FR 25-RGO2

Autocollimation retroreflective photoelectric sensor



PRODUCT HIGHLIGHTS

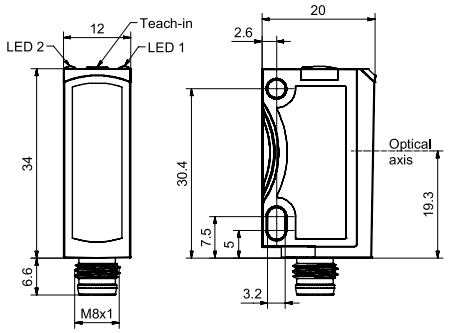
- Autocollimation principle: reliable and precise detection from a range of 0 mm
- Precise detection, even through narrow openings and drilled holes
- Compact miniature housings for installation in the smallest of spaces
- Simple operation via electronic Teach-in button or control input
- Robust glass-fibre-reinforced plastic housings

Optical data		Functions	
Operating range	0.5 … 2 m[1]	Indicator LED, green	Operating voltage indicator
Type of light	LED, red, 632 nm	Indicator LED, yellow	Switching output indicator
Polarising filter	Yes	Sensitivity adjustment	Via Teach-in button and control input
		Teach-in modes	Mode 1: during running process Mode 2: during standing process
		Adjustment possibilities	N.O./N.C. via Teach-in button and control input Button lock via control input
		Default settings	Max. range and N.O.
Electrical data		**Mechanical data**	
Operating voltage, $+U_B$	10 … 30 V DC[2]	Dimensions	34 x 20 x 12 mm
No-load current, I_0	≤ 30 mA	Enclosure rating	IP 69K & IP 67[3]
Output current, Ie	≤ 100 mA	Material, housing	ABS
Protective circuits	Reverse-polarity protection, U_B / short-circuit protection (Q)	Material, front screen	PMMA
		Type of connection	See Selection Table
Protection Class	2	Ambient temperature: operation	-20 … +60 °C[4]
Power On Delay	< 300 ms	Ambient temperature: storage	-20 … +80 °C
Switching output, Q	PNP/NPN (see Selection Table)	Weight	10 g
Output function	N.O./N.C.	Vibration and impact resistance	EN 60947-5-2
Switching frequency, f (ti/tp 1:1)	≤ 1000 Hz		
Response time	500 µs		
Control input, IN	$+U_B$ = teach-in $-U_B$ = button locked Open = normal operation		

[1] Reference material: R5/L reflector [2] Max. 10 % ripple, within U_B, ~ 50 Hz / 100 Hz [3] With connected IP 67 / IP 69K plug [4] UL: -20 °C... + 50 °C

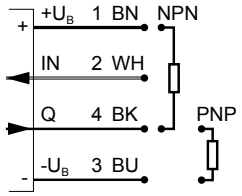
Operating range	Switching output	Type of connection	Part number	Article number
0 … 2 m	PNP	Plug, M8x1, 4-pin	FR 25-RGO2-PS-M4	606-11022
0 … 2 m	NPN	Plug, M8x1, 4-pin	FR 25-RGO2-NS-M4	606-11023

Plug connection



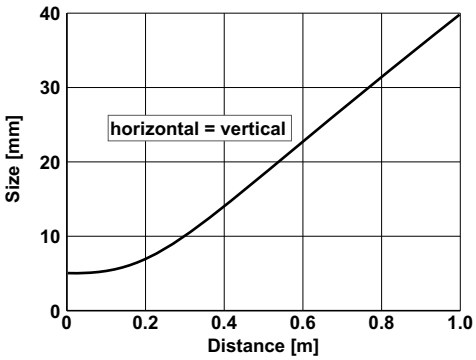
153-00964

Connection, 4-pin



154-00312

Light spot size



155-01531

Reflector / Reflective foil*	Operating range (min./max. reflector distance)
R5/L	0.5 … 2 m
RF-100 KL*	0 … 2 m
R2-2LB1	0 … 500 mm
R3-2LK1	0 … 500 mm

Accessories

Reflectors	From Page A-18
Connection cables	From Page A-34
Brackets	From Page A-4