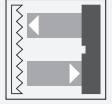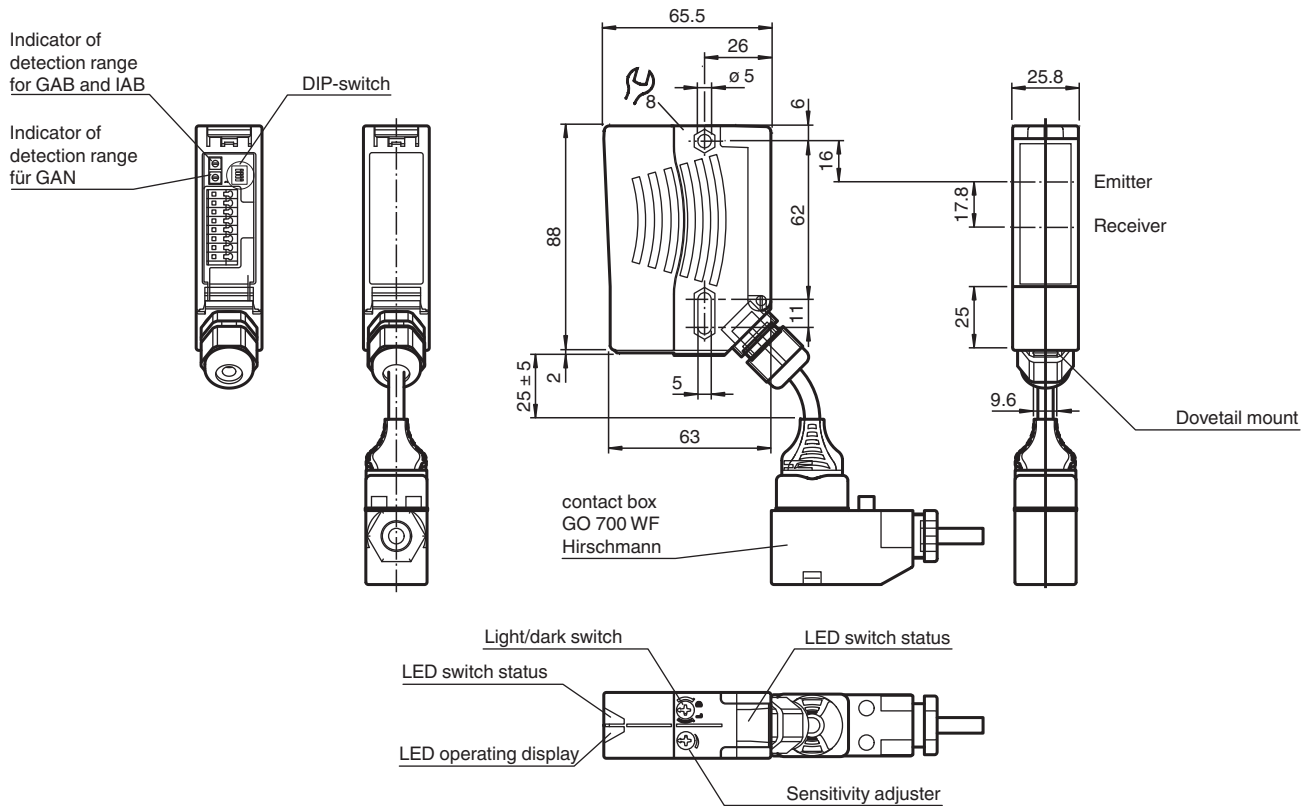# Retroreflective sensor

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

CE □ UKCA

Dimensions

Indicator of detection range for GAB and IAB

Indicator of detection range für GAN

DIP-switch

65.5
26
ø 5
88
62
6
16
17.8
25
25 ± 5
2
5
11
63
25.8
Emitter
Receiver
9.6
Dovetail mount

contact box GO 700 WF Hirschmann

Light/dark switch
LED switch status
LED switch status
LED operating display
Sensitivity adjuster

