



Safety sensor eloProtect M 153MSK

The eloProtect M series of sensors completely redefines the standard for magnetic safety sensors. eloProtect M offers increased operating distances and offset values for increased flexibility during installation and a high function stability. The new housing is robust and resistant to mechanical influences and aggressive media.

The safety sensor demonstrates strong resistance to cleaning agents (ECOLAB). The high IP6K9K protection class and the high temperature resistance of up to +80 °C make this ideal for use in the food and packaging industries as well as in the chemical and pharmaceutical industries.

Technical specifications

- Dual mounting options enables the door hinge to be mounted on the right or left (no extra variant necessary)
- Available connection types: cable outlet and M12 pigtail
- Simple diagnosis through optional LED and control contact
- Screw covers prevent easy removal and the accumulation of dirt
- Protection class IP6K9K (ISO 20653)

Technical drawing

IMAGE 1/4

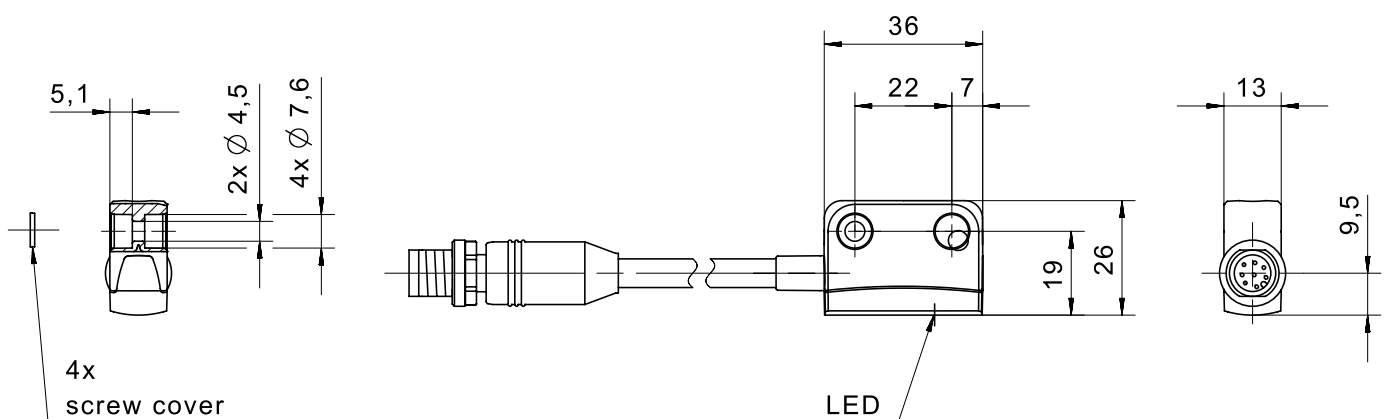
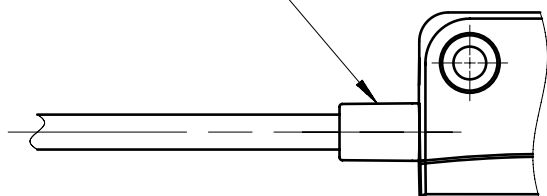
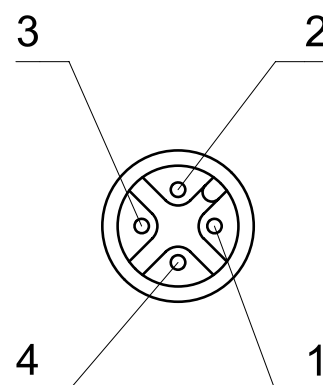


IMAGE 2/4

grommet



male M12



male M12

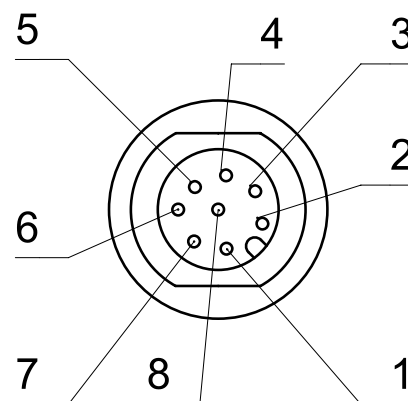
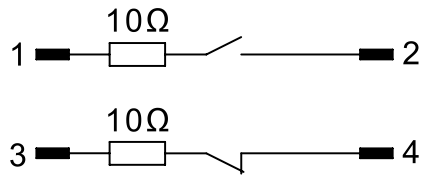
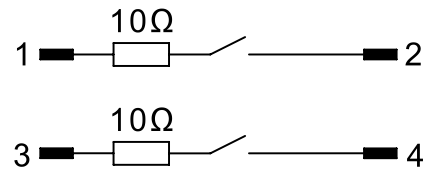


