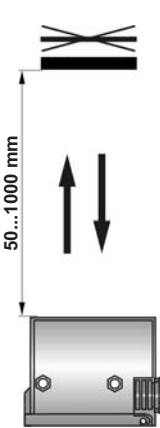


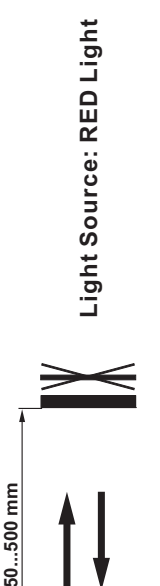
Diffuse Mode with Background Suppression (Sn=1000mm)

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Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p>Light Source: Infrared</p>  <p>50...1000 mm</p> <p>Diffuse Mode with Background Suppression Sensing Distance: 50...1000mm</p>	Terminal	10-30V DC (50ms on/off)	NPN	RP90-D1000N-CY9T5U-BS
			PNP	RP90-D1000P-CY9T5U-BS
			NPN/PNP	RP90-D1000D-CY9T5U-BS
			NPN , Timing delay	RP90-D1000N-CY9T5U-BT
			PNP , Timing delay	RP90-D1000P-CY9T5U-BT
			NPN/PNP, Timing delay	RP90-D1000D-CY9T5U-BT
		10-30V DC (5ms on/off)	NPN	RP90-D1000N-CY9T5U-BH
			PNP	RP90-D1000P-CY9T5U-BH
			NPN/PNP	RP90-D1000D-CY9T5U-BH
			NPN , Timing delay	RP90-D1000N-CY9T5U-BHT
			PNP , Timing delay	RP90-D1000P-CY9T5U-BHT
			NPN/PNP, Timing delay	RP90-D1000D-CY9T5U-BHT
	M18 connector	10-30V DC (50ms on/off)	NPN	RP90-D1000N-CY9Q4UG-BS
			PNP	RP90-D1000P-CY9Q4UG-BS
			NPN/PNP	RP90-D1000D-CY9Q4UG-BS
			NPN , Timing delay	RP90-D1000N-CY9Q4UG-BT
			PNP , Timing delay	RP90-D1000P-CY9Q4UG-BT
			NPN/PNP, Timing delay	RP90-D1000D-CY9Q4UG-BT
		10-30V DC (5ms on/off)	NPN	RP90-D1000N-CY9Q4UG-BH
			PNP	RP90-D1000P-CY9Q4UG-BH
			NPN/PNP	RP90-D1000D-CY9Q4UG-BH
			NPN , Timing delay	RP90-D1000N-CY9Q4UG-BHT
			PNP , Timing delay	RP90-D1000P-CY9Q4UG-BHT
			NPN/PNP, Timing delay	RP90-D1000D-CY9Q4UG-BHT

Note:
In Preparation: Part numbers with a line through the middle

Diffuse Mode with Background Suppression (Sn=500mm)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p>Light Source: RED Light</p>  <p>50...500 mm</p> <p>Diffuse Mode with Background Suppression Sensing Distance: 50...500mm</p>	Terminal	10-30V DC (50ms on/off)	NPN	RP90-D0500N-CY6T5U-BS
			PNP	RP90-D0500P-CY6T5U-BS
			NPN/PNP	RP90-D0500D-CY6T5U-BS
			NPN , Timing delay	RP90-D0500N-CY6T5U-BT
			PNP , Timing delay	RP90-D0500P-CY6T5U-BT
			NPN/PNP, Timing delay	RP90-D0500D-CY6T5U-BT
		10-30V DC (5ms on/off)	NPN	RP90-D0500N-CY6T5U-BH
			PNP	RP90-D0500P-CY6T5U-BH
			NPN/PNP	RP90-D0500D-CY6T5U-BH
			NPN , Timing delay	RP90-D0500N-CY6T5U-BHT
			PNP , Timing delay	RP90-D0500P-CY6T5U-BHT
			NPN/PNP, Timing delay	RP90-D0500D-CY6T5U-BHT
	M18 connector	10-30V DC (50ms on/off)	NPN	RP90-D0500N-CY6Q4UG-BS
			PNP	RP90-D0500P-CY6Q4UG-BS
			NPN/PNP	RP90-D0500D-CY6Q4UG-BS
			NPN , Timing delay	RP90-D0500N-CY6Q4UG-BT
			PNP , Timing delay	RP90-D0500P-CY6Q4UG-BT
			NPN/PNP, Timing delay	RP90-D0500D-CY6Q4UG-BT
		10-30V DC (5ms on/off)	NPN	RP90-D0500N-CY6Q4UG-BH
			PNP	RP90-D0500P-CY6Q4UG-BH
			NPN/PNP	RP90-D0500D-CY6Q4UG-BH
			NPN , Timing delay	RP90-D0500N-CY6Q4UG-BHT
			PNP , Timing delay	RP90-D0500P-CY6Q4UG-BHT
			NPN/PNP, Timing delay	RP90-D0500D-CY6Q4UG-BHT

