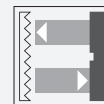




Retroreflective sensor

RL28-55-3018/44/47/115b

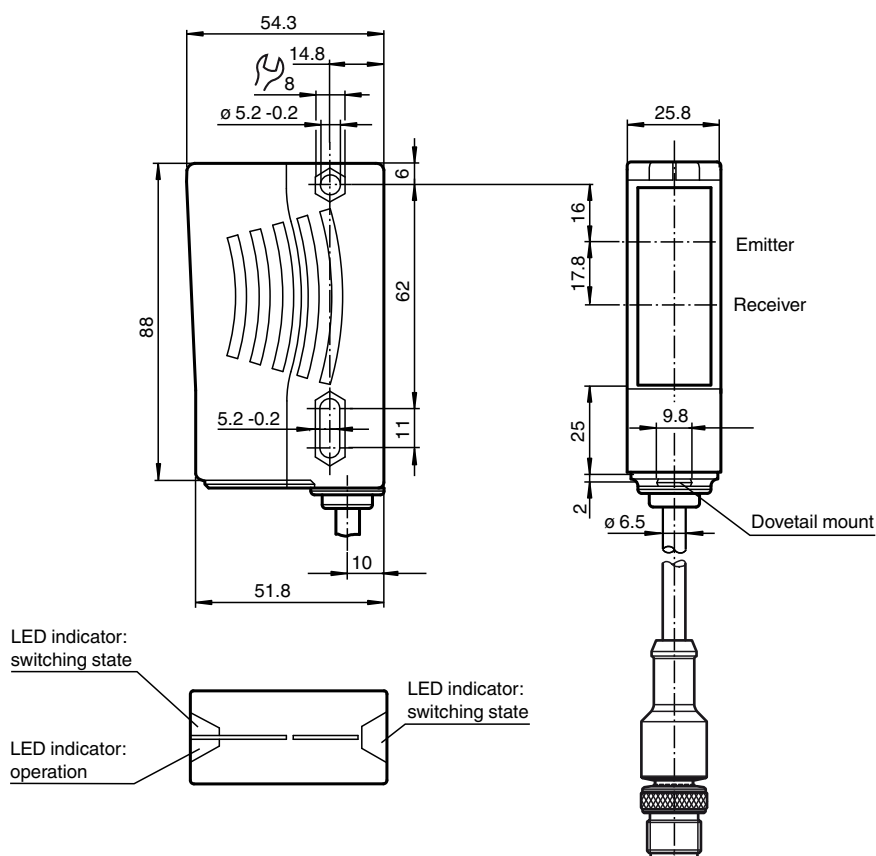


- Ultra bright LEDs for power on, weak signal indication and switching state
- Not sensitive to ambient light, even with switched energy saving lamps
- Waterproof, degree of protection IP67
- Protection class II

Retroreflective sensor with polarization filter



Dimensions



Technical Data

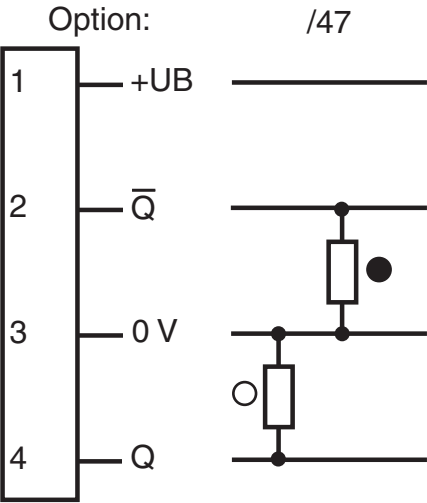
General specifications

Effective detection range	0 ... 8 m
Reflector distance	0.05 ... 8 m

Technical Data

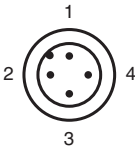
Threshold detection range	12 m
Reference target	H60 reflector 40 mm x 60 mm
Light source	LED
Light type	modulated visible red light , 660 nm
Polarization filter	yes
Diameter of the light spot	approx. 160 mm at a distance of 8 m
Angle of divergence	emitter 1.2° receiver 2°
Ambient light limit	80000 Lux
Functional safety related parameters	
MTTF _d	950 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
Electrical specifications	
Operating voltage	U _B 10 ... 30 V DC
Ripple	10 %
No-load supply current	I ₀ ≤ 40 mA
Output	
Switching type	light-on
Signal output	2 PNP, complementary, short-circuit protected, reverse polarity protected , open collectors
Switching voltage	max. 30 V DC
Switching current	max. 200 mA
Switching frequency	f 1000 Hz
Response time	0.5 ms
Conformity	
Product standard	EN 60947-5-2
Approvals and certificates	
EAC conformity	TR CU 020/2011
Protection class	II, rated voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1
UL approval	E87056 , cULus Listed , class 2 power supply , type rating 1
Ambient conditions	
Ambient temperature	-40 ... 60 °C (-40 ... 140 °F)
Storage temperature	-40 ... 75 °C (-40 ... 167 °F)
Mechanical specifications	
Housing width	25.8 mm
Housing height	88 mm
Housing depth	54.3 mm
Degree of protection	IP67
Connection	with 0.3 m fixed cable and M12 connector, 4-pin
Material	
Housing	Plastic ABS
Optical face	plastic
Mass	70 g

Connection



○ = Light on
● = Dark on

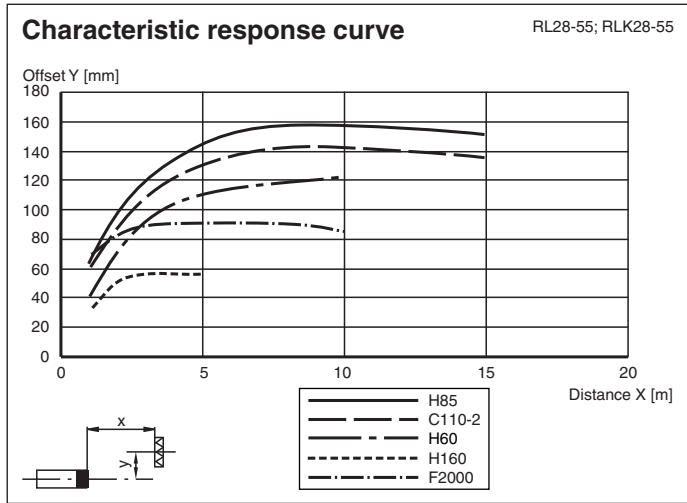
Connection Assignment



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

Characteristic Curve



Release date: 2021-11-11 Date of issue: 2021-11-11 Filename: 180712_eng.pdf

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