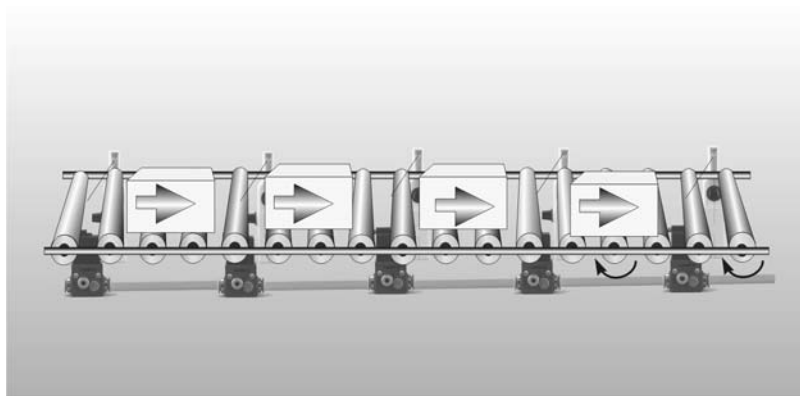


## Applications





### Automatic Interference Prevention Function

Accumulating conveyor system with no additional control elements—thanks to the integrated logics and valve unit. Peak throughput, irregular material flow and problems in material feed are detected with the RC photoelectric proximity switch—roller conveyors can, therefore, be used as accumulating roller conveyors.





Only the scanned objects passing the sensor at a defined distance trigger the RC. Personnel or objects within the scanning plane but outside the detection range are ignored.

## Diffuse Mode with Background Suppression



Sensing Range	550 mm	
Type	Quick Disconnect (Euro-Style)	Pigtail (Euro-Style)
		
PNP Light-ON	<u>RC-D0550P-LY9Q4UE-BS</u>	—
PNP Dark-ON	<u>RC-D0550P-DY9Q4UE-BS</u>	<u>RC-D0550P-DY9P4UE-BS</u>
Supply voltage	18...30 V DC	
Voltage drop	< 2.5 V	
PNP Switching Output/Switching	400 mA	
Switching Outputs	1	2
Overload Protection	YES	
Protected against polarity reversal	YES	
Short-circuit protected	YES	
Response Time	5 ms	
Frequency of operating cycles	100 Hz	
Light Source	Infrared Light 880nm	
Switching hysteresis	<15 %	
Potentiometer min	220...270 mm	
Potentiometer center	320...400 mm	
Potentiometer max	550...630 mm	
Max. Ambient Light	10000 Lux	
Protective Insulation	Up to 50 V	
Ambient temperature range	-25...60°C	
Degree of protection	IP 65	
Service life (T = +25°C)	100000 h	
Opening Angle	5°	
Power Consumption Sensor	35 mA	
Temperature Drift	10 %	
Housing material	Plastic	
Connection	M12, 4pin Connector	

## Diffuse Mode with Background Suppression

Sensing Range	550 mm	
Type	Quick Disconnect (Euro-Style)	Pigtail (Euro-Style)
		
	—	—
PNP Light-ON		
PNP Dark-ON	<b>RC-D0550P-DY9Q4UE-BP</b>	<b>RC-D0550P-DY9P4UE-BP</b>
Supply voltage	18...30 V DC	
Voltage drop	< 2.5 V	
PNP Switching Output/Switching	400 mA	
Switching Outputs	1	
Overload Protection	YES	
Protected against polarity reversal	YES	
Short-circuit protected	YES	
Response Time	5 ms	
Frequency of operating cycles	100 Hz	
Light Source	Infrared Light 880nm	
Switching hysteresis	<15 %	
Potentiometer min	220...270 mm	
Potentiometer center	320...400 mm	
Potentiometer max	550...630 mm	
Max. Ambient Light	10000 Lux	
Ambient temperature range	-15...50°C	
Degree of protection	IP 65	
Service life (T = +25°C)	100000 h	
Opening Angle	5°	
Power Consumption Sensor	35 mA	
Temperature Drift	10 %	
Housing material	Plastic	
Connection	M12, 4pin Connector	
<b>Pneumatic Solenoid Valve Unit</b>		
Power consumption valve	86mA	
Switch-ON duration	100 %	
Medium	Air	
Operating Pressure	7bar	
Nominal width	0.8 mm	
Quick exhausting valve 1->2	20 NL/min	
Quick exhausting valve 2->3	100NL/min	
Insulation class	B VDE 0580	
Weight	79 g	

