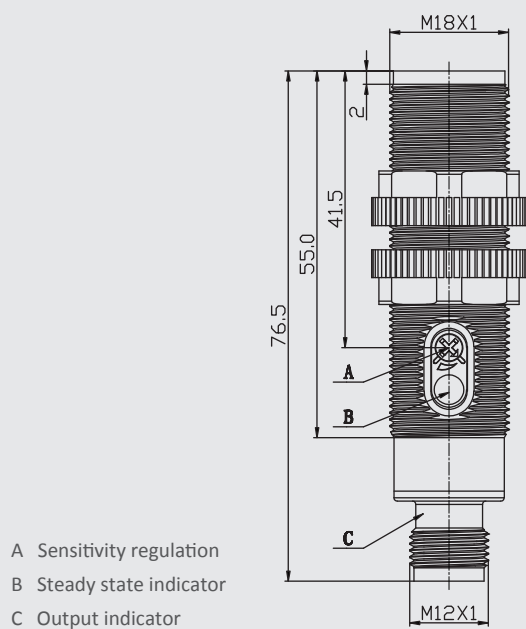
OP18-K100/200 (mm)



OP18-K400/600 (mm)

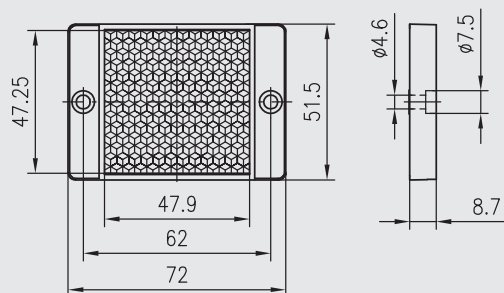


Dimensions:



Reflector (optional):

RB50x50-1



Photoelectric Sensors - Barrel OM18



Description:

M18 barrel mounting mode, metal housing.

Suitable for logistics transportation, food&beverage, printing, small equipment and others.

Features:

- Strong impact resistance
- 60 m laser opposed

Technical Data:

Operating voltage	10 ... 30 VDC
Ripple voltage	≤ 10%
Light source	Red laser (650 nm) / class 1
No-load current	Opposed: ≤ 25 mA; Others: ≤ 15 mA
Output current	≤ 100 mA
Protective circuit	Reverse polarity protection, short circuit protection, overload protection
Sensitivity	Adjustable, with single-turn knob
Output indicator	Red LED
Steady state indicator	Green LED
Ambient temperature	-25 ... +65 °C
Storage temperature	-40 ... +70 °C
Voltage resistance	1000 V/AC, 50 / 60 Hz, 60 s
Insulation impedance	≥ 50 MΩ (500 V DC)
Shock resistance	Complex amplitude 1.5 mm 10 ... 50 Hz (2hr X, Y, Z respectively)
Impact resistance	500 m/s ² (50 G) 3 times X, Y, Z respectively
Protection class	IP67
Housing material	Brass nickel-plated

Photoelectric Sensors - Barrel OM18

Type:

Detection mode	Type	Distance	Light source	Frequency	Output	Switching mode	Connection	Wiring
Opposed	OM18-S6 (emitter)	10 m	Infrared	— —	— —	— —	2 m cable	Fig. 1
	OM18-EVP6 (receiver)		— —	100 Hz	PNP	NO + NC	2 m cable	Fig. 7
	OM18-EVN6 (receiver)		— —	100 Hz	NPN	NO + NC	2 m cable	Fig. 8
	OM18-S6Q (emitter)	10 m	Infrared	— —	— —	— —	M12 connector	Fig. 2
	OM18-EVP6Q (receiver)		— —	100 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OM18-EVN6Q (receiver)		— —	100 Hz	NPN	NO + NC	M12 connector	Fig. 10
	OM18-SL306	30 m	laser	— —	— —	— —	2 m cable	Fig. 1
	OM18-EL30VP6		laser	800 Hz	PNP	NO + NC	2 m cable	Fig. 7
	OM18-EL30VN6		laser	800 Hz	NPN	NO + NC	2 m cable	Fig. 8
	OM18-SL306Q	30 m	laser	— —	— —	— —	M12 connector	Fig. 2
	OM18-EL30VP6Q		laser	800 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OM18-EL30VN6Q		laser	800 Hz	NPN	NO + NC	M12 connector	Fig. 10
	OM18-SL606	60 m	laser	— —	— —	— —	2 m cable	Fig. 1
	OM18-EL60VP6		laser	800 Hz	PNP	NO + NC	2 m cable	Fig. 7
	OM18-EL60VN6		laser	800 Hz	NPN	NO + NC	2 m cable	Fig. 8
	OM18-SL606Q	60 m	laser	— —	— —	— —	M12 connector	Fig. 2
	OM18-EL60VP6Q		laser	800 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OM18-EL60VN6Q		laser	800 Hz	NPN	NO + NC	M12 connector	Fig. 10

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

Retro-reflective	OM18-RVP6	3 m	Infrared	100 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OM18-RVN6	3 m	Infrared	100 Hz	NPN	NO + NC	2 m cable	Fig. 4
	OM18-RVP6Q	3 m	Infrared	100 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OM18-RVN6Q	3 m	Infrared	100 Hz	NPN	NO + NC	M12 connector	Fig. 6
Polarized retro-reflective	OM18-RPVP6	3 m	Red	800 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OM18-RPVN6	3 m	Red	800 Hz	NPN	NO + NC	2 m cable	Fig. 4
	OM18-RPVP6Q	3 m	Red	800 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OM18-RPVN6Q	3 m	Red	800 Hz	NPN	NO + NC	M12 connector	Fig. 6

Photoelectric Sensors - Barrel OM18

Type:

Detection mode	Type	Distance	Light source	Frequency	Output	Switching mode	Connection	Wiring
Diffused	OM18-K100VP6	100 mm	Infrared	100 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OM18-K100VN6	100 mm	Infrared	100 Hz	NPN	NO + NC	2 m cable	Fig. 4
	OM18-K100VP6Q	100 mm	Infrared	100 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OM18-K100VN6Q	100 mm	Infrared	100 Hz	NPN	NO + NC	M12 connector	Fig. 6
	OM18-K200VP6	200 mm	Infrared	100 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OM18-K200VN6	200 mm	Infrared	100 Hz	NPN	NO + NC	2 m cable	Fig. 4
	OM18-K200VP6Q	200 mm	Infrared	100 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OM18-K200VN6Q	200 mm	Infrared	100 Hz	NPN	NO + NC	M12 connector	Fig. 6
	OM18-K400VP6	400 mm	Infrared	100 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OM18-K400VN6	400 mm	Infrared	100 Hz	NPN	NO + NC	2 m cable	Fig. 4
	OM18-K400VP6Q	400 mm	Infrared	100 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OM18-K400VN6Q	400 mm	Infrared	100 Hz	NPN	NO + NC	M12 connector	Fig. 6
	OM18-K600VP6	600 mm	Infrared	100 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OM18-K600VN6	600 mm	Infrared	100 Hz	NPN	NO + NC	2 m cable	Fig. 4
	OM18-K600VP6Q	600 mm	Infrared	100 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OM18-K600VN6Q	600 mm	Infrared	100 Hz	NPN	NO + NC	M12 connector	Fig. 6

Diffuse reflective vitreous body detect	OM18-TK100VP6	100 mm	Infrared	100 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OM18-TK100VN6	100 mm	Infrared	100 Hz	NPN	NO + NC	2 m cable	Fig. 4
	OM18-TK100VP6Q	100 mm	Infrared	100 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OM18-TK100VN6Q	100 mm	Infrared	100 Hz	NPN	NO + NC	M12 connector	Fig. 6
	OM18-TK200VP6	200 mm	Infrared	100 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OM18-TK200VN6	200 mm	Infrared	100 Hz	NPN	NO + NC	2 m cable	Fig. 4
	OM18-TK200VP6Q	200 mm	Infrared	100 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OM18-TK200VN6Q	200 mm	Infrared	100 Hz	NPN	NO + NC	M12 connector	Fig. 6

Photoelectric Sensors - Barrel OM18

Wiring:

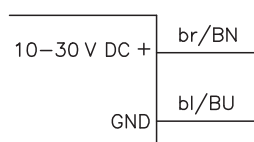


Fig. 1

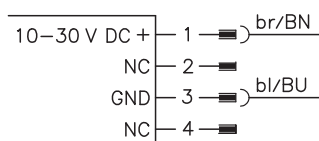


Fig. 2

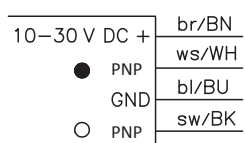


Fig. 3

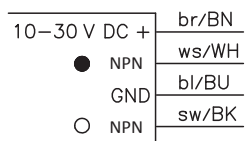


Fig. 4

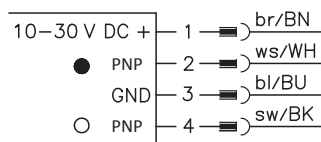


Fig. 5

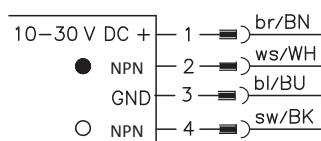


Fig. 6

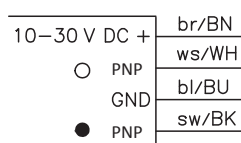


Fig. 7

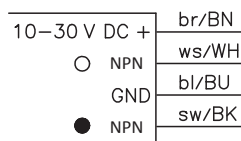


Fig. 8

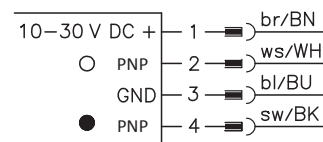


Fig. 9

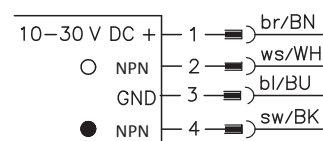
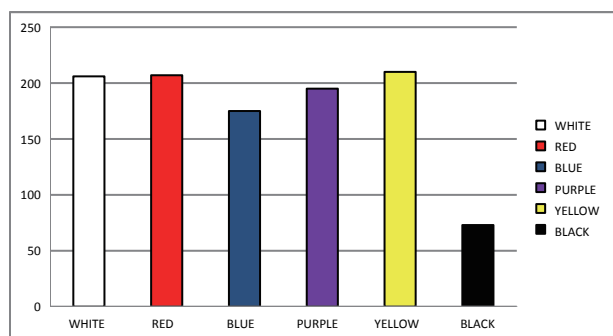


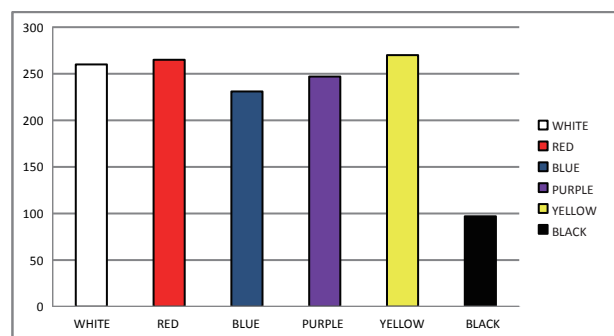
Fig. 10

Attenuation figure:

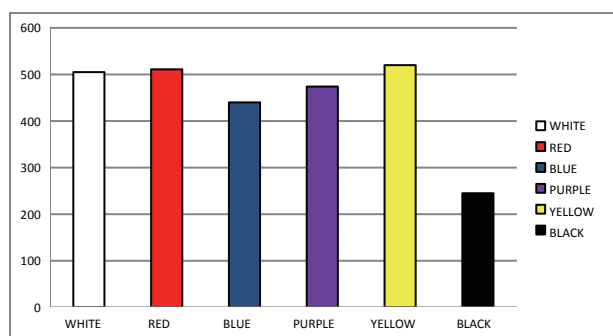
OM18-K100VP6



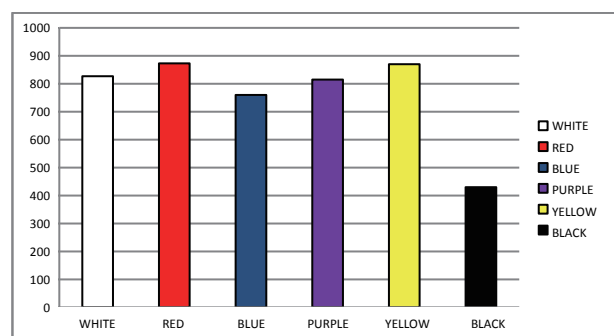
OM18-K200VP6



OM18-K400VP6

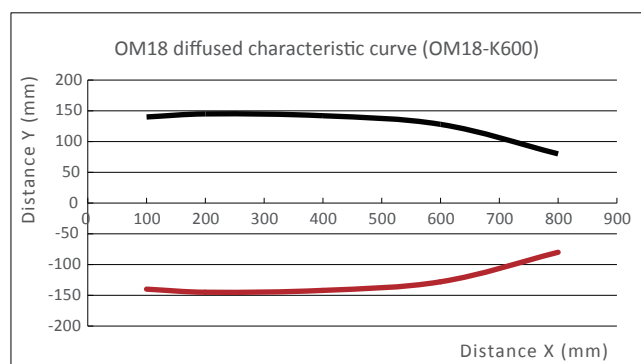
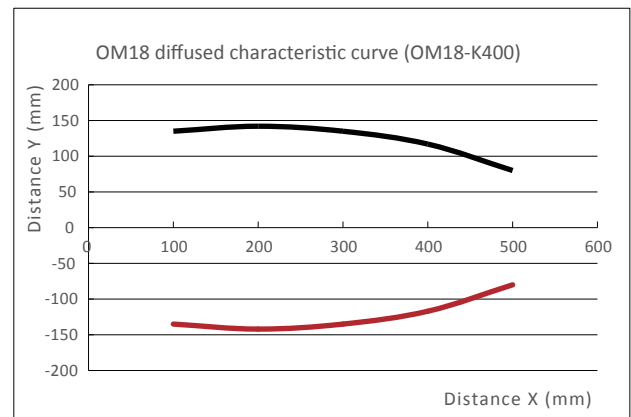
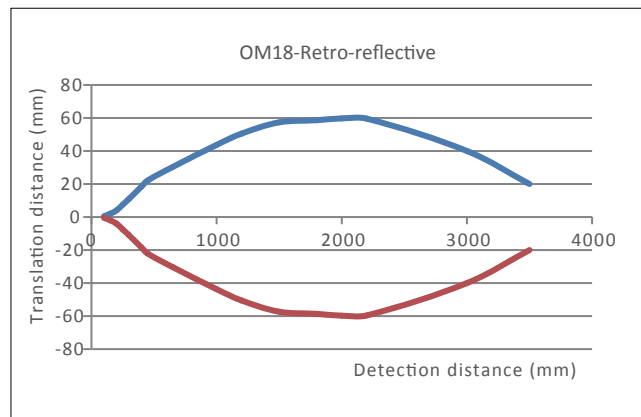
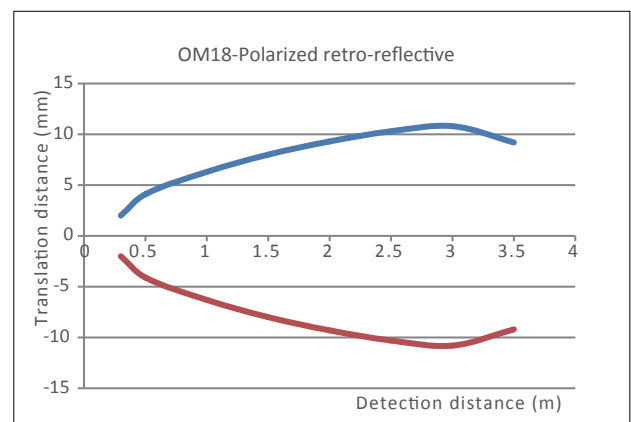
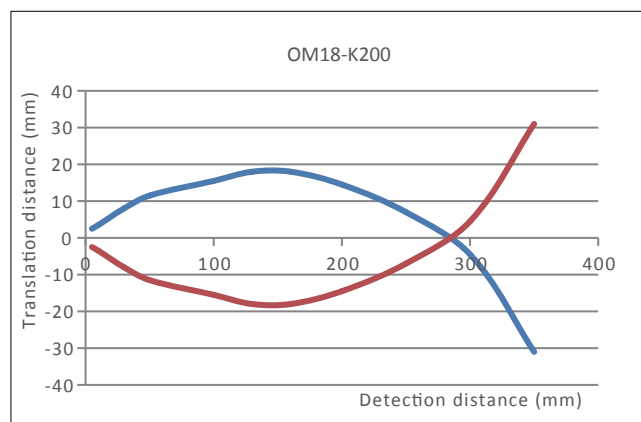
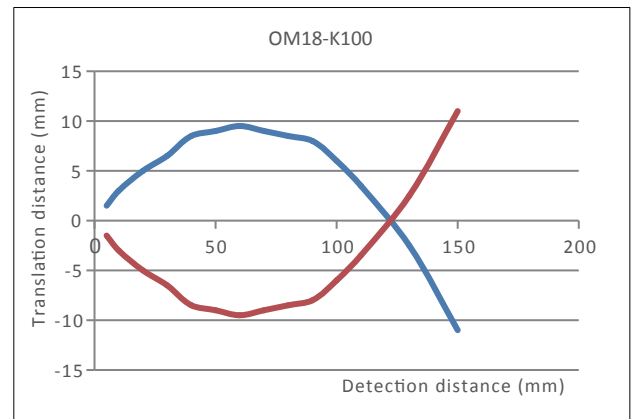
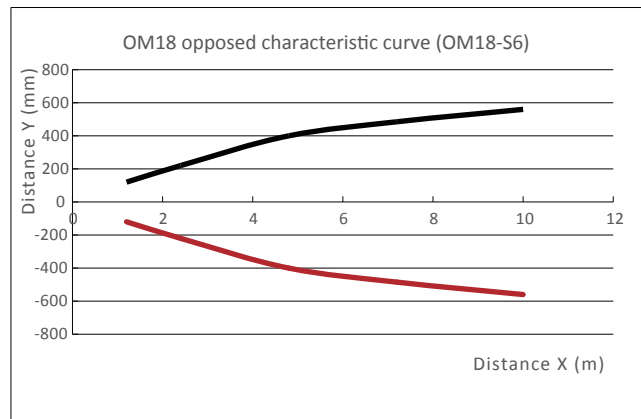


OM18-K600VP6



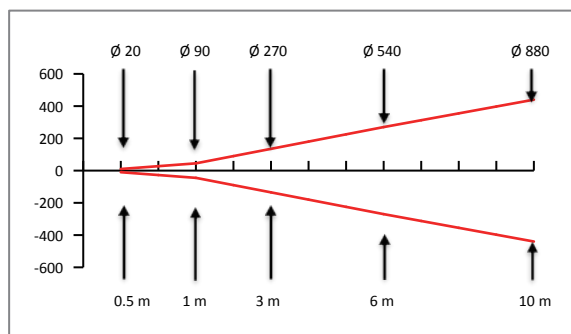
Photoelectric Sensors - Barrel OM18

Translation characteristic curve:

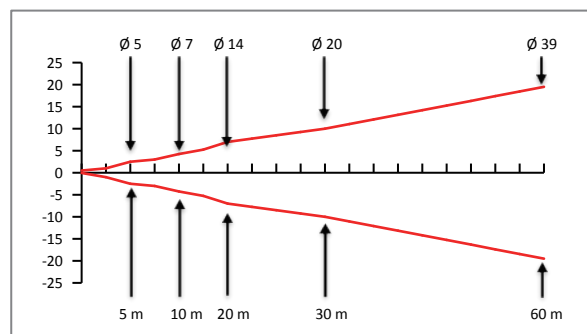


Beam Pattern:

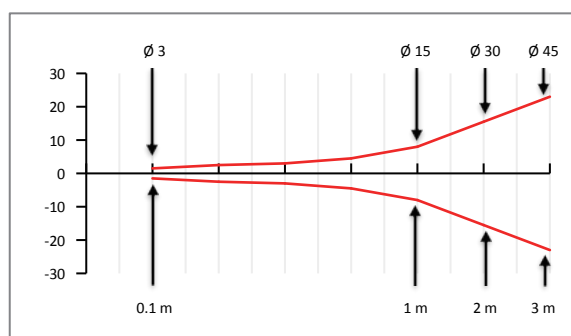
OM18-S6 (mm)



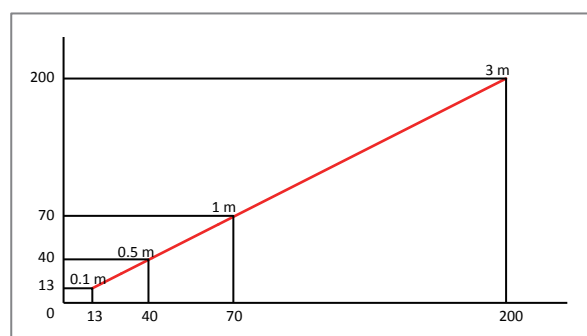
OM18-SL (mm)



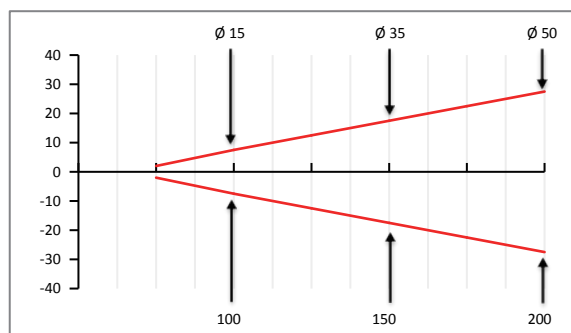
OM18-R (mm)



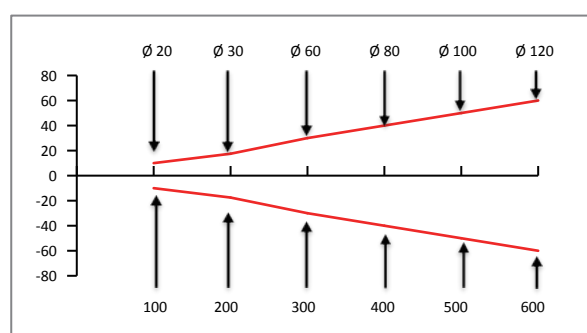
OM18-RP (mm)



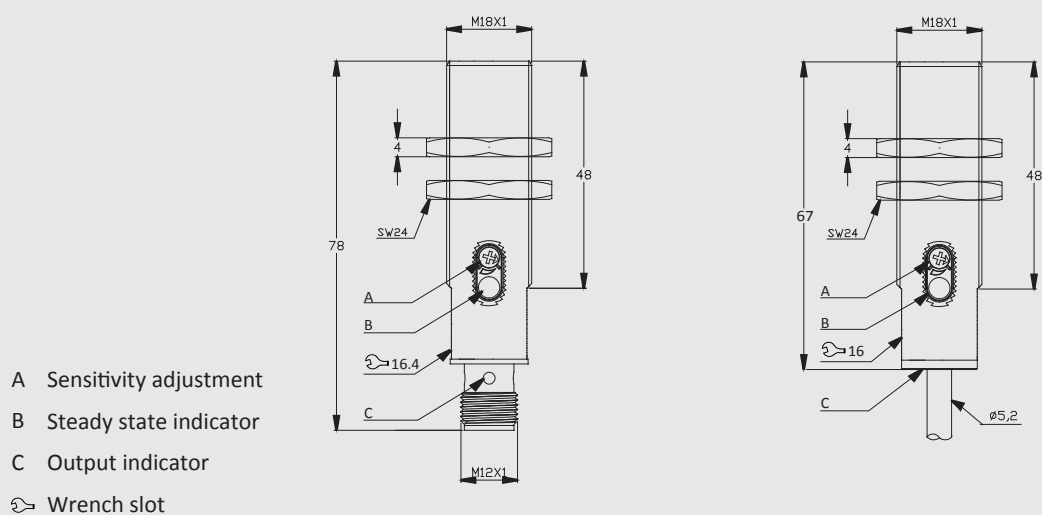
OM18-K100/200 (mm)



OM18-K400/600 (mm)

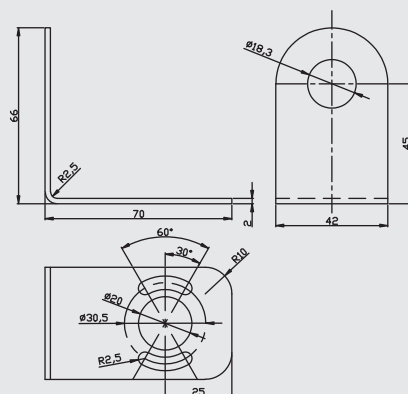


Dimensions:



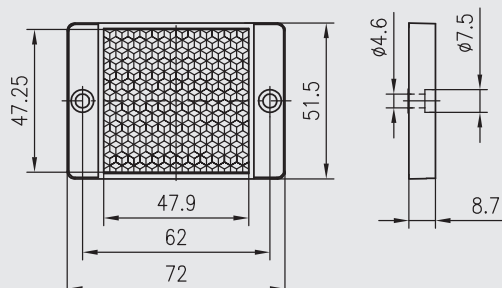
Mounting bracket (optional):

EOM18-1



Reflector (optional):

RB50x50-1





Description:

M18 barrel mounting mode, length 40 mm, according to the needs of use, can provide red, infrared opposed products. Suitable for logistics transportation, gates, packaging and AGV.

Features:

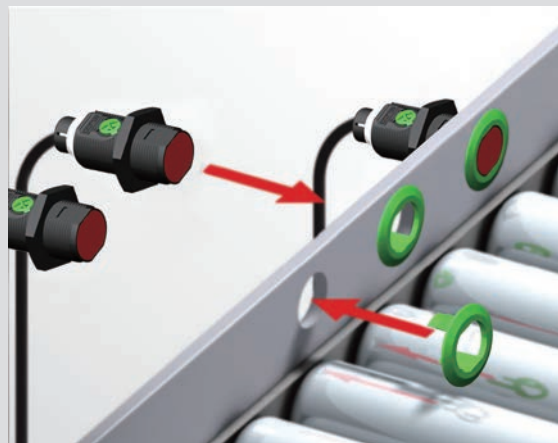
- Compact size
- Long sensing range
- Visible red LED light source

Sensor function description:



The embedded mounting bracket accessory enables the sensor to be flush mounted on the surface of the equipment, saving mounting time and reducing occupancy space

Clear and bright red LED visible light source, clear illumination position and long-distance position detection, suitable for various equipment applications



Photoelectric Sensors - Compact OG18

Type:

Detection mode	Type	Distance	Light source	Frequency	Output	Switching mode	Connection	Wiring
Opposed	OG18-S6 (emitter)	30 m	Infrared	— —	— —	— —	2 m cable	Fig. 1
	OG18-ECP6 (receiver)		— —	800 Hz	PNP	Light-on / Dark-on	2 m cable	Fig. 3
	OG18-ECN6 (receiver)		— —	800 Hz	NPN	Light-on / Dark-on	2 m cable	Fig. 2
	OG18-S6Q (emitter)	30 m	Infrared	— —	— —	— —	M12 connector	Fig. 6
	OG18-ECP6Q (receiver)		— —	800 Hz	PNP	Light-on / Dark-on	M12 connector	Fig. 8
	OG18-ECN6Q (receiver)		— —	800 Hz	NPN	Light-on / Dark-on	M12 connector	Fig. 7

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

Retro-reflective	OG18-RCP6	4 m	Red	800 Hz	PNP	Light-on / Dark-on	2 m cable	Fig. 3
	OG18-RCN6	4 m	Red	800 Hz	NPN	Light-on / Dark-on	2 m cable	Fig. 2
	OG18-RCP6Q	4 m	Red	800 Hz	PNP	Light-on / Dark-on	M12 connector	Fig. 8
	OG18-RCN6Q	4 m	Red	800 Hz	NPN	Light-on / Dark-on	M12 connector	Fig. 7
Polarized retro-reflective	OG18-RPCP6	4 m	Red	800 Hz	PNP	Light-on / Dark-on	2 m cable	Fig. 3
	OG18-RPCN6	4 m	Red	800 Hz	NPN	Light-on / Dark-on	2 m cable	Fig. 2
	OG18-RPCP6Q	4 m	Red	800 Hz	PNP	Light-on / Dark-on	M12 connector	Fig. 8
	OG18-RPCN6Q	4 m	Red	800 Hz	NPN	Light-on / Dark-on	M12 connector	Fig. 7

Diffused	OG18-K200CP6	200 mm	Red	800 Hz	PNP	Light-on / Dark-on	2 m cable	Fig. 3
	OG18-K200CN6	200 mm	Red	800 Hz	NPN	Light-on / Dark-on	2 m cable	Fig. 2
	OG18-K200CP6Q	200 mm	Red	800 Hz	PNP	Light-on / Dark-on	M12 connector	Fig. 8
	OG18-K200CN6Q	200 mm	Red	800 Hz	NPN	Light-on / Dark-on	M12 connector	Fig. 7
	OG18-K400CP6	400 mm	Red	800 Hz	PNP	Light-on / Dark-on	2 m cable	Fig. 3
	OG18-K400CN6	400 mm	Red	800 Hz	NPN	Light-on / Dark-on	2 m cable	Fig. 2
	OG18-K400CP6Q	400 mm	Red	800 Hz	PNP	Light-on / Dark-on	M12 connector	Fig. 8
	OG18-K400CN6Q	400 mm	Red	800 Hz	NPN	Light-on / Dark-on	M12 connector	Fig. 7
	OG18-K600CP6	600 mm	Red	800 Hz	PNP	Light-on / Dark-on	2 m cable	Fig. 3
	OG18-K600CN6	600 mm	Red	800 Hz	NPN	Light-on / Dark-on	2 m cable	Fig. 2
	OG18-K600CP6Q	600 mm	Red	800 Hz	PNP	Light-on / Dark-on	M12 connector	Fig. 8
	OG18-K600CN6Q	600 mm	Red	800 Hz	NPN	Light-on / Dark-on	M12 connector	Fig. 7

Fixed distance BGS	OG18-AK50VP6	5 ... 50 mm	Red	800 Hz	PNP	NO + NC	2 m cable	Fig. 4
	OG18-AK50VN6	5 ... 50 mm	Red	800 Hz	NPN	NO + NC	2 m cable	Fig. 5
	OG18-AK50VP6Q	5 ... 50 mm	Red	800 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OG18-AK50VN6Q	5 ... 50 mm	Red	800 Hz	NPN	NO + NC	M12 connector	Fig. 10
	OG18-AK100VP6	8 ... 100 mm	Red	800 Hz	PNP	NO + NC	2 m cable	Fig. 4
	OG18-AK100VN6	8 ... 100 mm	Red	800 Hz	NPN	NO + NC	2 m cable	Fig. 5
	OG18-AK100VP6Q	8 ... 100 mm	Red	800 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OG18-AK100VN6Q	8 ... 100 mm	Red	800 Hz	NPN	NO + NC	M12 connector	Fig. 10
	OG18-AK150VP6	10 ... 150 mm	Red	800 Hz	PNP	NO + NC	2 m cable	Fig. 4
	OG18-AK150VN6	10 ... 150 mm	Red	800 Hz	NPN	NO + NC	2 m cable	Fig. 5
	OG18-AK150VP6Q	10 ... 150 mm	Red	800 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OG18-AK150VN6Q	10 ... 150 mm	Red	800 Hz	NPN	NO + NC	M12 connector	Fig. 10
	OG18-AK200VP6	10 ... 200 mm	Red	800 Hz	PNP	NO + NC	2 m cable	Fig. 4
	OG18-AK200VN6	10 ... 200 mm	Red	800 Hz	NPN	NO + NC	2 m cable	Fig. 5
	OG18-AK200VP6Q	10 ... 200 mm	Red	800 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OG18-AK200VN6Q	10 ... 200 mm	Red	800 Hz	NPN	NO + NC	M12 connector	Fig. 10

Photoelectric Sensors - Compact OG18

Technical Data:

Operating voltage	10 ... 30 V DC
Ripple voltage	≤ 10%
Light source	Red laser (650 nm) / class 1
No-load current	Opposed: ≤25 mA; Others: ≤15 mA
Load current	≤ 200 mA
Black and white attenuation	< 3 mm (AK50); < 10 mm (AK100); < 18 mm (AK150); < 23 mm (AK200)
Spot size	5 mm (AK50); 8 mm (AK100); 11 mm (AK150); 15 mm (AK200);
Protective circuit	Reverse polarity protection, short circuit protection, overload protection
Sensitivity	Adjustable, with single-turn knob. Fixed distance products are not adjustable.
Output indicator	Red LED
Steady state indicator	Green LED
Ambient temperature	-25 ... +55 °C
Storage temperature	-40 ... +70 °C
Voltage resistance	1000 V/AC, 50 / 60 Hz, 60 s
Insulation impedance	≥50 MΩ (500 V DC)
Shock resistance	Complex amplitude 1.5 mm 10 ... 50 Hz (2hr X, Y, Z respectively)
Impact resistance	500 m/s ² (50 G) 3 times X, Y, Z respectively
Protection class	IP67
Housing material	PBT + ABS

Wiring:

Pre-wired cable

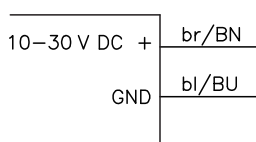


Fig. 1

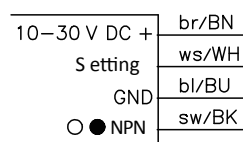


Fig. 2

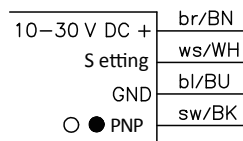


Fig. 3

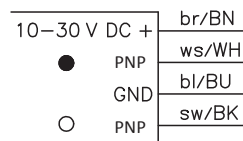


Fig. 4

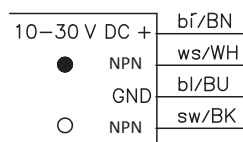


Fig. 5

M12 connector

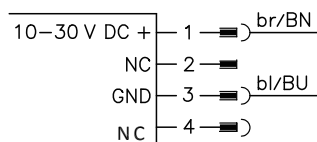


Fig. 6

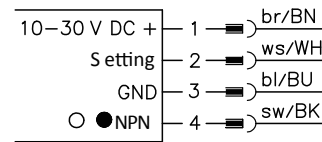


Fig. 7

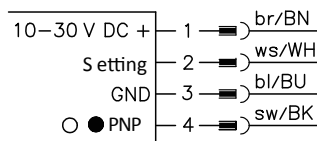


Fig. 8

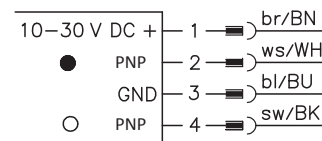


Fig. 9

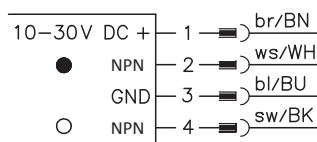
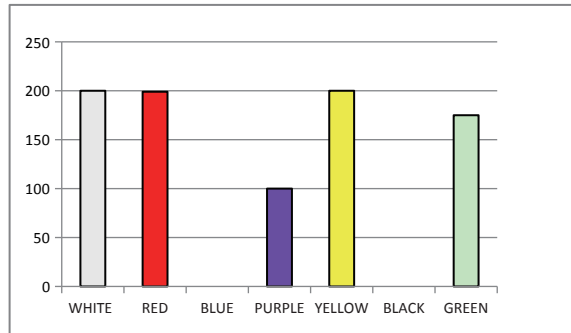


Fig. 10

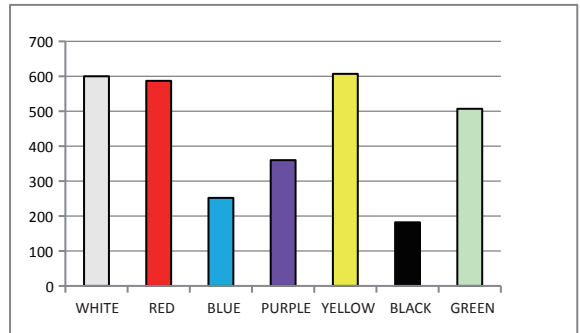
Photoelectric Sensors - Compact OG18

Attenuation figure:

