

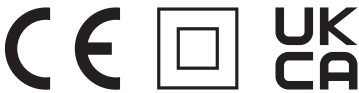
Retroreflective sensor

RLK28-55-Z-2466/31/115d

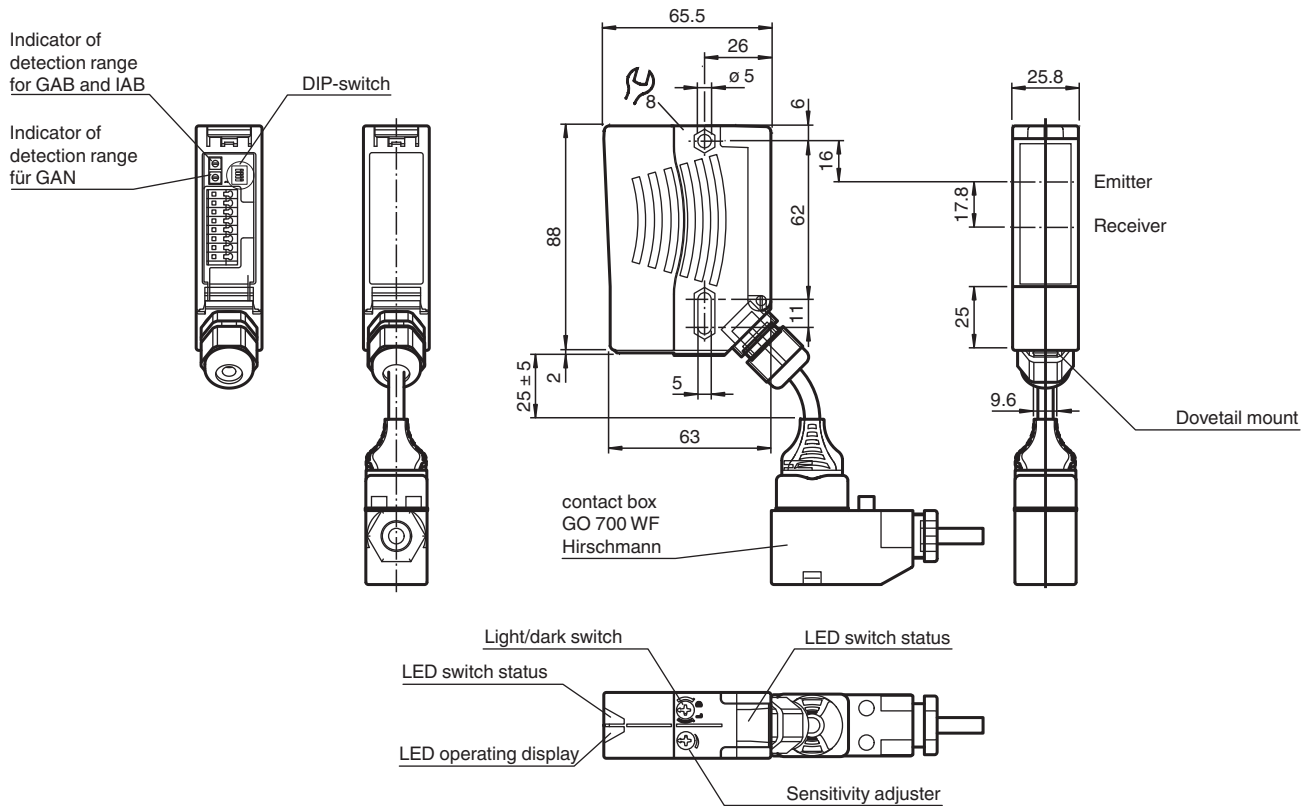


- Ultra bright LEDs for power on, weak signal indication and switching state
- Programmable time function GAN, GAB, IAB, as well as GAN-GAB and GAN-IAB as double function
- Not sensitive to ambient light, even with switched energy saving lamps
- Protection class II

