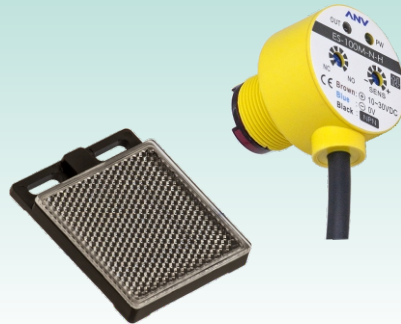


**ESU-10D
ESU-20D
ESU-40D
ESU-100D**



**ESU-100M
ESU-150M
ESU-200M
ESU-300M**



**ESU-1000T
ESU-2000T**



MODEL LIST

Appearance	Model	Control Method	Sensing Distance	Diameter	Light Source
	ESU-10D-N	NPN, NO+NC	10cm	18mm	Infrared
	ESU-10D-P	PNP, NO+NC	10cm		
	ESU-40D-N	NPN, NO+NC	40cm		
	ESU-40D-P	PNP, NO+NC	40cm		
	ESU-100D-N	NPN, NO+NC	100cm	18mm	Red LED
	ESU-100D-P	PNP, NO+NC	100cm		
	ESU-10D-NR	NPN, NO+NC	10cm		
	ESU-10D-PR	PNP, NO+NC	10cm		
	ESU-20D-NR	NPN, NO+NC	20cm		
	ESU-20D-PR	PNP, NO+NC	20cm		
	ESU-100M-N	NPN, NO+NC	100cm	18mm	Infrared
	ESU-100M-P	PNP, NO+NC	100cm		
	ESU-200M-N	NPN, NO+NC	200cm		
	ESU-200M-P	PNP, NO+NC	200cm		
	ESU-300M-N	NPN, NO+NC	300cm	18mm	Red LED
	ESU-300M-P	PNP, NO+NC	300cm		
	ESU-100M-NR	NPN, NO+NC	100cm		
	ESU-100M-PR	PNP, NO+NC	100cm		
	ESU-150M-NR	NPN, NO+NC	150cm		
	ESU-150M-PR	PNP, NO+NC	150cm		

MODEL LIST

Appearance	Model	Control Method	Sensing Distance	Diameter	Light Source
	ESU-1000T-N	NPN, NO+NC	1000cm	18mm	Infrared
	ESU-1000T-P	PNP, NO+NC			
	ESU-2000T-N	NPN, NO+NC	2000cm		
	ESU-2000T-P	PNP, NO+NC			

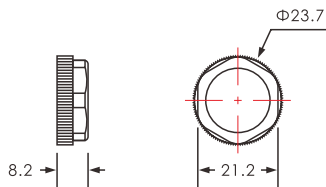
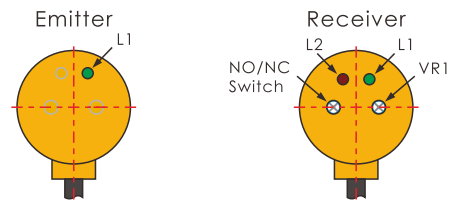
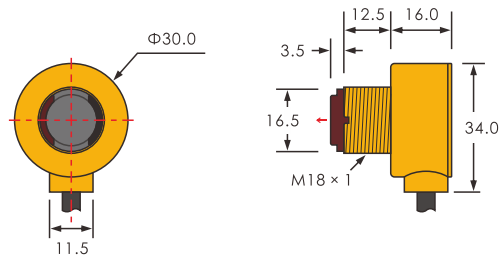
SPECIFICATIONS

SENSING METHOD	Diffuse-reflective	Mirror reflex	Through-beam
LIGHT SOURCE	Infrared	Infrared / Red light LED	Infrared
RESPONSE FREQUENCY	400Hz		
DIFFERENTIAL TRAVEL	10% max. of sensing distance		
CONTROL OUTPUT	Light-ON/Dark-ON selectable by switch		
Operating Voltage	10~30VDC ripple(P-P) 10% max.		
LEAKAGE CURRENT	< 30mA		
RESET TIME	1ms		
LOAD CURRENT	DC 30V 100mA max.		
INDICATOR	Operation indicator(red)		
PROTECTION CIRCUITS	Reverse polarity and Load short-circuit protection, Surge suppressor		
AMBIENT TEMPERATURE	-25°C to 70°C		
AMBIENT HUMIDITY	35 to 95%RH		
AMBIENT ILLUMINATION	Incandescent lamp: 5000 lx max./ Sunlight: 10000 lx max.		
INSULATION RESISTANCE	20MΩ or more between input terminals and case(ground) at DC 500V		
DIELECTRIC STRENGTH	1000VAC for 1 min between charged parts and noncharged parts		
VIBRATION RESISTANCE	Destruction: 10 to 55 Hz, 1.5mm double amplitude for 2 hours each in X,Y and Z directions		
SHOCK RESISTANCE	Destruction: 500 m/S ² 3 time each in X,Y and Z directions		
DEGREE OF PROTECTION	IP67 / Oil resistant		
MATERIALS	Case: PBT, Sensing face: PBT, Nut: ABS, Screwdriver : Plastic steel		
CONNECTION METHOD	Pre-wired Φ4.8 × 2m × 3wire(Emitter 2wire) PVC Quick plug connector M12 connector		
WEIGHT	Approx. 80g	Approx. 100g	Approx. 155g
ACCESSORIES	Nuts × 2 Screwdriver	Reflector, Nuts × 2 Screwdriver	Nuts × 4 Screwdriver