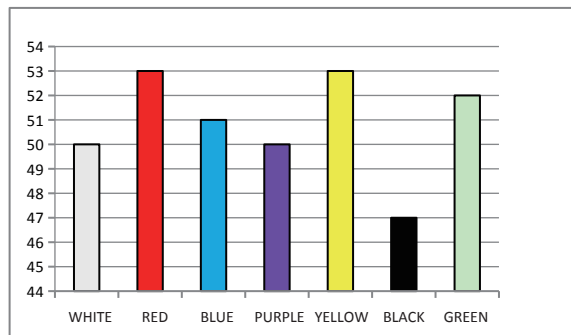
OG18-K200



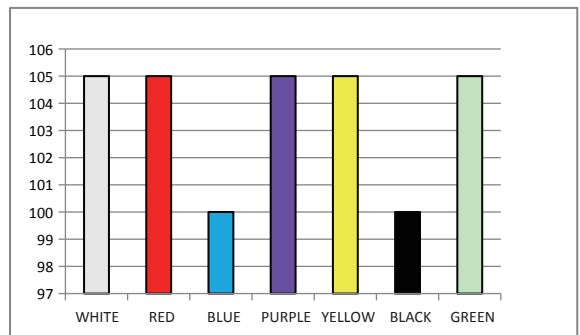
OG18-K600



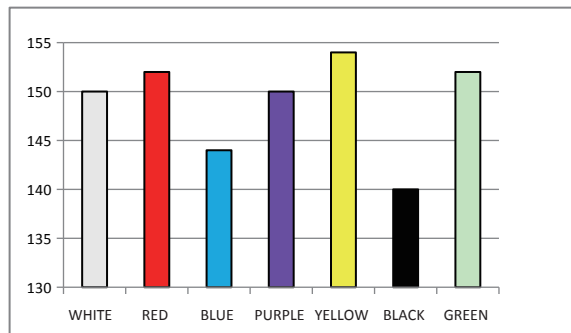
OG18-AK50



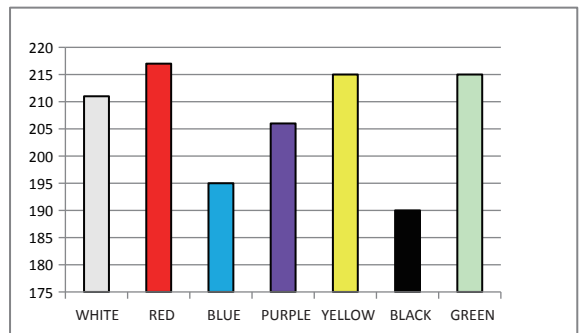
OG18-AK100



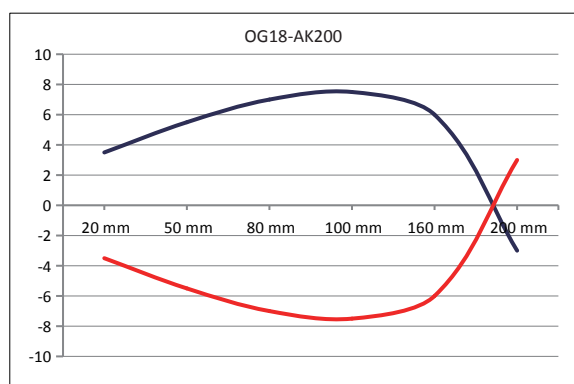
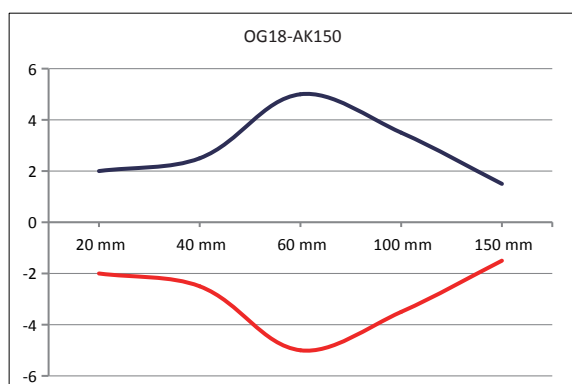
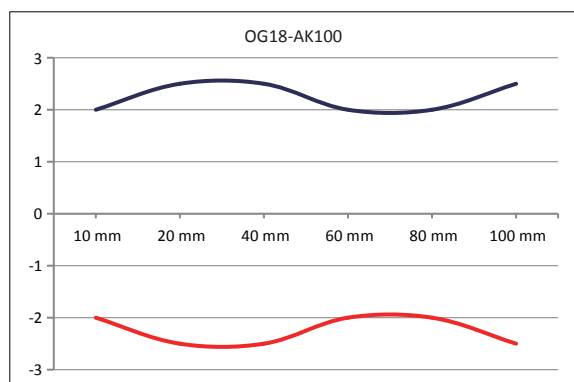
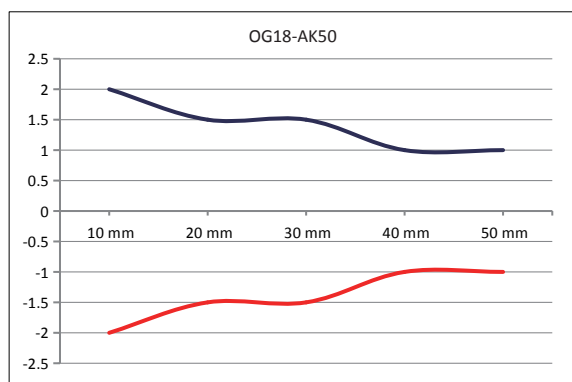
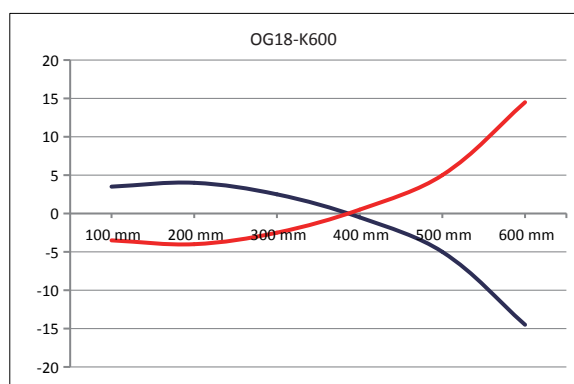
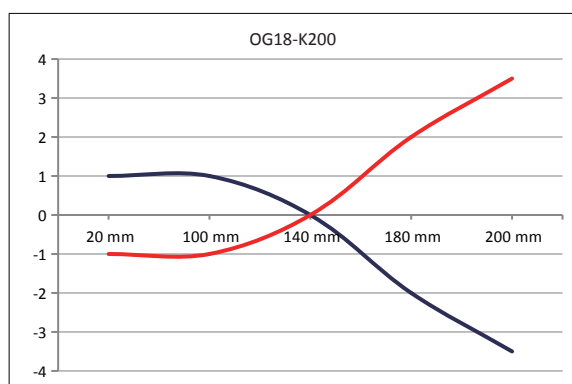
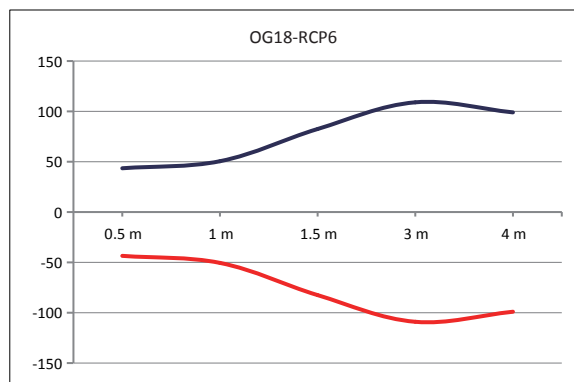
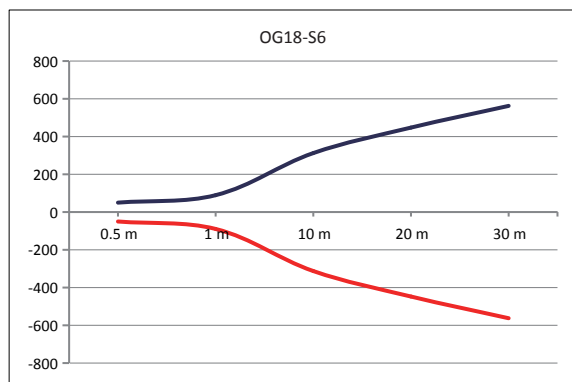
OG18-AK150



OG18-AK200



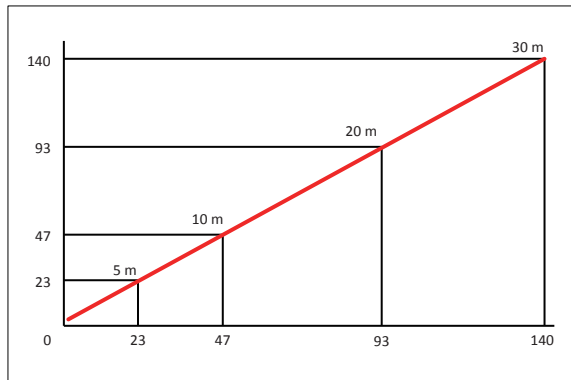
Translation characteristic curve:



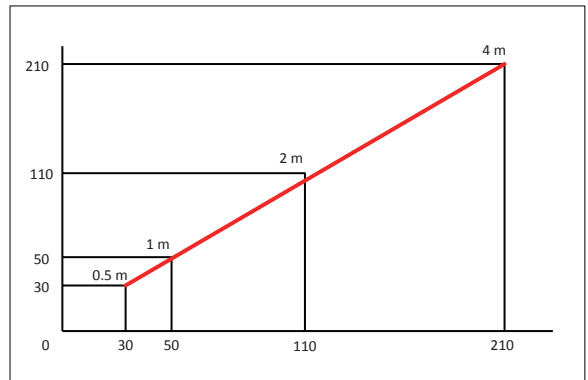
Photoelectric Sensors - Compact OG18

Beam Pattern:

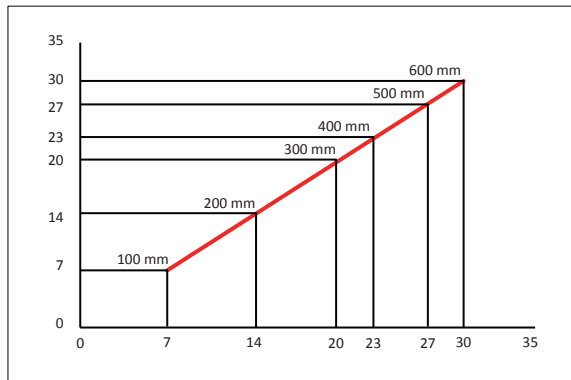
OG18-S6 (cm)



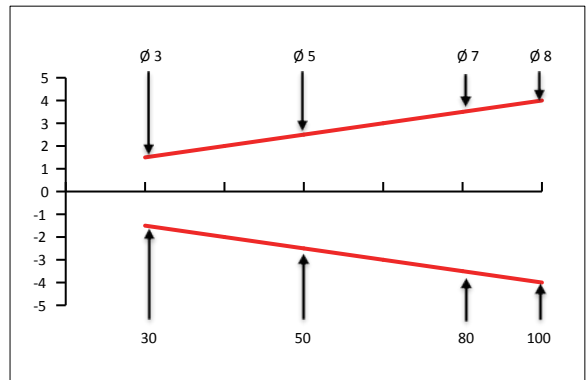
OG18-RP/R (mm)



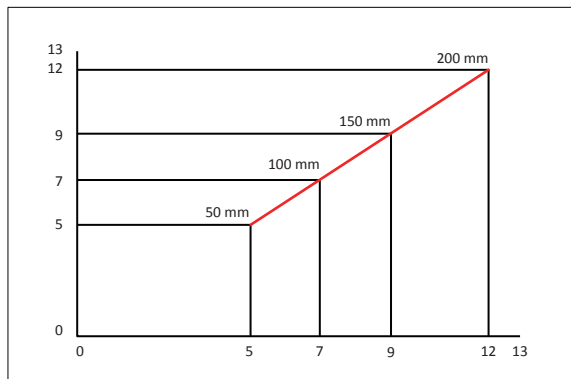
OG18-K (mm)



OG18-AK50/100 (mm)

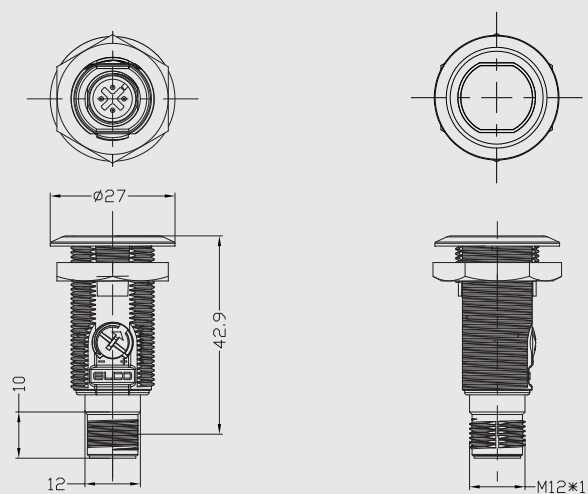


OG18-AK150/200 (mm)

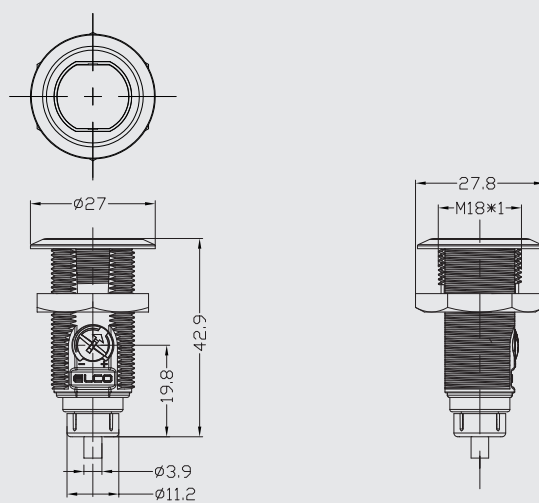


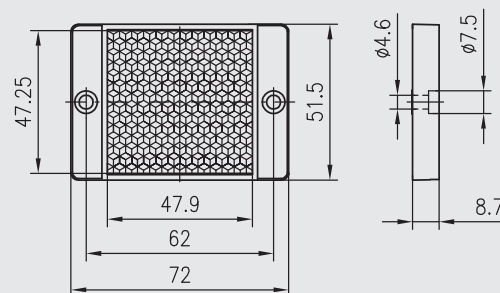
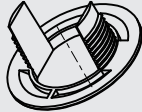
Dimensions:

M12 connector



2m cable





Photoelectric Sensors - Compact OSQ18



Description:

Optional mounting methods: mounting hole for barrel series or screw for rectangular series, 30 m long distance opposed, laser beam products. Set the distance BGS type products have excellent black and white attenuation characteristics, suitable for automotive parts, packaging, logistics transportation, metal processing and others.

Features:

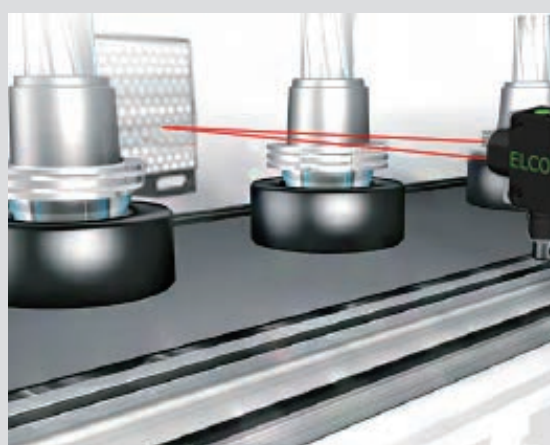
- Compact size
- Long sensing range
- Visible red beam, laser beam

Sensor function description:



The laser beam opposed, the ultra-fine spot does not diverge. Close mounting does not interfere with each other. Multiple pairs of side-by-side mounted sensors measure carton's height which is economical and practical.

Polarized retro-reflective photoelectric sensor is suitable for automotive, metal processing, printing and other industries, can stably detect highly reflective objects.



Photoelectric Sensors - Compact OSQ18

Type:

Detection mode	Type	Distance	Light source	Frequency	Output	Switching mode	Connection	Wiring
Opposed	OSQ18-S6 (emitter)	25 m	Infrared	— —	— —	— —	2 m cable	Fig. 1
	OSQ18-EVP6 (receiver)		— —	800 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OSQ18-EVN6 (receiver)		— —	800 Hz	NPN	NO + NC	2 m cable	Fig. 4
	OSQ18-S6Q (emitter)	25 m	Infrared	— —	— —	— —	M12 connector	Fig. 2
	OSQ18-EVP6Q (receiver)		— —	800 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OSQ18-EVN6Q (receiver)		— —	800 Hz	NPN	NO + NC	M12 connector	Fig. 6
	OSQ18-SL306 (emitter)	30 m	laser	— —	— —	— —	2 m cable	Fig. 1
	OSQ18-EL30VP6 (receiver)		— —	800 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OSQ18-EL30VN6 (receiver)		— —	800 Hz	NPN	NO + NC	2 m cable	Fig. 4
	OSQ18-SL306Q (emitter)	30 m	laser	— —	— —	— —	M12 connector	Fig. 2
	OSQ18-EL30VP6Q (receiver)		— —	800 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OSQ18-EL30VN6Q (receiver)		— —	800 Hz	NPN	NO + NC	M12 connector	Fig. 6

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

Retro-reflective	OSQ18-RVP6	3.5 m	Red	800 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OSQ18-RVN6	3.5 m	Red	800 Hz	NPN	NO + NC	2 m cable	Fig. 4
	OSQ18-RVP6Q	3.5 m	Red	800 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OSQ18-RVN6Q	3.5 m	Red	800 Hz	NPN	NO + NC	M12 connector	Fig. 6
Polarized retro-reflective	OSQ18-RPVP6	3.5 m	Red	800 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OSQ18-RPVN6	3.5 m	Red	800 Hz	NPN	NO + NC	2 m cable	Fig. 4
	OSQ18-RPVP6Q	3.5 m	Red	800 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OSQ18-RPVN6Q	3.5 m	Red	800 Hz	NPN	NO + NC	M12 connector	Fig. 6
Laser Polarized retro-reflective	OSQ18-RPLVP6	0.1 ... 8 m	laser	800 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OSQ18-RPLVN6	0.1 ... 8 m	laser	800 Hz	NPN	NO + NC	2 m cable	Fig. 4

Diffused	OSQ18-K200VP6	200 mm	Red	800 Hz	PNP	NO + NC	2m cable	Fig. 7
	OSQ18-K200VN6	200 mm	Red	800 Hz	NPN	NO + NC	2m cable	Fig. 8
	OSQ18-K200VP6Q	200 mm	Red	800 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OSQ18-K200VN6Q	200mm	Red	800 Hz	NPN	NO + NC	M12 connector	Fig. 10
	OSQ18-K400VP6	400 mm	Red	800 Hz	PNP	NO + NC	2 m cable	Fig. 7
	OSQ18-K400VN6	400 mm	Red	800 Hz	NPN	NO + NC	2 m cable	Fig. 8
	OSQ18-K400VP6Q	400 mm	Red	800 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OSQ18-K400VN6Q	400 mm	Red	800 Hz	NPN	NO + NC	M12 connector	Fig. 10
	OSQ18-K600VP6	600 mm	Red	800 Hz	PNP	NO + NC	2 m cable	Fig. 7
	OSQ18-K600VN6	600 mm	Red	800 Hz	NPN	NO + NC	2 m cable	Fig. 8
	OSQ18-K600VP6Q	600 mm	Red	800 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OSQ18-K600VN6Q	600 mm	Red	800 Hz	NPN	NO + NC	M12 connector	Fig. 10

Photoelectric Sensors - Compact OSQ18

Type:

Detection mode	Type	Distance	Light source	Frequency	Output	Switching mode	Connection	Wiring
BGS	OSQ18-AK50VP6	5 ... 50 mm	Red	800 Hz	PNP	NO + NC	2 m cable	Fig. 7
	OSQ18-AK50VN6	5 ... 50 mm	Red	800 Hz	NPN	NO + NC	2 m cable	Fig. 8
	OSQ18-AK50VP6Q	5 ... 50 mm	Red	800 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OSQ18-AK50VN6Q	5 ... 50 mm	Red	800 Hz	NPN	NO + NC	M12 connector	Fig. 10
	OSQ18-AK100VP6	8 ... 100 mm	Red	800 Hz	PNP	NO + NC	2 m cable	Fig. 7
	OSQ18-AK100VN6	8 ... 100 mm	Red	800 Hz	NPN	NO + NC	2 m cable	Fig. 8
	OSQ18-AK100VP6Q	8 ... 100 mm	Red	800 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OSQ18-AK100VN6Q	8 ... 100 mm	Red	800 Hz	NPN	NO + NC	M12 connector	Fig. 10
	OSQ18-AK150VP6	10 ... 150 mm	Red	800 Hz	PNP	NO + NC	2 m cable	Fig. 7
	OSQ18-AK150VN6	10 ... 150 mm	Red	800 Hz	NPN	NO + NC	2 m cable	Fig. 8
	OSQ18-AK150VP6Q	10 ... 150 mm	Red	800 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OSQ18-AK150VN6Q	10 ... 150 mm	Red	800 Hz	NPN	NO + NC	M12 connector	Fig. 10
	OSQ18-AK200VP6	10 ... 200 mm	Red	800 Hz	PNP	NO + NC	2 m cable	Fig. 7
	OSQ18-AK200VN6	10 ... 200 mm	Red	800 Hz	NPN	NO + NC	2 m cable	Fig. 8
	OSQ18-AK200VP6Q	10 ... 200 mm	Red	800 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OSQ18-AK200VN6Q	10 ... 200 mm	Red	800 Hz	NPN	NO + NC	M12 connector	Fig. 10

Technical Data:

Operating voltage	10 ... 30 VDC
Ripple voltage	≤ 10 %
Light source	Red laser (650 nm) /class 1
No-load current	Opposed: ≤ 25 mA; Others: ≤ 15 mA
Load current	≤ 200 mA
Black and white attenuation	< 3 mm (AK50); < 10 mm (AK100); < 15 mm (AK150)
Spot size	5 mm (AK50); 8 mm (AK100); 10 mm (AK150)
Protective circuit	Reverse polarity protection, short circuit protection, overload protection
Sensitivity	Adjustable, with single-turn knob. Fixed distance products are not adjustable.
Output indicator	Red LED
Steady state indicator	Green LED
Ambient temperature	-25 ... +55 °C
Storage temperature	-40 ... +70 °C
Voltage resistance	1000 V/AC, 50 / 60 Hz, 60 s
Insulation impedance	≥50 MΩ (500 V DC)
Shock resistance	Complex amplitude 1.5 mm 10 ... 50 Hz (2hr X, Y, Z respectively)
Impact resistance	500 m/s ² (50 G) 3 times X, Y, Z respectively
Protection class	IP67
Housing material	PBT+ABS

Photoelectric Sensors - Compact OSQ18

Wiring:

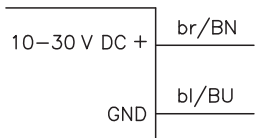


Fig. 1

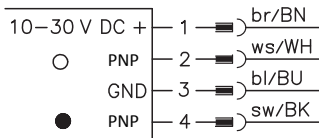


Fig. 5

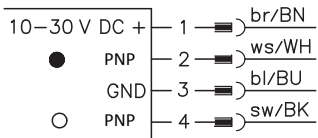


Fig. 9

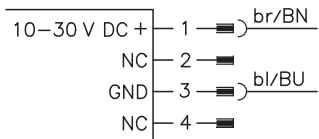


Fig. 2

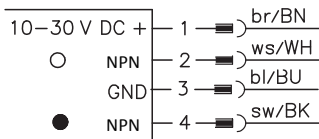


Fig. 6

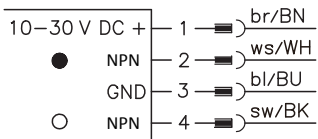


Fig. 10

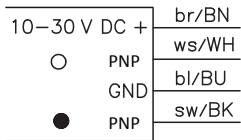


Fig. 3

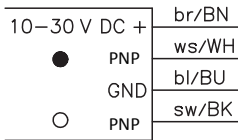


Fig. 7

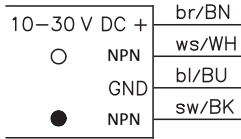


Fig. 4

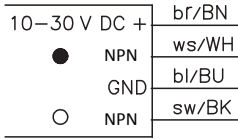
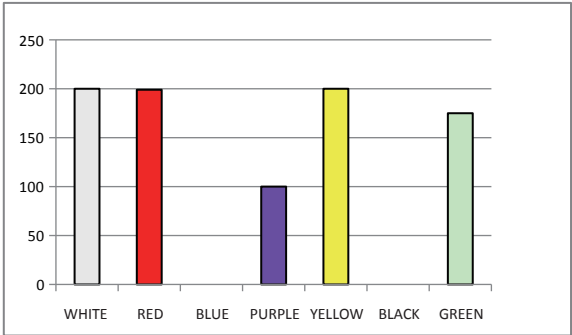


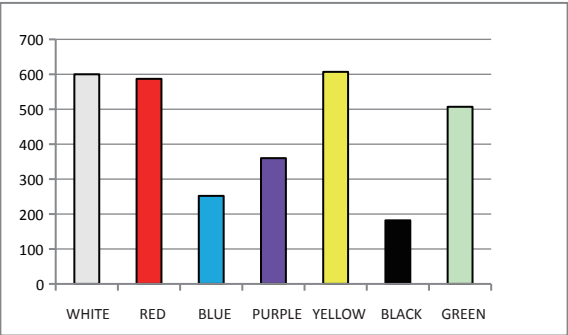
Fig. 8

Attenuation figure:

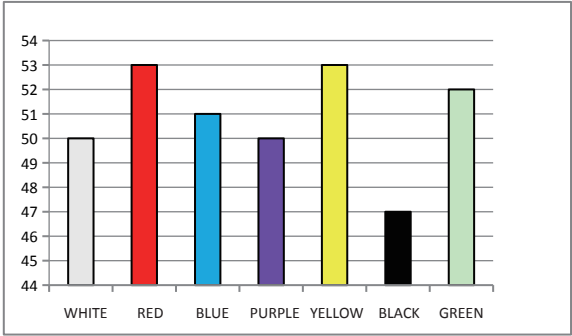
OSQ18-K200



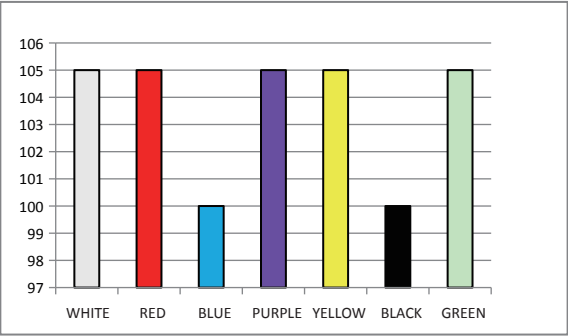
OSQ18-K600



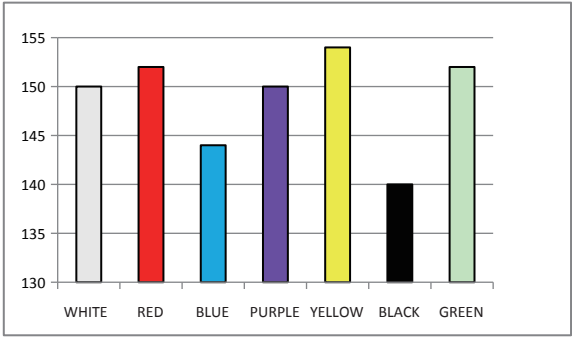
OSQ18-AK50



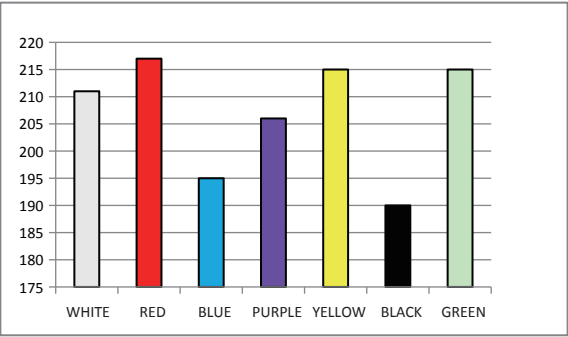
OSQ18-AK100



OSQ18-AK150

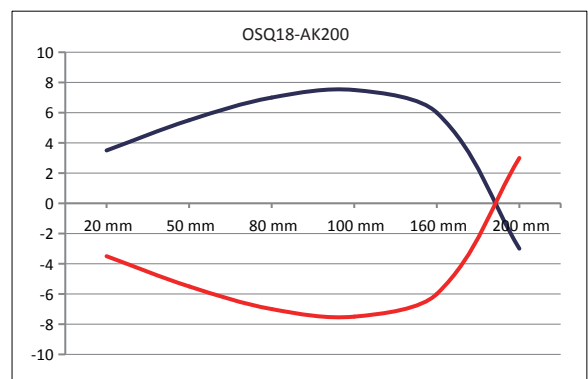
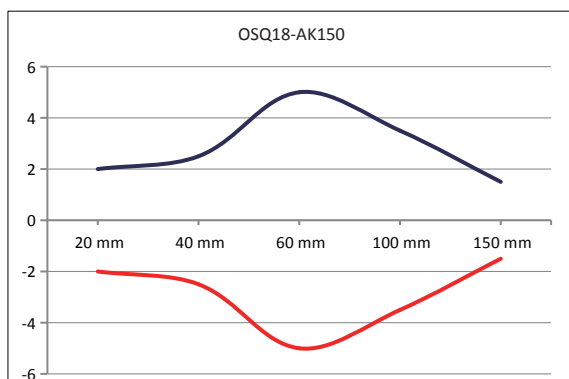
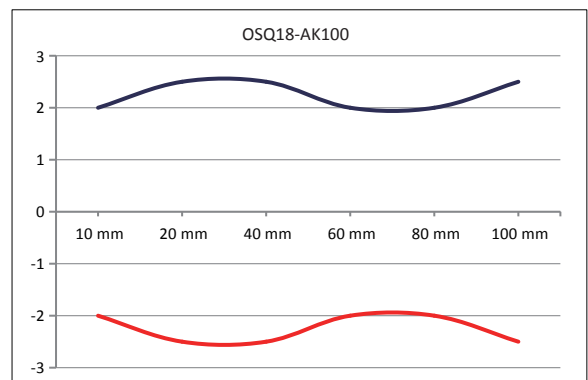
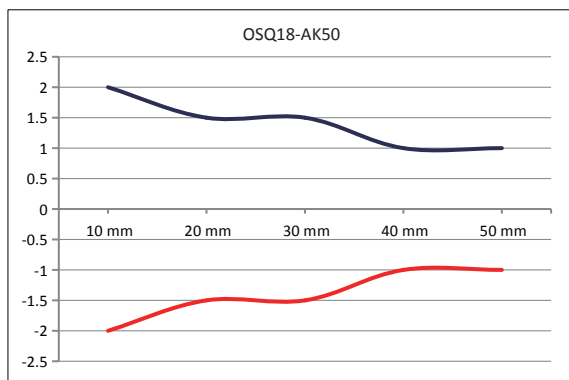
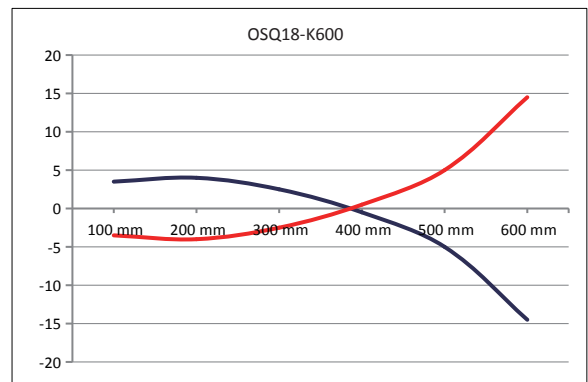
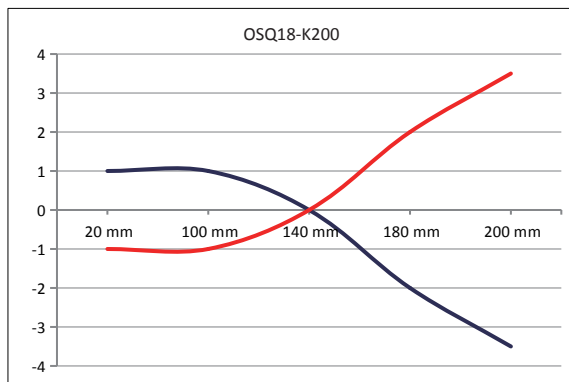
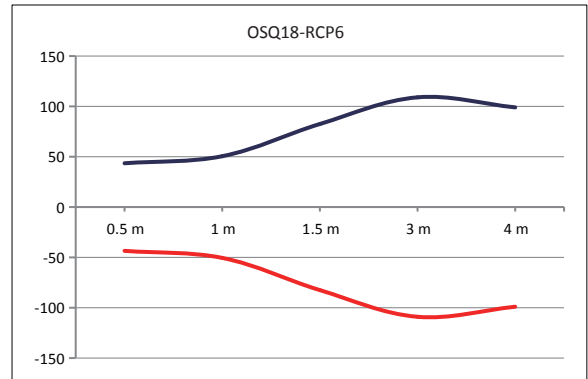
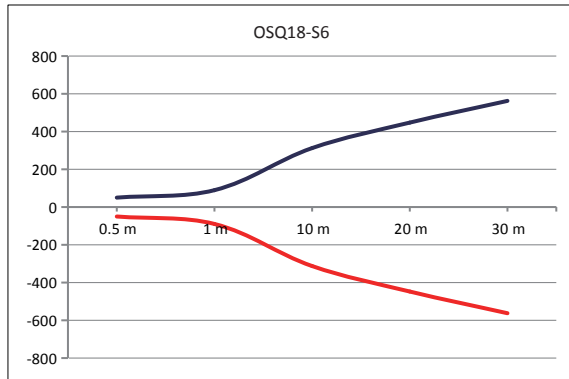


OSQ18-AK200



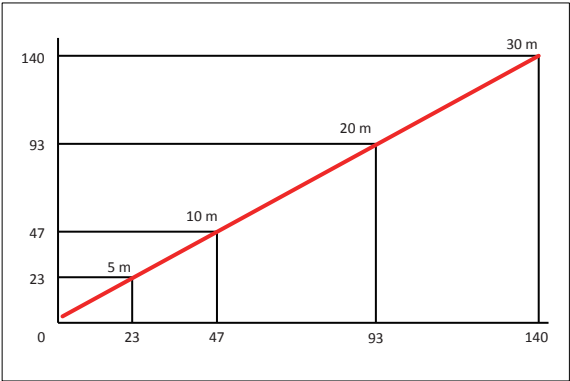
Photoelectric Sensors - Compact OSQ18

Translation characteristic curve:

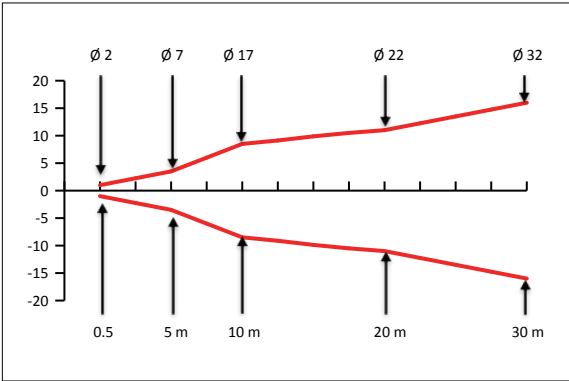


Beam Pattern:

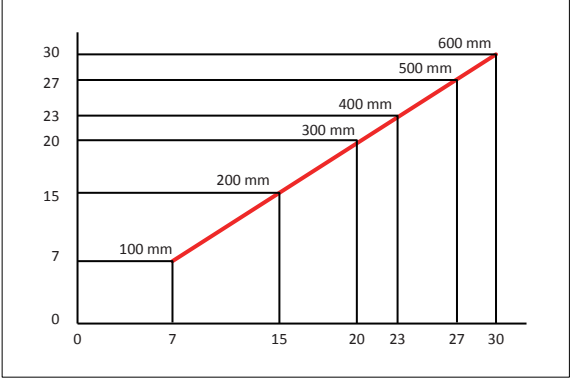
OSQ18-S6 (cm)



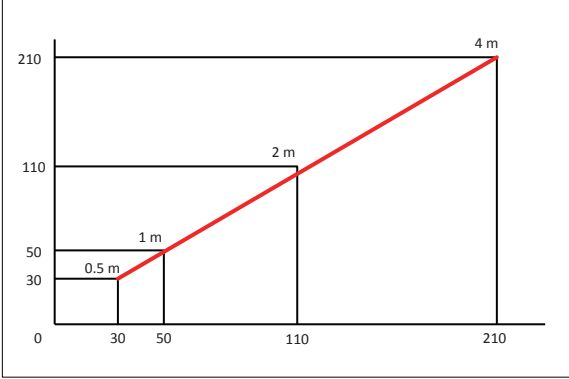
OSQ18-SL (mm)



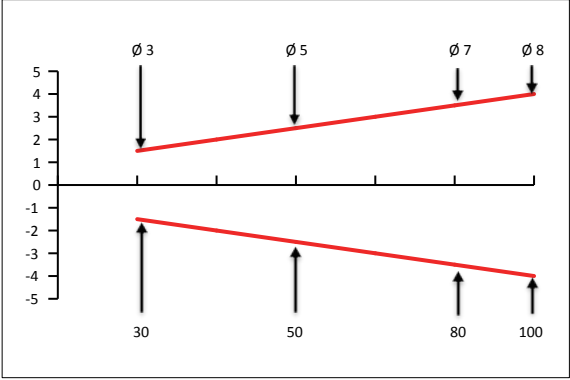
OSQ18-K (mm)



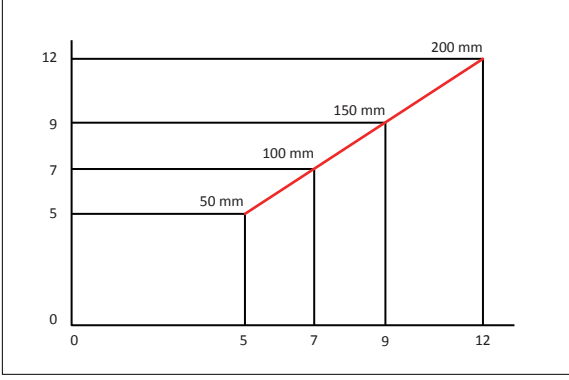
OSQ18-RP/R (mm)



OSQ18-AK50/100 (mm)

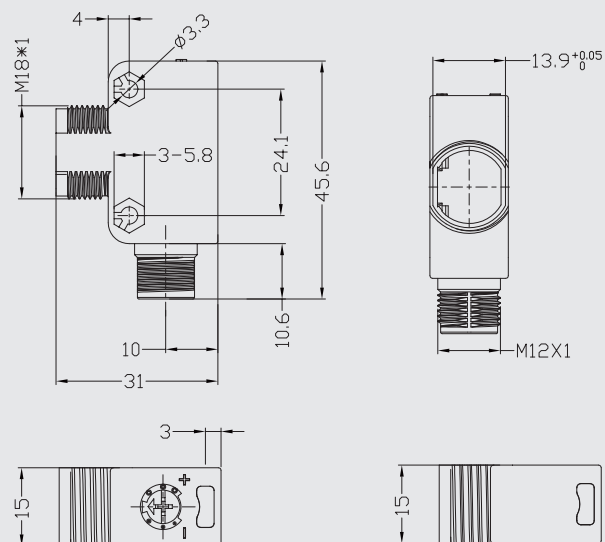


OSQ18-AK150/200 (mm)

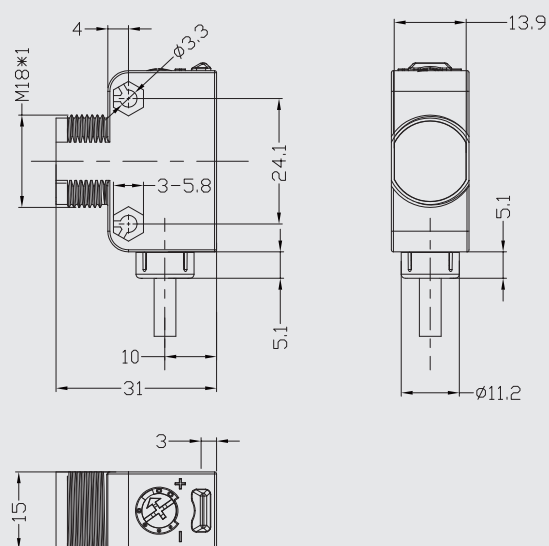


Dimensions:

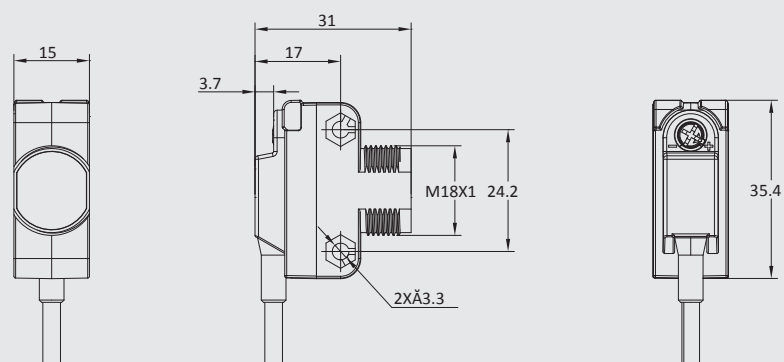
M12 connector



2 m cable

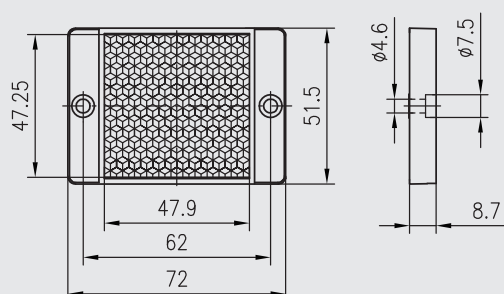


Laser polarizer reflection



Reflector (optional):

RB50x50-1



Photoelectric Sensors - thin size OS4



Description:

The thin design is very suitable for limited mounting space requirement in electronic, semiconductor and other industries. BGS products have excellent black-and-white attenuation characteristics, Suitable for detecting non-bright surface objects.

