





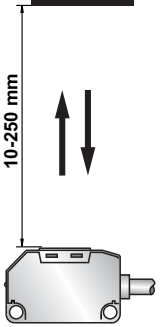



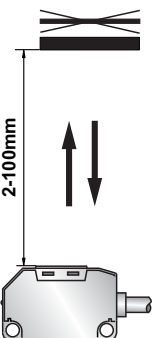



Thru-beam Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p>Thru-beam Mode</p> <p>Sensing Distance: 4 m</p> <p>Light source: Red light</p> 	<p>2m Cable</p> 	10-30V DC	Emitter	<u>RS28-T4000D-EY6G2L2</u>
			NPN Light-ON	<u>RS28-T4000N-LY6G3U2</u>
			NPN Dark-ON	<u>RS28-T4000N-DY6G3U2</u>
			NPN L.O./D.O.	<u>RS28-T4000N-CY6G4U2</u>
			PNP Light-ON	<u>RS28-T4000P-LY6G3U2</u>
			PNP Dark-ON	<u>RS28-T4000P-DY6G3U2</u>
			PNP L.O./D.O.	<u>RS28-T4000P-CY6G4U2</u>
	<p>Quick Disconnect (Pico-style)</p> 	10-30V DC	Emitter	<u>RS28-T4000D-EY6Q4LP</u>
			NPN Light-ON	<u>RS28-T4000N-LY6Q4UP</u>
			NPN Dark-ON	<u>RS28-T4000N-DY6Q4UP</u>
			NPN L.O./D.O.	<u>RS28-T4000N-CY6Q4UP</u>
			PNP Light-ON	<u>RS28-T4000P-LY6Q4UP</u>
			PNP Dark-ON	<u>RS28-T4000P-DY6Q4UP</u>
			PNP L.O./D.O.	<u>RS28-T4000P-CY6Q4UP</u>
	<p>6" Pig Tail (Pico-style)</p> 	10-30V DC	Emitter	<u>RS28-T4000D-EY6P4LP</u>
			NPN Light-ON	<u>RS28-T4000N-LY6P4UP</u>
			NPN Dark-ON	<u>RS28-T4000N-DY6P4UP</u>
			NPN L.O./D.O.	<u>RS28-T4000N-CY6P4UP</u>
			PNP Light-ON	<u>RS28-T4000P-LY6P4UP</u>
			PNP Dark-ON	<u>RS28-T4000P-DY6P4UP</u>
			PNP L.O./D.O.	<u>RS28-T4000P-CY6P4UP</u>

Note:

Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle

Diffuse Mode / BGS Type Diffuse Mode

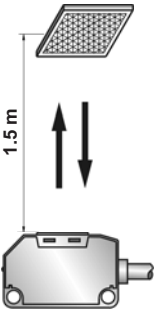



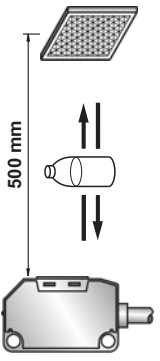



Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
 <p>Diffuse Mode Sensing Distance: 10-250mm Light source: Red light</p>	2m Cable 	10-30V DC	NPN Light-ON	<u>RS28-D0250N-LY6C3U2</u>
			NPN Dark-ON	<u>RS28-D0250N-DY6C3U2</u>
			NPN L.O./D.O.	<u>RS28-D0250N-CY6C4U2</u>
			PNP Light-ON	<u>RS28-D0250P-LY6C3U2</u>
			PNP Dark-ON	<u>RS28-D0250P-DY6C3U2</u>
			PNP L.O./D.O.	<u>RS28-D0250P-CY6C4U2</u>
	Quick Disconnect (Pico-style) 	10-30V DC	NPN Light-ON	<u>RS28-D0250N-LY6Q4UP</u>
			NPN Dark-ON	<u>RS28-D0250N-DY6Q4UP</u>
			NPN L.O./D.O.	<u>RS28-D0250N-CY6Q4UP</u>
			PNP Light-ON	<u>RS28-D0250P-LY6Q4UP</u>
			PNP Dark-ON	<u>RS28-D0250P-DY6Q4UP</u>
			PNP L.O./D.O.	<u>RS28-D0250P-CY6Q4UP</u>
	6" Pig Tail (Pico-style) 	10-30V DC	NPN Light-ON	<u>RS28-D0250N-LY6P4UP</u>
			NPN Dark-ON	<u>RS28-D0250N-DY6P4UP</u>
			NPN L.O./D.O.	<u>RS28-D0250N-CY6P4UP</u>
			PNP Light-ON	<u>RS28-D0250P-LY6P4UP</u>
			PNP Dark-ON	<u>RS28-D0250P-DY6P4UP</u>
			PNP L.O./D.O.	<u>RS28-D0250P-CY6P4UP</u>
 <p>Diffuse Mode With Background Suppression Sensing Distance: 2-100mm Light source: Red light</p>	2m Cable 	10-30V DC	NPN Light-ON	<u>RS28-D0100N-LY6C3U2-BS</u>
			NPN Dark-ON	<u>RS28-D0100N-DY6C3U2-BS</u>
			NPN L.O./D.O.	<u>RS28-D0100N-CY6C4U2-BS</u>
			PNP Light-ON	<u>RS28-D0100P-LY6C3U2-BS</u>
			PNP Dark-ON	<u>RS28-D0100P-DY6C3U2-BS</u>
			PNP L.O./D.O.	<u>RS28-D0100P-CY6C4U2-BS</u>
	Quick Disconnect (Pico-style) 	10-30V DC	NPN Light-ON	<u>RS28-D0100N-LY6Q4UP-BS</u>
			NPN Dark-ON	<u>RS28-D0100N-DY6Q4UP-BS</u>
			NPN L.O./D.O.	<u>RS28-D0100N-CY6Q4UP-BS</u>
			PNP Light-ON	<u>RS28-D0100P-LY6Q4UP-BS</u>
			PNP Dark-ON	<u>RS28-D0100P-DY6Q4UP-BS</u>
			PNP L.O./D.O.	<u>RS28-D0100P-CY6Q4UP-BS</u>
	6" Pig Tail (Pico-style) 	10-30V DC	NPN Light-ON	<u>RS28-D0100N-LY6P4UP-BS</u>
			NPN Dark-ON	<u>RS28-D0100N-DY6P4UP-BS</u>
			NPN L.O./D.O.	<u>RS28-D0100N-CY6P4UP-BS</u>
			PNP Light-ON	<u>RS28-D0100P-LY6P4UP-BS</u>
			PNP Dark-ON	<u>RS28-D0100P-DY6P4UP-BS</u>
			PNP L.O./D.O.	<u>RS28-D0100P-CY6P4UP-BS</u>

Note:

