



### Model Number

**MC60-12GM50-1N**

### Features

- 60 mm flush with permanent magnet DM 60-31-15

### Accessories

#### BF 12

Mounting flange, 12 mm

#### EXG-12

Quick mounting bracket with dead stop

#### DM 60-31-15

Permanent magnet for magnetic field sensors

#### DM 25-32-07

Permanent magnet for magnetic field sensors

## Technical Data

### General specifications

Switching element function		NAMUR, NO
Rated operating distance	$s_n$	60 mm
Installation		flush in non-magnetic metal
Output polarity		NAMUR
Assured operating distance	$s_a$	10 ... 48.6 mm

### Nominal ratings

Nominal voltage	$U_o$	8.2 V ( $R_i$ approx. 1 k $\Omega$ )
Switching frequency	$f$	0 ... 5000 Hz
Current consumption		
Magnet detected		$\geq 2.5$ mA
Magnet not detected		$\leq 1$ mA
Switching state indicator		LED, yellow

### Functional safety related parameters

MTTF <sub>d</sub>	4382 a
-------------------	--------

### Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
---------------------	--------------------------------

### Mechanical specifications

Connection type	cable PVC, 2 m
Core cross-section	0.34 mm <sup>2</sup>
Housing material	Stainless steel 1.4404 / AISI 316L
Sensing face	Stainless steel 1.4404 / AISI 316L
Degree of protection	IP67

### General information

Use in the hazardous area	see instruction manuals
Category	2G

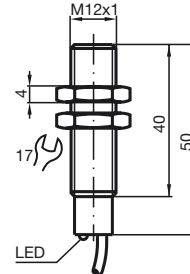
### Compliance with standards and directives

Standard conformity	
NAMUR	EN 60947-5-6:2000
Standards	EN 60947-5-2:2007

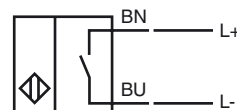
### Approvals and certificates

FM approval	
Control drawing	116-0165
CCC approval	CCC approval / marking not required for products rated $\leq 36$ V

## Dimensions

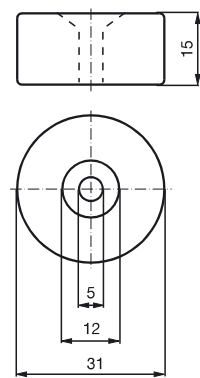


## Electrical Connection

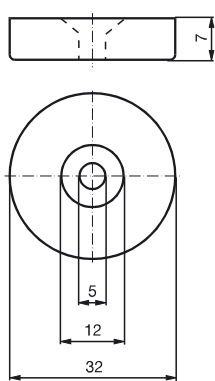




Magnet DM 60-31-15



Magnet DM 25-32-07



**ATEX 2G**

Instruction

**Device category 2G**

EC-Type Examination Certificate

CE marking

ATEX marking

Directive conformity

Standards

Appropriate type

Effective internal capacitance  $C_i$ Effective internal inductance  $L_i$ 

General

Installation, commissioning

Maintenance

**Special conditions**

Electrostatic charge

**Manual electrical apparatus for hazardous areas**

for use in hazardous areas with gas, vapour and mist

TÜV 01 ATEX 1718

CE 0102

II 2G Ex ib IIC T6 Gb

94/9/EG

EN 60079-0:2009, EN 60079-11:2007

Ignition protection "Intrinsic safety"

Use is restricted to the following stated conditions

MC60-12GM50-1N

 $\leq 15 \text{ nF}$  ; a cable length of 10 m is considered. $\leq 35 \text{ }\mu\text{H}$  ; a cable length of 10 m is considered.

The apparatus has to be operated according to the appropriate data in the data sheet and in this instruction manual. The EC-Type Examination Certificate has to be observed. The special conditions must be adhered to!

Directive 94/9/EG and hence also EC-Type Examination Certificates apply in general only to the use of electrical apparatus under atmospheric conditions.

The use in ambient temperatures of  $> 60 \text{ }^{\circ}\text{C}$  was tested with regard to hot surfaces by the mentioned certification authority.

If the equipment is not used under atmospheric conditions, a reduction of the permissible minimum ignition energies may have to be taken into consideration.

Laws and/or regulations and standards governing the use or intended usage goal must be observed. The intrinsic safety is only assured in connection with an appropriate related apparatus and according to the proof of intrinsic safety.

No changes can be made to apparatus, which are operated in hazardous areas. Repairs to these apparatus are not possible.

Electrostatic charges must be avoided on the mechanical housing components. Dangerous electrostatic charges on the mechanical housing components can be avoided by incorporating these in the equipotential bonding.