Proximity Magnetic Sensors
Explosive Environment Sensors
M Atex Series - Encapsulated

- **Rectangular plastic housing**
- **Encapsulated, NO, NC or CO output function**
- **PVC cable**
- **According to EN 60079-0 and 60079-18**
- **Atex certified**

Product Description

These products have been developed and approved to be used in potentially explosive areas, applying protection methods in accordance with EN 60079-0 normative (Electrical apparatus for potentially explosive atmospheres. General requirements) and EN 60079-18 (Encapsulation “m”).
M magnetic sensors are in category 2, suitable for zone 1 or 2 (gas), 21 or 22 (dusts).

Ordering Key

M Q A1 EX

Type
Housing type
Contact type
Atex certified

Atex Marking

As for 94/9/EC (ATEX) Directive, products are marked:

II 2G Ex mb IIC T5 Gb
II 2D Ex mb IIIC T 100°C Db IP67

Marking as for ATEX directive: **II 2 G or II 2 D**
- **II:** group, it identifies the surface industry.
- **2:** high protection category, allowing use in areas where an explosive atmosphere is likely to occur in normal operation (zone 1 and 21, covering also zone 2 and 22).
- **G:** presence of gases, vapours and mists (zone 1).
- **D:** presence of explosive dust (zone 21).
- **Ex:** product realized for use in explosive environments.
- **mb:** level of protection for encapsulation. The device is not capable of causing ignition in normal operation and in defined failure conditions.
- **IIC:** group of explosive gases (Hydrogen/Acetylene, valid also for groups IIA-Propane and IIB-Ethylene).
- **IIIC:** group of explosive dust (conductive dust, valid also for group IIIA-combustible flyings and IIIB-non conductive dust).
- **T5:** maximum surface temperature 100°C (gas or vapour ignition temperature > 100°C).
- **T 100°C IP67:** max surface temperature and protection degree, with reference to presence of explosive dusts.
- **Gb, Db:** equipment protection level respectively for gas and dust, according to EN60079-0. Equipment with high level of protection, which is not source of ignition in normal operation or during expected malfunctions.

Type Selection

Housing type	Output function	Cable type	Reference
Rectangular, miniature	NO	2 m, PVC	**M Q A1 EX**
Rectangular, miniature	NC	2 m, PVC	**M Q C1 EX**
Rectangular, miniature	CO	2 m, PVC	**M Q S1 EX**

Output Specifications

Output	
MQA1EX	NO
MQC1EX	NC
MQS1EX	CO
Contact ratings	
Max Switching Voltage	
MQA1EX, MQC1EX	230 V AC/DC
MQS1EX	150 V AC/DC
Max Switching Current	
MQA1EX, MQC1EX	0.75 A
MQS1EX	0.25 A
Max Switching Power	
MQA1EX, MQC1EX	10 VA
MQS1EX	5 VA

General Specifications

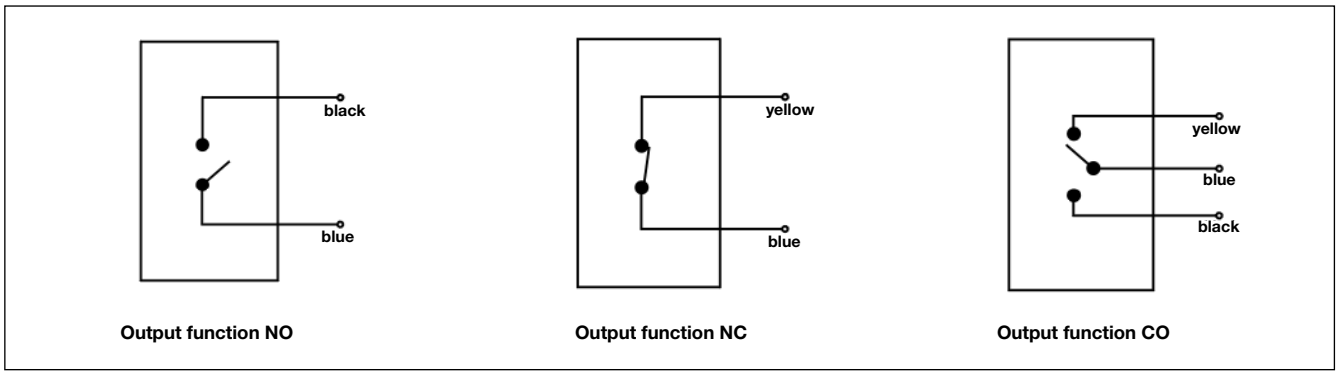
Operating distance	See Operating Distance table
Suitable magnetic unit	See Operating Distance table
Operating temperature	-20 to +60 °C
Degree of protection	IP 67
Housing	
Dimensions	37 x 16 x 8.3 mm
Material	Autoestinguishing polypropylene with 30% fiber glass
Approvals	ATEX
CE-marking	Yes

Operating Distance

Magnetic Units	CL1	CL2	CL3	CL4
MQA1EX, MQS1EX	10	15	22	35
MQC1EX	7/2*	13/5*	17/7*	30/15*

Distances are specified in millimeters (mm)
xx/xx: operating distance (for all Output functions); xx/**xx***: reswitching contact distance.
Outside the above mentioned range, the sensor mantains the initial state.

Wiring Diagrams



Output function NO | Output function NC | Output function CO

Dimensions