



Photoelectric Sensor PS-R Series

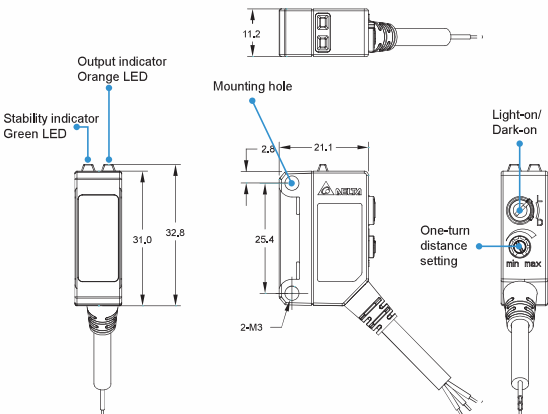
- ▶ Different range adjustment (Trimmer or TEACH)
- ▶ M3 mounting hole, easy to assemble
- ▶ IP67
- ▶ CE certification
- ▶ Electrical circuit protection



Appearance	Sensing Method	Sensing Distance	NPN	PNP / Push-pull	Connection
 Rectangular Type (Trimmer)	Small Spot Reflective	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	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)	Small Spot Reflective	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	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-RT5-NSB2	PS-RT5-USB2	2 m cable (4 wires)
			PS-RT5-NSBB	PS-RT5-USBB	M8 connector

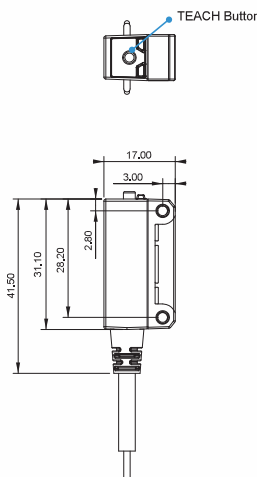
Dimensions Unit : mm

• Trimmer

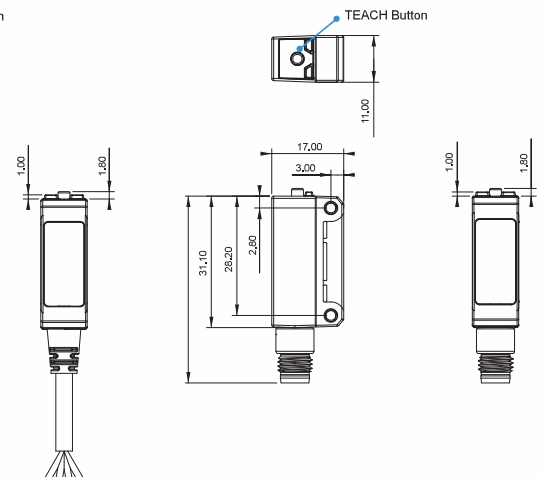


• TEACH


Cable Type





Connector Type




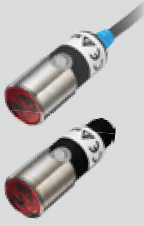
Photoelectric Sensor Specifications

Appearance		Small Spot Reflective				Diffuse Reflective			
	Sensing Method	Small Spot Reflective				Diffuse Reflective			
	Model	2 m Cable		PS-RS1-NS12	PS-RS1-PS12	PS-RR3-NS12	PS-RR3-PS12		
	Sensing Distance	5 ~ 100 mm				5 ~ 300 mm			
	Operation Output	NPN		PNP		NPN		PNP	
		Light-on / Dark-on				Light-on / Dark-on			
	Light Source	Red LED (630 nm)							
	Power Consumption	20 mA MAX							
	Material								
	Cables	3 Wires 2 m PVC Cable (Through)							
	Dimensions								
Weight									

Appearance		Small Spot Reflective				Diffuse Reflective			
	Sensing Method	Small Spot Reflective				Diffuse Reflective			
	Model	2 m Cable		PS-RS1-NS22	PS-RS1-US22	PS-RR3-NS22	PS-RR3-US22		
		M8 Connector		PS-RS1-NS2B	PS-RS1-US2B	PS-RR3-NS2B	PS-RR3-US2B		
	Sensing Distance	5 ~ 100 mm				5 ~ 300 mm			
	Operation Output	NPN		Push-pull		NPN		Push-pull	
		Light-on / Dark-on				Light-on / Dark-on			
	Light Source	Red LED (630 nm)							
	Power Consumption	20 mA MAX							
	Material								
	Cables	4 Wires 2 m PVC Cable							
Dimensions	Cable Type: 3								
Weight									

Appearance		Diffuse Reflective				Diffuse Reflective - Background Suppress					
	Sensing Method	Diffuse Reflective				Diffuse Reflective - Background Suppress					
	Model	2 m Cable		PS-FR2-NLB2	PS-FR2-NDB2	PS-FR2-PLB2	PS-FR2-PDB2	PS-FB1-NLB2	PS-FB1-NDB2	PS-FB1-PLB2	PS-FB1-PDB2
	Sensing Distance	5 ~ 50 mm				5 ~ 30 mm					
	Operation Output	NPN		PNP		NPN		PNP			
		Light-on	Dark-on	Light-on	Dark-on	Light-on	Dark-on	Light-on	Dark-on		
	Light Source										
	Power Consumption	20 mA MAX				30 mA MAX					
	Material										
	Cables	3 Wires 2 m PVC Cable (Through)									
	Dimensions										
Weight											

