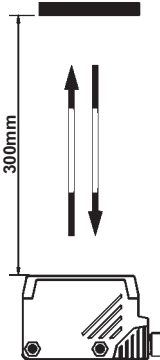






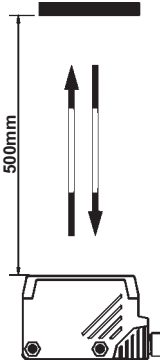




RP64 SENSORS SELECTION GUIDE

RP64 SERIES

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number	
<p>Diffuse Mode With Background Suppression Sensing Distance: 300mm</p> 	<p>Cable</p> 	10-30V DC	Emitter	—	
			NPN	RP64-D0300N-CY6C4U2-BS	
			PNP	RP64-D0300P-CY6C4U2-BS	
			NPN/PNP	RP64-D0300D-CY6C5U2-BS	
		12-240V DC or 24-240 AC	Emitter	—	
			Relay N.O. or N.C.	RP64-D0300R-CY6C5U2-BS	
		<p>Quick Disconnect</p> 	10-30V DC	Emitter	—
				NPN	RP64-D0300N-CY6Q4UP-BS
	PNP			RP64-D0300P-CY6Q4UP-BS	
	NPN/PNP			RP64-D0300D-CY6Q5UP-BS	
	12-240V DC or 24-240 AC		Emitter	—	
			Relay N.O. or N.C.	—	
	<p>Quick Disconnect swivel 90°</p> 		10-30V DC	Emitter	—
				NPN	RP64-D0300N-CY6Q4UE-SB
		PNP		RP64-D0300P-CY6Q4UE-SB	
		NPN/PNP		RP64-D0300D-CY6Q5UE-SB	
		12-240V DC or 24-240 AC	Emitter	—	
			Relay N.O. or N.C.	RP64-D0300R-CY6Q5UM-SB	
		<p>Pig Tail</p> 	10-30V DC	Emitter	—
				NPN	RP64-D0300N-CY6P4U-BS
PNP	RP64-D0300P-CY6P4U-BS				
NPN/PNP	RP64-D0300D-CY6P5U-BS				
12-240V DC or 24-240 AC	Emitter		—		
	Relay N.O. or N.C.		RP64-D0300R-CY6P5U-BS		

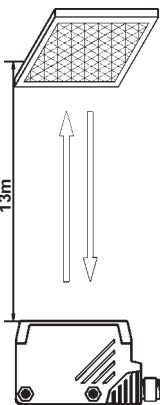




RP64 SENSORS SELECTION GUIDE

F: RP64 SENSORS
SELECTION GUIDE

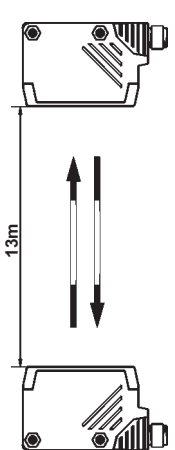




Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p>Diffuse Mode With Background Suppression Sensing Distance:500mm</p> 	<p>Cable</p> 	10-30V DC	Emitter	—
			NPN	RP64-D0500N-CY6C4U2-BS
			PNP	RP64-D0500P-CY6C4U2-BS
			NPN/PNP	RP64-D0500D-CY6C5U2-BS
		12-240V DC or 24-240 AC	Emitter	—
			Relay N.O. or N.C.	RP64-D0500R-CY6C5U2-BS
	<p>Quick Disconnect</p> 	10-30V DC	Emitter	—
			NPN	RP64-D0500N-CY6Q4UP-BS
			PNP	RP64-D0500P-CY6Q4UP-BS
			NPN/PNP	RP64-D0500D-CY6Q5UP-BS
		12-240V DC or 24-240 AC	Emitter	—
			Relay N.O. or N.C.	—
	<p>Quick Disconnect swivel 90°</p> 	10-30V DC	Emitter	—
			NPN	RP64-D0500N-CY6Q4UE-SB
			PNP	RP64-D0500P-CY6Q4UE-SB
			NPN/PNP	RP64-D0500D-CY6Q5UE-SB
		12-240V DC or 24-240 AC	Emitter	—
			Relay N.O. or N.C.	RP64-D0500R-CY6Q5UM-SB
	<p>Pig Tail</p> 	10-30V DC	Emitter	—
			NPN	RP64-D0500N-CY6P4U-BS
PNP			RP64-D0500P-CY6P4U-BS	
NPN/PNP			RP64-D0500D-CY6P5U-BS	
12-240V DC or 24-240 AC		Emitter	—	
		Relay N.O. or N.C.	RP64-D0500R-CY6P5U-BS	

