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

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)	10 m	— —	100 Hz	PNP	NO + NC	2 m cable	Fig. 7
	OM18-EVN6 (receiver)	10 m	— —	100 Hz	NPN	NO + NC	2 m cable	Fig. 8
	OM18-S6Q (emitter)	10 m	Infrared	— —	— —	— —	M12 connector	Fig. 2
	OM18-EVP6Q (receiver)	10 m	— —	100 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OM18-EVN6Q (receiver)	10 m	— —	100 Hz	NPN	NO + NC	M12 connector	Fig. 10
	OM18-SL306 (emitter)	30 m	Red laser	— —	— —	— —	2 m cable	Fig. 1
	OM18-EL30VP6 (receiver)	30 m	— —	800 Hz	PNP	NO + NC	2 m cable	Fig. 7
	OM18-EL30VN6 (receiver)	30 m	— —	800 Hz	NPN	NO + NC	2 m cable	Fig. 8
	OM18-SL306Q (emitter)	30 m	Red laser	— —	— —	— —	M12 connector	Fig. 2
	OM18-EL30VP6Q (receiver)	30 m	— —	800 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OM18-EL30VN6Q (receiver)	30 m	— —	800 Hz	NPN	NO + NC	M12 connector	Fig. 10
	OM18-SL606 (emitter)	60 m	Red laser	— —	— —	— —	2 m cable	Fig. 1
	OM18-EL60VP6 (receiver)	60 m	— —	800 Hz	PNP	NO + NC	2 m cable	Fig. 7
	OM18-EL60VN6 (receiver)	60 m	— —	800 Hz	NPN	NO + NC	2 m cable	Fig. 8
	OM18-SL606Q (emitter)	60 m	Red laser	— —	— —	— —	M12 connector	Fig. 2
	OM18-EL60VP6Q (receiver)	60 m	— —	800 Hz	PNP	NO + NC	M12 connector	Fig. 9
	OM18-EL60VN6Q (receiver)	60 m	— —	800 Hz	NPN	NO + NC	M12 connector	Fig. 10

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
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
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

Technical Data

Operating voltage	10 ... 30 V DC
Ripple voltage	≤ 10%
Laser class	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
Ambient temperature	-25 ... +65 °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 impedence	≥ 50 MΩ (500 V DC)
Shock resistance	Complex amplitude 1.5 mm 10 ... 50 Hz (2hr X, Y, Z respectively)
Impact resistance	500 m/s² (50 G) 3 times X, Y, Z respectively
Protection class	IP67
Housing material	Brass nickel-plated

