

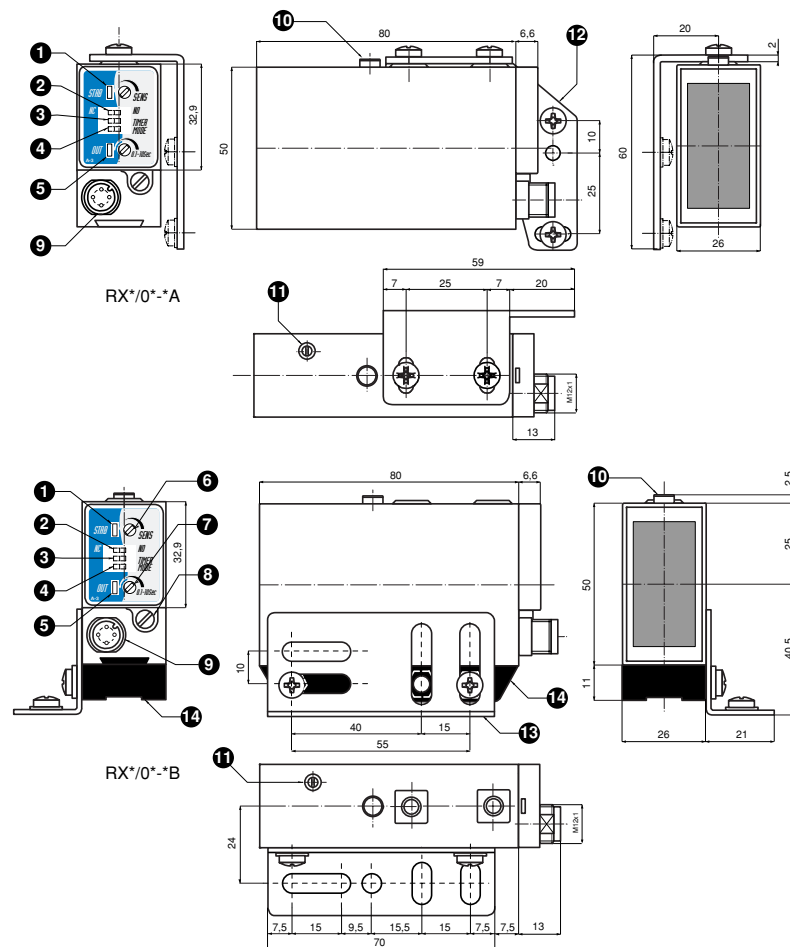
SERIE
RX

**Universal photoelectric sensors
with static output - DC
or with relay output - AC/DC**

- ◆ Wide range of models: diffuse reflection, retro-reflective, polarized, through-beam and background suppression
- ◆ Series with high performances and large possibilities of installation
- ◆ High sensing distance
- ◆ Very small dimensions (the most compact)
- ◆ Relay output or multifunctional DECOU[®]
- ◆ Timer function delay on, delay off, one shot
- ◆ Trimmer for sensitivity adjustment
- ◆ Switch reducing the emission for fine detection in through-beam types
- ◆ LED alignment indicator with 360° visibility
- ◆ 2 LED indicators (stable signal, output)
- ◆ M12 standard plug cable exit
- ◆ Axial and right angle brackets
- ◆ IP65 protection degree
- ◆ Complete protection against electrical damage
- ◆ Wide range of connectors, accessories and reflectors available

