

## Inductive sensor

IIA2010SFROG/20m

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## Product characteristics

|                    |                                               |
|--------------------|-----------------------------------------------|
| Electrical design  | PNP; (self-monitoring system)                 |
| Output function    | normally open / normally closed; (selectable) |
| Sensing range [mm] | 10                                            |
| Housing            | threaded type                                 |
| Dimensions [mm]    | M30 x 1.5                                     |

## Electrical data

|                                    |                                                        |
|------------------------------------|--------------------------------------------------------|
| Connection to switching amplifiers | yes                                                    |
| Switching amplifiers               | connection to F400 control monitor or as 2-wire DC DNP |
| Operating voltage [V]              | 10...36 DC                                             |
| Reverse polarity protection        | no                                                     |

## Outputs

|                                                      |                                               |
|------------------------------------------------------|-----------------------------------------------|
| Electrical design                                    | PNP; (self-monitoring system)                 |
| Output function                                      | normally open / normally closed; (selectable) |
| Max. voltage drop switching output DC [V]            | 6.5                                           |
| Minimum load current [mA]                            | 5                                             |
| Max. leakage current [mA]                            | 1.5                                           |
| Permanent current rating of switching output DC [mA] | 100                                           |
| Switching frequency DC [Hz]                          | 30                                            |
| Short-circuit protection                             | no                                            |

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|                               |                                                                             |                 |
|-------------------------------|-----------------------------------------------------------------------------|-----------------|
| Overload protection           | no                                                                          |                 |
| Detection zone                |                                                                             |                 |
| Sensing range                 | [mm]                                                                        | 10              |
| Real sensing range Sr         | [mm]                                                                        | 10 ± 10 %       |
| Operating distance            | [mm]                                                                        | 0...8.1         |
| Accuracy / deviations         |                                                                             |                 |
| Correction factor             | steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminium: 0.3 / copper: 0.2 |                 |
| Hysteresis                    | [% of Sr]                                                                   | 1...15          |
| Switch point drift            | [% of Sr]                                                                   | -10...10        |
| Operating conditions          |                                                                             |                 |
| Ambient temperature           | [°C]                                                                        | -25...80        |
| Protection                    | IP 67                                                                       |                 |
| Tests / approvals             |                                                                             |                 |
| EMC                           | IEC 801-2                                                                   | level 4         |
|                               | IEC 801-3                                                                   | level 3         |
|                               | IEC 801-4                                                                   | level 4         |
|                               | IEC 801-5                                                                   | level 2         |
| Mechanical data               |                                                                             |                 |
| Housing                       | threaded type                                                               |                 |
| Mounting                      | flush mountable                                                             |                 |
| Dimensions                    | [mm]                                                                        | M30 x 1.5       |
| Thread designation            | M30 x 1.5                                                                   |                 |
| Materials                     | brass nickel-plated; PBT                                                    |                 |
| Displays / operating elements |                                                                             |                 |
| Display                       | switching status                                                            | 1 x LED, yellow |
| Accessories                   |                                                                             |                 |
| Items supplied                | lock nuts: 2                                                                |                 |
| Remarks                       |                                                                             |                 |
| Pack quantity                 | 1 pcs.                                                                      |                 |



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### Electrical connection

Cable: 20 m, PVC; 3 x 0.5 mm<sup>2</sup>

### Connection



- 1 = connection to F400  
 2 = Connection 2-wire DC  
 3 = Connection 2-wire DC  
 Core colours :  
 BK = black  
 BN = brown  
 BU = blue