RP64 SENSORS SELECTION GUIDE

RP64 SERIES

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number		
 <p>Retro-reflective Mode With Polarizing filter Sensing Distance:13m</p>	Cable 	10-30V DC	Emitter	—		
			NPN	RP64-L013MN-CY6C4U2-PF		
			PNP	RP64-L013MP-CY6C4U2-PF		
			NPN/PNP	RP64-L013MD-CY6C5U2-PF		
		12-240V DC or 24-240 AC	Emitter	—		
			Relay N.O. or N.C.	RP64-L013MR-CY6C5U2-PF		
			Quick Disconnect 	10-30V DC	Emitter	—
					NPN	RP64-L013MN-CY6Q4UP-PF
	PNP	RP64-L013MP-CY6Q4UP-PF				
	NPN/PNP	RP64-L013MD-CY6Q5UP-PF				
	12-240V DC or 24-240 AC	Emitter		—		
		Relay N.O. or N.C.		—		
		Quick Disconnect swivel 90° 		10-30V DC	Emitter	—
					NPN	RP64-L013MN-CY6Q4UE-PS
	PNP		RP64-L013MP-CY6Q4UE-PS			
	NPN/PNP		RP64-L013MD-CY6Q5UE-PS			
12-240V DC or 24-240 AC	Emitter		—			
	Relay N.O. or N.C.		RP64-L013MR-CY6Q5UM-PS			
	Pig Tail 		10-30V DC	Emitter	—	
				NPN	RP64-L013MN-CY6P4U-PF	
PNP		RP64-L013MP-CY6P4U-PF				
NPN/PNP		RP64-L013MD-CY6P5U-PF				
12-240V DC or 24-240 AC		Emitter	—			
		Relay N.O. or N.C.	RP64-L013MR-CY6P5U-PF			

RP64 SENSORS SELECTION GUIDE

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
 <p>Through-beam Mode Sensing Distance: 22m</p>	Cable 	10-30V DC	Emitter	RP64-T022MD-EY6C3L2
			NPN	RP64-T022MN-CY6C4U2
			PNP	RP64-T022MP-CY6C4U2
			NPN/PNP	RP64-T022MD-CY6C5U2
		12-240V DC or 24-240 AC	Emitter	RP64-T022MA-EY6C2L2
			Relay N.O. or N.C.	RP64-T022MR-CY6C5L2
	Quick Disconnect 	10-30V DC	Emitter	RP64-T022MD-EY6Q4LP
			NPN	RP64-T022MN-CY6Q4UP
			PNP	RP64-T022MP-CY6Q4UP
			NPN/PNP
		12-240V DC or 24-240 AC	Emitter
			Relay N.O. or N.C.
	Quick Disconnect swivel 90° 	10-30V DC	Emitter	RP64-T022MD-EY6Q4LE-S
			NPN	RP64-T022MN-CY6Q4UE-S
			PNP	RP64-T022MP-CY6Q4UE-S
			NPN/PNP	RP64-T022MD-CY6Q5UE-S
12-240V DC or 24-240 AC		Emitter	RP64-T022MA-EY6Q3LM-S	
		Relay N.O. or N.C.	RP64-T022MR-CY6Q5LM-S	
Pig Tail 	10-30V DC	Emitter	RP64-T022MD-EY6P4L	
		NPN	RP64-T022MN-CY6P4U	
		PNP	RP64-T022MP-CY6P4U	
		NPN/PNP	RP64-T022MD-CY6P5U	
	12-240V DC or 24-240 AC	Emitter	RP64-T022MA-EY6P3L	
		Relay N.O. or N.C.	RP64-T022MR-CY6P5L	