Wiring

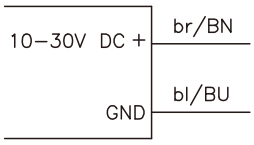


Fig. 1

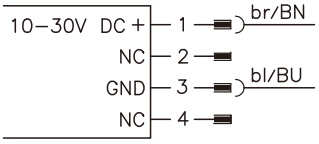


Fig. 2

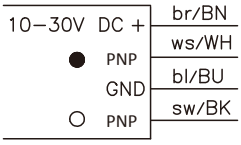


Fig. 3

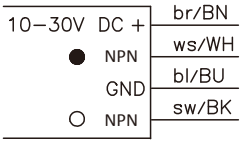


Fig. 4

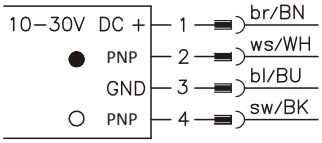


Fig. 5

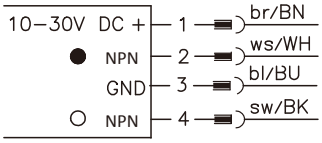


Fig. 6

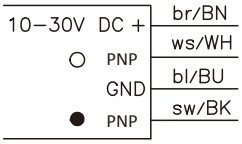


Fig. 7

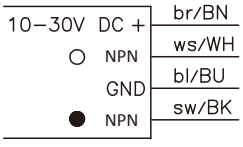


Fig. 8

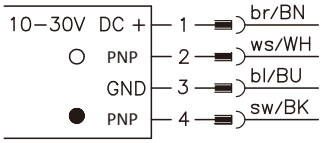


Fig. 9

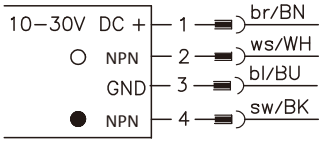
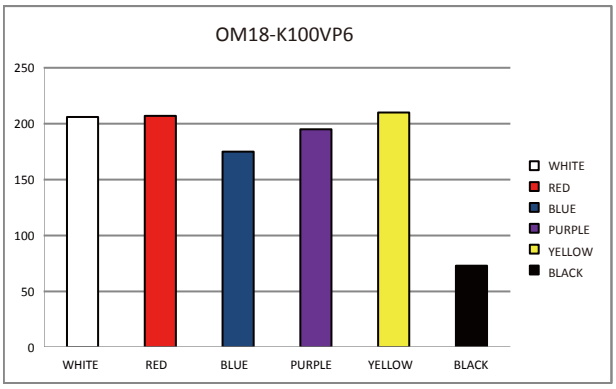
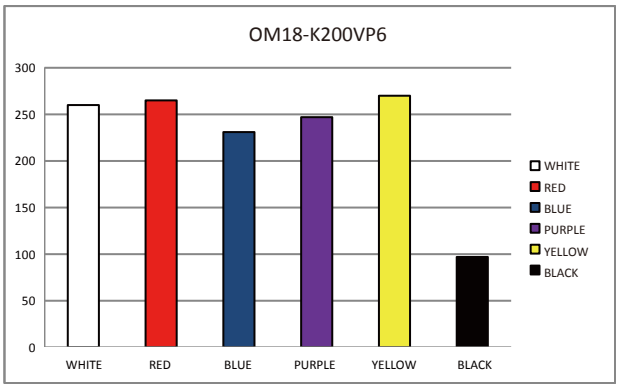
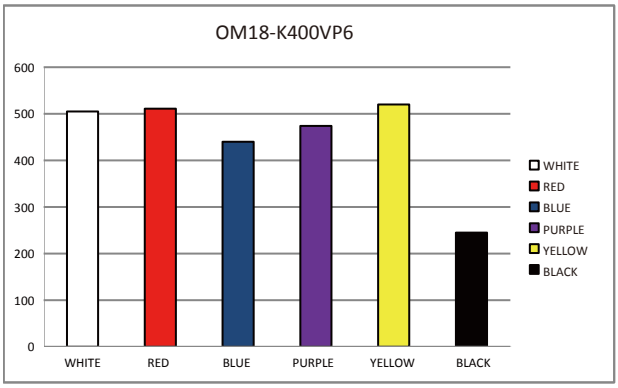