Appearance		Diffuse Reflective				
	Sensing Method	Diffuse Reflective				
	Model	2 m Cable (4 Wires)		PS-LR2-NSB2	PS-LR2-USB2	PS-LR2-NSB2
	Sensing Distance	5 ~ 50 mm				
	Operation Output	NPN		Push-pull		NPN
		Light-on / Dark-on				Light-on / Dark-on
	Light Source					
	Power Consumption	20 mA MAX				
	Cables	4 Wires 2 m PVC Cable				
Dimensions						
Weight						

Appearance		Diffuse Reflective							
	Sensing Method	Diffuse Reflective							
	Model	2 m Cable		PS-MR1-NSB2	PS-MR1-USB2	PS-MR3-NS22	PS-MR3-US22		
		M12 Connector		PS-MR1-NSBD	PS-MR1-USBD	PS-MR3-NS2D	PS-MR3-US2D		
	Sensing Distance	5 ~ 100 mm				5 ~ 300 mm			
	Operation Output	NPN		Push-pull		NPN		Push-pull	
		Light-on / Dark-on				Light-on / Dark-on			
	Light Source								
	Power Consumption	20 mA MAX							
	Material								
	Cables	4 Wires 2 m PVC Cable (Through)							
Dimensions	M18, Cable								
Weight									

Rectangular Type (Trimmer) PS-R					
Type		Retro-reflective		Through-beam	
PS-RR9-NS12	PS-RR9-PS12	PS-RL4-NS12	PS-RL4-PS12	PS-RT9-NS12	PS-RT9-PS12
5 ~ 1,000 mm		4.2 m		5 m	
NPN	PNP	NPN	PNP	NPN	PNP
Light-on / Dark-on		Light-on / Dark-on		Light-on / Dark-on	
Infrared LED (850 nm)		Red LED (630 nm)			
				Transmitter: 6 mA Max; Receiver: 14 mA Max	
Lens: PC; Case: PBT; Wire: PC					
(Through-beam: Transmitter- 2 Wires 2 m PVC Cable), M8 Connector (200 mm Cable)					
32.8 × 11.2 × 21.1 mm					
55g					

Rectangular Type (TEACH) PS-R					
Type		Retro-reflective		Through-beam	
PS-RR9-NS22	PS-RR9-US22	PS-RL4-NS22	PS-RL4-US22	PS-RT5-NSB2	PS-RT5-USB2
PS-RR9-NS2B	PS-RR9-US2B	PS-RL4-NS2B	PS-RL4-US2B	PS-RT5-NSBB	PS-RT5-USBB
5 ~ 1,000 mm		4.2 m		5 m	
NPN	Push-pull	NPN	Push-pull	NPN	Push-pull
Light-on / Dark-on		Light-on / Dark-on		Light-on / Dark-on	
Infrared LED (850 nm)		Red LED (630 nm)		Infrared LED (850 nm)	
				Transmitter: 6 mA Max; Receiver: 14 mA Max	
Lens: PC; Case: PBT; Wire: PC					
(Through-beam: Transmitter- 2 Wires 2 m PVC Cable), M8 Connector					
32.8 × 11.2 × 17 mm; Connector Type: 32.8 × 11.2 × 17 mm					
Cable Type: 67g; Connector Type: 19g					

Flat Type (Fixed)								
Type			Retro-reflective			Through-beam		
PS-FB1-PDB2	PS-FL3-NLB2	PS-FL3-NDB2	PS-FL3-PLB2	PS-FL3-PDB2	PS-FT3-NLB2	PS-FT3-NDB2	PS-FT3-PLB2	PS-FT3-PDB2
25 ~ 1,000 mm			4.2 m			1 m		
NPN		PNP		NPN		PNP		
Dark-on	Light-on	Dark-on	Light-on	Dark-on	Light-on	Dark-on	Light-on	Dark-on
Red LED (630nm)								
20 mA MAX			Transmitter: 6 mA Max; Receiver: 14 mA Max					
Lens: PC; Case: PBT; Wire: PC								
(Through-beam: Transmitter- 2 Wires 2 m PVC Cable), M8 Connector (200mm Cable)								
16 × 30 × 6.8 mm								
25g								

Lateral Type (Fixed)					
Type		Retro-reflective		Through-beam	
PS-L3-NSB2	PS-LL3-USB2	PS-LT3-NSB2	PS-LT3-USB2	PS-LT3-NSB2	PS-LT3-USB2
25 ~ 1,000 mm		4.2 m		1 m	
NPN		Push-pull		NPN	
Light-on / Dark-on		Light-on / Dark-on		Light-on / Dark-on	
Red LED (630 nm)					
				Transmitter: 6 mA Max; Receiver: 14 mA Max	
Lens: PC; Case: PBT					
(Through-beam: Transmitter- 2 Wires 2 m PVC Cable)					
14 × 27 × 7 mm					
26g					

Cylindrical Type (TEACH)					
Type		Retro-reflective		Through-beam	
PS-MR9-NS22	PS-MR9-US22	PS-ML4-NS22	PS-ML4-US22	PS-MT5-NSB2	PS-MT5-USB2
PS-MR9-NS2D	PS-MR9-US2D	PS-ML4-NS2D	PS-ML4-US2D	PS-MT5-NSBD	PS-MT5-USBD
5 ~ 1,000 mm		4.2 m		5 m	
NPN	Push-pull	NPN	Push-pull	NPN	Push-pull
Light-on / Dark-on		Light-on / Dark-on		Light-on / Dark-on	
Infrared LED (850 nm)					
				Transmitter: 6 mA Max; Receiver: 14 mA Max	
Lens: PC; Case: PBT; Wire: PC					
(Through-beam: Transmitter- 2 Wires 2 m PVC Cable), M12 Connector					
Type (Length): 50 mm; Connector Type (Length): 50 mm					
Cable Type: 67g; Connector Type: 19g					