

Photoelectric Sensors - Rectangular OS50



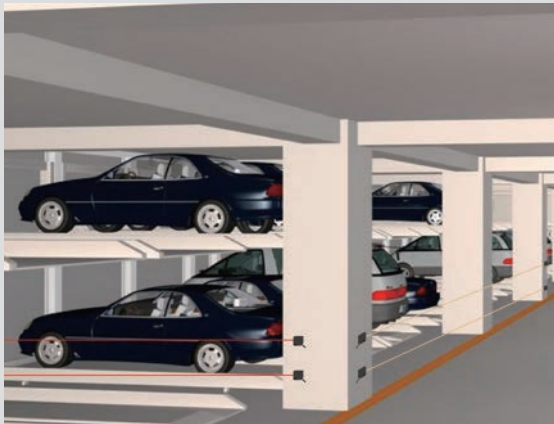
Description:

Rectangular 50*50mm; 60m sensing range for opposed mode; 10m sensing range for retro-reflective mode, 7m 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:



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

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



Type:

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

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

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

Type:

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

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	≤25mA
Load current	≤200mA(NPN, PNP) ≤3A (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 °C...55 °C
Spot size	4.5cm(1.2m), 7cm(2.4m), 9cm(3.5m)@OS50-K3500
Voltage resistance	1000V/AC/ 50/60Hz 60s
Insulation impedance	≥50MΩ (500VDC)
Shock resistance	Complex amplitude 1.5mm 10... 50Hz (2hr X, Y,Z respectively)
Impact resistance	500m/S ² (50G) 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:

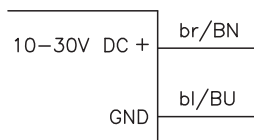


Fig.1

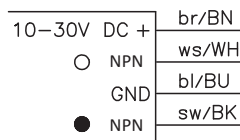


Fig.4

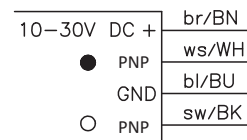


Fig.7

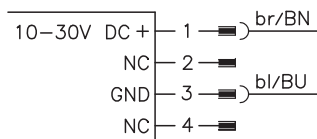


Fig.2

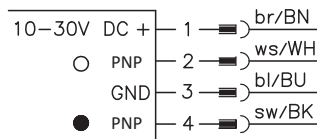


Fig.5

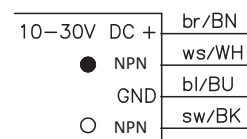


Fig.8

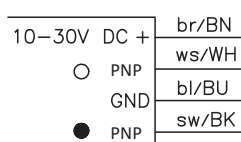


Fig.3

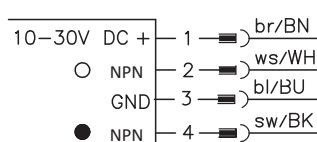


Fig.6

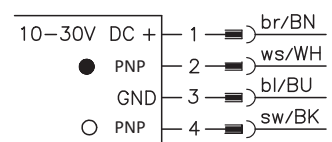
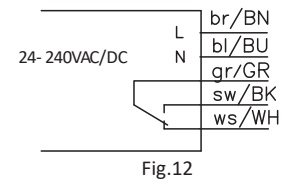
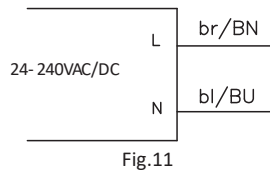
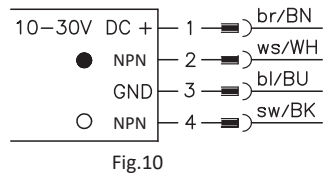