Features:

- Red beam
- Mounting hole $\varnothing 2$, built-in metal parts, strong and long life-time
- IP67

Type:

Detection mode	Type	Distance	Light source	Frequency	Output	Switching mode	Connection	Wiring
Front Opposed	OS4-S6 (emitter)	1 m	Red	— —	— —	— —	2 m cable	Fig. 1
	OS4-SS6 (emitter)		Point light	— —	— —	— —	2 m cable	Fig. 1
	OS4-ELN6 (receiver)		— —	800 Hz	NPN	Light on	2 m cable	Fig. 2
	OS4-EDN6 (receiver)		— —	800 Hz	NPN	Dark on	2 m cable	Fig. 3
	OS4-ELP6 (receiver)		— —	800 Hz	PNP	Light on	2 m cable	Fig. 4
	OS4-EDP6 (receiver)		— —	800 Hz	PNP	Dark on	2 m cable	Fig. 5
Side Opposed	OS4B-S6 (emitter)	1 m	Red	— —	— —	— —	2 m cable	Fig. 1
	OS4B-ELN6 (receiver)		— —	800 Hz	NPN	Light on	2 m cable	Fig. 2
	OS4B-EDN6 (receiver)		— —	800 Hz	NPN	Dark on	2 m cable	Fig. 3
	OS4B-ELP6 (receiver)		— —	800 Hz	PNP	Light on	2 m cable	Fig. 4
	OS4B-EDP6 (receiver)		— —	800 Hz	PNP	Dark on	2 m cable	Fig. 5
BGS	OS4-AK15LN6	4 ... 15 mm	Red	800 Hz	NPN	Light on	2 m cable	Fig. 2
	OS4-AK15DN6		Red	800 Hz	NPN	Dark on	2 m cable	Fig. 3
	OS4-AK15LP6		Red	800 Hz	PNP	Light on	2 m cable	Fig. 4
	OS4-AK15DP6		Red	800 Hz	PNP	Dark on	2 m cable	Fig. 5
	OS4-AK30LN6	5 ... 30 mm	Red	800 Hz	NPN	Light on	2 m cable	Fig. 2
	OS4-AK30DN6		Red	800 Hz	NPN	Dark on	2 m cable	Fig. 3
	OS4-AK30LP6		Red	800 Hz	PNP	Light on	2 m cable	Fig. 4
	OS4-AK30DP6		Red	800 Hz	PNP	Dark on	2 m cable	Fig. 5
	OS4-AKS15LN6	4 ... 15 mm	Point light	800 Hz	NPN	Light on	2 m cable	Fig. 2
	OS4-AKS15DN6		Point light	800 Hz	NPN	Dark on	2 m cable	Fig. 3
	OS4-AKS15LP6		Point light	800 Hz	PNP	Light on	2 m cable	Fig. 4
	OS4-AKS15DP6		Point light	800 Hz	PNP	Dark on	2 m cable	Fig. 5
	OS4-AKS30LN6	5 ... 30 mm	Point light	800 Hz	NPN	Light on	2 m cable	Fig. 2
	OS4-AKS30DN6		Point light	800 Hz	NPN	Dark on	2 m cable	Fig. 3
	OS4-AKS30LP6		Point light	800 Hz	PNP	Light on	2 m cable	Fig. 4
	OS4-AKS30DP6		Point light	800 Hz	PNP	Dark on	2 m cable	Fig. 5

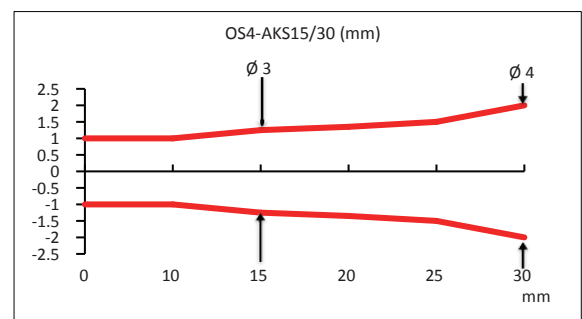
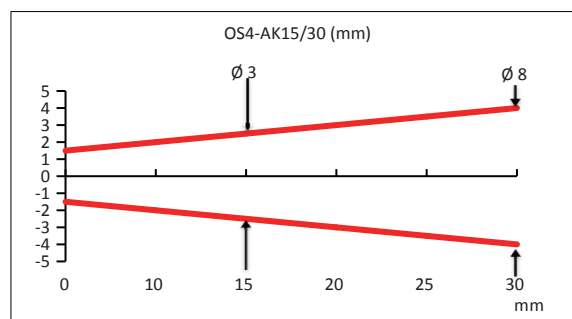
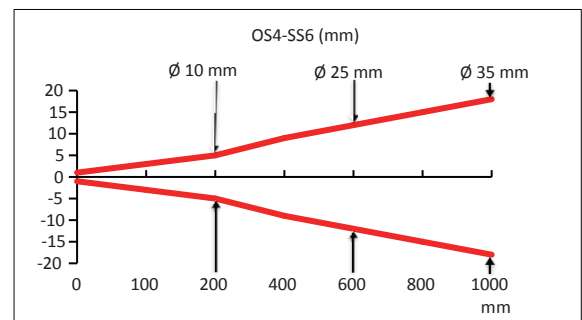
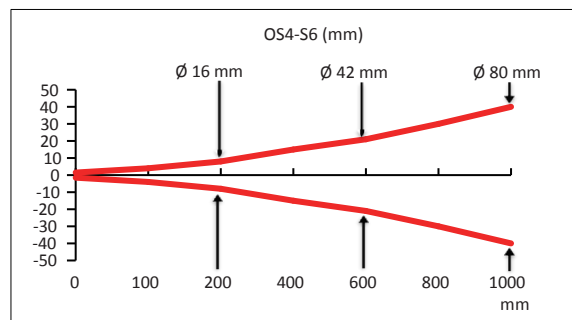
*Background suppression: Object with 90% remission (based on standard white, DIN 5033).

Photoelectric Sensors - thin size OS4

Technical Data:

Operating voltage	10 ... 30 V DC
Ripple voltage	≤ 10%
Output type	PNP / NPN (Depends on the model)
Switch mode	Light on / dark on (Depends on the model)
No-load current	≤ 20 mA
load current	≤ 50 mA
Light source	Small red beam (630 nm)
Spot size	4 mm@30 mm (point light BGS), 8 mm@30 mm (red beam BGS), 35 mm@1 m (point light opposed), 80 mm@1 m (beam opposed)
Connection	2 m cable
Output indicator	Red LED
Power indicator	Green LED
Housing material	PC + PBT
Lens material	PC
Protection class	IP67
Ambient temperature	-10 ... +55 °C
Storage temperature	-40 ... +70 °C
Protection circuit	Reverse polarity protection, short circuit protection, overload protection, voltage shock protection
Voltage withstanding	650 V AC < 1 mA
Insulation impedance	≥50 MΩ (500 V DC)
Shock resistance	Complex amplitude 1.5 mm 10 ... 50 Hz (2 hr X, Y, Z respectively)
Impact resistance	500 m/s ² (50 G) 3 times X, Y, Z respectively

Beam Pattern:



Wiring:

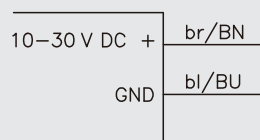


Fig. 1

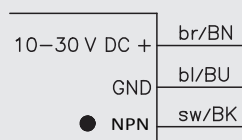


Fig. 3

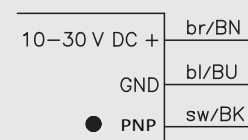


Fig. 5

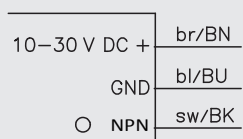


Fig. 2

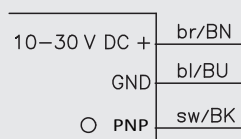
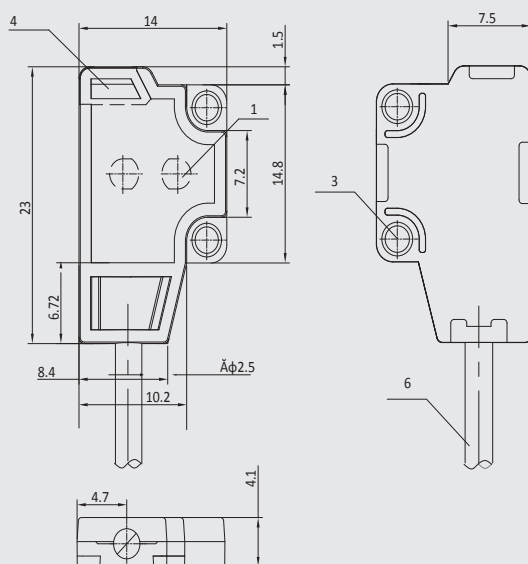


Fig. 4

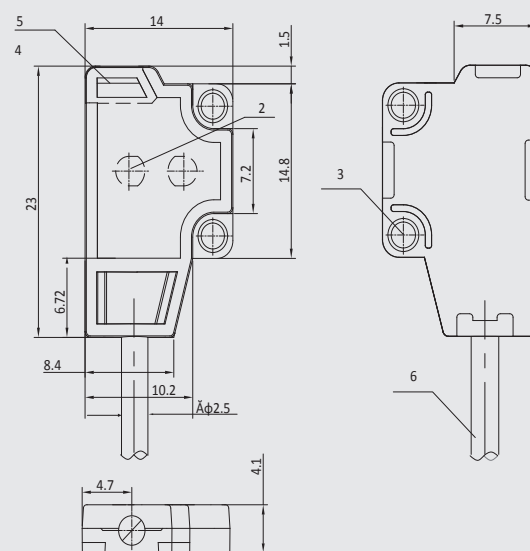
Dimensions:

Front opposed:

Emitter:



Receiver:

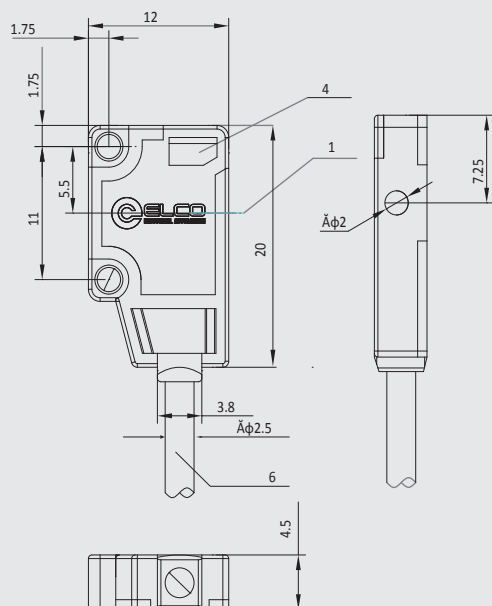


1	Emitter optic axis
2	Receiver optic axis
3	Mounting hole $\varnothing$ 2 mm
4	Green LED: power on
5	Red LED: on / off
6	Connection: 2 m cable

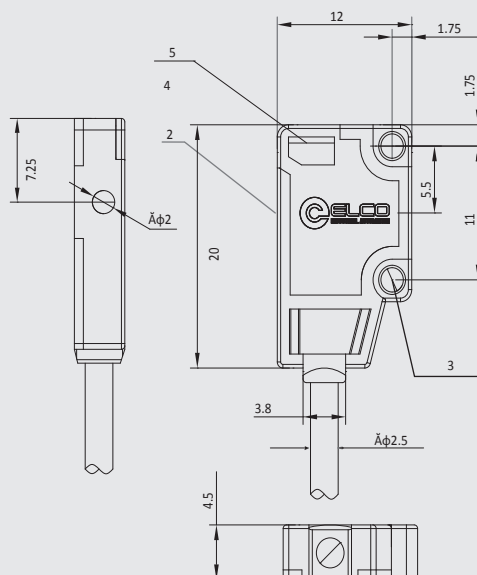
Dimensions:

Side opposed :

Emitter:

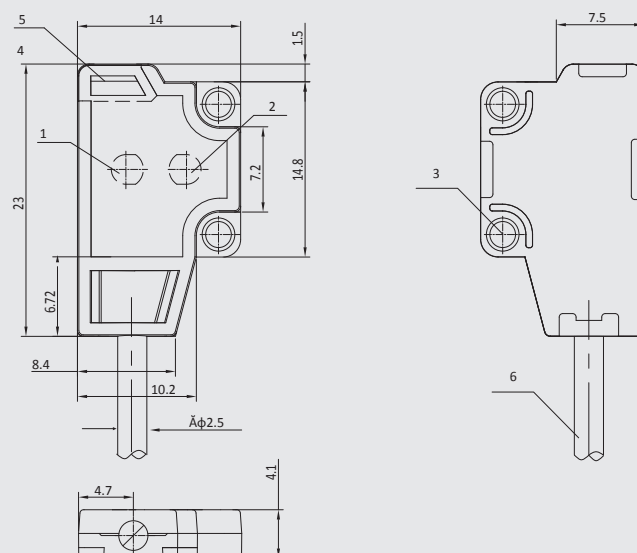


Receiver:



1	Emitter optic axis
2	Receiver optic axis
3	Mounting hole ϕ 2 mm
4	Green LED: power on
5	Red LED: on / off
6	Connection: 2 m cable

BGS:



1	Emitter optic axis
2	Receiver optic axis
3	Mounting hole ϕ 2 mm
4	Green LED: power on
5	Red LED: on / off
6	Connection: 2 m cable

Photoelectric Sensors - Mini OS22



Description:

The compact design is very suitable for limited mounting space requirement in electronic, semiconductor and other industries. BGS products have excellent black-and-white attenuation characteristics suitable for detecting non-bright surface objects.

Features:

- Small red beam
- Mounting hole $\varnothing 3$, built-in metal parts, strong and long life-time
- Small red beam, vcsel laser

Type:

Detection mode	Type	Distance	Light source	Frequency	Output	Switching mode	Connection	Wiring
Opposed	OS22-S6 (emitter)	1 m	Red	— —	— —	— —	2 m cable	Fig. 1
	OS22-SS6 (emitter)		Point light	— —	— —	— —	2 m cable	Fig. 1
	OS22-ELN6 (receiver)		— —	800 Hz	NPN	Light on	2 m cable	Fig. 2
	OS22-EDN6 (receiver)		— —	800 Hz	NPN	Dark on	2 m cable	Fig. 3
	OS22-ELP6 (receiver)		— —	800 Hz	PNP	Light on	2 m cable	Fig. 4
	OS22-EDP6 (receiver)		— —	800 Hz	PNP	Dark on	2 m cable	Fig. 5
	OS22-SVL6/I (emitter)	2 m	Infrared	— —	— —	— —	2 m cable	Fig. 1
	OS22-ELN6/I (receiver)		— —	800 Hz	NPN	Light on	2 m cable	Fig. 2
	OS22-EDN6/I (receiver)		— —	800 Hz	NPN	Dark on	2 m cable	Fig. 3
	OS22-ELP6/I (receiver)		— —	800 Hz	PNP	Light on	2 m cable	Fig. 4
	OS22-EDP6/I (receiver)		— —	800 Hz	PNP	Dark on	2 m cable	Fig. 5
BGS	OS22-AK15LN6	4 ... 15 mm	Red	800 Hz	NPN	Light on	2 m cable	Fig. 2
	OS22-AK15DN6		Red	800 Hz	NPN	Dark on	2 m cable	Fig. 3
	OS22-AK15LP6		Red	800 Hz	PNP	Light on	2 m cable	Fig. 4
	OS22-AK15DP6		Red	800 Hz	PNP	Dark on	2 m cable	Fig. 5
	OS22-AK30LN6	5 ... 30 mm	Red	800 Hz	NPN	Light on	2 m cable	Fig. 2
	OS22-AK30DN6		Red	800 Hz	NPN	Dark on	2 m cable	Fig. 3
	OS22-AK30LP6		Red	800 Hz	PNP	Light on	2 m cable	Fig. 4
	OS22-AK30DP6		Red	800 Hz	PNP	Dark on	2 m cable	Fig. 5
	OS22-AK120LN6	10 ... 120 mm	Red	800 Hz	NPN	Light on	2 m cable	Fig. 2
	OS22-AK120DN6		Red	800 Hz	NPN	Dark on	2 m cable	Fig. 3
	OS22-AK120LP6		Red	800 Hz	PNP	Light on	2 m cable	Fig. 4
	OS22-AK120DP6		Red	800 Hz	PNP	Dark on	2 m cable	Fig. 5
	OS22-AKS15LN6	4 ... 15 mm	Point light	200 Hz	NPN	Light on	2 m cable	Fig. 2
	OS22-AKS15DN6		Point light	200 Hz	NPN	Dark on	2 m cable	Fig. 3
	OS22-AKS15LP6		Point light	200 Hz	PNP	Light on	2 m cable	Fig. 4
	OS22-AKS15DP6		Point light	200 Hz	PNP	Dark on	2 m cable	Fig. 5

Photoelectric Sensors - Mini OS22

Type:

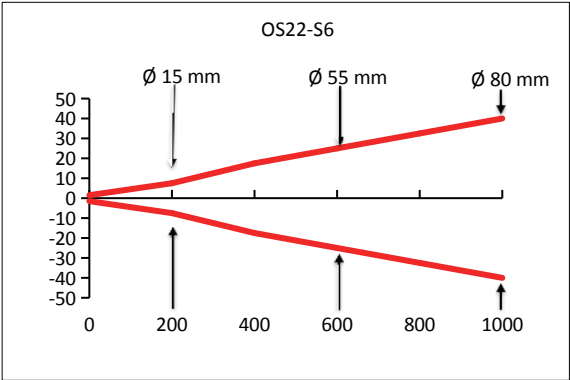
Detection mode	Type	Distance	Light source	Frequency	Output	Switching mode	Connection	Wiring
BGS	OS22-AKS30LN6	5 ... 30 mm	Point light	200 Hz	NPN	Light on	2 m cable	Fig. 2
	OS22-AKS30DN6		Point light	200 Hz	NPN	Dark on	2 m cable	Fig. 3
	OS22-AKS30LP6		Point light	200 Hz	PNP	Light on	2 m cable	Fig. 4
	OS22-AKS30DP6		Point light	200 Hz	PNP	Dark on	2 m cable	Fig. 5
BGS	OS22-AKS120LN6	10 ... 120 mm	Point light	200 Hz	NPN	Light on	2 m cable	Fig. 2
	OS22-AKS120DN6		Point light	200 Hz	NPN	Dark on	2 m cable	Fig. 3
	OS22-AKS120LP6		Point light	200 Hz	PNP	Light on	2 m cable	Fig. 4
	OS22-AKS120DP6		Point light	200 Hz	PNP	Dark on	2 m cable	Fig. 5

Technical Data:

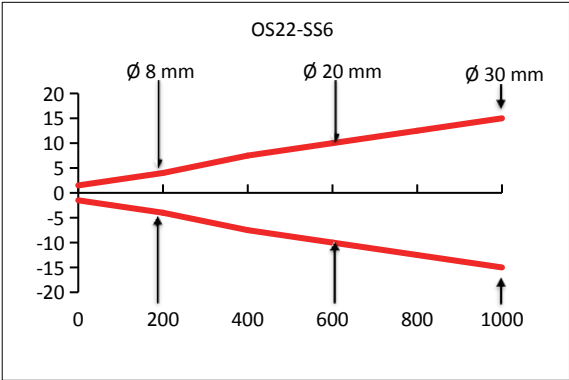
Operating voltage	10 ... 30 V DC
Ripple voltage	≤ 10%
Output type	PNP / NPN (Depends on the model)
Switch mode	Light on / dark on (Depends on the model)
Sensing distance adjustment	AK15, AK30 fixed; AK120 adjustable by potentiometer
Current consumption	≤ 1.8 mA
load current	≤ 100 mA
Black/white attenuation	< 3 mm (AK15, AK30) ; < 15 mm (AK120)
Spot size	4 mm@30 mm (point light BGS) ; 8 mm@120 mm (Red BGS) ; 30 mm@1 m (point light opposed) ; 80 mm@1 m (Red beam opposed) ;
Light source	Small red beam (630 nm)
Output indicator	Red LED
Power indicator	Green LED
Housing material	PC+PBT
Protection class	IP67
Ambient temperature	-10 ... +50 °C
Storage temperature	-40 ... +70 °C
Protection circuit	Reverse polarity protection, short circuit protection, voltage shock protection (1 kV / 0.5J)
Voltage withstanding	650 V/AC, 50 / 60 Hz, 60 s
Insulation impedance	≥ 50 MΩ (500 V DC)
Shock resistance	Complex amplitude 1.5 mm 10 ... 50 Hz (2 hr X, Y, Z respectively)
Impact resistance	500 m/s ² (50 G) 3 times X, Y, Z respectively
Environment light immune	Sunlight interference ≤ 10000 Lux; filament lamp ≤ 5000 Lux, light in dark environment ≥ 300 Lux

Beam Pattern:

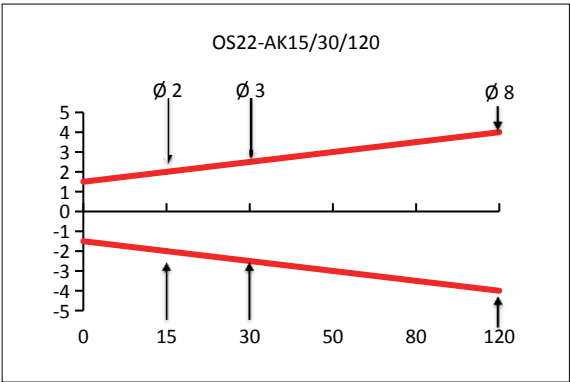
OS22-S6 (mm)



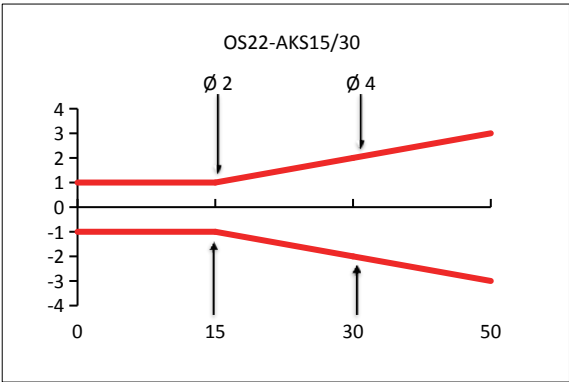
OS22-SS6 (mm)



OS22-AK15/30/120 (mm)



OS22-AKS15/30 (mm)



Wiring:

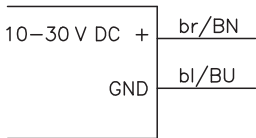


Fig. 1

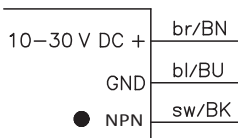


Fig. 3

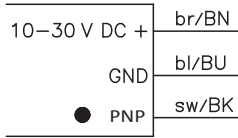


Fig. 5

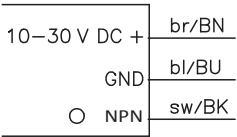


Fig. 2

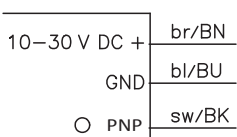
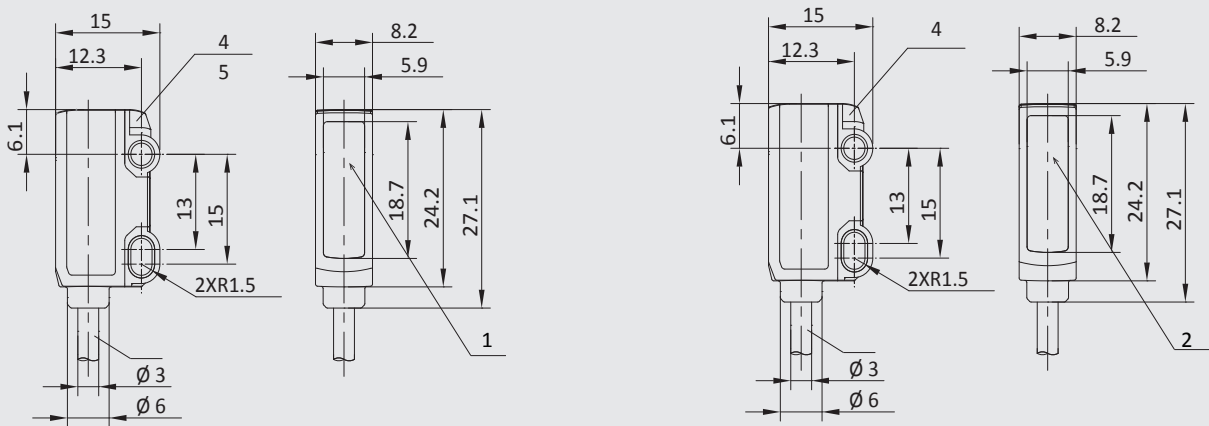


Fig. 4

Dimensions:

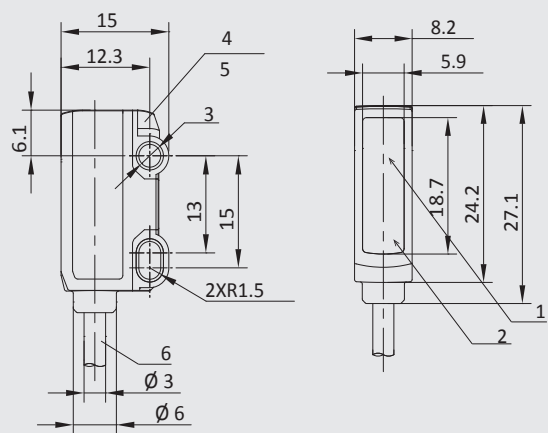
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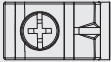
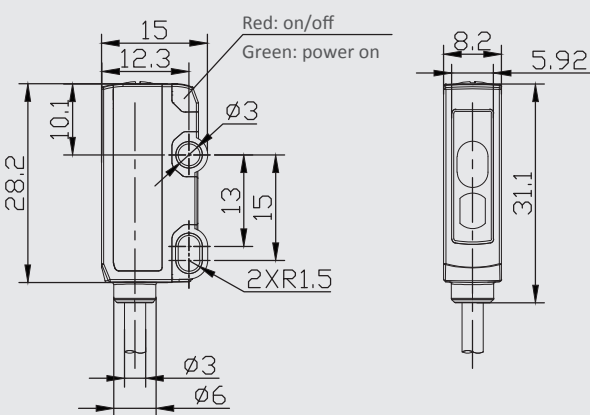
1	Emitter optic axis
2	Receiver optic axis
3	Mounting hole Ø 3 mm
4	Green LED: power on
5	Red LED: on / off
6	Connection: cable

BGS:

Fixed



Adjustable



1	Emitter optic axis
2	Receiver optic axis
3	Mounting hole Ø 3 mm
4	Green LED: power on
5	Red LED: on / off
6	Connection: cable

Photoelectric Sensors - Rectangular OS10



Description:

Mini-rectangular photoelectric sensors OS10 series, with high performance and 25.4 mm standard mounting hole distance, are available as BGS (background suppression) mode, diffused mode, retro-reflective mode, and opposed mode. With optional red beam or laser beam source, they are suitable for Mask machine, ATM machine, logistics transportation, new energy and other application fields.

Features:

- BGS function greatly improves the detection effect
- Optional red beam or laser beam
- Adjustable sensing range
- Protection class IP67
- Optional M8 connector, 2 m pre-wired cable

Type:

Detection mode	Type	Distance	Light source	Frequency	Output	Switching mode	Connection	Wiring
Opposed	OS10-S6 (emitter)	30 m	Infrared	— —	— —	— —	2 m cable	Fig. 1
	OS10-ECN6 (receiver)		— —	800 Hz	NPN	Light on / dark on	2 m cable	Fig. 2
	OS10-ECP6 (receiver)		— —	800 Hz	PNP	Light on / dark on	2 m cable	Fig. 3
	OS10-S6Q8 (emitter)	30 m	Infrared	— —	— —	— —	M8 connector, 4-pin	Fig. 4
	OS10-ECN6Q8 (receiver)		— —	800 Hz	NPN	Light on / dark on	M8 connector, 4-pin	Fig. 5
	OS10-ECP6Q8 (receiver)		— —	800 Hz	PNP	Light on / dark on	M8 connector, 4-pin	Fig. 6
	OS10-S6/R (emitter)	25 m	Red	— —	— —	— —	2 m cable	Fig. 1
	OS10-ECN6/R (receiver)		— —	800 Hz	NPN	Light on / dark on	2 m cable	Fig. 2
	OS10-ECP6/R (receiver)		— —	800 Hz	PNP	Light on / dark on	2 m cable	Fig. 3
	OS10-S6Q8/R (emitter)	25 m	Red	— —	— —	— —	M8 connector, 4-pin	Fig. 4
	OS10-ECN6Q8/R (receiver)		— —	800 Hz	NPN	Light on / dark on	M8 connector, 4-pin	Fig. 5
	OS10-ECP6Q8/R (receiver)		— —	800 Hz	PNP	Light on / dark on	M8 connector, 4-pin	Fig. 6

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

Polarized retro-reflective	OS10-RPCN6	3 m	Red	800 Hz	NPN	Light on / dark on	2 m cable	Fig. 2
	OS10-RPCP6	3 m	Red	800 Hz	PNP	Light on / dark on	2 m cable	Fig. 3
	OS10-RPCN6Q8	3 m	Red	800 Hz	NPN	Light on / dark on	M8 connector, 4-pin	Fig. 5
	OS10-RPCP6Q8	3 m	Red	800 Hz	PNP	Light on / dark on	M8 connector, 4-pin	Fig. 6

Diffused	OS10-K1000CN6	20 ... 1000 mm	Red	800 Hz	NPN	Light on / dark on	2 m cable	Fig. 2
	OS10-K1000CP6	20 ... 1000 mm	Red	800 Hz	PNP	Light on / dark on	2 m cable	Fig. 3
	OS10-K1000CN6Q8	20 ... 1000 mm	Red	800 Hz	NPN	Light on / dark on	M8 connector, 4-pin	Fig. 5
	OS10-K1000CP6Q8	20 ... 1000 mm	Red	800 Hz	PNP	Light on / dark on	M8 connector, 4-pin	Fig. 6

BGS	OS10-AK65CN6	6 ... 65 mm	Red	400 Hz	NPN	Light on / dark on	2 m cable	Fig. 2
	OS10-AK65CP6	6 ... 65 mm	Red	400 Hz	PNP	Light on / dark on	2 m cable	Fig. 3
	OS10-AK65CN6Q8	6 ... 65 mm	Red	400 Hz	NPN	Light on / dark on	M8 connector, 4-pin	Fig. 5
	OS10-AK65CP6Q8	6 ... 65 mm	Red	400 Hz	PNP	Light on / dark on	M8 connector, 4-pin	Fig. 6
	OS10-AK150CN6	6 ... 150 mm	Red	400 Hz	NPN	Light on / dark on	2 m cable	Fig. 2
	OS10-AK150CP6	6 ... 150 mm	Red	400 Hz	PNP	Light on / dark on	2 m cable	Fig. 3
	OS10-AK150CN6Q8	6 ... 150 mm	Red	400 Hz	NPN	Light on / dark on	M8 connector, 4-pin	Fig. 5
	OS10-AK150CP6Q8	6 ... 150 mm	Red	400 Hz	PNP	Light on / dark on	M8 connector, 4-pin	Fig. 6

Type:

Detection mode	Type	Distance	Light source	Frequency	Output	Switching mode	Connection	Wiring
BGS	OS10-AK350CN6	6 ... 350 mm	Red	400 Hz	NPN	Light on / dark on	2 m cable	Fig. 2
	OS10-AK350CP6	6 ... 350 mm	Red	400 Hz	PNP	Light on / dark on	2 m cable	Fig. 3
	OS10-AK350CN6Q8	6 ... 350 mm	Red	400 Hz	NPN	Light on / dark on	M8 connector, 4-pin	Fig. 5
	OS10-AK350CP6Q8	6 ... 350 mm	Red	400 Hz	PNP	Light on / dark on	M8 connector, 4-pin	Fig. 6
Opposed	OS10-SL6 (emitter)	30 m	Laser	— —	— —	— —	2 m cable	Fig. 1
	OS10-ELCN6 (receiver)		— —	800 Hz	NPN	Light on / dark on	2 m cable	Fig. 2
	OS10-ELCP6 (receiver)		— —	800 Hz	PNP	Light on / dark on	2 m cable	Fig. 3
	OS10-SL6Q8 (emitter)	30 m	Laser	— —	— —	— —	M8 connector, 4-pin	Fig. 4
	OS10-ELCN6Q8 (receiver)		— —	800 Hz	NPN	Light on / dark on	M8 connector, 4-pin	Fig. 5
	OS10-ELCP6Q8 (receiver)		— —	800 Hz	PNP	Light on / dark on	M8 connector, 4-pin	Fig. 6

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

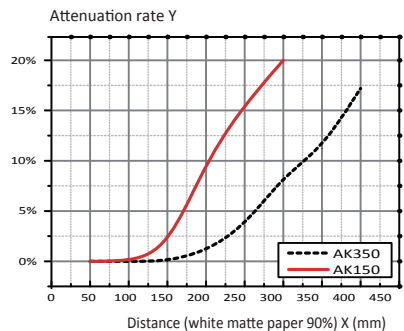
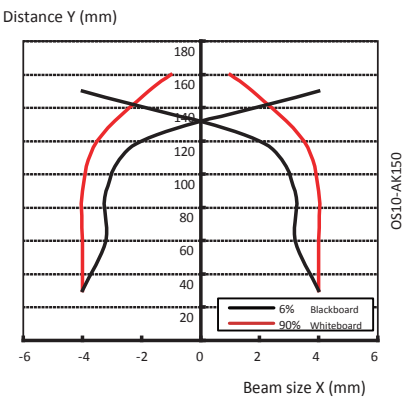
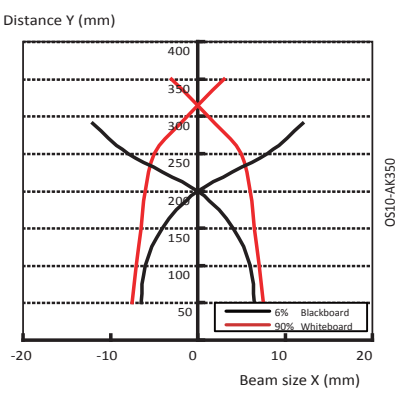
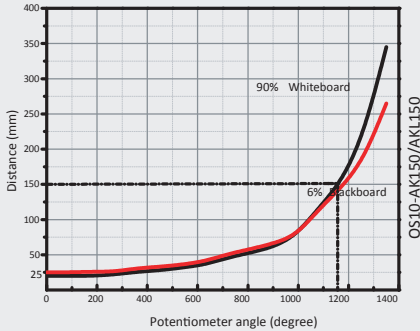
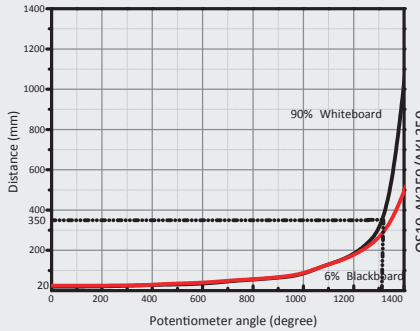
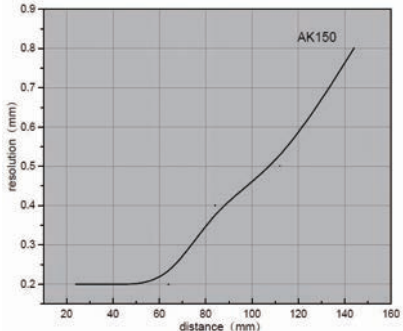
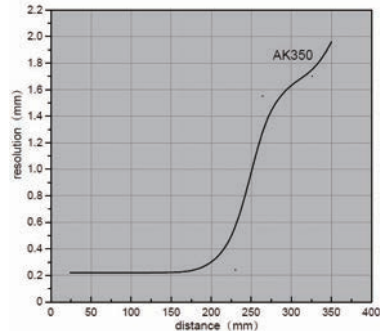
Polarized retro-reflective	OS10-RPLCN6	5 m	Laser	800 Hz	NPN	Light on / dark on	2 m cable	Fig. 2
	OS10-RPLCP6	5 m	Laser	800 Hz	PNP	Light on / dark on	2 m cable	Fig. 3
	OS10-RPLCN6Q8	5 m	Laser	800 Hz	NPN	Light on / dark on	M8 connector, 4-pin	Fig. 5
	OS10-RPLCP6Q8	5 m	Laser	800 Hz	PNP	Light on / dark on	M8 connector, 4-pin	Fig. 6
BGS	OS10-AKL150CN6	6 ... 150 mm	Laser	400 Hz	NPN	Light on / dark on	2 m cable	Fig. 2
	OS10-AKL150CP6	6 ... 150 mm	Laser	400 Hz	PNP	Light on / dark on	2 m cable	Fig. 3
	OS10-AKL150CN6Q8	6 ... 150 mm	Laser	400 Hz	NPN	Light on / dark on	M8 connector, 4-pin	Fig. 5
	OS10-AKL150CP6Q8	6 ... 150 mm	Laser	400 Hz	PNP	Light on / dark on	M8 connector, 4-pin	Fig. 6
	OS10-AKL350CN6	6 ... 350 mm	Laser	400 Hz	NPN	Light on / dark on	2 m cable	Fig. 2
	OS10-AKL350CP6	6 ... 350 mm	Laser	400 Hz	PNP	Light on / dark on	2 m cable	Fig. 3
	OS10-AKL350CN6Q8	6 ... 350 mm	Laser	400 Hz	NPN	Light on / dark on	M8 connector, 4-pin	Fig. 5
	OS10-AKL350CP6Q8	6 ... 350 mm	Laser	400 Hz	PNP	Light on / dark on	M8 connector, 4-pin	Fig. 6

Technical Data:

Operating voltage	10 ... 30 V DC
Ripple voltage	≤ 10%
Light source	Red laser (650 nm) / class 1
Output type	PNP / NPN
Switch mode	Light on: setting connects U+ Dark on: setting connects U-
No-load current	≤ 20 mA
load current	≤ 100 mA
Sensitivity	Potentiometer adjustment
Output indicator	Red LED
Steady state indicator	Green LED
Housing	PC+PBT
Connection	M8 connector / 2 m cable
Ambient temperature	-25 ... +55 °C
Storage temperature	-40 ... +70 °C
Protection class	IP67
Voltage withstanding	1000 V/AC, 50 / 60 Hz, 60 s
Insulation impedance	≥ 50 MΩ (500 V DC)
Shock resistance	Complex amplitude 1.5 mm 10 ... 50 Hz (2 hr X, Y, Z respectively)
Impact resistance	500 m/s ² (50 G) 3 times X,Y, Z respectively