Retroreflective sensor with polarization filter



Dimensions



Technical Data

General specifications

Release date: 2023-04-04 Date of issue: 2023-04-04 Filename: 204401_eng.pdf

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

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Technical Data

Effective detection range	0 ... 17 m	
Reflector distance	0.05 ... 17 m	
Threshold detection range	21 m	
Reference target	H85-2 reflector	
Light source	LED	
Light type	modulated visible red light , 660 nm	
Polarization filter	yes	
Diameter of the light spot	approx. 290 mm at a distance of 17 m	
Opening angle	emitter 1.2° receiver 2°	
Ambient light limit	80000 Lux	
Functional safety related parameters		
MTTF _d	600 a	
Mission Time (T _M)	20 a	
Diagnostic Coverage (DC)	0 %	
Indicators/operating means		
Operation indicator	LED green	
Function indicator	2 LEDs yellow, light up when light beam is free, flash when falling short of the stability control, off when light beam is interrupted	
Control elements	sensitivity adjustment (Adjustment to < 25% of the effective operating range) , Light-on/dark-on changeover switch	
Electrical specifications		
Operating voltage	U _B	12 ... 240 V AC/DC
Power consumption	P ₀	≤ 3.5 VA
Output		
Switching type	light/dark on, switchable (selectable, light/dark switching is only activated if the receiver has 'dark on' selected.)	
Signal output	Relay, 1 alternator	
Switching voltage	max. 250 V AC/DC	
Switching current	max. 2 A	
Switching power	DC: max. 50 W AC: max. 500 VA	
Switching frequency	f	25 Hz
Response time	20 ms	
Timer function	ON delay (GAN), OFF delay (GAB), one shot (IAB), ON delay-one shot (GAN-IAB), ON delay-OFF delay (GAN-GAB), programmable adjustment interval 0.1 ... 10 s	
Conformity		
Product standard	EN 60947-5-2	
Approvals and certificates		
Protection class	II, rated insulation voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1 Output circuit insulated from control circuit in accordance with IEC 61140. Caution! The protection class 2 is only valid when the terminal compartment is closed.	
Ambient conditions		
Ambient temperature	-40 ... 60 °C (-40 ... 140 °F)	
Storage temperature	-40 ... 60 °C (-40 ... 140 °F)	
Mechanical specifications		
Housing width	25.8 mm	
Housing height	88 mm	
Housing depth	65.5 mm	
Degree of protection	IP65	
Connection	7-pin surface-mounted connector, up to 250 VAC (without cable socket)	
Material		
Housing	Plastic ABS	
Optical face	Plastic pane	
Mass	180 g	

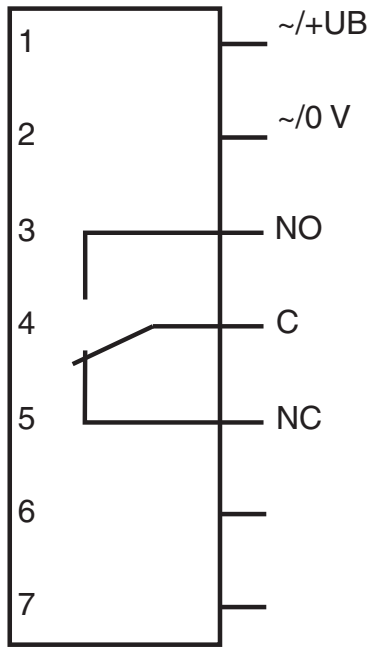
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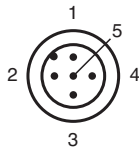
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Connection Assignment



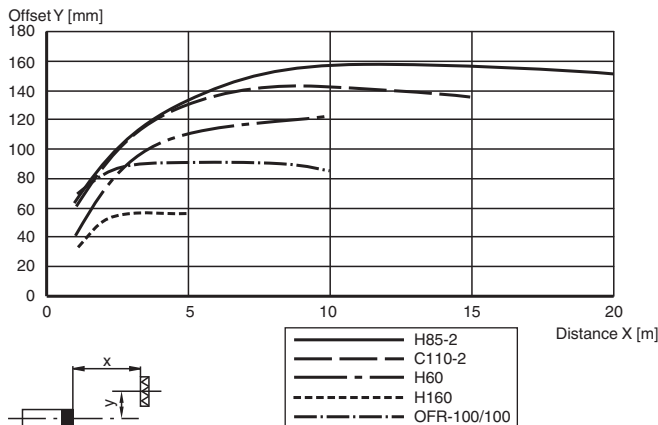
The relay-functions "NC" and "NO" bear on the switching mode "Dark-ON". This complies to the default setting of the light/dark switch (factory setting).