Coming Soon : Part numbers with underline

In Preparation: Part numbers with a line through the middle

Retroreflective Mode / Clear Object Detector

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
 <p>Retro-reflective Mode With Polarizing filter Sensing Distance: 1.5m (Note) Light source: Red light</p>	2m Cable 	10-30V DC	NPN Light-ON	<u>RS28-L1500N-LY6C3U2-PF</u>
			NPN Dark-ON	<u>RS28-L1500N-DY6C3U2-PF</u>
			NPN L.O./D.O.	<u>RS28-L1500N-CY6C4U2-PF</u>
			PNP Light-ON	<u>RS28-L1500P-LY6C3U2-PF</u>
			PNP Dark-ON	<u>RS28-L1500P-DY6C3U2-PF</u>
			PNP L.O./D.O.	<u>RS28-L1500P-CY6C4U2-PF</u>
	Quick Disconnect (Pico-style) 	10-30V DC	NPN Light-ON	<u>RS28-L1500N-LY6Q4UP-PF</u>
			NPN Dark-ON	<u>RS28-L1500N-DY6Q4UP-PF</u>
			NPN L.O./D.O.	<u>RS28-L1500N-CY6Q4UP-PF</u>
			PNP Light-ON	<u>RS28-L1500P-LY6Q4UP-PF</u>
			PNP Dark-ON	<u>RS28-L1500P-DY6Q4UP-PF</u>
			PNP L.O./D.O.	<u>RS28-L1500P-CY6Q4UP-PF</u>
	6" Pig Tail (Pico-style) 	10-30V DC	NPN Light-ON	<u>RS28-L1500N-LY6P4UP-PF</u>
			NPN Dark-ON	<u>RS28-L1500N-DY6P4UP-PF</u>
			NPN L.O./D.O.	<u>RS28-L1500N-CY6P4UP-PF</u>
			PNP Light-ON	<u>RS28-L1500P-LY6P4UP-PF</u>
			PNP Dark-ON	<u>RS28-L1500P-DY6P4UP-PF</u>
			PNP L.O./D.O.	<u>RS28-L1500P-CY6P4UP-PF</u>
 <p>Clear Object Detector Sensing Distance: 500mm (Note) Light source: Red light</p>	2m Cable 	10-30V DC	NPN Light-ON	<u>RS28-S0500N-LY6C3U2</u>
			NPN Dark-ON	<u>RS28-S0500N-DY6C3U2</u>
			NPN L.O./D.O.	<u>RS28-S0500N-CY6C4U2</u>
			PNP Light-ON	<u>RS28-S0500P-LY6C3U2</u>
			PNP Dark-ON	<u>RS28-S0500P-DY6C3U2</u>
			PNP L.O./D.O.	<u>RS28-S0500P-CY6C4U2</u>
	Quick Disconnect (Pico-style) 	10-30V DC	NPN Light-ON	<u>RS28-S0500N-LY6Q4UP</u>
			NPN Dark-ON	<u>RS28-S0500N-DY6Q4UP</u>
			NPN L.O./D.O.	<u>RS28-S0500N-CY6Q4UP</u>
			PNP Light-ON	<u>RS28-S0500P-LY6Q4UP</u>
			PNP Dark-ON	<u>RS28-S0500P-DY6Q4UP</u>
			PNP L.O./D.O.	<u>RS28-S0500P-CY6Q4UP</u>
	6" Pig Tail (Pico-style) 	10-30V DC	NPN Light-ON	<u>RS28-S0500N-LY6P4UP</u>
			NPN Dark-ON	<u>RS28-S0500N-DY6P4UP</u>
			NPN L.O./D.O.	<u>RS28-S0500N-CY6P4UP</u>
			PNP Light-ON	<u>RS28-S0500P-LY6P4UP</u>
			PNP Dark-ON	<u>RS28-S0500P-DY6P4UP</u>
			PNP L.O./D.O.	<u>RS28-S0500P-CY6P4UP</u>

Note: Used with RE-6152 (supplied with sensor) reflector.

