





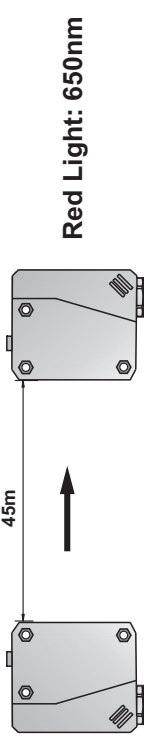







Thru-beam Mode (DC)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number	
<p style="text-align: center;">Red Light</p>  <p style="text-align: center;">45m</p> <p style="text-align: center;">Thru-beam Mode Sensing Distance: 45m</p>	<p>2m Cable</p> 	10-30V DC	Emitter	<u>RP75-T045MD-EY6C2L2</u>	
	<p>Terminal</p> 		10-30V DC	NPN	RP75-T045MN-CY6C3U2
				PNP	<u>RP75-T045MP-CY6C3U2</u>
				NPN/PNP	<u>RP75-T045MD-CY6C4U2</u>
				NPN , Timing delay	RP75-T045MN-CY6C3U2-T
				PNP , Timing delay	RP75-T045MP-CY6C3U2-T
		NPN/PNP,Timing delay		RP75-T045MD-CY6C4U2-T	
	<p>Quick Disconnect (0° or 90° settled)</p> 	10-30V DC (Euro Style)	Emitter	<u>RP75-T045MD-EY6Q4LE</u>	
			NPN	RP75-T045MN-CY6Q4UE	
			PNP	<u>RP75-T045MP-CY6Q4UE</u>	
			NPN/PNP	<u>RP75-T045MD-CY6Q4UE</u>	
			NPN , Timing delay	RP75-T045MN-CY6Q4UE-T	
			PNP , Timing delay	RP75-T045MP-CY6Q4UE-T	
		<p>Quick Disconnect swivel 90°</p> 	10-30V DC (Euro Style)	NPN/PNP,Timing delay	RP75-T045MD-CY6Q4UE-T
				Emitter	<u>RP75-T045MD-EY6Q4LE-S</u>
				NPN	RP75-T045MN-CY6Q4UE-S
				PNP	<u>RP75-T045MP-CY6Q4UE-S</u>
				NPN/PNP	<u>RP75-T045MD-CY6Q4UE-S</u>
NPN , Timing delay				RP75-T045MN-CY6Q4UE-TS	
<p>6" Pigtail</p> 	10-30V DC (Euro Style)	PNP , Timing delay	RP75-T045MP-CY6Q4UE-TS		
		Emitter	<u>RP75-T045MD-EY6P4LE</u>		
		NPN	RP75-T045MN-CY6P4UE		
		PNP	<u>RP75-T045MP-CY6P4UE</u>		
		NPN/PNP	<u>RP75-T045MD-CY6P4UE</u>		
		NPN , Timing delay	RP75-T045MN-CY6P4UE-T		
PNP , Timing delay	RP75-T045MP-CY6P4UE-T				
NPN/PNP,Timing delay	RP75-T045MD-CY6P4UE-T				