Connection Assignment



Characteristic Curve

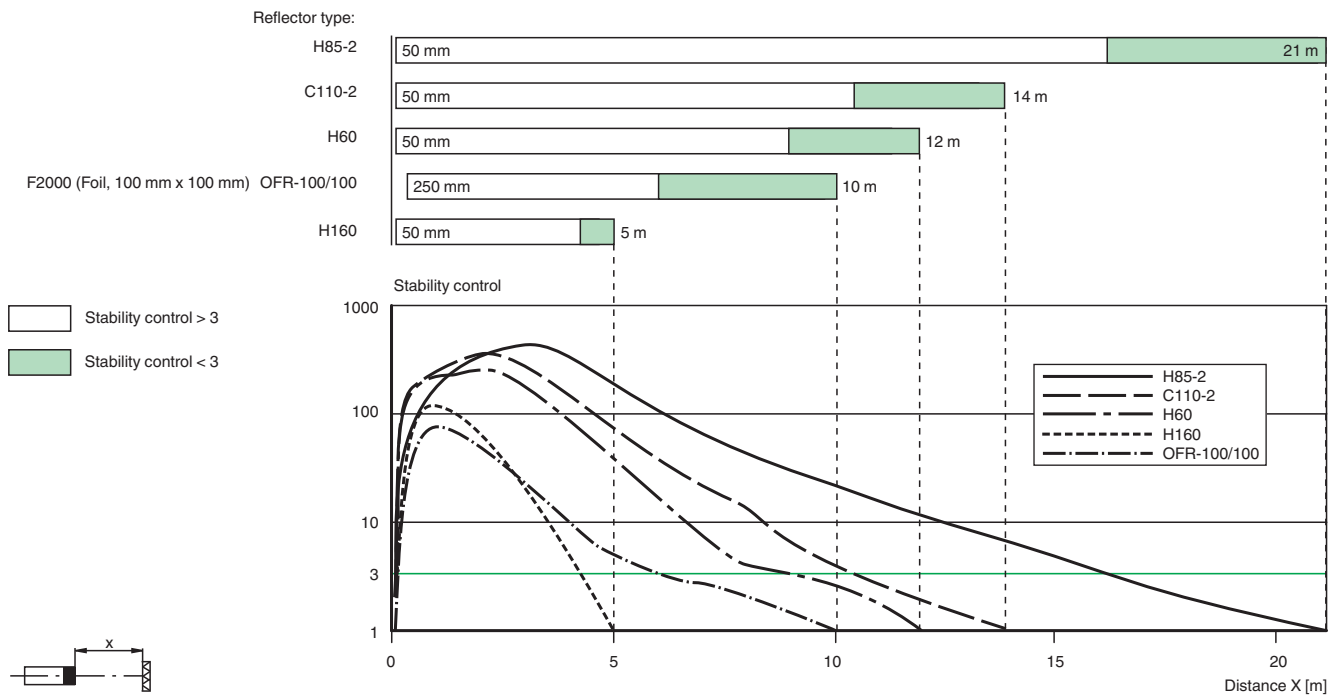
Characteristic response curve








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Characteristic Curve

Relative received light strength

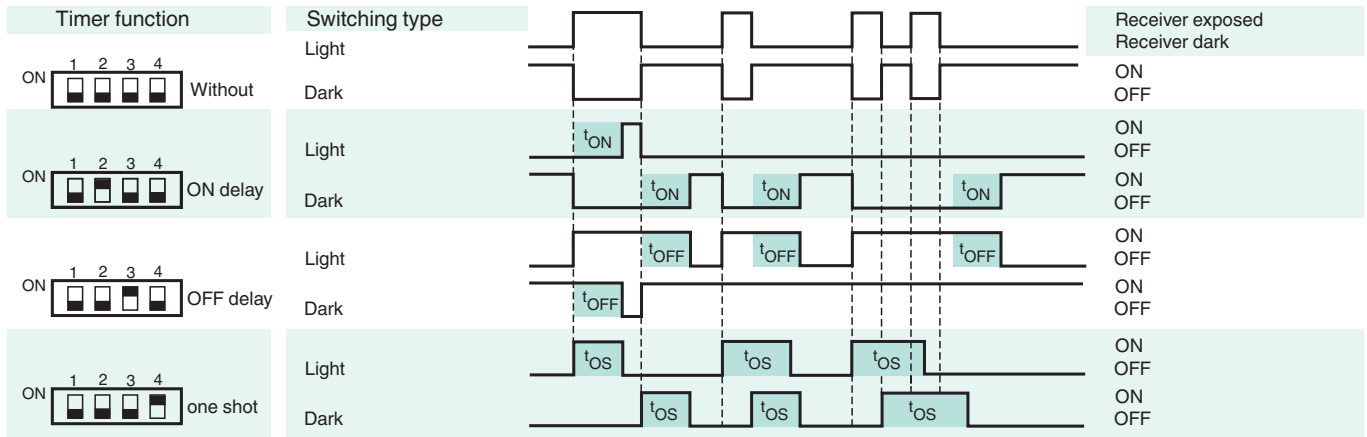


Accessories

	OMH-05	Mounting aid for round steel \varnothing 12 mm or sheet 1.5 mm ... 3 mm
	OMH-21	Mounting bracket: mounting aid for sensors in the RL* series
	OMH-22	Mounting aid for RL* series
	OMH-RLK29-HW	Mounting bracket for rear wall mounting
	OMH-RL28-C	Weld slag cover model

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Timer functions



Time t_{ON} , t_{OFF} and t_{OS} are adjustable from 0.1 to 10 seconds.
 The Light-/Dark-Switch (Left, outer switch) is shown in the "Dark ON" position.

Type	Description	Notes
-Z	OFF delay timer	Adjustable time interval (0.1 s - 10 s)
	one shot timer	
	ON delay timer	
	ON delay timer / OFF delay timer	
	ON delay timer / one shot timer	