



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

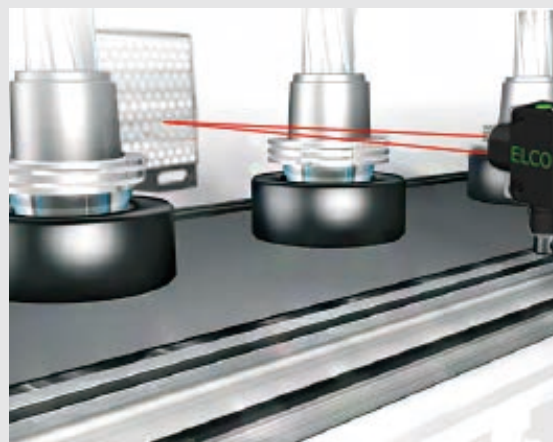
- Compact size
- Long sensing range
- Visible red beam, laser beam

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

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

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)	25 m	— —	800 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OSQ18-EVN6 (receiver)	25 m	— —	800 Hz	NPN	NO + NC	2 m cable	Fig. 4
	OSQ18-S6Q (emitter)	25 m	Infrared	— —	— —	— —	M12 connector	Fig. 2
	OSQ18-EVP6Q (receiver)	25 m	— —	800 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OSQ18-EVN6Q (receiver)	25 m	— —	800 Hz	NPN	NO + NC	M12 connector	Fig. 6
	OSQ18-SL306 (emitter)	30 m	Red laser	— —	— —	— —	2 m cable	Fig. 1
	OSQ18-EL30VP6 (receiver)	30 m	— —	800 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OSQ18-EL30VN6 (receiver)	30 m	— —	800 Hz	NPN	NO + NC	2 m cable	Fig. 4
	OSQ18-SL306Q (emitter)	30 m	Red laser	— —	— —	— —	M12 connector	Fig. 2
	OSQ18-EL30VP6Q (receiver)	30 m	— —	800 Hz	PNP	NO + NC	M12 connector	Fig. 5
	OSQ18-EL30VN6Q (receiver)	30 m	— —	800 Hz	NPN	NO + NC	M12 connector	Fig. 6
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	Red laser	800 Hz	PNP	NO + NC	2 m cable	Fig. 3
	OSQ18-RPLVN6	0.1 ... 8 m	Red laser	800 Hz	NPN	NO + NC	2 m cable	Fig. 4
Diffused	OSQ18-K200VP6	200 mm	Red	800 Hz	PNP	NO + NC	2 m cable	Fig. 7
	OSQ18-K200VN6	200 mm	Red	800 Hz	NPN	NO + NC	2 m cable	Fig. 8
	OSQ18-K200VP6Q	200 mm	Red	800 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OSQ18-K200VN6Q	200 mm	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

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%
Laser class	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.
Ambient temperature	-25 ... +55 °C
Storage temperature	-40 ... +70 °C
Operating environment humidity	35% to 85%RH (no condensation)
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