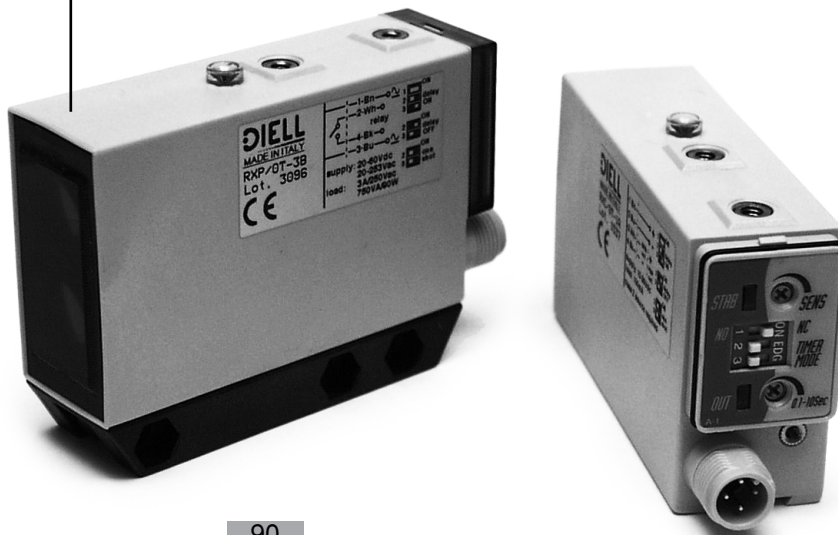

**High performances
in universal housing**

The new RX series offers high performances and maximum installation flexibility thanks to the axial and right angle brackets, to the housing with or without slide, to the plug in exit for safe cable connection accordingly with regulations and for easy maintenance. All these advantages allow universal applications.

DIMENSIONAL DRAWING

Key

- | | |
|---|--|
| 1 Green LED (stable signal RX6-8-C-P-S-L-R)
Green LED (check off RXX or supply voltage RXE) | 8 Fixing screw for plastic protection of adjustments |
| 2 Switch of NO/NC selection (RX6-8-C-P-S-L-R)
Switch select.dist. x1 - dist. x2 (RXX-E) | 9 M12 standard plug-in exit |
| 3 Switch selecting timer function delay ON | 10 LED for alignment (not available on RXX and RXE) |
| 4 Switch selecting timer function delay ON | 11 Screw for optic adjustment (available only for background suppression models RXS RXL) |
| 5 Red LED (output state RX6-8-C-P-S-L-R)
Red LED (distance x2 RXX-RXE) | 12 Fixing bracket (ST80) for sensor option A |
| 6 Trimmer for sensitivity adjustment
(not available for RXX and RXE) | 13 Fixing bracket (ST81) for sensor option B |
| 7 Trimmer for timer function adjustment
(0,1-10s) | 14 Plastic slide for sensor option B fixing |

 Connectors **CD** serie

 Accessories **ST** serie


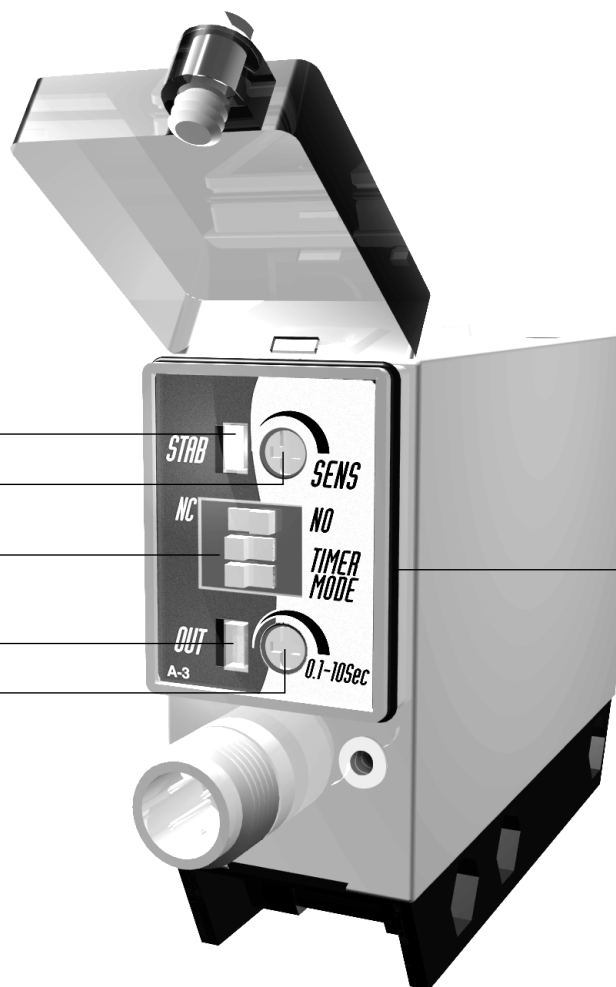
Multifunctional models

Both relay version (AC/DC) and static one (DC) have the commutation NO/NC granted by a switch placed on the panel. Moreover the static output is able to perform both NPN and PNP connection.

Functional panel

All controls of RX series are placed on the back panel easy to reach for the quickest adjustment.