Coming Soon : Part numbers with underline

In Preparation: Part numbers with a line through the middle

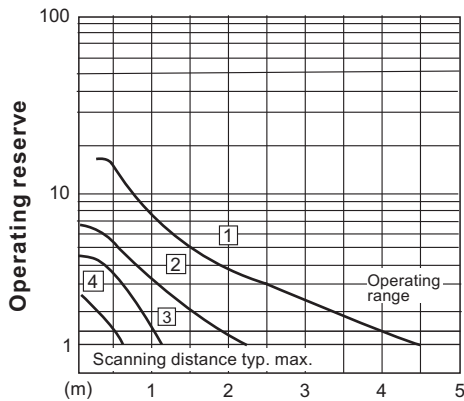
Specifications

Item	Sensing Mode				
	Thru-beam	Diffuse	Diffuse (with background suppression)	Retroreflective (with polarizing filter)	Clear Object Detector
Sensing Range (Adjustable)	4 m	10...250 mm	2...100 mm	5mm...1.5m (Note)	10...500mm (Note)
Light spot diameter (approx.)	400mm@ 4 m	20mm@200mm	4mm@ 40mm	150mm@ 1.5m	40mm@ 300mm
Field of View	6°(emitter) 1.5°(receiver)	6°	5°	6°	7.5°
Light Source	Red Light				
Indicator LED	Red: Light received > switching threshold				
Response Time	≤ 0.5 ms				
Max. Frequency	1000 Hz				
Supply Voltage	10-30V DC (Ripple= 10%)				
Output Type	NPN, PNP				
Operation Mode	Light-ON, Dark-ON, Light/Dark changeover (see type number)				
Max. Output Current	100 mA				
Current consumption(no load)	≤15mA(emitter) ≤20mA(receiver)	≤20 mA			≤30 mA
Enclosure Rating	IP67				
Circuit Protection	Outputs short circuit and over current protected, Vs reverse polarity protected				
Ambient Operating Temperature	-25...+55°C				
Storage Temperature	-40...+70°C				
Material	Housing: ABS, Optics: PC				
EMC	IEC 60947-5-2, Parts 7.2.6.1. 2.3 or RFI>3V/m (in 30-1000MHz), EFT>1KV, ESD>4KV(contact)				
Voltage Withstand 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				
Weight	Approx. 44g (2m cable type) Approx. 7g (M8 connector type)				
Connection Type	Cable type: 2m PVC, Connector type: 4-pin M8(pico-style), Pigtail type: See Pigtail Series or our Cables & Connectors catalogue.				

Note: Used with RE-6152 (supplied with sensor) reflector.

Sensing Characteristics (Typical)

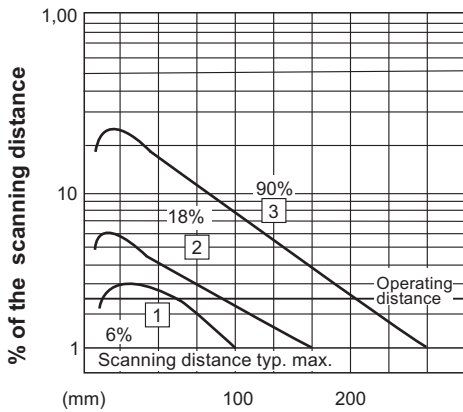
Thru-beam Mode (Sn=4 m)



Reduction in scanning range with slotted masks

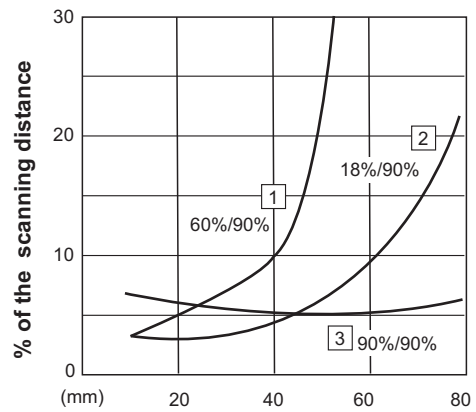
1	Without slotted mask
2	Mask aperture width 2.0 mm
3	Mask aperture width 1.0 mm
4	Mask aperture width 0.5 mm

Diffuse Mode (Sn=250 mm)



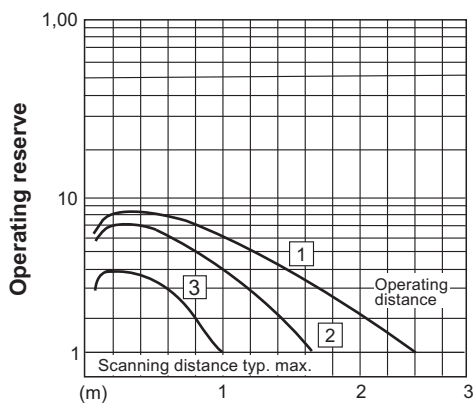
1	Scanning distance on black, 6% remission
2	Scanning distance on grey, 18% remission
3	Scanning distance on white, 90% remission

Background Suppression Diffuse (Sn=100mm)



