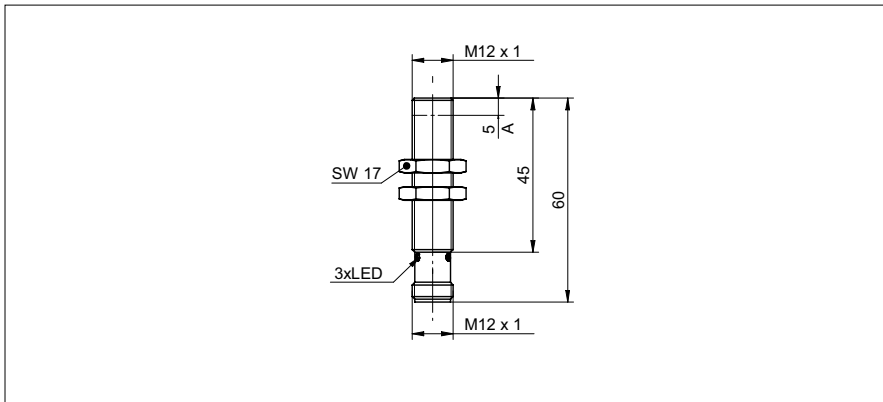


# Inductive distance measuring sensors

**IR12.D03K-11158153**

**dimension drawing**



**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            | < 0,001 mm (stat.)<br>< 0,001 mm (dynam.)                                 |
| repeat accuracy       | < 0,005 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) |

**electrical data**

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

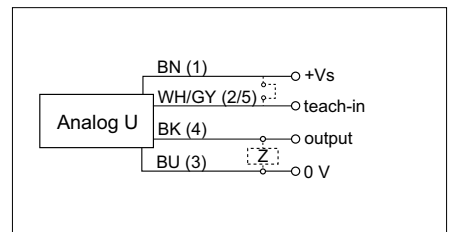
**ambient conditions**

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

**photo**



**connection diagram**



- measuring range (0,25 mm) adjustable within 1 - 3 mm
- linear analog output
- high sensitivity (other sensitivities on request)