



CR series

Retroreflective Polarized Area sensors

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

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Retroreflective
Polarized Area Sensors



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	NC/NO	CR0/0T-1V
						PNP	NO+NC	CR0/BP-1V
						NPN	NO+NC	CR0/BN-1V
	149	3,4	5		IO Link	IO Link	CR1/0I-1V	
					PNP+NPN	NC/NO	CR1/0B-1V	
					Push Pull	NC/NO	CR1/0T-1V	
			4		PNP	NO+NC	CR1/BP-1V	
					NPN	NO+NC	CR1/BN-1V	

CR

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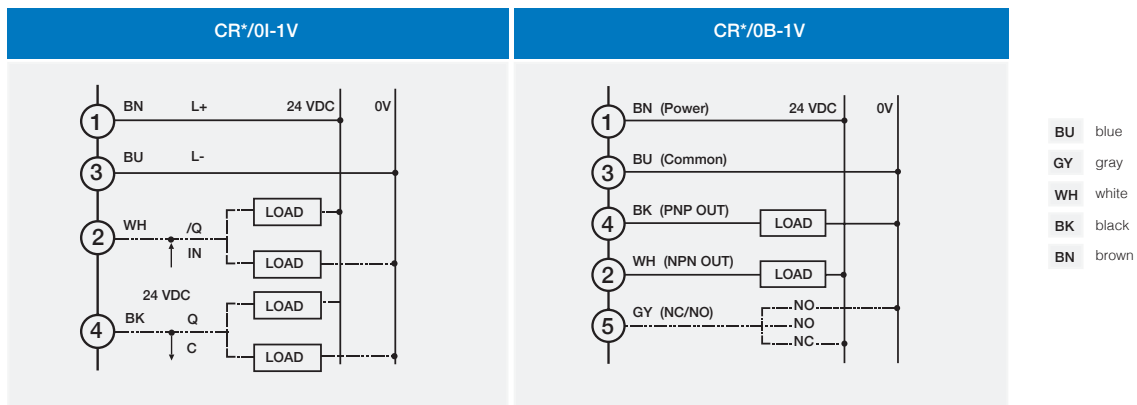
technical specifications

Retroreflective
Polarized Area Sensors

	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	

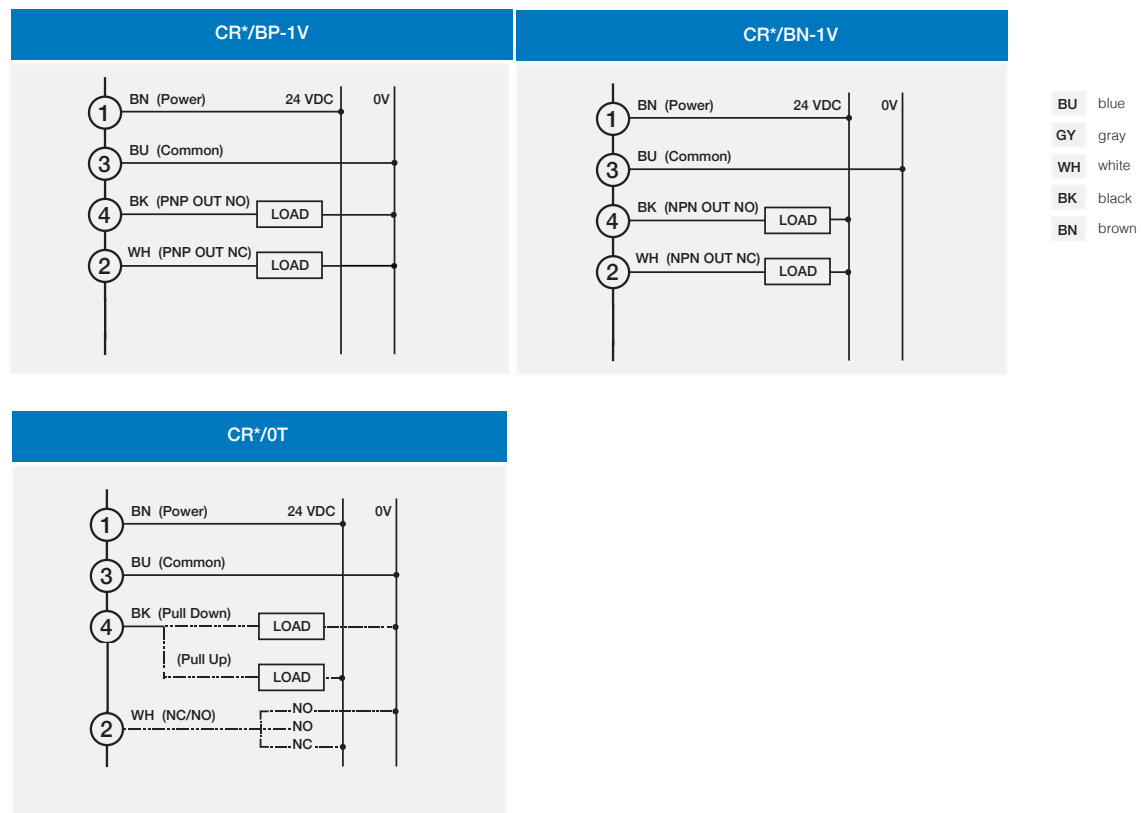
⁽¹⁾ 106G reflector 20 x 80mm (concealment)