DIMENSIONS

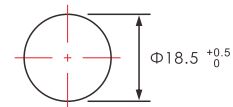
(Units: mm)

ESU Series

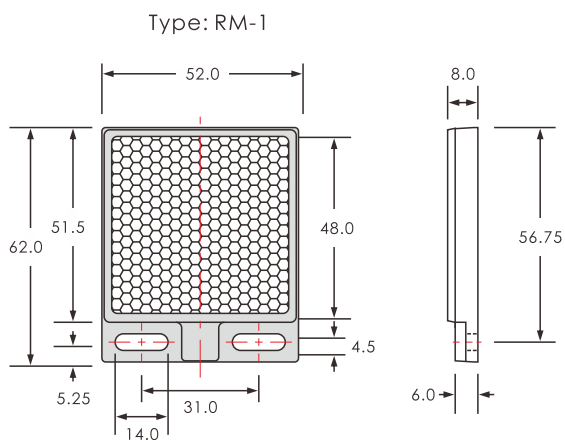


VR1: Sensitivity adjustment
L1: Power indicator
L2: Operating indicator

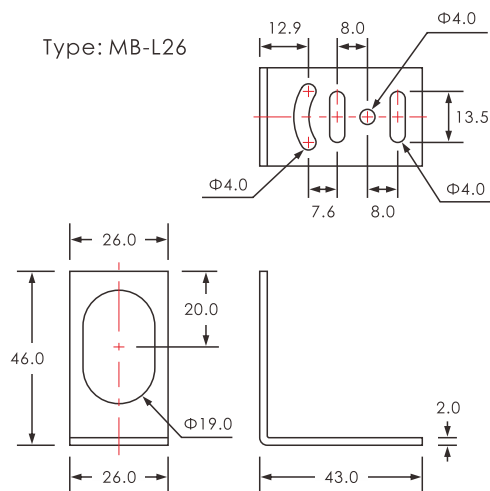
Mounting holes



Reflector



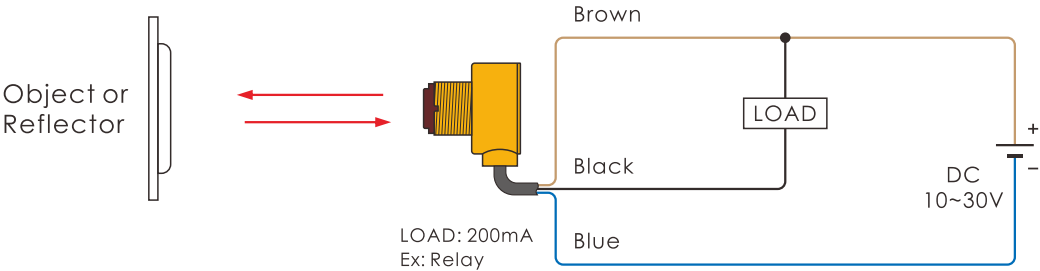
Mounting Bracket(Order separately)



CONNECTION DIAGRAMS

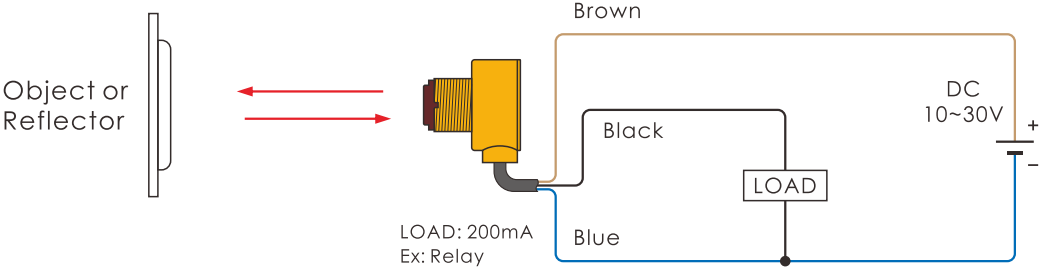
Diffuse-reflective or Mirror reflex type