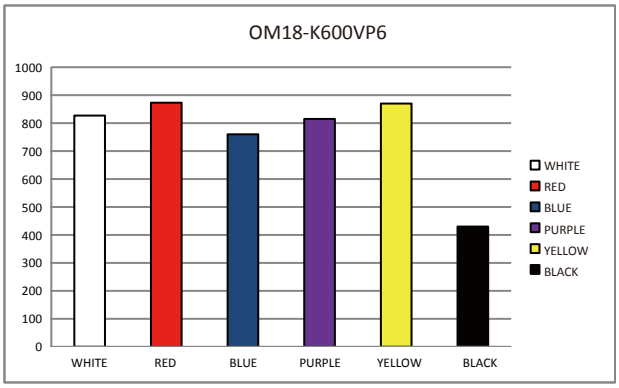
Fig. 10

Attenuation Figure

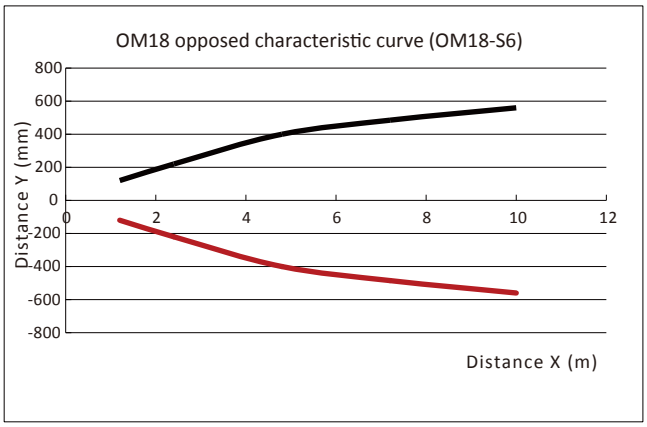


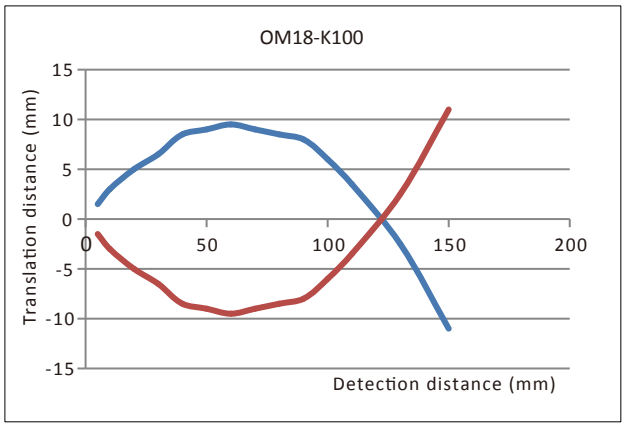


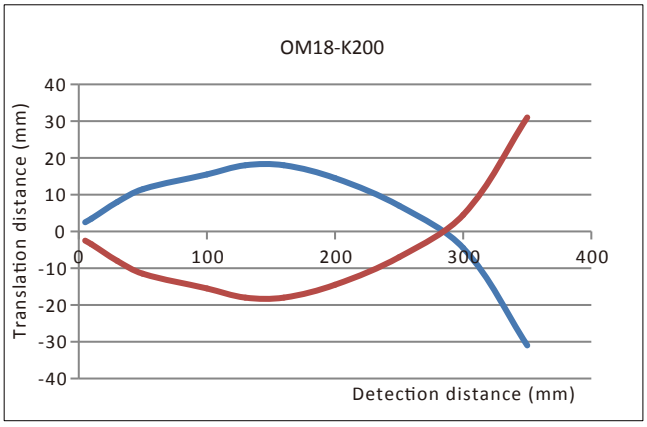


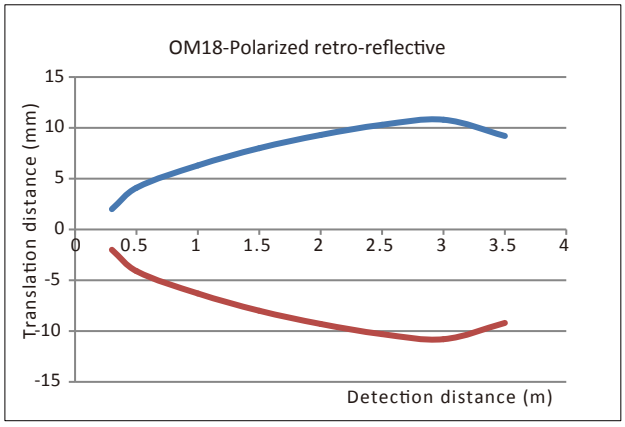


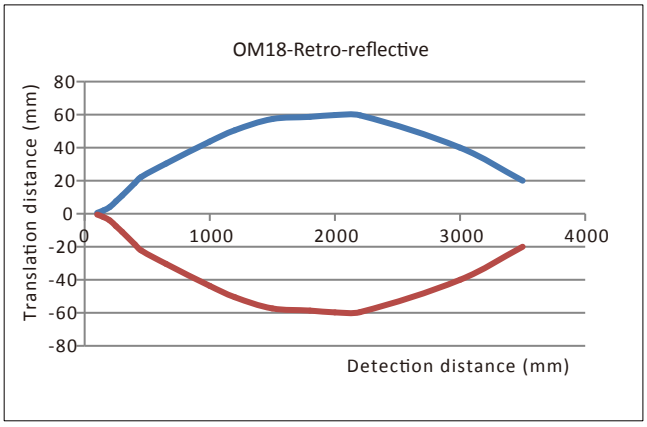