Photoelectric Sensors - Rectangular OS10

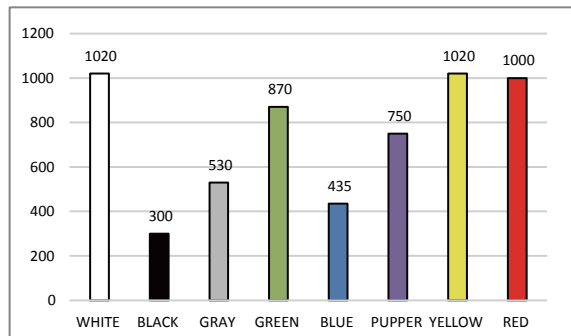
Product Features:

Precise distance setting High resolution	Multi-turn potentiometer for accurate setting. Detect a workpiece with a thickness of up to 0.2 mm, such as a business card (the object to be tested is standard white).
BGS function	For workpieces of different colors and materials, the detection distance is basically the same. For a whiteboard with a reflectivity of 90% and a blackboard with a reflectivity of 6%, the distance attenuation is within 15%.  Attenuation rate Y Distance (white matte paper 90%) X (mm)
Small spot	The OS10-AKL150 series laser light source has a spot size of 1 mm at 100 mm position, which has the advantages of precise positioning and edge detection.
High brightness light source	High-brightness LED red light source for easy identification of detection positions
	  Distance Y (mm) Beam size X (mm) OS10-AKL150 OS10-AK350 6% Blackboard 90% Whiteboard
BGS	  Distance (mm) Potentiometer angle (degree) OS10-AKL150/AKL150 OS10-AK350/AKL350 90% Whiteboard 6% Blackboard
Resolution	  resolution (mm) distance (mm) AK150 AK350

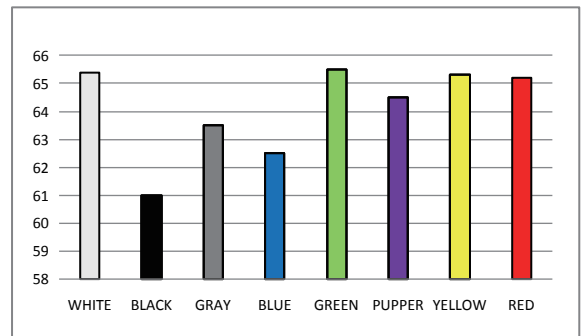
Photoelectric Sensors - Rectangular OS10

Attenuation figure:

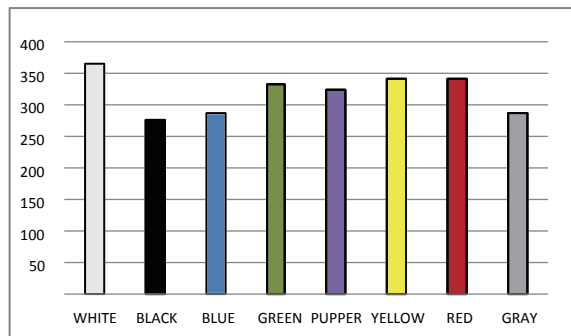
OS10-K1000



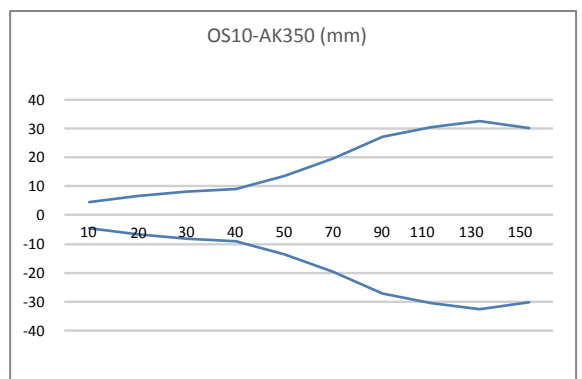
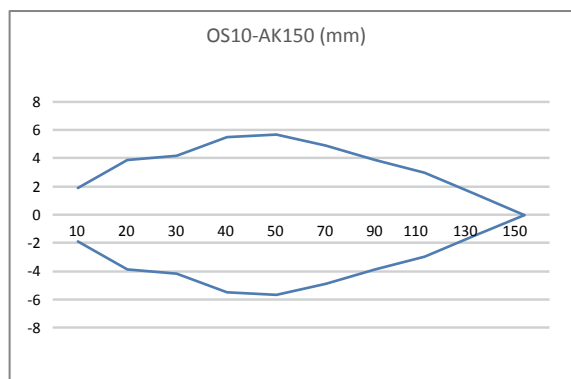
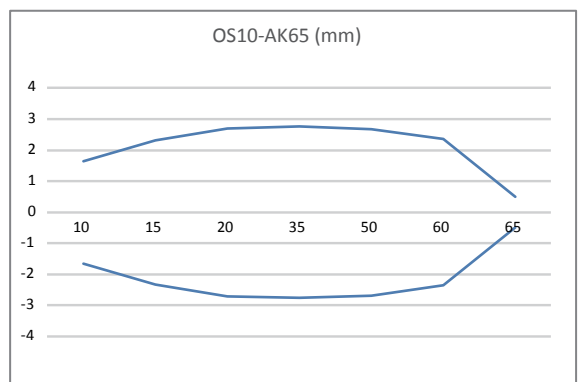
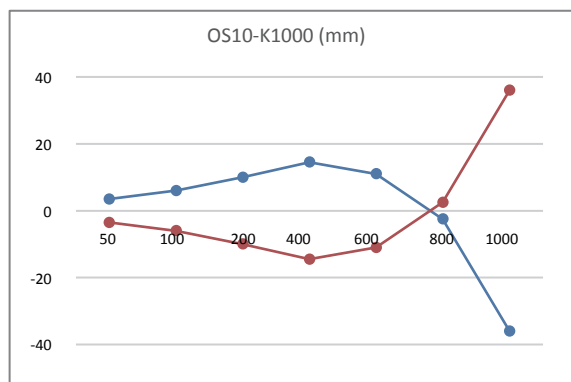
OS10-AK65



OS10-AK350

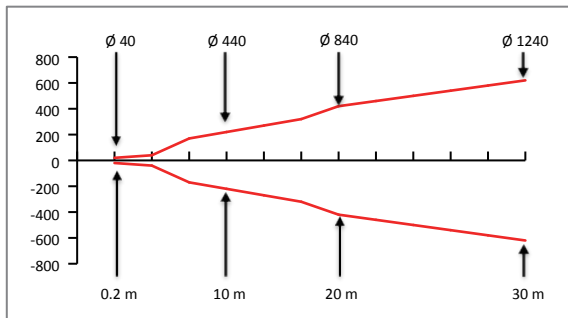


Translation characteristic curve:

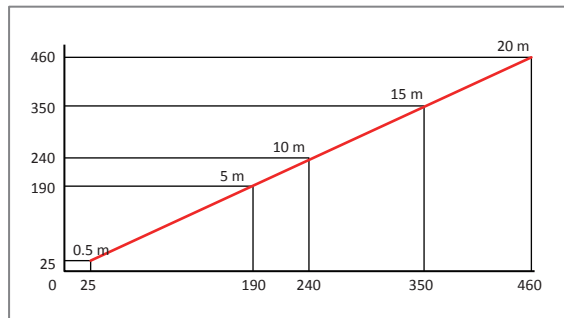


Beam Pattern:

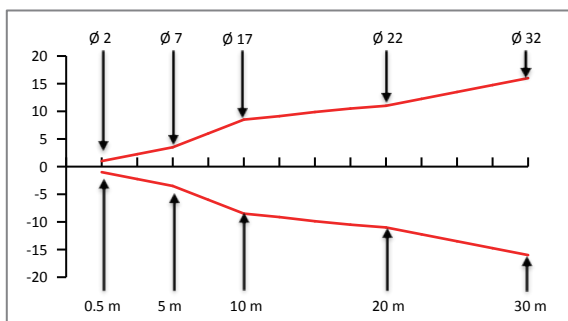
OS10-S6 (mm)



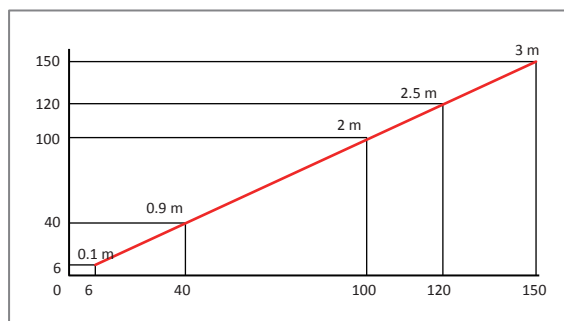
OS10-S6/R (mm)



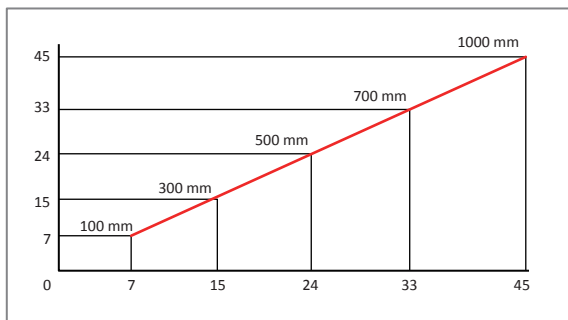
OS10-SL6 (mm)



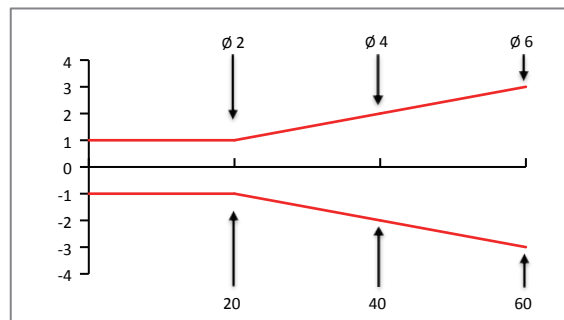
OS10-RP (mm)



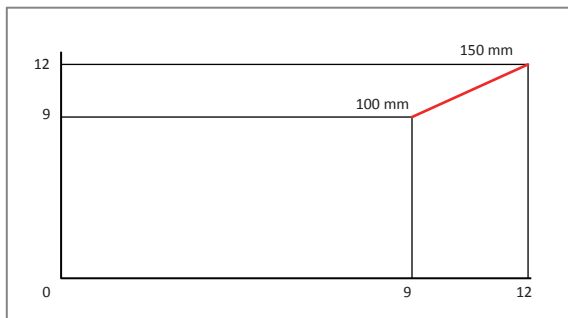
OS10-K1000 (mm)



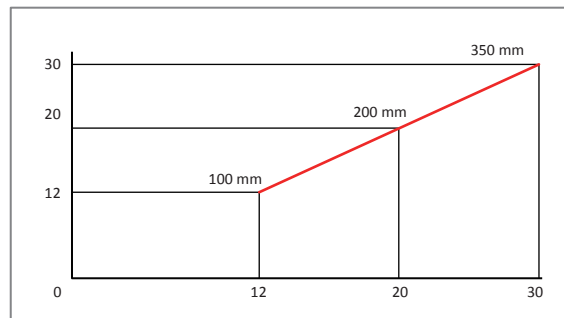
OS10-AK65 (mm)



OS10-AK150 (mm)



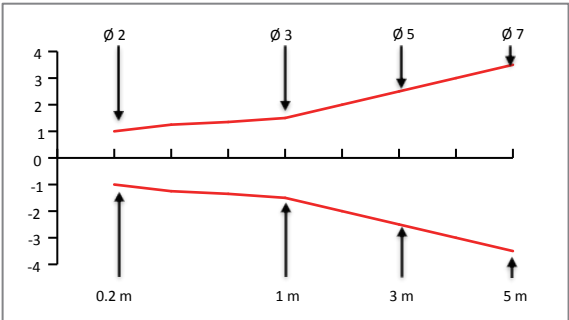
OS10-AK350 (mm)



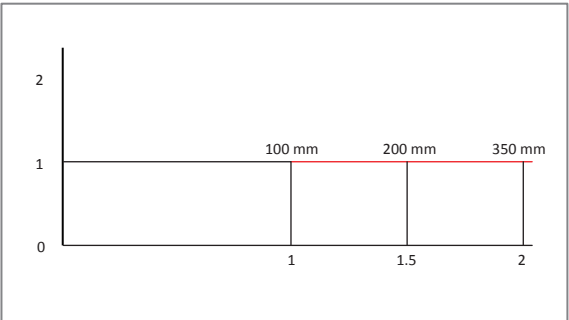
Photoelectric Sensors - Rectangular OS10

Beam Pattern:

OS10-RPL (mm)



OS10S-AKL (AKL150 | AKL350) (mm)



BGS - Background Suppression Function:	The sensor judges an present object when light is received at the receiver Red position. Standard diffused mode photoelectric sensors detect objects according to the value of the received light, which is dependent on object color, material, transparency and other factors. Therefore, even using the same type of diffused photoelectric sensor to detect different objects, the sensing ranges vary dramatically. By using dual diode receiver, the BGS mode photoelectric sensors detect the objects according to the different position that reflected light falls on the receiver. As shown in left figure, when the sensor is relatively close to the object, the reflected light falls on receiver Red position, at this time, the output is turned ON. The sensing range of the photoelectric sensors with BGS is basically the same for various objects.						
Laser polarizer reverse operation guide:	<table border="1" data-bbox="1019 1535 1325 1659"><tr><td>Potentiometer</td><td></td></tr><tr><td>Output indicator</td><td>Red LED</td></tr><tr><td>Stable indicator</td><td>Green LED</td></tr></table> 1. When the sensitivity is minimum, there is no response to the reflector or highlight objects. 2. Place the reflector to the demanding position, slowly increase the sensitivity from the minimum, still the red and green LEDs are both on, and the setting is completed. 3. When the sensitivity is maximum, if the product is triggered by the highlight object, the sensitivity needs to be reduced till the red and green LEDs turn on.	Potentiometer		Output indicator	Red LED	Stable indicator	Green LED
Potentiometer							
Output indicator	Red LED						
Stable indicator	Green LED						

Wiring:

Cable

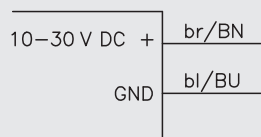


Fig. 1

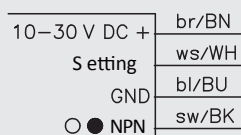


Fig. 2

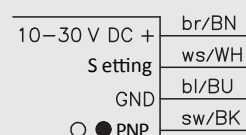


Fig. 3

M8 connector

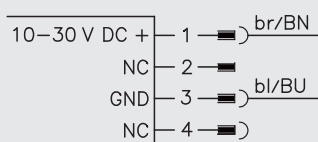


Fig. 4

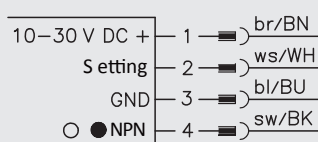


Fig. 5

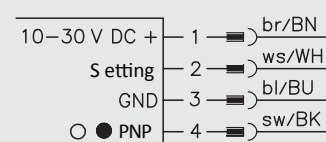
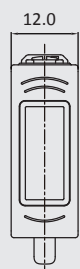


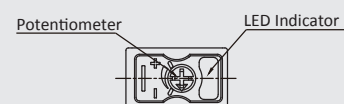
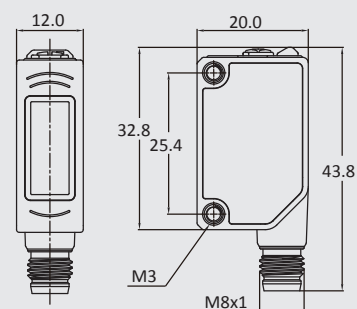
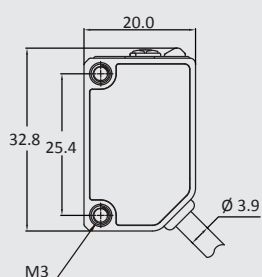
Fig. 6

Dimensions:

Cable

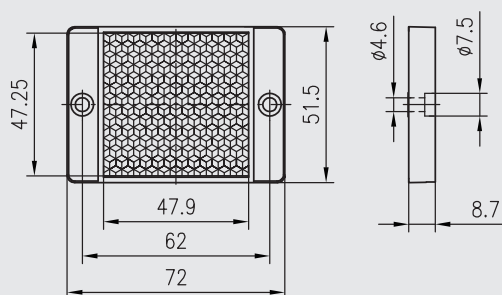


M8 connector



Reflector (optional):

RB50x50-1



Photoelectric Sensors - Rectangular OS10S



Description:

Mini-rectangular photoelectric sensors OS10S series, with high performance and 25.4 mm standard mounting hole distance, product series include 10 m opposed, 3 m polarized, 350 mm and 1 m / 4 m BGS. With optional red beam. They are suitable for logistics transportation, new energy and other application fields.

Features:

- 350 mm BGS LO or DO adjustable
- 1 m, 1.5 m, 4 m BGS adjustable with teach button
- Opposed and polarized retroreflective, light / dark operate, fixed distance products are not adjustable
- */R Infrared laser light source products can provide red light indication light source
- IP67

Type:

Detection mode	Type	Distance	Light source	Frequency	Output	Switching mode	Connection	Wiring
Opposed	OS10S-S6	10 m	Red	— —	— —	— —	2 m cable	Fig. 1
	OS10S-ECN6	10 m	— —	800 Hz	NPN	Light on / dark on	2 m cable	Fig. 2
	OS10S-ECP6	10 m	— —	800 Hz	PNP	Light on / dark on	2 m cable	Fig. 3
	OS10S-S6Q8	10 m	Red	— —	— —	— —	M8 connector, 4-pin	Fig. 9
	OS10S-ECN6Q8	10 m	— —	800 Hz	NPN	Light on / dark on	M8 connector, 4-pin	Fig. 10
	OS10S-ECP6Q8	10 m	— —	800 Hz	PNP	Light on / dark on	M8 connector, 4-pin	Fig. 11
	OS10S-S6Q8.3	10 m	Red	— —	— —	— —	M8 connector, 3-pin	Fig. 17
	OS10S-ECN6Q8.3	10 m	— —	800 Hz	NPN	Light on / dark on	M8 connector, 3-pin	Fig. 18
	OS10S-ECP6Q8.3	10 m	— —	800 Hz	PNP	Light on / dark on	M8 connector, 3-pin	Fig. 19
Polarized retroreflective	OS10S-RPCN6	3 m	Red	800 Hz	NPN	Light on / dark on	2 m cable	Fig. 2
	OS10S-RPCP6	3 m	Red	800 Hz	PNP	Light on / dark on	2 m cable	Fig. 3
	OS10S-RPCN6Q8	3 m	Red	800 Hz	NPN	Light on / dark on	M8 connector, 4-pin	Fig. 10
	OS10S-RPCP6Q8	3 m	Red	800 Hz	PNP	Light on / dark on	M8 connector, 4-pin	Fig. 11
	OS10S-RPCN6Q8.3	3 m	Red	800 Hz	NPN	Light on / dark on	M8 connector, 3-pin	Fig. 18
	OS10S-RPCP6Q8.3	3 m	Red	800 Hz	PNP	Light on / dark on	M8 connector, 3-pin	Fig. 19
BGS	OS10S-AK150CN6	6 ... 150 mm	Red	400 Hz	NPN	Light on / dark on	2 m cable	Fig. 2
	OS10S-AK150CP6	6 ... 150 mm	Red	400 Hz	PNP	Light on / dark on	2 m cable	Fig. 3
	OS10S-AK150CN6Q8	6 ... 150 mm	Red	400 Hz	NPN	Light on / dark on	M8 connector, 4-pin	Fig. 10
	OS10S-AK150CP6Q8	6 ... 150 mm	Red	400 Hz	PNP	Light on / dark on	M8 connector, 4-pin	Fig. 11
	OS10S-AK150CN6Q8.3	6 ... 150 mm	Red	400 Hz	NPN	Light on / dark on	M8 connector, 3-pin	Fig. 18
	OS10S-AK150CP6Q8.3	6 ... 150 mm	Red	400 Hz	PNP	Light on / dark on	M8 connector, 3-pin	Fig. 19
	OS10S-AK350CN6	6 ... 350 mm	Red	400 Hz	NPN	Light on / dark on	2 m cable	Fig. 2
	OS10S-AK350CP6	6 ... 350 mm	Red	400 Hz	PNP	Light on / dark on	2 m cable	Fig. 3
	OS10S-AK350CN6Q8	6 ... 350 mm	Red	400 Hz	NPN	Light on / dark on	M8 connector, 4-pin	Fig. 10
	OS10S-AK350CP6Q8	6 ... 350 mm	Red	400 Hz	PNP	Light on / dark on	M8 connector, 4-pin	Fig. 11
	OS10S-AK350CN6Q8.3	6 ... 350 mm	Red	400 Hz	NPN	Light on / dark on	M8 connector, 3-pin	Fig. 18
	OS10S-AK350CP6Q8.3	6 ... 350 mm	Red	400 Hz	PNP	Light on / dark on	M8 connector, 3-pin	Fig. 19

Photoelectric Sensors - Rectangular OS10S

Detection mode	Type	Distance	Light source	Frequency	Output	Switching mode	Connection	Wiring
BGS TOF	OS10S-AK1000CN6	50 ... 1000 mm	Infrared laser + Laser indication	30 Hz	NPN	Light on / dark on	2 m cable	Fig. 2
	OS10S-AK1000CP6	50 ... 1000 mm	Infrared laser + Laser indication	30 Hz	PNP	Light on / dark on	2 m cable	Fig. 3
	OS10S-AK1000CN6Q8	50 ... 1000 mm	Infrared laser + Laser indication	30 Hz	NPN	Light on / dark on	M8 connector, 4-pin	Fig. 10
	OS10S-AK1000CP6Q8	50 ... 1000 mm	Infrared laser + Laser indication	30 Hz	PNP	Light on / dark on	M8 connector, 4-pin	Fig. 11
	OS10S-AK1500CN6	50 ... 1500 mm	Infrared laser + Laser indication	30 Hz	NPN	Light on / dark on	2 m cable	Fig. 2
	OS10S-AK1500CP6	50 ... 1500 mm	Infrared laser + Laser indication	30 Hz	PNP	Light on / dark on	2 m cable	Fig. 3
	OS10S-AK1500CN6Q8	50 ... 1500 mm	Infrared laser + Laser indication	30 Hz	NPN	Light on / dark on	M8 connector, 4-pin	Fig. 10
	OS10S-AK1500CP6Q8	50 ... 1500 mm	Infrared laser + Laser indication	30 Hz	PNP	Light on / dark on	M8 connector, 4-pin	Fig. 11
	OS10S-AK4000CN6	50 ... 4000 mm	Infrared laser + Laser indication	30 Hz	NPN	Light on / dark on	2 m cable	Fig. 2
	OS10S-AK4000CP6	50 ... 4000 mm	Infrared laser + Laser indication	30 Hz	PNP	Light on / dark on	2 m cable	Fig. 3
	OS10S-AK4000CN6Q8	50 ... 4000 mm	Infrared laser + Laser indication	30 Hz	NPN	Light on / dark on	M8 connector, 4-pin	Fig. 10
	OS10S-AK4000CP6Q8	50 ... 4000 mm	Infrared laser + Laser indication	30 Hz	PNP	Light on / dark on	M8 connector, 4-pin	Fig. 11
	OS10S-AK1000LN6	50 ... 1000 mm	Infrared laser	10 Hz	NPN	Light on	2 m cable	Fig. 4
	OS10S-AK1000LP6	50 ... 1000 mm	Infrared laser	10 Hz	PNP	Light on	2 m cable	Fig. 5
	OS10S-AK1000DN6	50 ... 1000 mm	Infrared laser	10 Hz	NPN	Dark on	2 m cable	Fig. 6
	OS10S-AK1000DP6	50 ... 1000 mm	Infrared laser	10 Hz	PNP	Dark on	2 m cable	Fig. 7
	OS10S-AK1000LN6Q8	50 ... 1000 mm	Infrared laser	10 Hz	NPN	Light on	M8 connector, 4-pin	Fig. 12
	OS10S-AK1000LP6Q8	50 ... 1000 mm	Infrared laser	10 Hz	PNP	Light on	M8 connector, 4-pin	Fig. 13
	OS10S-AK1000DN6Q8	50 ... 1000 mm	Infrared laser	10 Hz	NPN	Dark on	M8 connector, 4-pin	Fig. 14
	OS10S-AK1000DP6Q8	50 ... 1000 mm	Infrared laser	10 Hz	PNP	Dark on	M8 connector, 4-pin	Fig. 15
	OS10S-AK1000LN6Q8.3	50 ... 1000 mm	Infrared laser	10 Hz	NPN	Light on	M8 connector, 3-pin	Fig. 20
	OS10S-AK1000LP6Q8.3	50 ... 1000 mm	Infrared laser	10 Hz	PNP	Light on	M8 connector, 3-pin	Fig. 21
	OS10S-AK1000DN6Q8.3	50 ... 1000 mm	Infrared laser	10 Hz	NPN	Dark on	M8 connector, 3-pin	Fig. 22
	OS10S-AK1000DP6Q8.3	50 ... 1000 mm	Infrared laser	10 Hz	PNP	Dark on	M8 connector, 3-pin	Fig. 23
	OS10S-AK1500LN6	50 ... 1500 mm	Infrared laser	10 Hz	NPN	Light on	2 m cable	Fig. 4
	OS10S-AK1500LP6	50 ... 1500 mm	Infrared laser	10 Hz	PNP	Light on	2 m cable	Fig. 5
	OS10S-AK1500DN6	50 ... 1500 mm	Infrared laser	10 Hz	NPN	Dark on	2 m cable	Fig. 6
	OS10S-AK1500DP6	50 ... 1500 mm	Infrared laser	10 Hz	PNP	Dark on	2 m cable	Fig. 7
	OS10S-AK1500LN6Q8	50 ... 1500 mm	Infrared laser	10 Hz	NPN	Light on	M8 connector, 4-pin	Fig. 12
	OS10S-AK1500LP6Q8	50 ... 1500 mm	Infrared laser	10 Hz	PNP	Light on	M8 connector, 4-pin	Fig. 13
	OS10S-AK1500DN6Q8	50 ... 1500 mm	Infrared laser	10 Hz	NPN	Dark on	M8 connector, 4-pin	Fig. 14
	OS10S-AK1500DP6Q8	50 ... 1500 mm	Infrared laser	10 Hz	PNP	Dark on	M8 connector, 4-pin	Fig. 15
	OS10S-AK1500LN6Q8.3	50 ... 1500 mm	Infrared laser	10 Hz	NPN	Light on	M8 connector, 3-pin	Fig. 20
	OS10S-AK1500LP6Q8.3	50 ... 1500 mm	Infrared laser	10 Hz	PNP	Light on	M8 connector, 3-pin	Fig. 21
	OS10S-AK1500DN6Q8.3	50 ... 1500 mm	Infrared laser	10 Hz	NPN	Dark on	M8 connector, 3-pin	Fig. 22
	OS10S-AK1500DP6Q8.3	50 ... 1500 mm	Infrared laser	10 Hz	PNP	Dark on	M8 connector, 3-pin	Fig. 23
	OS10S-AK4000LN6	50 ... 4000 mm	Infrared laser	10 Hz	NPN	Light on	2 m cable	Fig. 4
	OS10S-AK4000LP6	50 ... 4000 mm	Infrared laser	10 Hz	PNP	Light on	2 m cable	Fig. 5
	OS10S-AK4000DN6	50 ... 4000 mm	Infrared laser	10 Hz	NPN	Dark on	2 m cable	Fig. 6
	OS10S-AK4000DP6	50 ... 4000 mm	Infrared laser	10 Hz	PNP	Dark on	2 m cable	Fig. 7
	OS10S-AK4000LN6Q8	50 ... 4000 mm	Infrared laser	10 Hz	NPN	Light on	M8 connector, 4-pin	Fig. 12
	OS10S-AK4000LP6Q8	50 ... 4000 mm	Infrared laser	10 Hz	PNP	Light on	M8 connector, 4-pin	Fig. 13

Photoelectric Sensors - Rectangular OS10S

Type:

Detection mode	Type	Distance	Light source	Frequency	Output	Switching mode	Connection	Wiring
BGS TOF	OS10S-AK4000DN6Q8	50 ... 4000 mm	Infrared laser	10Hz	NPN	Dark on	M8 connector, 4-pin	Fig. 14
	OS10S-AK4000DP6Q8	50 ... 4000 mm	Infrared laser	10Hz	PNP	Dark on	M8 connector, 4-pin	Fig. 15
	OS10S-AK4000LN6Q8.3	50 ... 4000 mm	Infrared laser	10Hz	NPN	Light on	M8 connector, 3-pin	Fig. 20
	OS10S-AK4000LP6Q8.3	50 ... 4000 mm	Infrared laser	10Hz	PNP	Light on	M8 connector, 3-pin	Fig. 21
	OS10S-AK4000DN6Q8.3	50 ... 4000 mm	Infrared laser	10Hz	NPN	Dark on	M8 connector, 3-pin	Fig. 22
	OS10S-AK4000DP6Q8.3	50 ... 4000 mm	Infrared laser	10Hz	PNP	Dark on	M8 connector, 3-pin	Fig. 23

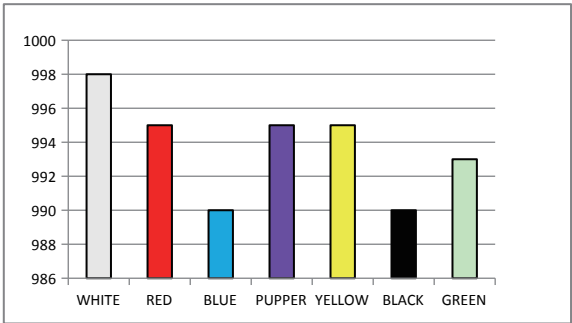
Detection mode	Type	Distance	Light source	Repeatability	Output	Measurement accuracy	Connection	Wiring
BGS TOF	OS10S-K4000/485	50 ... 4000 mm	Infrared laser	10 mm	485	30 mm	2 m cable	Fig.8
	OS10S-K4000/485/R-0.2-Q8	50 ... 4000 mm	Infrared laser	10 mm	485	30 mm	M8 Pigtail	Fig.16
	OS10S-K4000/UR	50 ... 4000 mm	Infrared laser	10 mm	UR	30 mm	2 m cable	Fig.9

Technical Data:

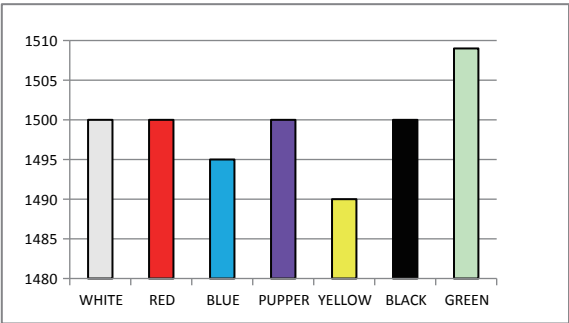
Operating voltage	10 ... 30 V DC / 5 V DC
Ripple voltage	≤ 10%
Light source	630 nm red beam (opposed, retroreflective, AK350 diffused); TOF infrared laser (940 nm) / class 1
Output type	PNP / NPN
Switch mode	LO / DO optional (opposed, retroreflective, AK350 diffused); LO / DO (AK1000 / AK1500 / AK4000)
No-load current	24 V 25 mA
load current	≤ 100 mA
Output indicator	Red LED
Steady state indicator	Green LED
Housing	PC + PBT
Connection	2 m cable 3 wires) / M8 3-pin or 4-pin connector
Ambient temperature	-20 ... +60 °C
Storage temperature	-40 ... +70 °C
Voltage withstanding	1000 V/AC, 50 / 60 Hz, 60 s
Insulation impedance	≥ 50 MΩ (500 V DC)
Shock resistance	Complex amplitude 1.5 mm 10 ... 50 Hz (2 hr X, Y, Z respectively)
Impact resistance	500 m/s ² (50 G) 3 times X,Y, Z respectively
Protection class	IP67

Attenuation figure:

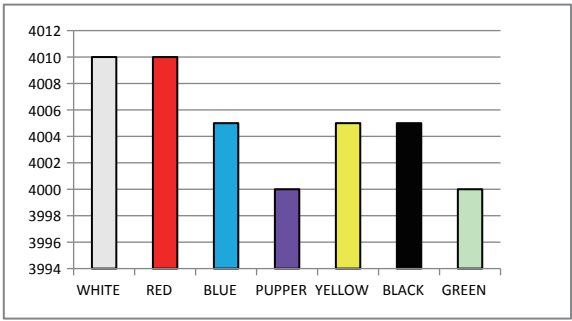
OS10S-AK1000



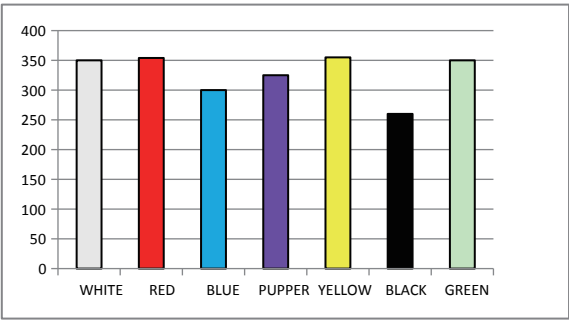
OS10S-AK1500



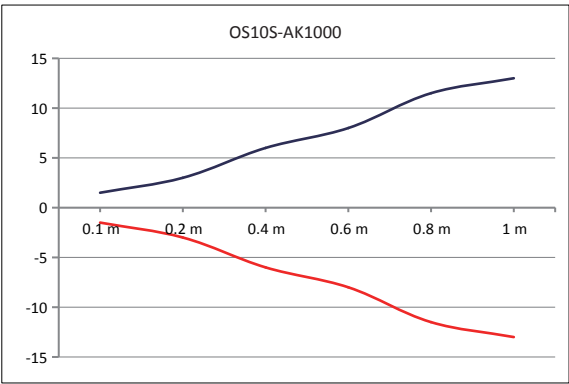
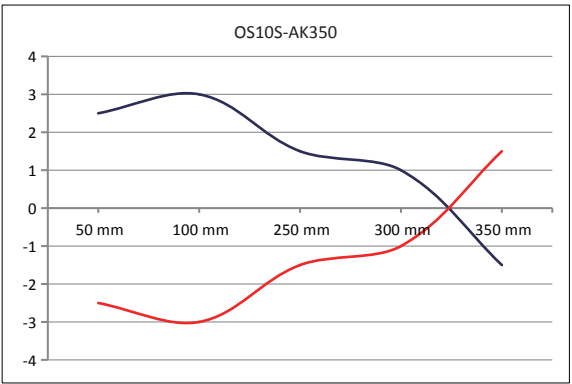
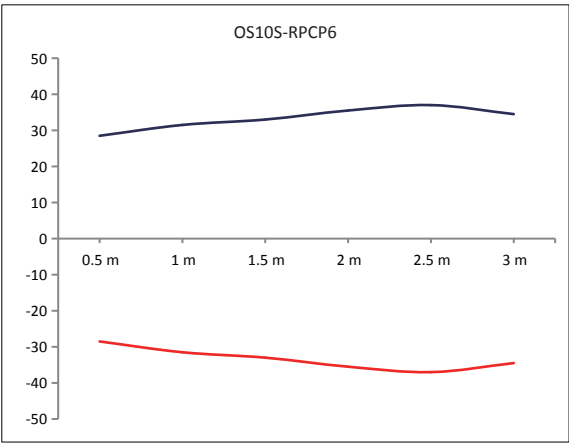
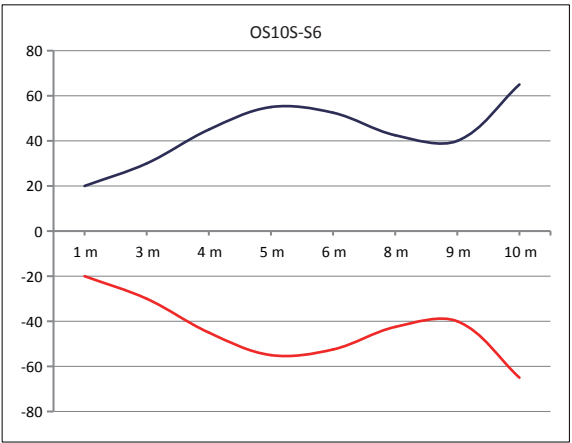
OS10S-AK4000



OS10S-AK350

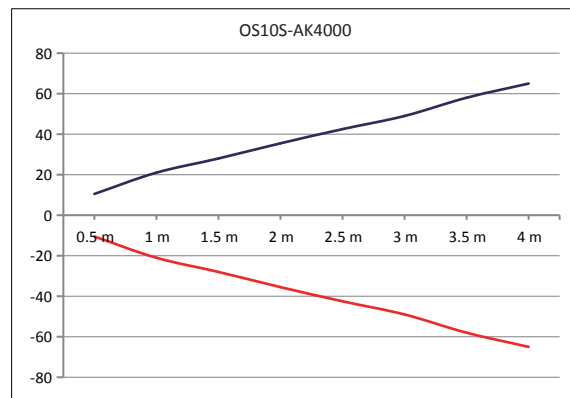
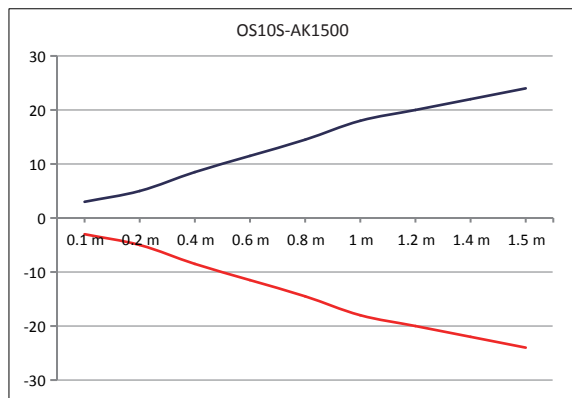


Translation characteristic curve:



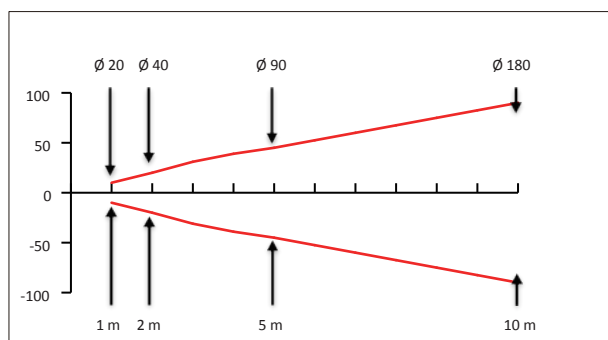
Photoelectric Sensors - Rectangular OS10S

Translation characteristic curve:

