



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

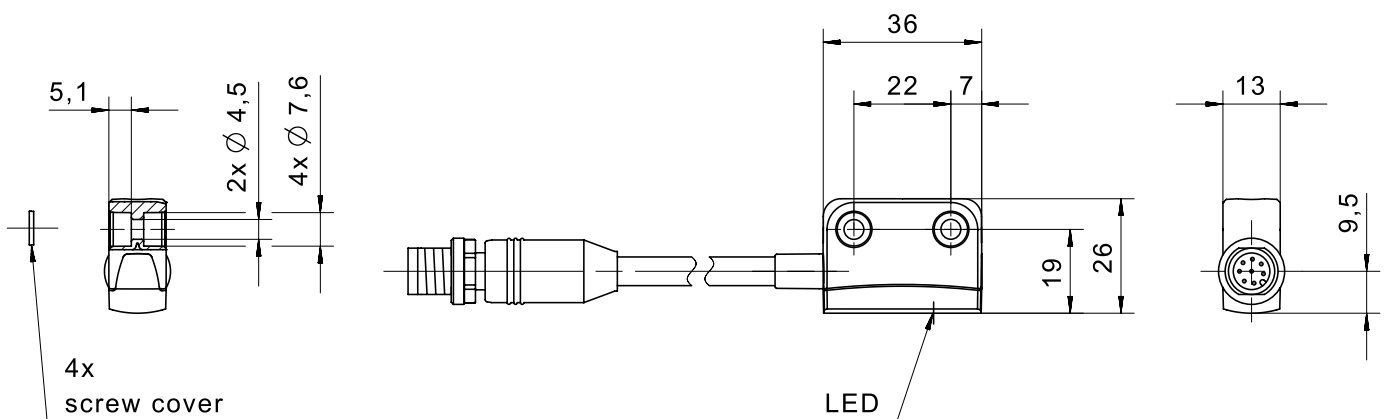
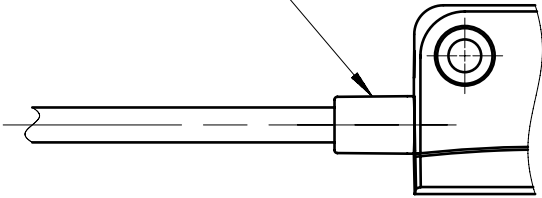
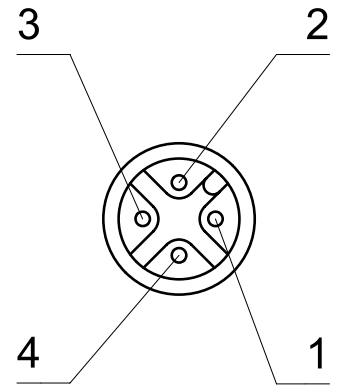


IMAGE 2/4

grommet



male M12



male M12

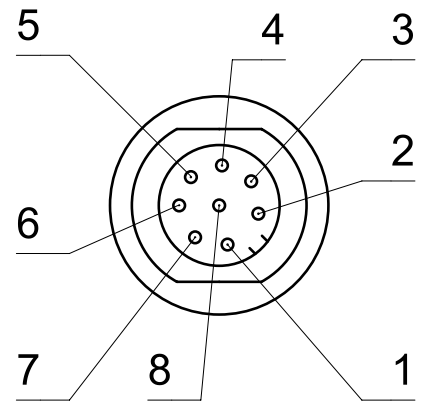
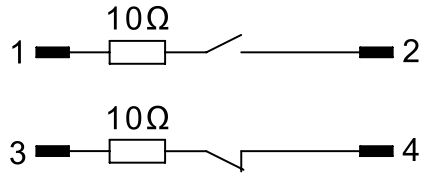
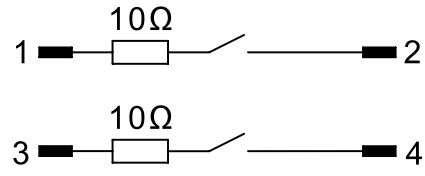