Technical Data

General specifications

PEPPERL+FUCHS

1

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

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

Pepperl+Fuchs Group　　USA: +1 330 486 0001　　Germany: +49 621 776 1111　　Singapore: +65 6779 9091
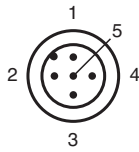www.pepperl-fuchs.com　　fa-info@us.pepperl-fuchs.com　　fa-info@de.pepperl-fuchs.com　　fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS　　2
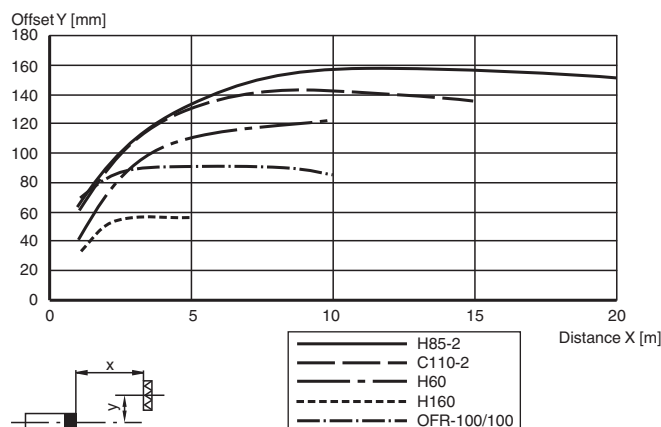
Connection Assignment

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).

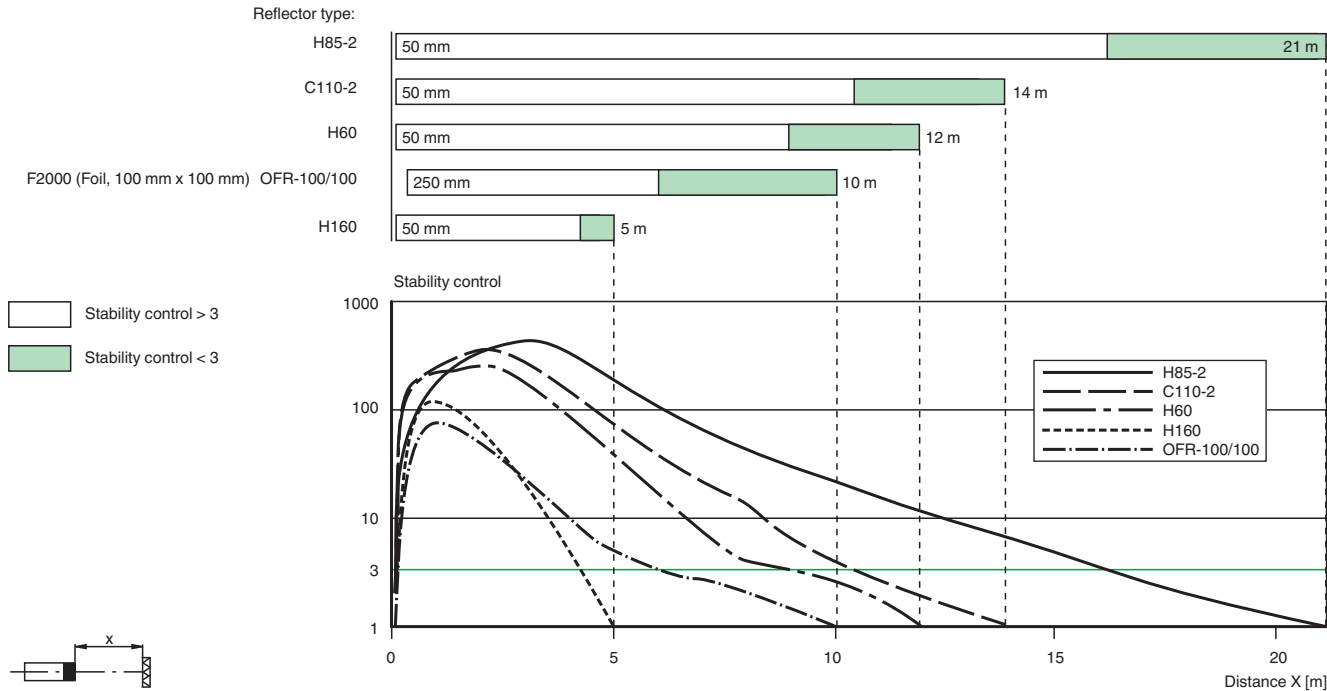| Pin	Signal
1	~/+UB
2	~/0 V
3	NO
4	C
5	NC
6	
7	