IMAGE 3/4

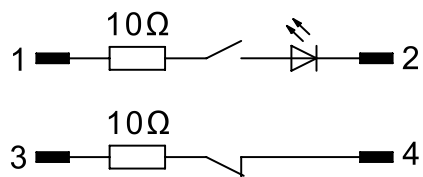
153MSK.0H1G, 153MSK.0H1K



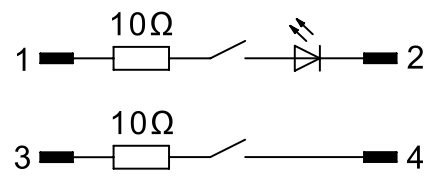
153MSK.0H1A, 153MSK.0H1E



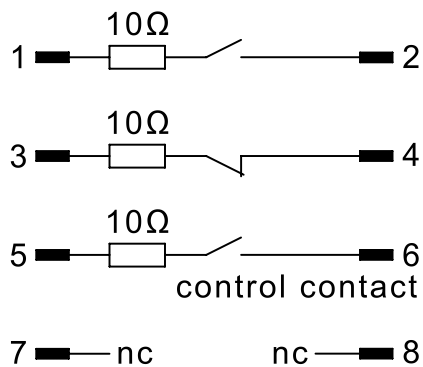
153MSK.0H1H



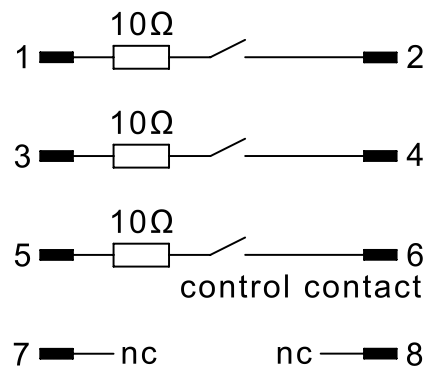
153MSK.0H1B



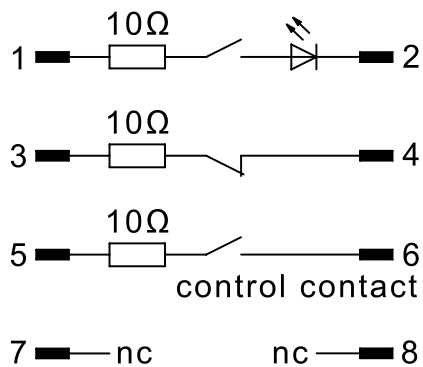
153MSK.0J1I



153MSK.0J1C



153MSK.0J1J



153MSK.0J1D

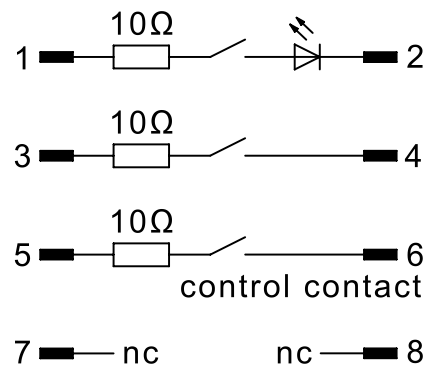
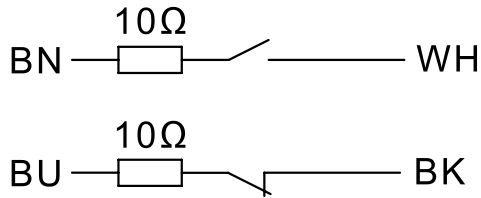
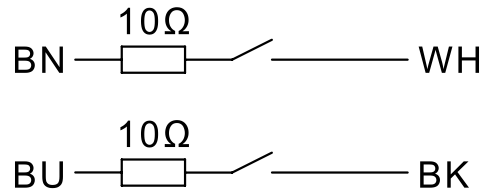