Note:
 Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle
 — Af-01 —

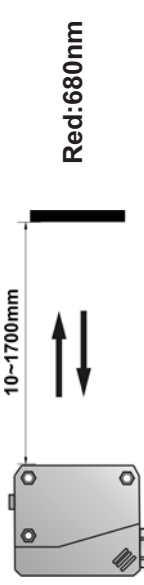





Thru-beam Mode (AC/DC)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p style="text-align: center;">Red Light: 650nm</p>  <p style="text-align: center;">Thru-beam Mode Sensing Distance: 45m</p>	2m Cable 	24-240V DC/ 24-240V AC	Emitter (2-wire) <u>RP75-T045MC-EY6C2L2</u>	
			Relay L.O./D.O. (4-wire) <u>RP75-T045MR-CY6C4L2</u>	
			Relay, Timing delay (4-wire) <u>RP75-T045MR-CY6C4L2-T</u>	
			SPST Solid-state Light-ON/Dark-ON (2-wire) <u>RP75-T045MC-CY6C2U2</u>	
		Terminal 	24-240V DC/ 24-240V AC	Emitter (2-wire) <u>RP75-T045MC-EY6T4L</u>
		Relay L.O./D.O. (4-wire) <u>RP75-T045MR-CY6T4L</u>		
		Relay, Timing delay (4-wire) <u>RP75-T045MR-CY6T4L-T</u>		
		SPST Solid-state Light-ON/Dark-ON (2-wire) <u>RP75-T045MC-CY6T4U</u>		
		Quick Disconnect (0° or 90° settled) 	24-240V DC/ 24-240V AC (Micro Style)	Emitter (2-wire) <u>RP75-T045MC-EY6Q4LM</u>
		Relay L.O./D.O. (4-wire) <u>RP75-T045MR-CY6Q4LM</u>		
		Relay, Timing delay (4-wire) <u>RP75-T045MR-CY6Q4LM-T</u>		
		SPST Solid-state Light-ON/Dark-ON (2-wire) <u>RP75-T045MC-CY6Q4UM</u>		
	Quick Disconnect swivel 90° 	24-240V DC/ 24-240V AC (Micro Style)	Emitter (2-wire) <u>RP75-T045MC-EY6Q4LM-S</u>	
	Relay L.O./D.O. (4-wire) <u>RP75-T045MR-CY6Q4LM-S</u>			
	Relay, Timing delay (4-wire) <u>RP75-T045MR-CY6Q4LM-TS</u>			
	SPST Solid-state Light-ON/Dark-ON (2-wire) <u>RP75-T045MC-CY6Q4UM-S</u>			
	6" Pigtail 	24-240V DC/ 24-240V AC (Micro Style)	Emitter (2-wire) <u>RP75-T045MC-EY6P4LM</u>	
	Relay L.O./D.O. (4-wire) <u>RP75-T045MR-CY6P4LM</u>			
	Relay, Timing delay (4-wire) <u>RP75-T045MR-CY6P4LM-T</u>			
	SPST Solid-state Light-ON/Dark-ON (2-wire) <u>RP75-T045MC-CY6P4UM</u>			

Note:
 Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle
 — Af-02 —

Af: RP75 SERIES






Diffuse Mode (DC)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Af: RP75 SERIES</p> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Diffuse Mode</p> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Sensing Distance: 10-1700mm</p> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Red: 680nm</p> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">10~1700mm</p> 	2m Cable	10-30V DC	NPN	<u>RP75-D1700N-CY6C3U2</u>
			PNP	<u>RP75-D1700P-CY6C3U2</u>
			NPN/PNP	<u>RP75-D1700D-CY6C4U2</u>
			NPN , Timing delay	<u>RP75-D1700N-CY6C3U2-T</u>
			PNP , Timing delay	<u>RP75-D1700P-CY6C3U2-T</u>
			NPN/PNP,Timing delay	<u>RP75-D1700D-CY6C4U2-T</u>
		Terminal	10-30V DC	NPN
		PNP		<u>RP75-D1700P-CY6T4U</u>
		NPN/PNP		<u>RP75-D1700D-CY6T4U</u>
		NPN , Timing delay		<u>RP75-D1700N-CY6T4U-T</u>
		PNP , Timing delay		<u>RP75-D1700P-CY6T4U-T</u>
		NPN/PNP,Timing delay		<u>RP75-D1700D-CY6T4U-T</u>
		Quick Disconnect (0°or 90°settled)	10-30V DC (Euro Style)	NPN
		PNP		<u>RP75-D1700P-CY6Q4UE</u>
		NPN/PNP		<u>RP75-D1700D-CY6Q4UE</u>
		NPN , Timing delay		<u>RP75-D1700N-CY6Q4UE-T</u>
		PNP , Timing delay		<u>RP75-D1700P-CY6Q4UE-T</u>
		NPN/PNP,Timing delay		<u>RP75-D1700D-CY6Q4UE-T</u>
		Quick Disconnect swivel 90°	10-30V DC (Euro Style)	NPN
		PNP		<u>RP75-D1700P-CY6Q4UE-S</u>
		NPN/PNP		<u>RP75-D1700D-CY6Q4UE-S</u>
		NPN , Timing delay		<u>RP75-D1700N-CY6Q4UE-TS</u>
		PNP , Timing delay		<u>RP75-D1700P-CY6Q4UE-TS</u>
		NPN/PNP,Timing delay		<u>RP75-D1700D-CY6Q4UE-TS</u>
6" Pigtail		10-30V DC (Euro Style)	NPN	<u>RP75-D1700N-CY6P4UE</u>
	PNP		<u>RP75-D1700P-CY6P4UE</u>	
	NPN/PNP		<u>RP75-D1700D-CY6P4UE</u>	
	NPN , Timing delay		<u>RP75-D1700N-CY6P4UE-T</u>	
	PNP , Timing delay		<u>RP75-D1700P-CY6P4UE-T</u>	
	NPN/PNP,Timing delay		<u>RP75-D1700D-CY6P4UE-T</u>	

