



## Model Number

**MB60-12GM50-E2-V1**

## Features

- Sensing range 60 mm based on DM60-31-15 magnet

## Accessories

### BF 12

Mounting flange, 12 mm

### DM 25-32-07

Permanent magnet for magnetic field sensors

### DM 60-31-15

Permanent magnet for magnetic field sensors

### V1-W-2M-PUR

Female cordset, M12, 4-pin, PUR cable

### V1-G-2M-PUR

Female cordset, M12, 4-pin, PUR cable

### V1-G

Female connector, M12, 4-pin, field attachable

### V1-W

Female connector, M12, 4-pin, field attachable

## Technical Data

### General specifications

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

### Nominal ratings

Operating voltage	$U_B$	10 ... 30 V
Switching frequency	$f$	0 ... 5000 Hz
Hysteresis	$H$	1 ... 10 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 2.5$ V
Operating current	$I_L$	0 ... 200 mA
No-load supply current	$I_0$	$\leq 10$ mA
Switching state indicator		Multihole-LED, yellow

### Functional safety related parameters

MTTF <sub>d</sub>	2935 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %

### Ambient conditions

Ambient temperature	-25 ... 75 °C (-13 ... 167 °F)
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### Mechanical specifications

Connection type	Connector M12 x 1, 4-pin
Housing material	Stainless steel 1.4404 / AISI 316L
Sensing face	PBT
Degree of protection	IP67

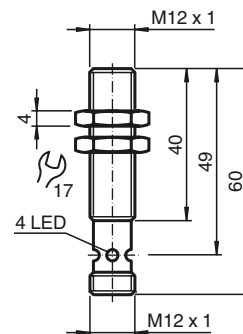
### Compliance with standards and directives

Standard conformity	
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007

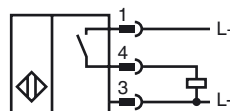
### Approvals and certificates

Protection class	II
UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated $\leq 36$ V

## Dimensions



## Electrical Connection



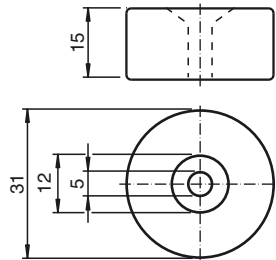
Pinout



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

Magnet DM 60-31-15



## Installation Hint

When installed in magnetic materials,  
a free space must be left.

