The background of the entire page is a composite image. The top half shows a city skyline at night with several tall buildings and a river. The bottom half shows a highway interchange with light trails from cars. Overlaid on both images are numerous white, glowing arcs that connect various points, suggesting a network or data flow.

CR series

DATASHEET

Sensor Partners BV

📍 James Wattlaan 15
5151 DP Drunen
The Netherlands

☎ +31 (0)416 - 37 82 39

✉ info@sensorpartners.com

🌐 sensorpartners.com

Sensor Partners BVBA

📍 Z.1 Researchpark 310
B-1731, Zellik
Belgium

☎ +32 (0)2 - 464 96 90

✉ info@sensorpartners.com

🌐 sensorpartners.com

CR series

Retroreflective Polarized Area sensors

Sensor Partners

features

Area height controlled 69 mm and 149 mm

Maximum operative distance up to 4.5 m

Minimum object detection diam. 2 mm

Two teach-in types: fine and standard

Optical pitch 10mm

Protection degree IP67

Blanking function



web contents

Application notes

Photos

Catalogue / Manuals




code description

	CR	0	/	0	I	-	1	V
series	CR	Retroreflective Polarized Area Sensor with aluminum compact housing						
models	0	Model area detection: high 69 mm; pitch 10 mm						
	1	Model area detection: high 149 mm; pitch 10 mm						
output	0	Outputs select (NO/NC); IO Link mode						
	B	Complementary output (NO +NC)						
logic output	I	IO Link output						
	B	NPN + PNP output						
	N	NPN outputs						
	P	PNP outputs						
	T	Push-Pull output						
housing material	1	Metallic housing						
connections	V	Output cable length 25 cm with M12 pigtail						

available models

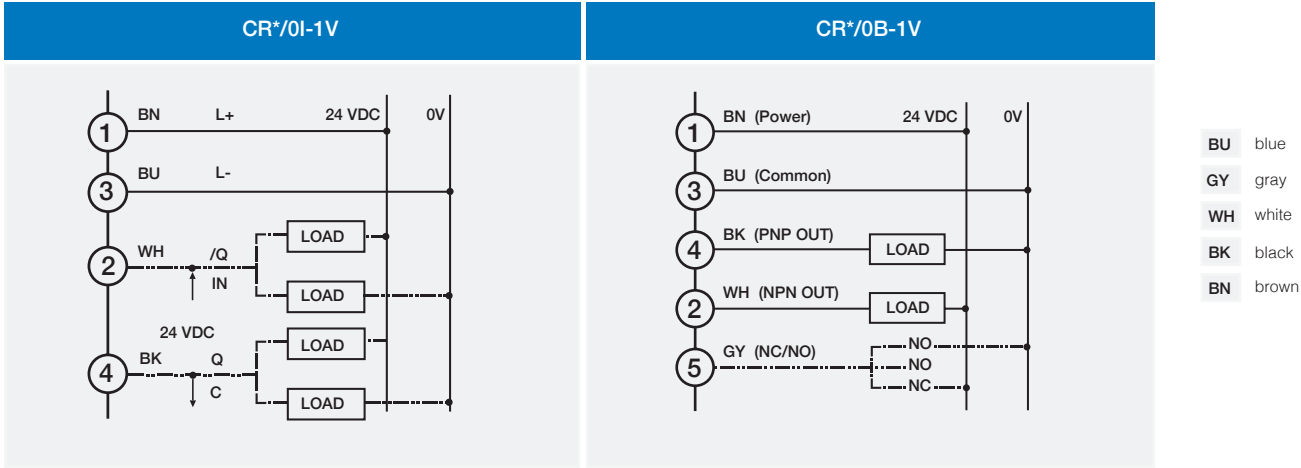
pitch (mm)	detection height (mm)	working range (m)	response time (ms)	plug	poles	logic	output	models
10	69	0,2...4,5	1,2	M12	4	IO Link	IO Link	CR0/0I-1V
					5	PNP+NPN	NC/NO	CR0/0B-1V
					4	Push Pull		CR0/0T-1V
						PNP	NO+NC	CR0/BP-1V
						NPN		CR0/BN-1V
	IO Link	IO Link	CR1/0I-1V					
	5	PNP+NPN	NC/NO		CR1/0B-1V			
	Push Pull	CR1/0T-1V						
	4	PNP	NO+NC		CR1/BP-1V			
		NPN			CR1/BN-1V			
149			3,4					

