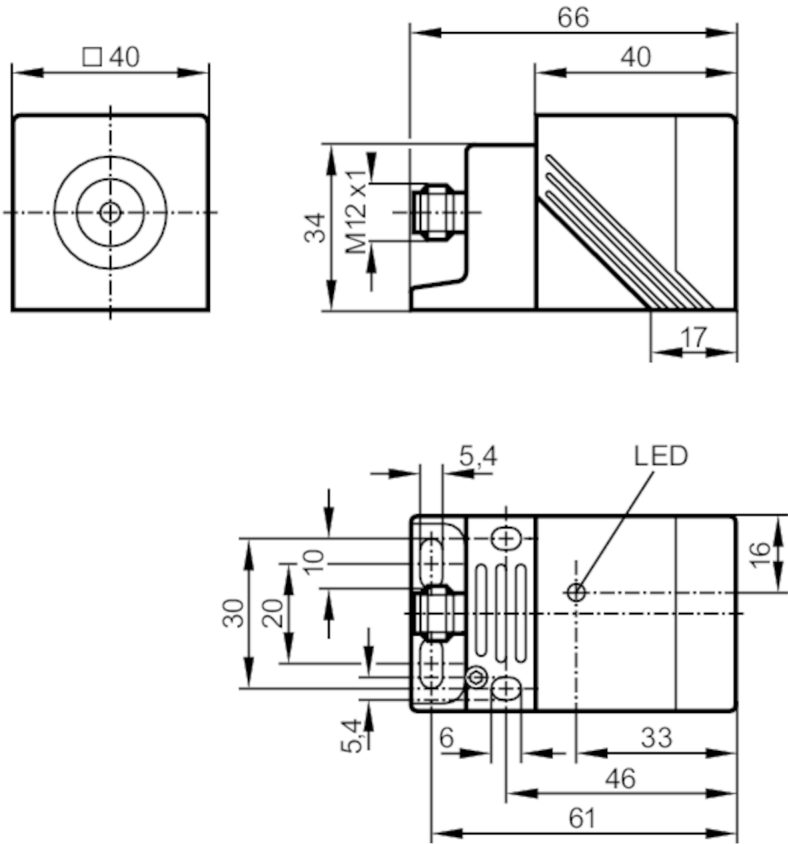


# NM501A



## Inductive NAMUR sensor

IMC2035-N/US/2G/1D



### Product characteristics

|                    |                 |
|--------------------|-----------------|
| Electrical design  | NAMUR           |
| Output function    | normally closed |
| Sensing range [mm] | 35              |
| Housing            | rectangular     |
| Dimensions [mm]    | 40 x 40 x 66    |

### Application

|        |                      |
|--------|----------------------|
| System | gold-plated contacts |
|--------|----------------------|

### Electrical data

|                                 |                                                                                                                                        |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Connection at circuit amplifier | yes                                                                                                                                    |
| Switching amplifiers            | connection to certified intrinsically safe circuits with the max. values: $U = 15\text{ V}$ / $I = 50\text{ mA}$ / $P = 120\text{ mW}$ |
| Nominal voltage DC [V]          | 8.2; (1k $\Omega$ )                                                                                                                    |
| Supply voltage DC [V]           | 7.5...30; (when used outside the hazardous area)                                                                                       |
| Current consumption [mA]        | < 1; (disabled; conductive: > 2,1)                                                                                                     |
| Protection class                | III                                                                                                                                    |

### Outputs

|                   |                 |
|-------------------|-----------------|
| Electrical design | NAMUR           |
| Output function   | normally closed |

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IMC2035-N/US/2G/1D

|                                                 |                  |                                                                                                                          |
|-------------------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------|
| Permanent current rating of switching output DC | [mA]             | 30; (when used outside the hazardous area)                                                                               |
| Switching frequency DC                          | [Hz]             | 100                                                                                                                      |
| <b>Monitoring range</b>                         |                  |                                                                                                                          |
| Sensing range                                   | [mm]             | 35                                                                                                                       |
| Real sensing range Sr                           | [mm]             | 35 ± 10 %                                                                                                                |
| <b>Accuracy / deviations</b>                    |                  |                                                                                                                          |
| Correction factor                               |                  | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminum: 0.4 / copper: 0.3                                               |
| Hysteresis                                      | [% of Sr]        | 1...15                                                                                                                   |
| Switch-point drift                              | [% of Sr]        | -10...10                                                                                                                 |
| <b>Operating conditions</b>                     |                  |                                                                                                                          |
| Ambient temperature                             | [°C]             | -20...70                                                                                                                 |
| Protection                                      |                  | IP 67                                                                                                                    |
| <b>Tests / approvals</b>                        |                  |                                                                                                                          |
| Approval                                        |                  | BVS 04 ATEX E 091 X; IECEx BVS 06.0003X                                                                                  |
| ATEX marking                                    |                  |  II 1D Ex ia IIIC T200 90°C Da          |
|                                                 |                  |  II 2G Ex ia IIB T6 Gb                 |
| EMC                                             |                  | EN 60947-5-6                                                                                                             |
| Shock/vibration resistance                      |                  | 30 g (11 ms) / 10-55 Hz (1 mm)                                                                                           |
| MTTF                                            | [years]          | 2935                                                                                                                     |
| <b>Safety classification</b>                    |                  |                                                                                                                          |
| Max. internal capacitance                       | [nF]             | 220                                                                                                                      |
| Max. internal inductance                        | [µH]             | 710                                                                                                                      |
| <b>Mechanical data</b>                          |                  |                                                                                                                          |
| Weight                                          | [g]              | 189                                                                                                                      |
| Housing                                         |                  | rectangular                                                                                                              |
| Mounting                                        |                  | non-flush mountable                                                                                                      |
| Dimensions                                      | [mm]             | 40 x 40 x 66                                                                                                             |
| Material                                        |                  | housing: PPE; sensing face: PPE orange; bevelled housing part: PPS; Mounting adapter: PPS black; screw: steel galvanized |
| <b>Displays / operating elements</b>            |                  |                                                                                                                          |
| Display                                         | Switching status | 1 x LED, yellow                                                                                                          |
| <b>Accessories</b>                              |                  |                                                                                                                          |
| Items supplied                                  |                  | Mounting bracket: 1<br>Allen key: 1                                                                                      |
| <b>Remarks</b>                                  |                  |                                                                                                                          |
| Remarks                                         |                  | 5 positions of the active zone possible                                                                                  |
| Pack quantity                                   |                  | 1 pcs.                                                                                                                   |

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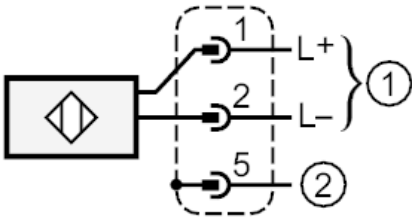
IMC2035-N/US/2G/1D

### Electrical connection - plug

Connector: 1 x M12; coding: A; Locking: brass, white bronze coated; Contacts: gold-plated



### Connection



|   |      |                                       |
|---|------|---------------------------------------|
| 1 | L+   |                                       |
| 2 | L-   |                                       |
| 3 | n.c. |                                       |
| 4 | n.c. |                                       |
| 5 | FE   | (Potential equalization plug housing) |