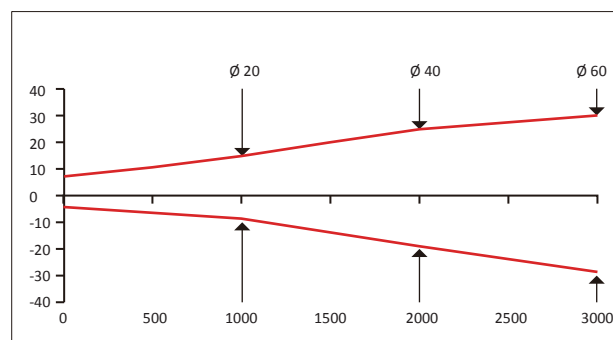


Beam Pattern:

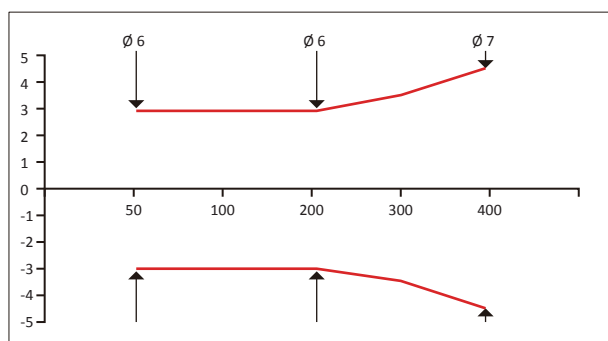
OS10S-S6 (mm)



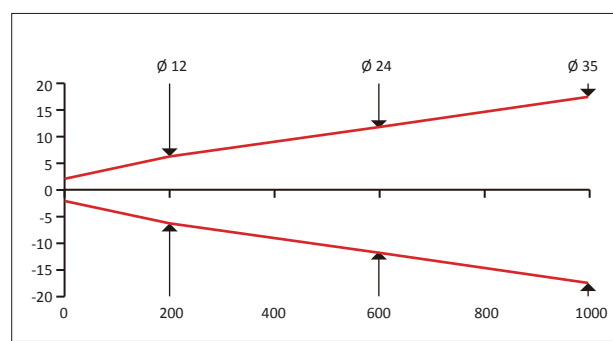
OS10S-PR (mm)



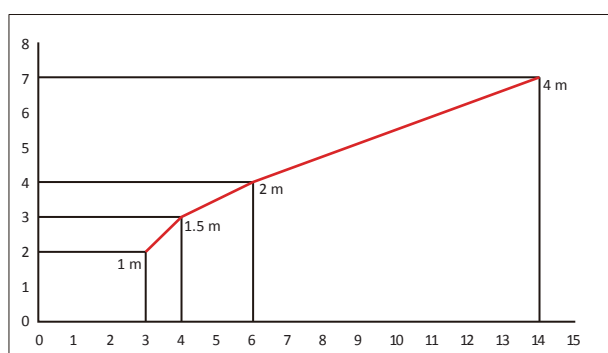
OS10S-AK350 (mm)



OS10S-AK1000 (mm)



OS10S-AK1500/4000 (cm)



Wiring:

Cable

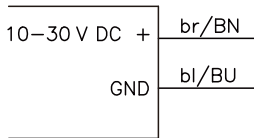


Fig. 1

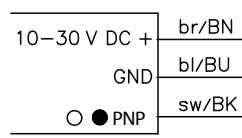


Fig. 3

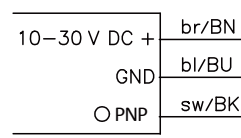


Fig. 5

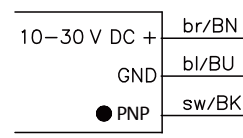


Fig. 7

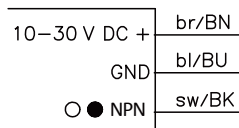


Fig. 2

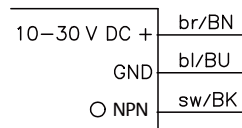


Fig. 4

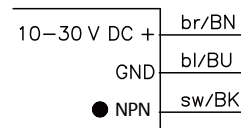


Fig. 6

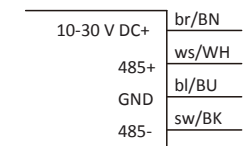


Fig. 8

M8 connector

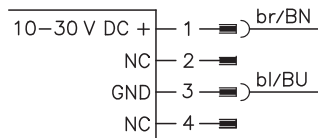


Fig. 9

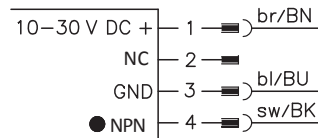


Fig. 14

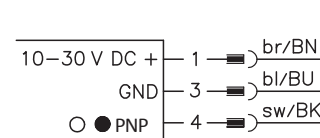


Fig. 19

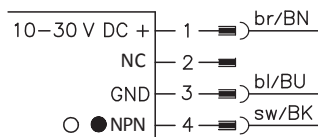


Fig. 10

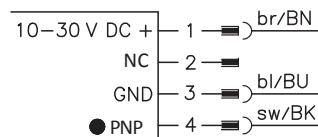


Fig. 15

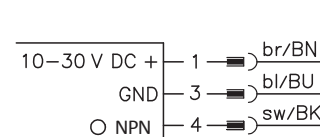


Fig. 20

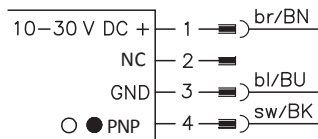


Fig. 11

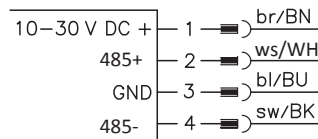


Fig. 16

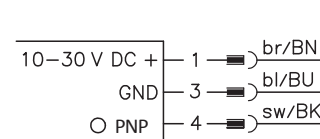


Fig. 21

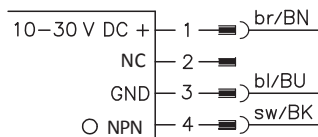


Fig. 12

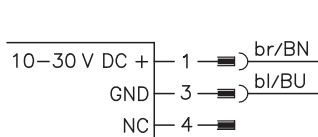


Fig. 17

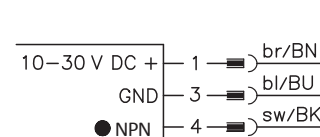


Fig. 22

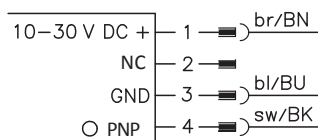


Fig. 13

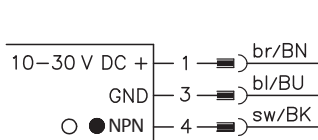


Fig. 18

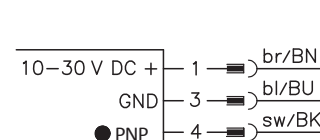
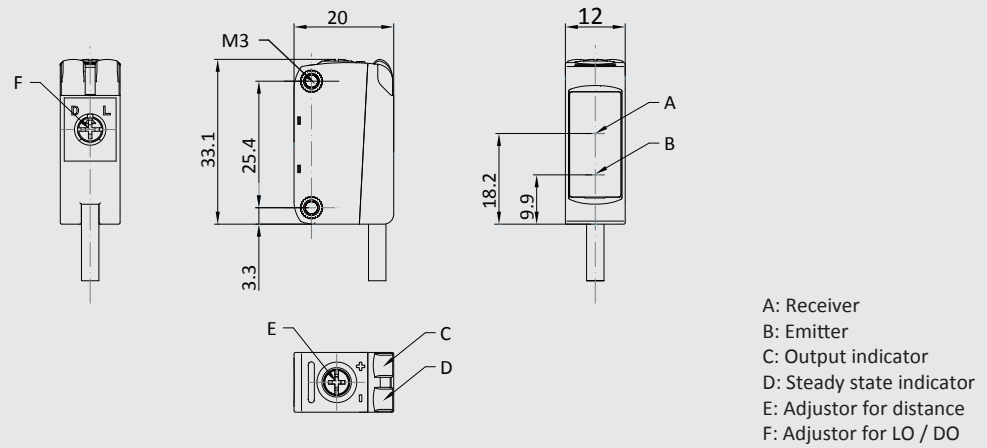


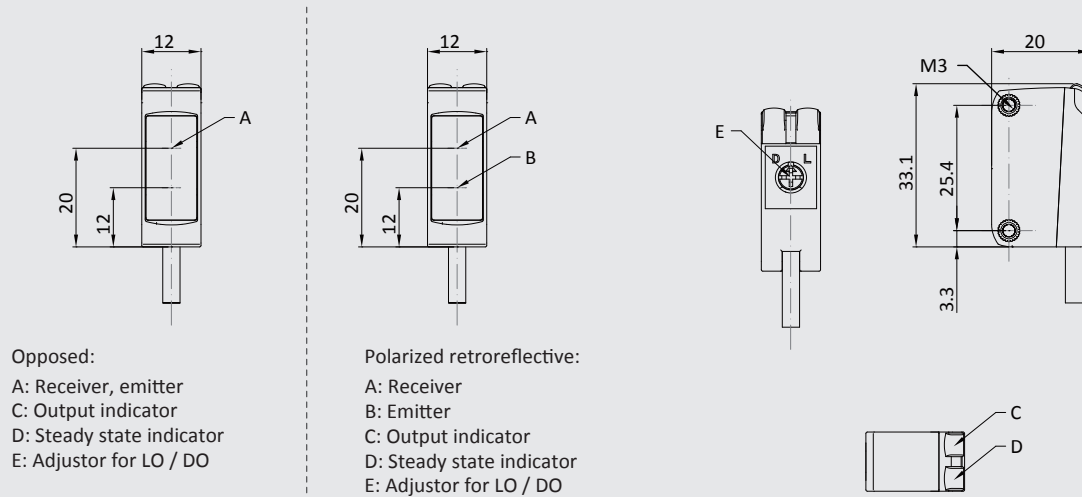
Fig. 23

Dimensions: (Cable)

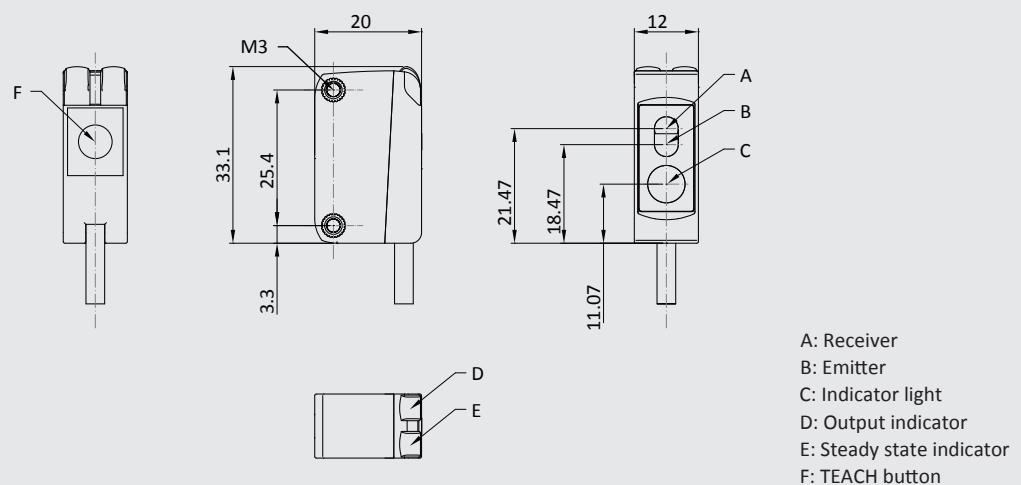
BGS



Opposed / Polarized retroreflective

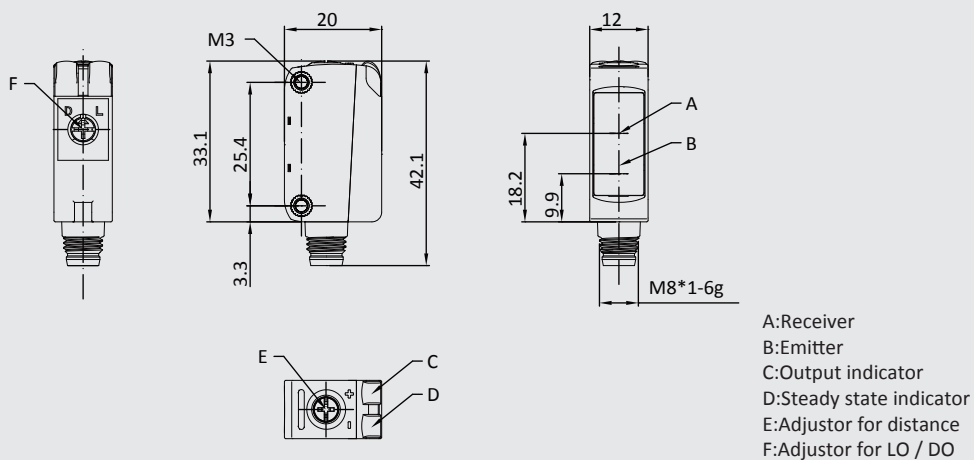


BGS TOF

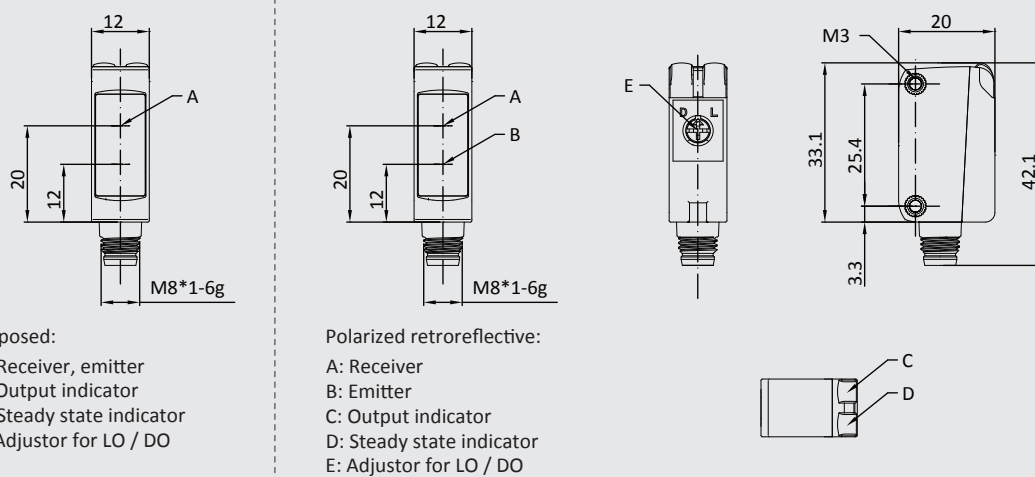


Dimensions: (M8 connector)

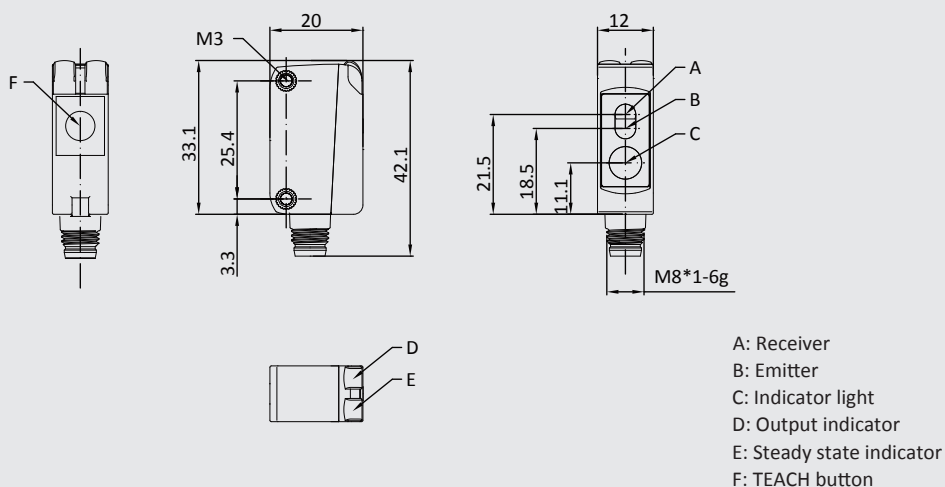
BGS



Opposed / Polarized retroreflective



BGS TOF



Photoelectric Sensors - Rectangular OS10U



Description:

The compact body meets the needs of electronics, photovoltaic, semiconductor and other industries for compact space. The product has excellent black and white detection characteristics and can stably detect different colors, The object to be measured.

Features:

- Triangulation ranging principle, high detection accuracy
- Ø 3 mounting holes, built-in metal parts, sturdy and long life
- Multiple output types

Type:

Type	Distance	Light source	Frequency	Output	Resolution	Connection	Wiring
OS10U-KL300CB6	30 ... 300 mm	red laser	100 Hz	push-pull	0.1 mm	2m cable	Fig. 1
OS10U-KL300/485	30 ... 300 mm	red laser	— —	RS485	0.1 mm	2m cable	Fig. 2
OS10U-KL300/IO	30 ... 300 mm	red laser	— —	IO-Link	0.1 mm	2m cable	Fig. 3

Technical Data:

Operating voltage	10 ... 30 V DC
Light source	Red laser (655 nm) / class 1
Output type	Push-Pull, RS485, IO-Link
Switch mode	Light on / dark on
Distance adjustment	Teach button
Power	0.5 W
load current	≤ 100 mA
Output indicator	Red LED
Power indicator	Green LED
Measurement accuracy	30 ... 100 mm (Repeatability 2 mm) 100 ... 300 mm (Repeatability 5 mm)
Spot diameter	1.2*1 mm@100 mm, 0.8*1 mm@250 mm, 1*1.2 mm@300 mm
Storage temperature	-25 ... +75 °C
Operating temperature	-20 ... +50 °C
Protection class	IP67
Protection circuit	Reverse polarity protection, short circuit protection, voltage impulse protection (1 kV / 0.5J)
Voltage withstanding	650 V/AC, 50 / 60 Hz, 60 s
Insulation impedance	≥20 MΩ (500 V DC)
Shock resistance	Complex amplitude 1.5 mm 10 ... 50 Hz (2 hr X, Y, Z respectively)
Impact resistance	500 m/s ² (50 G) 3 times X, Y, Z respectively
Environment light immune	Sunlight interference ≤10000 Lux; Incandescent lamp ≤5000 Lux
Housing	PC + PMMA

Wiring:

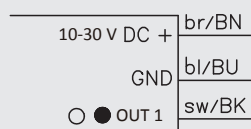


Fig. 1

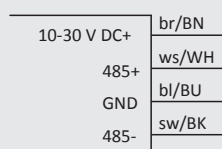


Fig. 2

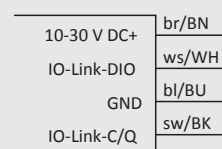
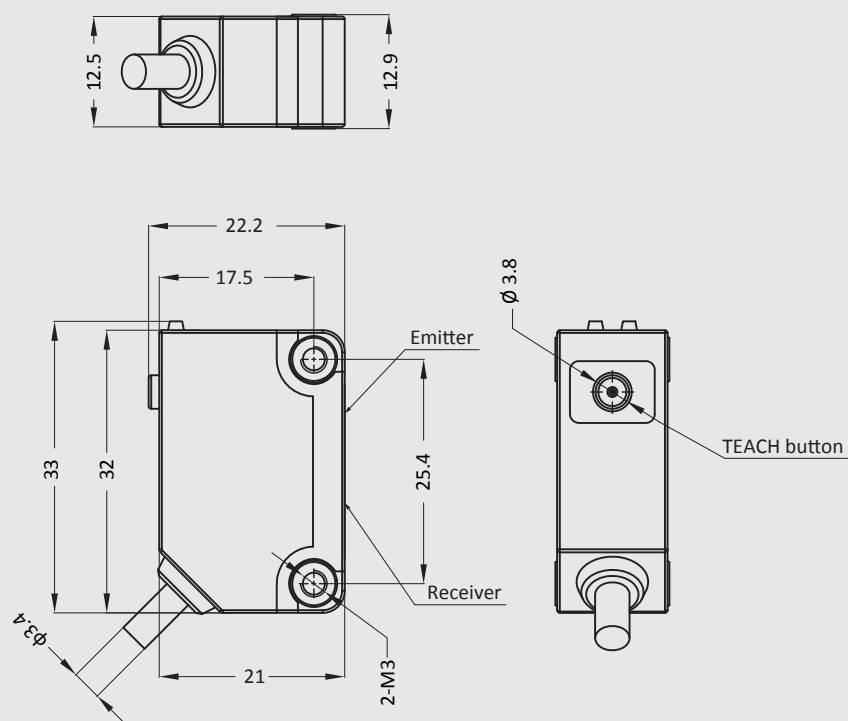


Fig. 3

Dimensions:



Photoelectric Sensors - Rectangular OS20



Description:

High-performance mini rectangular photoelectric sensor can provide BGS detection, laser coaxial polarized retro-reflective detection and laser non-coaxial polarized retro-reflective detection and PCB detection. It is suitable for logistics, textile, glass machinery, food packaging and other applications.

Features:

- BGS is a product that provides the detection distance of Linear light source
- No dead zones in the coaxial axis, precise location function
- AK300 Excellent black and white attenuation

Type:

Detection mode	Type	Distance	Light source	Frequency	Output	Switching mode	Connection	Wiring
BGS PCB detection line array light source	OS20-AK100CN6/L	100 mm	Red	800 Hz	NPN	Light on / dark on	2 m cable	Fig. 1
	OS20-AK100CP6/L		Red	800 Hz	PNP	Light on / dark on	2 m cable	Fig. 3
	OS20-AK100CN6Q8/L		Red	800 Hz	NPN	Light on / dark on	M8 4-pin connector	Fig. 2
	OS20-AK100CP6Q8/L		Red	800 Hz	PNP	Light on / dark on	M8 4-pin connector	Fig. 4
BGS	OS20-AK300CN6	6 ... 300 mm	Red	800 Hz	NPN	Light on / dark on	2 m cable	Fig. 1
	OS20-AK300CP6		Red	800 Hz	PNP	Light on / dark on	2 m cable	Fig. 3
	OS20-AK300CN6Q8		Red	800 Hz	NPN	Light on / dark on	M8 4-pin connector	Fig. 2
	OS20-AK300CP6Q8		Red	800 Hz	PNP	Light on / dark on	M8 4-pin connector	Fig. 4

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

Non-coaxial polarized retro-reflective detection	OS20-RPLCN6	5 m	Laser	800 Hz	NPN	Light on / dark on	2 m cable	Fig. 1
	OS20-RPLCP6		Laser	800 Hz	PNP	Light on / dark on	2 m cable	Fig. 3
	OS20-RPLCN6Q8		Laser	800 Hz	NPN	Light on / dark on	M8 4-pin connector	Fig. 2
	OS20-RPLCP6Q8		Laser	800 Hz	PNP	Light on / dark on	M8 4-pin connector	Fig. 4
Coaxial polarized retro-reflective detection	OS20-TRPLCN6	5 m	Laser	800 Hz	NPN	Light on / dark on	2 m cable	Fig. 1
	OS20-TRPLCP6		Laser	800 Hz	PNP	Light on / dark on	2 m cable	Fig. 3
	OS20-TRPLCN6Q8		Laser	800 Hz	NPN	Light on / dark on	M8 4-pin connector	Fig. 2
	OS20-TRPLCP6Q8		Laser	800 Hz	PNP	Light on / dark on	M8 4-pin connector	Fig. 4

* / I Infrared beam, eg. OS20-AK100CN6/L/I

Technical Data:

Operating voltage	10 ... 30 V DC
Ripple voltage	≤ 10%
Light source	Red laser (650 nm) / class 1
Output type	PNP / NPN
Switch mode	Light on: setting connects U+ Dark on: setting connects U-
No-load current	≤ 20 mA
load current	≤ 100 mA
Sensitivity	Teach button or potentiometer adjustment
Output indicator	Red LED
Steady state indicator	Green LED
Housing	PC + PBT
Connection	M8 connector / 2 m cable
Ambient temperature	-25 ... +55 °C
Storage temperature	-40 ... +70 °C
Voltage withstanding	1000 V / AC, 50 / 60 Hz, 60 s
Insulation impedance	≥ 50 MΩ (500 V DC)
Shock resistance	Complex amplitude 1.5 mm 10 ... 50 Hz (2 hr X, Y, Z respectively)
Impact resistance	500 m/s ² (50 G) 3 times X,Y, Z respectively
Protection class	IP67

Wiring:

Pre-wired cable

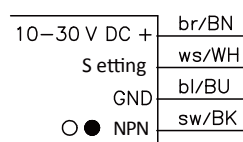


Fig. 1

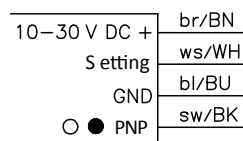


Fig. 2

M8 connector

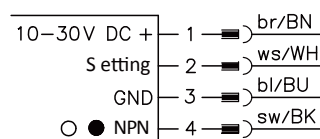


Fig. 3

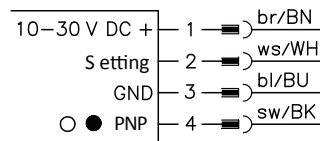
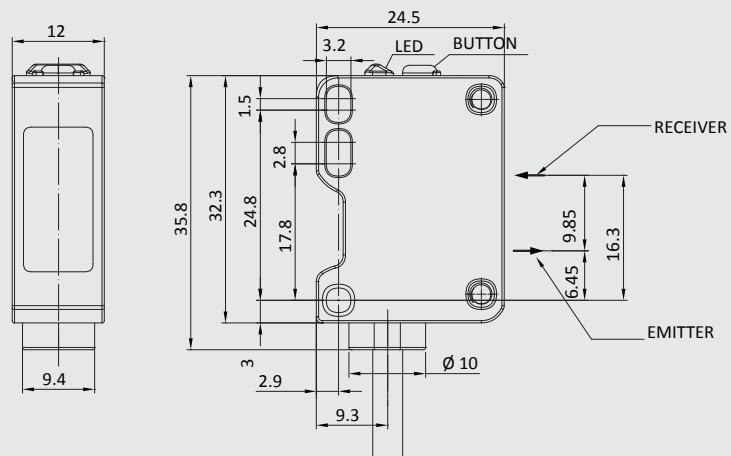


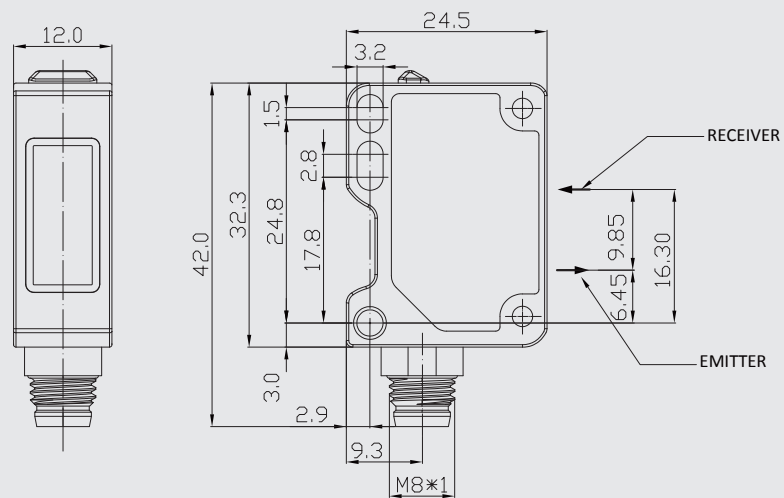
Fig. 4

Dimensions:

Cable

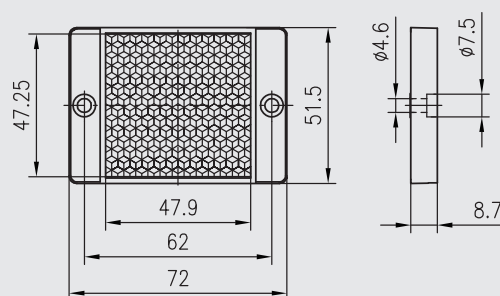


M8 connector



Reflector (optional):

RB50x50-1





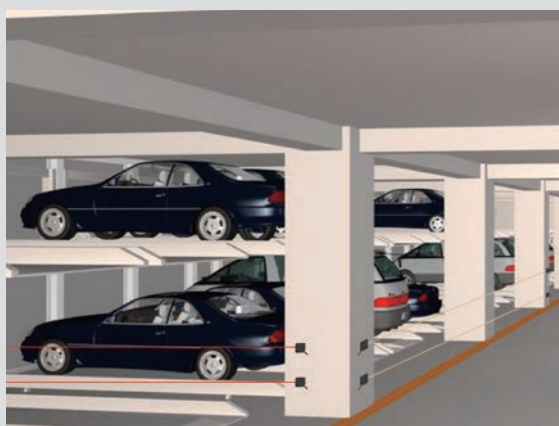
Description:

Rectangular 50*50 mm; 60 m sensing range for opposed mode; 10 m sensing range for retro-reflective mode, 7 m sensing range for diffused mode; wide voltage power supply, relay output. Suitable for garage, warehousing, logistics, crane anti-collision, etc.

Features:

- Multiple output modes
- Long sensing range
- Flexible mounting

Sensor function description:



40 m opposed for ultra-long distance detection, suitable for stereo garages, warehouses, 24 ... 240 V AC and DC power supply, relay output, no need for a separate 24 V switching power supply.

Using a red LED light source that facilitates optical axis alignment, a 10 m retro-reflective detection distance and a wide lateral width rolling shutter door can also be installed.



Photoelectric Sensors - Rectangular OS50

Type:

Detection mode	Type	Distance	Light source	Frequency	Output	Switching mode	Connection	Wiring
Opposed	OS50-S6 (emitter)	40 m	Infrared	— —	— —	— —	2 m cable	Fig. 1
	OS50-EVP6 (receiver)		800 Hz	PNP	NO + NC	Fig. 3		
	OS50-EVN6 (receiver)			NPN		Fig. 4		
	OS50-S6Q (emitter)	40 m	Infrared	— —	— —	M12 connector	Fig. 2	
	OS50-EVP6Q (receiver)		800 Hz	PNP	NO + NC		Fig. 5	
	OS50-EVN6Q (receiver)			NPN			Fig. 6	
	OS50-S5 (emitter)	40 m	Infrared	— —	— —	2 m cable	Fig. 11	
	OS50-EVR (receiver)		50 Hz	Relay	NO + NC		Fig. 12	
	OS50-S206 (emitter)	20 m	Red	— —	— —	2 m cable	Fig. 1	
	OS50-E20VP6 (receiver)		800 Hz	PNP	NO + NC		Fig. 3	
	OS50-E20VN6 (receiver)			NPN			Fig. 4	
	OS50-S206Q (emitter)	20 m	Red	— —	— —	M12 connector	Fig. 2	
	OS50-E20VP6Q (receiver)		800 Hz	PNP	NO + NC		Fig. 5	
	OS50-E20VN6Q (receiver)			NPN			Fig. 6	
	OS50-S205 (emitter)	20 m	Red	— —	— —	2 m cable	Fig. 11	
	OS50-E20VR5 (receiver)		50 Hz	Relay	NO + NC		Fig. 12	
	OS50-SL6 (emitter)	60 m	Laser	— —	— —	2 m cable	Fig. 1	
	OS50-ELVP6 (receiver)		800 Hz	PNP	NO + NC		Fig. 3	
	OS50-ELVN6 (receiver)			NPN			Fig. 4	
	OS50-SL6Q (emitter)	60 m	Laser	— —	— —	M12 connector	Fig. 2	
	OS50-ELVP6Q (receiver)		800 Hz	PNP	NO + NC		Fig. 5	
	OS50-ELVN6Q (receiver)			NPN			Fig. 6	
	OS50-SL5 (emitter)	60 m	Laser	— —	— —	2 m cable	Fig. 11	
	OS50-ELVR5 (receiver)		50 Hz	Relay	NO + NC		Fig. 12	

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

Retro-reflective	OS50-RVP6	10 m	Red	800 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OS50-RVN6				NPN			Fig. 4
	OS50-RVP6Q	10 m	Red	800 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OS50-RVN6Q				NPN			Fig. 6
	OS50-RVR5	10 m	Red	50 Hz	Relay	NO + NC	2 m cable	Fig. 12
Polarized retro-reflective	OS50-RPVP6	6 m	Red	800 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OS50-RPVN6				NPN			Fig. 4
	OS50-RPVP6Q	6 m	Red	800 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OS50-RPVN6Q				NPN			Fig. 6
	OS50-RPVR5	6 m	Red	50 Hz	Relay	NO + NC	2 m cable	Fig. 12

Type:

Detection mode	Type	Distance	Light source	Frequency	Output	Switching mode	Connection	Wiring
Diffused	OS50-K1000VP6	1000 mm	Red	800 Hz	PNP	NO + NC	2 m cable	Fig. 7
	OS50-K1000VN6				NPN			Fig. 8
	OS50-K1000VP6Q	1000 mm	Red	800 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OS50-K1000VN6Q				NPN			Fig. 10
	OS50-K1000VR5	1000 mm	Red	50 Hz	Relay	NO + NC	2 m cable	Fig. 12
	OS50-K2500VP6	2500 mm	Infrared	800 Hz	PNP	NO + NC	2 m cable	Fig. 7
	OS50-K2500VN6				NPN			Fig. 8
	OS50-K2500VP6Q	2500 mm	Infrared	800 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OS50-K2500VN6Q				NPN			Fig. 10
	OS50-K2500VR5	2500 mm	Infrared	50 Hz	Relay	NO + NC	2 m cable	Fig. 12
	OS50-K3500VP6	3500 mm	Infrared laser	800 Hz	PNP	NO + NC	2 m cable	Fig. 7
	OS50-K3500VN6				NPN			Fig. 8
	OS50-K3500VP6Q	3500 mm	Infrared laser	800 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OS50-K3500VN6Q				NPN			Fig. 10
	OS50-K3500VR5	3500 mm	Infrared laser	50 Hz	Relay	NO + NC	2 m cable	Fig. 12
	OS50-K7000VP6	7000 mm	Infrared laser	800 Hz	PNP	NO + NC	2 m cable	Fig. 7
	OS50-K7000VN6				NPN			Fig. 8
	OS50-K7000VP6Q	7000 mm	Infrared laser	800 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OS50-K7000VN6Q				NPN			Fig. 10
	OS50-K7000VR5	7000 mm	Infrared laser	50 Hz	Relay	NO + NC	2 m cable	Fig. 12

Photoelectric Sensors - Rectangular OS50

Technical Data:

Operating voltage	10 ... 30 V DC (NPN, PNP) 24 ... 240 V AC/DC (relay type)
Light source	Red laser (650 nm) / class 1
Response time	Max. 2 ms (NPN, PNP) Max. 30 ms (relay type)
No-load current	≤ 25 mA
Load current	≤ 200 mA (NPN, PNP) ≤ 3 A (relay type)
Protection circuit	Electrical surge, reverse polarity protection, short circuit protection Electrical surge protection (relay type)
Distance adjustment	Adjustable, with single-turn knob
Output type	NPN, PNP, Relay
Switch mode	NO + NC
Output indicator	Yellow LED
Steady state indicator	Green LED
Ambient temperature	-25 ... +55 °C
Spot size	4.5 cm (1.2 m), 7 cm (2.4 m), 9 cm (3.5 m) @OS50-K3500
Voltage resistance	1000 V/AC, 50 / 60 Hz, 60 s
Insulation impedance	≥50 MΩ (500 V DC)
Shock resistance	Complex amplitude 1.5 mm 10 ... 50 Hz (2hr X, Y, Z respectively)
Impact resistance	500 m/s ² (50 G) 3 times X,Y, Z respectively
Protection class	IP67
Housing material	PBT + ABS
Accessories	Mounting bracket (all types) EOS50-1, reflector RB50*50-1 (only for retro-reflective and polarized retro-reflective)

Wiring:

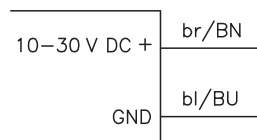


Fig. 1

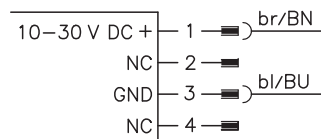


Fig. 2

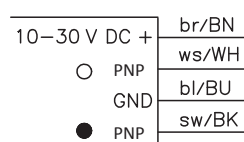


Fig. 3

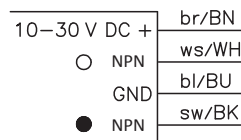


Fig. 4

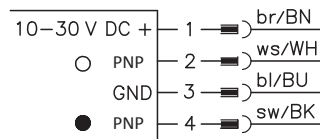


Fig. 5

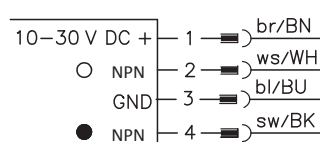


Fig. 6

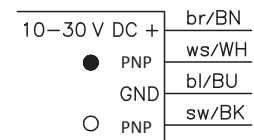


Fig. 7

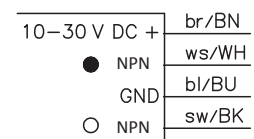


Fig. 8

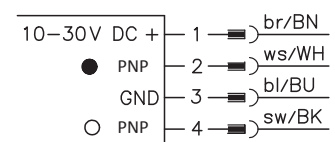
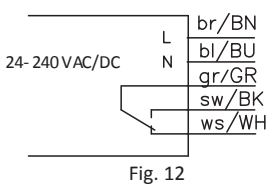
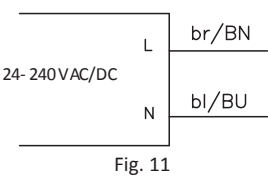
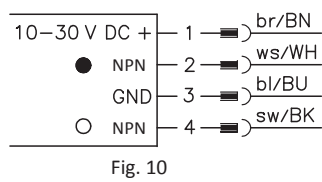


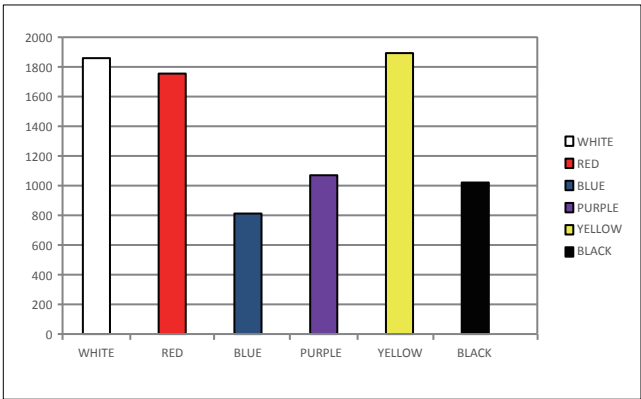
Fig. 9

Wiring:

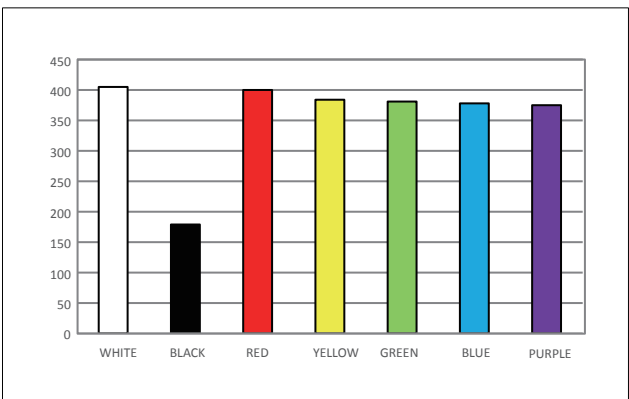


Attenuation figure:

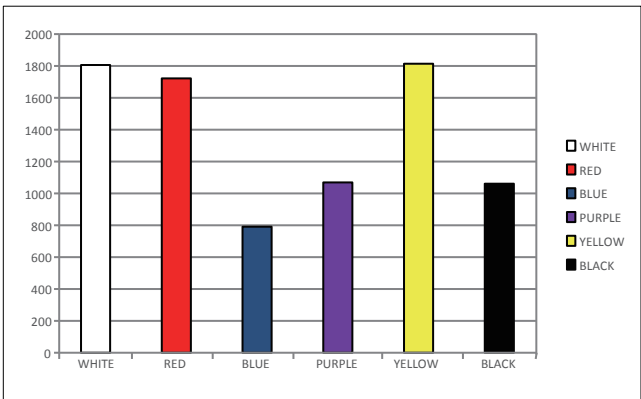
OS50-K1000VP6



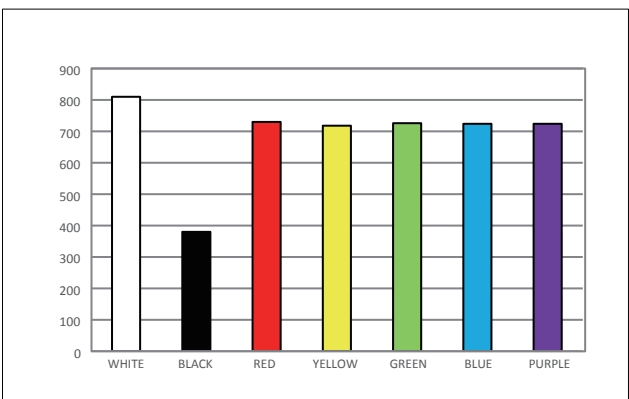
OS50-K3500VP6



OS50-K1000VR5

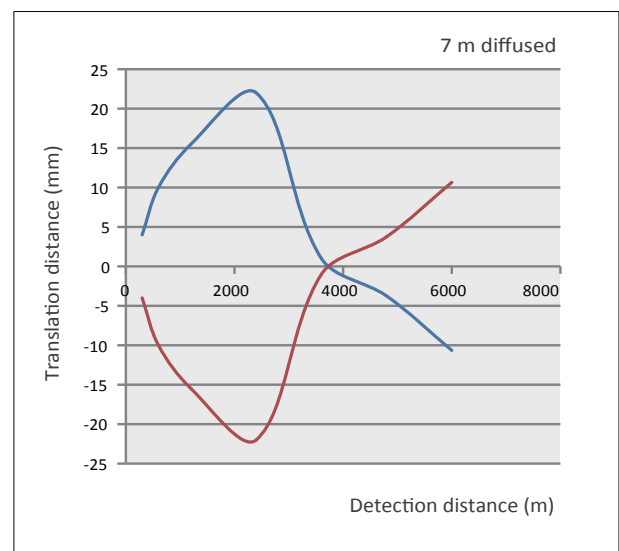
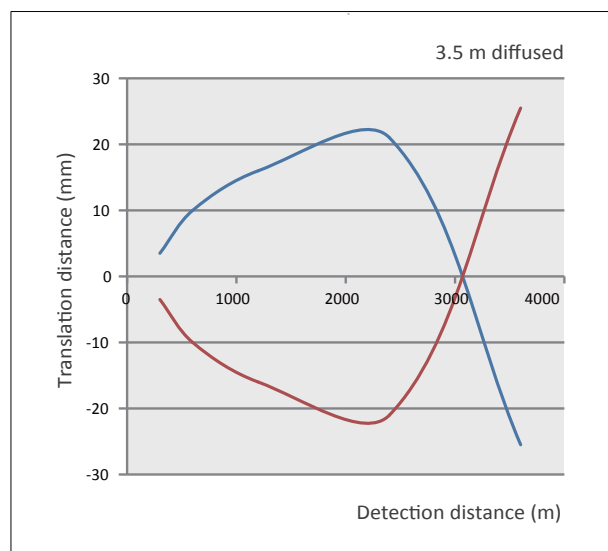
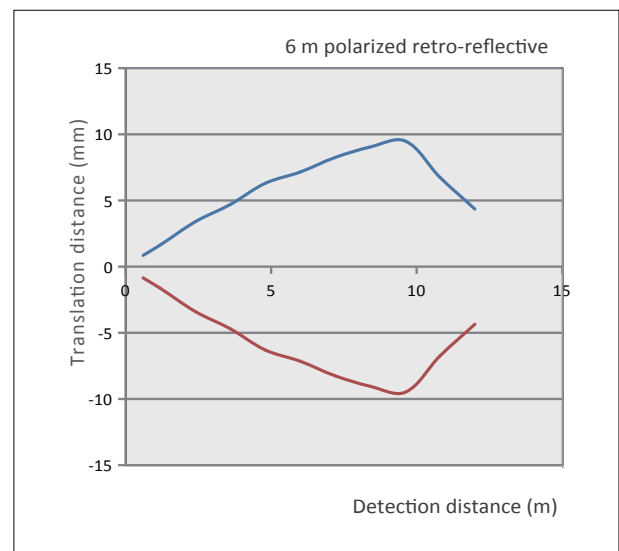
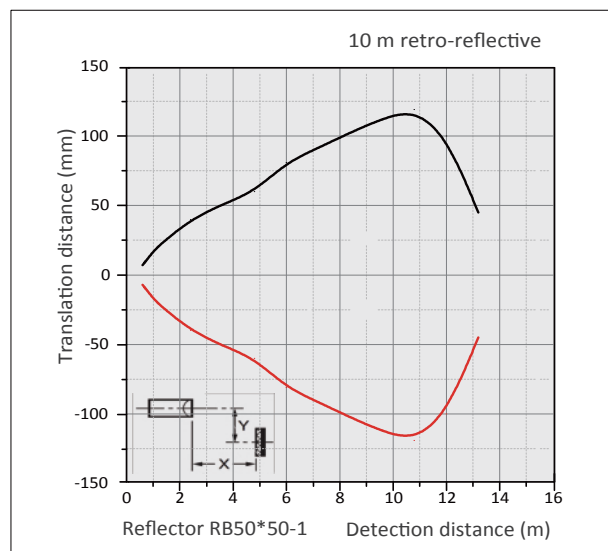
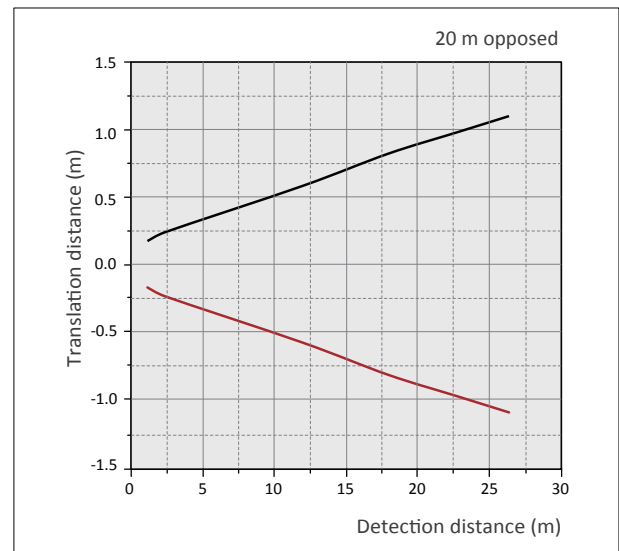
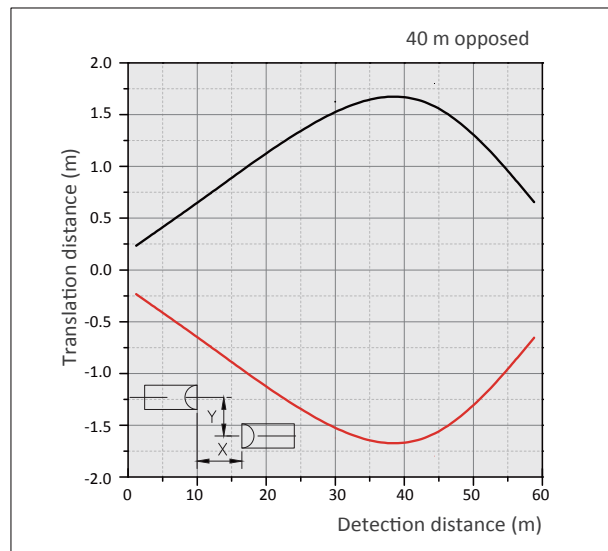


OS50-K7000VR5



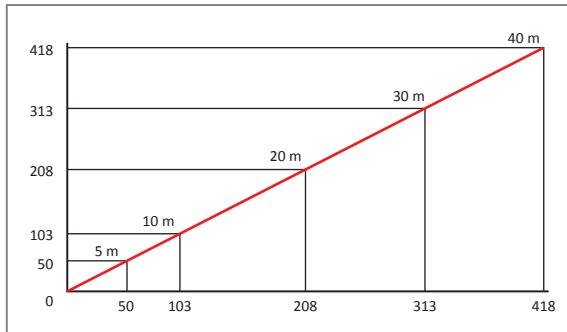
Photoelectric Sensors - Rectangular OS50

Translation characteristic curve

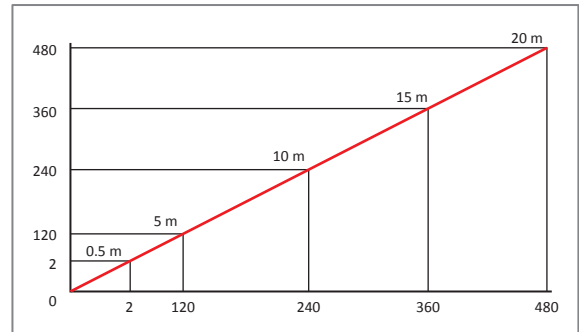


Beam Pattern:

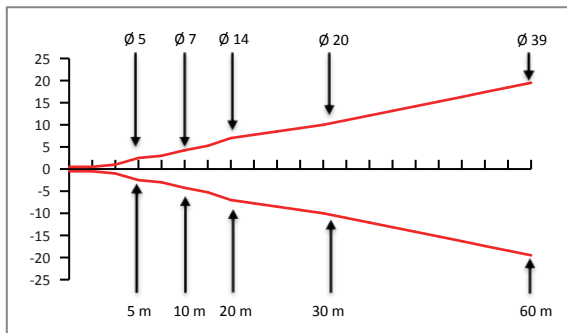
OS50-S6/S5 (cm)



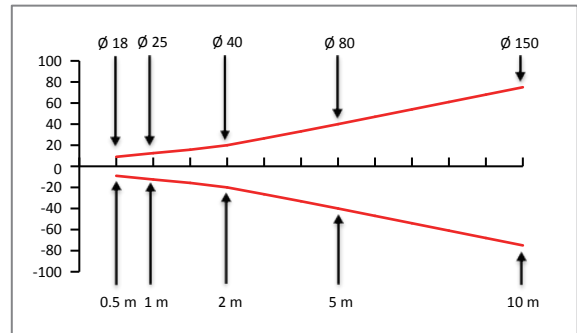
OS50-206/205 (mm)



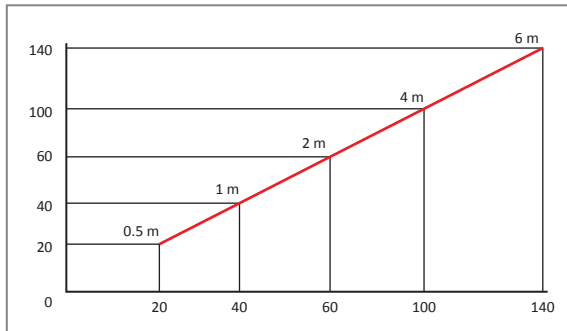
OS50-SL6/SL5 (mm)



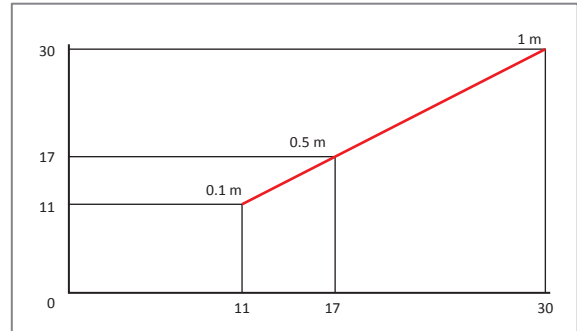
OS50-R (mm)



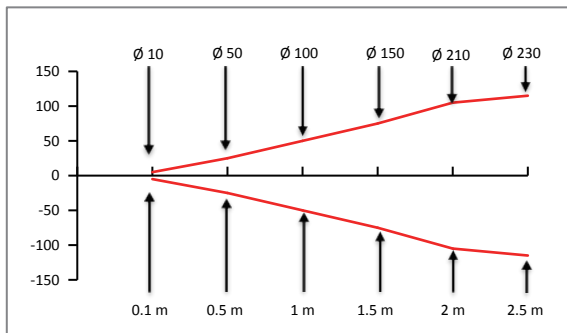
OS50-RP (mm)



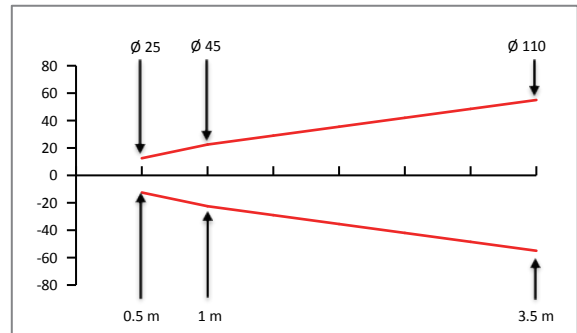
OS50-K1000 (mm)



OS50-K2500 (mm)

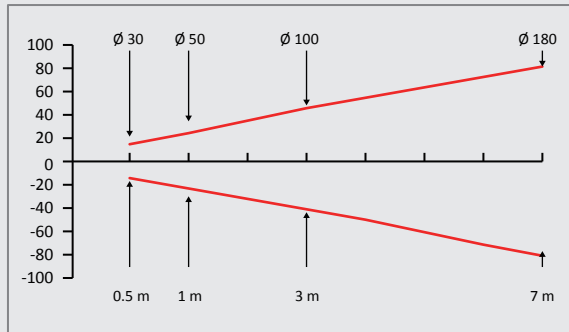


OS50-K3500 (mm)



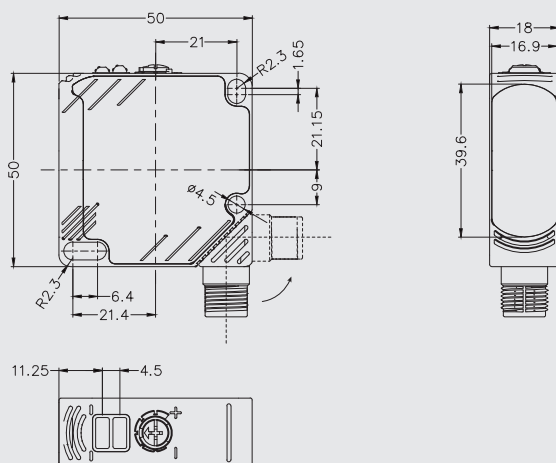
Beam Pattern :

OS50-K7000 (mm)

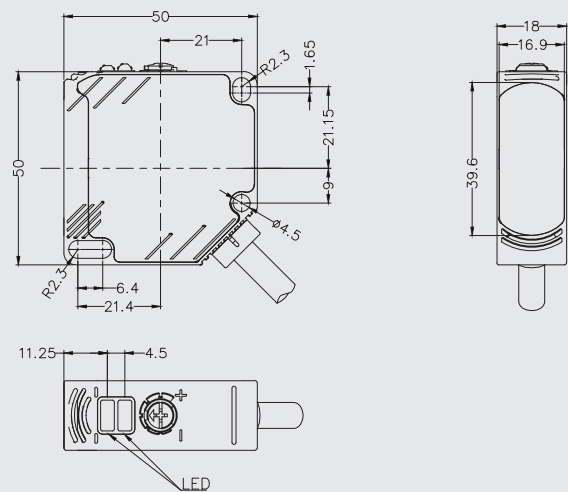


Dimensions:

M12 connector

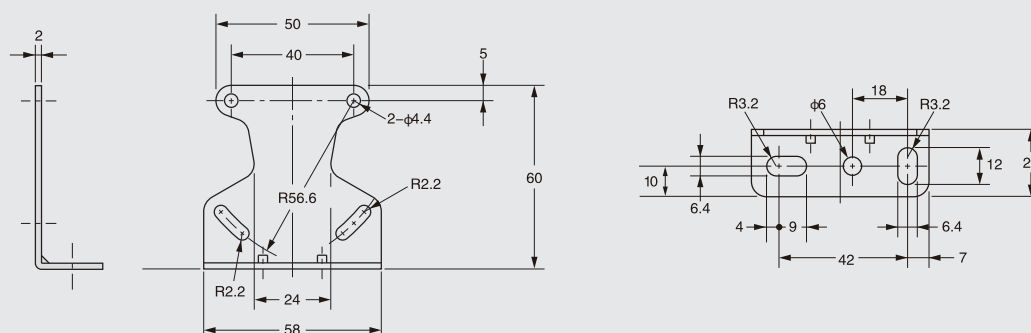


2 m cable



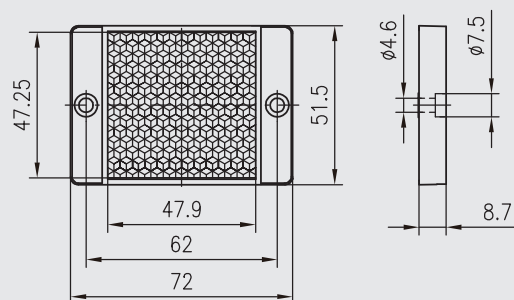
Mounting bracket (standard):

EOS50-1

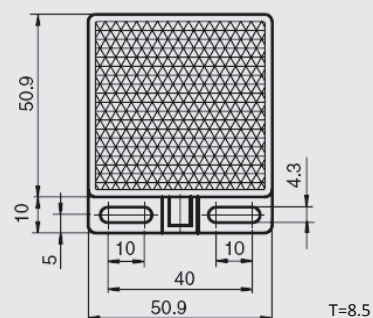


Reflector:

RB50x50-1 (standard)



RB50x50 (optional)



Photoelectric sensor - rectangular OSM70



Description:

Metal housing, 150 m laser opposed, 30 m laser retro-reflective, 25 m laser polarized retro-reflective, 3 m laser BGS diffuse, coaxial technology, no blind zone, precise positioning, wide voltage supply, relay output. Suitable for automotive manufacturing, metallurgical industry, non-standard equipment, textile machinery and others.

Features:

- BGS function greatly improves the detection effect
- Long detection distance
- Adjust the sensitivity by knob
- IP67 protection class
- Push-pull / relay output

Type: (light source-laser)

Detection mode	Type	Distance	Light source	Frequency	Output	Switching mode	Connection	Wiring
Opposed	OSM70-SL6	150 m	Laser	— —	— —	— —	2 m cable	Fig. 1
	OSM70-ELVB6		— —	800 Hz	Push-Pull	Light on / dark on	2 m cable	Fig. 4
	OSM70-SL6Q	150 m	Laser	— —	— —	— —	M12 4-pin connector	Fig. 2
	OSM70-ELVB6Q		— —	800 Hz	Push-Pull	Light on / dark on	M12 4-pin connector	Fig. 4
	OSM70-SL5	150 m	Laser	— —	— —	— —	2 m cable	Fig. 3
	OSM70-ELVR5		— —	50 Hz	Relay	Light on / dark on	2 m cable	Fig. 5

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

Retro-reflective	OSM70-RLVB6	30 m	Laser	800 Hz	Push-Pull	Light on / dark on	2 m cable	Fig. 6
	OSM70-RLVB6Q	30 m	Laser	800 Hz	Push-Pull	Light on / dark on	M12 4-pin connector	Fig. 4
	OSM70-RLVR5	30 m	Laser	50 Hz	Relay	Light on / dark on	2 m cable	Fig. 5
Polarized retro-reflective	OSM70-RPLVB6	25 m	Laser	800 Hz	Push-Pull	Light on / dark on	2 m cable	Fig. 6
	OSM70-RPLVB6Q	25 m	Laser	800 Hz	Push-Pull	Light on / dark on	M12 4-pin connector	Fig. 4
	OSM70-RPLVR5	25 m	Laser	50 Hz	Relay	Light on / dark on	2 m cable	Fig. 5

BGS TOF	OSM70-AKL3000VB6	3 m	Infrared laser + Laser indication	20-50 Hz	Push-Pull	Light on / dark on	2 m cable	Fig. 6
	OSM70-AKL3000VB6Q	3 m	Infrared laser + Laser indication	20-50 Hz	Push-Pull	Light on / dark on	M12 4-pin connector	Fig. 4
	OSM70-AKL3000VR5	3 m	Infrared laser + Laser indication	20-50 Hz	Relay	Light on / dark on	2 m cable	Fig. 5
	OSM70-AKL3000C2B6	3 m	Infrared laser + Laser indication	20-50 Hz	2xPush-Pull	Light on / dark on	2 m cable	Fig. 7
	OSM70-AKL3000C2B6Q	3 m	Infrared laser + Laser indication	20-50 Hz	2xPush-Pull	Light on / dark on	M12 4-pin connector	Fig. 8
BGS TOF	OSM70-AKL4000VB6	4 m	Infrared laser + Laser indication	20-50 Hz	Push-Pull	Light on / dark on	2 m cable	Fig. 6
	OSM70-AKL4000VB6Q	4 m	Infrared laser + Laser indication	20-50 Hz	Push-Pull	Light on / dark on	M12 4-pin connector	Fig. 4
	OSM70-AKL4000VR5	4 m	Infrared laser + Laser indication	20-50 Hz	Relay	Light on / dark on	2 m cable	Fig. 5
	OSM70-AKL4000C2B6	4 m	Infrared laser + Laser indication	20-50 Hz	2xPush-Pull	Light on / dark on	2 m cable	Fig. 7
	OSM70-AKL4000C2B6Q	4 m	Infrared laser + Laser indication	20-50 Hz	2xPush-Pull	Light on / dark on	M12 4-pin connector	Fig. 8

Photoelectric sensor - rectangular OSM70

Technical Data:

Operating voltage	10 ... 30 V DC (push-pull), 24 ... 240 V AC/DC (relay)
Ripple voltage	≤ 10%
Switch output	Push-Pull, Relay
Output characteristics	Light on + dark on
Repeatability	≤ 3%
light source	Opposed / retroreflective: red laser (655 nm) / class 2; TOF: infrared laser (940 nm) + indication laser (655 nm) / class 1
Spot diameter	5 mm@7 m, 15 mm@20 m (Opposed, Etro-reflective); 2*4 cm@1 m, 7*5 cm@2 m, 10*7 cm@3 m (Diffuse detection light source)
No-load current	≤30 mA
Load current	≤450 mA (push-pull), ≤3 A (relay)
Protection circuit	Reverse polarity protection (push-pull), short circuit protection, surge protection (relay), overload protection
Output indicator	Red LED
Steady state indicator	Green LED
Housing material	Die cast zinc
Connection	M12 connector / 2 meter cable
Operating temperature	-25 ... +55 °C; -30 ... 55 °C (OSM70-AKL4000)
Storage temperature	-40 ...+70 °C
Detection mode	BGS, Window mode, FGS (OSM70-AKL3000)
Voltage resistance	1000 V / AC 50 / 60 Hz 60 s
Insulation impedance	≥50 MΩ (500 V DC)
Shock resistance	Complex amplitude 1.5 mm 10 ... 50 Hz (2hr X, Y, Z respectively)
Impact resistance	500 m/s ² (50 G) 3 times X, Y, Z respectively
Protection class	IP67
Dimensions	27 x 54 x 84 mm

Wiring:

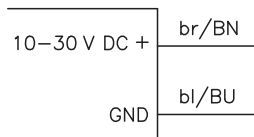


Fig. 1

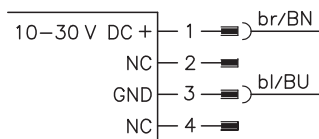


Fig. 2

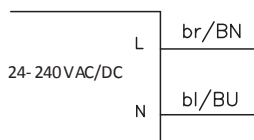


Fig. 3

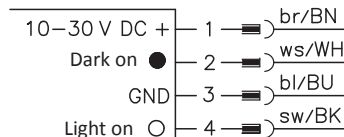


Fig. 4

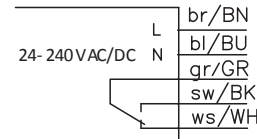


Fig. 5

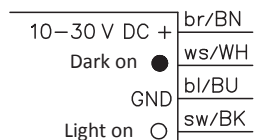


Fig. 6

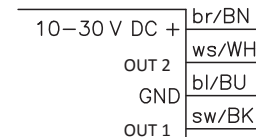


Fig. 7

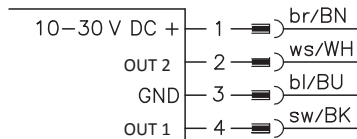
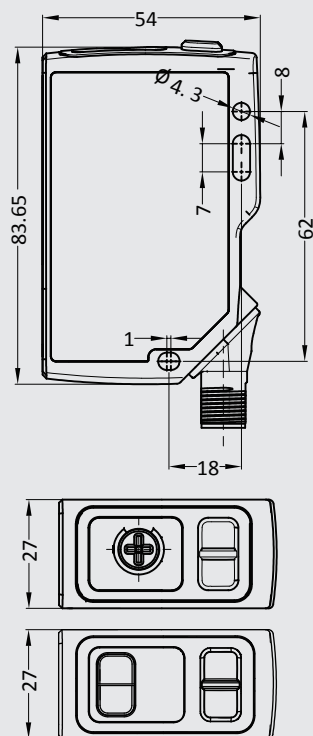


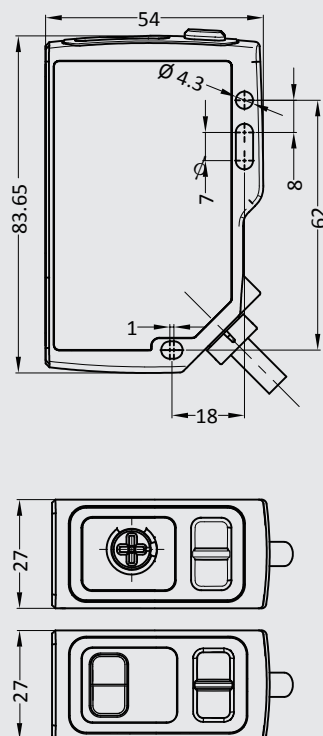
Fig. 8

Dimensions:

M12 connector

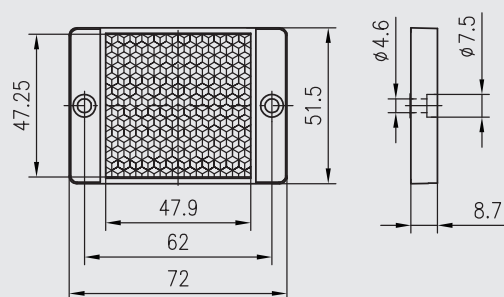


2 m cable



Reflector (optional):

RB50x50-1





Description:

Laser displacement sensor, 655 nm laser source, metal housing, LED display and button settings, rich interface. Suitable for pharmaceutical, packaging, automotive, non-standard equipment and others.

Features:

- LED digital display + teaching function
- Strong resistance to ambient light, compact size
- Analog / switch dual output

Type:

Type	Distance	Beam	Output	Resolution	Connection	Wiring
OSM40-KL35CBLIU6	25 ... 35 mm	Red laser	NPN / PNP + analog mA/V	0.001 mm	2 m cable	Fig. 1
OSM40-KL35CBLIU6Q12.1	25 ... 35 mm	Red laser	NPN / PNP + analog mA/V	0.001 mm	M12 connector	Fig. 1
OSM40-KL70CBLIU6	35 ... 70 mm	Red laser	NPN / PNP + analog mA/V	0.01 mm	2 m cable	Fig. 1
OSM40-KL70CBLIU6Q12.1	35 ... 70 mm	Red laser	NPN / PNP + analog mA/V	0.01 mm	M12 connector	Fig. 1
OSM40-KL160CBLIU6	60 ... 160 mm	Red laser	NPN / PNP + analog mA/V	0.01 mm	2 m cable	Fig. 1
OSM40-KL160CBLIU6Q12.1	60 ... 160 mm	Red laser	NPN / PNP + analog mA/V	0.01 mm	M12 connector	Fig. 1
OSM40-KL300CBLIU6	100 ... 300 mm	Red laser	NPN / PNP + analog mA/V	0.1 mm	2 m cable	Fig. 1
OSM40-KL300CBLIU6Q12.1	100 ... 300 mm	Red laser	NPN / PNP + analog mA/V	0.1 mm	M12 connector	Fig. 1
OSM40-KL800CBLIU6	150 ... 800 mm	Red laser	NPN / PNP + analog mA/V	0.1 mm	2 m cable	Fig. 1
OSM40-KL800CBLIU6Q12.1	150 ... 800 mm	Red laser	NPN / PNP + analog mA/V	0.1 mm	M12 connector	Fig. 1
OSM40-KL35CB6/485	25 ... 35 mm	Red laser	NPN / PNP + 485	0.001 mm	2 m cable	Fig. 2
OSM40-KL35CB6Q12.1/485	25 ... 35 mm	Red laser	NPN / PNP + 485	0.001 mm	M12 connector	Fig. 2
OSM40-KL70CB6/485	35 ... 70 mm	Red laser	NPN / PNP + 485	0.01 mm	2 m cable	Fig. 2
OSM40-KL70CB6Q12.1/485	35 ... 70 mm	Red laser	NPN / PNP + 485	0.01 mm	M12 connector	Fig. 2
OSM40-KL160CB6/485	60 ... 160 mm	Red laser	NPN / PNP + 485	0.01 mm	2 m cable	Fig. 2
OSM40-KL160CB6Q12.1/485	60 ... 160 mm	Red laser	NPN / PNP + 485	0.01 mm	M12 connector	Fig. 2
OSM40-KL300CB6/485	100 ... 300 mm	Red laser	NPN / PNP + 485	0.1 mm	2 m cable	Fig. 2
OSM40-KL300CB6Q12.1/485	100 ... 300 mm	Red laser	NPN / PNP + 485	0.1 mm	M12 connector	Fig. 2

Photoelectric sensor - OSM40

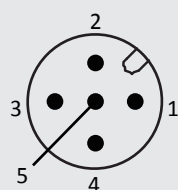
Type:

Type	Distance	Beam	Output	Resolution	Connection	Wiring
OSM40-KL800CB6/485	150 ... 800 mm	Red laser	NPN / PNP+485	0.1 mm	2 m cable	Fig. 2
OSM40-KL800CB6Q12.1/485	150 ... 800 mm	Red laser	NPN / PNP+485	0.1 mm	M12 connector	Fig. 2
OSM40-KL2000C2B6Q12.1	150 ... 2000 mm	Red laser	2 x NPN / PNP	0.1 mm	2 m cable	Fig. 4
OSM40-KL2000C2B6	150 ... 2000 mm	Red laser	2 x NPN / PNP	0.1 mm	2 m cable	Fig. 4
OSM40-KL35CB6Q12.1/IO	25 ... 35 mm	Red laser	NPN / PNP + IO-Link	0.001 mm	M12 connector	Fig. 3
OSM40-KL70CB6Q12.1/IO	35 ... 70 mm	Red laser	NPN / PNP + IO-Link	0.01 mm	M12 connector	Fig. 3
OSM40-KL160CB6Q12.1/IO	60 ... 160 mm	Red laser	NPN / PNP + IO-Link	0.01 mm	M12 connector	Fig. 3
OSM40-KL300CB6Q12.1/IO	100 ... 300 mm	Red laser	NPN / PNP + IO-Link	0.1 mm	M12 connector	Fig. 3
OSM40-KL800CB6Q12.1/IO	150 ... 800 mm	Red laser	NPN / PNP + IO-Link	0.1 mm	M12 connector	Fig. 3

Technical Data:

Supply voltage	10 ... 30 V DC
Ripple voltage	≤ 10%
No-load current	≤ 150 mA
Power	1.5 W
Analog output	4 ... 20 mA, 0 ... 5 V or 0 ... 10 V
Switch output	NPN / PNP
Communication type	RS485, IO-Link
Light source	Red laser (655 nm) / class 2
Protection circuit	Reverse polarity protection, short circuit protection, Overload protection
Response time	1.5 ms / 5 ms / 10 ms switchable
Repeatability	0.05 mm@35 ... 70 mm; 0.1 mm@60 ... 160 mm; 0.5 mm@150 ... 400 mm; 1 mm@400 ... 600 mm; 3 mm@600 ... 800 mm
Spot diameter	1 mm@150 mm; 2 mm@600 mm
Housing material	316L
Ambient temperature	-10 ... +45 °C
Voltage resistance	1000 V/AC, 50 / 60 Hz, 60 s
Insulation impedance	≥ 50 MΩ (500 V DC)
Shock resistance	Complex amplitude 1.5 mm 10 ... 50 Hz (2hr X, Y, Z respectively)
Impact resistance	500 m/s ² (50 G) 3 times X,Y, Z respectively
Protection class	IP67
Dimensions	60.4 x 20 x 35.3 mm

Interface output:



CO12.5-2/WS/P
2 m connector

Fig. 1

Serial number	Function	Core color of cable type	Core color of connector type
1	Power +	BN	BN
2	Analogue output	GY	WH
3	Power -	BU	BU
4	NPN/PNP	BK	BK
5	Enable input	PK	GY

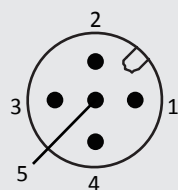


Fig. 2

Serial number	Function	Core color of cable type	Core color of connector type
1	Power +	BN	BN
2	485B	GY	WH
3	Power -	BU	BU
4	NPN / PNP	BK	BK
5	485A	PK	GY

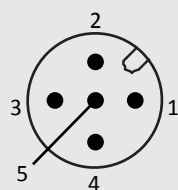


Fig. 3

Serial number	Function	Core color of connector type
1	Power +	BN
2	IO-Link-DIO; NPN / PNP	WH
3	Power -	BU
4	IO-Link-C/Q	BK
5	NC	GY

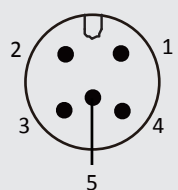
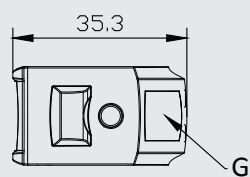
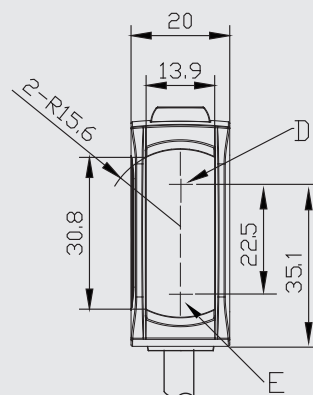
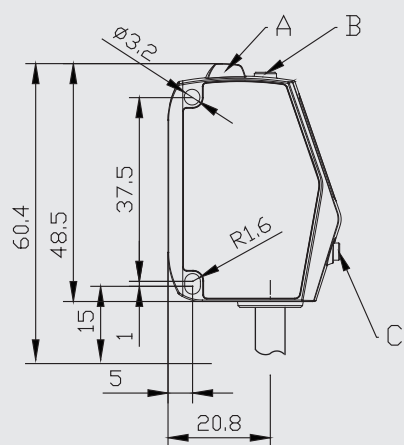
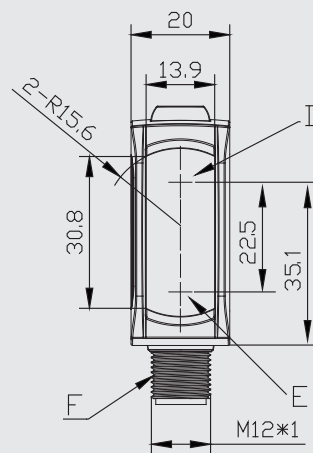
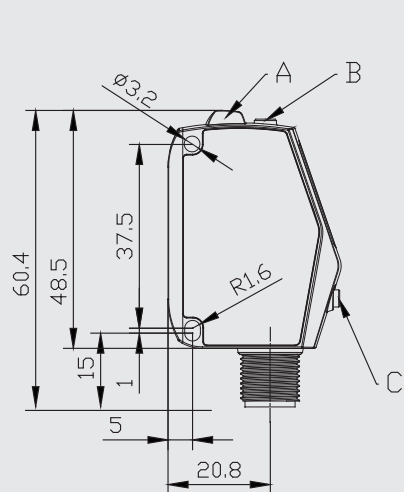


Fig. 4

Serial number	Function	Core color of cable type
1	Power +	BN
2	NPN / PNP 2	GY
3	Power -	BU
4	NPN / PNP 1	BK
5	Enable input	PK

Dimensions:



- A alarm indicator
- B function setting button
- C function adjustment button
- D emitting
- E receiving
- F M12*1 connector
- G LED display



Description:

Laser displacement sensor, Metal housing, LED display and Key settings, 655 nm Laser light source, 50 ... 400 mm Displacement-type ranging of the center point; 940 nm Infrared laser 2.5 m, 4 m TOF type ranging. Applies to dispensing machine, pharmaceutical, packaging, automotive, AGV and other industries.

