FT 12 R

Photoelectric diffuse sensor



PRODUCT HIGHLIGHTS

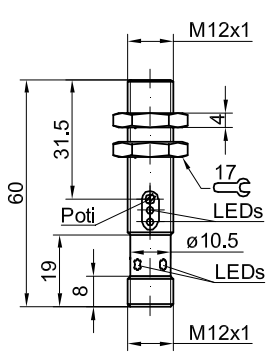
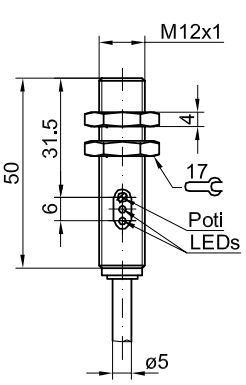
- Scanning distance: 1 … 300 mm, adjustable
- Red light, 660 nm
- Easy installation thanks to standard M12 metal thread
- Functional reserve indicator

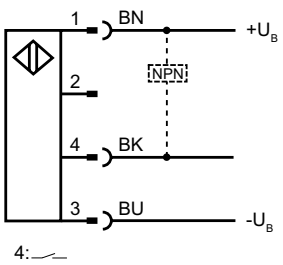
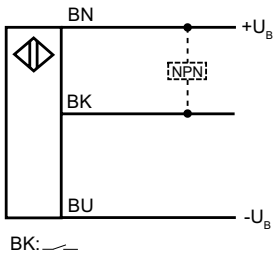
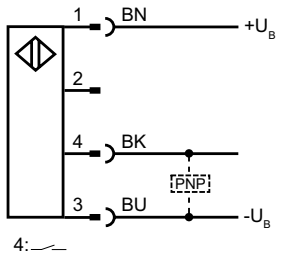
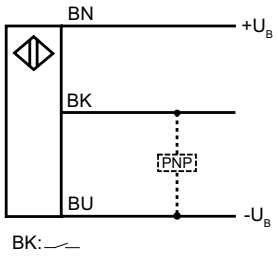
Optical data		Functions	
Scanning distance	1 … 300 mm[1]	Indicator LED, green	Functional reserve indicator
Type of light	Red, 660 nm	Indicator LED, yellow	Switching state indicator
Light spot size	Ø 5 mm[2]	Scanning distance adjustment	Via potentiometer
Electrical data		**Mechanical data**	
Operating voltage, $+U_B$	10 … 36 V DC	Dimensions (plug device)	M12 x 60 mm
No-load current, I_0	≤ 15 mA	Dimensions (cable device)	M12 x 50 mm
Output current, Ie	≤ 200 mA	Enclosure rating	IP 67[3]
Protective circuits	Reverse-polarity protection, U_B / short-circuit protection	Material, housing	Brass, chromium-plated
		Material, front screen	Glass
Protection Class	2	Type of connection	See selection table
Power On Delay	60 msec	Ambient temperature: operation	-25 … +55 °C
Switching output, Q	PNP/NPN / max. 200 mA	Weight (plug device)	20 g
Output function	N.O.	Weight (cable device)	100 g
Switching frequency, f (ti/tp 1:1)	≤ 1000 Hz	Vibration and impact resistance	IEC 60947-5-2
Response time	≤ 500 µs		

[1] Reference material: Kodak white, 90 % reflectivity [2] At scanning distance of 10 mm [3] With connected IP 67 plug

Switching output	Type of connection	Part number	Article number
PNP	Plug, M12, 4-pin	FT 12 R-PSL4	701-21000
NPN	Plug, M12, 4-pin	FT 12 R-NSL4	701-21001
PNP	Cable, PVC, 3 x 0.34 mm², 2 m	FT 12 R-PSK3	701-21002
NPN	Cable, PVC, 3 x 0.34 mm², 2 m	FT 12 R-NSK3	701-21003

Version: 05/2021. Subject to changes; diagrams similar

Plug connection	Cable connection
 153-00208	 153-00207

Connection, 4-pin	Connection, 3-pin
 154-00489	 154-00488
 154-00224	 154-00160

Accessories

Connection cables	From Page A-44
Brackets	From Page A-4