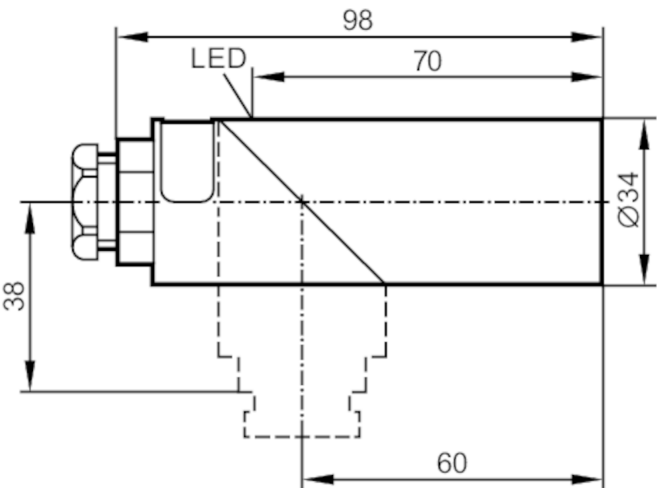




Inductive sensor

IBE2020-FBOA/RT



Product characteristics

|                 |      |                                               |
|-----------------|------|-----------------------------------------------|
| Output function |      | normally open / normally closed; (selectable) |
| Sensing range   | [mm] | 20                                            |
| Housing         |      | cylindrical                                   |
| Dimensions      | [mm] | Ø 34 / L = 98                                 |

Electrical data

|                             |     |                |
|-----------------------------|-----|----------------|
| Operating voltage           | [V] | 20...250 AC/DC |
| Protection class            |     | II             |
| Reverse polarity protection |     | no             |

Outputs

|                                                 |      |                                                 |
|-------------------------------------------------|------|-------------------------------------------------|
| Output function                                 |      | normally open / normally closed; (selectable)   |
| Max. voltage drop switching output DC           | [V]  | 6                                               |
| Max. voltage drop switching output AC           | [V]  | 6.5                                             |
| Minimum load current                            | [mA] | 5                                               |
| Max. leakage current                            | [mA] | 2.5 (250 V AC) / 1.3 (110 V AC) / 0.8 (24 V DC) |
| Permanent current rating of switching output AC | [mA] | 250; (350 (...50 °C))                           |
| Permanent current rating of switching output DC | [mA] | 100                                             |
| Short-time current rating of switching output   | [mA] | 2200; (20 ms / 0,5 Hz)                          |
| Switching frequency AC                          | [Hz] | 25                                              |
| Switching frequency DC                          | [Hz] | 50                                              |
| Short-circuit proof                             |      | no                                              |
| Overload protection                             |      | no                                              |

Detection zone

|                       |      |           |
|-----------------------|------|-----------|
| Sensing range         | [mm] | 20        |
| Real sensing range Sr | [mm] | 20 ± 10 % |



## Inductive sensor

IBE2020-FBOA/RT

|                                      |                  |                                                                               |
|--------------------------------------|------------------|-------------------------------------------------------------------------------|
| Operating distance                   | [mm]             | 0...16.2                                                                      |
| <b>Accuracy / deviations</b>         |                  |                                                                               |
| Correction factor                    |                  | steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminium: 0.4 / copper: 0.3   |
| Hysteresis                           | [% of Sr]        | 3...15                                                                        |
| Switch point drift                   | [% of Sr]        | -10...10                                                                      |
| <b>Operating conditions</b>          |                  |                                                                               |
| Ambient temperature                  | [°C]             | -25...80                                                                      |
| Protection                           |                  | IP 65                                                                         |
| <b>Tests / approvals</b>             |                  |                                                                               |
| EMC                                  | EN 60947-5-2     |                                                                               |
|                                      | EN 55011         | class B                                                                       |
| MTTF                                 | [years]          | 610                                                                           |
| UL approval                          | Ta               | 0...40 °C                                                                     |
|                                      | Enclosure type   | Type 1                                                                        |
|                                      | power supply     | Hazardous voltage                                                             |
|                                      | File number UL   | E174191                                                                       |
| <b>Mechanical data</b>               |                  |                                                                               |
| Weight                               | [g]              | 175.5                                                                         |
| Housing                              |                  | cylindrical                                                                   |
| Mounting                             |                  | non-flush mountable                                                           |
| Dimensions                           | [mm]             | Ø 34 / L = 98                                                                 |
| Materials                            |                  | PBT; end cap: PC                                                              |
| <b>Displays / operating elements</b> |                  |                                                                               |
| Display                              | switching status | 1 x LED, red                                                                  |
| <b>Electrical connection</b>         |                  |                                                                               |
| Required protection                  |                  | miniature fuse to IEC60127-2 sheet 1; ≤ 2 A; fast acting                      |
| <b>Accessories</b>                   |                  |                                                                               |
| Items supplied                       |                  | Mounting clamps: 1                                                            |
| <b>Remarks</b>                       |                  |                                                                               |
| Remarks                              |                  | Recommendation: Check the safe functioning of the unit after a short circuit. |
| Pack quantity                        |                  | 1 pcs.                                                                        |



## Inductive sensor

IBE2020-FBOA/RT

### Electrical connection

terminals: ...2.5 mm<sup>2</sup>; Cable sheath: Ø 7...13 mm; Cable gland: M20 X 1.5

### Connection



Note miniature fuse to IEC60127-2 sheet 1 ≤ 2 A fast acting