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

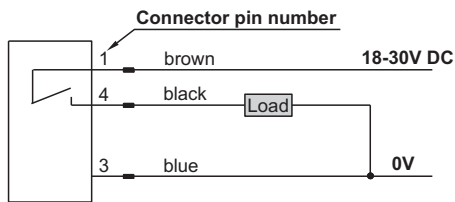
## Retroreflective Mode

Sensing Range	6500 mm (Note)	
Type	Quick Disconnect (Euro-Style)	Pigtail (Euro-Style)
		
PNP Light-ON	<b>RG-L6500P-LY6Q4UE</b>	<b>RG-L6500P-LY6P4UE-P</b>
PNP Dark-ON	—	—
Supply voltage	18...30 V DC	18...30 V DC
Voltage drop	< 2.5 V	< 2.5 V
PNP Switching Output/Switching	400 mA	400 mA
Switching Outputs	1	1
Overload Protection	YES	YES
Protected against polarity reversal	YES	YES
Short-circuit protected	YES	YES
Response Time	5 ms	5 ms
Frequency of operating cycles	100 Hz	100 Hz
Light Source	Red Light	Red Light
Switching hysteresis	< 15 %	< 15 %
Reference Reflector	RE100100	RE100100
Max. Distance on Reflector	100 mm	100 mm
Valve Control	—	YES
Max. Ambient Light	10000 Lux	10000 Lux
Protective Insulation	Up to 50 v	—
Ambient temperature range	-25...60°C	-15...50°C
Degree of protection	IP 65	IP 65
Service life (T = +25°C)	100000 h	100000 h
Opening Angle	5°	5°
Power Consumption Sensor	35 mA	35 mA
Temperature Drift	10 %	10 %
Housing material	Plastic	Plastic
Connection	M12, 4pin Connector	M12, 4pin Connector
<b>Pneumatic Solenoid Valve Unit</b>		
Power consumption valve	—	86mA
Switch-ON duration	—	100%
Medium	—	Air
Operating Pressure	—	7bar
Nominal width	—	0.8 mm
Quick exhausting valve 1->2	—	20 NL/min
Quick exhausting valve 2->3	—	100 NL/min
Insulation class	—	B VDE 0580
Weight	—	79 g

Note: Used with RE-8484 (supplied with sensor) reflector.

