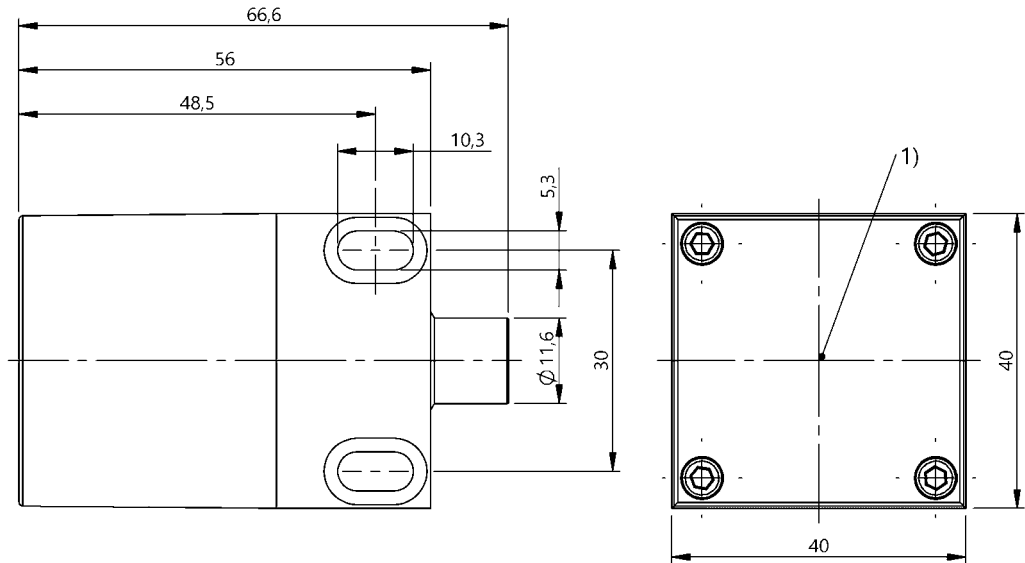


Inductive Sensors  
BES Q40KG-X20F-SZ03  
Order Code: BES05N6



1) Sensing surface



Basic features

|                     |               |
|---------------------|---------------|
| Approval/Conformity | CE            |
|                     | WEEE          |
| Basic standard      | UKCA          |
|                     | IEC 60947-5-2 |

Display/Operation

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

Electrical connection

|                          |                                         |
|--------------------------|-----------------------------------------|
| Connection               | LEMO connector-Special connector, 2-pin |
| Short-circuit protection | yes                                     |

Electrical data

|                                               |             |
|-----------------------------------------------|-------------|
| Load capacitance max. at U <sub>e</sub>       | 9 µF        |
| Min. operating current I <sub>m</sub>         | 0 mA        |
| No-load current I <sub>o</sub> max., damped   | 7 mA        |
| No-load current I <sub>o</sub> max., undamped | 3 mA        |
| Operating voltage U <sub>b</sub>              | 10...30 VDC |
| Rated operating voltage U <sub>e</sub> DC     | 24 V        |
| Ready delay t <sub>v</sub> max.               | 12 ms       |
| Ripple max. (% of U <sub>e</sub> )            | 10 %        |
| Switching frequency                           | 100 Hz      |
| Utilization category                          | DC -13      |
| Voltage drop static max.                      | 2 V         |

Environmental conditions

|                         |                                 |
|-------------------------|---------------------------------|
| Ambient temperature     | 0...230 °C                      |
| EN 60068-2-6, Vibration | 55 Hz, amplitude 1 mm, 3x30 min |
| IP rating               | IP50                            |

Functional safety

|              |        |
|--------------|--------|
| MTTF (40 °C) | 2206 a |
|--------------|--------|

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Interface

Switching output for switching amplifier

Material

Housing material Stainless steel  
Material sensing surface LCP

Mechanical data

Dimension 40 x 40 x 66.6 mm  
Installation non-flush  
Size 40x40

Range/Distance

Assured operating distance Sa 16.2 mm  
Hysteresis H max. (% of Sr) 15.0 %  
Rated operating distance Sn 20 mm  
Real switching distance sr 20 mm  
Repeat accuracy max. (% of Sr) 1.12 %  
Tolerance Sr  $\pm 15$  %

Connector Drawings

