



Photoelectric Sensor PS-R Series

- Standard rectangular design, available in trimmer and TEACH types
- Sensing the light-absorption for positioning, counting and object existence, applicable in all industries

- ▶ Different range adjustment (Trimmer or TEACH)
- ▶ M3 mounting hole, easy to assemble
- ▶ IP67
- ▶ CE certification
- ▶ Electrical circuit protection



Appearance	Sensing Method	Sensing Distance	NPN	PNP / Push-pull	Connection
 Rectangular Type (Trimmer ^{*1})	Small Spot Reflective ^{*2}	5 ~ 100 mm	PS-RS1-NS12	PS-RS1-PS12	2 m cable (3 wires)
	Diffuse Reflective	5 ~ 300 mm	PS-RR3-NS12	PS-RR3-PS12	2 m cable (3 wires)
		1 m	PS-RR9-NS12	PS-RR9-PS12	
	Retro-reflective ^{*3}	4.2 m	PS-RL4-NS12	PS-RL4-PS12	2 m cable (3 wires)
	Through-beam	12 m	PS-RT9-NS12	PS-RT9-PS12	2 m cable (3 wires)
 Rectangular Type (TEACH ^{*1})	Small Spot Reflective ^{*2}	5 ~ 100 mm	PS-RS1-NS22	PS-RS1-US22	2 m cable (4 wires)
			PS-RS1-NS2B	PS-RS1-US2B	M8 connector
	Diffuse Reflective	5 ~ 300 mm	PS-RR3-NS22	PS-RR3-US22	2 m cable (4 wires)
			PS-RR3-NS2B	PS-RR3-US2B	M8 connector
		5 ~ 1,000 mm	PS-RR9-NS22	PS-RR9-US22	2 m cable (4 wires)
			PS-RR9-NS2B	PS-RR9-US2B	M8 connector
	Retro-reflective ^{*3}	4.2 m	PS-RL4-NS22	PS-RL4-US22	2 m cable (4 wires)
			PS-RL4-NS2B	PS-RL4-US2B	M8 connector
	Through-beam	10 m (Fixed)	PS-RT9-NSB2	PS-RT5-USB2	2 m cable (4 wires)
			PS-RT9-NSBB	PS-RT5-USBB	M8 connector

*1 : Trimmer: Standard bracket included; TEACH: Optional bracket available (BK-PSR02)

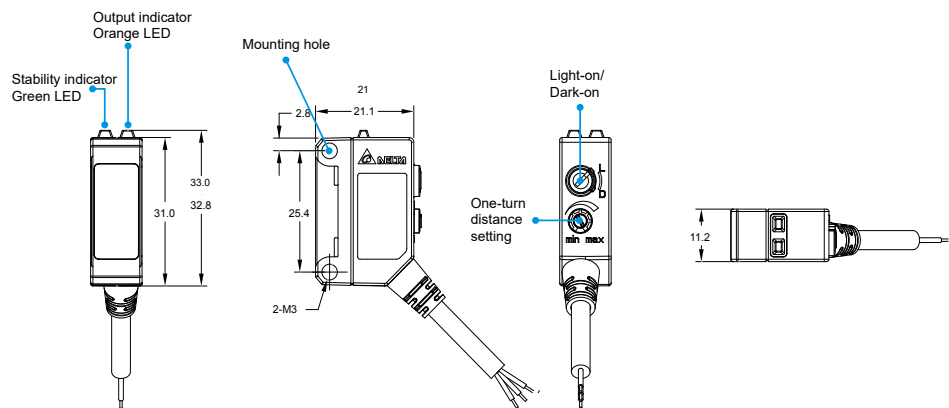
*2 : Minimum spot 5mm in 100mm sensing distance

