# IA5021

## Inductive sensor

IA-2010SFROG/20m

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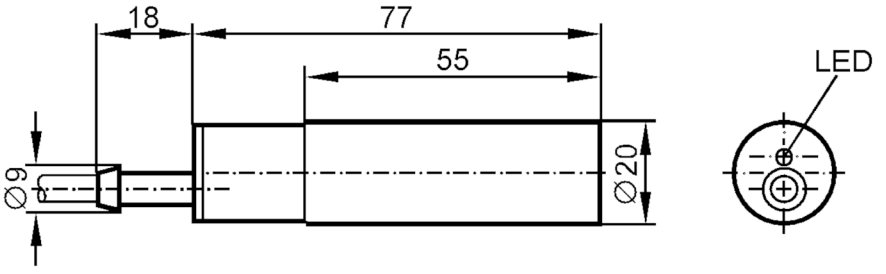


| | | |
|---|---|---|
| **Product characteristics** | | |
| Electrical design | | PNP;  (self-monitoring system) |
| Output function | | normally open / normally closed;  (selectable) |
| Sensing range | [mm] | 10 |
| Housing | | cylindrical |
| Dimensions | [mm] | Ø 20 |
| **Electrical data** | | |
| 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] | 70 |
| Short-circuit protection | | no |
| Overload protection | | no |

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| | | | |
|---|---|---|---|
| **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 | |
| **Mechanical data** | | | |
| Housing | | cylindrical | |
| Mounting | | non-flush mountable | |
| Dimensions | [mm] | Ø 20 | |
| Materials | | PBT | |
| **Displays / operating elements** | | | |
| Display | | switching status | 1 x LED, yellow |
| **Accessories** | | | |
| Items supplied | | Mounting clamps: 1 | |
| **Remarks** | | | |
| Pack quantity | | 1 pcs. | |

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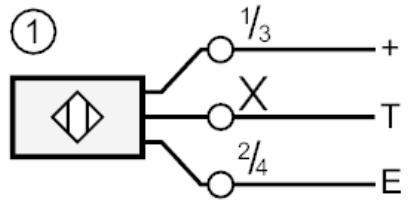
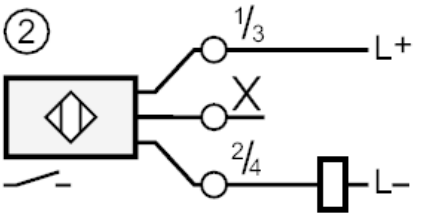
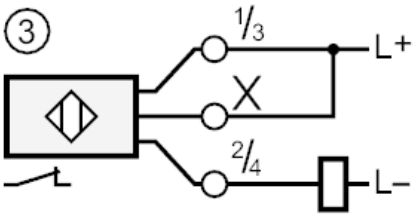
## Electrical connection

Cable: 20 m, PVC; 3 x 0.5 mm²

### Connection




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