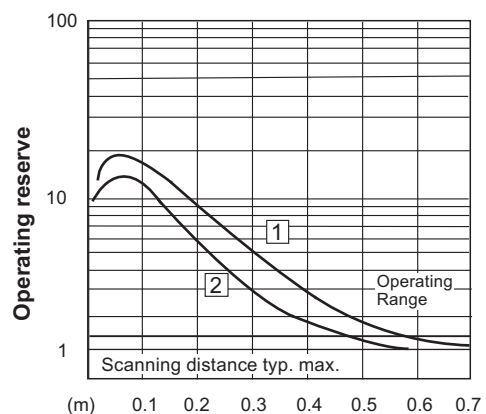
1	Scanning distance on black, 6% remission
2	Scanning distance on grey, 18% remission
3	Scanning distance on white, 90% remission

Polarized Retro-reflective Mode (Sn=1.5m)



1	RE-8484 reflector	0.01... 2m
2	RE-6152 reflector	0.01... 1.5m
3	RE-6041 reflector	0.01... 1.5m

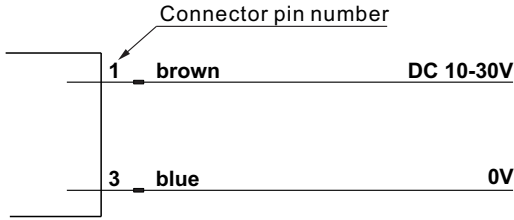
Clear Object Detector (Sn=500mm)



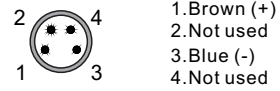
	Reflector type	Operating range (m)
1	RE-8484 reflector	0.01... 0.6m
2	RE-6152 reflector	0.01... 0.5m

