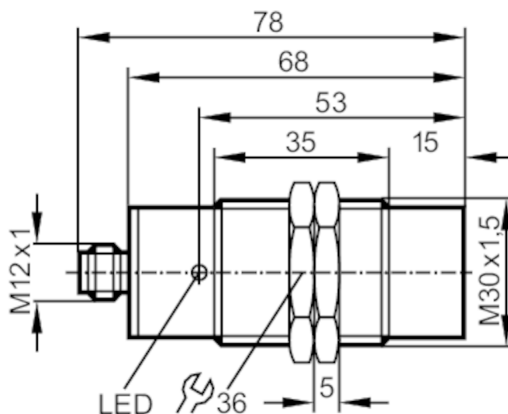


## Inductive sensor

IIA2015-FRKG/US-100-IRF RT



## Product characteristics

|                    |                                               |
|--------------------|-----------------------------------------------|
| Electrical design  | PNP/NPN                                       |
| Output function    | normally open / normally closed; (selectable) |
| Sensing range [mm] | 15                                            |
| Housing            | threaded type                                 |
| Dimensions [mm]    | M30 x 1.5 / L = 78                            |

## Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...55 DC |
| Protection class            | III        |
| Reverse polarity protection | yes        |

## Outputs

|                                                      |                                               |
|------------------------------------------------------|-----------------------------------------------|
| Electrical design                                    | PNP/NPN                                       |
| Output function                                      | normally open / normally closed; (selectable) |
| Max. voltage drop switching output DC [V]            | 4.6                                           |
| Minimum load current [mA]                            | 4                                             |
| Max. leakage current [mA]                            | 0.5                                           |
| Permanent current rating of switching output DC [mA] | 300                                           |
| Switching frequency DC [Hz]                          | 200                                           |
| Short-circuit protection                             | yes                                           |
| Type of short-circuit protection                     | pulsed                                        |
| Overload protection                                  | yes                                           |

## Detection zone

|                               |                |
|-------------------------------|----------------|
| Sensing range [mm]            | 15             |
| Real sensing range $S_r$ [mm] | $15 \pm 10 \%$ |
| Operating distance [mm]       | 0...12.1       |

## Accuracy / deviations

|                   |                                                               |
|-------------------|---------------------------------------------------------------|
| Correction factor | steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminium: 0.5 |
|-------------------|---------------------------------------------------------------|



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|                    |           |          |
|--------------------|-----------|----------|
| 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         | EN 60947-5-2   |                   |
|             | EN 55011       | class B           |
| MTTF        | [years]        | 1835              |
| UL approval | Ta             | 0...40 °C         |
|             | Enclosure type | Type 1            |
|             | power supply   | Hazardous voltage |
|             | File number UL | E174191           |

## Mechanical data

|                    |      |                          |
|--------------------|------|--------------------------|
| Weight             | [g]  | 157                      |
| Housing            |      | threaded type            |
| Mounting           |      | non-flush mountable      |
| Dimensions         | [mm] | M30 x 1.5 / L = 78       |
| Thread designation |      | M30 x 1.5                |
| Materials          |      | brass nickel-plated; PBT |

## Displays / operating elements

|         |                  |              |
|---------|------------------|--------------|
| Display | switching status | 1 x LED, red |
|---------|------------------|--------------|

## Accessories

|                |              |
|----------------|--------------|
| Items supplied | lock nuts: 2 |
|----------------|--------------|

## Remarks

|               |        |
|---------------|--------|
| Pack quantity | 1 pcs. |
|---------------|--------|

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**Electrical connection - plug**

Connector: 1 x M12; coding: A

