



04950E00

Magnetic Sensor Series EEx RC M20



- 1 magnetic reed contact
- Nickel-plated brass enclosure
- Cylindrical shape
- Long life
- Highly resistant to vibration
- Available for actuation from front, from side only with bistable
- Actuating distance up to 30 mm depending on actuating magnets
- Pre-wired cable
- IP 67
- Stainless steel type available

Range of application: Ex magnetic sensors are suitable for positioning and controlling lift cabins in the lift industry. They are generally used as an alternative to mechanically operated limit switches in cases where unfavourable operating conditions, such as high or low actuating speeds, large switching frequencies, extreme dirt or dust production, high humidity, chemical atmospheres, highly fluctuating actuating distances, etc., occur. Even in the presence of aggressive materials, safe switching is ensured through the encapsulation of the contacts.

Design and mode of operation: the Ex magnetic sensors are actuated by an M range permanent magnet, entering their proximity without any physical contact. These devices are available with NO, NC, changeover, bistable or bistable changeover contacts. All magnetic sensors described in this section are supplied with pre-wired cables. When using Ex magnetic sensors, care must be taken that their mounting site is free of magnetic fields.

Zones 1 & 2, 21 & 22

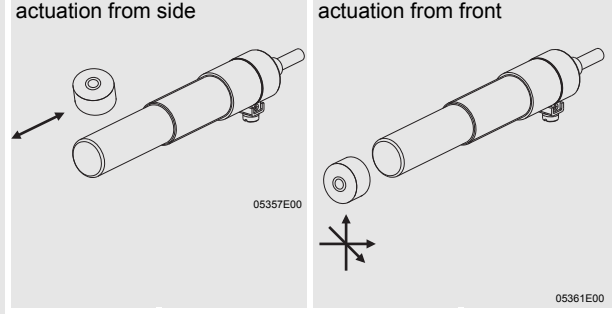
Selection Table		
Version		Ordering code
Magnetic switches acc. to specification		4646800
Add. to Ordering Code - Please complete ordering code		
Magnetschalter	1 Change-over	EEx RC M20 1W 1m Cable
	1 Change-over	EEx RC M20 1W 1m Cable Niro
	1 Change-over bistable	EEx RC M20 1Wr 1m Cable
	1 NO	EEx RC M20 1S 1m Cable
	1 NO bistable	EEx RC M20 1Sr 1m Cable
Actuating magnets	enclosed	M 100
		M 200
		M 300
		M 700
	unenclosed	M 100 U
		M 200 U
		M 300 U
		M 700 U

Technical Data	
Explosion protection	 II 2G Ex mb II T6  II 2D Ex tF A21 IP67 T80 °C
Certificates	DMT 01 ATEX E 058 X
Housing material	Nickel-plated brass
Actuators	M range magnets
Degree of protection	IP 67 to IEC/EN 60529
Contacts	NO or change-over contacts, NO or change-over contacts bistable
Switching system	sensors
Connection	Cable, 1 m long; 1NO: H05VV-F 3 x 0.75 mm ² or MNZ 45 MC 3 x 0.75 mm ² ; 1NC, 1Change-over: H05VV-F 4 x 0.5 mm ² or MNZ 45 M 4 x 0.75 mm ²
Utilisation category	AC-15; DC-13
Switching voltage	1NO, 1Change-over: 250 V AC
Switched current	1NO, 1Change-over: max. 1.5 A
Switching capacity	1Change-over: max. 50 VA/W 1NO: max. 100VA/W
Bounce capacity	0.3 ms ... 0.6 ms
Ambient temperature	- 40 °C ... + 70 °C
Life	
mechanical	> 1 million operations
Electrical life	10 ⁶ ... 10 ⁹ operations
Switching frequency	1NO: 140/s; 1Change-over: 85/s
Switching speed	
Close	3.5 ms ... 4.5 ms
Open	0.2 ms ... 2.5 ms
Resistance to vibration	1NO: 50 g ... 100 g; 1Change-over 10 g ... 50 g



Technical Data

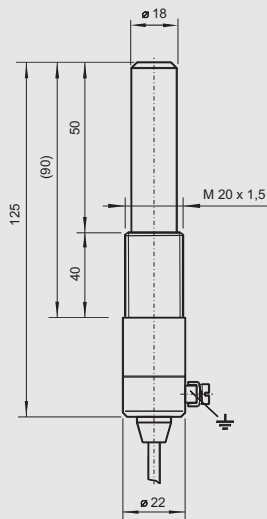
Switching distance	Actuating magnets	Magnetic sensor	Switching distance (in mm)			
			actuation from side		actuation from front	
			on	off	on	off
	M 100 M 100 U	EEx RC M20 1W			10	13
		EEx RC M20 1S			22	12
		EEx RC M20 1W	15	20	20	40
	M 200 M 200 U	EEx RC M20 1W			13	16
		EEx RC M20 1S			30	30
		EEx RC M20 1W	20	25	25	50
	M 300 M 300 U	EEx RC M20 1W			17	20
		EEx RC M20 1S			37	23
		EEx RC M20 1W	25	30	30	60
	M 400 U	EEx RC M20 1W			33	37
		EEx RC M20 1S			63	43
		EEx RC M20 1W	30	35	50	90
M 700	EEx RC M20 1W			30	35	
	EEx RC M20 1S			60	40	
	EEx RC M20 1W	40	50	50	75	



Technical Data - Actuating magnets

Types	M 100 U	M 200 U	M 300 U	M 400 U	M 100	M 200	M 300	M 700
Housing material	Unenclosed				Thermoplastic, red			
Actuators	Barium ferrite							
Ambient temperature	- 20 °C ... + 80 °C							

Dimension drawings (all dimensions in mm) - subject to alterations



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EEx RC Magnetic sensor

We reserve the right to make alterations to the technical data, weights, dimensions, designs and products available without notice. The illustrations cannot be considered binding.