Note:

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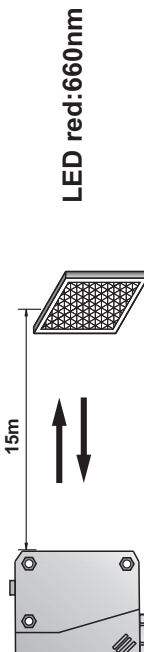





Diffuse Mode (AC/DC)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p style="text-align: center;">Red: 680nm</p> <p style="text-align: center;">10~1700 mm</p> <p style="text-align: center;">Diffuse Mode</p> <p style="text-align: center;">Sensing Distance: 10-1700mm</p>	2m Cable 	24-240V DC/ 24-240V AC	Relay L.O./D.O. (4-wire)	<u>RP75-D1700R-CY6C4L2</u>
			Relay, Timing delay (4-wire)	<u>RP75-D1700R-CY6C4L2-T</u>
			SPST Solid-state L.O./D.O. (2-wire)	<u>RP75-D1700C-CY6C2U2</u>
	Terminal 	24-240V DC/ 24-240V AC	Relay L.O./D.O. (4-wire)	<u>RP75-D1700R-CY6T4L</u>
			Relay, Timing delay (4-wire)	<u>RP75-D1700R-CY6T4L-T</u>
			SPST Solid-state L.O./D.O. (2-wire)	<u>RP75-D1700C-CY6T4U</u>
	Quick Disconnect (0° or 90° settled) 	24-240V DC/ 24-240V AC (Micro Style)	Relay L.O./D.O. (4-wire)	<u>RP75-D1700R-CY6Q4LM</u>
			Relay, Timing delay (4-wire)	<u>RP75-D1700R-CY6Q4LM-T</u>
			SPST Solid-state L.O./D.O. (2-wire)	<u>RP75-D1700C-CY6Q4UM</u>
	Quick Disconnect swivel 90° 	24-240V DC/ 24-240V AC (Micro Style)	Relay L.O./D.O. (4-wire)	<u>RP75-D1700R-CY6Q4LM-S</u>
			Relay, Timing delay (4-wire)	<u>RP75-D1700R-CY6Q4LM-TS</u>
			SPST Solid-state L.O./D.O. (2-wire)	<u>RP75-D1700C-CY6Q4UM-S</u>
	6" Pigtail 	24-240V DC/ 24-240V AC (Micro Style)	Relay L.O./D.O. (4-wire)	<u>RP75-D1700R-CY6P4LM</u>
			Relay, Timing delay (4-wire)	<u>RP75-D1700R-CY6P4LM-T</u>
			SPST Solid-state L.O./D.O. (2-wire)	<u>RP75-D1700C-CY6P4UM</u>

Note:
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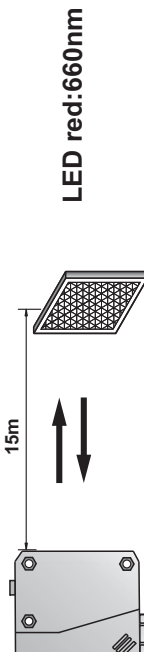





