

# Proximity Magnetic Sensors Cylindrical Housing FM Series

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- Cylindrical and plastic, brass or nickel plated brass housing
- M10, M12, Ø 9.3 diameter
- NO, NC or CO output functions
- Front side switching

## Product Description

The cylindrical proximity magnetic sensors of the FM series are available in different versions with plastic or brass housing, different dimensions and output contacts. The models can be

mounted directly on ferromagnetic supports as well; in this situation a reduction in the operating distance may occur due to a loss of magnetic field.

## Ordering Key

**FM C 3 S1**

Type \_\_\_\_\_  
Output function \_\_\_\_\_  
Reed contact type \_\_\_\_\_  
Special version \_\_\_\_\_

## Type Selection

| Housing diameter | Connection | Output function | Reference        |
|------------------|------------|-----------------|------------------|
| Ø 9.3            | PVC cable  | NO              | <b>FM A 3</b>    |
| M10              | PVC cable  | NO              | <b>FM A 3 S5</b> |
| M10              | PVC cable  | NO              | <b>FM A 6</b>    |
| Ø 9.3            | PVC cable  | NC              | <b>FM C 3</b>    |
| M12              | PVC cable  | NC              | <b>FM C 3 S1</b> |
| Ø 9.3            | PVC cable  | CO              | <b>FM S 1</b>    |

Diameters are specified in millimeters (mm)

## Output Specifications

|                                                                                                  |                               |
|--------------------------------------------------------------------------------------------------|-------------------------------|
| <b>Output</b><br>FMA3, FMA3S5, FMA6<br>FMC3, FMC3S1<br>FMS1                                      | NO<br>NC<br>Change-over       |
| <b>Contact ratings</b><br>Max Switching Voltage<br>FMA3, FMA3S5,<br>FMC3, FMC3S1<br>FMS1<br>FMA6 | 500 VAC<br>100 VAC<br>100 VAC |
| Max Switching Current<br>FMA3, FMA3S5,<br>FMC3, FMC3S1<br>FMS1<br>FMA6                           | 0.5 A<br>0.25 A<br>0.5 A      |
| Max Switching Power<br>FMA3, FMA3S5,<br>FMC3, FMC3S1<br>FMS1<br>FMA6                             | 5 VA<br>100 VA<br>100 VA      |

## General Specifications

|                                                                                                                                              |                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| <b>Operating distance</b><br>FM Series                                                                                                       | See Operating Distance table                                                       |
| <b>Suitable magnetic unit</b><br>FM Series                                                                                                   | See Operating Distance table                                                       |
| <b>Ambient temperature</b><br>Operating                                                                                                      | -25 to +70 °C                                                                      |
| <b>Environment</b><br>Degree of protection                                                                                                   | IP 67                                                                              |
| <b>Housing</b><br>Diameter<br>FMA3, FMC3, FMS1<br>FMA3S5, FMC3S1<br>FMA3S5, FMA6<br>Material<br>FMA3, FMC3, FMS1<br>FMA6S2<br>FMA3S5, FMC3S1 | Ø 9.3 mm<br>M12 x 1 mm<br>M10 x 0.75 mm<br>Plastic<br>Nickel plated brass<br>Brass |
| <b>CE-marking</b>                                                                                                                            | Yes                                                                                |

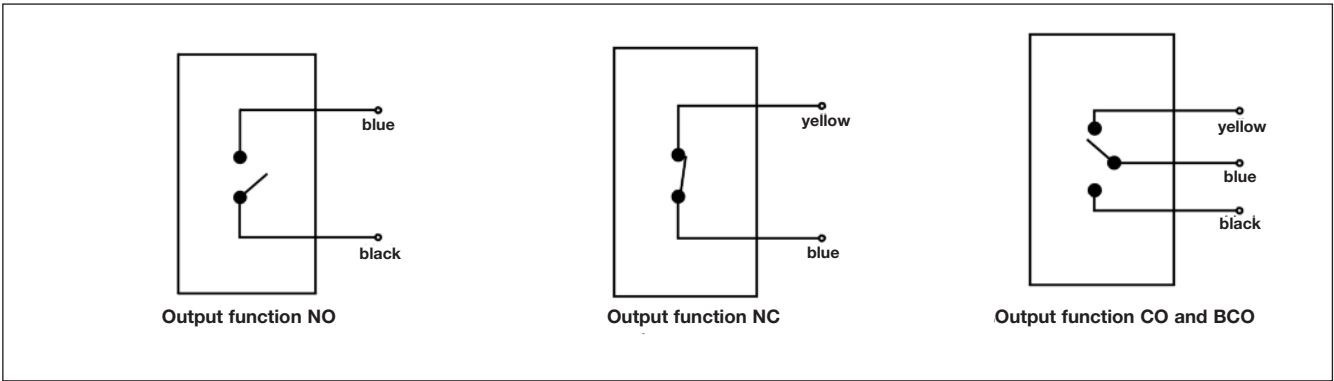


Operating Distance

| Magnetic Units | CL10 | CL11  | CL18 | CL20S1 | CL20S3 | CL23    | CL31  |
|----------------|------|-------|------|--------|--------|---------|-------|
| FMA3, FMS1     | 11   | 25    | 9    | 20     | 19     | 15      | 25    |
| FMC3           | 8    | 20/4* | 7    | 17/2*  | 16/1*  | 12/0.5* | 20/4* |
| FMA3S5         | 9    | 23    | 7    | 18     | 17     | 13      | 23    |
| FMC3S1         | 6    | 18/2* | 5    | 15/2*  | 14/1*  | 10/1*   | 18/2* |

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 maintains the initial state.

Wiring Diagrams



Dimensions

