



Retroreflective sensor

RL81-54/25/76b/103/115 SET

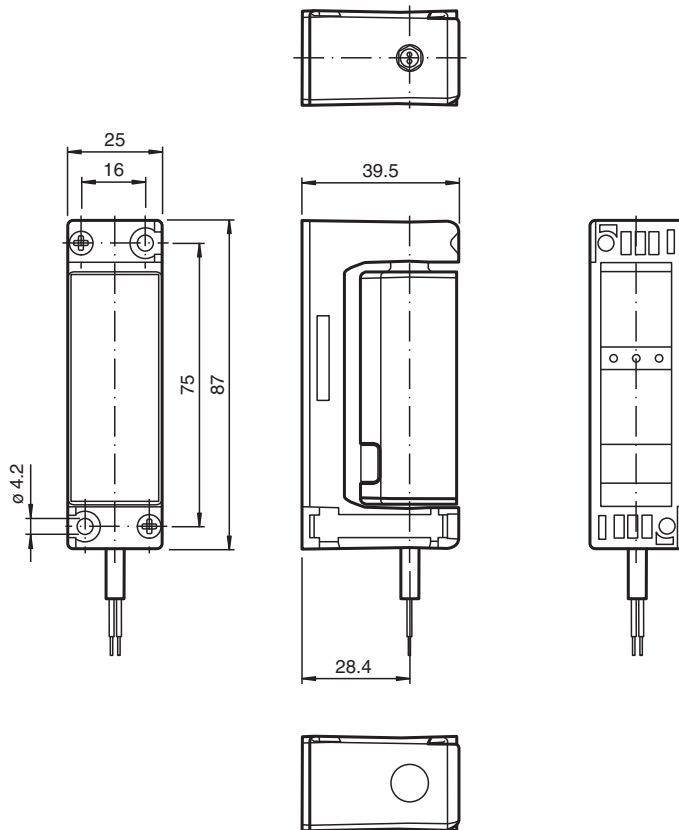


- Retroreflective sensor with polarization filter and foreground suppression for suppressing reflective objects
- PNP version
- Test input
- Supplied with reflector

Retroreflective sensor with polarization filter



Dimensions



Technical Data

General specifications

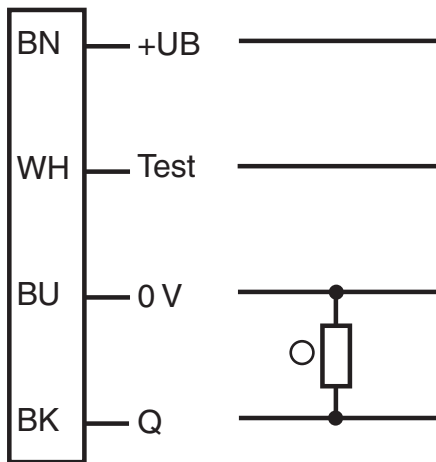
Effective detection range	REF-H88x50 0 ... 12 m
Reflector distance	REF-H88x50 2.5 ... 15.5 m

Release date: 2023-03-28 Date of issue: 2023-03-28 Filename: 303380_eng.pdf

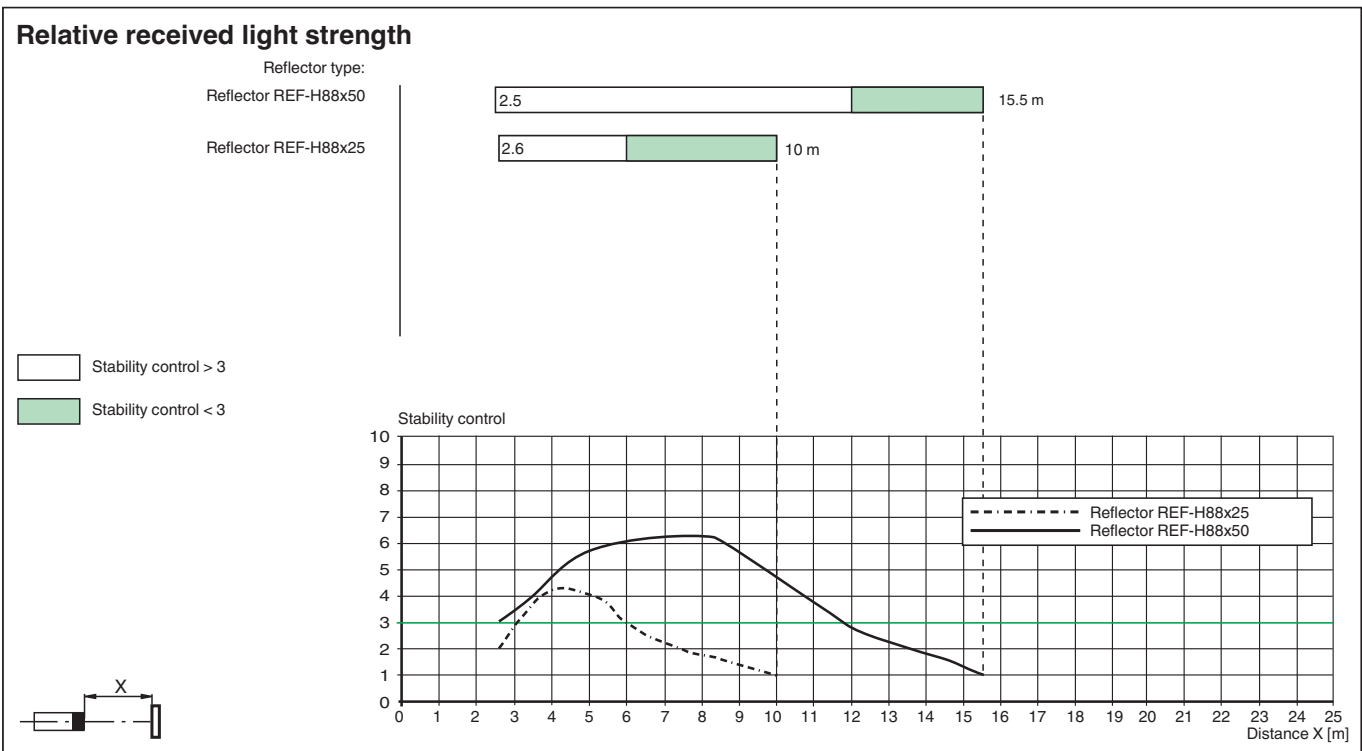
Technical Data

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	
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



Characteristic Curve



Release date: 2023-03-28 Date of issue: 2023-03-28 Filename: 303380_eng.pdf

Indication

LED yellow	Stability control	Description
< 15 min after power up (set-up)		
off	SC > 3	light beam free, sensor ideal aligned or positioned for longest operating time
flashes 2 Hz	1 < SC < 3	sensor not properly aligned, sensor or reflector dirty
on	SC < 1	sensor misaligned or light beam interrupted
> 15 min after power up (operating)		
off	SC > 1,5	light beam free
flashes 4 Hz	1 < SC < 1,5	sensor or reflector dirty
on	SC < 1	light beam interrupted