

Cylindrical design

Brass nickel plated housings

Dimensions		12 mm		12 mm		
Special characteristics						
Nominal sensing distance Sn		4 mm		4 mm		
Mounting ● shielded ○ unshielded		●		●		
PNP	normally open	NO	IFRM 12P1701/L	IFRM 12P1703/S14L	IFRM 12P1702/L	IFRM 12P1701/S14L
	normally closed	NC	IFRM 12P3701/L	IFRM 12P3703/S14L	IFRM 12P3702/L	IFRM 12P3701/S14L
NPN	normally open	NO	IFRM 12N1701/L	IFRM 12N1703/S14L	IFRM 12N1702/L	IFRM 12N1701/S14L
	normally closed	NC	IFRM 12N3701/L	IFRM 12N3703/S14L	IFRM 12N3702/L	IFRM 12N3701/S14L
technical data						
voltage supply range		12 - 30 VDC		12 - 30 VDC		
supply current		< 18 mA		< 18 mA		
max. switching current		200 mA		200 mA		
voltage drop		< 3 V		< 3 V		
max. switching frequency		2 kHz		2 kHz		
sensing distance Sn		4 mm		4 mm		
switching hysteresis (as % of Sr)		3...25%		3...25%		
output indicator		red LED		red LED		
short circuit protection		yes		yes		
reverse polarity protection		yes		yes		
temperature range		-25...+75 °C		-25...+75 °C		
housing material		brass nickel plated		brass nickel plated		
sensing face material		PBT		PBT		
protection class		IP 67		IP 67		
connector options		ES 14, ES 18, ESW 33, ESG 34		ES 14, ES 18, ESW 33, ESG 34		
remarks						

12 mm		12 mm		12 mm	
		non-flush mounting increased sensing distance		PBT plastic housings non-flush mounting	
4 mm ●	4 mm ●	7 mm ○	7 mm ○		4 mm ○
IFRM 12P1704/L	IFRM 12P1702/S14L	IFRM 12P1301/L	IFRM 12P1301/S14L		IFRK 12P1102/L
					IFRK 12N1102/L
12 - 30 VDC < 18 mA 200 mA < 3 V 2 kHz 4 mm 3...25%		10 - 30 VDC < 15 mA 200 mA < 3 V 1 kHz 7 mm 3...25%		10 - 30 VDC < 18 mA 200 mA < 3 V 2 kHz 4 mm 3...20%	
red LED	4 quadrant LED red	red LED	4 quadrant LED red		red LED
yes	yes	yes	yes		yes
yes		yes			yes
-25...+75 °C brass nickel plated PBT IP 67		-25...+75 °C brass nickel plated PBT IP 67		-25...+75 °C PBT PBT IP 67	
ES 14, ES 18, ESW 33, ESG 34		ES 14, ES 18, ESW 33, ESG 34			