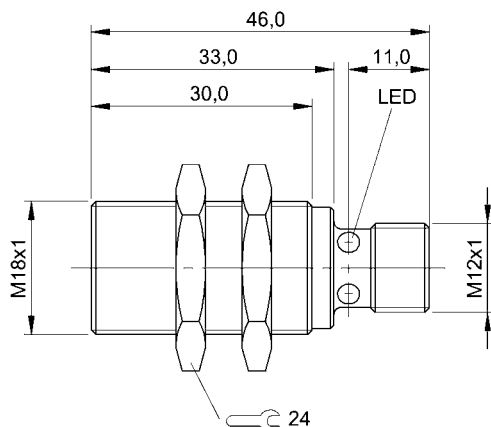




### Basic features

|                     |                                                  |
|---------------------|--------------------------------------------------|
| Approval/Conformity | CE                                               |
|                     | ATEX                                             |
|                     | IECEx                                            |
|                     | FM                                               |
|                     | cCSAus                                           |
|                     | WEEE                                             |
|                     | CCC Ex                                           |
|                     | EN IEC 60079-0                                   |
| Basic standard      | EN 60079-11                                      |
|                     | EN 60079-26                                      |
|                     | IEC 60079-0                                      |
|                     | IEC 60079-11                                     |
|                     | IEC 60079-26                                     |
|                     | IEC 60529                                        |
|                     | IEC 60947-5-6                                    |
|                     | CSA Class 258 04                                 |
|                     | CSA Class 258 84                                 |
|                     | FM Class 3600                                    |
|                     | FM Class 3610                                    |
|                     | FM Class 3810                                    |
|                     | Including Supplement 1                           |
|                     | ANSI/NEMA 250                                    |
| Ex marking          | ATEX: Ex II 1G Ex ia IIC T6 Ga Ta: -20 ... 70 °C |
|                     | Ex II 1D Ex ia IIIC T90°C Da Ta: -20 ... 70 °C   |
|                     | IECEx: Ex ia IIC T6 Ga Ta: -20...70 °C           |
|                     | Ex ia IIIC T90°C Da Ta: -20...70 °C              |
|                     | NEC: CSA/FM Class I, Division 1, Groups ABCD     |
|                     | Class II, Division 1, Groups EFG                 |
|                     | Class III                                        |

### Display/Operation

|                    |     |
|--------------------|-----|
| Function indicator | yes |
| Power indicator    | no  |

### Electrical connection

|                             |                            |
|-----------------------------|----------------------------|
| Connection                  | M12x1-Male, 4-pin, A-coded |
| Polarity reversal protected | no                         |

### Electrical data

|                                    |             |
|------------------------------------|-------------|
| Current consumption max., damped   | 1 mA        |
| Current consumption min., undamped | 2.1 mA      |
| Internal capacitance Ci max.       | 200 nF      |
| Internal inductance Li max.        | 0.19 nH     |
| Operating voltage Ub               | 7.7...9 VDC |
| Rated insulation voltage Ui        | 75 V DC     |
| Rated operating voltage Ue DC      | 8.2 V       |
| Rated series resistance Rv         | 1000 Ohm    |
| Ready delay tv max.                | 30 ms       |
| Switching frequency                | 400 Hz      |

### Environmental conditions

|                         |                                 |
|-------------------------|---------------------------------|
| Ambient temperature     | -20...70 °C                     |
| EN 60068-2-27, Shock    | Half-sinus, 30 gn, 11 ms        |
| EN 60068-2-6, Vibration | 55 Hz, amplitude 1 mm, 3x30 min |
| IP rating               | IP67                            |

### Functional safety

|              |        |
|--------------|--------|
| MTTF (40 °C) | 3387 a |
|--------------|--------|

Inductive Sensors  
BES M18ME1-GNX80B-S04G-EEX  
Order Code: BES02ZW



Interface

Interface NAMUR

Material

Housing material Brass, Nickel-free coated  
Material sensing surface PBT

Mechanical data

Dimension Ø 18 x 46 mm  
Installation for flush mounting  
Mounting length 30.00 mm  
Size M18x1  
Tightening torque 35 Nm

Range/Distance

Assured operating distance Sa 6.4 mm  
Rated operating distance Sn 8 mm  
Real switching distance sr 8 mm  
Repeat accuracy max. (% of Sr) 5.0 %  
Temperature drift max. (% of Sr) 10 %  
Tolerance Sr ±10 %

Remarks

Operating manual must be followed.  
Operate only with suitable approved switching amplifier.  
Use only in approved intrinsically safe circuits with max. values  $U_i = 15\text{ V}$ ,  $I_i = 50\text{ mA}$ ,  $P_i = 120\text{ mW}$ .  
For more information about MTTF and B10d see MTTF / B10d Certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

Connector Drawings



Wiring Diagrams