Af: RP75 SERIES

Retroreflective Mode with Polarizing Filter (DC)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Retroreflective Mode (With polarizing filter) Sensing Distance: 15m (Note)</p>  <p style="writing-mode: vertical-rl; transform: rotate(180deg);">LED red:660nm</p>	2m Cable	10-30V DC	NPN	<u>RP75-L015MN-CY6C3U2-PF</u>	
			10-30V DC	PNP	<u>RP75-L015MP-CY6C3U2-PF</u>
				NPN/PNP	<u>RP75-L015MD-CY6C4U2-PF</u>
				NPN , Timing delay	<u>RP75-L015MN-CY6C3U2-TP</u>
				PNP , Timing delay	<u>RP75-L015MP-CY6C3U2-TP</u>
				NPN/PNP,Timing delay	<u>RP75-L015MD-CY6C4U2-TP</u>
		Terminal		10-30V DC	NPN
		10-30V DC	PNP		<u>RP75-L015MP-CY6T4U-PF</u>
			NPN/PNP		<u>RP75-L015MD-CY6T4U-PF</u>
			NPN , Timing delay		<u>RP75-L015MN-CY6T4U-TP</u>
			PNP , Timing delay		<u>RP75-L015MP-CY6T4U-TP</u>
			NPN/PNP,Timing delay		<u>RP75-L015MD-CY6T4U-TP</u>
			Quick Disconnect (0°or 90°settled)	10-30V DC (Euro Style)	NPN
		10-30V DC (Euro Style)	PNP		<u>RP75-L015MP-CY6Q4UE-PF</u>
			NPN/PNP		<u>RP75-L015MD-CY6Q4UE-PF</u>
			NPN , Timing delay		<u>RP75-L015MN-CY6Q4UE-TP</u>
			PNP , Timing delay		<u>RP75-L015MP-CY6Q4UE-TP</u>
			NPN/PNP,Timing delay		<u>RP75-L015MD-CY6Q4UE-TP</u>
			Quick Disconnect swivel 90°	10-30V DC (Euro Style)	NPN
		10-30V DC (Euro Style)	PNP		<u>RP75-L015MP-CY6Q4UE-PS</u>
			NPN/PNP		<u>RP75-L015MD-CY6Q4UE-PS</u>
			NPN , Timing delay		<u>RP75-L015MN-CY6Q4UE-PT</u>
			PNP , Timing delay		<u>RP75-L015MP-CY6Q4UE-PT</u>
			NPN/PNP,Timing delay		<u>RP75-L015MD-CY6Q4UE-PT</u>
6" Pigtail			10-30V DC (Euro Style)	NPN	<u>RP75-L015MN-CY6P4UE-PF</u>
	10-30V DC (Euro Style)	PNP		<u>RP75-L015MP-CY6P4UE-PF</u>	
		NPN/PNP		<u>RP75-L015MD-CY6P4UE-PF</u>	
		NPN , Timing delay		<u>RP75-L015MN-CY6P4UE-TP</u>	
		PNP , Timing delay		<u>RP75-L015MP-CY6P4UE-TP</u>	
		NPN/PNP,Timing delay		<u>RP75-L015MD-CY6P4UE-TP</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
 — Af-05 —

Retroreflective Mode with Polarizing Filter (AC/DC)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number	
<p>Retroreflective Mode (With polarizing filter) Sensing Distance: 15m (Note)</p>  <p>LED red:660nm</p>	<p>2m Cable</p> 	<p>12-240V DC/ 24-240V AC</p>	<p>Relay L.O./D.O. (4-wire)</p>	<p><u>RP75-L015MR-CY6C4L2-PF</u></p>	
				<p>Relay, Timing delay (4-wire)</p>	<p><u>RP75-L015MR-CY6C4L2-TP</u></p>
				<p>SPST Solid-state L.O./D.O. (2-wire)</p>	<p><u>RP75-L015MC-CY6C2U2-PF</u></p>
		<p>Terminal</p> 	<p>12-240V DC/ 24-240V AC</p>	<p>Relay L.O./D.O. (4-wire)</p>	<p><u>RP75-L015MR-CY6T4L-PF</u></p>
				<p>Relay, Timing delay (4-wire)</p>	<p><u>RP75-L015MR-CY6T4L-TP</u></p>
				<p>SPST Solid-state L.O./D.O. (2-wire)</p>	<p><u>RP75-L015MC-CY6T4U-PF</u></p>
		<p>Quick Disconnect (0° or 90° settled)</p> 	<p>12-240V DC/ 24-240V AC (Micro Style)</p>	<p>Relay L.O./D.O. (4-wire)</p>	<p><u>RP75-L015MR-CY6Q4LM-PF</u></p>
				<p>Relay, Timing delay (4-wire)</p>	<p><u>RP75-L015MR-CY6Q4LM-TP</u></p>
				<p>SPST Solid-state L.O./D.O. (2-wire)</p>	<p><u>RP75-L015MC-CY6Q4UM-PF</u></p>
		<p>Quick Disconnect swivel 90°</p> 	<p>12-240V DC/ 24-240V AC (Micro Style)</p>	<p>Relay L.O./D.O. (4-wire)</p>	<p><u>RP75-L015MR-CY6Q4LM-PS</u></p>
				<p>Relay, Timing delay (4-wire)</p>	<p><u>RP75-L015MR-CY6Q4LM-PT</u></p>
				<p>SPST Solid-state L.O./D.O. (2-wire)</p>	<p><u>RP75-L015MC-CY6Q4UM-PS</u></p>
		<p>6" Pigtail</p> 	<p>12-240V DC/ 24-240V AC (Micro Style)</p>	<p>Relay L.O./D.O. (4-wire)</p>	<p><u>RP75-L015MR-CY6P4LM-PF</u></p>
				<p>Relay, Timing delay (4-wire)</p>	<p><u>RP75-L015MR-CY6P4LM-TP</u></p>
				<p>SPST Solid-state L.O./D.O. (2-wire)</p>	<p><u>RP75-L015MC-CY6P4UM-PF</u></p>