- stable signal **led**
- adjustment sensitivity trimmer
- switch for **NO-NC output selection and for timer function (delay-on, delay-off, one shot)**
- output **led**
- timer-function adjustment **trimmer** (0.1-10s)



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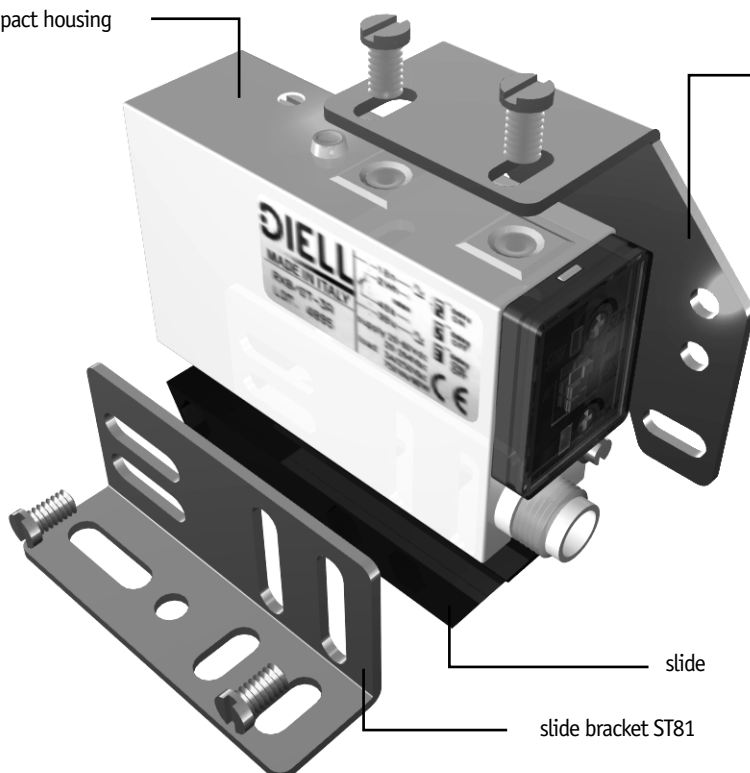
Maximum versatility of installation

Two types of installation: with **top bracket ST 80** (and compact housing without slide) for overall dimensions reduction or with **side bracket ST 81** (and reflector with slide) for the availability of standard housing. The exit with axial or right angle connector completes the wide installation versatility of the new RX series.

IP 65 protection degree

The locking with screw stud and O-Ring grant an high protection degree (IP 65).

compact housing



top bracket ST80

slide

slide bracket ST81

High distances

0.3m and 1m background suppression, 1 and 2 metres diffuse reflection, **12 m** with reflector (6 m with polarizing filter), **32m** through beam; **the highest distances in its category.**

ORDERING SYSTEM

serie	R X 6 / 0 0 - 1 A		diffuse - retro-reflective - background suppression
universal photoelectric sensor	RX	A	fixing without fixing slide
model		B	with fixing slide
diffuse reflection 1000mm	6		output type / supply
diffuse reflection 2000mm	8	1	DECOUT® output / 10-30Vdc
retro-reflective 12m	C	3	relay output / 20-60Vdc - 20-253Vac
polarized retro-reflective 6m	P		timer function without timer
background suppression 0,05 - 0,3m	S	0	with timer function
background suppression 0,25 - 1m	L	T	

