

# RFID read/write device

## IUT-F191-IO-V1-FR2-03



- 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, China



# 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.

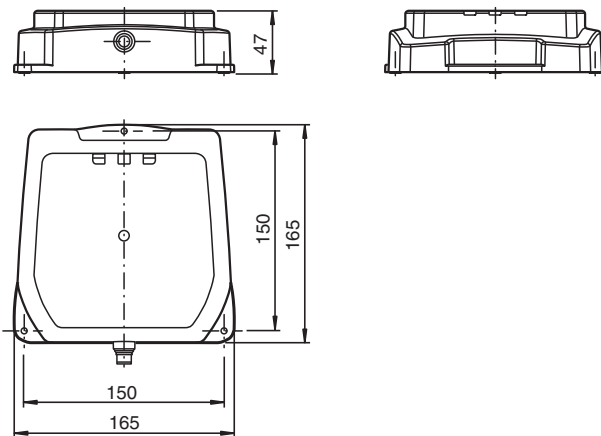
### Application

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: 70113812\_eng.pdf

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

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## Technical Data

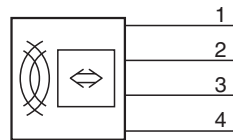
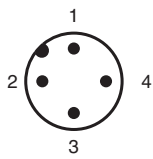
General specifications		
Operating frequency		920.5 ... 924.5 MHz: China Transmission licenses for other countries on request
Emitted power		3 ... 100 mW ERP adjustable
Operating distance		typ. 1 m
UL File Number		E468231
MTBF		127 a (Operation at +40 °C)
Indicators/operating means		
LED green/red		Solid 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 <sub>B</sub>	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		4194819 (0x400203)
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.
SRRC approval		CMIIT ID: 2023DJ4252
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
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

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## Connection



1 L+  
2 n.c.  
3 L-  
4 C/Q

## Accessories

	<b>ICE1-8IOL-G60L-V1D</b>	Ethernet IO-Link module with 8 inputs/outputs
	<b>ICE1-8IOL-S2-G60L-V1D</b>	Ethernet IO-Link master with PROFINET S2 redundancy
	<b>ICE1-8IOL-G30L-V1D</b>	Ethernet IO-Link module with 8 inputs/outputs
	<b>ICE2-8IOL-G65L-V1D</b>	EtherNet/IP IO-Link master with 8 inputs/outputs
	<b>ICE2-8IOL-K45S-RJ45</b>	EtherNet/IP IO-Link master with 8 inputs/outputs, DIN rail, screw terminal
	<b>ICE2-8IOL-K45P-RJ45</b>	EtherNet/IP IO-Link master with 8 inputs/outputs, DIN rail, push-in connectors
	<b>ICE3-8IOL-G65L-V1D</b>	PROFINET IO IO-Link master with 8 inputs/outputs
	<b>ICE3-8IOL-K45S-RJ45</b>	PROFINET IO IO-Link master with 8 inputs/outputs, DIN rail, screw terminal
	<b>ICE3-8IOL-K45P-RJ45</b>	PROFINET IO IO-Link master with 8 inputs/outputs, DIN rail, push-in terminals
	<b>IO-Link-Master02-USB</b>	IO-Link master, supply via USB port or separate power supply, LED indicators, M12 plug for sensor connection
	<b>IUC77-25L100-GBL 1000pcs</b>	RFID Transponder
	<b>IUC77-28L90-M-FR2 25pcs</b>	RFID Transponder
	<b>IUC77-34-M-FR2 10pcs</b>	RFID Transponder
	<b>IUC77-50-FR2 10pcs</b>	RFID Transponder
	<b>IUC87-F257-T17-M-FR2 10 pcs</b>	Tag for standard applications
	<b>IUC87-F257-T18-M-FR2 10 pcs</b>	Tag for paint shop applications
	<b>IUC87-F257-T19-M-FR2 10 pcs</b>	Tag for autoclave applications

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## Accessories

	<b>V1-G-*M-PVC-V1-G</b>	Cordset M12 socket straight to M12 plug straight A-coded, 4-pin, PVC cable grey
	<b>V1-G-BK*M-PVC-U-V1-G</b>	Cordset M12 socket straight to M12 plug straight A-coded, 4-pin, PVC cable black, UL approved
	<b>V1-G-BK*M-PUR-U-V1-G</b>	Cordset M12 socket straight to M12 plug straight A-coded, 4-pin, PUR cable black, UL-approved, drag chain suitable, torsion resistant