Dimensions

Model Number

RLK29-55-5060

Retroreflective sensor

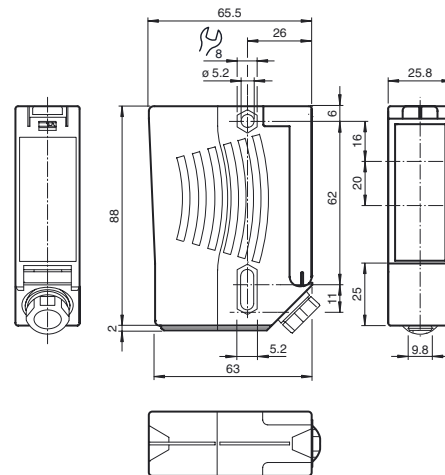With terminal compartment; with mounting materials

Features

- Robust, compact photoelectric sensor for single-beam gate protection
- High detection ranges achievable
- 2500 V Proof voltage between the relay connection terminals and the device electronics
- Not sensitive to ambient light, even with energy saving lamps
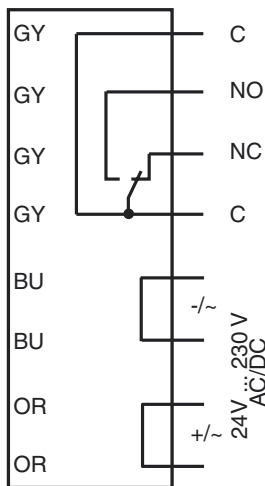- Version with accessories in scope of delivery

Product information

Series 29 is a range of low-cost and, most importantly, reliable photoelectric sensors for monitoring industrial doors, elevators, and automatic gates. Their high degree of protection makes them the ideal solution for tasks outdoors and at thresholds, and in harsh environments. These "universal-voltage sensors" can be operated with any supply voltage from 24 V to 240 V, and with direct current or alternating current.
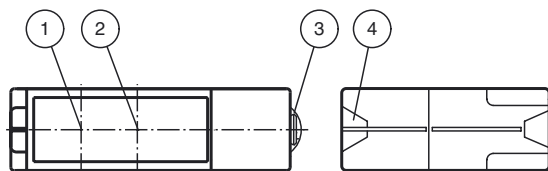
Electrical connection

GY	C
GY	NO
GY	NC
GY	C
BU	-/~
BU	
OR	+/~
OR	

24V ... 230 V AC/DC

Indicators/operating means

1	Emitter	
2	Receiver	
3	Dovetail mount	
4	Functional display	yellow

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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1

Technical data

General specifications

Effective detection range	0 ... 12 m
Reflector distance	0.04 ... 12 m
Threshold detection range	14 m
Reference target	reflector C110-2 Diameter: 84 mm , included with delivery
Light source	LED
Light type	modulated visible red light , 640 nm
Diameter of the light spot	approx. 35 mm at a distance of 12 m
Angle of divergence	± 1 °
Ambient light limit	90000 Lux

Functional safety related parameters

$MTTF_d$	1460 a
Mission Time (T_M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

Function indicator	LED red illuminates: when beam is free flashes: when level falls below function reserve off: when beam is interrupted

Electrical specifications

Operating voltage	U_B	24 ... 230 V AC/DC
Ripple		10 %
No-load supply current	I_0	≤ 8.5 mA
Power consumption	P_0	0.2 W at 24 V DC , 1.8 W at 230 V AC 3 VA

Output

Switching type		light on
Signal output		Relay, 1 alternator
Switching voltage		230 V AC
Switching current		max. 2 A
Switching frequency	f	7 Hz
Response time		50 ms

Ambient conditions

Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
Storage temperature	-30 ... 70 °C (-22 ... 158 °F)

Mechanical specifications

Degree of protection	IP67
Connection	terminal compartment
Material	
Housing	Plastic ABS, flame resistant
Optical face	plastic
Mass	approx. 200 g
Note	Safety fuse ≤ 2 A (slow-blow) according to IEC 60127-2 Sheet 1 Recommendation: after a short circuit, check that the device is functioning correctly.