Connection Diagrams

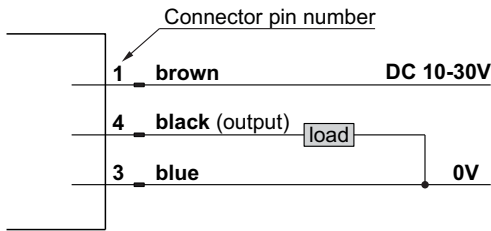
Emitter of Thru-beam Mode



Connector face view Pico-Style

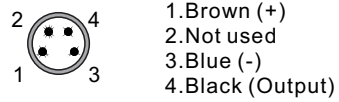


PNP Light-ON (Dark-ON) output type

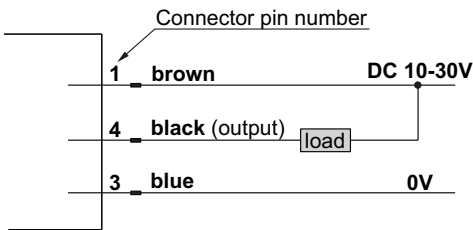


Connector face view

Pico-Style

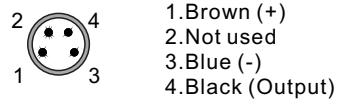


NPN Light-ON (Dark-ON) output type

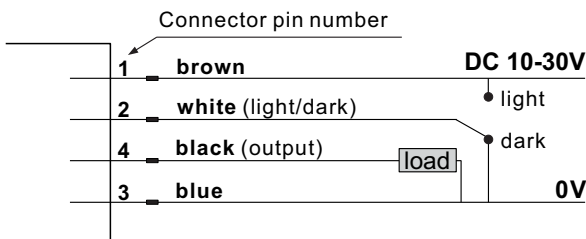


Connector face view

Pico-Style

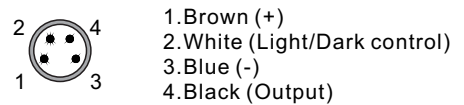


PNP L.O./D.O. output type

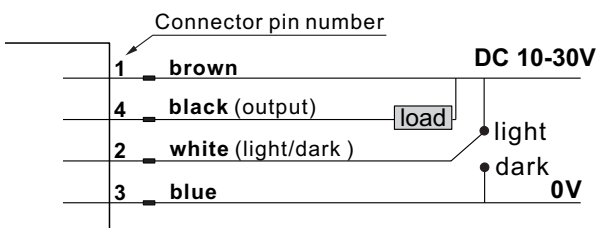


Connector face view

Pico-Style



NPN L.O./D.O. output type



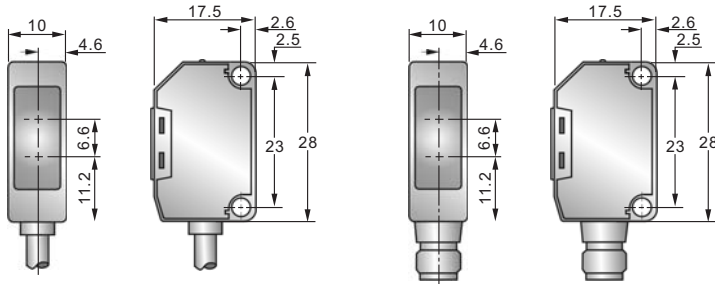
Connector face view

Pico-Style



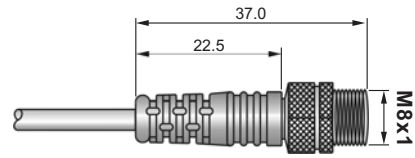
Dimensions (Unit: mm)

Sensor Type



Cable Type

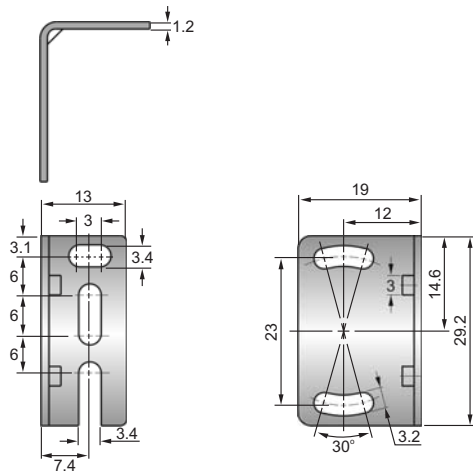
Connector Type (Pico-style)



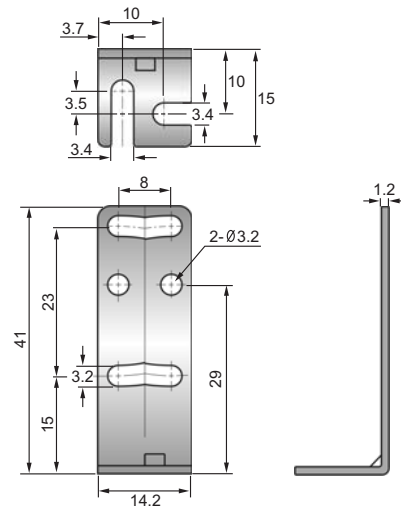
Pigtail* Type (Pico-style)

*: Please see Pigtail Series or our Cables & Connectors catalogue for more information.

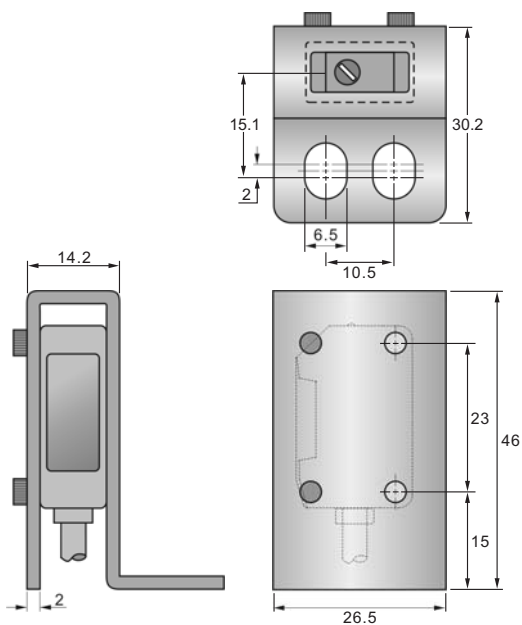
MB-2919 (Mounting bracket-optional)



MB-4114 (Mounting bracket-optional)



PB-4626 (Protective bracket-optional)



PB-6026 (Protective bracket-optional)