IMAGE 3/4

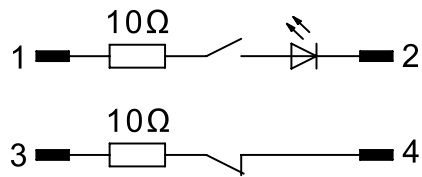
153MSK.0H1G, 153MSK.0H1K



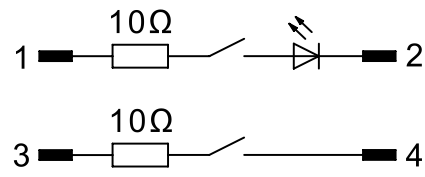
153MSK.0H1A, 153MSK.0H1E



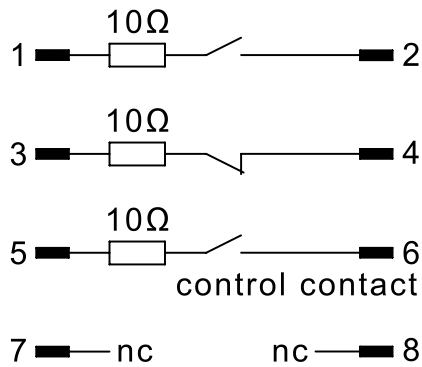
153MSK.0H1H



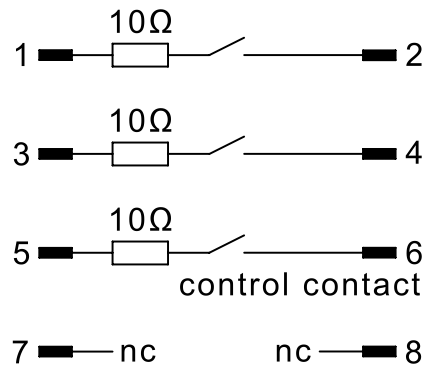
153MSK.0H1B



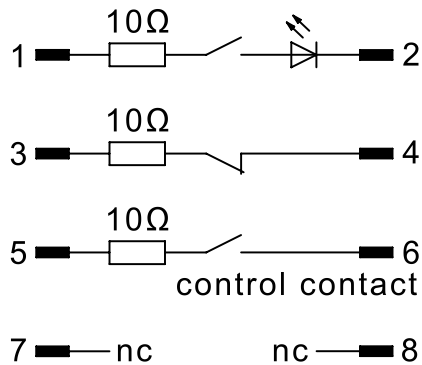
153MSK.0J1I



153MSK.0J1C



153MSK.0J1J



153MSK.0J1D

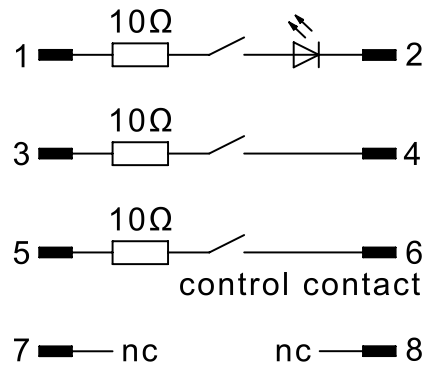
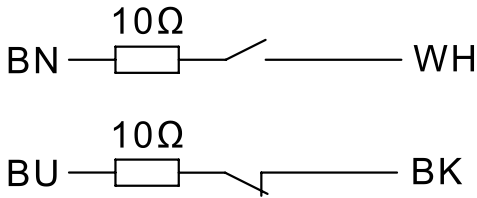
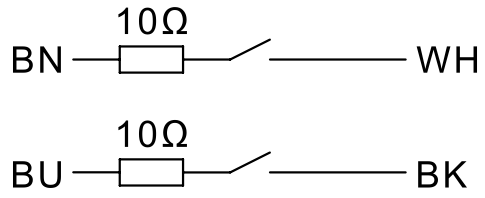