## Connection Diagrams

### RC-D0550P-LY9Q4UE-BS / RC-L6500P-LY6Q4UE

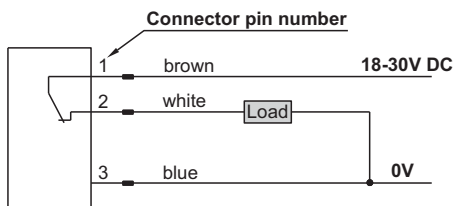


#### Connector pin position

##### Euro-style



### RC-D0550P-DY9Q4UE-BS

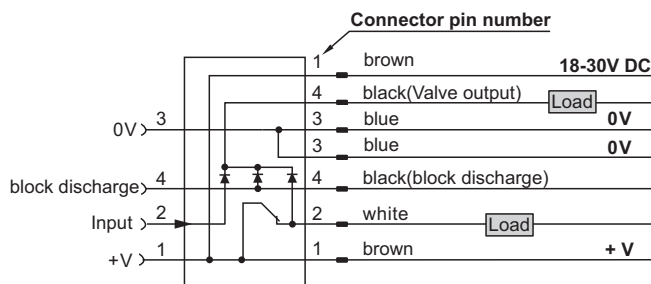


#### Connector pin position

##### Euro-style



### RC-D0550P-DY9P4UE-BS

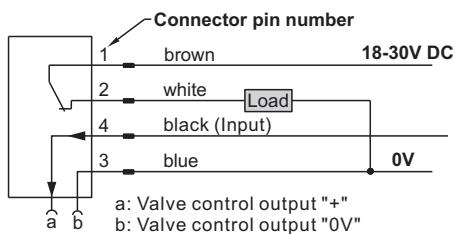


#### Connector pin position

##### Euro-style



### RC-D550P-DY9Q4UE-BP

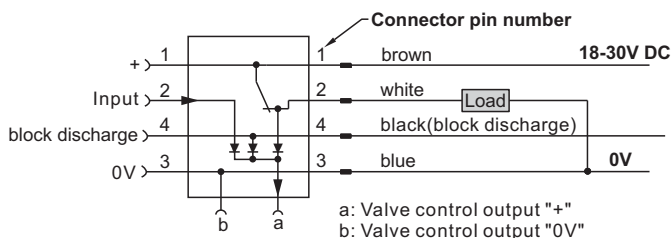


#### Connector pin position

##### Euro-style



### RC-D0550P-DY9P4UE-BP

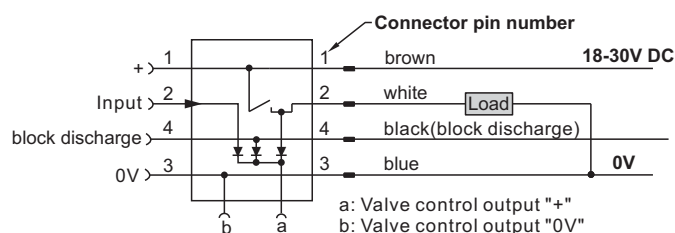


#### Connector pin position

##### Euro-style



### RC-L6500P-LY6P4UE-P



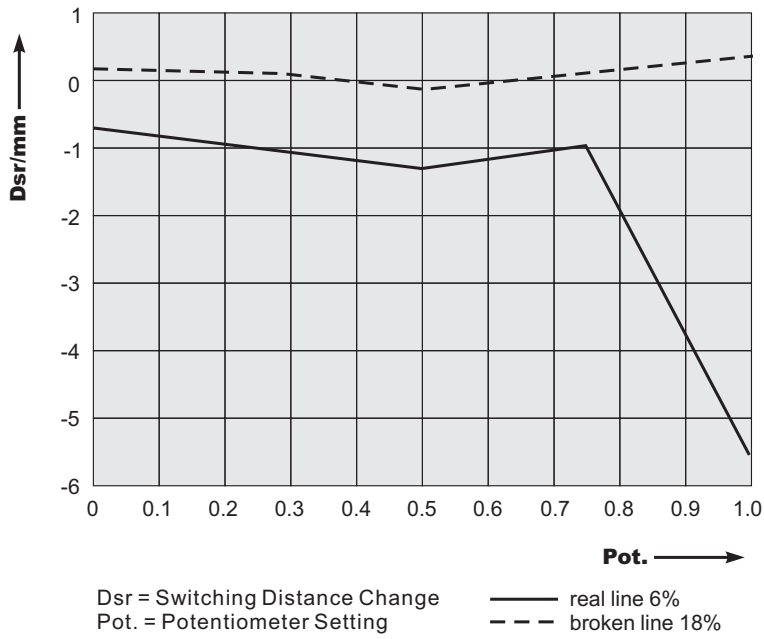
#### Connector pin position

##### Euro-style



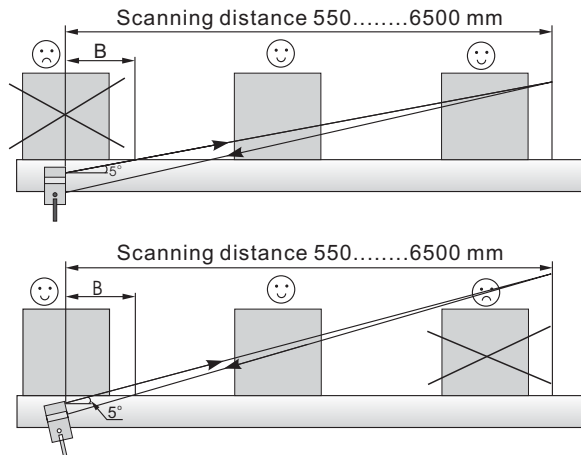
## Sensing Characteristics (Typical)

### Sensing Range Diagram (Background Suppression Diffuse Mode)



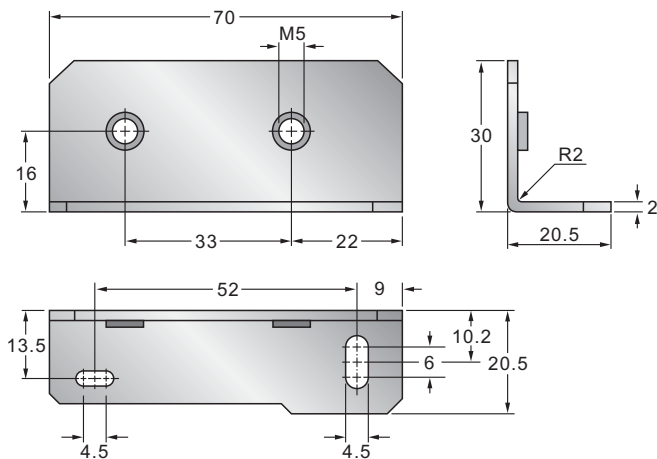
Bf: RC SERIES

### Scanning distance and Opening angle



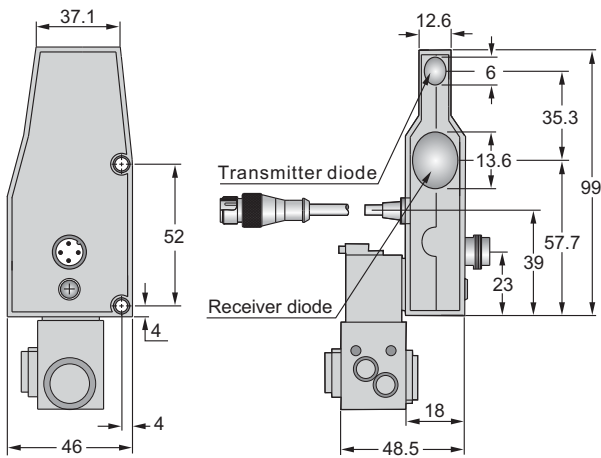
### Mounting Bracket's Dimensions (Unit: mm)