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
 — Af-06 —

Af: RP75 SERIES

Specifications (DC)

Item \ Sensing Mode	Thru-beam	Diffuse	Retroreflective Mode (With polarizing filter)
Sensing Range, Adjustable	45m	1.7 m	15m (Note)
Angle of Divergence	Approx. 1.4° Approx. 6°	Approx. 1°	Approx. 1.6°
Light Spot Size	0 mm @ 40m	38 mm @ 1.3m	280 mm @ 10m
Light Source	LED Red		
Response Time/Frequency	≤0.5ms		
Supply Voltage	10-30V DC (limit values)		
Current Consumption (no load)	≤35 mA		
Ripple (within Vs tolerance)	≤ 5 V peak-to-peak		
Output Type	PNP, NPN, PNP/NPN		
Output Voltage High	PNP is Vs-(≤2.5V); NPN is approx. Vs		
Output Voltage Low	PNP is approx. 0V; NPN is ≤1.5V		
Output Current Max.	100 mA		
Operation Mode	Light or dark switching selectable via switch		
Material	Housing: ABS, Optics:PMMA		
Enclosure Rating	IP 66		
Circuit Protection	Outputs short circuit and over current protected, Vs reverse polarity protected		
Switching frequency	1000/s		
Connection types	2mCable, terminal chamber, M12 plug (4-pin), M12 pigtail (4-pin)		
Time Options	No delay, On delay, Off delay, One-shot (with timer mode only)		
Time Settings	0.1 ... 5s Variable (with timer mode only)		
Ambient Operating Temperature	-25...55°C		
Storage Temperature	-40...70°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	>20MΩ, 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. 150 g		
Mounting Bracket	MB-8347 (optional)		

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

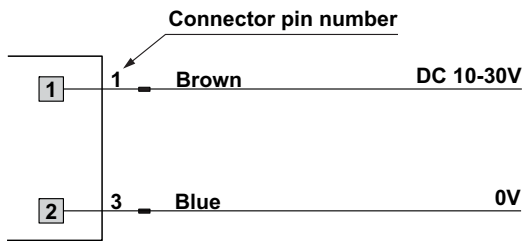
Specifications (AC/DC)

Item \ Sensing Mode	Thru-beam	Diffuse	Retroreflective Mode (With polarizing filter)
Sensing Range, Adjustable	45m	1.7 m	15m (Note)
Angle of Divergence	Approx. 1.4° Approx. 6°	Approx. 1°	Approx. 1.6°
Light Spot Size	1 mm @ 40m	38 mm @ 1.3m	280 mm @ 10m
Light Source	LED Red		
Response Time / Frequency	≤20 ms		
Supply Voltage	12-240V DC / 24-240V AC (10%)		
Power Consumption	≤30mA		
Output Type	Relay NO isolated (provide arc suppression for inductive / capacitive loads), SPST Solid-state with either normally closed or normally open contact		
Switching Frequency	25/S		
Switching Current Max.	3 A/240VAC: 3A/30 VDC		
Current Consumption (No load)	≤ 5 VA		
Operation Mode	Relay NO isolated: Light or dark switching selectable via switch SPST Solid-state: Light/Dark operate selectable via switch		
Material	Housing: ABS, Optics: PMMA		
Enclosure Rating	IP 66		
Circuit Protection	Output short circuit protected (Not for Relay output), Vs reverse polarity protected		
Time Options	No delay, On delay, Off delay, One-shot (with timer mode only)		
Time Settings	Adjustable, 0.1...5 s (with timer mode only)		
Ambient Operating Temperature	-25...55°C		
Storage Temperature	-40...70°C		
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 1500V AC for one min, between all supply terminals connected together and enclosure		
Insulation Resistance	>20M Ω, with 500V AC 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. 150 g		
Connection types	2m Cable, Terminal, M12 connector, M12 swivel 90° connector, M12 pigtail		
Mounting Bracket	MB-8347 (optional)		

