

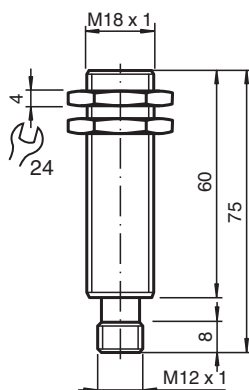


## Inductive analog sensor NBB5-18GM60-I3-V1

- Inductive analog
- Output 0 mA ... 20 mA
- Flush mounting



### Dimensions



### Technical Data

#### General specifications

|                   |                       |
|-------------------|-----------------------|
| Output type       | Analog current output |
| Installation      | flush                 |
| Output polarity   | DC                    |
| Measurement range | 1 ... 5 mm            |
| Output type       | 3-wire                |

#### Nominal ratings

|                             |       |                             |
|-----------------------------|-------|-----------------------------|
| Operating voltage           | $U_B$ | 10 ... 30 V DC typ. 20 V DC |
| Reverse polarity protection |       | yes                         |
| Repeat accuracy             |       | 0 ... 80 $\mu$ m            |
| No-load supply current      | $I_0$ | $\leq 12$ mA                |

#### Analog output

|                                |                                      |
|--------------------------------|--------------------------------------|
| Output type                    | 0 ... 20 mA                          |
| Slope of output characteristic | 5 mA / mm                            |
| Linearity error                | $\leq \pm 5$ % of full-scale value   |
| Load resistor                  | $\leq 1000 \Omega$ typ. 500 $\Omega$ |
| Rate of current rise           |                                      |
| 0 ... 20 mA                    | max. 38.9 A/s                        |
| 20 ... 0 mA                    | max. 13.9 A/s                        |

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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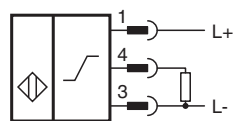
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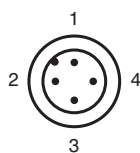
Technical Data

|                                          |                                                                            |
|------------------------------------------|----------------------------------------------------------------------------|
| Recovery time                            | 1 ... 10 ms , typ. 5 ms                                                    |
| Adjustment tolerance zero point          | $\leq \pm 5 \%$ of full-scale value                                        |
| Temperature drift                        | $\leq \pm 0.15 \%$ /K of full-scale value                                  |
| Residual ripple                          | $\pm 125 \mu\text{A}$                                                      |
| Compliance with standards and directives |                                                                            |
| Standard conformity                      |                                                                            |
| Standards                                | EN IEC 60947-5-2                                                           |
| Approvals and certificates               |                                                                            |
| UL approval                              | cULus Listed, Class 2 Power Source                                         |
| CCC approval                             | CCC approval / marking not required for products rated $\leq 36 \text{ V}$ |
| Ambient conditions                       |                                                                            |
| Ambient temperature                      | -25 ... 70 °C (-13 ... 158 °F)                                             |
| Mechanical specifications                |                                                                            |
| Connection type                          | Connector plug M12 x 1 , 4-pin                                             |
| Housing material                         | brass, nickel-plated                                                       |
| Sensing face                             | PBT                                                                        |
| Degree of protection                     | IP67                                                                       |
| Dimensions                               |                                                                            |
| Length                                   | 75 mm                                                                      |
| Diameter                                 | 18 mm                                                                      |

Connection



Connection Assignment



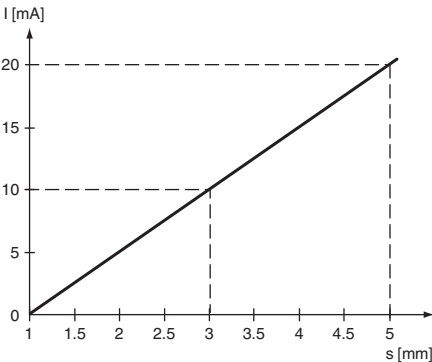
Wire colors in accordance with EN 60947-5-2

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

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Characteristic Curve

Output characteristics



Reduction factor