Translation Characteristic Curve

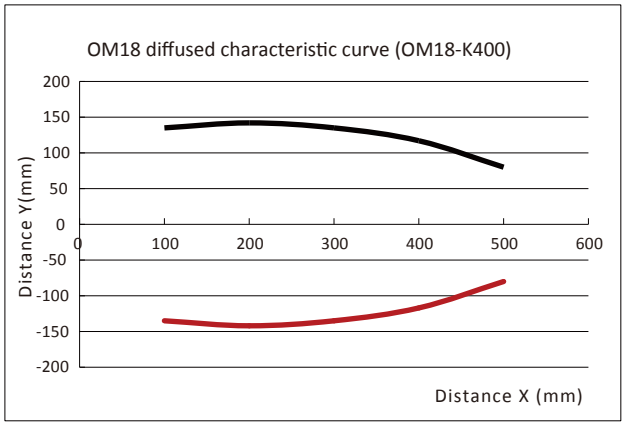


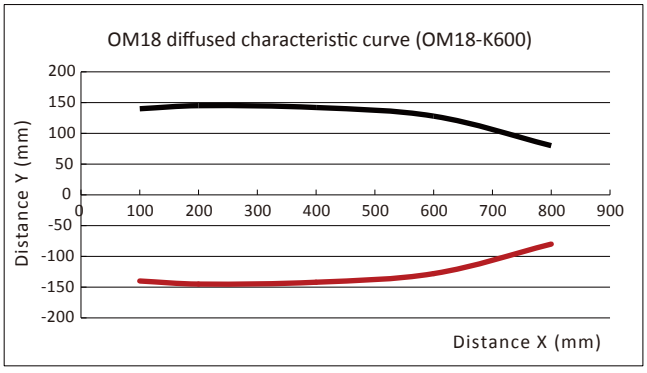






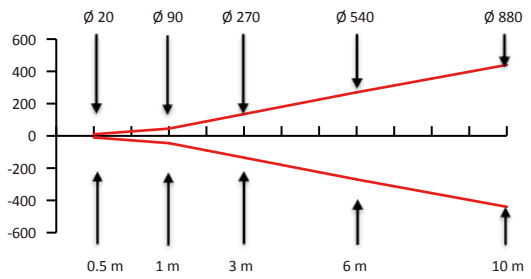




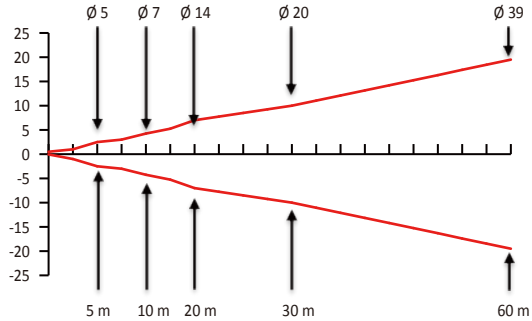


Beam Pattern

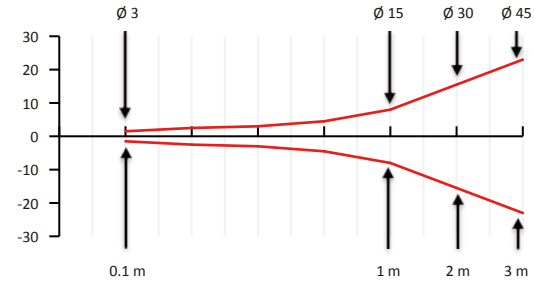
OM18-S6 (mm)



