



Retroreflective sensor

RL80-54/25/76b/103/115 SET2

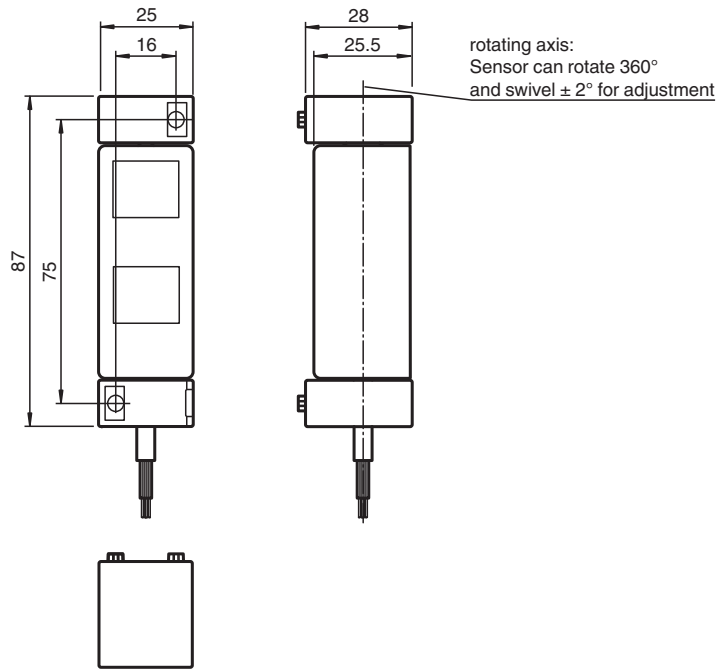


- Retroreflective sensor with polarization filter and foreground suppression for suppressing reflective objects
- PNP version
- Test input
- High detection ranges achievable
- Supplied with reflector

Retroreflective sensor with polarization filter



Dimensions



Technical Data

General specifications

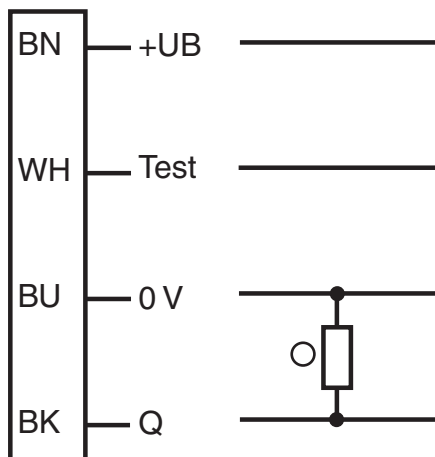
Effective detection range	REF-H88x50 0 ... 12 m
Reflector distance	REF-H88x50 2.5 ... 15.5 m
Threshold detection range	REF-H88x50 15.5 m
Reference target	REF-H88x50
Light source	LED
Light type	modulated visible red light , 640 nm
Diameter of the light spot	approx. 200 mm at a distance of 6 m

Release date: 2023-04-05 Date of issue: 2023-04-05 Filename: 303349_eng.pdf

Technical Data

Opening angle		3 °
Ambient light limit		EN 60947-5-2 10000 Lux
Functional safety related parameters		
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %
Indicators/operating means		
Function indicator		LED yellow
Electrical specifications		
Operating voltage	U _B	10 ... 30 V
Ripple		10 %
No-load supply current	I ₀	≤ 10 mA
Time delay before availability	t _v	< 300 ms
Input		
Test input		emitter deactivation at 0 V and if test input is left unconnected
Output		
Switching type		light-on
Signal output		1 PNP, short-circuit protected, open collector
Switching voltage		max. 30 V DC
Switching current		max. 100 mA
Voltage drop	U _d	≤ 1.5 V
Response time		Light beam unobstructed to light beam interrupted: 10 ms Light beam interrupted to light beam unobstructed: 80 ms
Conformity		
Product standard		EN 60947-5-2
Approvals and certificates		
CCC approval		CCC approval / marking not required for products rated ≤36 V
Ambient conditions		
Ambient temperature		-30 ... 60 °C (-22 ... 140 °F)
Storage temperature		-40 ... 70 °C (-40 ... 158 °F)
Mechanical specifications		
Degree of protection		IP65
Connection		2-meter PVC cable
Material		
Housing		Polycarbonate
Optical face		PMMA
Mass		approx. 155 g