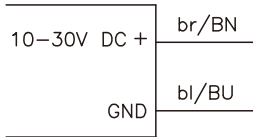


Fig. 1

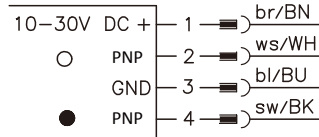


Fig. 5

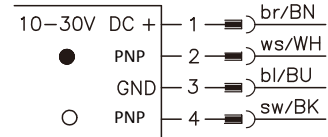


Fig. 9

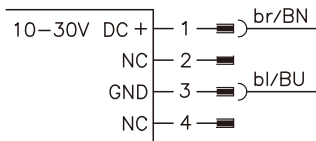


Fig. 2

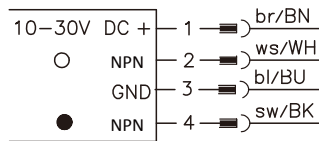


Fig. 6

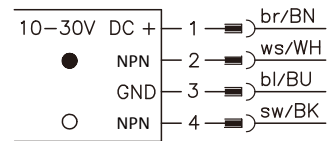


Fig. 10

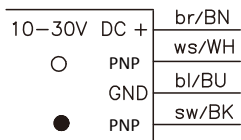


Fig. 3

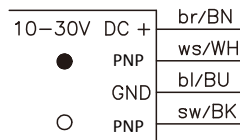


Fig. 7

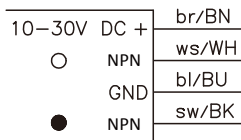


Fig. 4

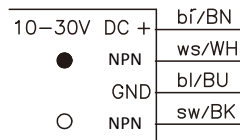
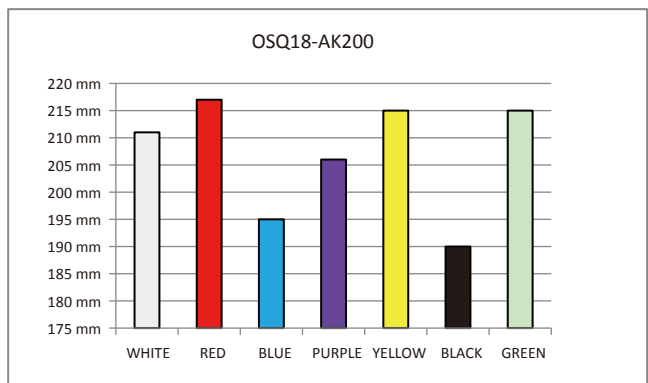
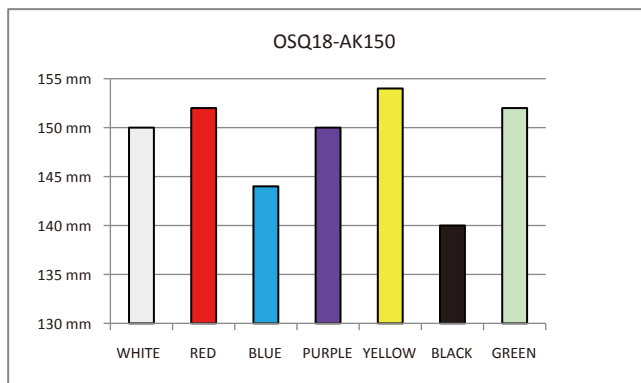
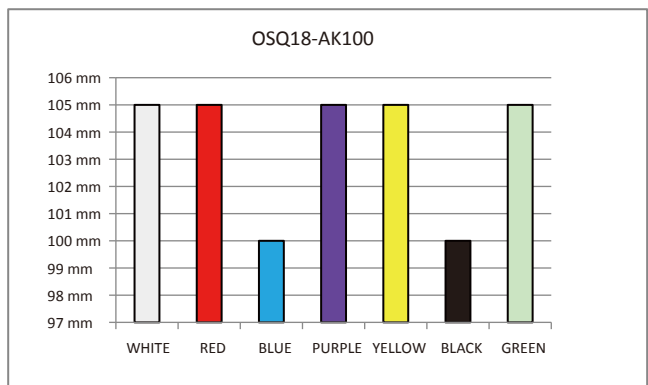
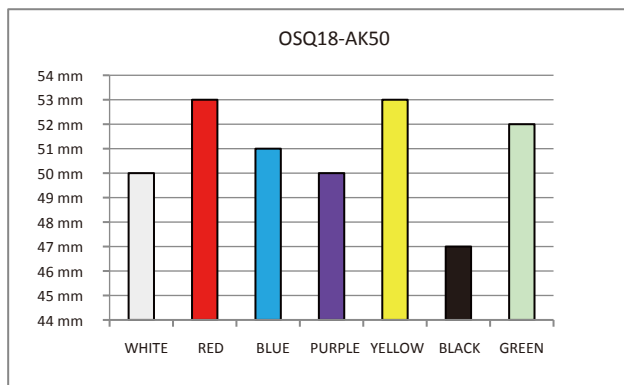
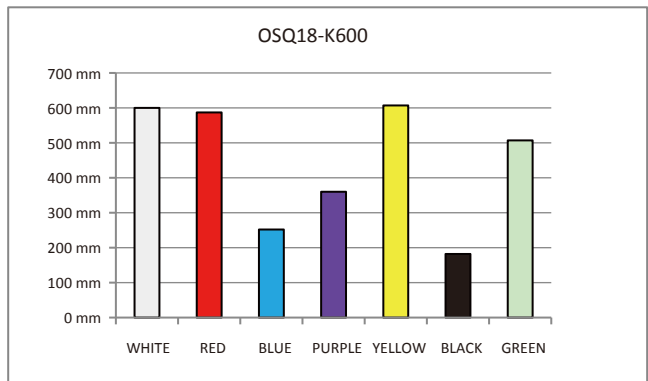
