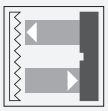
Retroreflective sensor

RLK29-55/59/116



- Robust, compact photoelectric sensor for single-beam gate protection
- Not sensitive to ambient light, even with energy saving lamps
- Tamper-proof, no operating controls
- Version for universal voltages
- Relay output

Robust, compact, long range photoelectric sensors for detecting people, objects and vehicles

Function

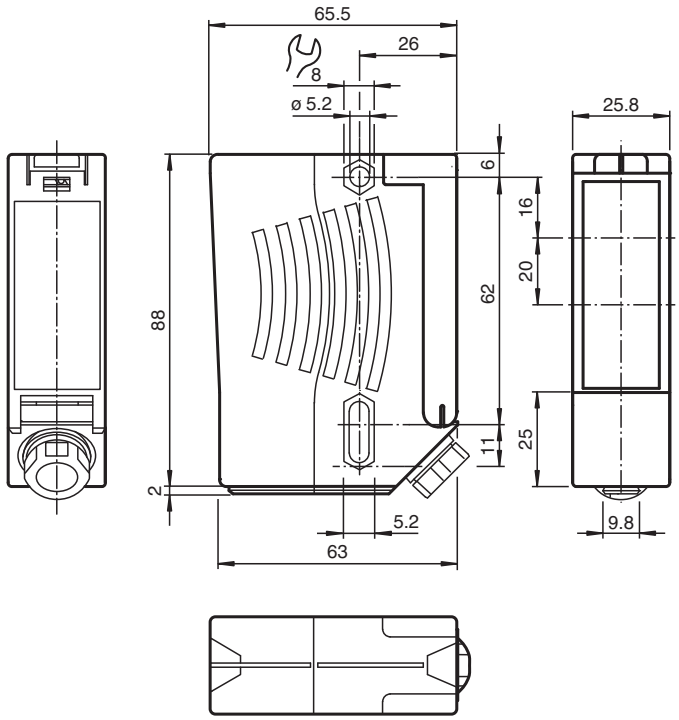
Series 29 is a range of low-cost and, most importantly, reliable photoelectric sensors for monitoring industrial doors, elevators, and automatic gates. Their high degree of protection makes them the ideal solution for tasks outdoors and at thresholds, and in harsh environments. These "universal-voltage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

Application

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

Release date: 2024-09-10 Date of issue: 2024-09-10 Filename: 114642_eng.pdf

Dimensions



Technical Data

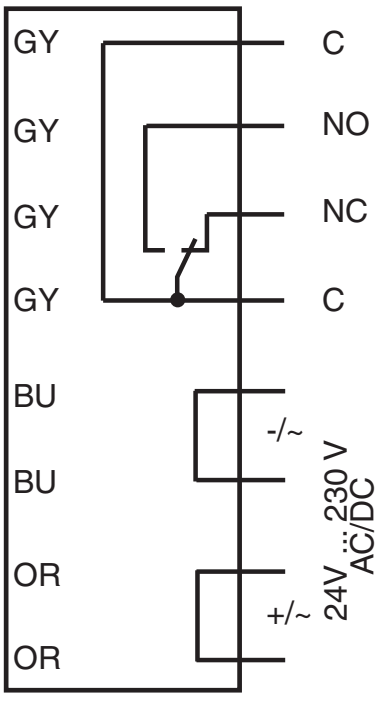
General specifications		
Effective detection range		0 ... 12 m
Reflector distance		0.04 ... 12 m
Threshold detection range		14 m
Reference target		H85-2 reflector
Light source		LED
Light type		modulated visible red light , 640 nm
Diameter of the light spot		approx. 35 mm at a distance of 12 m
Opening angle		± 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		dark-on
Signal output		Relay, 1 alternator
Switching voltage		230 V AC
Switching current		max. 2 A
Switching frequency	f	7 Hz

Release date: 2024-09-10 Date of issue: 2024-09-10 Filename: 114642_eng.pdf

Technical Data

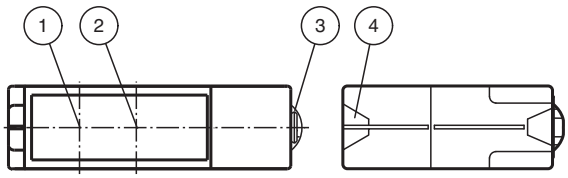
Response time	50 ms
Conformity	
Product standard	EN 60947-5-2
Approvals and certificates	
CE conformity	yes
UL approval	cULus Listed **Caution:** This equipment is considered as open-type equipment. It must be mounted within an enclosure, that is suitably designed for protection against internal fire and personal injury resulting from accessibility to live parts according UL 508.
CCC approval	Certified by China Compulsory Certification (CCC)
Ambient conditions	
Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
Storage temperature	-20 ... 60 °C (-4 ... 140 °F)
Mechanical specifications	
Degree of protection	IP67
Connection	terminal compartment
Material	
Housing	plastic
Optical face	Plastic pane
Mass	100.7 g
Dimensions	
Height	88 mm
Width	25.8 mm
Depth	65.5 mm
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.

