FT 25-RF

Photoelectric proximity sensor with background suppression, fixed focus



PRODUCT HIGHLIGHTS

- Precise fixed background suppression
- Economical solution for numerous applications
- Tamper-proof sensor design – no misalignment possible
- Simple alignment thanks to easily visible light spot
- Robust glass-fibre-reinforced plastic housings

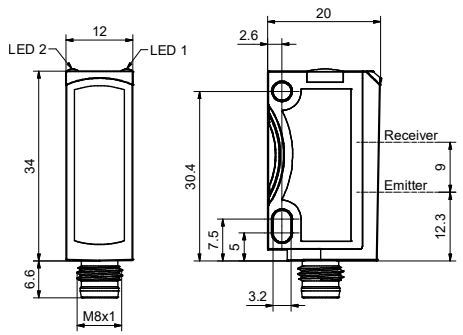
Optical data		Functions	
Scanning distance	1 … 60 mm[1] / 1 … 80 mm[1]	Indicator LED, green	Operating voltage indicator
Type of light	LED, red, 632 nm	Indicator LED, yellow	Switching output indicator
Light spot size	See diagram	Adjustment possibilities	N.O./N.C. via control input
Hysteresis	~ 5%[2]		

Electrical data		Mechanical data	
Operating voltage, $+U_B$	10 … 30 V DC[3]	Dimensions	34 x 20 x 12 mm
No-load current, I_0	≤ 30 mA	Enclosure rating	IP 69K & IP 67[4]
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[5]
Power On Delay	< 300ms	Ambient temperature: storage	-20 … +80 °C
Switching output, Q	PNP/NPN (see Selection Table)	Weight (plug device)	10 g
Output function	N.O./N.C.	Weight (metal plug device[6])	10 g
Switching frequency, f (ti/tp 1:1)	≤ 1000 Hz	Weight (cable device)	40 g
Response time	500 µs	Vibration and impact resistance	EN 60947-5-2
Control input, IN	$+U_B$ = N.C. $-U_B$ / Open = N.O.		

[1] Reference material: white, 90 % reflectivity [2] Based on scanning distance [3] Max. 10 % ripple, within U_B, ~ 50 Hz / 100 Hz [4] With connected IP 67 / IP 69K plug
[5] UL: -20 ... +50 °C [6] No Ecolab

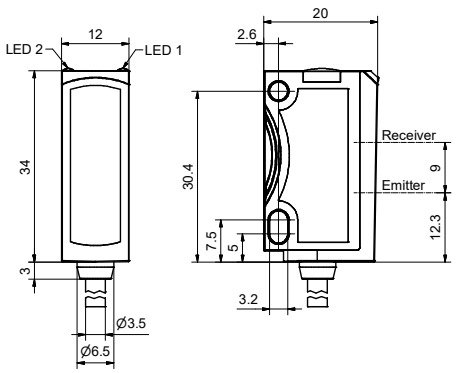
Scanning distance	Switching output	Type of connection	Part number	Article number
1 … 60 mm	PNP	Plug, M8x1, 4-pin	FT 25-RF1-PS-M4	608-11020
1 … 60 mm	PNP	Metal plug, M8x1, 4-pin	FT 25-RF1-PS-M4M	608-11037
1 … 60 mm	PNP	Cable, 2 m, 4-wire	FT 25-RF1-PS-K4	608-11021
1 … 80 mm	PNP	Plug, M8x1, 4-pin	FT 25-RF2-PS-M4	608-11022
1 … 80 mm	PNP	Cable, 2 m, 4-wire	FT 25-RF2-PS-K4	608-11023
1 … 80 mm	NPN	Cable, 2 m, 4-wire	FT 25-RF2-NS-K4	608-11024

Plug connection



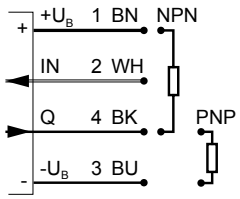
153-00833

Cable connection



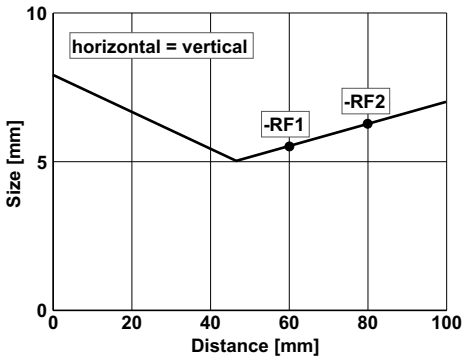
153-00832

Connection, 4-pin



154-00312

Light spot size



155-01395

Reference material	Detection range
White (90 %)	1 … 60 mm / 80 mm
Grey (18 %)	2 … 60 mm / 80 mm
Black (6 %)	4 … 60 mm / 80 mm

Accessories

Connection cables	From Page A-38
Brackets	From Page A-4

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