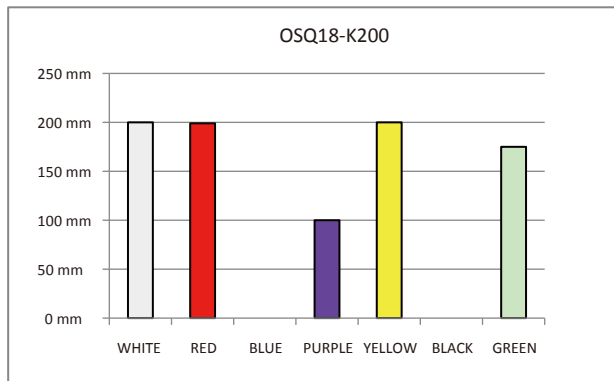
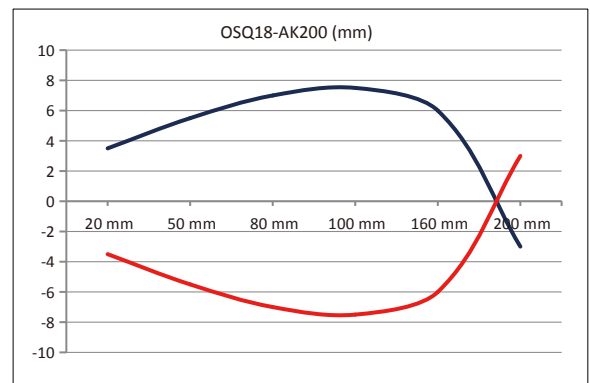
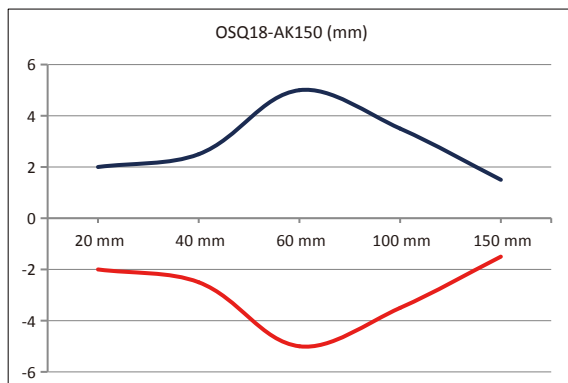
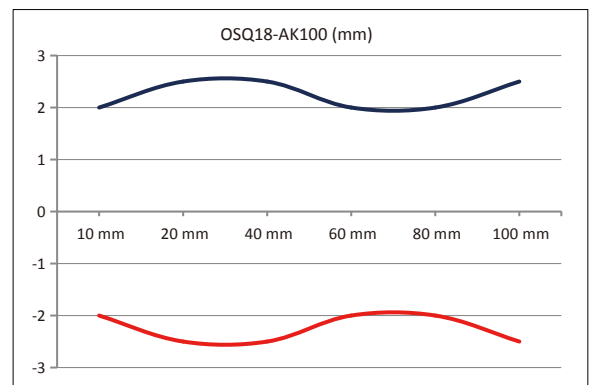
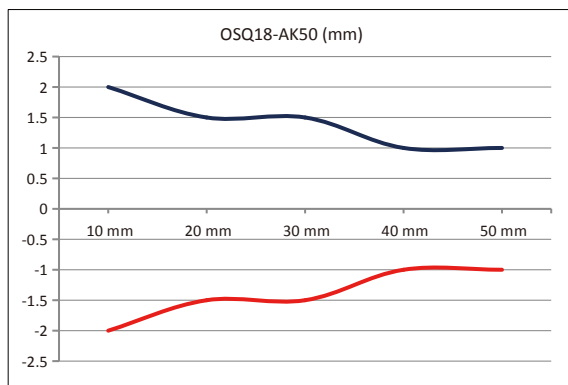
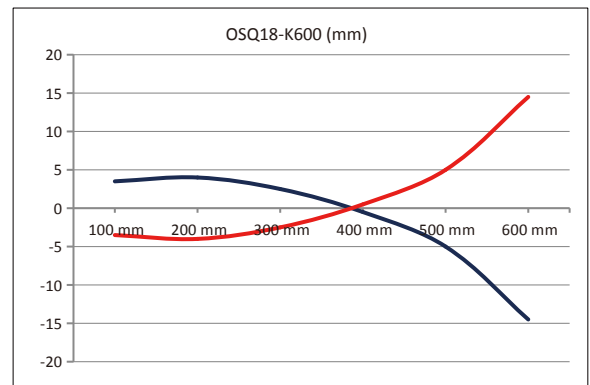
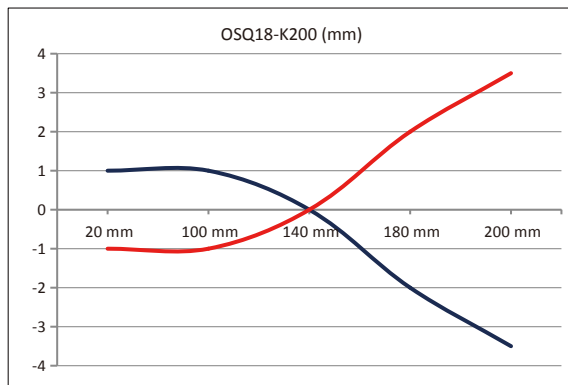
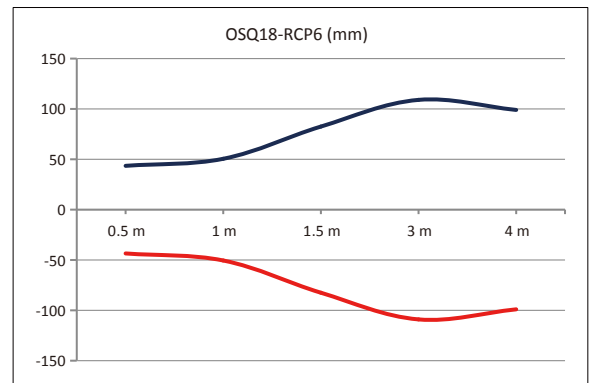
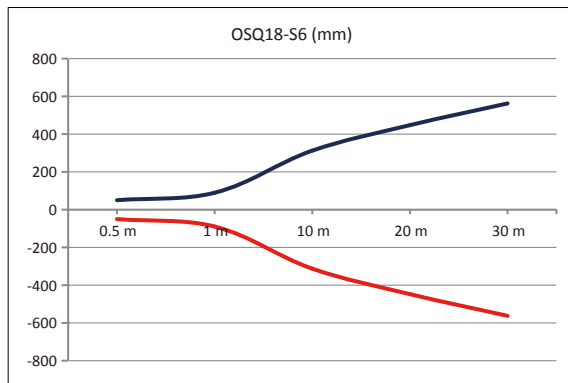