Connection Assignment

Characteristic Curve

Characteristic response curve

Offset Y [mm]

Distance X [m]

- H85-2
- C110-2
- H60
- H160
- OFR-100/100

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

PEPPERL+FUCHS

Characteristic Curve

Relative received light strength

Reflector type:

H85-2	50 mm		21 m
C110-2	50 mm		14 m
H60	50 mm		12 m
F2000 (Foil, 100 mm x 100 mm) OFR-100/100	250 mm		10 m
H160	50 mm	5 m	

Stability control > 3

Stability control < 3

Stability control

H85-2
C110-2
H60
H160
OFR-100/100

Distance X [m]

x

Accessories

	OMH-05	Mounting aid for round steel ø 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

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

Pepperl+Fuchs Group   USA: +1 330 486 0001   Germany: +49 621 776 1111   Singapore: +65 6779 9091

www.pepperl-fuchs.com   fa-info@us.pepperl-fuchs.com   fa-info@de.pepperl-fuchs.com   fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS   4

Timer functions

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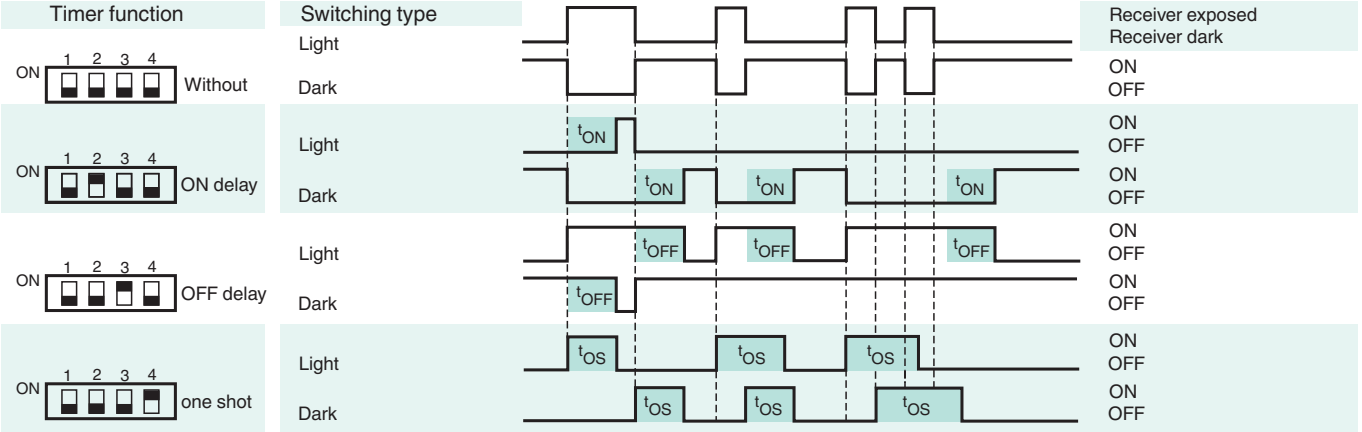
Time t_{ON}, t_{OFF} and t_{OS} are adjustable from 0.1 to 10 seconds.
The Light-/Dark-Switch (Left, outer switch) is shown in the "Dark ON" position.

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	

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

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

5