Fig.9

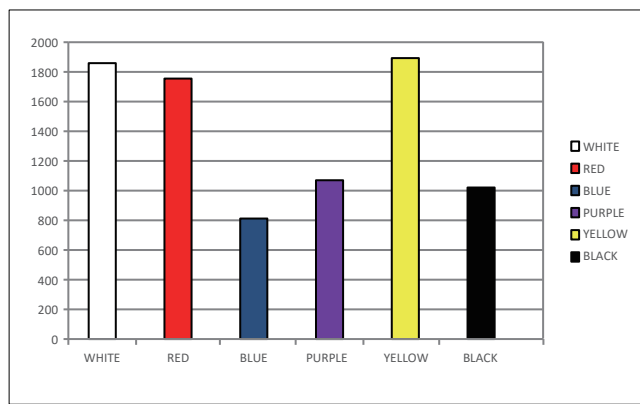
Photoelectric Sensors - Rectangular OS50

Wiring:

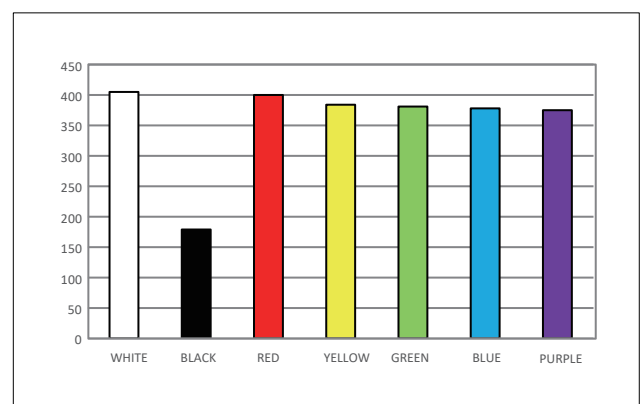


Attenuation figure:

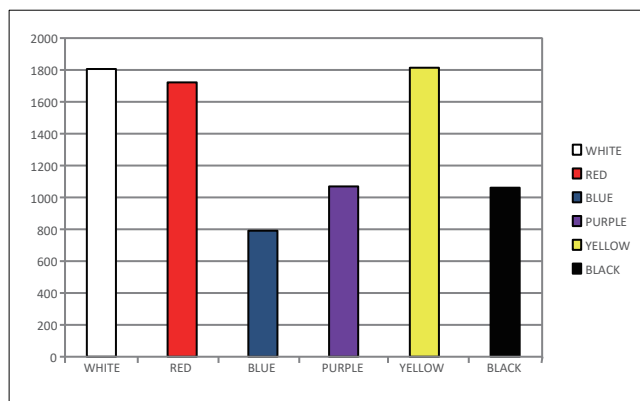
OS50-K1000VP6



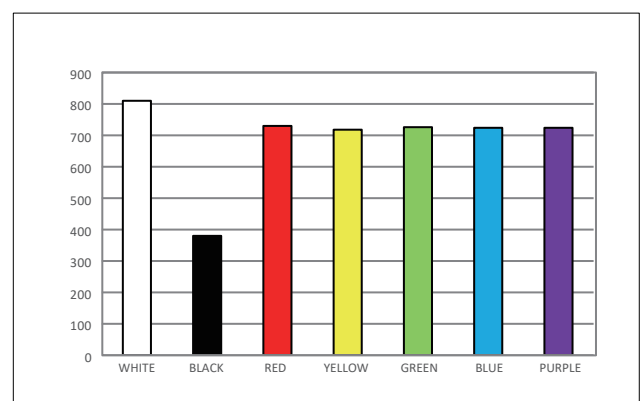
OS50-K3500VP6



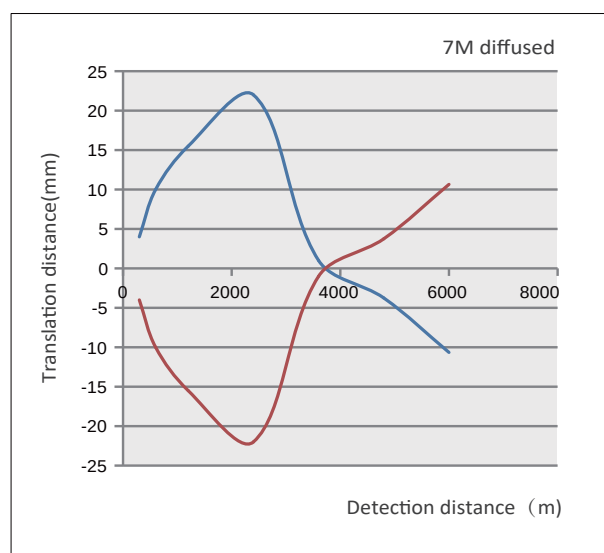
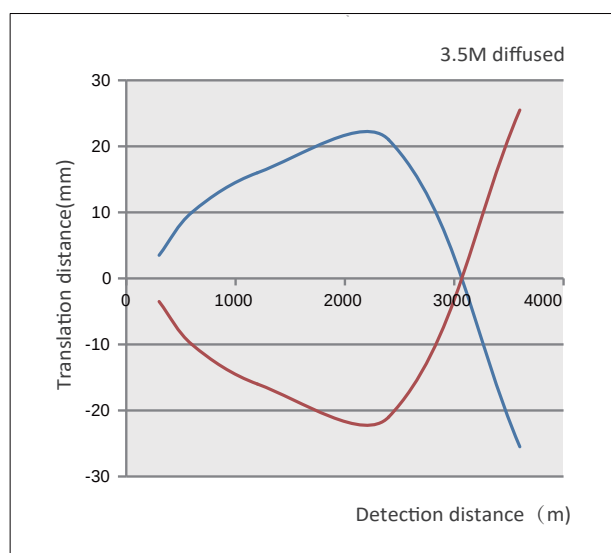
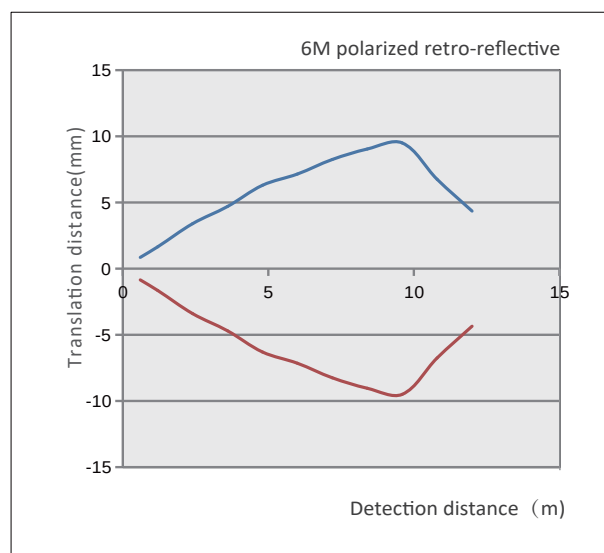
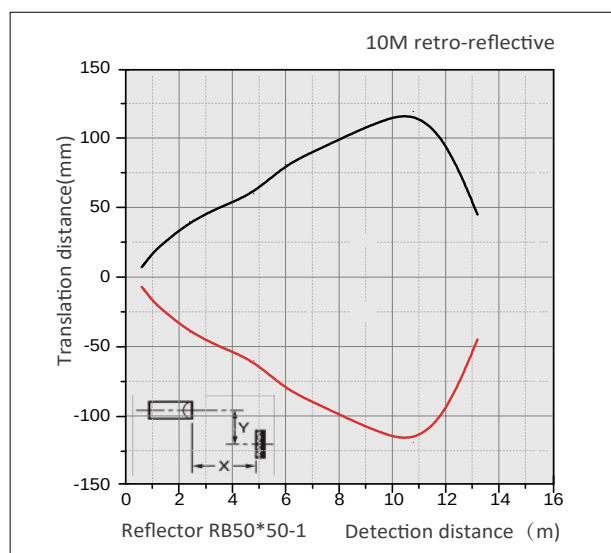
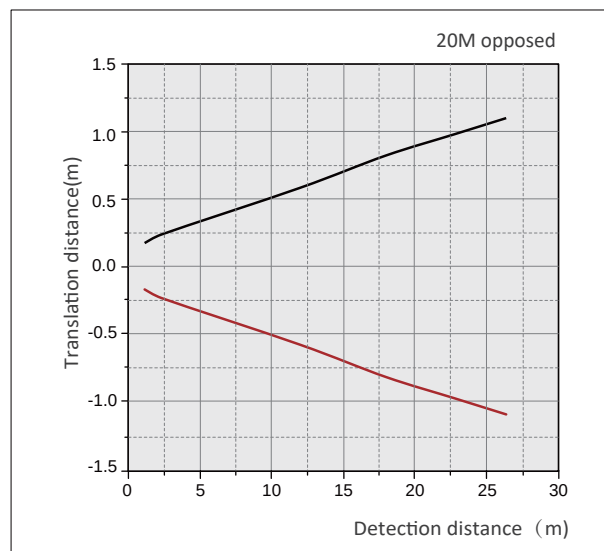
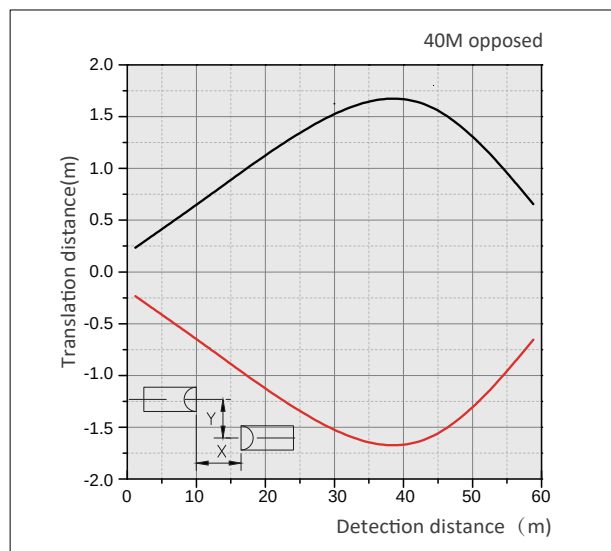
OS50-K1000VR5