technical specifications

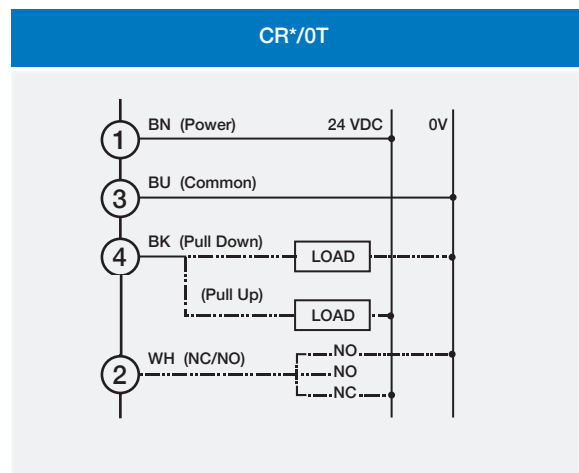
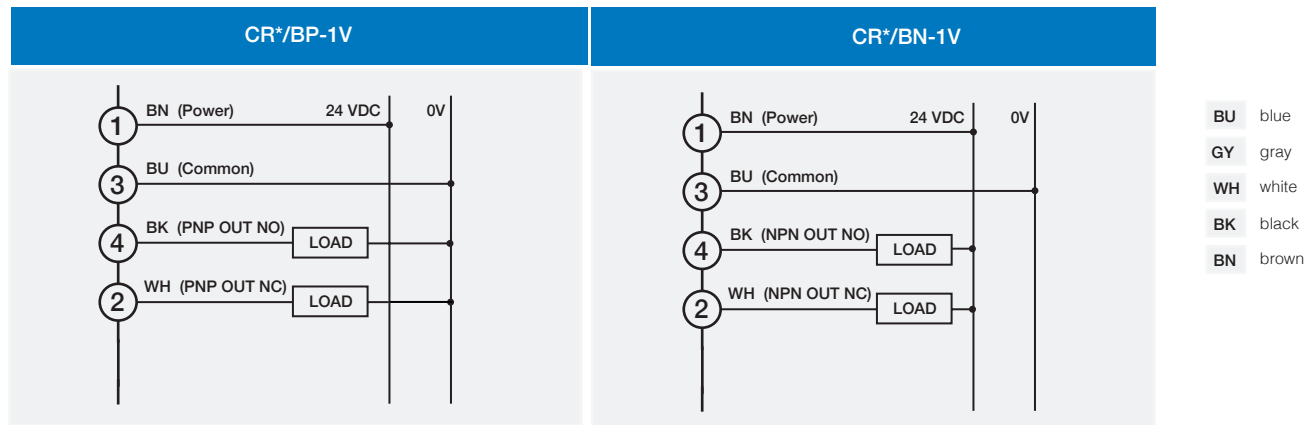
	CR0	CR1
		
nominal sensing distance (Sn)	0.2...4.5 m (RL106G - ExG 2)	0.2...4.5 m (RL136 - ExG 2)
emission	red (617nm)	
operating voltage	12...30 Vdc	
ripple	≤ 10%	
no load supply current	100 mA	135 mA
load current	100mA	
leakage current	≤ 100 µA (Vdc max)	
output voltage drop	3 V max (100mA)	
adjustment	Teach-in: fine < 3 sec; > 6 sec	
output type	PNP; NPN ; Push-pull ; (NO+NC) compl. output (NO+NC)	
switching frequency	400 Hz	275 Hz
time delay before available	300 ms	
minimum object detection	3...6mm @2m RL106G ⁽¹⁾ 3...10mm@4,5m RL106G ⁽¹⁾	3...8mm@2m RL136 ⁽¹⁾ 3...16mm@4m RL136 ⁽¹⁾
power supply protections	polarity reversal, transient	
output protection	short circuit (autoreset)	
interference external light	5000 lux (fluorescent lamp); 50000 lux (sunlight)	
operative temperature range	-10°C....+55°C (without freeze)	
temperature drift	10% Sr	
LED indicators	green: power supply red: dark/light status	
protection degree	IP67 (EN60529)	
housing material	aluminium	
optical material	PMMA	