IMAGE 4/4

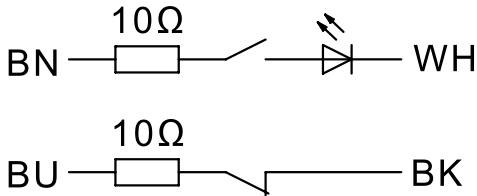
153MSK.0K1G, 153MSK.0K1K



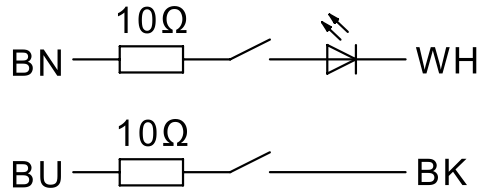
153MSK.0K1A, 153MSK.0K1E



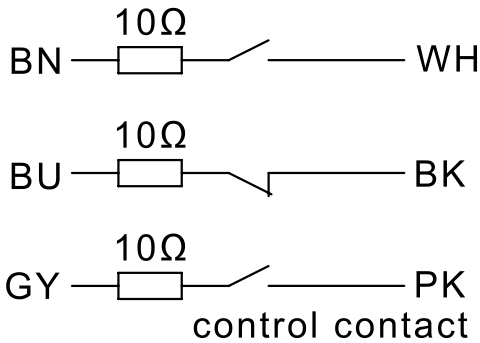
153MSK.0K1H



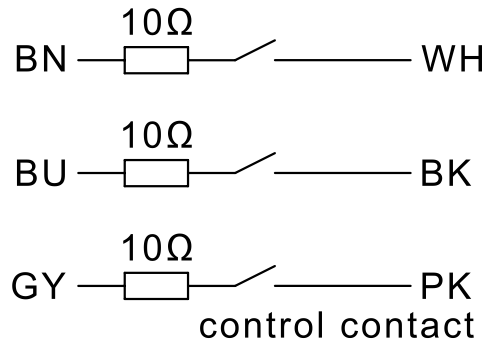
153MSK.0K1B



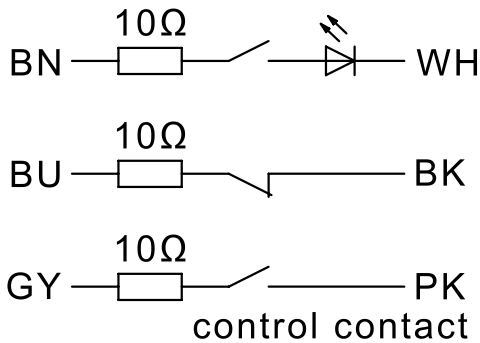
153MSK.0K1I



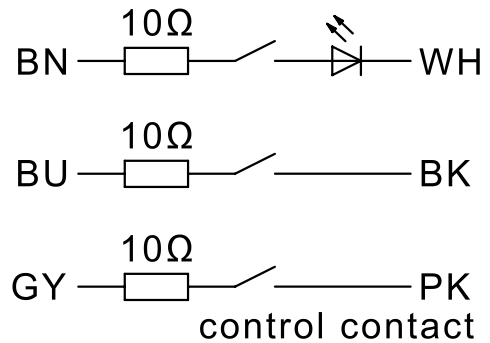
153MSK.0K1C



153MSK.0K1J

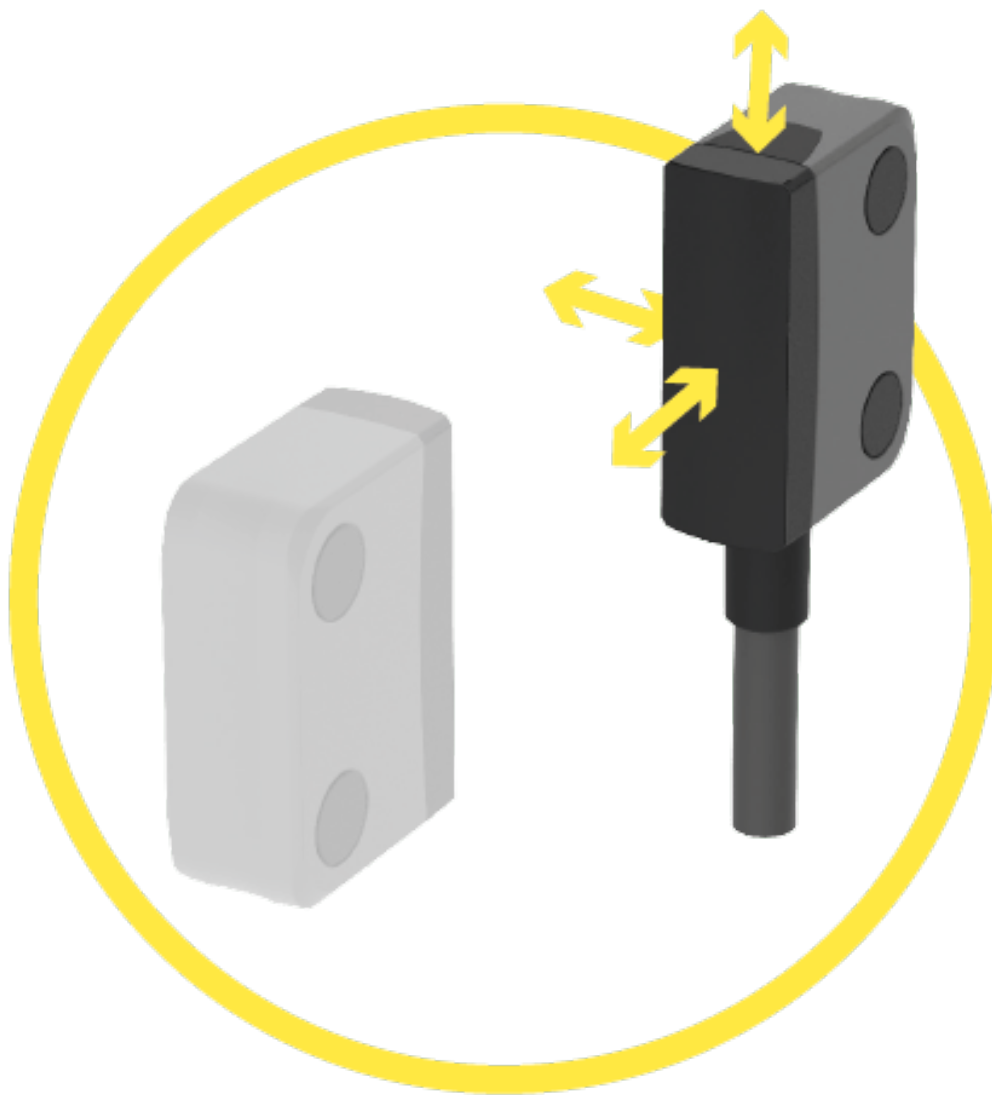


153MSK.0K1D



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)
		B1		Connection pigtail – PVC – M8, 4-pin
		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	153MSK00.1A 153MSK00.1G			153MSK00.1E 153MSK00.1K			153MSK10.1E 153MSK10.1K			153MSK00.1B 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	-	-	-	-	-	-	0.5	8	17
153 MBK 001	Side	-	-	-	0.5	4	10	-	-	-	-	-	-
153 MBK 101		-	-	-	-	-	-	5	4	17	-	-	-
153 MBK 201	Side 90°	-	-	-	0.5	4	10	-	-	-	-	-	-
153 MBK 301		-	-	-	-	-	-	5	4	17	-	-	-