OS50-K7000VR5



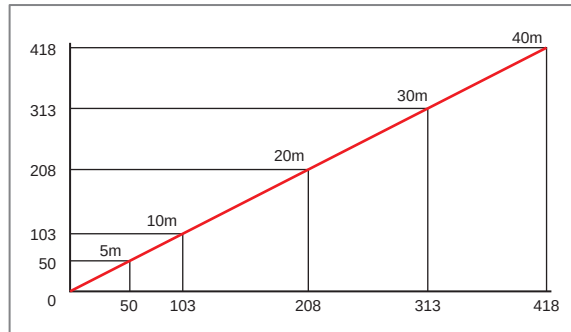
Translation characteristic curve



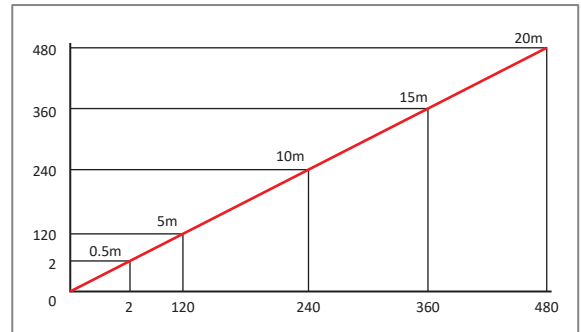
Photoelectric Sensors - Rectangular OS50

Beam Pattern:

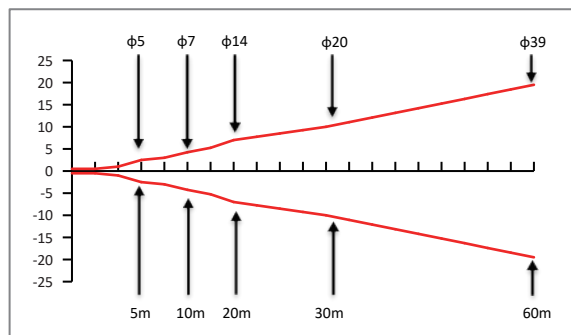
OS50-S6/S5 (cm)



