

# IM504A

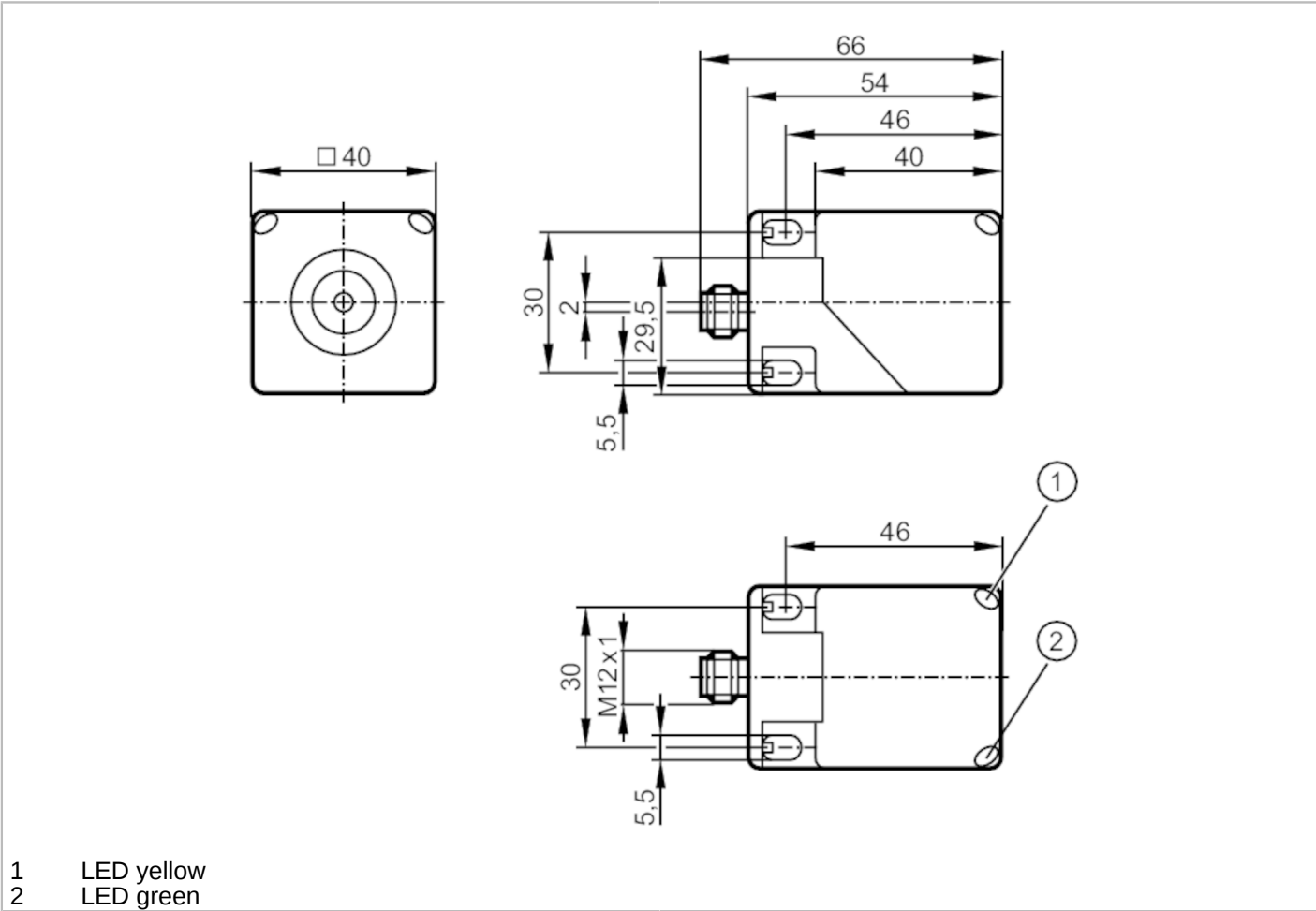


## Inductive sensor

IMC4020BCPKG/US-100-DPA/3D

Article no longer available - archive entry

Alternative articles: IM512A  
When selecting an alternative article and accessories please note that technical data may differ!



| Product characteristics     |                                                             |
|-----------------------------|-------------------------------------------------------------|
| Electrical design           | PNP                                                         |
| Housing                     | rectangular                                                 |
| Electrical data             |                                                             |
| Operating voltage [V]       | 10...30 DC; (when used outside the hazardous area: 10...36) |
| Current consumption [mA]    | < 20                                                        |
| Protection class            | II                                                          |
| Reverse polarity protection | yes                                                         |

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| Outputs                                              |                                                                                                          |                                |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--------------------------------|
| Electrical design                                    | PNP                                                                                                      |                                |
| Output function                                      | complementary                                                                                            |                                |
| Max. voltage drop switching output DC [V]            | 2.5                                                                                                      |                                |
| Max. leakage current [mA]                            | 0.1; (only in 2-wire operation)                                                                          |                                |
| 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                                                                                                       |                                |
| Operating distance [mm]                              | 0...16.2                                                                                                 |                                |
| Accuracy / deviations                                |                                                                                                          |                                |
| Correction factor                                    | steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminum: 0.4 / copper: 0.3                               |                                |
| Hysteresis [% of Sr]                                 | 1...20                                                                                                   |                                |
| Operating conditions                                 |                                                                                                          |                                |
| Ambient temperature [°C]                             | -20...50                                                                                                 |                                |
| Note on ambient temperature                          | when used outside the hazardous area: -25...70 °C                                                        |                                |
| Protection                                           | IP 5x; (when used outside the hazardous area: IP 67)                                                     |                                |
| Tests / approvals                                    |                                                                                                          |                                |
| ATEX marking                                         | Ⓔ II 3D Ex tD A22 IP67 T80°C X                                                                           |                                |
|                                                      | Ⓔ II 3G Ex nA II T6 X                                                                                    |                                |
| EMC                                                  | EN 61000-4-2 ESD                                                                                         | 8 kV CD / 6 kV AD              |
|                                                      | EN 61000-4-3 HF radiated                                                                                 | 10 V/m                         |
|                                                      | EN 61000-4-4 Burst                                                                                       | 2 kV                           |
|                                                      | EN 61000-4-5 Surge                                                                                       | 0,5 kV line to line, Ri: 2 Ohm |
|                                                      | EN 61000-4-6 HF conducted                                                                                | 10 V                           |
|                                                      | EN 55011                                                                                                 | class B                        |
| Mechanical data                                      |                                                                                                          |                                |
| Weight [g]                                           | 0.163                                                                                                    |                                |
| Housing                                              | rectangular                                                                                              |                                |
| Mounting                                             | flush mountable                                                                                          |                                |
| Dimensions [mm]                                      | 40 x 40 x 54                                                                                             |                                |
| Material                                             | housing: PA; sensing face: PA black; end cap: PA; clamp: orange; screw: stainless steel (1.4567 / 304Cu) |                                |
| Displays / operating elements                        |                                                                                                          |                                |
| Display                                              | Switching status                                                                                         | 1 x LED, yellow                |
|                                                      | Power                                                                                                    | 1 x LED, green                 |
| Remarks                                              |                                                                                                          |                                |
| Pack quantity                                        | 1 pcs.                                                                                                   |                                |

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### Electrical connection - plug

Connector: 1 x M12; Locking: locking, rotatable, stainless steel (1.4404 / 316L)



### Connection