IMAGE 4/4

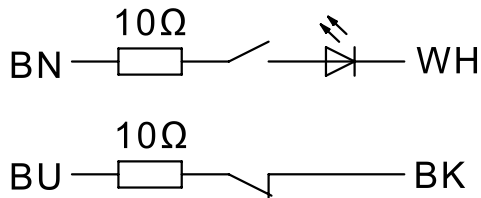
153MSK.0K1G, 153MSK.0K1K



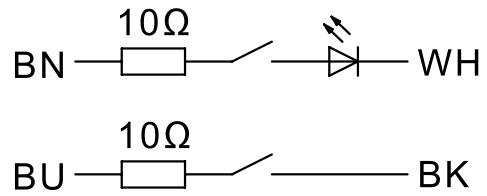
153MSK.0K1A, 153MSK.0K1E



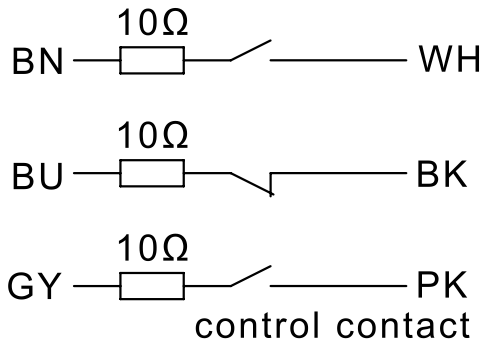
153MSK.0K1H



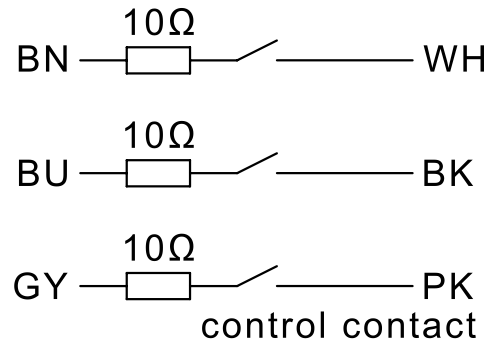
153MSK.0K1B



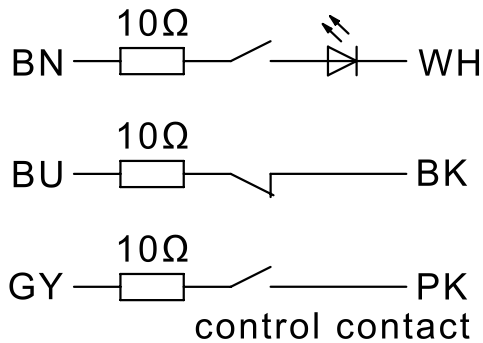
153MSK.0K1I



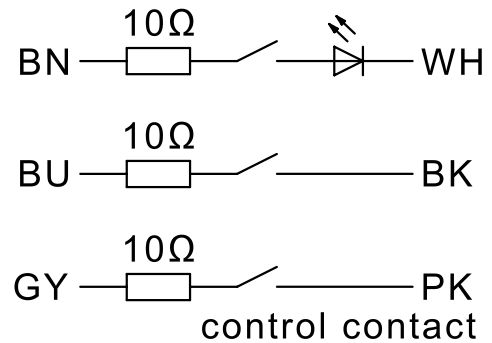
153MSK.0K1C



153MSK.0K1J

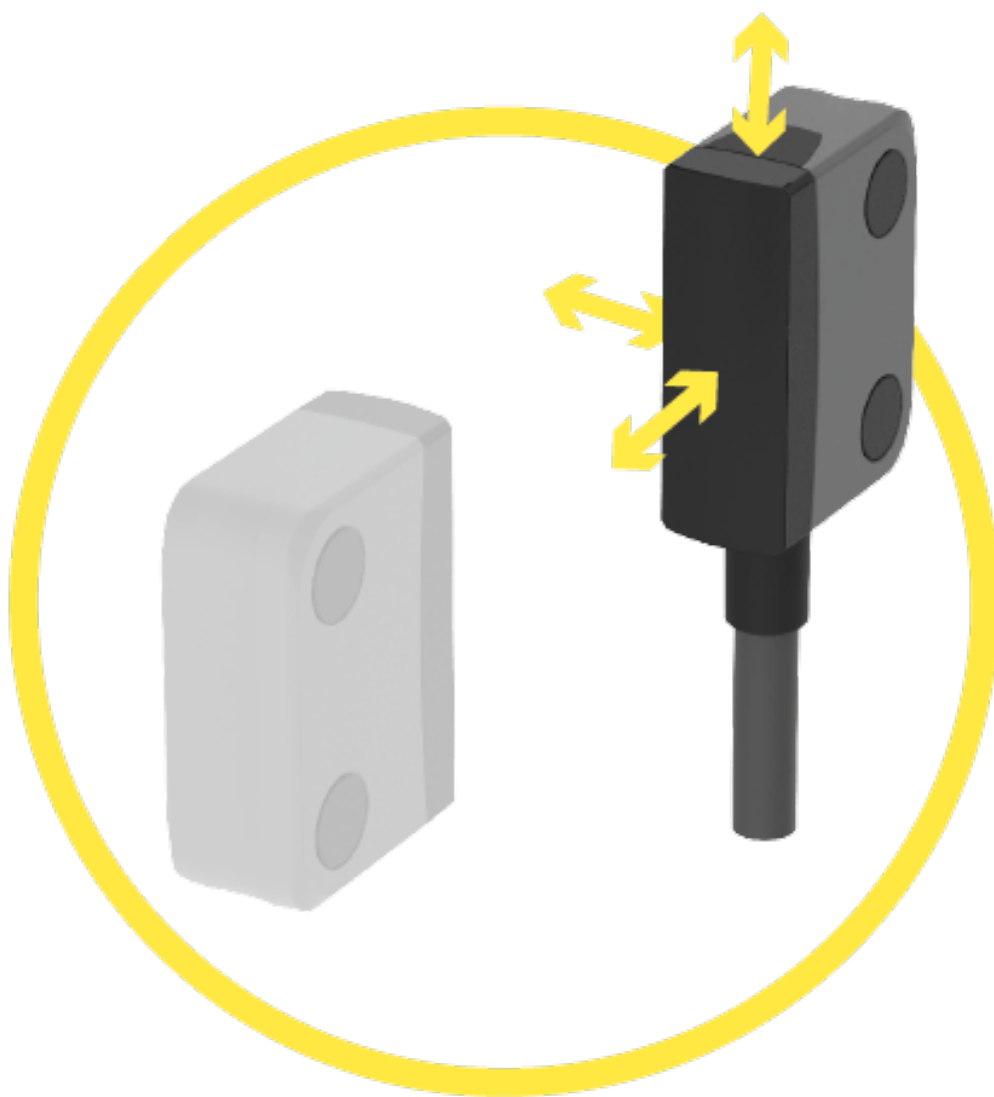


153MSK.0K1D



Product options

IMAGE 1/3



Suitable for front, side and 90° actuation. Operating distance (Sao) from 4 to 10 mm. Assured switch-off distance (Sar) from 12 to 22 mm.

IMAGE 2/3

ORDERING KEY

153MSK					Safety sensor, rectangular, plastic
	00				Standard
	10				Type for increased switching distance with side actuation (E/F/K/L in position 11)
		K1			Connection cable – PVC - 1m
		H1			Connection pigtail – PVC – M12, 4-pin
		J1			Connection pigtail – PVC – M12, 8-pin
			A		N.O./N.O. – front actuation
			B		N.O./N.O. – LED – front actuation
			C		N.O./N.O./control contact – front actuation
			D		N.O./N.O./control contact – LED – front actuation
			E		N.O./N.O. – side actuation
			F		N.O./N.O. – LED – side actuation
			G		N.O./N.C. – front actuation
			H		N.O./N.C. – LED – front actuation
			I		N.O./N.C./control contact – front actuation
			J		N.O./N.C./control contact – LED – front actuation
			K		N.O./N.C. – side actuation
			L		N.O./N.C. – LED – side actuation
					Other available cable lengths (only with "K" at 9th position)
				-3	3 m
				-5	5 m
				-10	10 m
					Other cable materials, cable lengths and connector types on request

