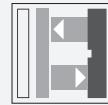


Background suppression sensor

RLK28-8-H-400-RT-Z/31/116

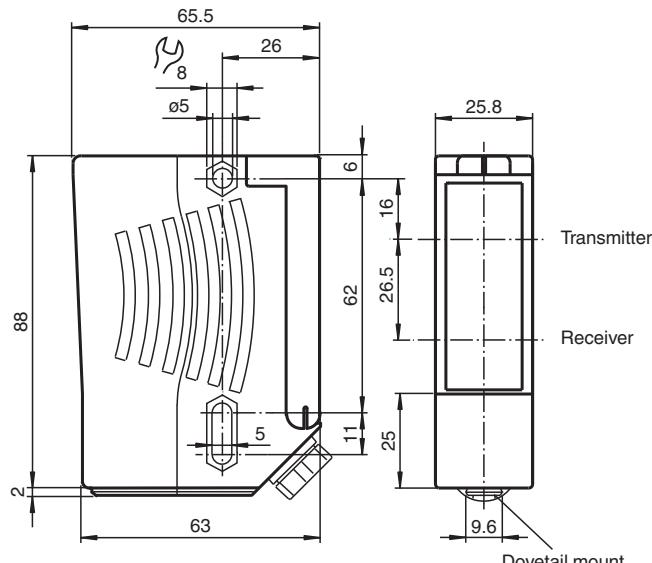
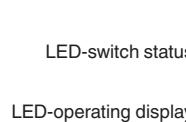
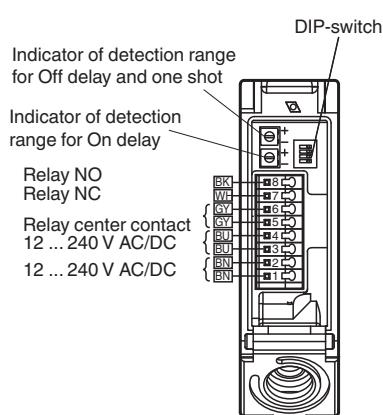


- Universal series with highly versatile fields of use
- Resistant against noise: reliable operation under all conditions
- Good alignability due to red transmission LED
- Programmable time function GAN, GAB, IAB and GAN-IAB as double function
- Version for universal voltages

Background suppression sensor



Dimensions



Technical Data

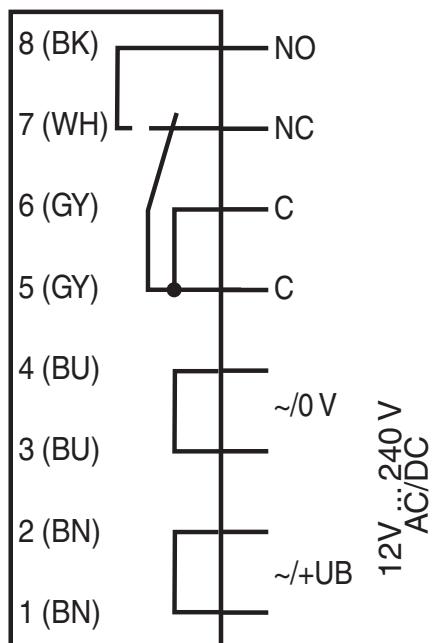
General specifications		
Detection range	20 ... 400 mm	
Detection range min.	20 ... 150 mm	
Detection range max.	20 ... 400 mm	
Adjustment range	150 ... 400 mm	
Background suppression	max. + 10 % of the upper limit of the detection range	
Light source	LED	
Light type	modulated visible red light , 660 nm	
Black-white difference (6 %/90 %)	< 10 %	
Diameter of the light spot	approx. 12 mm at a distance of 400 mm	
Opening angle	Emitter 1.2°, Receiver 2°	
Ambient light limit	50000 Lux	
Functional safety related parameters		
MTTF _d	620 a	
Mission Time (T _M)	20 a	
Diagnostic Coverage (DC)	0 %	
Indicators/operating means		
Operation indicator	LED green	
Function indicator	2 LEDs yellow ON: object inside the scanning range OFF: object outside the scanning range	
Control elements	Sensing range adjuster , 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.	
UL approval	E87056 , 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	-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	

Technical Data

Degree of protection	IP67
Connection	terminal compartment with 8 spring-loaded terminals for wire cross section 0.5 ... 1.5 mm ² , insulation stripping 7.5 ... 8.5 mm, M16 x 1.5 cable gland
Material	
Housing	Plastic ABS
Optical face	Plastic pane
Mass	112 g