MB-7030 (optional)

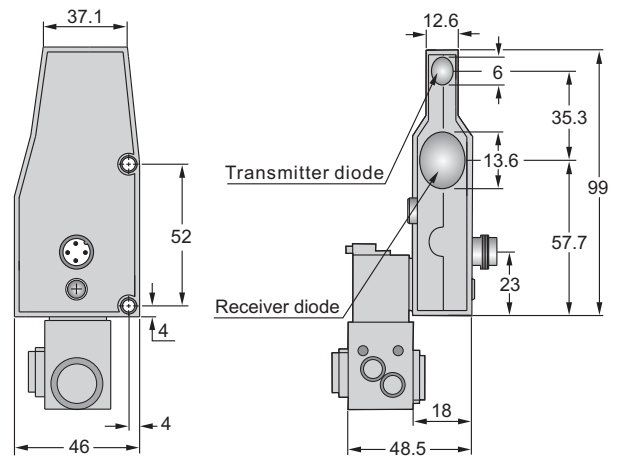


## Sensor Dimensions (Unit: mm)

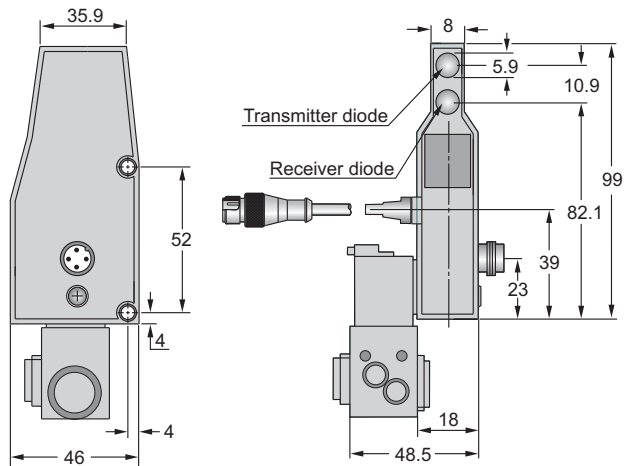
**RC-D0550P-DY9P4UE-BP (Pigtail Type)**



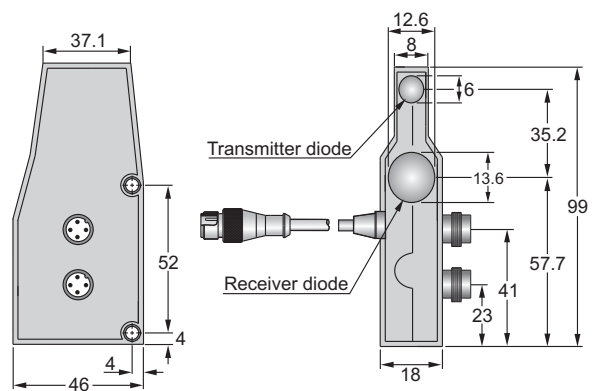
**RC-D0550P-DY9Q4UE-BP (Quick Disconnect Type)**



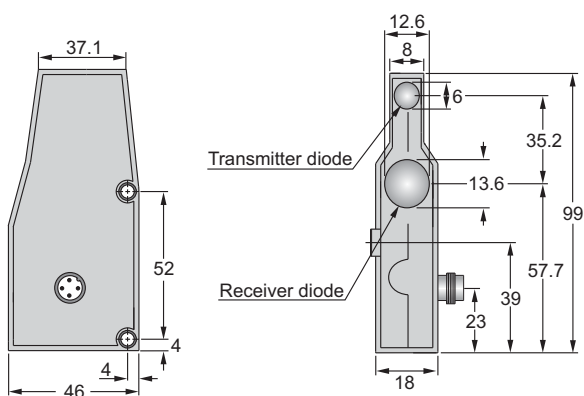
**RC-L6500P-LY6P4UE-P (Pigtail Type)**



**RC-D0550P-DY9P4UE-BS (Pigtail Type)**



**RC-D0550P-LY9Q4UE-BS / RC-D0500P-DY9Q4UE-BS**



**RC-L6500P-LY6Q4UE (Quick Disconnect Type)**