Fig. 8

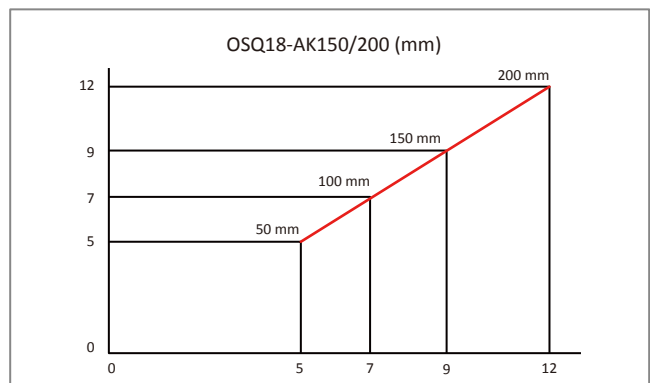
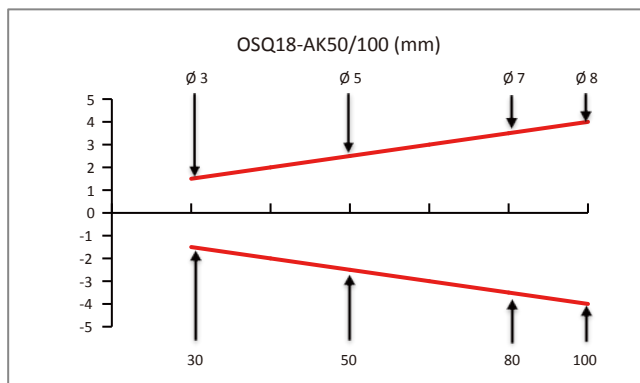
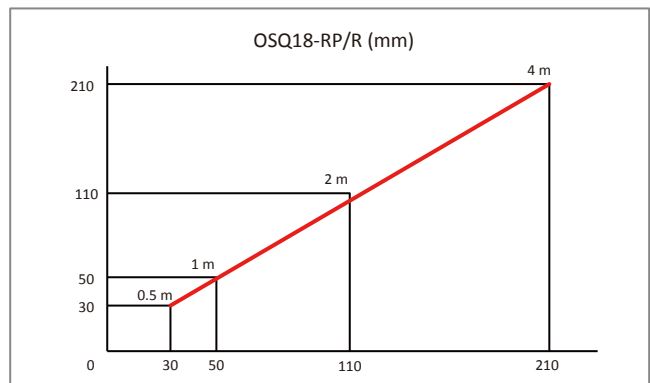
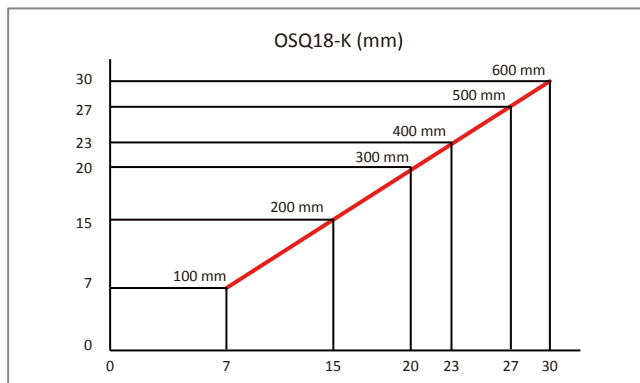
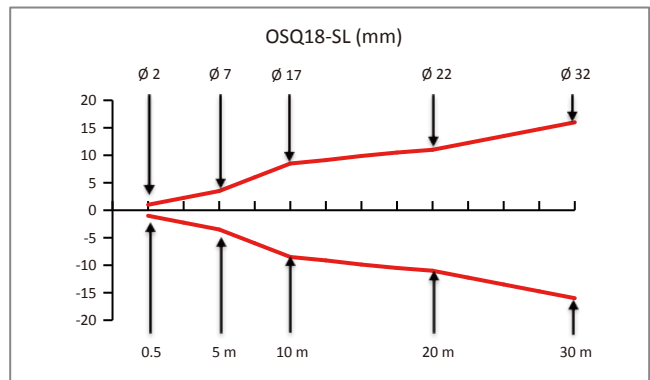
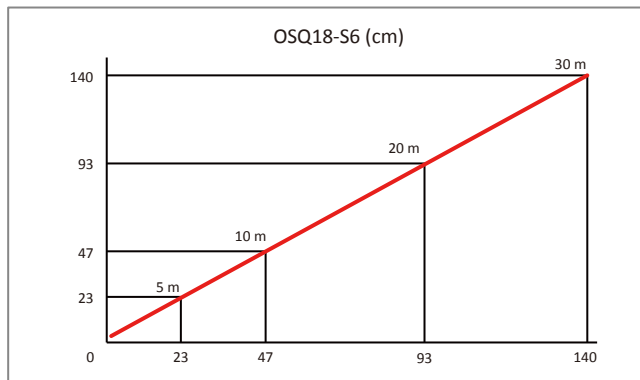
Attenuation Figure