Actuators	Actuation direction	153MSK00.1F 153MSK00.1L			153MSK10.1F 153MSK10.1L			153MSK00.1C 153MSK00.1I			153MSK00.1D 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	4	17	-	-	-	-	-	-
153 MBK 201	Side 90°	0.5	4	10	-	-	-	-	-	-	-	-	-
153 MBK 301		-	-	-	5	4	17	-	-	-	-	-	-

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

Article characteristics

Attribute	153MSK00B1A	153MSK00H1A	153MSK00H1B	153MSK00H1E	153MSK00H1F	153MSK00H1G ▶
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	-	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 (S0 min)	0.5 mm					
LED display	No		single-coloured	No	single-coloured	No
Actuation	front			side		front
Switching principle	magnetic					
Series resistor	10 Ohm					
Technology	Reed					
Contact form	NO/NO					NO/NC
Pollution degree	3					
Protection class	III					
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					
Housing design	rectangular					
Dimensions	26 x 36 x 13 mm					
cannot be mounted flush	yes					
Detent present	no					
Housing material	PBT, PC					
Cable material	PVC					
Housing colour	grau, schwarz					

Attribute	153MSK00B1A	153MSK00H1A	153MSK00H1B	153MSK00H1E	153MSK00H1F	153MSK00H1G ▶
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					
Mounting type	screwed					
Connector type	M8x1 - 4 polig	M12x1 - 4 polig				
Cable length	0.15 m					
Number of strands	4					
Wire cross section	0.25 mm ²					
CE label	yes					
Certified in accordance with	UL					
Possible actuators	153MBK001					

Attribute	153MSK00H1H	153MSK00H1K	153MSK00H1L	153MSK00J1C	153MSK00J1D	153MSK00J1I ▶
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	-	0.01 A	-	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 (S0 min)	0.5 mm					
LED display	single-coloured	No	single-coloured	No	single-coloured	No
Actuation	front	side		front		
Switching principle	magnetic					
Series resistor	10 Ohm					
Technology	Reed					
Contact form	NO/NC			NO/NO/NO (Kontrollkontakt)		NO/NC/NO (Kontrollkontakt)
Pollution degree	3					
Protection class	III					
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					
Housing design	rectangular					
Dimensions	26 x 36 x 13 mm					
cannot be mounted flush	yes					
Detent present	no					
Housing material	PBT, PC					
Cable material	PVC					
Housing colour	grau, schwarz					
Protection class	IP67 DIN EN 60529 - IP6K9K ISO 20653					

Attribute	153MSK00H1H	153MSK00H1K	153MSK00H1L	153MSK00J1C	153MSK00J1D	153MSK00J1I ▶
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					
Mounting type	screwed					
Connector type	M12x1 - 4 polig			M12x1 - 8 polig		
Cable length	0.15 m					
Number of strands	4			8		
Wire cross section	0.25 mm ²					
CE label	yes					
Certified in accordance with	UL					
Possible actuators	153MBK001					

Attribute	153MSK00J1	153MSK00K1A	153MSK00K1B	153MSK00K1C	153MSK00K1D	153MSK00K1E ▶
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	-	0.01 A	-	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 (S0 min)	0.5 mm					
LED display	single-coloured	No	single-coloured	No	single-coloured	No
Actuation	front					side
Switching principle	magnetic					
Series resistor	10 Ohm					
Technology	Reed					
Contact form	NO/NC/NO (Kontrollkontakt)	NO/NO		NO/NO/NO (Kontrollkontakt)		NO/NO
Pollution degree	3					
Protection class	III					
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					
Housing design	rectangular					
Dimensions	26 x 36 x 13 mm					
cannot be mounted flush	yes					
Detent present	no					
Housing material	PBT, PC					
Cable material	PVC					
Housing colour	grau, schwarz					
Protection class	IP67 DIN EN 60529 - IP6K9K ISO 20653					

