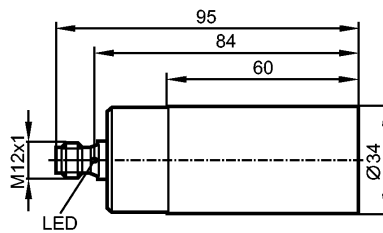


**IB5169**

IB-2020-FRKG/US-104-IRF

**Inductive sensors**

**Product characteristics**

Inductive sensor

Plastic housing Ø 34 mm

Quick disconnect

Sensing range 20 mm; [nf] non-flush mountable

**Electrical data**

|                             |     |            |
|-----------------------------|-----|------------|
| Electrical design           |     | DC PNP/NPN |
| Operating voltage           | [V] | 10...36 DC |
| Protection class            |     | II         |
| Reverse polarity protection |     | yes        |

**Outputs**

|                          |      |                                     |
|--------------------------|------|-------------------------------------|
| Output function          |      | normally open / closed programmable |
| Voltage drop             | [V]  | < 4.6                               |
| Minimum load current     | [mA] | 4                                   |
| Leakage current          | [mA] | < 1                                 |
| Current rating           | [mA] | 250                                 |
| Short-circuit protection |      | yes                                 |
| Overload protection      |      | yes                                 |
| Switching frequency      | [Hz] | 200                                 |

**Monitoring range**

|                         |      |           |
|-------------------------|------|-----------|
| Sensing range           | [mm] | 20        |
| Real sensing range (Sr) | [mm] | 20 ± 10 % |
| Operating distance      | [mm] | 0...16.2  |

**Accuracy / deviations**

|                    |           |   |
|--------------------|-----------|---|
| Correction factors |           | mild steel = 1 / stainless steel approx. 0.7 / brass approx. 0.5 / aluminium approx. 0.4 / copper approx. 0.3 |
| Hysteresis         | [% of Sr] | 1...15  |
| Switch-point drift | [% of Sr] | -10...10  |

**Environment**

|                     |      |          |
|---------------------|------|----------|
| Ambient temperature | [°C] | -25...70 |
| Protection          |      | IP 67    |

**Tests / approvals**

|      |         |              |
|------|---------|--------------|
| EMC  |         | EN 60947-5-2 |
| MTTF | [Years] | 2200         |

**Mechanical data**

|                   |      |   |
|-------------------|------|---|
| Mounting          |      | non-flush mountable                       |
| Housing materials |      | PBT; connector housing: brass PTFE-coated |
| Weight            | [kg] | 0.233                                     |

**IB5169**

IB-2020-FRKG/US-104-IRF

Inductive sensors

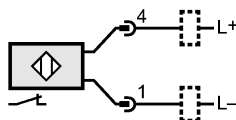
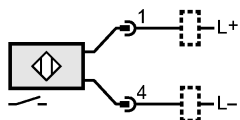
**Displays / operating elements**

|                          |     |                  |
|--------------------------|-----|------------------|
| Output status indication | LED | yellow (4 x 90°) |
|--------------------------|-----|------------------|

**Electrical connection**

|            |               |
|------------|---------------|
| Connection | M12 connector |
|------------|---------------|

**Wiring**



**Accessories**

|                        |                |
|------------------------|----------------|
| Accessories (included) | Mounting clamp |
|------------------------|----------------|

**Remarks**

|               |         |   |
|---------------|---------|---|
| Pack quantity | [piece] | 1 |
|---------------|---------|---|