Compliance with standards and directives

Standard conformity	
Product standard	EN 60947-5-2:2007 IEC 60947-5-2:2007

Approvals and certificates

CE conformity	yes
UL approval	cULus Listed **Caution:** This equipment is considered as open-type equipment. It must be mounted within an enclosure, that is suitably designed for protection against internal fire and personal injury resulting from accessibility to live parts according UL 508.
CCC approval	Certified by China Compulsory Certification (CCC)

Typical applications

- Monitoring closing edges of automatic industrial doors and elevators
- Monitoring the swing range of automatic gates
- Detecting and tracking objects in material handling

Detection area

Accessories

OMH-RLK29
Mounting bracket

OMH-RLK29-HW
Mounting bracket for rear wall mounting

OMH-21
Mounting bracket

OFR-100/100
Reflective tape 100 mm x 100 mm

REF-C110-2
Reflector, round ø 84 mm, central mounting hole

REF-H180
Reflector, rectangular 180 mm x 40 mm, mounting holes

REF-H160
Reflector, rectangular 60 mm x 18 mm, mounting holes

REF-H85-2
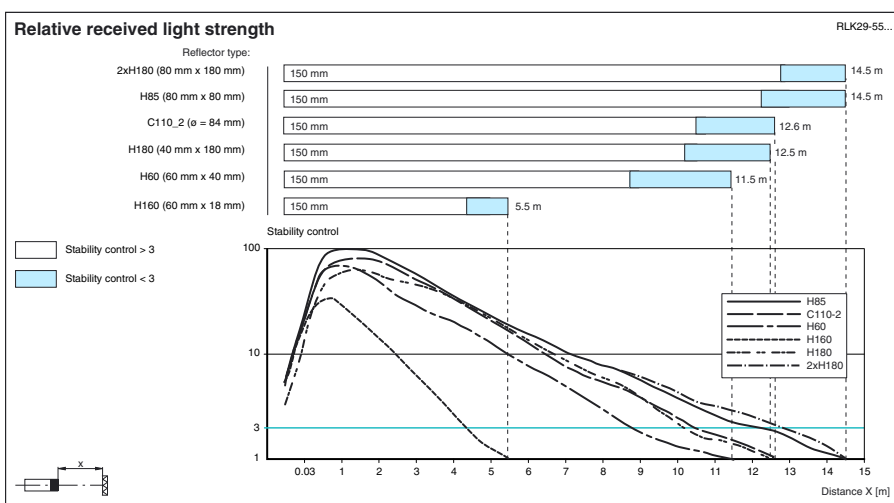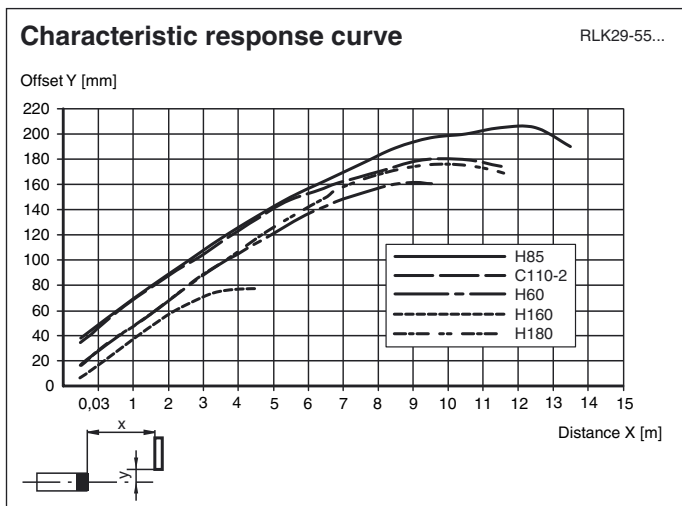Reflector, rectangular 84.5 mm x 84.5 mm, mounting holes

REF-H60-2
Reflector with mounting holes

REF-H50
Reflector, rectangular 51 mm x 61 mm, mounting holes, fixing strap

Other suitable accessories can be found at www.pepperl-fuchs.com

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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Curves/Diagrams

Characteristic response curve   RLK29-55...

Offset Y [mm]

H85
C110-2
H60
H160
H180

Distance X [m]

Relative received light strength   RLK29-55...

Reflector type:

Reflector type		
2xH180 (80 mm x 180 mm)	150 mm	14.5 m
H85 (80 mm x 80 mm)	150 mm	14.5 m
C110_2 (ø = 84 mm)	150 mm	12.6 m
H180 (40 mm x 180 mm)	150 mm	12.5 m
H60 (60 mm x 40 mm)	150 mm	11.5 m
H160 (60 mm x 18 mm)	150 mm	5.5 m

Stability control > 3

Stability control < 3

Stability control

H85
C110-2
H60
H160
H180
2xH180

Distance X [m]

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