Attribute	153MSK00J1J	153MSK00K1A	153MSK00K1B	153MSK00K1C	153MSK00K1D	153MSK00K1E ▶
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					
Mounting type	screwed					
Connector type	M12x1 - 8 polig	-				
Cable length	0.15 m	1 m				
Number of strands	8	4		6		4
Wire cross section	0.25 mm ²					
CE label	yes					
Certified in accordance with	UL					
Possible actuators	153MBK001					

Attribute	153MSK00K1F	153MSK00K1G	153MSK00K1H	153MSK00K1I	153MSK00K1J	153MSK00K1K ▶
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	-	0.01 A	-	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 (S0 min)	0.5 mm					
LED display	single-coloured	No	single-coloured	No	single-coloured	No
Actuation	side	front				side
Switching principle	magnetic					
Series resistor	10 Ohm					
Technology	Reed					
Contact form	NO/NO	NO/NC		NO/NC/NO (Kontrollkontakt)		NO/NC
Pollution degree	3					
Protection class	III					
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					
Housing design	rectangular					
Dimensions	26 x 36 x 13 mm					
cannot be mounted flush	yes					
Detent present	no					
Housing material	PBT, PC					
Cable material	PVC					
Housing colour	grau, schwarz					
Protection class	IP67 DIN EN 60529 - IP6K9K ISO 20653					

Attribute	153MSK00K1F	153MSK00K1G	153MSK00K1H	153MSK00K1I	153MSK00K1J	153MSK00K1K ▶
Protection class, connector	-					
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					
Mounting type	screwed					
Connector type	-					
Cable length	1 m					
Number of strands	4		6		4	
Wire cross section	0.25 mm ²					
CE label	yes					
Certified in accordance with	UL					
Possible actuators	153MBK001					

Attribute	153MSK00K1L	153MSK10B1E	153MSK10B1K	153MSK10H1E	153MSK10H1F	153MSK10H1K ▶
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	-			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	17 mm				
Minimum switching distance (S0 min)	0.5 mm	5 mm				
LED display	single-coloured	No			single-coloured	No
Actuation	side					
Switching principle	magnetic					
Series resistor	10 Ohm					
Technology	Reed					
Contact form	NO/NC	NO/NO	NO/NC	NO/NO		NO/NC
Pollution degree	3					
Protection class	III					
Coding acc. to EN ISO 14119	Low					
B10d acc. to EN ISO 13849-1	20000000					
Type acc. to EN ISO 14119	4	3				
Mission time in years	-					
Structure acc. to EN ISO 13849-1	Two-channel					
Housing design	rectangular					
Dimensions	26 x 36 x 13 mm					
cannot be mounted flush	yes					
Detent present	no					
Housing material	PBT, PC					
Cable material	PVC					
Housing colour	grau, schwarz					
Protection class	IP67 DIN EN 60529 - IP6K9K ISO 20653					

Attribute	153MSK00K1L	153MSK10B1E	153MSK10B1K	153MSK10H1E	153MSK10H1F	153MSK10H1K ▶
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					
Mounting type	screwed					
Connector type	-	M8x1 - 4 polig		M12x1 - 4 polig		
Cable length	1 m	0.15 m				
Number of strands	4					
Wire cross section	0.25 mm ²					
CE label	yes					
Certified in accordance with	UL					
Possible actuators	153MBK001	153MBK101				

Attribute	153MSK10H1L	153MSK10K1E	153MSK10K1F	153MSK10K1K	153MSK10K1L	153MSK00K1H31
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	-	0.01 A	-	0.01 A	-
Max. switching power	3 W					
Switching frequency	5 Hz					
Assured switching distance (Sao)	4 mm					
Assured switch-off distance (Sar)	17 mm					10 mm
Minimum switching distance (S0 min)	5 mm					0.5 mm
LED display	single-coloured	No	single-coloured	No	single-coloured	No
Actuation	side					front
Switching principle	magnetic					
Series resistor	10 Ohm					
Technology	Reed					
Contact form	NO/NC	NO/NO		NO/NC		NO/NO
Pollution degree	3					
Protection class	III					
Coding acc. to EN ISO 14119	Low					
B10d acc. to EN ISO 13849-1	20000000					
Type acc. to EN ISO 14119	3					4
Mission time in years	-					20 a
Structure acc. to EN ISO 13849-1	Two-channel					
Housing design	rectangular					
Dimensions	26 x 36 x 13 mm					
cannot be mounted flush	yes					
Detent present	no					
Housing material	PBT, PC					
Cable material	PVC					
Housing colour	grau, schwarz					
Protection class	IP67 DIN EN 60529 - IP6K9K ISO 20653					

