

# IR12.D03K-F60.UA1E.7FO/B015

Inductive distance measuring sensors - high sensitivity

Article number: 11158153

### overview

- 2,75 ... 3 mm
- voltage output
- external Teach-in
- connector M12
- -10 ... 60 °C
- IP 67



### Technical data

#### general data

|                       |                                                                           |
|-----------------------|---------------------------------------------------------------------------|
| mounting type         | flush                                                                     |
| special type          | linearized<br>high sensitivity                                            |
| measuring distance Sd | 2,75 ... 3 mm                                                             |
| sensitivity           | 40 V/mm (Range: 0,25 mm)                                                  |
| resolution            | < 0,00025 mm (stat.)<br>< 0,0005 mm (dynam.)                              |
| repeat accuracy       | < 0,001 mm                                                                |
| adjustment            | external Teach-in                                                         |
| teach                 | 1-point analog, factory reset                                             |
| linearity error       | ± 5 µm                                                                    |
| temperature drift     | ± 4 % (Full Scale; +10 ... +30 °C)<br>± 12 % (Full Scale; -10 ... +60 °C) |
| Teach-Feedback        | LED yellow                                                                |

#### electrical data

|                                        |               |
|----------------------------------------|---------------|
| response time (factory characteristic) | < 3 ms        |
| voltage supply range +Vs               | 12 ... 30 VDC |

#### electrical data

|                                    |                |
|------------------------------------|----------------|
| current consumption max. (no load) | 15 mA          |
| output circuit                     | voltage output |
| output signal                      | 0 ... 10 VDC   |
| load resistance                    | > 4000 Ohm     |
| short circuit protection           | yes            |
| reverse polarity protection        | yes            |

#### mechanical data

|                         |                      |
|-------------------------|----------------------|
| type                    | cylindrical threaded |
| material (sensing face) | ceramic              |
| housing material        | steel nickel plated  |
| dimension               | 12 mm                |
| housing length          | 60 mm                |
| connection types        | connector M12        |
| tightening torque max.  | 15 Nm                |

#### ambient conditions

|                       |                |
|-----------------------|----------------|
| operating temperature | -10 ... +60 °C |
| protection class      | IP 67          |

### remarks

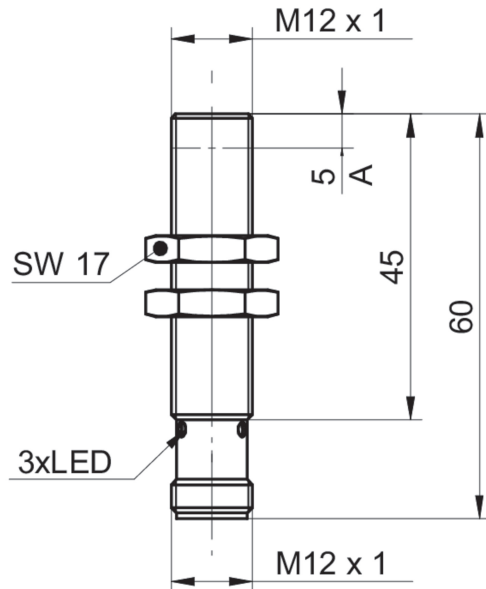
- measuring range (0,25 mm) adjustable within 0 - 3 mm
- linear analog output
- high sensitivity (other sensitivities on request)

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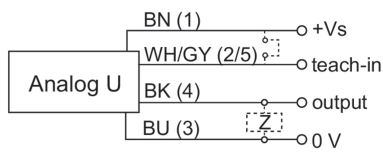
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### dimension drawing



### connection diagram



### pin assignment

