

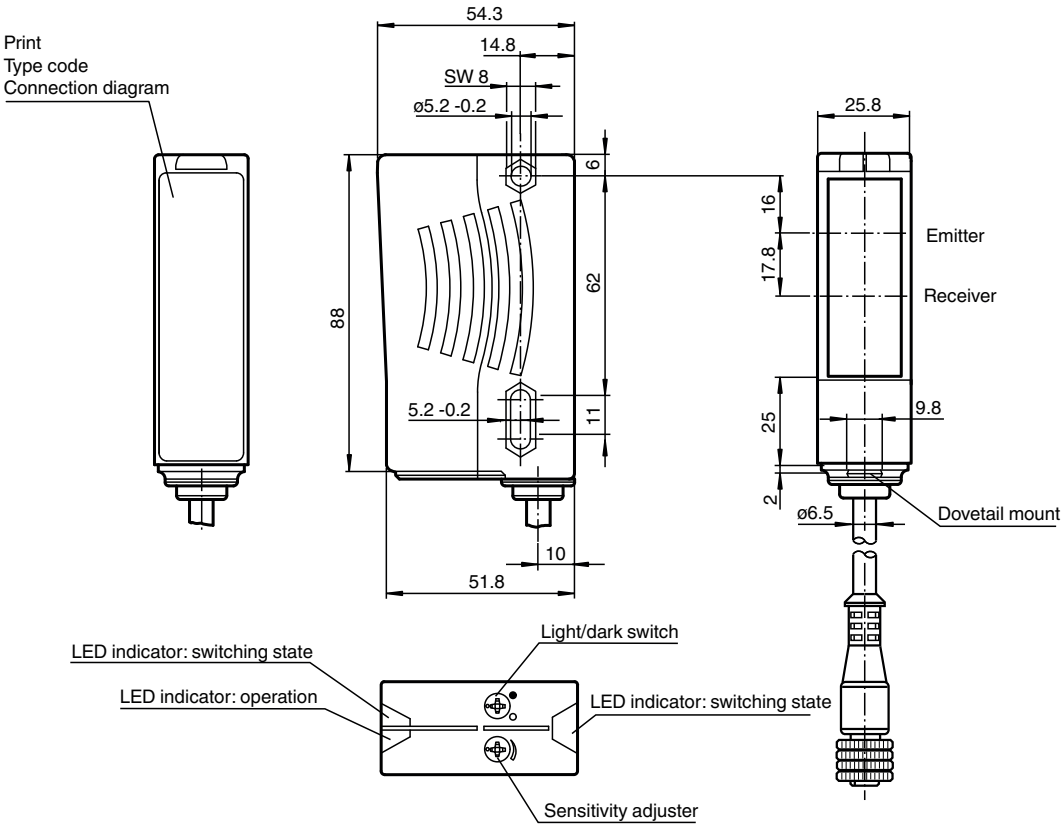
Retroreflective sensor

RL28-55-2547/47

- Sensing range up to 16 m
- Clearly visible LEDs for Power ON, switching state and weak signal indication
- Antivalent outputs
- Sensitivity adjuster and light-on/dark-on changeover switch as standard features of this series
- Not sensitive to ambient light, even with energy saving lamps
- Dove-tail mounts and pass-through mounting holes
- Large temperature range from -40 ... 60 °C (-40 ... 140 °F)
- Waterproof, degree of protection IP67

Retroreflective sensor with polarization filter

Dimensions



Technical Data

General specifications	
Effective detection range	0 ... 17 m
Reflector distance	0.05 ... 17 m

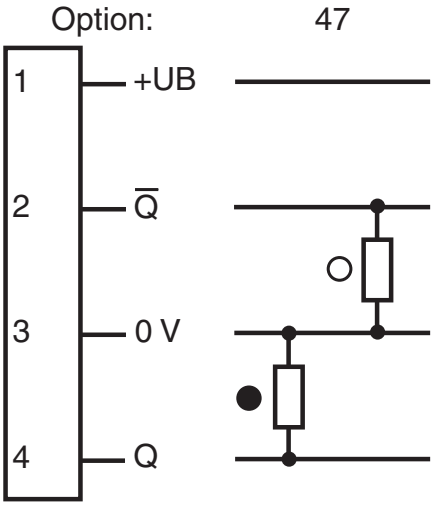
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Technical Data