Attribute	153MSK10H1L	153MSK10K1E	153MSK10K1F	153MSK10K1K	153MSK10K1L	153MSK00K1H31
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					
Mounting type	screwed					
Connector type	M12x1 - 4 polig	M12x1 - 8 polig				-
Cable length	0.15 m	1 m				
Number of strands	4					
Wire cross section	0.25 mm ²					
CE label	yes					
Certified in accordance with	UL					
Possible actuators	153MBK101					153MBK001

Attribute	153MSK00B1G	153MSK00B1E	153MSK00B1K	153MSK00B1F	153MSK00B1L	153MSK10B1F ▶
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					17 mm
Minimum switching distance (S0 min)	0.5 mm					5 mm
LED display	No			single-coloured		
Actuation	front	side				
Switching principle	magnetic					
Series resistor	10 Ohm					
Technology	Reed					
Contact form	NO/NC	NO/NO	NO/NC	NO/NO	NO/NC	NO/NO
Pollution degree	3					
Protection class	III					
Coding acc. to EN ISO 14119	Low					
B10d acc. to EN ISO 13849-1	20000000					
Type acc. to EN ISO 14119	4					3
Mission time in years	20 a	-		20 a		-
Structure acc. to EN ISO 13849-1	Two-channel					
Housing design	rectangular					
Dimensions	26 x 36 x 13 mm					
cannot be mounted flush	yes					
Detent present	no					
Housing material	PBT, PC					
Cable material	PVC					
Housing colour	grau, schwarz					
Protection class	IP67 DIN EN 60529 - IP6K9K ISO 20653					

Attribute	153MSK00B1G	153MSK00B1E	153MSK00B1K	153MSK00B1F	153MSK00B1L	153MSK10B1F ▶
Protection class, connector	IP67 DIN EN 60529	-		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	-28 °C	-25 °C				
Max. storage temperature	80 °C					
Mounting type	screwed					
Connector type	M8x1 - 4 polig	-		M12x1 - 4 polig		
Cable length	0.15 m	1 m		0.15 m		
Number of strands	4					
Wire cross section	0.25 mm ²					
CE label	yes					
Certified in accordance with	UL					
Possible actuators	153MBK001					153MBK101

Attribute	153MSK10B1L
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)	17 mm
Minimum switching distance (S0 min)	5 mm
LED display	single-coloured
Actuation	side
Switching principle	magnetic
Series resistor	10 Ohm
Technology	Reed
Contact form	NO/NC
Pollution degree	3
Protection class	III
Coding acc. to EN ISO 14119	Low
B10d acc. to EN ISO 13849-1	20000000
Type acc. to EN ISO 14119	3
Mission time in years	-
Structure acc. to EN ISO 13849-1	Two-channel
Housing design	rectangular
Dimensions	26 x 36 x 13 mm
cannot be mounted flush	yes
Detent present	no
Housing material	PBT, PC
Cable material	PVC
Housing colour	grau, schwarz
Protection class	IP67 DIN EN 60529 - IP6K9K ISO 20653
Protection class, connector	IP67 DIN EN 60529
Operating temperature min.	-25 °C

Attribute	153MSK10B1L
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
Mounting type	screwed
Connector type	M12x1 - 4 polig
Cable length	0.15 m
Number of strands	4
Wire cross section	0.25 mm ²
CE label	yes
Certified in accordance with	UL
Possible actuators	153MBK101