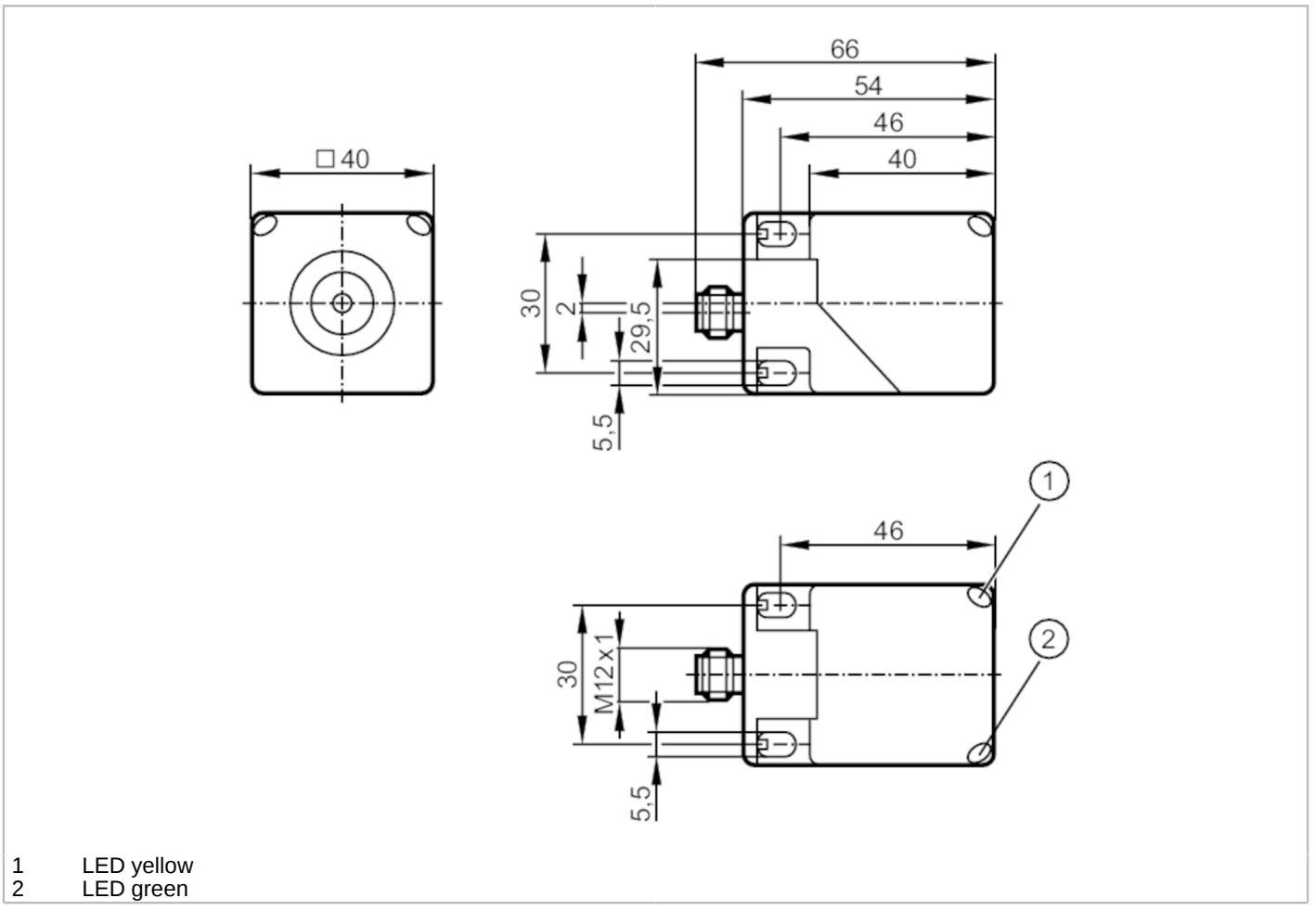
# IM5172

## Inductive sensor with IO-Link

IMC3020BFRKG/IO/US-100




1 LED yellow
2 LED green

| | | |
|---|---|---|
| **Product characteristics** | | |
| Electrical design | | PNP/NPN; (parameterisable) |
| Output function | | normally open / normally closed; (selectable) |
| Communication interface | | IO-Link |
| Housing | | rectangular |
| Dimensions | [mm] | 40 x 40 x 54 |
| **Application** | | |
| Special feature | | Gold-plated contacts |
| **Electrical data** | | |
| Operating voltage | [V] | 10...30 DC |
| Current consumption | [mA] | 10 |
| Protection class | | III |
| Reverse polarity protection | | yes |
| **Outputs** | | |
| Electrical design | | PNP/NPN; (parameterisable) |
| Output function | | normally open / normally closed; (selectable) |
| Max. voltage drop switching output DC | [V] | 2.5 |

