

# IM5020



## Inductive sensor

IME3015BFPKG



| Product characteristics     |      |                                               |
|-----------------------------|------|-----------------------------------------------|
| Electrical design           |      | PNP                                           |
| Output function             |      | normally open / normally closed; (selectable) |
| Sensing range               | [mm] | 15                                            |
| Housing                     |      | rectangular                                   |
| Dimensions                  | [mm] | 40 x 40 x 120                                 |
| Electrical data             |      |                                               |
| Operating voltage           | [V]  | 10...36 DC                                    |
| Current consumption         | [mA] | 15; (24 V)                                    |
| Protection class            |      | II                                            |
| Reverse polarity protection |      | yes                                           |

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| Outputs                                              |                                                                             |                   |
|------------------------------------------------------|-----------------------------------------------------------------------------|-------------------|
| Electrical design                                    | PNP                                                                         |                   |
| Output function                                      | normally open / normally closed; (selectable)                               |                   |
| Max. voltage drop switching output DC [V]            | 2.5                                                                         |                   |
| Permanent current rating of switching output DC [mA] | 250                                                                         |                   |
| Switching frequency DC [Hz]                          | 250                                                                         |                   |
| Short-circuit protection                             | yes                                                                         |                   |
| Type of short-circuit protection                     | pulsed                                                                      |                   |
| Overload protection                                  | yes                                                                         |                   |
| Detection zone                                       |                                                                             |                   |
| Sensing range [mm]                                   | 15                                                                          |                   |
| Real sensing range Sr [mm]                           | 15 ± 10 %                                                                   |                   |
| Operating distance [mm]                              | 0...12.1                                                                    |                   |
| Accuracy / deviations                                |                                                                             |                   |
| Correction factor                                    | steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminium: 0.3 / copper: 0.2 |                   |
| Hysteresis [% of Sr]                                 | 1...15                                                                      |                   |
| Switch point drift [% of Sr]                         | -10...10                                                                    |                   |
| Operating conditions                                 |                                                                             |                   |
| Ambient temperature [°C]                             | -25...80                                                                    |                   |
| Protection                                           | IP 65                                                                       |                   |
| Tests / approvals                                    |                                                                             |                   |
| EMC                                                  | EN 61000-4-2 ESD                                                            | 4 kV CD           |
|                                                      | EN 61000-4-3 HF radiated                                                    | 3 V/m             |
|                                                      | EN 61000-4-4 Burst                                                          | 2 kV              |
|                                                      | EN 61000-4-6 HF conducted                                                   | 3 V               |
|                                                      | EN 55011                                                                    | class B           |
| MTTF [years]                                         | 2234                                                                        |                   |
| UL approval                                          | Ta                                                                          | 0...40 °C         |
|                                                      | Enclosure type                                                              | Type 1            |
|                                                      | voltage supply                                                              | Hazardous voltage |
|                                                      | File number UL                                                              | E174191           |
| Mechanical data                                      |                                                                             |                   |
| Weight [g]                                           | 191                                                                         |                   |
| Housing                                              | rectangular                                                                 |                   |
| Mounting                                             | flush mountable                                                             |                   |
| Dimensions [mm]                                      | 40 x 40 x 120                                                               |                   |
| Materials                                            | PPE                                                                         |                   |
| Displays / operating elements                        |                                                                             |                   |
| Display                                              | switching status                                                            | 1 x LED, yellow   |
| Remarks                                              |                                                                             |                   |
| Pack quantity                                        | 1 pcs.                                                                      |                   |

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### Electrical connection

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

### Connection