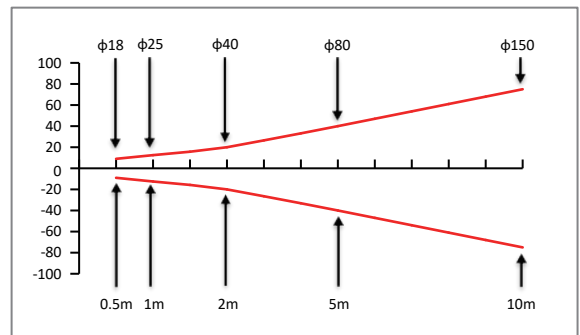
OS50-206/205 (mm)



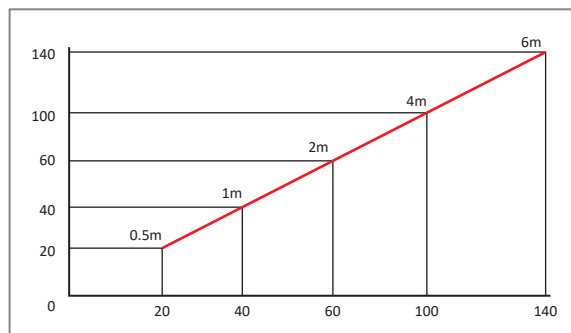
OS50-SL6/SL5 (mm)



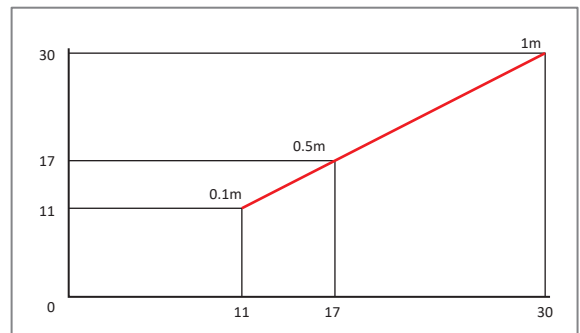
OS50-R (mm)



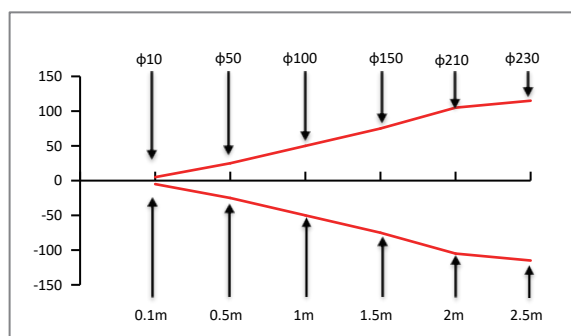
OS50-RP (mm)



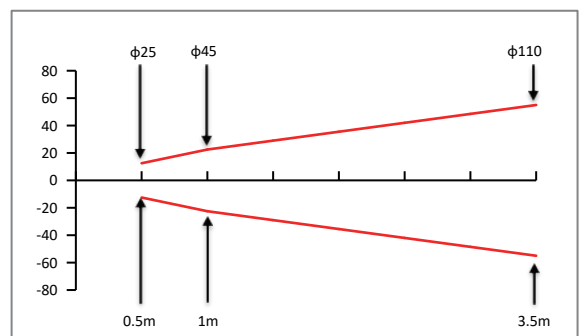
OS50-K1000 (mm)



OS50-K2500 (mm)

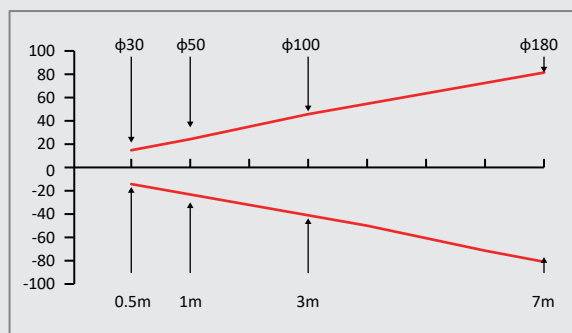


OS50-K3500 (mm)