Features:

- Small size, small spot & high accuracy
- More detection mode for different application
- Four white digital tubes, clear and bright indicators
- TOF type ranging with visible laser indication light source

Type:

Ranging type	Type	Distance	Beam	Output	Resolution	Connection	Wiring
Laser displacement	OSM41-KL30CBLIU6	30 mm±5 mm	Red laser	NPN / PNP + analog mA/V	0.001 mm	2 m cable	Fig. 1
	OSM41-KL50CBLIU6	50 mm±15 mm	Red laser	NPN / PNP + analog mA/V	0.01 mm	2 m cable	Fig. 1
	OSM41-KL100CBLIU6	100 mm±35 mm	Red laser	NPN / PNP + analog mA/V	0.01 mm	2 m cable	Fig. 1
	OSM41-KL200CBLIU6	200 mm±80 mm	Red laser	NPN / PNP + analog mA/V	0.1 mm	2 m cable	Fig. 1
	OSM41-KL400CBLIU6	400 mm±200 mm	Red laser	NPN / PNP + analog mA/V	0.1 mm	2 m cable	Fig. 1
	OSM41-KL1500CBLIU6	150 ... 1500 mm	Red laser	NPN / PNP + analog mA/V	0.1 mm	2 m cable	Fig. 1
	OSM41-KL30CB6/485	30 mm±5 mm	Red laser	NPN / PNP + 485	0.001 mm	2 m cable	Fig. 2
	OSM41-KL50CB6/485	50 mm±15 mm	Red laser	NPN / PNP + 485	0.01 mm	2 m cable	Fig. 2
	OSM41-KL100CB6/485	100 mm±35 mm	Red laser	NPN / PNP + 485	0.01 mm	2 m cable	Fig. 2
	OSM41-KL200CB6/485	200 mm±80 mm	Red laser	NPN / PNP + 485	0.1 mm	2 m cable	Fig. 2
	OSM41-KL400CB6/485	400 mm±200 mm	Red laser	NPN / PNP + 485	0.1 mm	2 m cable	Fig. 2
	OSM41-KL1500CB/485	150 ... 1500 mm	Red laser	NPN / PNP + 485	0.1 mm	2 m cable	Fig. 2
	OSM41-KL30C2B6	30 mm±5 mm	Red laser	2 x Push-Pull	0.001 mm	2 m cable	Fig. 3
	OSM41-KL50C2B6	50 mm±15 mm	Red laser	2 x Push-Pull	0.01 mm	2 m cable	Fig. 3
	OSM41-KL100C2B6	100 mm±35 mm	Red laser	2 x Push-Pull	0.01 mm	2 m cable	Fig. 3
	OSM41-KL200C2B6	200 mm±80 mm	Red laser	2 x Push-Pull	0.1 mm	2 m cable	Fig. 3
	OSM41-KL400C2B6	400 mm±200 mm	Red laser	2 x Push-Pull	0.1 mm	2 m cable	Fig. 3

Photoelectric sensor - OSM41

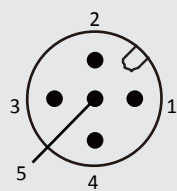
Type:

Ranging type	Type	Distance	Beam	Output	Resolution	Connection	Wiring
Laser TOF	OSM41-K2500CBLI6	50 ... 2500 mm	Infrared laser + Laser indication	NPN / PNP + analog mA	3 mm	2 m cable	Fig. 1
	OSM41-K2500CBLU6	50 ... 2500mm	Infrared laser + Laser indication	NPN / PNP + analog V	3 mm	2 m cable	Fig. 1
	OSM41-K4000CBLI6	50 ... 4000 mm	Infrared laser + Laser indication	NPN / PNP + analog mA	3 mm	2 m cable	Fig. 1
	OSM41-K4000CBLU6	50 ... 4000 mm	Infrared laser + Laser indication	NPN / PNP + analog V	3 mm	2 m cable	Fig. 1
	OSM41-K2500CB6/485	50 ... 2500 mm	Infrared laser + Laser indication	NPN / PNP + 485	3 mm	2 m cable	Fig. 2
	OSM41-K4000CB6/485	50 ... 4000 mm	Infrared laser + Laser indication	NPN / PNP + 485	3 mm	2 m cable	Fig. 2
	OSM41-KL10CBLIU6	0.01 ... 10 m	Infrared laser	NPN / PNP + analog mA/V	1 mm	2 m cable	Fig. 1
	OSM41-KL10CB6/485	0.01 ... 10 m	Infrared laser	NPN / PNP + 485	1 mm	2 m cable	Fig. 2
	OSM41-KL10C2B6	0.01 ... 10 m	Infrared laser	2 x NPN / PNP	1 mm	2 m cable	Fig. 4

Technical Data:

Supply voltage	10 ... 30 V DC
Power	< 1 W
Light source	Laser displacement: red laser (655 nm) / class 2; TOF: infrared laser (940 nm) + indication laser (655 nm) / class 1
Switch output	NPN / PNP, can be set
Analogue output	0 ... 5 V, 0 ... 10 V, 4 ... 20 mA / RS485
Spot diameter	Ø 100 µm@30 mm; Ø 100 µm@50 mm; Ø 200 µm@100 mm; Ø 500 µm@200 mm; Ø 1 mm@400 mm Ø 2 mm@600 mm; 9*5.5 cm@2.5 m; 13*8.5 cm@4 m; 50 mm@10 m
Repeatability	10 µm@30 mm; 30 µm@50 mm; 70 µm@100 mm; 200 µm@200 mm; 300 µm (200 ... 400 mm); 800 µm (400 ... 600 mm); 10 mm@4 m; 10 mm@10 m
Measurement accuracy	Laser displacement: ±0.1%F.S. (160 mm) ±0.2%F.S. (160 ... 400 mm) ±0.3%F.S. (400 ... 600 mm) ±0.5%F.S. (600 ... 800 mm) ; Laser TOF: 30 mm, 50 mm@10 m
Response frequency	Laser displacement: 1.5 ms / 5 ms / 15 ms; Laser TOF: 30 Hz; 25 Hz@10 m
Ambient temperature	-20 ... +60 °C
Operating temperature	-10 ... +50 °C
Voltage resistance	1000 V / AC / 50 / 60 Hz 60 s
Insulation impedance	≥50 MΩ (500 V DC)
Shock resistance	Complex amplitude 1.5 mm 10 ... 50 Hz (2 hr X, Y, Z respectively)
Impact resistance	500 m/s ² (50 G) 3 times X,Y, Z respectively
Housing material	Die-cast zinc
Dimensions	45.7 x 26.5 x 20 mm

Interface output:



CO12.5-2/WS/P
2 m connector
Fig. 1

Serial number	Function	Core color of cable type
1	Power +	BN
2	Analogue output	GY
3	Power -	BU
4	NPN / PNP	BK
5	Enable input	PK

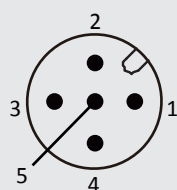


Fig. 2

Serial number	Function	Core color of cable type
1	Power +	BN
2	485B	GY
3	Power -	BU
4	NPN / PNP	BK
5	485A	PK

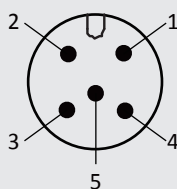


Fig. 3

Serial number	Function	Core color of cable type
1	Power +	BN
2	NPN / PNP 2	GY
3	Power -	BU
4	NPN / PNP 1	BK
5	Laser enable input/Set to 0	PK

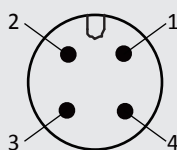
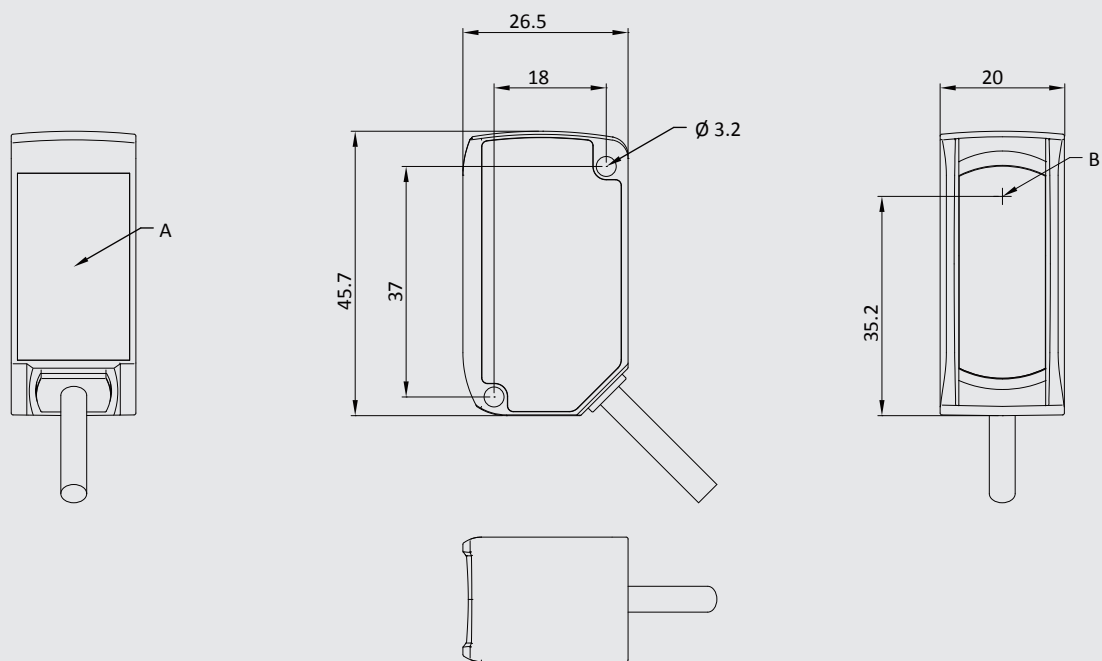


Fig. 4

Serial number	Function	Core color of cable type
1	Power +	BN
2	analog output	WH
3	Power -	BU
4	NPN / PNP	BK

Dimensions:



A Button
B Emitter



Description:

Laser distance measurement sensor, 655 nm Laser light source, metal housing; Applies to logistics, packaging, automotive, non-standard equipment and others.

Features:

- High precision, accurate positioning
- Strong resistance to ambient light, compact size
- 2 switch output
- TOF type ranging with visible laser indication light source

Type:

Ranging type	Type	Distance	Beam	Output	Resolution	Connection	Wiring
Laser displacement	OSM42-KL1200C2B6	150 ... 1200 mm	Red laser	2 x Push-Pull	1 mm	2 m cable	Fig. 1
	OSM42-KL1500C2B6	150 ... 1500 mm	Red laser	2 x Push-Pull	1 mm	2 m cable	Fig. 1
	OSM42-KL2000C2B6	150 ... 2000 mm	Red laser	2 x Push-Pull	1 mm	2 m cable	Fig. 1
Laser TOF	OSM42-K2500C2B6	50 ... 2500 mm	Infrared laser + Laser indication	2 x Push-Pull	5 mm	2 m cable	Fig. 1
	OSM42-K4000C2B6	50 ... 4000 mm	Infrared laser + Laser indication	2 x Push-Pull	5 mm	2 m cable	Fig.1

Photoelectric sensor - OSM42

Technical Data:

Supply voltage	10 ... 30 V DC
Ripple voltage	≤ 10%
No-load current	≤ 150 mA
Power	< 0.8 W
Switch output	2 x Push-Pull
Light source	Laser displacement: red laser (655 nm) / class 2; TOF: infrared laser (940 nm) + indication laser (655 nm) / class 1
Protection circuit	Reverse polarity protection, short circuit protection, Overload protection
Response time	Laser displacement: 100 Hz; TOF: 30 HZ
Repeatability	2 mm (150 ... 600 mm); 5 mm (600 ... 800 mm); 10 mm (800 ... 1200 mm)
Spot diameter	2 mm@600 mm; 3.5 mm@1200 mm; 8 mm@2000 mm
Housing material	Die-cast zinc
Ambient temperature	-20 ... +60 °C
Operating temperature	-10 ... +50 °C
Voltage resistance	1000 V/AC, 50 / 60 Hz, 60 s
Insulation impedance	≥50 MΩ (500 V DC)
Shock resistance	Complex amplitude 1.5 mm 10 ... 50 Hz (2 hr X, Y, Z respectively)
Impact resistance	500 m/s ² (50 G) 3 times X,Y, Z respectively
Dimensions	46 x 20 x 29 mm

Interface output:

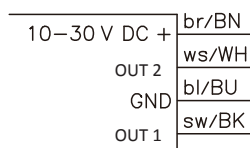


Fig. 1

	Function	Wire color
1	Power +	BN
2	Power -	BU
3	Switch 1	BK
4	Switch 2	WH

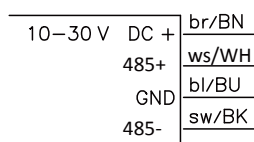
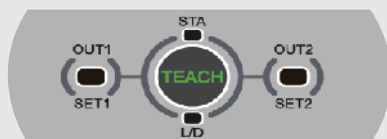


Fig. 2

	Function	Wire color
1	Power +	BN
2	Power -	BU
3	485-	BK
4	485+	WH

Indicator:



STA: status

L/D: light on / dark on

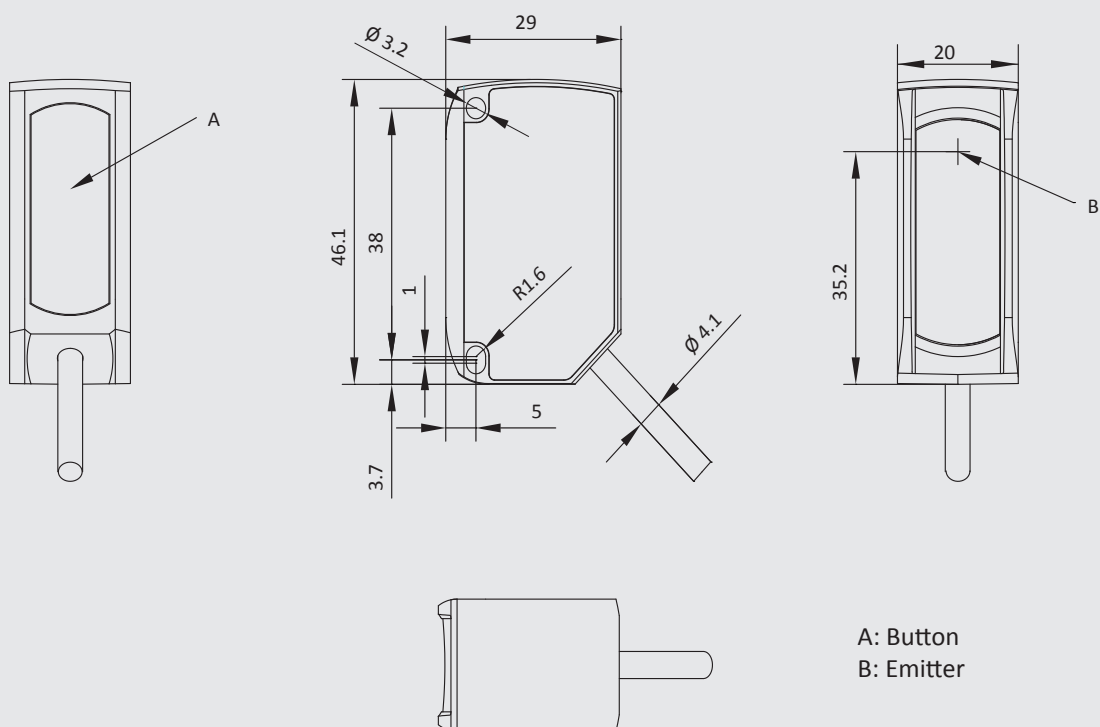
OUT1: switch 1 digital output

OUT2: switch 2 digital output

Keys instruction:

TEACH: setting

Dimensions:



Photoelectric sensors-square OSM45



Description:

Laser displacement sensor, 655 nm laser light source, metal shell, display and button settings, rich interfaces. It is suitable for pharmaceutical, packaging, automobile, woodworking machinery and non-standard equipment.

Features:

- LED digital display + teaching function
- The detection blind area is small and the structure is small
- RS485 / switch

Type:

Type	Detecting Distance	Light source	Output	Resolution	Connection	Wiring
OSM45-KL300CB6/485	25 ... 300 mm	Red laser	NPN / PNP + RS485	0.1 mm	2 m cable	Fig. 1
OSM45-KL310CB6/485	35 ... 310 mm	Red laser	NPN / PNP + RS485	0.1 mm	2 m cable	Fig. 1
OSM45-KL300CB6Q12.1/485	25 ... 300 mm	Red laser	NPN / PNP + RS485	0.1 mm	M12 connector	Fig. 2
OSM45-KL300CB6Q12.1/485	35 ... 310 mm	Red laser	NPN / PNP + RS485	0.1 mm	M12 connector	Fig. 2

Technical Data :

Supply voltage	12 ... 24 V DC
Ripple voltage	≤ 10%
No-load current	≤ 150 mA
Power	< 1 W
Switch output	NPN / PNP
communication	Light and dark button setting
Output status	RS485
Light source	Red laser (655 nm) class 1
Protective circuits	Reverse polarity protection, short circuit protection, overload protection
Switching frequency	>100 Hz (Menu settings)
Repeatability	30 ... 200 mm@1 mm; 200 ... 300 mm@3 mm
Spot diameter	1*1 mm@50 mm; 0.8*1 mm@200 mm; 1*1.2 mm@300 mm
Ambient light	>5000 lux
Housing material	Die-cast zinc
Ambient temperature	-20 ... +75 °C
Operating temperature	-20 ... +50 °C
Voltage resistance	1000 V/AC, 50 / 60 Hz, 60 s
Insulation impedance	≥50 MΩ (500 V DC)
Shock resistance	Complex amplitude 1.5 mm 10... 50 Hz (2hr X, Y, Z respectively)
Impact resistance	500 m/s ² (50 G) 3 times X,Y, Z respectively
Protection class	IP67

Interface output:

Fig.1

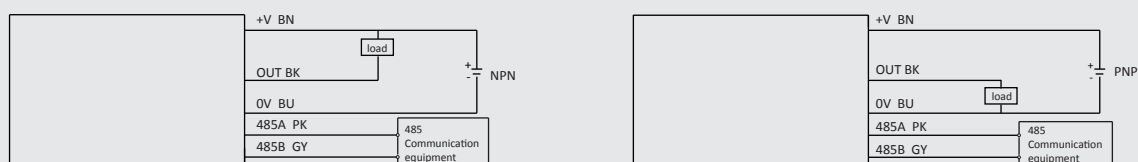
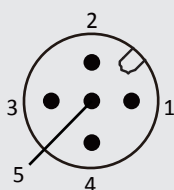
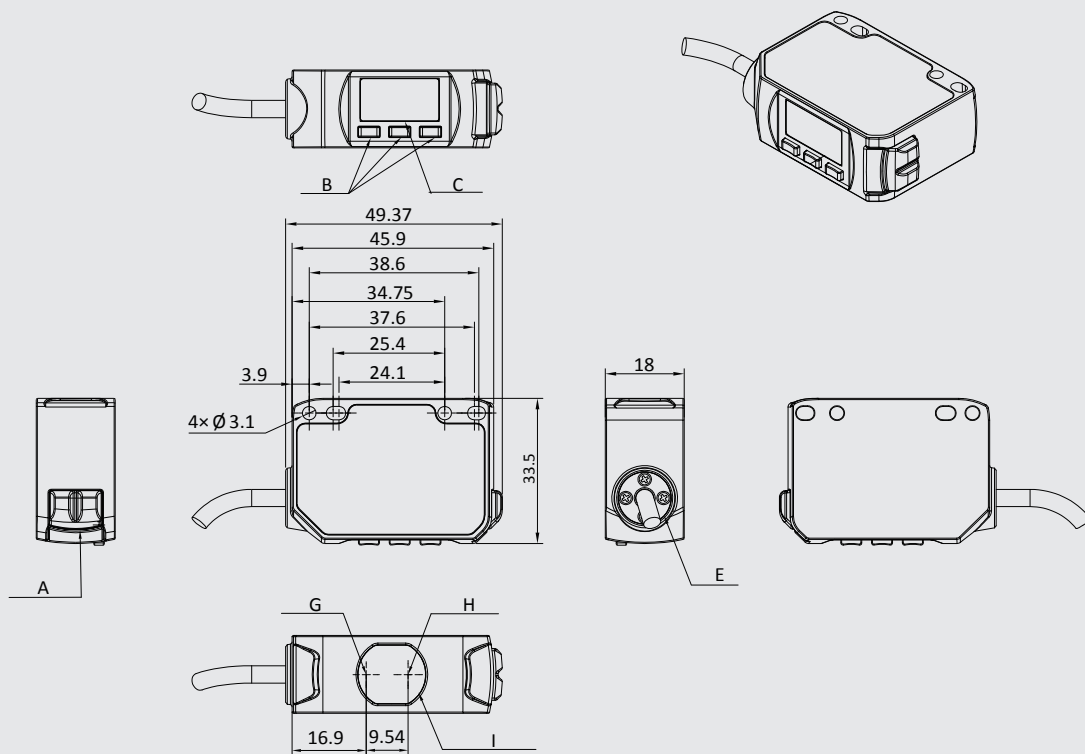
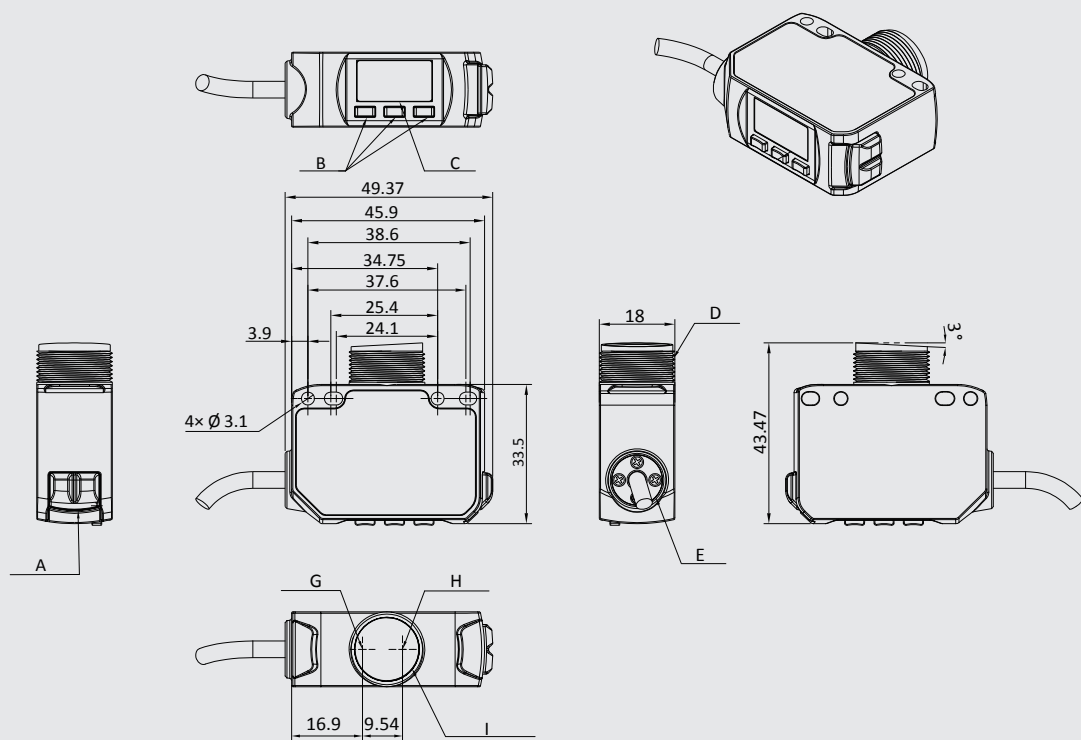


Fig.2

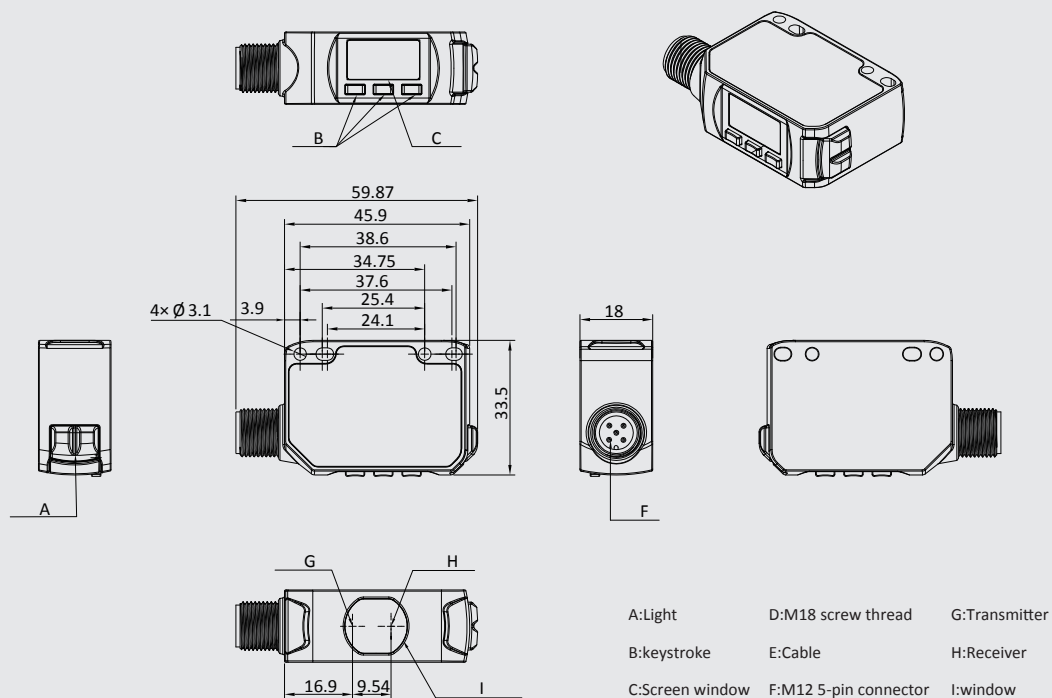
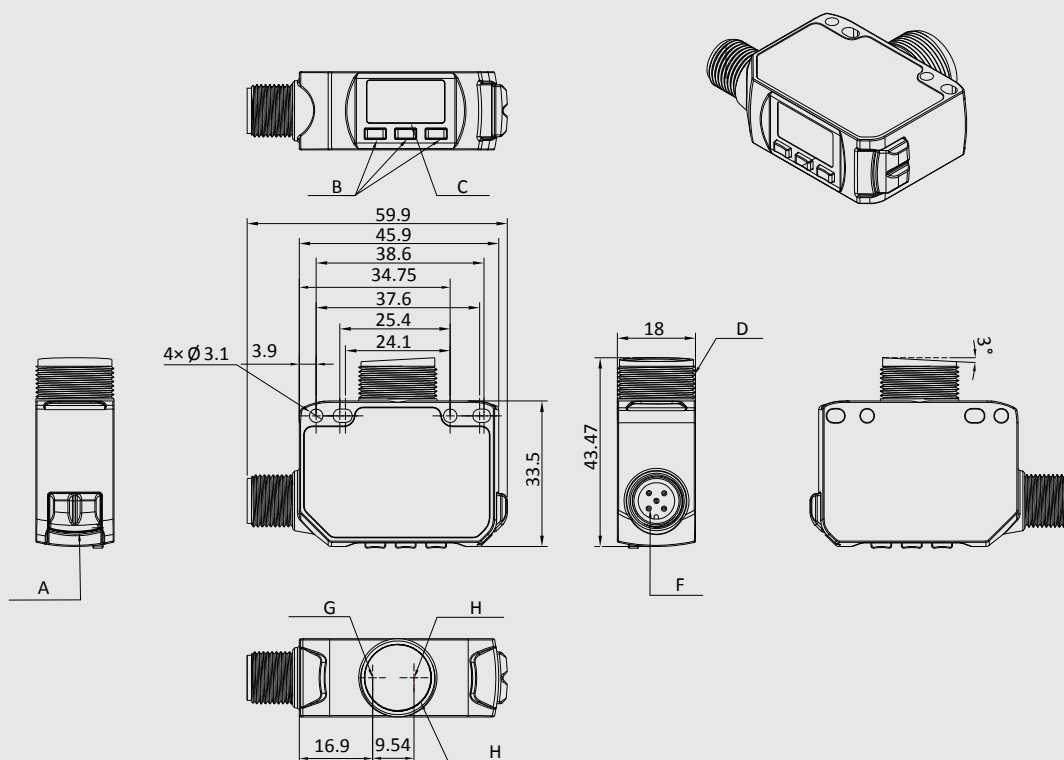


Number	Function	Core color of cable type	Core color of connector type
1	Power +	BN	BN
2	485B	GY	WH
3	Power-	BU	BU
4	NPN/PNP	BK	BK
5	485A	PK	GY

Dimensions:



Dimensions:



Photoelectric sensor - Color sensor OSM47



Description:

The combination of white LED and customized receiving optical elements ensures stable performance. OLED display function and key settings. Supports three detection modes, with a maximum of 15 colors detected simultaneously. Suitable for industries such as automotive parts, 3C, packaging, lithium batteries, photovoltaics, semiconductors, etc.

Features:

- OLED digital display + teaching function
- IO-Link
- Adjustable white spot size

Type:

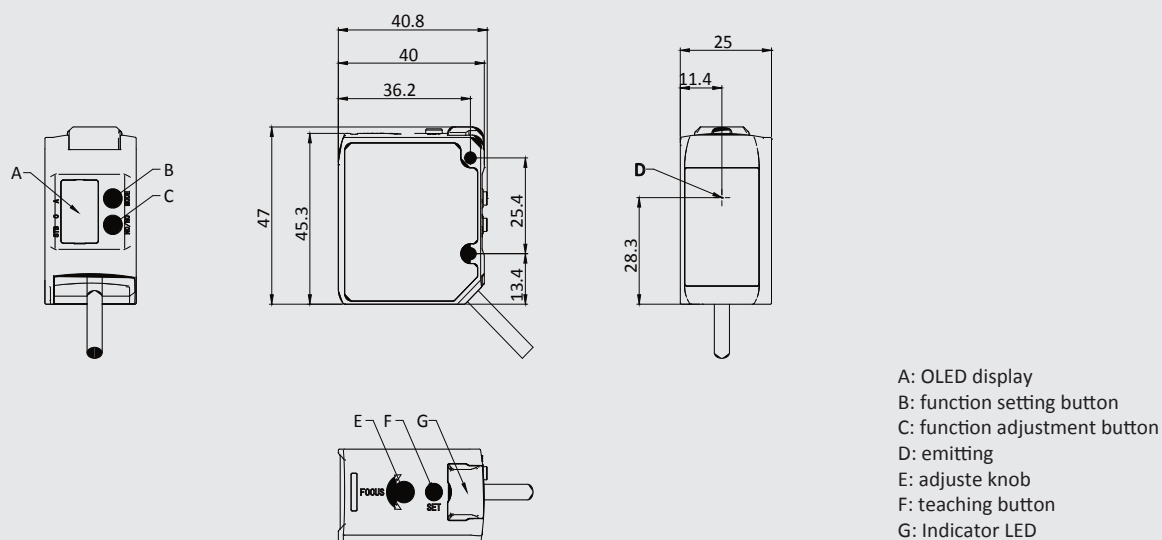
Type	Detecting Distance	Light source	Output	Connection
OSM47-CK500C2B6	30 ... 500 mm	White LED	NPN / PNP	2 m cable
OSM47-CK500C2B6Q12.1	30 ... 500 mm	White LED	NPN / PNP	M12 connector
OSM47-CK500C2B6/IO	30 ... 500 mm	White LED	NPN / PNP + IO/Link	2 m cable
OSM47-CK500C2B6Q12.1/IO	30 ... 500 mm	White LED	NPN / PNP + IO/Link	M12 connector

Technical Data:

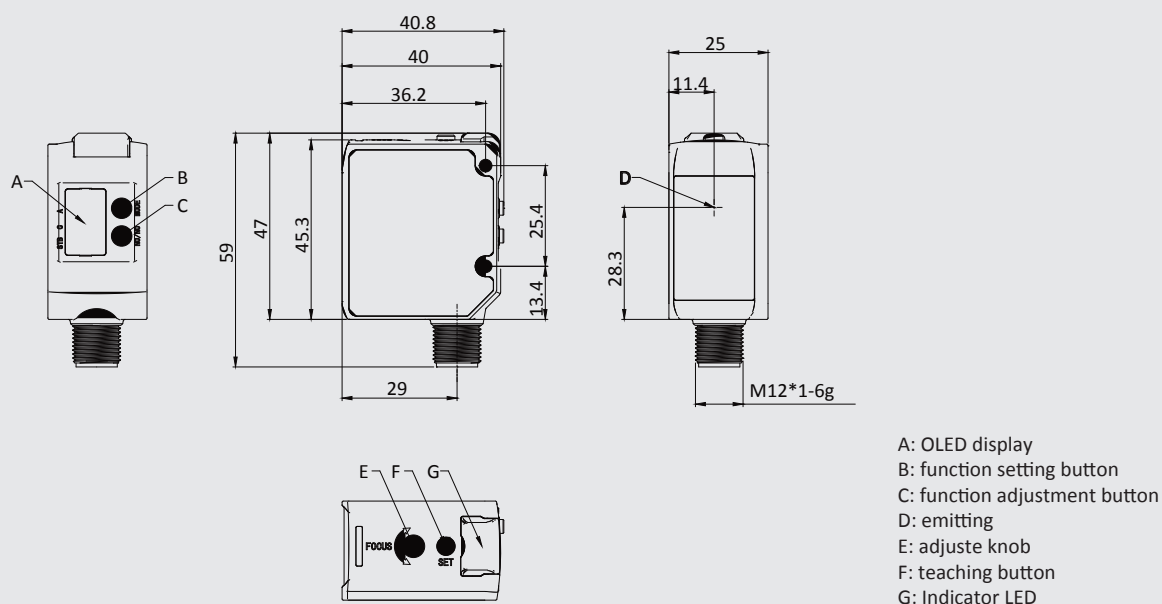
Detecting distance	30 ... 500 mm
Light source	White LED
Ripple voltage	< 1.56 W
Frequency difference	Frequencies can be set, up to 2
Output type	2 × NPN / PNP
Communication mode	IO-Link
External input	1 way can be used for external triggering
Spot size	Ø 3.5 mm@100 m; Ø 9 mm@250 m; Ø 18 mm@500 m
Load current	24 V DC 65 mA
Supply voltage	10... 30 V DC±10%
Switch mode	N.O. / N.C.
Ambient light resistance	Incandescent lamp: less than 10000 lux; Sunlight: below 20000 lux
Protection circuit	Reverse polarity protection, short circuit protection, overload protection
Response time	200 us / 1 ms / 10 ms / 500 ms
Housing material	Zinc die-casting
Connector	2 m, 5-pin, PVC; Q12 connector 5-pin
Ambient temperature	-40 ... +70 °C
Storage temperature	-20 ... +50 °C
Voltage withstanding	1000 V / AC / 50 / 60 Hz 60s
Insulation impedance	≥ 50 MΩ (500 V DC)
Shock resistance	Complex amplitude 1.5 mm 10... 50 Hz (2hr X, Y, Z respectively)
Impact resistance	500 m/s ² (50 G) 3 times X, Y, Z respectively
Protection class	IP67
Housing dimension	40.8 x 47 x 25 mm

Dimensions:

2 m cable



M12 connector



Photoelectric Sensors - Rectangular OSM61



Description:

Micron-class laser distance sensor, 655 nm laser light source, metal case, OLED display functions and key settings. Data analysis can be carried out through its own host computer software, with rich interfaces. It is suitable for auto parts, 3C, lithium battery, photovoltaic, semiconductor and other industries.

Features:

- OLED digital display + teach-in function
- The compact all-in-one body design eliminates the need to connect an external controller
- The output interface is abundant, and the host computer is connected through 485

Type:

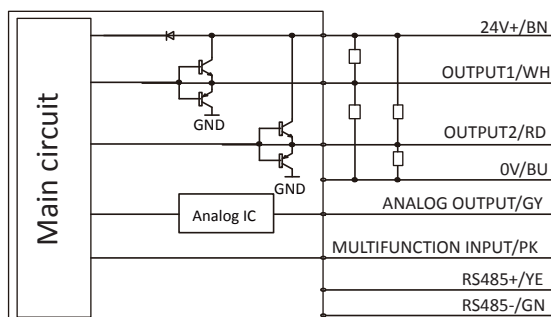
Type	Distance	Light source	Output	Resolution	Connection	Wiring
OSM61-KL30C2BLIU6/485	30±4 mm	Red laser	Push-pull+ analog V/mA + RS485	0.5 um	2 m cable	Fig. 1
OSM61-KL50C2BLIU6/485	50±10 mm	Red laser	Push-pull+ analog V/mA + RS485	1.5 um	2 m cable	Fig. 1
OSM61-KL85C2BLIU6/485	85±20 mm	Red laser	Push-pull+ analog V/mA + RS485	2.5 um	2 m cable	Fig. 1
OSM61-KL120C2BLIU6/485	120±60 mm	Red laser	Push-pull+ analog V/mA + RS485	8 um	2 m cable	Fig. 1
OSM61-KL250C2BLIU6/485	250±150 mm	Red laser	Push-pull+ analog V/mA + RS485	20 um	2 m cable	Fig. 1

Technical Data:

Operating voltage	10 ... 30 V DC $\pm$ 10% Including pulse fluctuations 0.5 V (P-P)
Light source	Red laser (655 nm) / class 2
Power	Power <2 W, current <200 mA
Analog output	LIU: 4 ... 20 mA, 0 ... 10 V
Switching output	2 $\times$ Push-Pull / NPN / PNP
Communication mode	RS485
External input	Used for zero setting and reset
linearity	30 / 50 / 85 / 120 mm: $\pm$ 0.1%F.S. , 250 mm: $\pm$ 0.3%F.S
repeatability	0.5 μ m@26 ... 34 mm; 1.5 μ m@40 ... 60 mm; 2.5 μ m@65 ... 105 mm; 8 μ m@60 ... 180 mm; 20 μ m@100 ... 400 mm
Spot diameter	$\varnothing$ 0.8 mm@30 mm; $\varnothing$ 1 mm@50 mm; $\varnothing$ 1.2 mm@85 mm; $\varnothing$ 1.2 mm@120 mm; $\varnothing$ 1.3 mm@250 mm
Protection circuit	Reverse polarity protection, short circuit protection, overload protection
Response time	200 μ s / 500 μ s / 1 ms / 2ms
Material	Shell: aluminum alloy; window: glass
Connection	2 m, 8-pin, PVC
Ambient temperature	-20 ... +60 °C
Operating temperature	-10 ... +50 °C
Voltage withstanding	1000 V / AC / 50 / 60 Hz 60 s
Insulation impedance	$\geq$ 50 M Ω (500 V DC)
Shock resistance	Complex amplitude 1.5 mm 10 ... 50 Hz (2hr X, Y, Z respectively)
Impact resistance	500 m/s ² (50 G) 3 times X, Y, Z respectively
Protection class	IP67
Dimension	61.1 x 21.8 x 58.5 mm

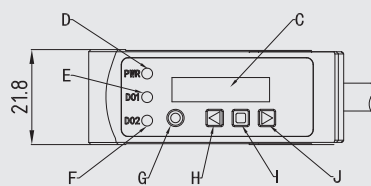
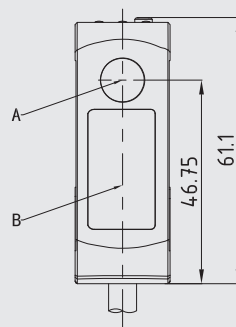
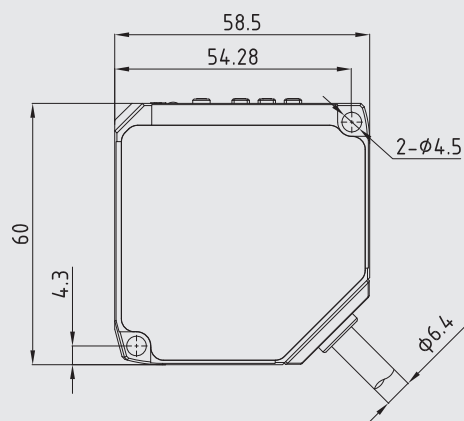
Interface output:

Fig.1



No.	Colour	Feature
1	BN	24 V+
2	BU	0 V
3	WH	Switching quantity 1
4	RD	Switching quantity 2
5	YE	RS485+
6	GN	RS485-
7	GY	Analog V/mA
8	PK	External input

Dimensions:



- A. Emitter
- B. Receiver
- C. Display
- D. Power indicator / alarm indicator
- E. Switching quantity 1 Output indicator
- F. Switch quantity 2 Output indicator
- G. Backspace key
- H. Page up key
- I. Confirm key
- J. Scroll down key



Description:

Long distance laser ranging products can measure distances of up to 100 meters, with a small size and a sturdy metal casing. Key parameters such as resolution, accuracy, repeatability, and detection frequency perform well across the entire range. Suitable for shelf handling machines, automatic parking systems, lifting equipment, etc.