SPECIFICATIONS

SPECIFICATIONS						DC				AC/DC			
Model	RX6/0*-1*	RX8/0*-1*	RXC/0*-1*	RXP/0*-1*	RXS/0*-1*	RXL/0*-1*	RX6/0*-3*	RX8/0*-3*	RXC/0*-3*	RXP/0*-3*	RXS/0*-3*	RXL/0*-3*	
Type	diffuse reflection		retro-reflective		diffuse reflection		diffuse reflection		retro-reflective		diffuse reflection		
	-		standard	polarized	background suppr.		-		standard	polarized	background suppr.		
Nominal sensing distance(Sn)	1m ⁽¹⁾	2m ⁽¹⁾	12m ⁽²⁾	6m ⁽²⁾	0,05-0,3m ⁽¹⁾	0,25-1m ⁽¹⁾	1m ⁽¹⁾	2m ⁽¹⁾	12m ⁽²⁾	6m ⁽²⁾	0,05-0,3m ⁽¹⁾	0,25-1m ⁽¹⁾	
Emission	infrared (880nm)			red ^(660nm)	infrared (880nm)					red ^(660nm)	infrared (880nm)		
Tolerance	-10/ +30%		EG≥2 at Sr		0/ +10%		-10/ +30%		EG≥2 at Sr		0/ +10%		
Differential travel	2/10% of the nominal sensing distance Sn												
Repeat accuracy	5%												
Operating voltage	10 - 30Vdc						20 - 253Vac / 20 - 60Vdc						
Ripple	≤10 %						-						
No-load supply current	25mA				40mA		25mA _{RMS}				30mA _{RMS}		
Load current	≤100 mA						3A - 250Vac / 3A - 30Vdc (750VA/90W)						
Leakage current	≤ 10μA						-						
Voltage drop	1,2V max.						-						
Output type	static type (DECOUT®)						relay type						
Switching frequency	500Hz						25Hz						
Time delay before availability	100 ms												
Timing functions	from 0,1s to 10s, delay ON, delay OFF, one shot												
Supply electrical protections	polarity reversal, transient						transient (AC), over voltages (DC)						
Output electrical protections	short circuit (with hold)						-						
Temperature range	-25°....+70°C (without freeze)			-25°...+60°C		-25°....+70°C (without freeze)				-25°...+60°C		-25°....+70°C	
Temperature drift	±10% Sr												
Interference to external light	≥5000 lux (incandescent lamp)		≥10000 lux (incandescent lamp)		≥5000 lux (incandescent lamp)				≥10000 lux (incandescent lamp)		≥5000 lux (incandescent lamp)		
Protection degree (DIN 40	IEC IP65												
LED indicators	rear red (output state), superior red (alignment), green (stable signal)												
Housing material	polycarbonate (glass fiber reinforced)												
Lenses material	PMMA 7N					glass	PMMA 7N					glass	
Weight (approx.)	75g (without slide) - 90g (with slide)												

(1) with 100x100mm white matt paper and excess gain EG=1,5 ; (2) with standard reflector Ø80mm (RL110 supplied separately).

WIRING DIAGRAMS

relay output AC - DC	RX*/0*-3*	emitter	RXE/0*-**	emitter with check	RXX/0*-**
DECOUT® output NPN	RX*/0*-**	DECOUT® output PNP	RX*/0*-**		

ORDERING SYSTEM

series		R X E / 0 0 - 1 A		through-beam
universal photoelectric sensor	RX		A	fixing
model			B	without fixing slide
emitter 20-60Vdc / 20-253Vac	E			with fixing slide
emitter with check 10-30Vdc	X		1	output type / supply
receiver	R		3	DECOUT® output / 10-30Vdc
				relay output / 20-60Vdc - 20-253Vac
			0	timer function
			T	without timer
				with timer function

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SPECIFICATIONS	DC	AC/DC
Model	RXX/0*-1* and RXR/0*-1*	RXE/0*-3* and RXR/0*-3*
Type	through-beam	
	with check	without check
Nominal sensing distance(Sn)	16-32m selectable with switch ⁽¹⁾	
Emission	infrared (880nm)	
Tolerance	EG≥2 at Sr	
Differential travel	10%	
Repeat accuracy	5%	
Operating voltage	10 - 30Vdc	20 - 253Vac / 20 - 60Vdc
No-load supply current	35mA (emitter) - 25mA (receiver)	15m _{ARMS} (emitter) - 25m _{ARMS} (receiver)
Load current	100 mA	3A - 250Vac / 3A - 30Vdc (750VA/90W)
Leakage current	≤ 10μA	-
Voltage drop	1,2V max.	-
Output type	static type (DECOUT®)	relay type
Switching frequency	250Hz	25Hz
Time delay before availability	100 ms	
Timing functions	from 0,1s to 10s, delay ON, delay OFF, one shot	
Supply electrical protections	polarity reversal, transient	transient (AC), over voltages (DC)
Output electrical protections	short circuit (with hold)	-
Temperature range	-25°....+70°C (without freeze)	
Temperature drift	±10% Sr	
Interference to external light	10000lux (incandescent lamp)	
Protection degree (DIN 40 050)	IEC IP65	
Emitter LED indicators	green (check off), red (distance x2)	green (supply), red (distance x2)
Receiver LED indicators	rear red (output state), superior red (alignment), green (stable signal)	
Housing material	polycarbonate (glass fiber reinforced)	
Lenses material	PMMA 7N	
Weight (approx.)	75g (without slide) - 90g (with slide)	

(1) with excess gain EG>2 at the nominal sensing distance Sn.

CONNECTORS

relay output AC-DC	M12	emitter AC-DC	M12
emitter with check	M12	DECOUT®	M12

CHARACTERISTIC CURVES