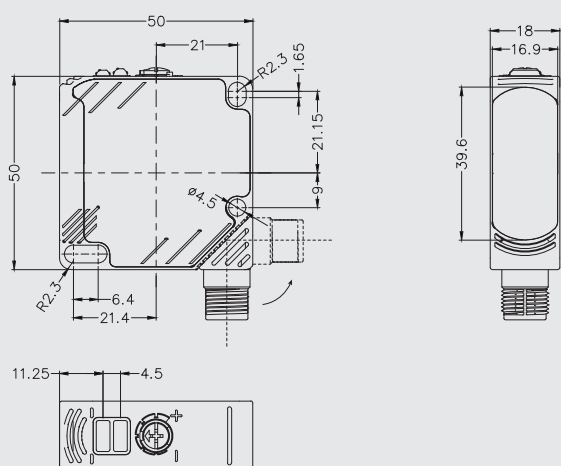
Beam Pattern:

OS50-K7000 (mm)

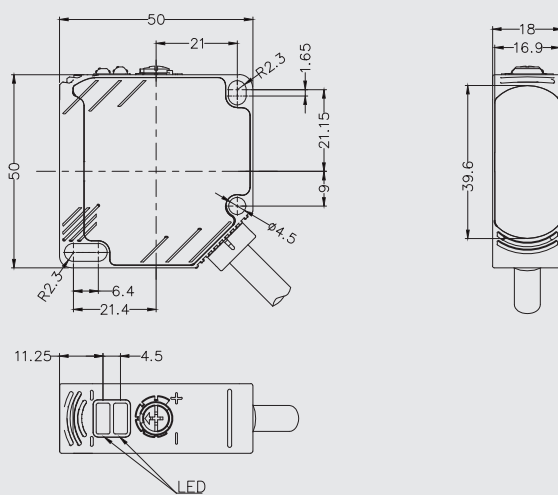


Dimensions:

M12 connector

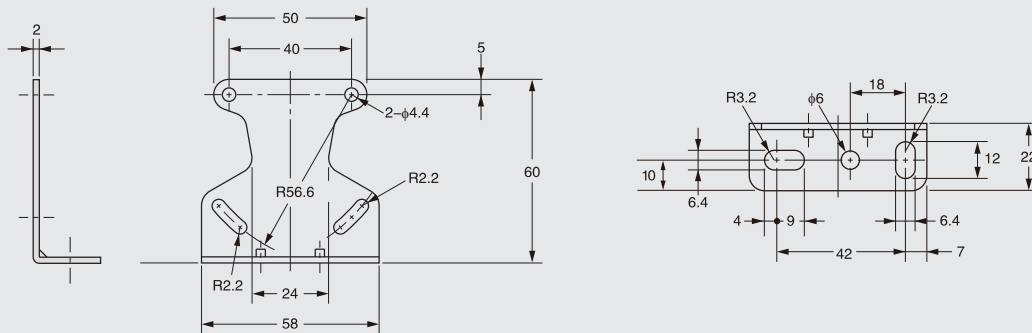


2m cable



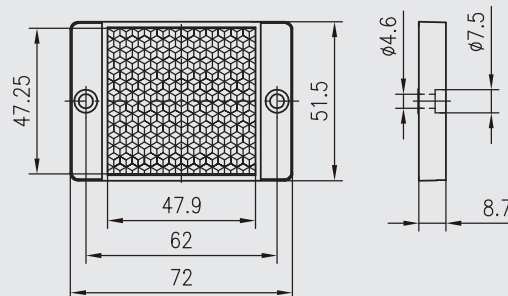
Mounting bracket (standard):

EOS50-1



Reflector:

RB50x50-1(standard)



RB50x50 (optional)

