



Inductive sensor

IIA3010-BPKG/V4A/US-104

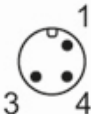


| Product characteristics                         |      |                                              |
|-------------------------------------------------|------|----------------------------------------------|
| Electrical design                               |      | PNP                                          |
| Output function                                 |      | normally open                                |
| Sensing range                                   | [mm] | 10                                           |
| Housing                                         |      | threaded type                                |
| Dimensions                                      | [mm] | M30 x 1.5 / L = 75                           |
| Application                                     |      |                                              |
| Special feature                                 |      | Gold-plated contacts                         |
| Application                                     |      | Industrial applications / factory automation |
| Electrical data                                 |      |                                              |
| Operating voltage                               | [V]  | 10...30 DC                                   |
| Current consumption                             | [mA] | 10                                           |
| Protection class                                |      | II                                           |
| Reverse polarity protection                     |      | yes                                          |
| Outputs                                         |      |                                              |
| Electrical design                               |      | PNP                                          |
| Output function                                 |      | normally open                                |
| Max. voltage drop switching output DC           | [V]  | 2.5                                          |
| Permanent current rating of switching output DC | [mA] | 200                                          |
| Switching frequency DC                          | [Hz] | 250                                          |
| Short-circuit protection                        |      | yes                                          |
| Type of short-circuit protection                |      | pulsed                                       |
| Overload protection                             |      | yes                                          |
| Detection zone                                  |      |                                              |
| Sensing range                                   | [mm] | 10                                           |
| Real sensing range Sr                           | [mm] | 10 ± 10 %                                    |
| Operating distance                              | [mm] | 0...8.1                                      |



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| Accuracy / deviations                                                               |                           |                                                                                                                               |
|-------------------------------------------------------------------------------------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Correction factor                                                                   |                           | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.4 / copper: 0.3                                                   |
| Hysteresis                                                                          | [% of Sr]                 | 1...20                                                                                                                        |
| Switch point drift                                                                  | [% of Sr]                 | -10...10                                                                                                                      |
| 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]                   | 1083                                                                                                                          |
| UL approval                                                                         | Ta                        | 0...40 °C                                                                                                                     |
|                                                                                     | Enclosure type            | Type 1                                                                                                                        |
|                                                                                     | power supply              | Hazardous voltage                                                                                                             |
|                                                                                     | UL Approval no.           | A004                                                                                                                          |
|                                                                                     | File number UL            | E174191                                                                                                                       |
| Mechanical data                                                                     |                           |                                                                                                                               |
| Weight                                                                              | [g]                       | 162.5                                                                                                                         |
| Housing                                                                             |                           | threaded type                                                                                                                 |
| Mounting                                                                            |                           | flush mountable                                                                                                               |
| Dimensions                                                                          | [mm]                      | M30 x 1.5 / L = 75                                                                                                            |
| Thread designation                                                                  |                           | M30 x 1.5                                                                                                                     |
| Materials                                                                           |                           | housing: stainless steel (316L/1.4404); sensing face: PBT white;<br>LED window: PEI; lock nuts: stainless steel (316L/1.4404) |
| Tightening torque                                                                   | [Nm]                      | 80                                                                                                                            |
| Displays / operating elements                                                       |                           |                                                                                                                               |
| Display                                                                             | switching status          | 4 x LED, yellow                                                                                                               |
| Accessories                                                                         |                           |                                                                                                                               |
| Items supplied                                                                      |                           | lock nuts: 2                                                                                                                  |
| Remarks                                                                             |                           |                                                                                                                               |
| Pack quantity                                                                       |                           | 1 pcs.                                                                                                                        |
| Electrical connection - plug                                                        |                           |                                                                                                                               |
| Connector: 1 x M12; coding: A; Contacts: gold-plated                                |                           |                                                                                                                               |
|  |                           |                                                                                                                               |

# II5689



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### Connection

