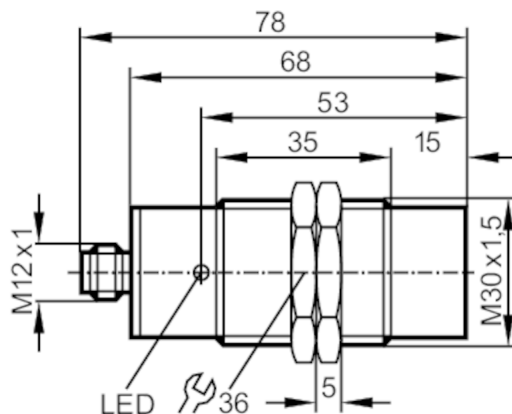




## Inductive sensor

IIA2015-FRKG/US-100-IRF



## Product characteristics

|                    |                                      |
|--------------------|--------------------------------------|
| Electrical design  | PNP/NPN                              |
| Output function    | normally open / 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            | II         |
| Reverse polarity protection | yes        |

## Outputs

|                                                      |                                      |
|------------------------------------------------------|--------------------------------------|
| Electrical design                                    | PNP/NPN                              |
| Output function                                      | normally open / 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] | 400                                  |
| Switching frequency DC [Hz]                          | 200                                  |
| Short-circuit protection                             | yes                                  |
| Type of short-circuit protection                     | yes (non-latching)                   |
| Overload protection                                  | yes                                  |

## Monitoring range

|                               |                |
|-------------------------------|----------------|
| 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 / aluminum: 0.3 / copper: 0.2 |
|-------------------|----------------------------------------------------------------------------|



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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    |

Mechanical data

|                    |      |                                              |
|--------------------|------|----------------------------------------------|
| Weight             | [g]  | 142                                          |
| Housing            |      | Threaded type                                |
| Mounting           |      | non-flush mountable                          |
| Dimensions         | [mm] | M30 x 1.5 / L = 78                           |
| Thread designation |      | M30 x 1.5                                    |
| Material           |      | brass white bronze coated; sensing face: PBT |

Displays / operating elements

|         |                  |                 |
|---------|------------------|-----------------|
| Display | Switching status | 1 x LED, yellow |
|---------|------------------|-----------------|

Accessories

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

Remarks

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

Electrical connection - plug

Connector: 1 x M12; coding: A