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## Inductive sensor with IO-Link

IMC3020BFRKG/IO/US-100

| | | | |
|---|---|---|---|
| Permanent current rating of switching output DC | [mA] | 100 | |
| Switching frequency DC | [Hz] | 100 | |
| Short-circuit protection | | yes | |
| Overload protection | | yes | |
| **Detection zone** | | | |
| Switch point IO-Link | [mm] | 3.9...19.5; (parameterisable) | |
| Measuring range IO-Link | [mm] | 2.1...21 | |
| **Accuracy / deviations** | | | |
| Correction factor | | steel: 1 / stainless steel: 0.8 / brass: 0.4 / aluminium: 0.4 / copper: 0.3 | |
| Hysteresis | [% of Sr] | 3...15 | |
| Linearity error of analogue output | [%] | ± 2 %; (of the final value of the measuring range) | |
| Repeatability analogue output | [%] | ± 1 %; (of the final value of the measuring range) | |
| Temperature coefficient | | ± 0,2 %/K; (of the final value of the measuring range) | |
| **Interfaces** | | | |
| Communication interface | | IO-Link | |
| Transmission type | | COM2 (38,4 kBaud) | |
| IO-Link revision | | 1.1 | |
| SDCI standard | | IEC 61131-9 CDV | |
| Profiles | | Smart Sensor: Device Identification; Device Diagnosis; Device Teach Channel; Binary Data Channel; Process Data Variable | |
| SIO mode | | yes | |
| Required master port type | | A | |
| Min. process cycle time | [ms] | 3 | |
| Supported DeviceIDs | | **Type of operation** | **DeviceID** |
| | | default | 791 |
| **Operating conditions** | | | |
| Ambient temperature | [°C] | -25...80 | |
| Protection | | IP 67 | |
| **Tests / approvals** | | | |
| EMC | | EN 61000-4-2 ESD | 4 kV CD / 8 kV AD |
| | | EN 61000-4-3 HF radiated | 10 V/m |
| | | EN 61000-4-4 Burst | 2 kV |
| | | EN 61000-4-6 HF conducted | 10 V |
| | | EN 55011 | class B |
| MTTF | [years] | 632 | |
| UL approval | | Ta | -25...70 °C |
| | | Enclosure type | Type 1 |
| | | power supply | Limited Voltage/Current |
| | | UL Approval no. | A009 |
| | | File number UL | E174191 |
| **Mechanical data** | | | |
| Weight | [g] | 147 | |
| Housing | | rectangular | |

# IM5172

## Inductive sensor with IO-Link

IMC3020BFRKG/IO/US-100

| | | |
|---|---|---|
| Sensing face | | 5 positions selectable |
| Mounting | | flush mountable |
| Dimensions | [mm] | 40 x 40 x 54 |
| Materials | | housing: PA; sensing face: PA black; end cap: PA;<br>clamp: orange; screw: stainless steel (1.4567 / 304Cu) |

### Displays / operating elements

| | | |
|---|---|---|
| Display | operation | LED, green |
| | SIO mode | |
| | output stage supplied with current | LED, yellow lights |
| | IO-Link mode | |
| | target in measuring range | LED, yellow lights |

### Remarks

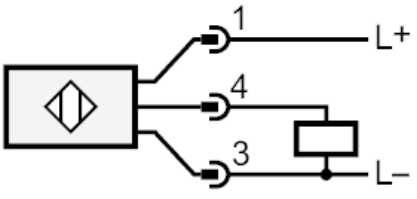
| | |
|---|---|
| Pack quantity | 1 pcs. |

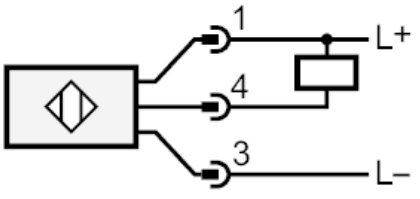
### Electrical connection - plug

Connector: 1 x M12; coding: A; Locking: stainless steel (1.4404 / 316L); Contacts: gold-plated




Connection




4: OUT / IO-Link
Factory setting : PNP / normally open