*3 : Retro-reflective: reflector included

Dimensions

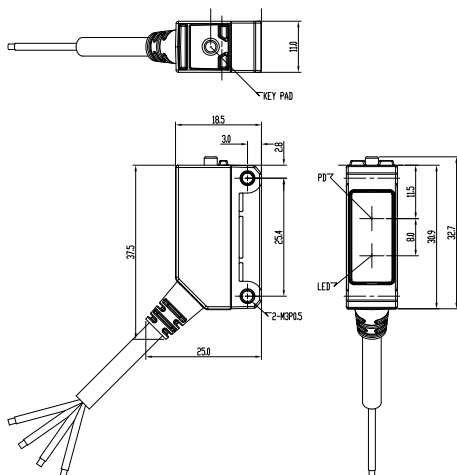
Unit : mm

- **Trimmer**

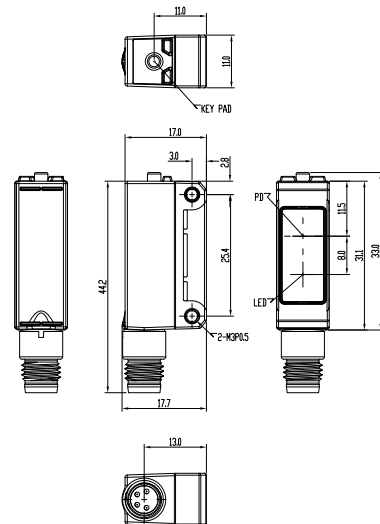


- **TEACH**

Cable Type



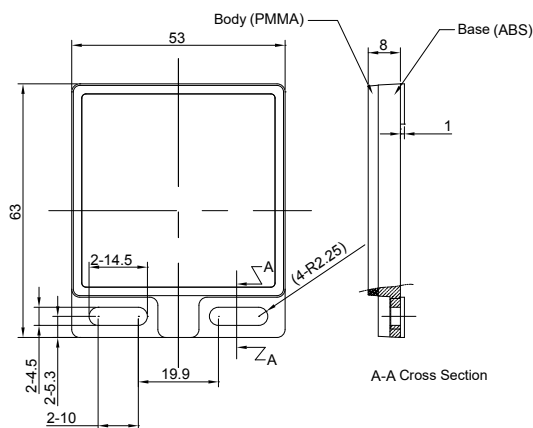
Connector Type



Accessories

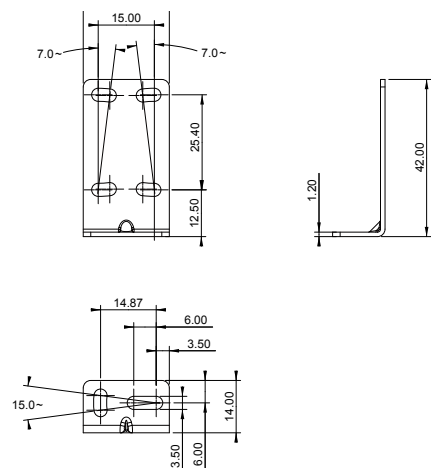
- **Reflector**

Model RM-01




- **Bracket (Optional)**

Model BK-PSR02




Photoelectric Sensor Specifications

• Rectangular Type PS-R

Sensing Method			Diffuse Reflective			Retro-reflective	Through-beam	
Type	Connection	Output	Small Spot	Standard	Long Distance	Standard	Standard	
 Rectangular Type (Trimmer)	Cable	NPN	PS-RS1-NS12	PS-RR3-NS12	PS-RR9-NS12	PS-RL4-NS12	PS-RT9-NS12	
		PNP	PS-RS1-PS12	PS-RR3-PS12	PS-RR9-PS12	PS-RL4-PS12	PS-RT9-PS12	
 Rectangular Type (TEACH)	Cable	NPN	PS-RS1-NS22	PS-RR3-NS22	PS-RR9-NS22	PS-RL4-NS22	PS-RT9-NSB2	
		Push-pull	PS-RS1-US22	PS-RR3-US22	PS-RR9-US22	PS-RL4-US22	PS-RT9-USB2	
	M8 connector	NPN	PS-RS1-NS2B	PS-RR3-NS2B	PS-RR9-NS2B	PS-RL4-NS2B	PS-RT9-NSBB	
		Push-pull	PS-RS1-US2B	PS-RR3-US2B	PS-RR9-US2B	PS-RL4-US2B	PS-RT9-USBB	
Sensing Distance			5 ~ 100mm	5 ~ 300mm	5 ~ 1,000mm	4.2m	10m	
Output			Light-on / Dark-on					
Lighting Source			Red LED / Infrared					
Power Consumption			20mA Max				Transmitter: Max. 6mA Receiver: Max. 14mA	
Material			Lens: PC ; Case: PBT					
Cable			PS-R Trimmer: 3 wires 2m PVC Cable (Through-beam: transmitter - 2 wires 2m PVC Cable) PS-R TEACH: 4 wires 2m PVC Cable (Through-beam: transmitter - 2 wires 2m PVC Cable), M8 water-proof connector					
Dimensions			Trimmer: 11.2x21 x33 mm TEACH (Cable Type): 11 x 17x41.5 mm TEACH (M8 Connector Type): 11 x 17x44.2 mm					
Weight			55g					

• Cylindrical Type PS-M

Sensing Method			Diffuse Reflective			Retro-reflective	Through-beam	
Type	Connection	Output	Standard		Standard	Long Distance	Standard	
 Cylindrical Type (TEACH)	Cable	NPN	PS-MR1-NSB2	PS-MR3-NS22	PS-MR9-NS22	PS-ML4-NS22	PS-MT5-NSB2	
		Push-pull	PS-MR1USB2	PS-MR3-US22	PS-MR9-US22	PS-ML4-US22	PS-MT5-USB2	
	M12 Connector	NPN	PS-MR1-NSBD	PS-MR3-NS2D	PS-MR9-NS2D	PS-ML4-NS2D	PS-MT5-NSBD	
		Push-pull	PS-MR1-USBD	PS-MR3-US2D	PS-MR9-US2D	PS-ML4-US2D	PS-MT5-USBD	
Sensing Distance			5 ~ 100mm	5 ~ 300mm	5 ~ 1,000mm	4.2m	5m	
Output			Light-on / Dark-on					
Lighting Source			Red LED (630nm)		Infrared (850nm)	Red LED (630nm)		
Power Consumption			Max. 20 mA				Transmitter: Max. 6mA Receiver: Max. 14mA	
Material			Lens: PC ; Case: PBT					
Cable			4 wires 2m PVC Cable (Through-beam: transmitter - 2 wires 2m PVC Cable), M12 water-proof connector					
Dimensions			Cable: M18x51.0 mm M12 Connector: M18x49.3 mm					
Weight			Cable Connection: 67g; M8 Connector: 19g					