Connection Assignment

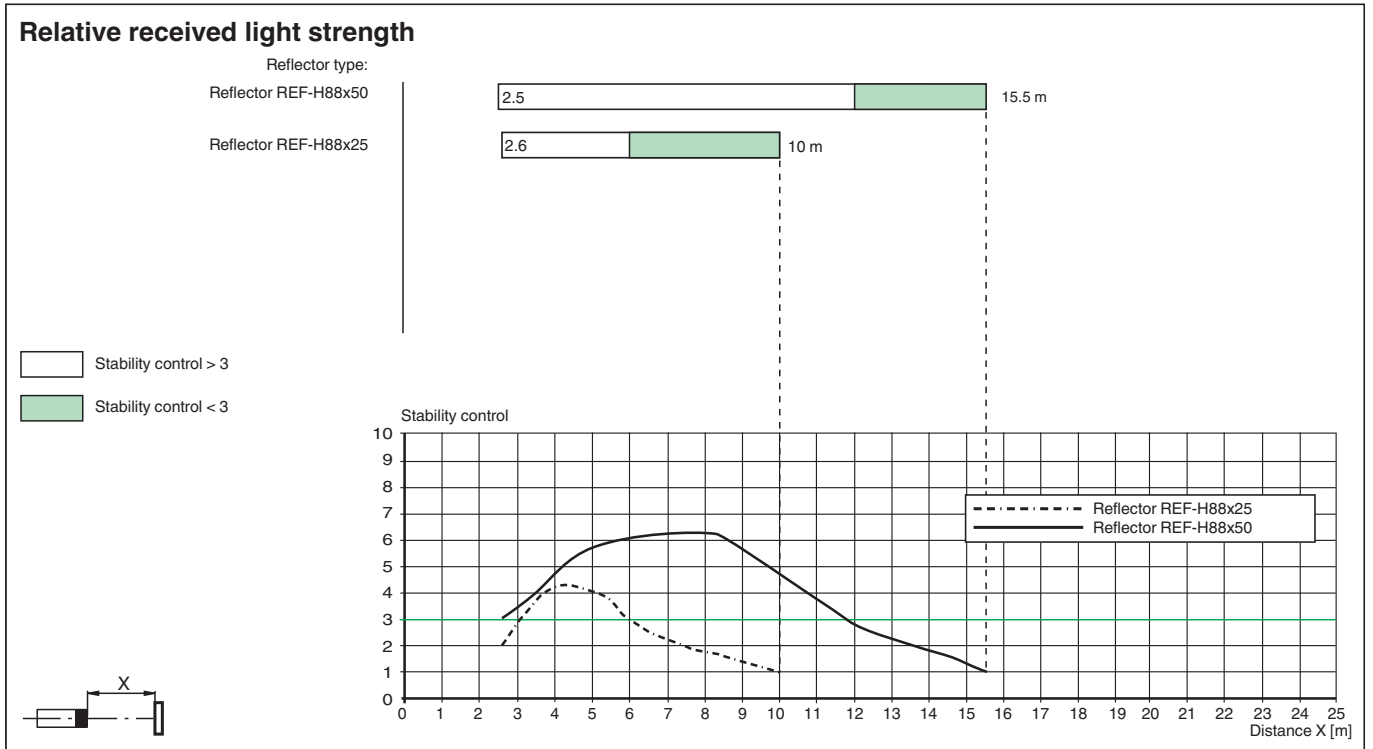


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Indication

LED yellow	Operating reserve (OR)	Description
< 15 min after power up (set-up)		
OFF	OR > 3	Light beam free, sensor ideal aligned or positioned for longest operating time
flashes 2 Hz	1 < OR < 3	Sensor not properly aligned, sensor or reflector dirty
ON	OR < 1	Sensor misaligned or light beam interrupted
> 15 min after power up (operating)		
OFF	OR > 1.5	Light beam free
flashes 4 Hz	1 < OR < 1.5	Sensor or reflector dirty
ON	OR < 1	Light beam interrupted

Characteristic Curve



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