Translation Characteristic Curve

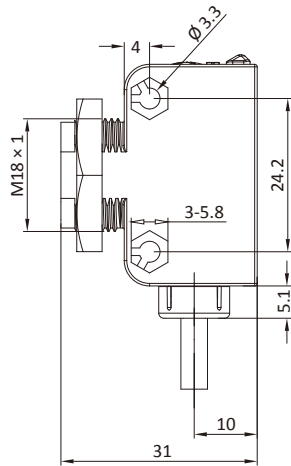


Beam Pattern

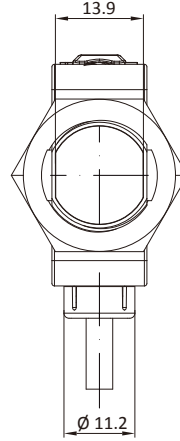


Dimensions

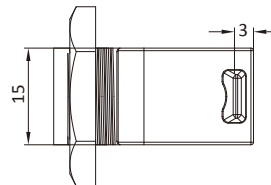
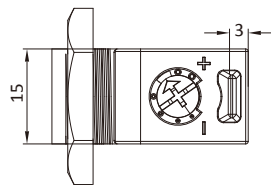
2 m cable (Exclude laser polarized retro-reflective)



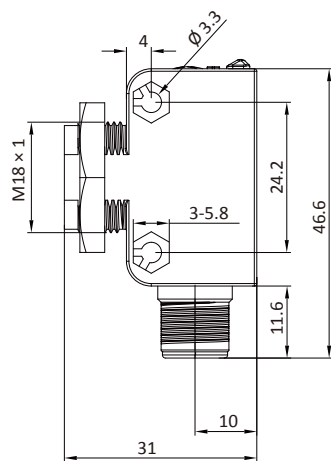
Receiver / Retro-reflective / Diffused



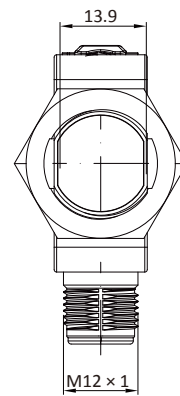
Emitter / BGS



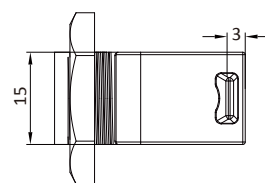
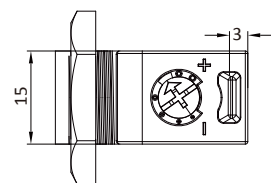
M12 connector



Receiver / Retro-reflective / Diffused

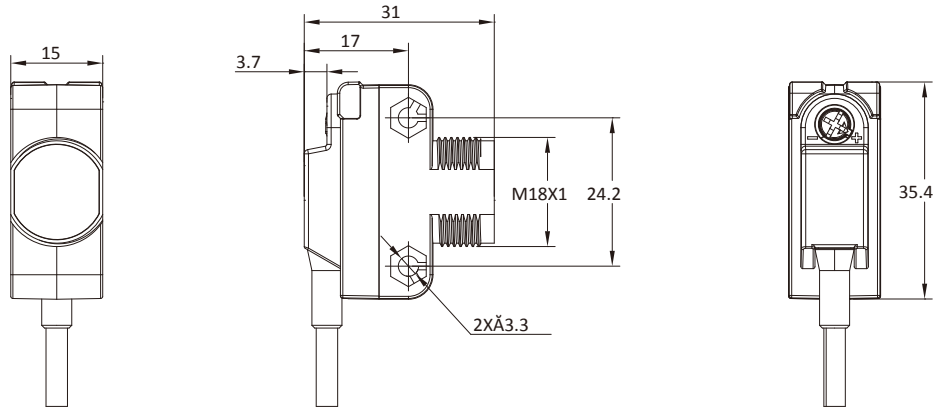


Emitter / BGS



Dimensions

Laser polarized retro-reflective



Reflector (Optional)

RB50x50-1