electric diagrams of the connections



CR

electric diagrams of the connections



Retroreflective
Polarized Area Sensors

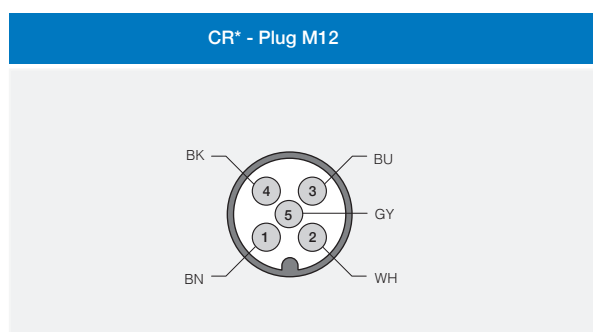
response diagrams

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

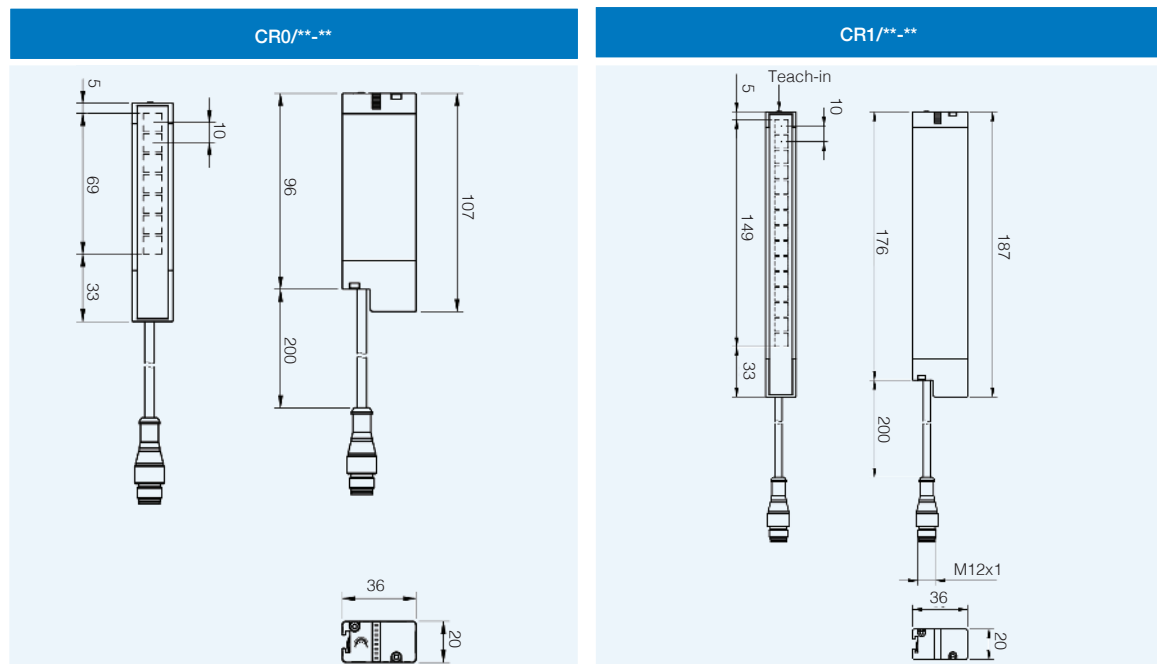
Reflector	CR1	
	Min (m)	Max (m)
RL 136	0,2	5,5
RL 100DCR1 (200x40mm)	0,3	2,5

plugs



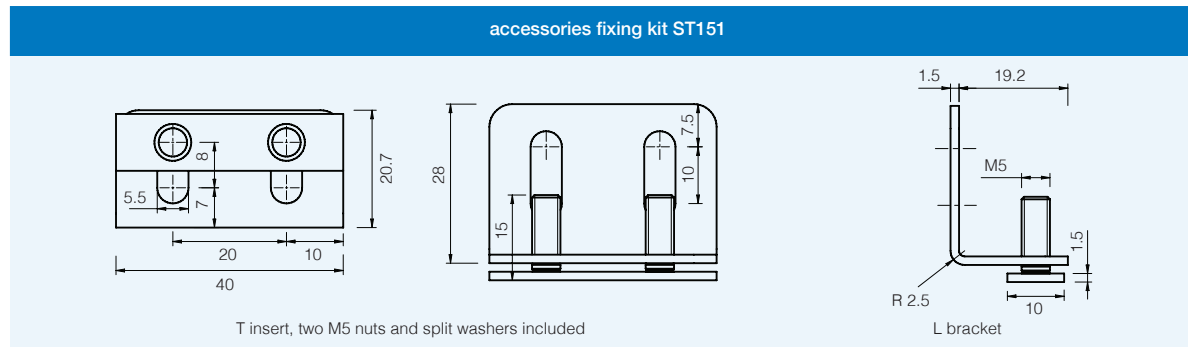
CR

dimensions (mm)



dimensions (mm)

accessories included with all models



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

⁽¹⁾ included for CR0
⁽²⁾ included for CR1