Connection Assignment



Release date: 2024-09-10 Date of issue: 2024-09-10 Filename: 114642_eng.pdf

Assembly

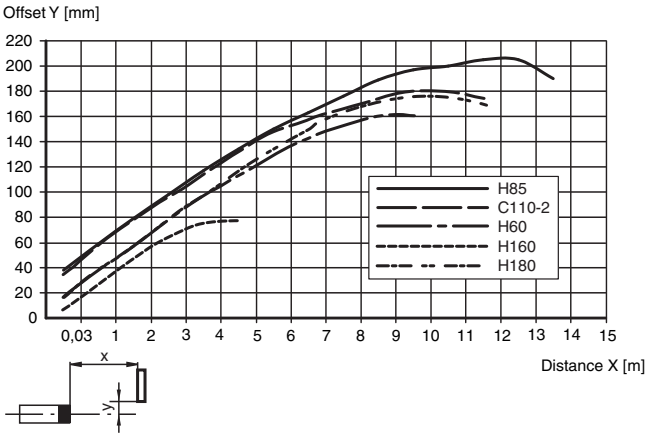


1	Emitter	
2	Receiver	
3	Dovetail mount	
4	Functional display	red

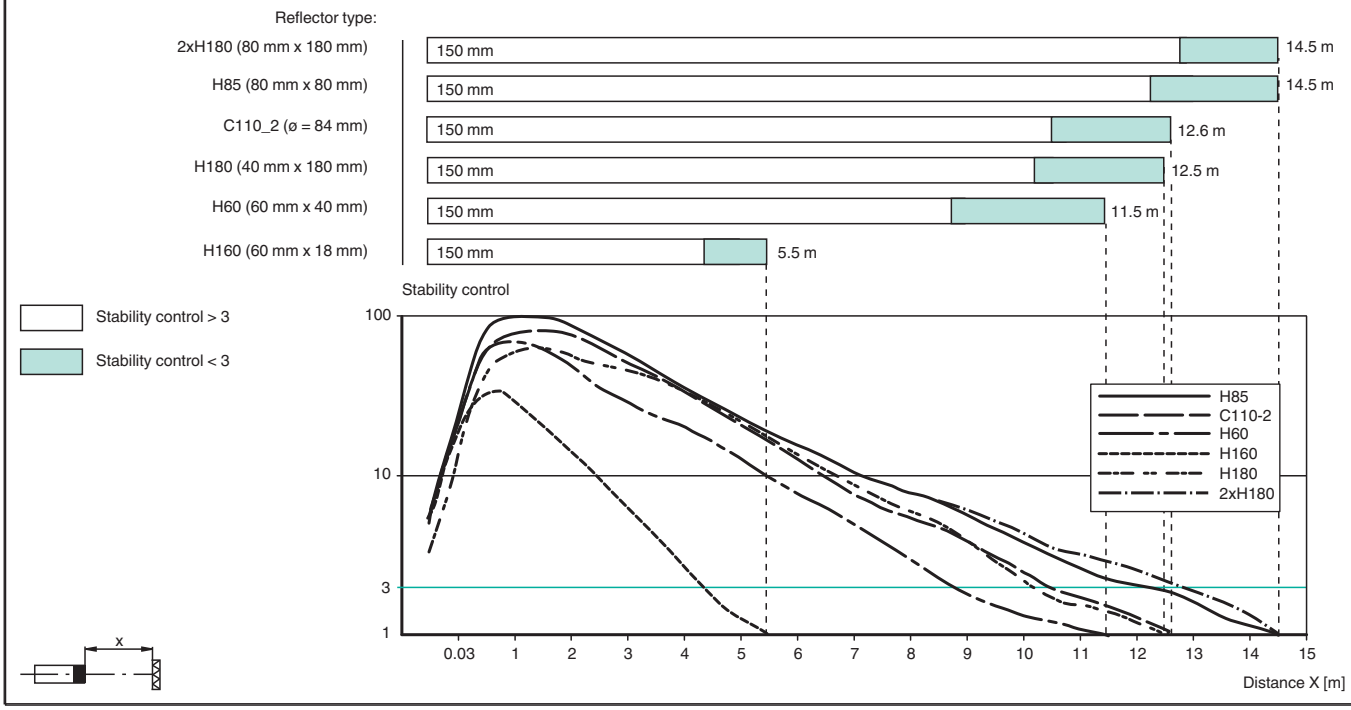
Characteristic Curve

Characteristic response curve

RLK29-55...



Relative received light strength



Release date: 2024-09-10 Date of issue: 2024-09-10 Filename: 114642_eng.pdf