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

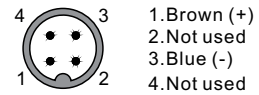
Connection Diagrams

Emitter of Thru-beam Mode (DC)

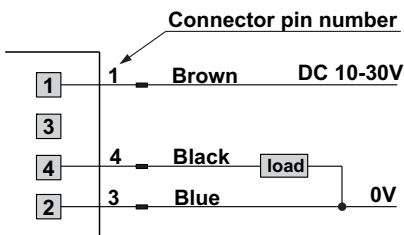


Connector pin position

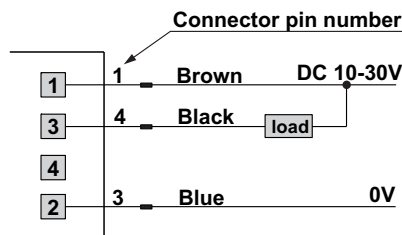
Euro-style



PNP output

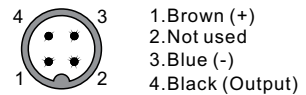


NPN output

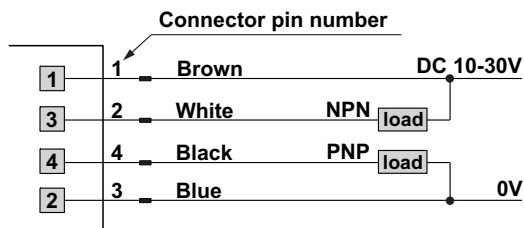


Connector pin position

Euro-style

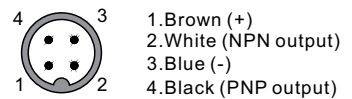


NPN/PNP output

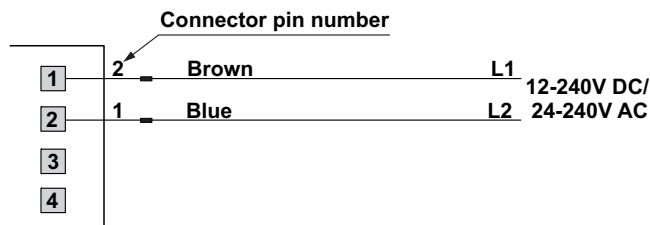


Connector pin position

Euro-style

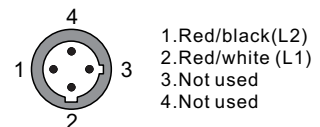


Emitter of Thru-beam Mode (AC/DC)

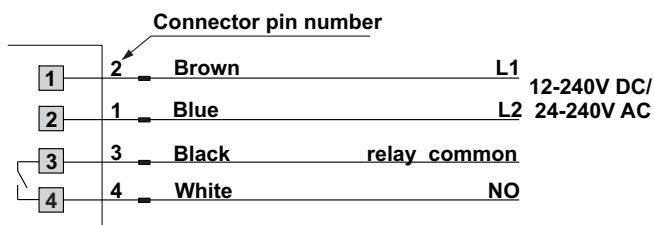


Connector pin position

Micro-style

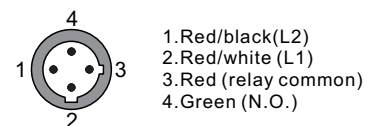


Relay output (AC/DC)

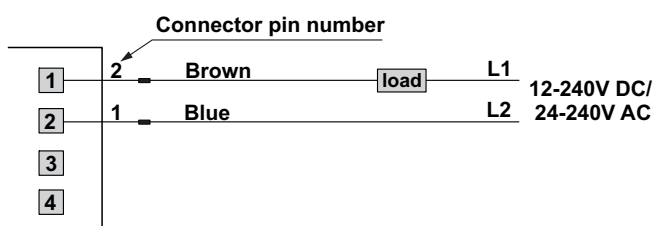


Connector pin position

Micro-style

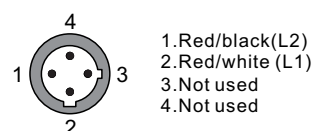


SPST Solid-state output (AC/DC)



