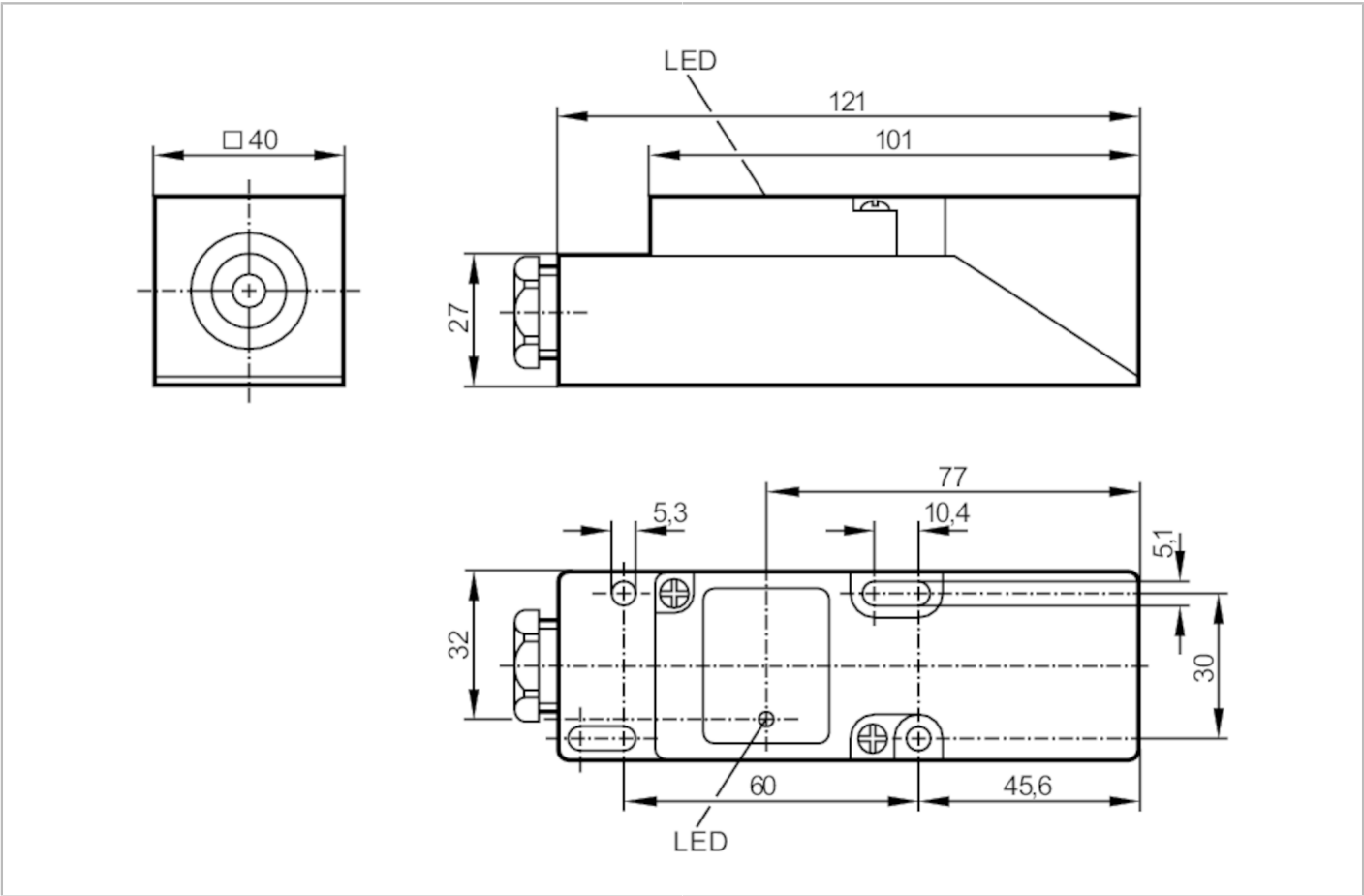


# IM5038



## Inductive sensor

IME2020-FRKG



| Product characteristics                         |      |                                               |
|-------------------------------------------------|------|-----------------------------------------------|
| Electrical design                               |      | PNP/NPN                                       |
| Output function                                 |      | normally open / normally closed; (selectable) |
| Sensing range                                   | [mm] | 20                                            |
| Housing                                         |      | rectangular                                   |
| Dimensions                                      | [mm] | 40 x 40 x 120                                 |
| Electrical data                                 |      |                                               |
| Operating voltage                               | [V]  | 10...55 DC                                    |
| Protection class                                |      | II                                            |
| Reverse polarity protection                     |      | yes                                           |
| Outputs                                         |      |                                               |
| Electrical design                               |      | PNP/NPN                                       |
| Output function                                 |      | normally open / normally closed; (selectable) |
| Max. voltage drop switching output DC           | [V]  | 4.6                                           |
| Minimum load current                            | [mA] | 4                                             |
| Max. leakage current                            | [mA] | 1                                             |
| Permanent current rating of switching output DC | [mA] | 400                                           |
| Switching frequency DC                          | [Hz] | 300                                           |



## Inductive sensor

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|                                  |        |
|----------------------------------|--------|
| Short-circuit protection         | yes    |
| Type of short-circuit protection | pulsed |
| Overload protection              | yes    |

## Detection zone

|                          |      |                |
|--------------------------|------|----------------|
| Sensing range            | [mm] | 20             |
| Real sensing range $S_r$ | [mm] | $20 \pm 10 \%$ |
| Operating distance       | [mm] | 0...16.2       |

## Accuracy / deviations

|                    |                                                                             |          |
|--------------------|-----------------------------------------------------------------------------|----------|
| Correction factor  | steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminium: 0.3 / copper: 0.2 |          |
| Hysteresis         | [% of $S_r$ ]                                                               | 1...15   |
| Switch point drift | [% of $S_r$ ]                                                               | -10...10 |

## Operating conditions

|                     |      |          |
|---------------------|------|----------|
| Ambient temperature | [°C] | -25...80 |
| Protection          |      | IP 65    |

## Tests / approvals

|      |              |      |
|------|--------------|------|
| EMC  | EN 60947-5-2 |      |
| MTTF | [years]      | 1633 |

## Mechanical data

|            |      |                     |
|------------|------|---------------------|
| Weight     | [g]  | 183.5               |
| Housing    |      | rectangular         |
| Mounting   |      | non-flush mountable |
| Dimensions | [mm] | 40 x 40 x 120       |
| Materials  |      | PPE                 |

## Displays / operating elements

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

## Remarks

|               |                                         |        |
|---------------|-----------------------------------------|--------|
| Remarks       | 5 positions of the active zone possible |        |
| Pack quantity |                                         | 1 pcs. |

## Electrical connection

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

## Connection