⁽¹⁾ 106G reflector 20 x 80mm (concealment)

electric diagrams of the connections



electric diagrams of the connections



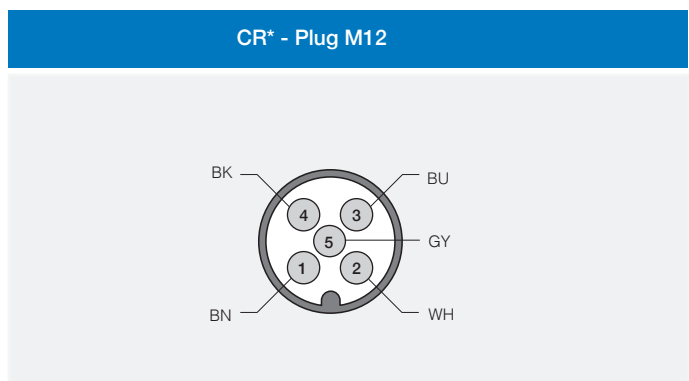
response diagrams

Distance from sensor to reflector

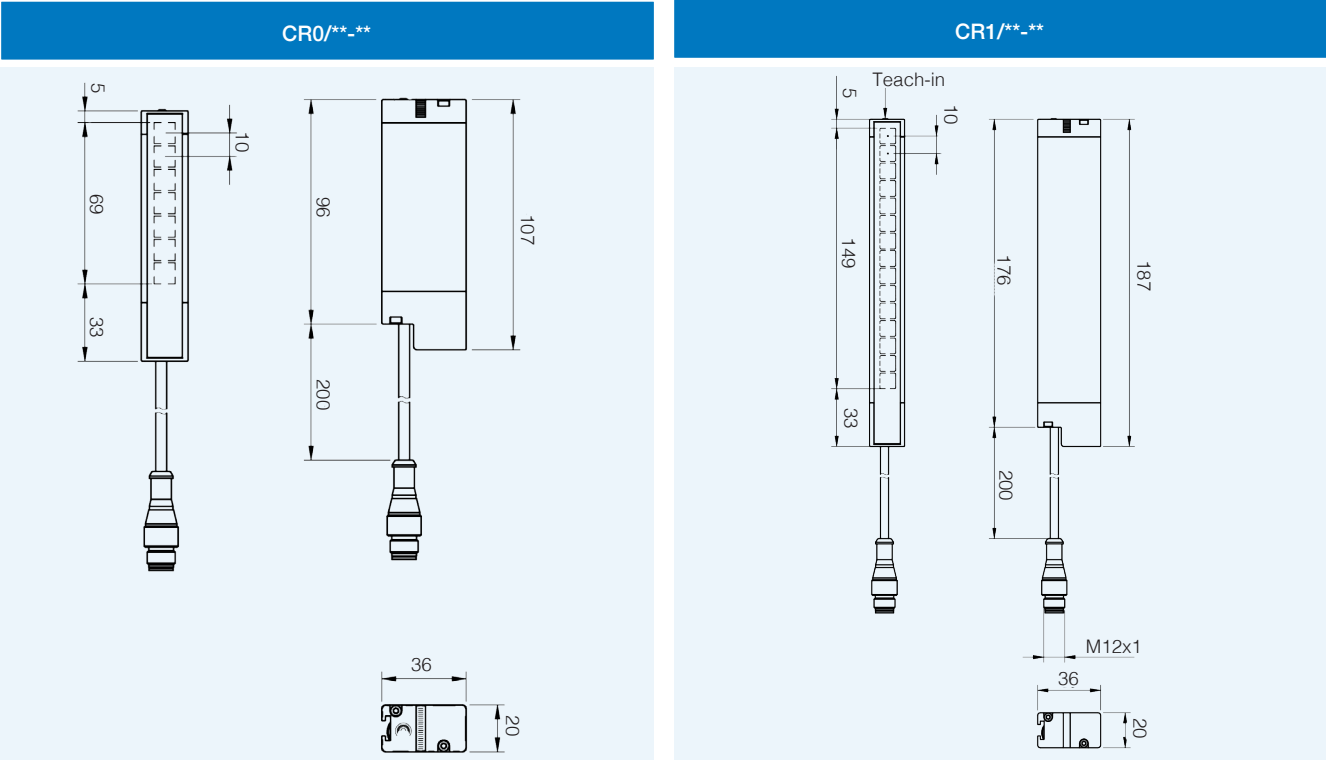
Reflector	CR0	
	Min (m)	Max (m)
RL 106G	0,2	5,5
RL 135	0,3	3,5
RL100DCR0 (80x20mm)	0,3	2,5

