

RFID read/write device

IUT-F191-IO-V1-FR2-02



- Flexible UHF read/write device with short detection range
- Ready-made PLC function blocks designed for quick and easy system integration
- Compact and robust housing for harsh industrial environments
- Multi-tag reading of up to 20 tags ensures increased productivity
- Circular antenna polarization ensures reliable transponder detection and improves process flow
- For connection to IO-Link master
- Degree of protection IP67

UHF RFID read/write device with IO-Link, USA and Canada



IO-Link

Function

The read/write device operates in the UHF frequency range and is optimized for use in industrial applications involving shorter distances. The device reads and writes passive tags acc. to EPC Generation 2 (ISO/IEC 18000-63). The read/write device is compliant with the relevant transmission regulations.

Wide range of options supported for filtering data. The read/write device has an IO-Link interface and is connected via a M12 connector. The user can monitor the status of the read/write device using the integrated LEDs.

The read/write device has a typical detection range of around 1 meter; this range is determined by the tag used and can be adjusted by configuring the transmission power. Other influencing factors include the setup and installation of the specific application and the surrounding materials, particularly metal. The read and write distances for the relevant tag, which are detailed separately, have been established in a test laboratory under ideal conditions. For the actual read and write distances under real conditions, the combination of read/write device and tag must be tested in the desired application.

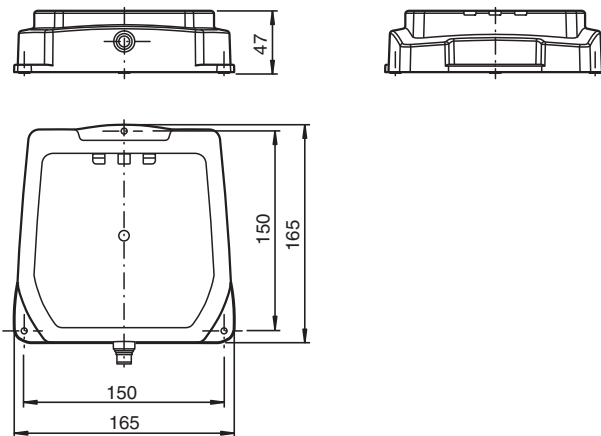
Application

This product is a wireless device and may be operated only in the country for which a transmission license exists. If a product is released to a customer in a country for which there is no transmission license, the product may be operated only in the country for which a transmission license exists.

If a product does not correspond to the legal requirements in force in the EU but is released to a purchaser within the EU, the product is intended for use solely in the destination country of the end customer outside of the EU for which a transmission license exists. The product may therefore under no circumstances be used directly by the purchaser or released to third parties for the purpose of distribution, application or use on the market within the EU as part of a commercial activity.

In the event of an infringement, the purchaser is obliged to indemnify the supplier against any resulting damages, costs, penalty payments and other expenses.

Dimensions



Release date: 2023-10-04 Date of issue: 2023-10-04 Filename: 70113811_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

Technical Data

| General specifications | | |
|-----------------------------|----------------|---|
| Operating frequency | | 902 ... 928 MHz: USA, Canada Transmission licenses for other countries on request |
| Emitted power | | 3 ... 150 mW EIRP adjustable |
| Operating distance | | typ. 1 m |
| UL File Number | | E468231 |
| MTBF | | 127 a (Operation at +40 °C) |
| Indicators/operating means | | |
| LED green/red | | Solid green: Ready for operation, no IO-Link communication Flashing green (1 Hz): IO-Link operation |
| LED yellow | | Read/write operation successful |
| LED blue | | Transmission mode |
| Electrical specifications | | |
| Operating voltage | U _B | 18 ... 30 V DC (IO-Link) ; Class 2, LEC or LPS |
| Current consumption | | ≤ 90 mA (at 24 V DC) |
| Interface | | |
| Interface type | | IO-Link |
| IO-Link revision | | 1.1 |
| Device profile | | Identification and Diagnosis - I&D |
| Process data | | Input 32 Byte Output 32 Byte |
| Vendor ID | | 1 (0x0001) |
| Device ID | | 4194818 (0x400202) |
| Data transfer rate | | COM3 (230.4 kbits/s) |
| Min. cycle time | | 4 ms |
| SIO mode support | | no |
| Compatible master port type | | Class A Class B |
| Standard conformity | | |
| Degree of protection | | EN 60529 |
| Communication interface | | IEC 61131-9 / IO-Link V1.1.3 |
| RFID | | ISO/IEC 18000-63 |
| Approvals and certificates | | |
| UL approval | | UL 61010-1 Protection class is not included in the UL approval. The protection class is tested by Pepperl+Fuchs SE. |
| FCC approval | | This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation. Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. |
| IC approval | | This device complies with Industry Canada licence-exempt RSS standard(s) and with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device. Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement. |
| Radio approval | | USA: Contains FCC IREIURF191 Canada: Contains 7037A-IURF191 |
| Ambient conditions | | |
| Ambient temperature | | -25 ... 70 °C (-13 ... 158 °F) (Operation with nontransmission periods) -25 ... 60 °C (-13 ... 140 °F) (Continuous transmission mode) |
| Storage temperature | | -40 ... 85 °C (-40 ... 185 °F) |
| Mechanical specifications | | |
| Housing length | | 165 mm |