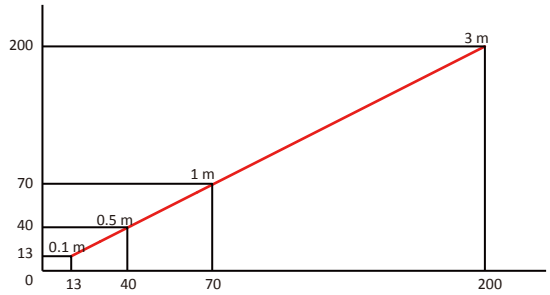
OM18-SL (mm)



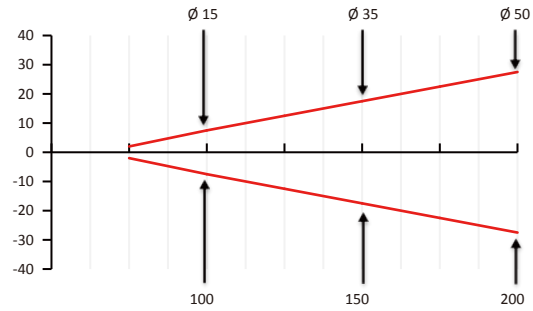
OM18-R (mm)



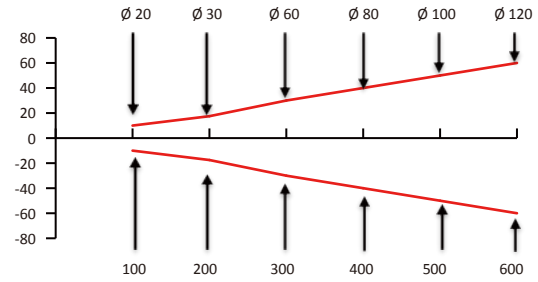
OM18-RP (mm)



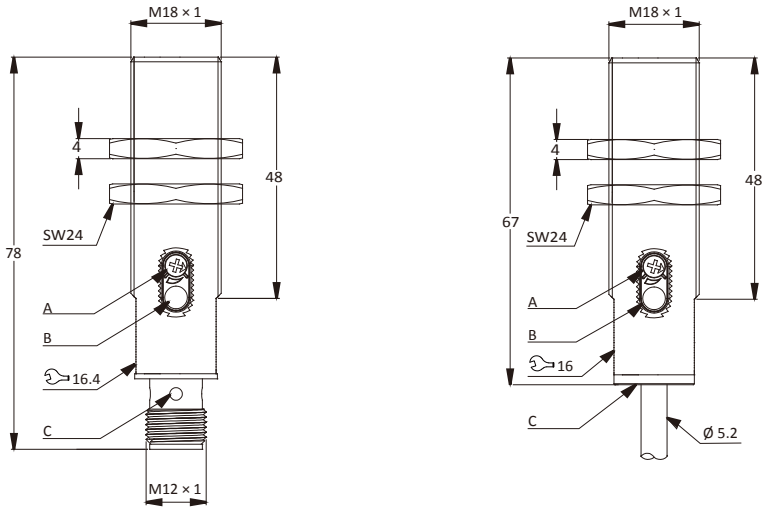
OM18-K100/200 (mm)



OM18-K400/600 (mm)



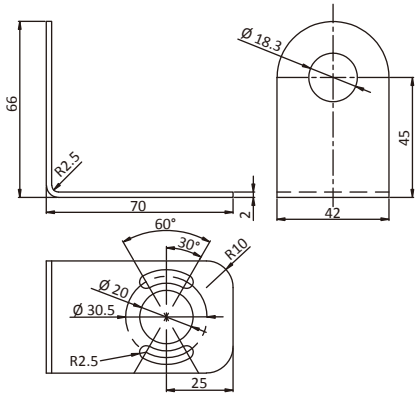
Dimensions



A Sensitivity adjustment
B Steady state indicator
C Output indicator
Wrench slot

Mounting Bracket (Optional)

EOM18-1



Reflector (Optional)

RB50x50-1