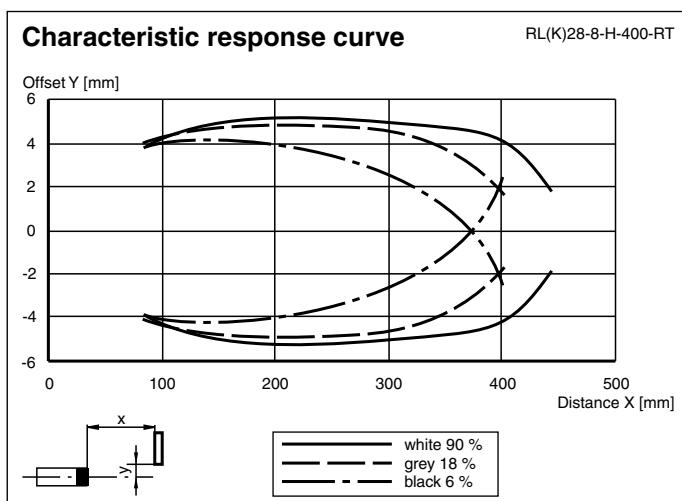
Connection Assignment

Option:

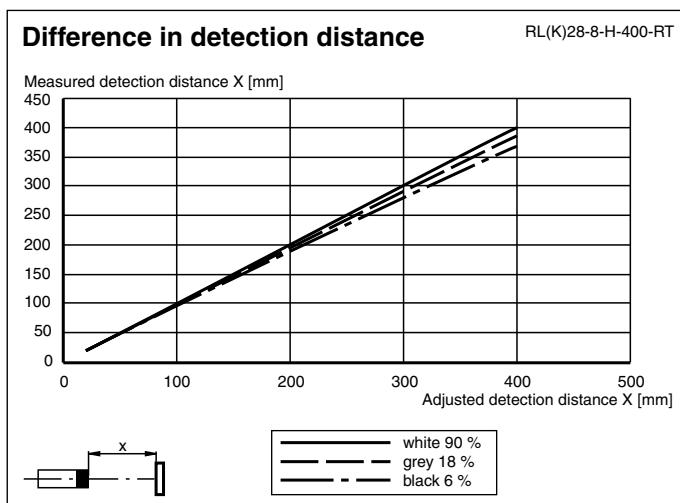


The relay-functions "NC" and "NO" bear on the switching mode "Light-ON". This complies to the default setting of the light/dark switch, located on top of the housing (factory setting).

Characteristic Curve



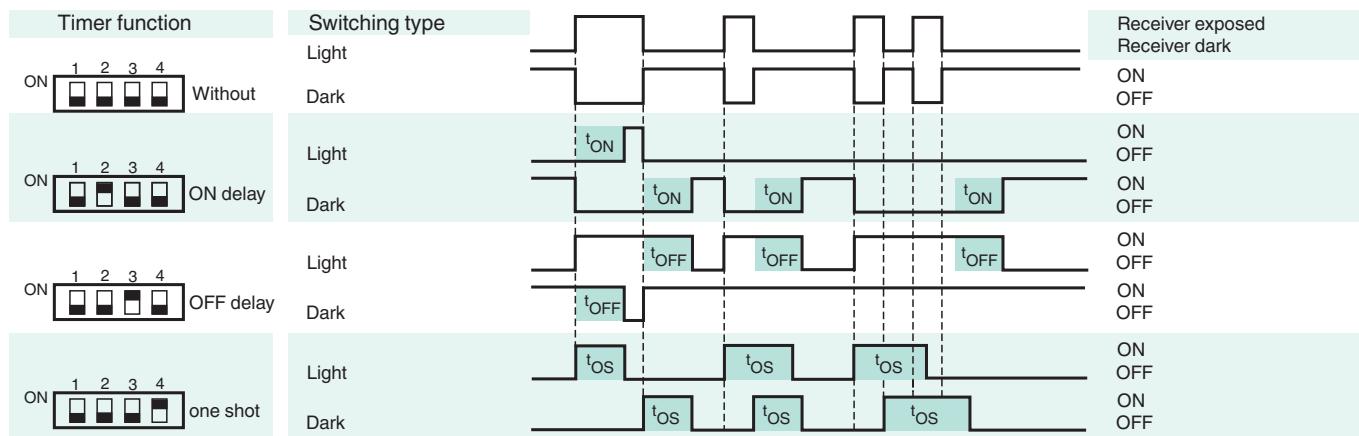
Characteristic Curve



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	Mounting bracket
	OMH-RLK29-HW	Mounting bracket for rear wall mounting
	OMH-RL28-C	Weld slag cover model

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	