NPN



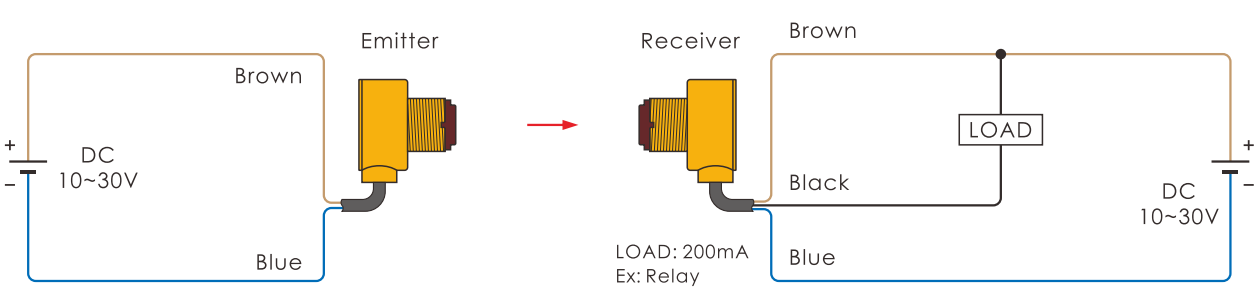
Diffuse-reflective or Mirror reflex type

PNP



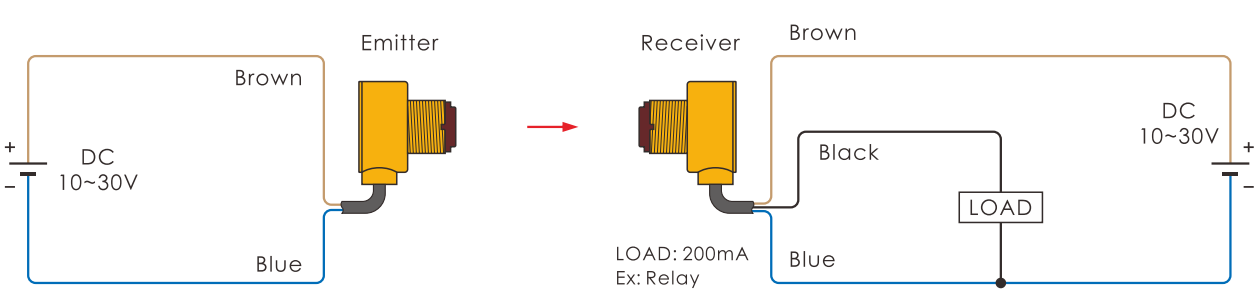
Through-beam type

NPN



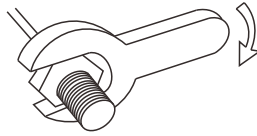
Through-beam type

PNP



MOUNTING

Do not tighten the nut with excessive force. A washer must be used with the nut.

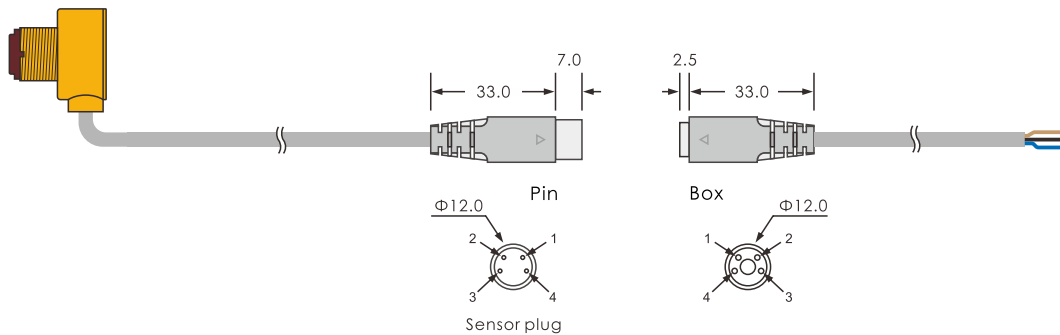


Diameter	Torque
M18	0.4 N·m

CONNECTORS

Quick plug connector

(Units: mm)



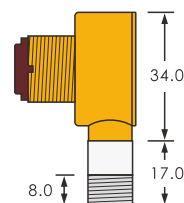
Pin No.	1	2	3	4
Pinout	10~30VDC	---	0V	Output
Wire color	Brown	White	Blue	Black

M12 connector

Model for I/O Connector

M12 - S 2M
① ②

- ① Connect method:
S: Straight
A: Angle
- ② Cable length:
Customized
Unit: meter



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