Reflector	CR1	
	Min (m)	Max (m)
RL 136	0,2	5,5
RL 100DCR1 (200x40mm)	0,3	2,5

plugs

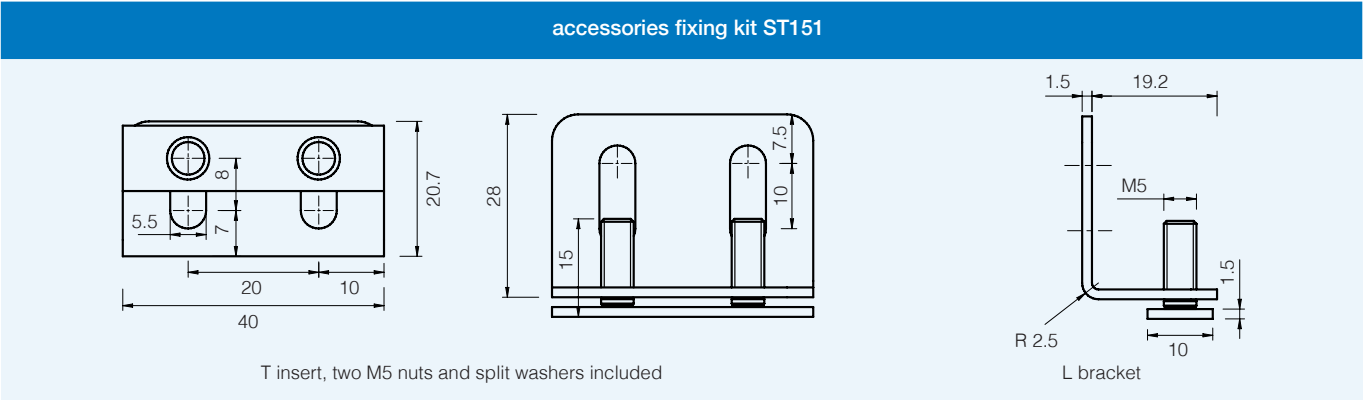



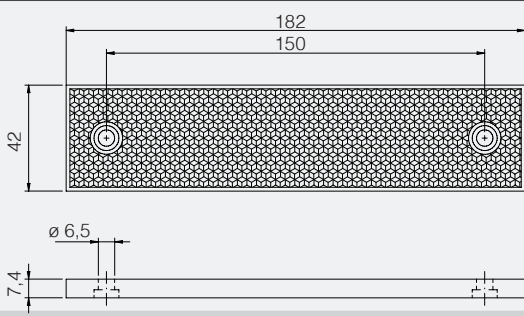

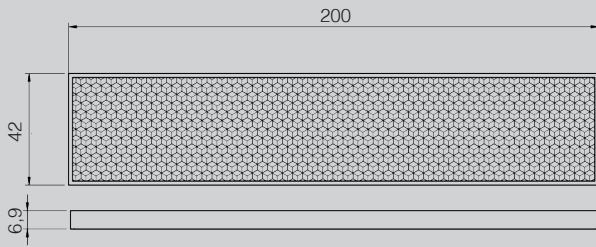
dimensions (mm)



dimensions (mm)

accessories included with all models



product		dimensions (mm)
RL106G ⁽¹⁾		
RL136 ⁽²⁾		

⁽¹⁾included for CR0

⁽²⁾included for CR1