Release date: 2023-10-04 Date of issue: 2023-10-04 Filename: 70113811_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

 Pepperl+Fuchs Group
www.pepperl-fuchs.com

 USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

 Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

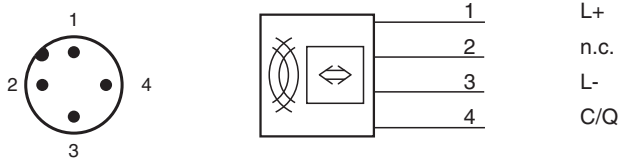
 Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

 **PEPPERL+FUCHS**













Technical Data

| | |
|----------------------|-------------------|
| Housing width | 165 mm |
| Housing height | 47 mm |
| Degree of protection | IP67 |
| Connection | connector M12 x 1 |
| Material | |
| Housing | PA 6.6 |
| Base | Aluminum |
| Mass | 700 g |

Connection



Accessories

| | | |
|---|-------------------------------------|--|
|  | ICE1-8IOL-G60L-V1D | Ethernet IO-Link module with 8 inputs/outputs |
|  | ICE1-8IOL-S2-G60L-V1D | Ethernet IO-Link master with PROFINET S2 redundancy |
|  | ICE1-8IOL-G30L-V1D | Ethernet IO-Link module with 8 inputs/outputs |
|  | ICE2-8IOL-G65L-V1D | EtherNet/IP IO-Link master with 8 inputs/outputs |
|  | ICE2-8IOL-K45S-RJ45 | EtherNet/IP IO-Link master with 8 inputs/outputs, DIN rail, screw terminal |
|  | ICE2-8IOL-K45P-RJ45 | EtherNet/IP IO-Link master with 8 inputs/outputs, DIN rail, push-in connectors |
|  | ICE3-8IOL-G65L-V1D | PROFINET IO IO-Link master with 8 inputs/outputs |
|  | ICE3-8IOL-K45S-RJ45 | PROFINET IO IO-Link master with 8 inputs/outputs, DIN rail, screw terminal |
|  | ICE3-8IOL-K45P-RJ45 | PROFINET IO IO-Link master with 8 inputs/outputs, DIN rail, push-in terminals |
|  | IO-Link-Master02-USB | IO-Link master, supply via USB port or separate power supply, LED indicators, M12 plug for sensor connection |
|  | IUC77-25L100-GBL 1000pcs | RFID Transponder |
|  | IUC77-28L90-M-FR2 25pcs | RFID Transponder |

Release date: 2023-10-04 Date of issue: 2023-10-04 Filename: 70113811_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group
www.pepperl-fuchs.com









USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

 **PEPPERL+FUCHS**

Accessories

| | | |
|---|------------------------------------|---|
|  | IUC77-34-M-FR2 10pcs | RFID Transponder |
|  | IUC77-50-FR2 10pcs | RFID Transponder |
|  | IUC87-F257-T17-M-FR2 10 pcs | Tag for standard applications |
|  | IUC87-F257-T18-M-FR2 10 pcs | Tag for paint shop applications |
|  | IUC87-F257-T19-M-FR2 10 pcs | Tag for autoclave applications |
|  | V1-G-*M-PVC-V1-G | Cordset M12 socket straight to M12 plug straight A-coded, 4-pin, PVC cable grey |
|  | V1-G-BK*M-PVC-U-V1-G | Cordset M12 socket straight to M12 plug straight A-coded, 4-pin, PVC cable black, UL approved |
|  | V1-G-BK*M-PUR-U-V1-G | Cordset M12 socket straight to M12 plug straight A-coded, 4-pin, PUR cable black, UL-approved, drag chain suitable, torsion resistant |