IMAGE 3/3

MATCHING ACTUATORS

Actuators	Actuation direction	153MSK00.1G			153MSK00.1K			153MSK10.1K			153MSK00.1H					
		S _{0 min}	S _{ao}	S _{ar}	S _{0 min}	S _{ao}	S _{ar}	S _{0 min}	S _{ao}	S _{ar}	S _{0 min}	S _{ao}	S _{ar}			
153 MBK 001	Front	0.5	4	10	-	-	-	-	-	-	0.5	4	10			
153 MBK 101		0.5	8	17	-	-	-	-	-	-	0.5	8	17			
153 MBK 201	Front 90°	0.5	4	10	-	-	-	-	-	-	0.5	4	10			
153 MBK 301		0.5	8	17	-	-	-	-	-	-	3	7	17			
153 MBK 001	Side	-	-	-	0.5	4	10	-	-	-	-	-	-			
153 MBK 101		-	-	-	-	-	-	0.5	6.5	17	-	-	-			
153 MBK 201	Side 90°	-	-	-	0.5	4	10	-	-	-	-	-	-			
153 MBK 301		-	-	-	-	-	-	0.5	6.5	17	-	-	-			

Actuators	Actuation direction	153MSK00.1L			153MSK10.1L			153MSK00.1I			153MSK00.1J					
		S _{0 min}	S _{ao}	S _{ar}	S _{0 min}	S _{ao}	S _{ar}	S _{0 min}	S _{ao}	S _{ar}	S _{0 min}	S _{ao}	S _{ar}			
153 MBK 001	Front	-	-	-	-	-	-	0.5	4	10	0.5	4	10			
153 MBK 101		-	-	-	-	-	-	0.5	8	17	0.5	8	17			
153 MBK 201	Front 90°	-	-	-	-	-	-	0.5	4	10	0.5	4	10			
153 MBK 301		-	-	-	-	-	-	0.5	8	17	0.5	8	17			
153 MBK 001	Side	0.5	4	10	-	-	-	-	-	-	-	-	-			
153 MBK 101		-	-	-	5	6.5	17	-	-	-	-	-	-			
153 MBK 201	Side 90°	0.5	4	10	-	-	-	-	-	-	-	-	-			
153 MBK 301		-	-	-	5	6.5	17	-	-	-	-	-	-			

S_{0 min} = minimum switching distance (mm), S_{ao} = operating distance (mm), S_{ar} = assured switch-off distance (mm)

Electrical data

Attribute	153MSK00H1B
Min. switching voltage	19.2 V DC
Max. switching voltage	28.8 V DC
Max. switching current	0.2 A
Max. switching current with LED	0.01 A
Max. switching power	3 W
Switching frequency	5 Hz
Assured switching distance (Sao)	4 mm
Assured switch-off distance (Sar)	10 mm
Minimum switching distance (SO min)	0.5 mm
LED display	single-coloured
Actuation	front
Switching principle	magnetic
Series resistor	10 Ohm
Technology	Reed
Contact form	NO/NO
Pollution degree	3
Protection class	III

Safety-related characteristics

Attribute	153MSK00H1B
Coding acc. to EN ISO 14119	Low
B10d acc. to EN ISO 13849-1	20000000
Type acc. to EN ISO 14119	4
Mission time in years	20 a
Structure acc. to EN ISO 13849-1	Two-channel

Mechanical data

Attribute	153MSK00H1B
Housing design	rectangular
Dimensions	26 x 36 x 13 mm
cannot be mounted flush	yes
Detent present	no

Material information

Attribute	153MSK00H1B
Housing material	PBT, PC
Cable material	PVC
Housing colour	grau, schwarz

Environmental conditions

Attribute	153MSK00H1B
Protection class	IP67 DIN EN 60529 - IP6K9K ISO 20653
Protection class, connector	IP67 DIN EN 60529
Operating temperature min.	-25 °C
Max. operating temperature	80 °C
Min. cable temperature range, moving	-5 °C
Max. cable temperature range, moving	80 °C
Min. cable temperature range, fixed installation	-30 °C
Max. cable temperature range, fixed installation	80 °C
Shock resistance (Norm)	30g / 11ms
Vibration resistance (Norm)	10 - 55Hz
Min. storage temperature	-25 °C
Max. storage temperature	80 °C

Installation

Attribute	153MSK00H1B
Mounting type	screwed

Connection

Attribute	153MSK00H1B
Connector type	M12x1 - 4 polig
Cable length	0.15 m
Number of strands	4
Wire cross section	0.25 mm ²

Approvals

Attribute	153MSK00H1B
CE label	yes
Certified in accordance with	UL

Operating data

Attribute	153MSK00H1B
Possible actuators	153MBK001