Features:

- Featuring a clear OLED display and adjustment buttons
- Small and sturdy metal casing
- Rich fieldbus interfaces

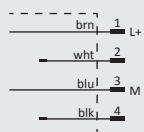
Type:

Mode	Detection mode	Detection distance	Light source	Interface	Connection
OSM300-RPL100EIPSIQ12	Retro-reflective	0.15 ... 100 m	Red Laser	Ethernet/IP + SSI	M12 connector
OSM300-RPL100PNSIQ12	Retro-reflective	0.15 ... 100 m	Red Laser	Profinet + SSI	M12 connector

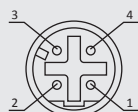
Technical Data:

Supply voltage	DC 18 ... 30 V; (current < 250 mA@DC 24 V)
Light source	Red Laser, class2
Measuring range	0.15 ... 100 m, on the reflective film "Diamond Grade".
Resolution	0.1 mm, 0.125 mm, 1 mm, 10 mm, 100 mm
Repeatability	2 mm
Response time	2 ms
Measurement cycle	1 ms
Output time	1 ms
Spot size	5 mm + (2 mm × distance in meters)
Communications	Ethernet/IP, Profinet, SSI (One-way output)
Connection type	M12 connector
Display	6-digit OLED display
Modulation frequency	fixed
Material	Housing: die-cast aluminum, window: PMMA
Storage temperature	-40 ... +75 °C
Operating temperature	-20 ... +55 °C
Ingress protection	IP65
Dimensions	69.6 x 83.5 x 104.5mm
Install the accessories	EOSM300-1 can be used alone, EOSM300-2 and EOSM300-1 can be used as a set
Cable accessories	Power cord: CO12.4- ; Ethernet cable: E16DA4002M0 0; SSI communication line: CO12.5- /WS-BC; (represents cable length)

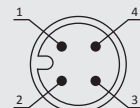
Interface Definition:



Power

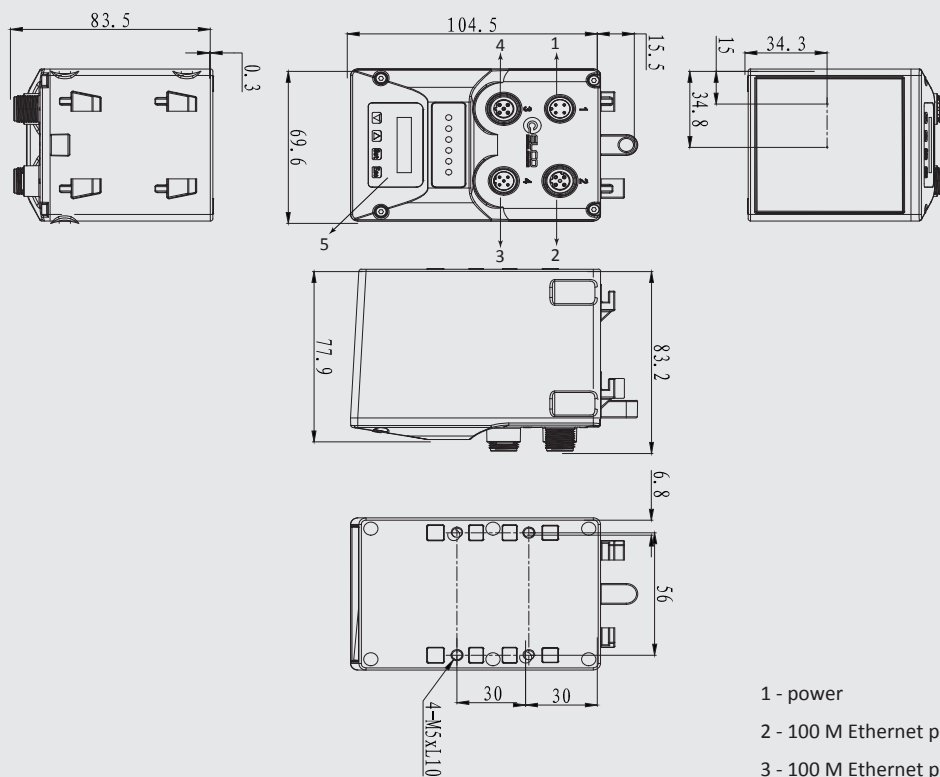


Profinet
Ethernet connection
type (port0, port1)



SSI

Dimensions:



- 1 - power
- 2 - 100 M Ethernet port / Profinet - port0
- 3 - 100 M Ethernet port / Profinet - port1
- 4 - SSI Interface
- 5 - wiesbarton dispolet

Deviation correction sensor - Inductor



Description:

The OSMT60 series needs to be used with the OSC1 controller with a push-button teaching function. A variety of working modes are available, and there are multiple output types at the same time. Applicable to pharmaceuticals, packages installation, lithium battery, photovoltaic, non-standard equipment, etc.

Features:

- High precision, split inductor
- Use it with a controller to adapt to more scenarios and output more modes

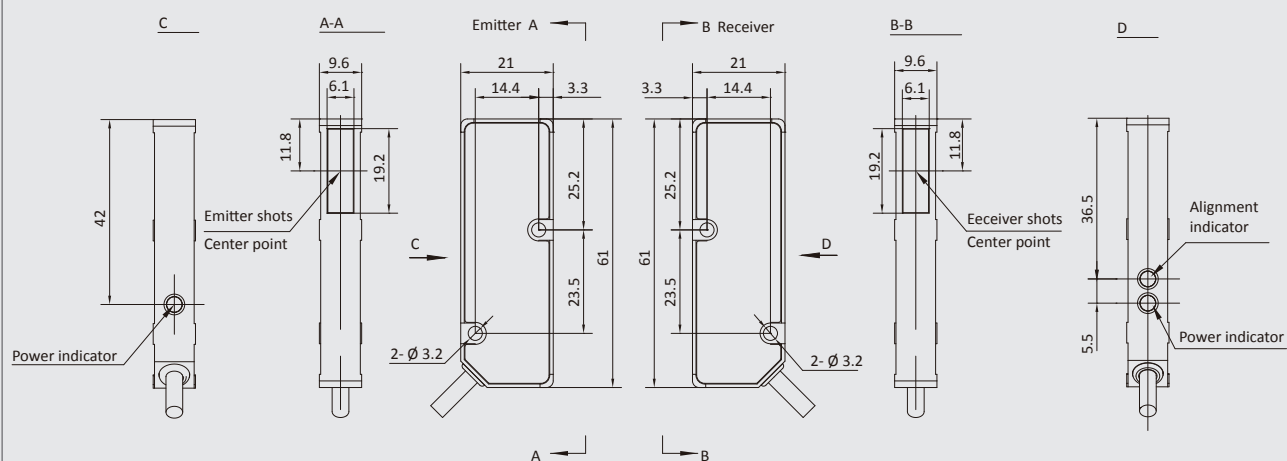
Type:

Detection mode	Type	Distance	Light source	Repeatability	Connection
Opposed	OSMT60-S3006-0.3-Q8 (Emitter)	300 mm	Laser	$\pm 5 \mu\text{m}$	M8 connector, 4-pin
	OSMT60-E3006-0.3-Q8 (Receiver)	300 mm	— —	$\pm 5 \mu\text{m}$	M8 connector, 4-pin
	OSMT60-T300 (Emitter + Receiver)	300 mm	Laser	$\pm 5 \mu\text{m}$	M8 connector, 4-pin

Technical Data:

Light source	Red laser (655 nm) / class 1
Operating voltage	DC 12 ... 24 V
Ripple voltage	$\leq 10\%$
Supply current	Emitter: $< 20 \text{ mA}$, Receiver: $< 0 \text{ mA}$ (DC 12 V)
Connection	0.3m cable + M8 connector, 4-pin
linearity	Installation distance 100mm: $+0.4\% \text{FS}$ (40 μm)
Temperature characteristic	$\pm 0.02\% \text{ F.S.} / ^\circ\text{C}$
Response time	500 μs
Spot size	3 x 14 mm
Measuring range	Measuring width 10 mm
Indicator	Transmitter Power Indicator: Green; receiver indicator: the upper offset red light flashes, the lower offset green light flashes, and the transmitted light is not received at the same time
Protective circuit	Reverse polarity protection, short circuit protection, overload protection
Ambient temperature	$-10 \dots +50 ^\circ\text{C}$ / 35~85%RH (No condensation · freezing)
Storage temperature	$-20 \dots +60 ^\circ\text{C}$ / 35~85%RH (No condensation · freezing)
Shock resistance	Complex amplitude 1.5 mm 10 ... 50 Hz (2hr X, Y, Z respectively)
Impact resistance	500m/s ² (50G) 3 times X, Y, Z respectively
Protection class	IP50
Housing material	Housing: aluminum alloy, transmitting and receiving lens: glass

Dimensions: (Opposed)



Deviation correction sensor - Controller



Description:

The OSC1 series controller is used in conjunction with the guiding sensor head with a presskey teach-in function. Multiple operating modes are selectable and multiple output types are available. Suitable for pharmaceutical, packaging, lithium battery, photovoltaic, non-standard equipment, etc.

Features:

- The high-precision sensor controller is installed separately
- It supports multiple detection modes and multi-scenario applications
- Equipped with an organic EL display, available in Chinese and English

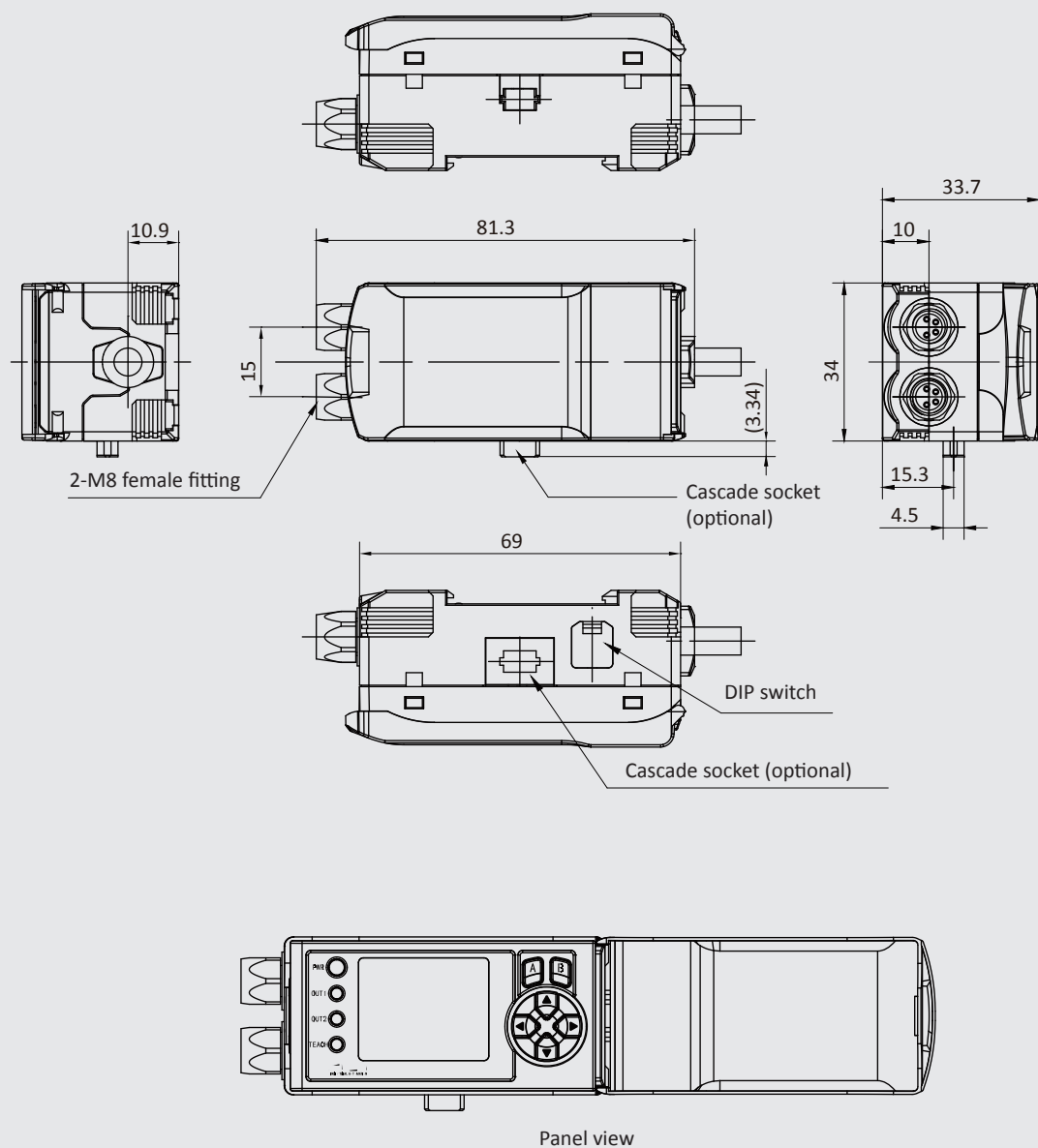
Type:

Type	Output	Sensor connection	Sensor communication	Number of induction head connections	Connection
OSC1-UC2B6-Q8/485	NPN / PNP + 485	M8 connector, 4-pin	RS485	max. 2	2 m cable
OSC1-TC2B6-Q8/485	NPN /PNP + 485	M8 connector, 4-pin	RS485	max. 2	2 m cable
OSC1-TC2BLIU6-Q8	NPN / PNP + Analog mA/V	M8 connector, 4-pin	RS485	max. 2	2 m cable

Technical Data:

Operating voltage	DC 12 ... 24 V
Ripple voltage	≤ 10%
Supply current	< 120 mA (DC 12 V)
Sensor connection	Max.2, M8 connector, 4-pin
Sensor communication	RS485
Output type	2 PNP/NPN optional, Max.100 mA/DC 24 V, RS485 2 output analog current / voltage can be switched, current: 4 ... 20 mA, voltage: 0 ... 10 V
Protective circuit	Reverse polarity protection, short circuit protection, overload protection
Sensitivity	Button settings
Display features	Dot-matrix display Chinese / English optional
Indicator	Power indicator: green, output indicator: orange
Ambient temperature	-20 ... +50 °C / 35~85%RH (No condensation · freezing)
Storage temperature	-20 ... +60 °C / 35~85%RH (No condensation · freezing)
Shock resistance	Complex amplitude 1.5 mm 10 ... 50 Hz (2hr X, Y, Z respectively)
Impact resistance	500 m/s ² (50G) 3 times X, Y, Z respectively
Protection class	IP50
Housing material	PC

Dimensions:



Deviation correction sensor - Communication Unit



Description:

The M1-EC6 communication unit module can be connected to the OSC1 series controller EtherCAT network. It can be operated directly on the host computer, and the parameters can be adjusted remotely, which can avoid the inconvenience of manual adjustment.

Features:

- EtherCAT communication is supported
- It can be directly cascaded and rail-mounted

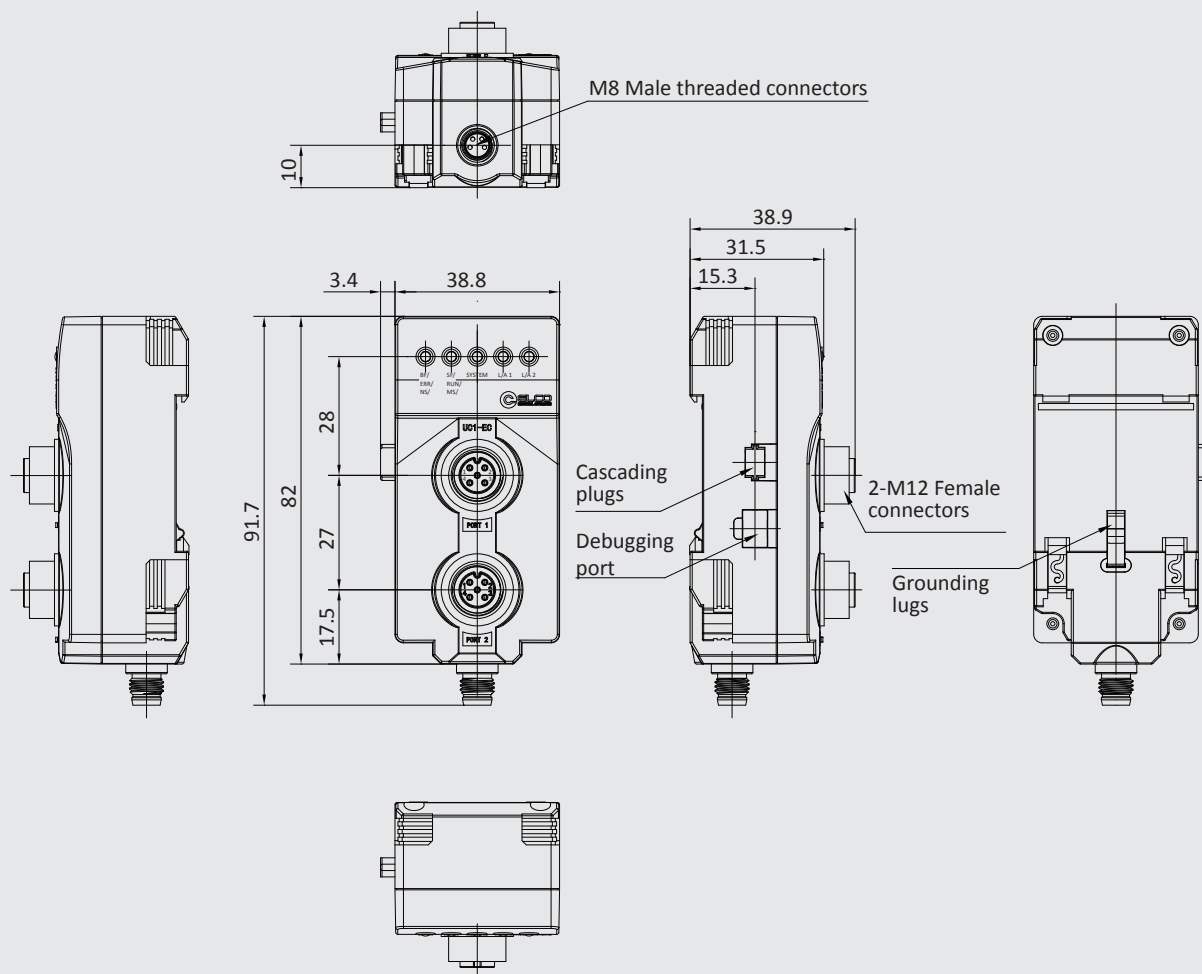
Type:

Type	Communication mode	Transmission speed	Connection port
M1-EC6	EtherCAT	100 M Baud	2 × M12*LAN + 1 cascade port

Technical Data:

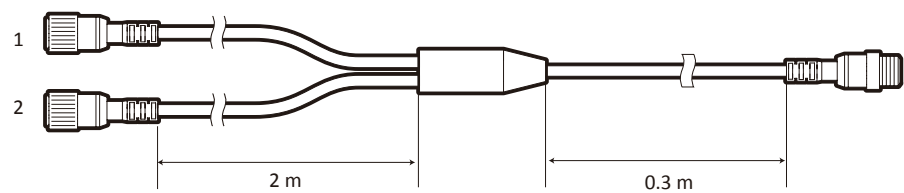
Operating voltage	DC 12 ... 24 V
Ripple voltage	≤ 10%
Supply current	< 100 mA (DC 12 V)
Connecting sensor	It can be connected to the OSC1 series controller
Number of connections	Up to 8 controllers can be connected
Connection	Connector, 5-pin
Circuit settling time	< 1.5 s
Transmission speed	EtherCAT: 100 M Baud, EtherNet/IP: 10/100 Mbps
Communication unit	EtherCAT, EtherNet/IP, PROFINET
Indicator	EtherCAT - Power indicator: green (PWR), alarm light: red (ERR), running indicator: green (RUN), action indicator: green (SYSTEM), PORT1 indicator: green (L/A1), PORT2 indicator: green (L/A2) EtherNet/IP - Power indicator: green (PWR), Network status indicator: red/green (NS), Device status indicator: red/green (MS), action indicator: green (SYSTEM), PORT1 indicator: green (L/A1), PORT2 indicator: green (L/A2)
Protective circuit	Reverse polarity protection, short circuit protection, overload protection
Ambient temperature	-25 ... +55 °C / 35~85%RH (No condensation · freezing)
Storage temperature	-40 ... +70 °C / 35~85%RH (No condensation · freezing)
Shock resistance	Complex amplitude 1.5 mm 10 ... 50 Hz (2 hr X, Y, Z respectively)
Impact resistance	500 m/s ² (50 G) 3 times X, Y, Z respectively
Protection class	IP50
Housing	PC

Dimensions:

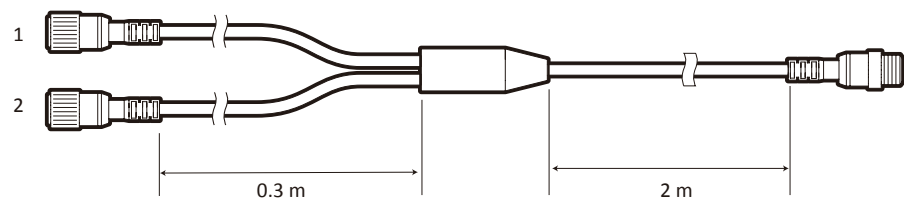


Deviation correction sensor - Cable Accessories

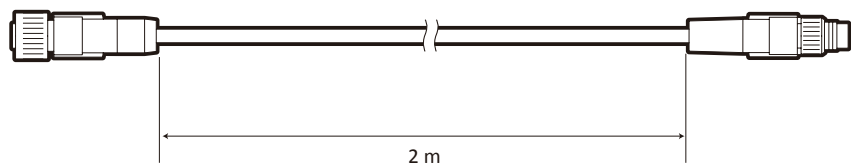
ECS-C8.4-0.3-2CO8.4-2/2/P44



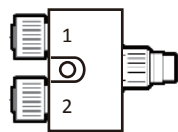
ECS-C8.4-2-2CO8.4-0.3/0.3/P44



CO8.4-2-C8.4



ECS-ECO8.4/P44





Description:

Optical data transmission does not require line connections, allowing for simple, low-cost, fast, and flexible transmission of data to terminal devices. Fast Ethernet without protocols can perform high-speed broadband transmission without any problems, with transmission speeds up to 100 Mbit/s.

Features:

- OLED digital display and button adjustment
- Red laser light and infrared laser light
- Transmission rate: 100 Mbit/s

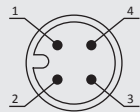
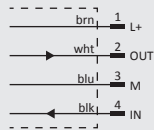
Type:

Mode	Detection distance	Light source	Output	Interface	Connection
ODC300-T120 (A+B)	0.3 ... 120 m	Red Laser + Infrared laser	PNP / NPN	Ethernet	M12 connector
ODC300-120ACBEN6Q12	0.3 ... 120 m	Red Laser	PNP / NPN	Ethernet	M12 connector
ODC300-120BCBEN6Q12	0.3 ... 120 m	Infrared laser	PNP / NPN	Ethernet	M12 connector

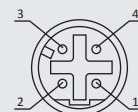
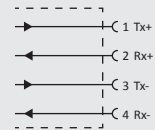
Technical Data:

Supply voltage	DC 18 ... 30 V
Light source	Red Laser (660 nm), infrared laser (780 nm)
Laser class	1 M
Divergence angle	1 ° (Emitter) , 1.5 ° (Receiver)
Spot size	1.75 m @100 m
Input	Number of digital switch inputs: 1
Output	Number of digital switch outputs: 1, PNP / NPN / PP, can be manually set
Interface	Main types: PROFINET Transport protocol: PROFINET, EtherCAT, PROFI-safe, TCP/IP Common types: EtherNet TCP/IP, PROFINET
Transmission rate	Ethernet, Profinet (100 Mbit/s)
Number of interfaces	2 x M12 connector
Display	OLED
Input operation	Keys
Housing material	Shell: aluminium alloy; window: glass
Storage temperature	-35 ... +70 °C
Ambient temperature	-20 ... +50 °C
Protection class	IP65
Dimensions	100 x 156 x 110 mm

Wiring:

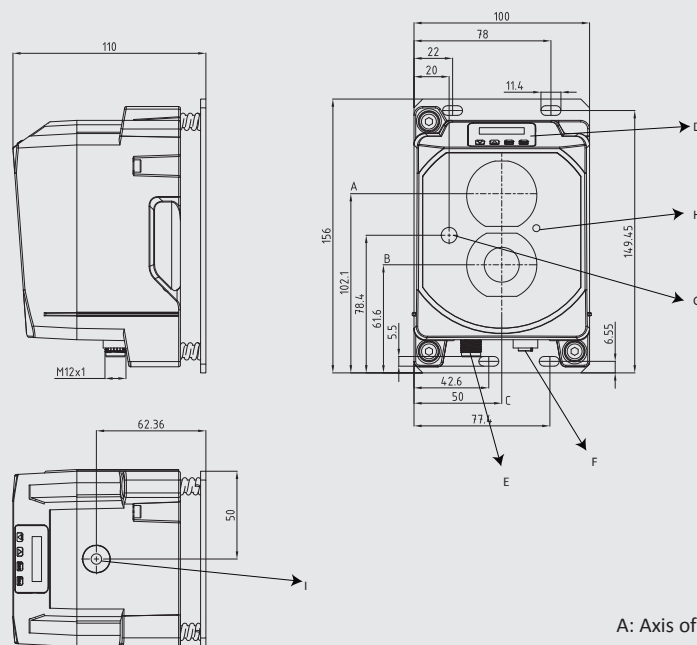


Type of power connector

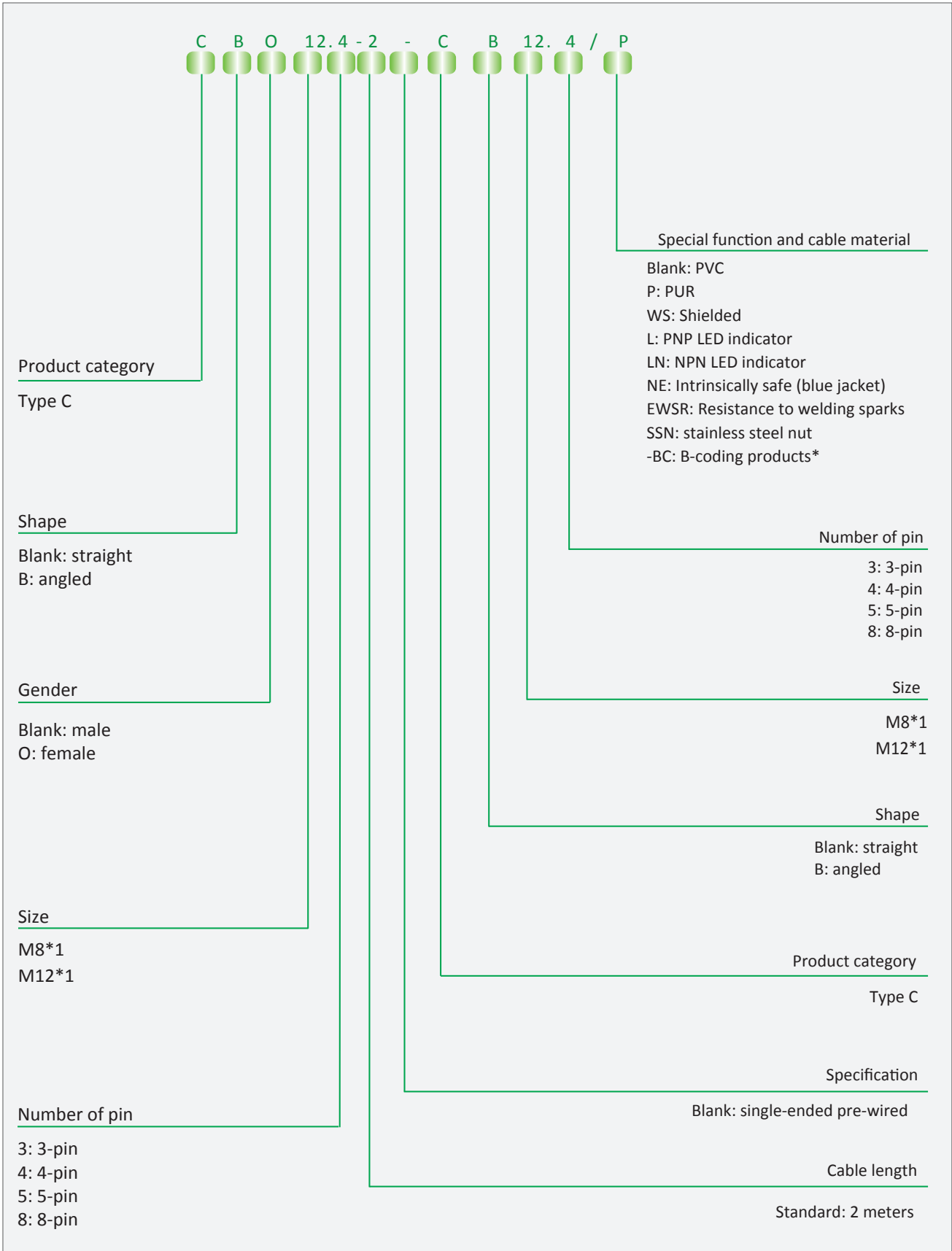


Type of Ethernet connector

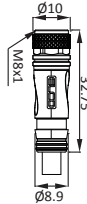
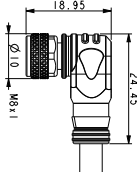
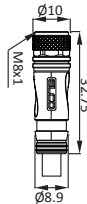
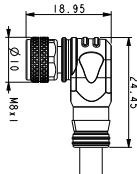
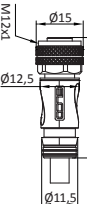
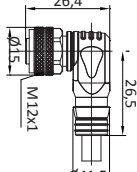
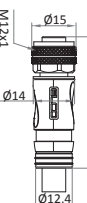
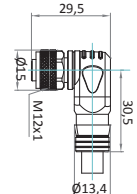
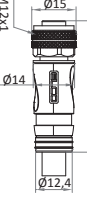
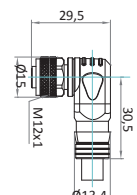
Dimensions:



- A: Axis of transmitter
- B: Receiver Axis
- C: Transmitter and receiver axis
- D: Button display screen
- E: Power interface M12, 4-pin
- F: Ethernet M12,4 holes
- G: Calibration Laser
- H: Status indicator light
- I: Optical alignment auxiliary equipment

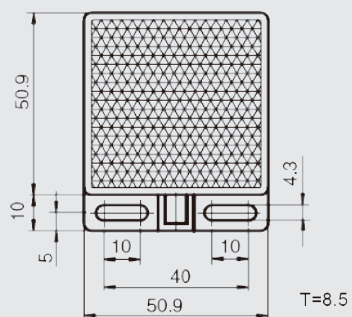


Accessories - connector

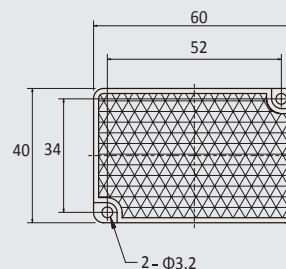
Size and pin assignment	Adapter connector																	
	Straight	Angled																
M8  <table><tr><td>1</td><td>br/BN</td></tr><tr><td>3</td><td>bl/BU</td></tr><tr><td>4</td><td>sw/BK</td></tr></table>	1	br/BN	3	bl/BU	4	sw/BK												
1	br/BN																	
3	bl/BU																	
4	sw/BK																	
M8  <table><tr><td>1</td><td>br/BN</td></tr><tr><td>2</td><td>ws/WH</td></tr><tr><td>3</td><td>bl/BU</td></tr><tr><td>4</td><td>sw/BK</td></tr></table>	1	br/BN	2	ws/WH	3	bl/BU	4	sw/BK										
1	br/BN																	
2	ws/WH																	
3	bl/BU																	
4	sw/BK																	
M12  <table><tr><td>1</td><td>br/BN</td></tr><tr><td>2</td><td>ws/WH</td></tr><tr><td>3</td><td>bl/BU</td></tr><tr><td>4</td><td>sw/BK</td></tr></table>	1	br/BN	2	ws/WH	3	bl/BU	4	sw/BK										
1	br/BN																	
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M12  <table><tr><td>1</td><td>br/BN</td></tr><tr><td>2</td><td>ws/WH</td></tr><tr><td>3</td><td>bl/BU</td></tr><tr><td>4</td><td>sw/BK</td></tr><tr><td>5</td><td>Blindloch/ dummy hole</td></tr></table>	1	br/BN	2	ws/WH	3	bl/BU	4	sw/BK	5	Blindloch/ dummy hole								
1	br/BN																	
2	ws/WH																	
3	bl/BU																	
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5	Blindloch/ dummy hole																	
M12  <table><tr><td>1</td><td>ws/WH</td></tr><tr><td>2</td><td>br/BN</td></tr><tr><td>3</td><td>gn/GN</td></tr><tr><td>4</td><td>ge/YE</td></tr><tr><td>5</td><td>gr/GY</td></tr><tr><td>6</td><td>rs/PK</td></tr><tr><td>7</td><td>bl/BU</td></tr><tr><td>8</td><td>rt/RD</td></tr></table>	1	ws/WH	2	br/BN	3	gn/GN	4	ge/YE	5	gr/GY	6	rs/PK	7	bl/BU	8	rt/RD		
1	ws/WH																	
2	br/BN																	
3	gn/GN																	
4	ge/YE																	
5	gr/GY																	
6	rs/PK																	
7	bl/BU																	
8	rt/RD																	

Reflector:

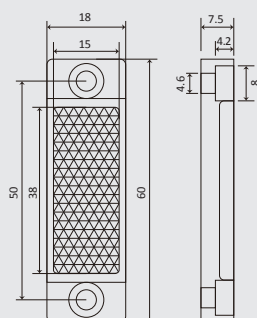
RB50*50



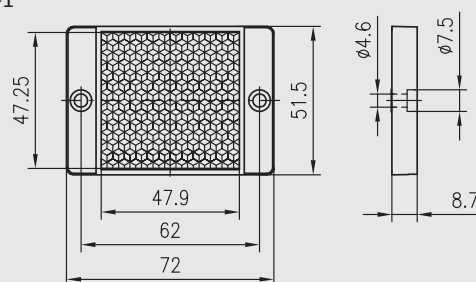
RB40*60



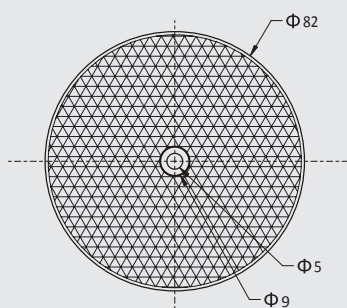
RB20*40



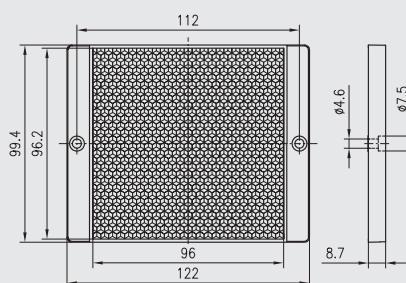
RB50*50-1



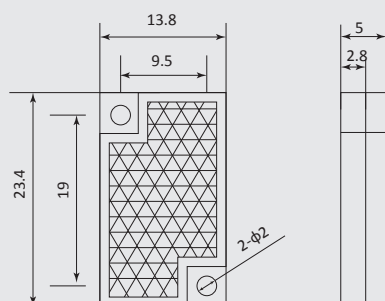
RB80



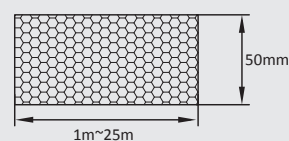
RB100*100



RB15*25

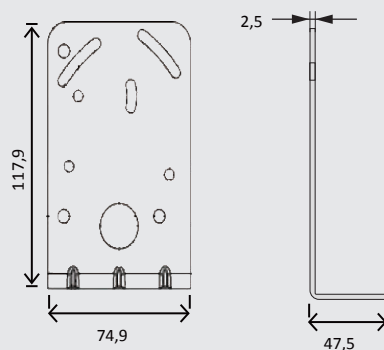


Reflective tape
RT50-1



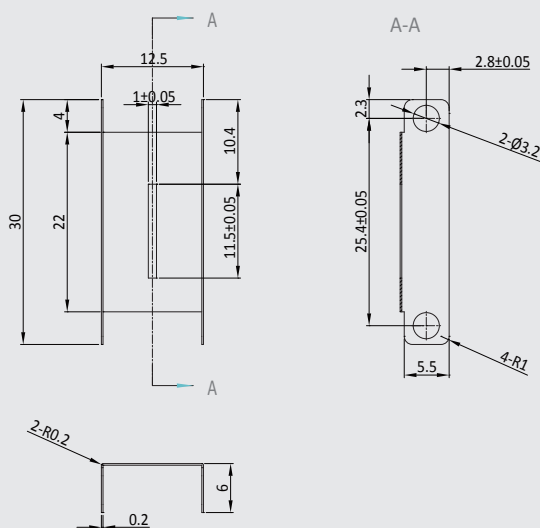
Mounting bracket:

OSM72 series mounting bracket
EOSM72-1

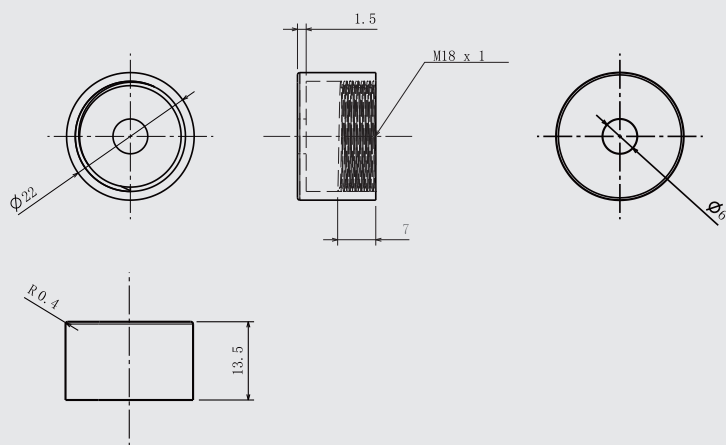


Slit:

OS10 series slit
SOS10-1



OM18 \ OP18 \ OG18 slit
SOM18-1





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