RP64 SENSORS SPECIFICATIONS DC

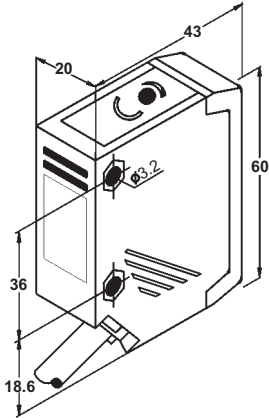
Sensing Mode	Diffuse Mode (With background suppression)	Retro-reflective Mode (With polarizing filter)	Through-beam Mode	
			Emitter	Receiver
Sensing Range, Adjustable	100...300 mm(3.9...11.8 in) 150...500 mm(5.9...19.7 in)	Max.: 13m(42.7 ft) Typical: 8m(26.2ft)	Max.: 22m(72.2 ft) Typical: 14m(45.9ft)	
Angle of Divergence	approx. 3.0°	approx. 2.5°	approx. 4.0°	
Light spot size	approx. 25mm @ 300mm approx. 35mm @ 500mm	approx. 400mm @ 8m (15.7 in @ 26.2 ft)	approx. 1.5m @ 20m (4.9 ft @ 65.6 ft)	
Light Source	LED Red			
External Light Immunity	Modulated light source with 2-bit evaluation			
Response Time/Frequency	<15 ms / 33 Hz	<0.7 ms / 700 Hz	<15 ms / 33 Hz	
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: Vs - (<=1.5V); NPN: approx. Vs.			
Output Voltage Low	PNP: approx. 0V; NPN: <=1.5V.			
Output Current Max.	100 mA			
Operation Mode	Selectable either Light-on Dark-on by the control input wire			
Connection	Cable or M12 4-pin plug			
Connecting Cable	PVC, 2m			
Housing	Glass fiber reinforced plastic			
Enclosure Rating	IP 67 / NEMA 6			
VDE Protection Class	II Double Insulated			
Circuit Protection	Outputs short circuit and over current protected, Vs reverse polarity protected			
Test Input	_____	_____	Vs: light source off, 0 V or no connection: light source on.	
Construction	IEC IP66;NEMA1,3,4,12,13			
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 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			
Mounting Bracket	RP74-A1 or RP74-A2 or RP74-A3 (See Page U-02)			
Mounting Bracket	RP64-A1 (see page U-02)			
Weight	Approx. 39 g with plug; 79 g with cable			
cable	2M or 9m 6.2ϕ 4X0.5 (Emitter :3X0.5) PVC.			
Pigtail Tpye	See page R-01 for cable and connect at pigtail			

RP64 SENSORS SPECIFICATIONS AC

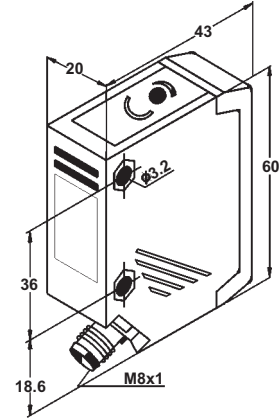
Sensing Mode	Diffuse Mode (With background suppression)	Retro-reflective Mode (With polarizing filter)	Through-beam Mode	
			Emitter	Receiver
Sensing Range, Adjustable	100...300 mm(3.9...11.8 in) 150...500 mm(5.9...19.7 in)	Max.: 13m(42.7 ft) Typical: 8m(26.2ft)	Max.: 22m(72.2 ft) Typical: 14m(45.9ft)	
Angle of Divergence	Approx.3.0°	approx.2.5°	approx.4.0°	
Light spot size	approx. 25mm @ 300mm approx. 35mm @ 500mm	approx. 400mm @ 8m (15.7 in @ 26.2 ft)	approx. 1.5m @ 20m (4.9 ft @ 65.6 ft)	
Light Source	LED Red			
External Light Immunity	Modulated light source with 2-bit evaluation			
Response Time/Frequency	<15 ms / 33 Hz	<0.7 ms / 700 Hz	<15 ms / 33 Hz	
Supply Voltage	12...240V DC , 24...240V AC (10%)			
Power Consumption	<2 VA			
Output Type	Relay SPDT isolated			
Switching Voltage Max.	240V AC			
Switching Current Max.	3A			
Operation Mode	Selectable either Light-on Dark-on by the control input wire			
Connection	Cable or M12 5-pin plug			
Connecting Cable	PVC, 2m			
Housing	Glass fiber reinforced plastic			
Enclosure Rating	IP 67 / NEMA 6			
VDE Protection Class	II Double Insulated			
Circuit Protection	—			
Test Input	—			
Ambient Operating Temperature	-25...55° C(-13...131° F)			
Storage Temperature	-40...70° C(-40...158° F)			
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 With Stand Ability	IEC 60947-5-2, Part 8.3.3.4 or 1500VAC for one min, between all supply terminals connected together and enclosure			
Insulation Resistance	>20M Ω , with 1500V 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			
Mounting Bracket	RP64-A1 (See Page V-02)			
Weight	approx. 159g			
cable	2M or 9m 6.2 ϕ 4X0.5 (Emitter :3X0.5) PVC.			
Pigtail Tpye	See page R-01 for cable and connect at pigtail			

