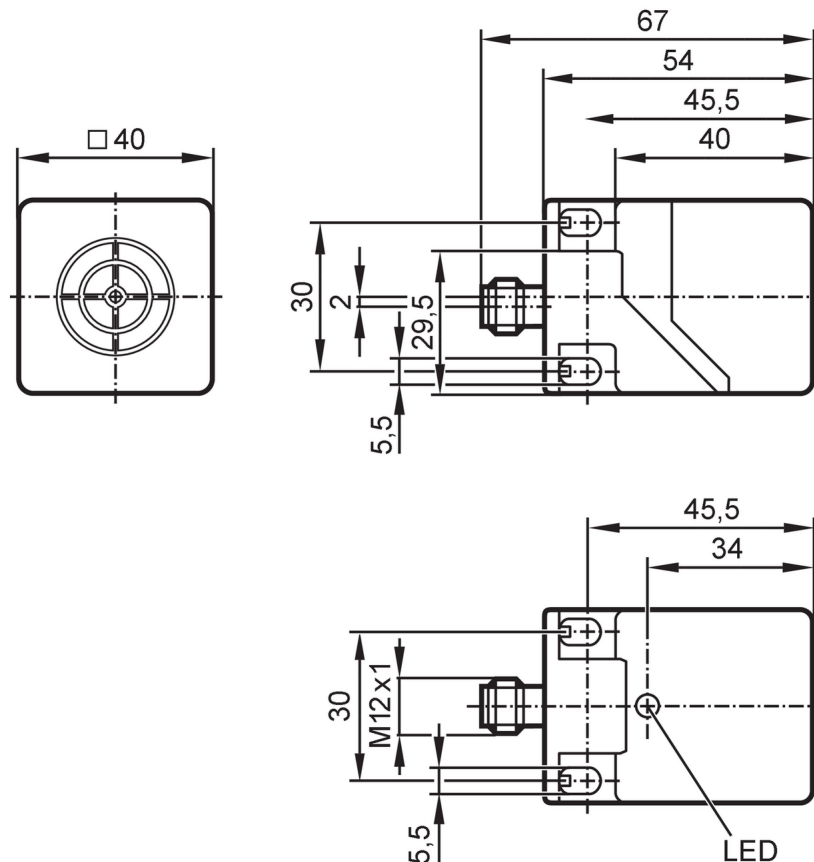


# IM512A

## Inductive sensor

IMC4020BCPKG/US/3D/3G



### Product characteristics

|                    |               |
|--------------------|---------------|
| Electrical design  | PNP           |
| Output function    | complementary |
| Sensing range [mm] | 20            |
| Housing            | rectangular   |
| Dimensions [mm]    | 40 x 40 x 54  |

### Application

|                 |                                     |
|-----------------|-------------------------------------|
| Special feature | gold-plated contacts                |
| Application     | For applications in hazardous areas |

### Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...30 DC |
| Current consumption [mA]    | < 15       |
| Protection class            | III        |
| Reverse polarity protection | yes        |

### Outputs

|                                           |               |
|-------------------------------------------|---------------|
| Electrical design                         | PNP           |
| Output function                           | complementary |
| Max. voltage drop switching output DC [V] | 2.5           |
| Max. leakage current [mA]                 | 0.5           |

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## Inductive sensor

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|                                                 |      |                    |
|-------------------------------------------------|------|--------------------|
| Permanent current rating of switching output DC | [mA] | 200                |
| Switching frequency DC                          | [Hz] | 100                |
| Short-circuit protection                        |      | yes                |
| Type of short-circuit protection                |      | yes (non-latching) |
| Overload protection                             |      | yes                |

### Monitoring range

|                       |      |           |
|-----------------------|------|-----------|
| Sensing range         | [mm] | 20        |
| Real sensing range Sr | [mm] | 20 ± 10 % |
| Operating distance    | [mm] | 0...16.2  |

### Accuracy / deviations

|                    |           |                                                                            |
|--------------------|-----------|----------------------------------------------------------------------------|
| Correction factor  |           | steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminum: 0.3 / copper: 0.2 |
| Hysteresis         | [% of Sr] | 1...20                                                                     |
| Switch-point drift | [% of Sr] | -10...10                                                                   |

### Operating conditions

|                     |      |              |
|---------------------|------|--------------|
| Ambient temperature | [°C] | -20...60     |
| Protection          |      | IP 65; IP 67 |

### Tests / approvals

|              |         |                                                                                                               |
|--------------|---------|---------------------------------------------------------------------------------------------------------------|
| Approval     |         | BVS 20 ATEX E 057 X; IECEx BVS 20.0044X                                                                       |
| ATEX marking |         |  II 3G Ex ec IIC T4 Gc     |
|              |         |  II 3D Ex tc IIIC T95°C Dc |
| EMC          |         | EN 60947-5-2                                                                                                  |
| MTTF         | [years] | 1326                                                                                                          |

### Mechanical data

|            |      |                                                                                                                              |
|------------|------|------------------------------------------------------------------------------------------------------------------------------|
| Weight     | [g]  | 179                                                                                                                          |
| Housing    |      | rectangular                                                                                                                  |
| Mounting   |      | flush mountable                                                                                                              |
| Dimensions | [mm] | 40 x 40 x 54                                                                                                                 |
| Material   |      | housing: PC black; sensing face: PC black; connection module: PA black; Mounting adapter: PA orange; screw: steel galvanized |

### Displays / operating elements

|         |                  |                 |
|---------|------------------|-----------------|
| Display | Switching status | 1 x LED, yellow |
|---------|------------------|-----------------|

### Accessories

|                |  |                                  |
|----------------|--|----------------------------------|
| Items supplied |  | Protective cap: 1 x M12x1, steel |
|----------------|--|----------------------------------|

### Remarks

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

### Electrical connection - plug

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated



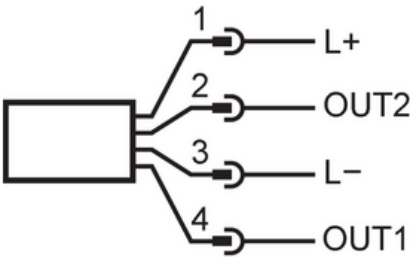
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## Inductive sensor

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### Connection



|   |      |          |
|---|------|----------|
| 1 | L+   |          |
| 2 | OUT2 | DO2 (NC) |
| 3 | L-   |          |
| 4 | OUT1 | DO1 (NO) |