Note:
In Preparation: Part numbers with a line through the middle

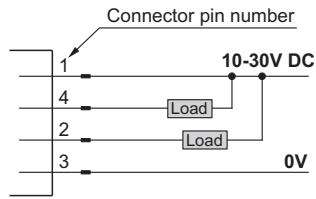
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Specifications

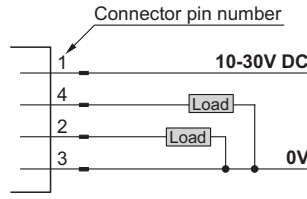
Item \ Sensing Mode	Diffuse Mode with Background Suppression	
Supply Voltage	10-30V DC (limit values)	
Ripple (within Vs tolerance)	10% peak-to-peak	
Sensing Range, Adjustable	1000mm (adjustable)	500mm (adjustable)
Light Spot Size	25 mm @ 1000mm	12 mm @ 500mm
Light Source	Infrared Light	Visible Red Light
Angle of Divergence	1.5°	
Response Time/Frequency	Standard Type: 50 ms/10Hz; High Speed Type: 5ms/70Hz	
Switching Current	200 mA max.	
No Load Current	100 mA	
Output Type	NPN, PNP, NPN/PNP	
Operation Mode	Light or dark switching selectable via switch	
Circuit Protection	Outputs short circuit and over current protected, Vs reverse polarity protected	
Time Delay	Optional	
Enclosure Rating	IP 65	
Ambient Operating Temperature	-20...60°C	
Storage Temperature	-20...75°C	
EMC	IEC 60947-5-2, Parts 7.2.6.1.2.3 or RFI>3V/m(in 80-1000MHZ), EFT>1KV, ESD>4KV(contact)	
Voltage With Stand Ability	IEC 60947-5-2, Part 8.3.3.4 or 500VDC for one min, between all supply terminals connected together and enclosure	
Insulation Resistance	>20M Ω, with 500V DC megger between all supply terminals connected together and enclosure	
Vibration Resistance	IEC 60947-5-2, Part 7.4.2 or 10-55HZ, 1.0mm amplitude in x, y and z directions for 30 min	
Shock Resistance	IEC 60947-5-2, Part 7.4.1 or 30g, 11ms in x, y and z directions for six time each	
Connection	Terminal, 4-pin M18 connector	
Weight	Approx. 180 g	
Material	Housing: Terluran GV15, Optical face: Glass	