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		
$MTTF_d$		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 operating reserve, are 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	10 ... 30 V DC
Ripple		10 %
No-load supply current	I_0	≤ 40 mA
Output		
Switching type		light/dark on switchable
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		
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 ... 60 °C (-40 ... 140 °F)
Mechanical specifications		
Degree of protection		IP67
Connection		fixed cable 230 mm with M12 x 1 male connector, 4-pin
Material		
Housing		Plastic ABS
Optical face		plastic
Mass		70 g
Dimensions		
Height		88 mm
Width		25.8 mm
Depth		54.3 mm

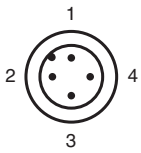
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Connection



○ = Light on
● = Dark on

Connection Assignment

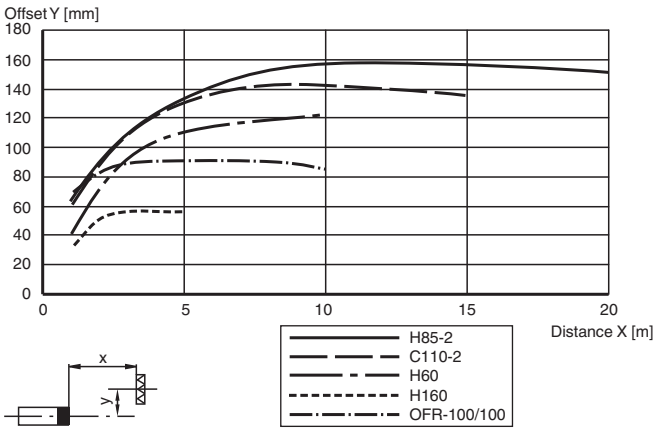


Wire colors in accordance with EN 60947-5-2

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

Characteristic Curve

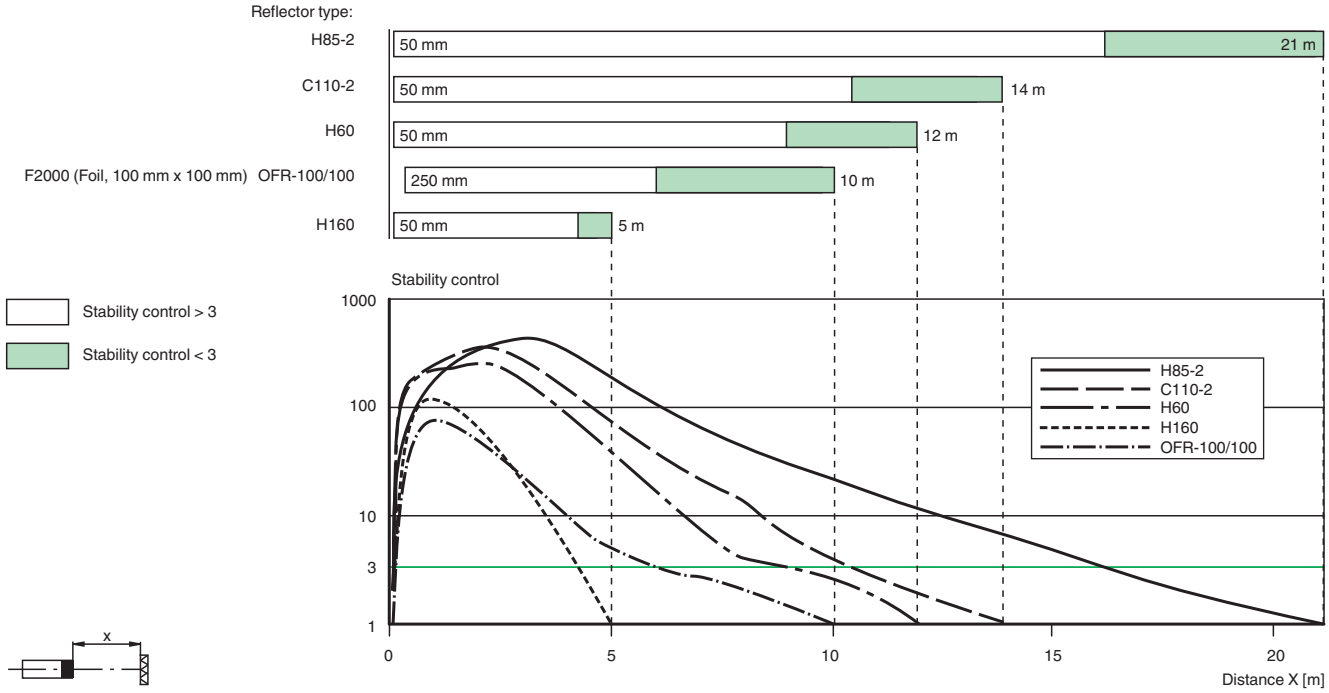
Characteristic response curve



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Characteristic Curve

Relative received light strength



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