RP64 SENSORS DIMENSIONS

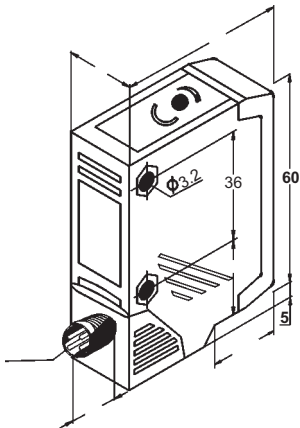
Cable



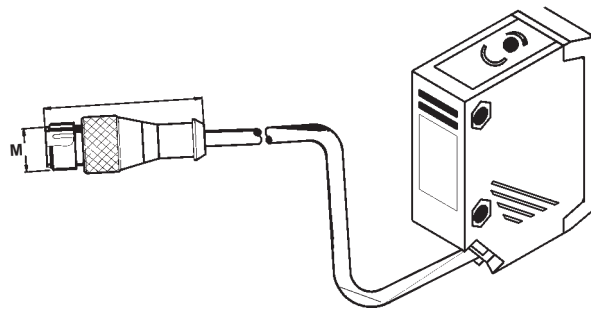
Quick Disconnect (DC: Euro; AC: Micro)



Quick Disconnect swivel 90° (DC: Euro; AC: Micro)



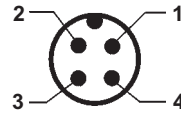
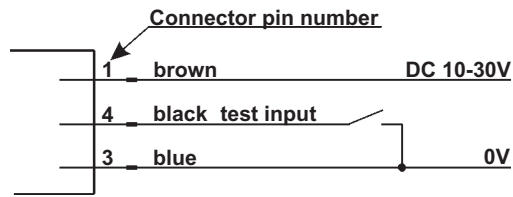
Pig tail*



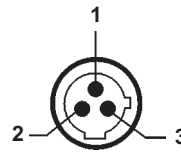
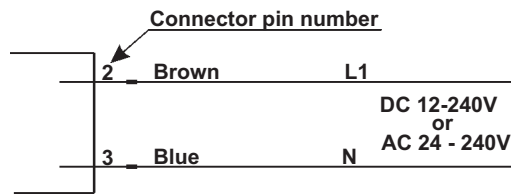
*: Pig tail series please reference page Q-01.

RP64 SENSORS CONNECTION DIAGRAM

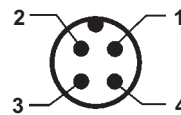
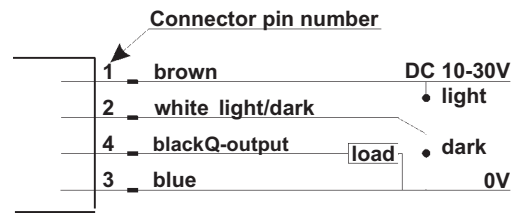
Emitter (DC) M12 connector (EURO style) M8 connector (PICO style)



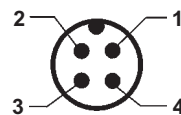
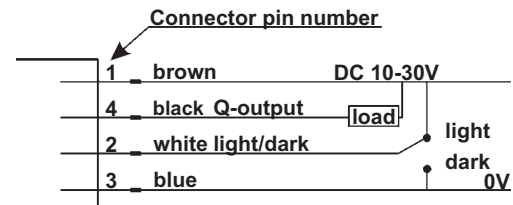
Emitter (AC) M12 connector (MICRO style)



