

# IM506A



## Inductive sensor

IME3020BFPKG/3D



| Product characteristics                         |      |                                               |
|-------------------------------------------------|------|-----------------------------------------------|
| Output function                                 |      | normally open / normally closed; (selectable) |
| Sensing range                                   | [mm] | 20                                            |
| Housing                                         |      | rectangular                                   |
| Dimensions                                      | [mm] | 40 x 40 x 105                                 |
| Electrical data                                 |      |                                               |
| Operating voltage                               | [V]  | 10...30 DC                                    |
| Current consumption                             | [mA] | < 15                                          |
| Protection class                                |      | III                                           |
| Reverse polarity protection                     |      | yes                                           |
| Outputs                                         |      |                                               |
| Output function                                 |      | normally open / normally closed; (selectable) |
| Max. voltage drop switching output DC           | [V]  | 2.5                                           |
| Max. leakage current                            | [mA] | 0.5                                           |
| Permanent current rating of switching output DC | [mA] | 200                                           |
| Switching frequency DC                          | [Hz] | 100                                           |

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|                                      |                                                                                                                          |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Short-circuit proof                  | yes                                                                                                                      |
| Overload protection                  | yes                                                                                                                      |
| <b>Detection zone</b>                |                                                                                                                          |
| Sensing range [mm]                   | 20                                                                                                                       |
| Real sensing range Sr [mm]           | 20 ± 10 %                                                                                                                |
| Operating distance [mm]              | 0...16.2                                                                                                                 |
| <b>Accuracy / deviations</b>         |                                                                                                                          |
| Correction factor                    | steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminium: 0.3 / copper: 0.2                                              |
| Hysteresis [% of Sr]                 | 1...20                                                                                                                   |
| Switch point drift [% of Sr]         | -10...10                                                                                                                 |
| <b>Operating conditions</b>          |                                                                                                                          |
| Ambient temperature [°C]             | -20...60                                                                                                                 |
| Protection                           | IP 65; IP 67                                                                                                             |
| <b>Tests / approvals</b>             |                                                                                                                          |
| ATEX marking                         |  II 3D Ex tc IIIC T95°C Dc X            |
| EMC                                  | EN 60947-5-2                                                                                                             |
| MTTF [years]                         | 1326                                                                                                                     |
| <b>Mechanical data</b>               |                                                                                                                          |
| Weight [g]                           | 243.5                                                                                                                    |
| Housing                              | rectangular                                                                                                              |
| Mounting                             | flush mountable                                                                                                          |
| Dimensions [mm]                      | 40 x 40 x 105                                                                                                            |
| Materials                            | PC; PA; stainless steel                                                                                                  |
| <b>Displays / operating elements</b> |                                                                                                                          |
| Display                              | switching status 1 x LED, yellow                                                                                         |
| <b>Remarks</b>                       |                                                                                                                          |
| Remarks                              | Recommendation: Check the safe functioning of the unit after a short circuit.<br>5 positions of the active zone possible |
| Pack quantity                        | 1 pcs.                                                                                                                   |

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### Electrical connection

terminals: 0.34...1.5 mm<sup>2</sup>; Cable sheath: Ø 5...9 mm

### Connection