Connection Diagrams

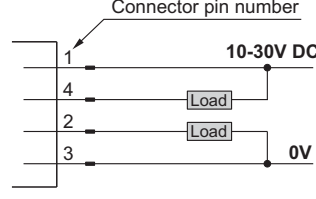
NPN Output type



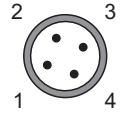
PNP Output type



NPN/PNP output type

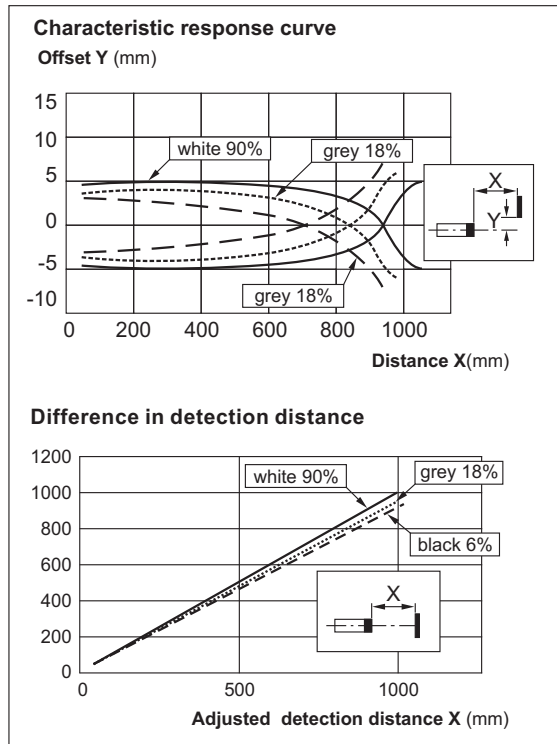


M18 Connector

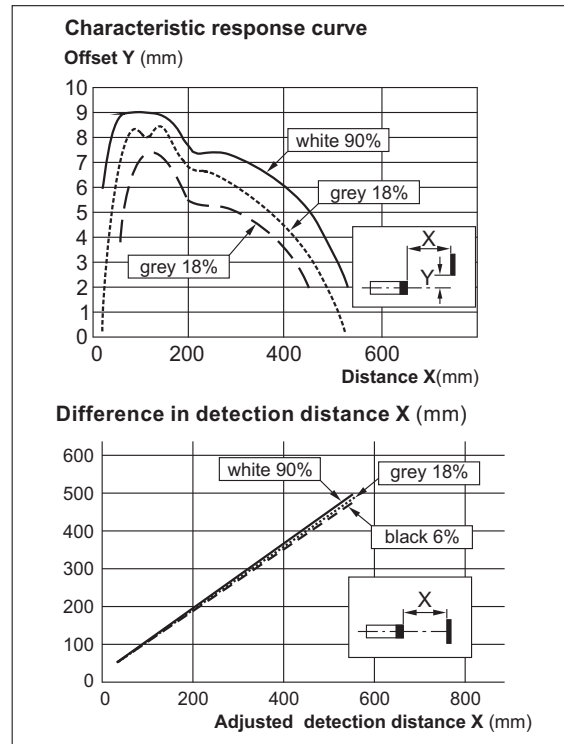


Sensing Characteristics (Typical)

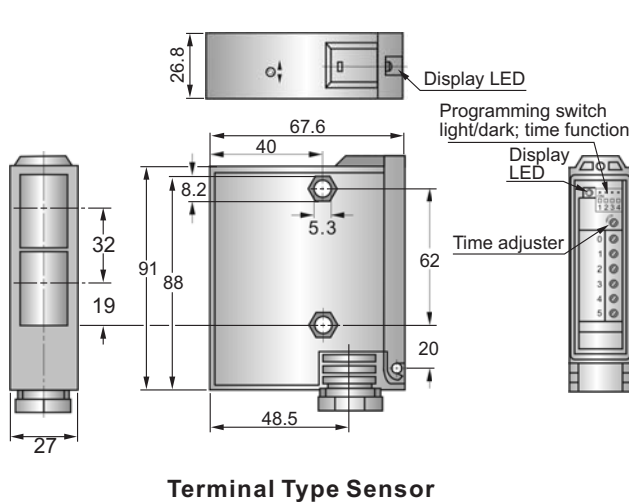
Sensing Range=1000mm



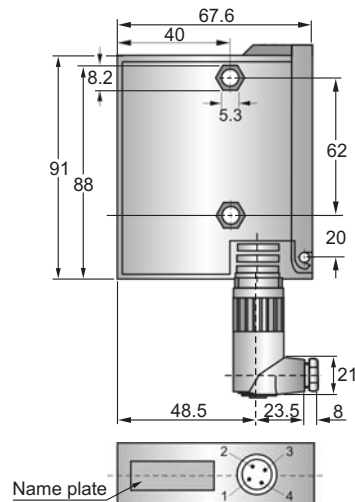
Sensing Range=500mm



Dimensions (Unit: mm)



Terminal Type Sensor



M18 Connector Type Sensor

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