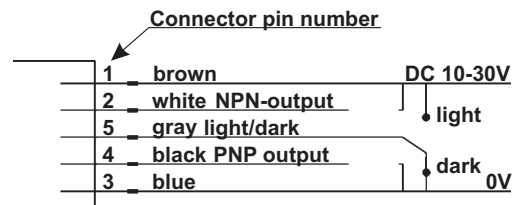
PNP M12 connector (EURO style) M8 connector (PICO style)



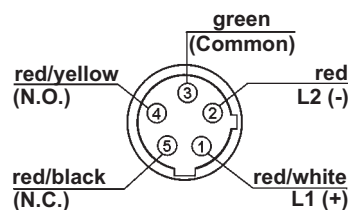
NPN M12 connector (EURO style) M8 connector (PICO style)



NPN/PNP M12 connector (EURO style)



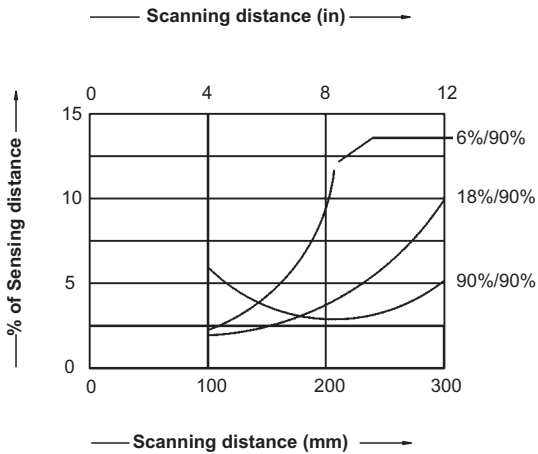
SPDT EM Relay Version Micro Quick-Disconnect



F: RP64 SENSORS
SELECTION GUIDE

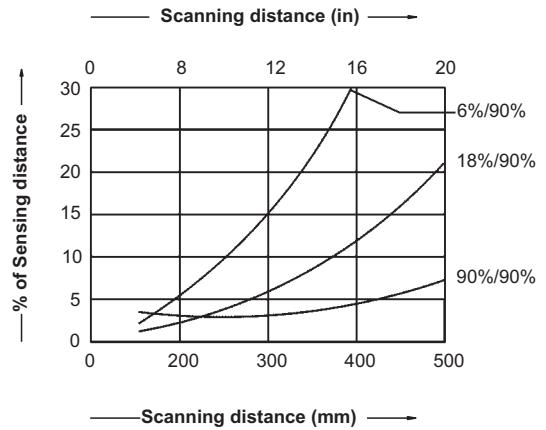
RP64 SENSORS CONNECTION DIAGRAM

Diffuse sensor
(sensing distance=300mm)



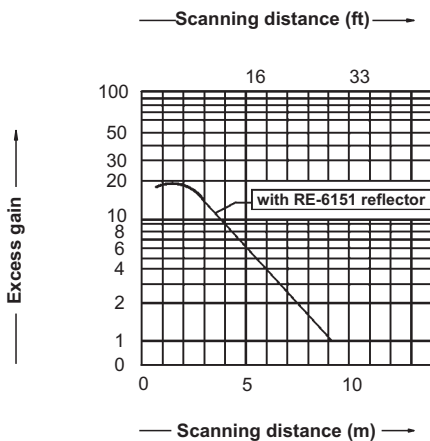
Background suppression

Diffuse sensor
(sensing distance=500mm)



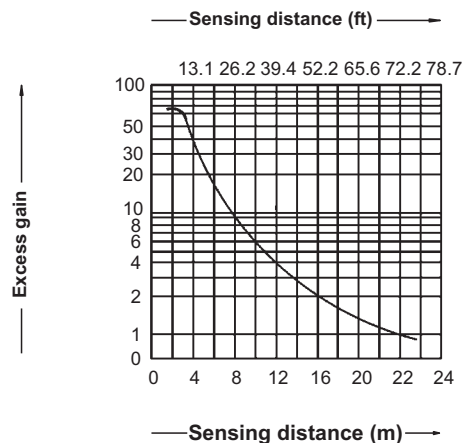
Background suppression

Retro-reflective sensor



Excess gain curve

Through - beam sensor



Excess gain curve

RP64 SERIES