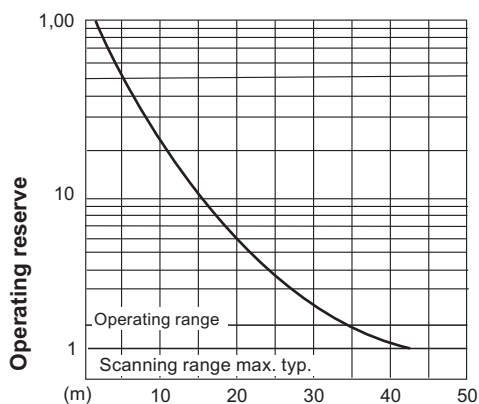
Connector pin position

Micro-style

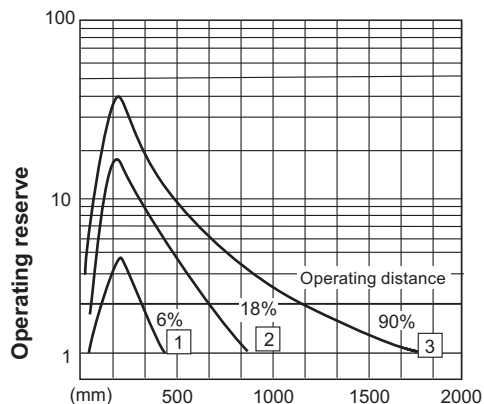


Sensing Characteristics (Typical)

Thru-beam Mode (Sn=45m)

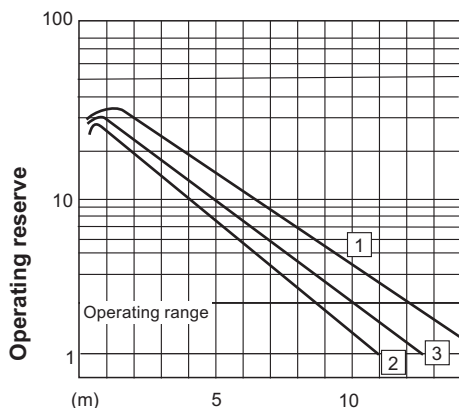


Diffuse Mode (Sn=1.7m)



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

Retroreflective Mode with Polarizing Filter (Sn=15m)



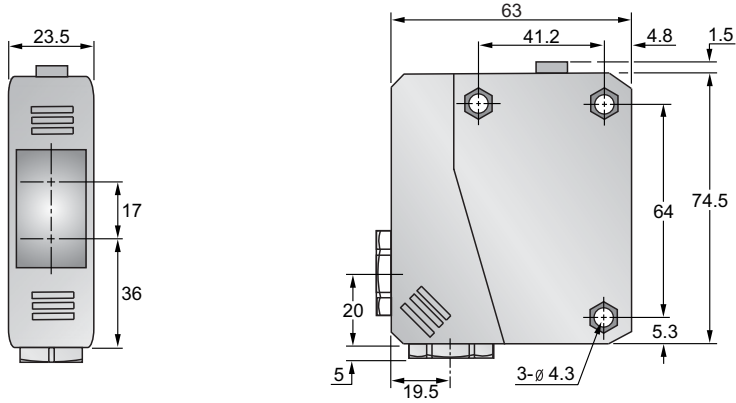
	Reflector type	Operating range
1	RE-8484	0.01...13.0m
2	RE-6152	0.01...10.0m
3	RE-6041	0.01...11.0m

Af: RP75 SERIES

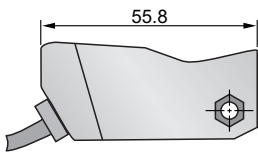
Dimensions (Unit: mm)

Sensor Type

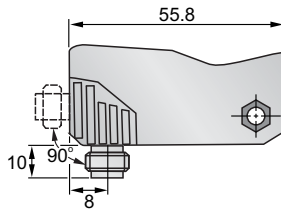
Terminal Type



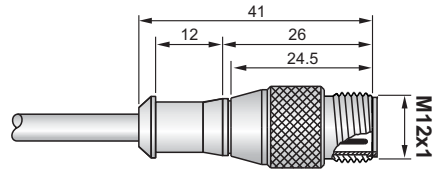
Cable Type



M12 connector (Swivel 90°)



Pigtail* Type



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

MB-8347 (Mounting bracket-optional)

