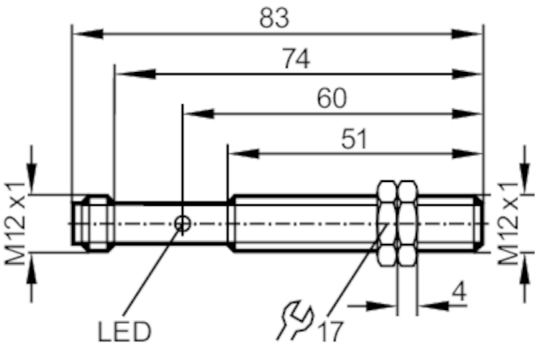




Inductive sensor

IFA2002-FRKG/V4A/US-100-IRF RT



| Product characteristics                         |      |                                               |
|-------------------------------------------------|------|-----------------------------------------------|
| Electrical design                               |      | PNP/NPN                                       |
| Output function                                 |      | normally open / normally closed; (selectable) |
| Sensing range                                   | [mm] | 2                                             |
| Housing                                         |      | threaded type                                 |
| Dimensions                                      | [mm] | M12 x 1 / L = 83                              |
| Application                                     |      |                                               |
| Special feature                                 |      | Gold-plated contacts                          |
| Application                                     |      | Industrial applications / factory automation  |
| 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] | 400                                           |
| Switching frequency DC                          | [Hz] | 1100                                          |
| Short-circuit protection                        |      | yes                                           |
| Type of short-circuit protection                |      | pulsed                                        |
| Overload protection                             |      | yes                                           |
| Detection zone                                  |      |                                               |
| Sensing range                                   | [mm] | 2                                             |
| Real sensing range Sr                           | [mm] | 2 ± 10 %                                      |
| Operating distance                              | [mm] | 0...1.6                                       |

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## Inductive sensor

IFA2002-FRKG/V4A/US-100-IRF RT

| 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                           | EN 60947-5-2                                                                |                                                   |
|                               | EN 55011                                                                    | class B                                           |
| MTTF                          | [years]                                                                     | 1815                                              |
| Mechanical data               |                                                                             |                                                   |
| Weight                        | [g]                                                                         | 34.7                                              |
| Housing                       |                                                                             | threaded type                                     |
| Mounting                      |                                                                             | flush mountable                                   |
| Dimensions                    | [mm]                                                                        | M12 x 1 / L = 83                                  |
| Thread designation            |                                                                             | M12 x 1                                           |
| Materials                     |                                                                             | stainless steel (316Ti/1.4571); sensing face: 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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## Inductive sensor

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### Electrical connection - plug

Connector: 1 x M12; coding: A; Contacts: gold-plated

