



## RFID read/write device IUT-F190-R4-V1-FR2-02

- Flexible UHF read/write device with medium detection range
- Compact and robust housing for harsh industrial environments
- Switchable antenna polarization guarantees reliable tag detection and enhances process flow
- Connection via integrated RS-485 interface
- Multi-tag reading increases productivity

UHF RFID read/write device, USA and Canada



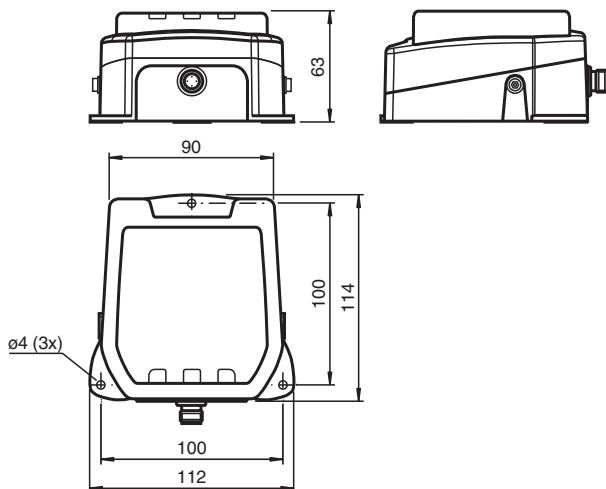
### Function

The compact IUT-F190-R4-V1-FR2-02 read/write station operates in the UHF frequency range and is optimized for industrial use at medium distances. The device writes and reads passive transponders according to EPC Gen2 (ISO/IEC 18000-63). The read/write station can be used in the USA and Canada. The read/write station is compliant with the relevant radio regulations. Wide range of options supported for filtering data. The read/write station has an RS-485 interface and is connected via an M12 connector. The user can monitor the status of the read/write station using the integrated LEDs. The read/write station has a typical detection range of approximately 2 m, which is determined by the transponder used and can be adjusted by the setting of the transmission power. Other influencing factors include the setup and installation of the specific application and the surrounding materials, in particular metal. The separately specified read and write distances for the respective transponders have been determined in a test laboratory under ideal conditions. For the actual read and write distances under real conditions, the combination of read/write station and transponder 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. Information regarding transmission licenses can be found on the datasheet for the product. 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



### Technical Data

#### General specifications

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

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## Technical Data

Operating frequency	902 ... 928 MHz: USA, Canada Transmission licenses for other countries on request	
Emitted power	3 ... 1250 mW EIRP adjustable	
Operating distance	typ. 2 m	
UL File Number	E468231	
MTBF	105 a (Operation at +40 °C)	
<b>Indicators/operating means</b>		
LED green	Power on	
LED yellow	Read/write operation successful	
LED blue	Transmission mode	
<b>Electrical specifications</b>		
Rated operating voltage	$U_e$	20 ... 30 V DC , ripple 10 % <sub>SS</sub>
Current consumption	≤ 450 mA	
Power consumption	$P_0$	≤ 9 W
Surge protection	category 2	
<b>Interface</b>		
Physical	RS-485 point-to-point connection	
Protocol	ASCII	
Transfer rate	1200, 2400, 4800, 9600, 19200, 38400 (default) Bit/s	
<b>Standard conformity</b>		
Degree of protection	EN 60529	
RFID	ISO/IEC 18000-63	
<b>Approvals and certificates</b>		
FCC approval	<p>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.</p> <p><b>Caution:</b>            Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.</p>	
IC approval	<p>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.</p> <p>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.</p>	
<b>Ambient conditions</b>		
Classification	Environmental condition A (controlled environment)	
Ambient temperature	-20 ... 70 °C (-4 ... 158 °F) (Operation with nontransmission periods, adjustable) -20 ... 60 °C (-4 ... 140 °F) (Continuous transmission mode)	
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)	
Pollution degree	2	
<b>Mechanical specifications</b>		
Housing length	114 mm	
Housing width	112 mm	
Housing height	63 mm	
Degree of protection	IP67	
Connection	connector M12 x 1	
Material		
Housing	PA 6.6	
Base	diecast aluminum	
Mass	860 g	

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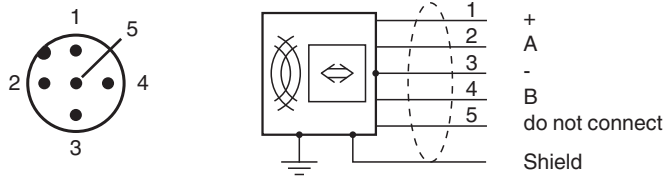
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**Connection**



**Safety Information**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

**Accessories**

	<b>IUC76-F157-T19-M-FR2</b>	Data carrier for autoclave applications
	<b>IUC77-25L100-GBL 1000pcs</b>	Data carrier
	<b>IUC77-28L90-M-FR2 25pcs</b>	Data carrier
	<b>IUC77-34-M-FR2 10pcs</b>	Data carrier
	<b>IUC77-50-FR2 10pcs</b>	Data carrier
	<b>IUZ-MH13</b>	Mounting bracket for wall mounting
	<b>IUZ-MH15</b>	Mounting aid for round steel ø 12 mm or sheet 1.5 mm ... 3 mm
	<b>V1-G-2M-PUR-ABG-V1-W</b>	Cordset M12 socket straight to M12 plug angled A-coded, 4-pin, PUR cable grey, shielded
	<b>V1-G-5M-PUR-ABG-V1-W</b>	Cordset M12 socket straight to M12 plug angled A-coded, 4-pin, PUR cable grey, shielded
	<b>V1-G-10M-PUR-ABG-V1-W</b>	Cordset M12 socket straight to M12 plug angled A-coded, 4-pin, PUR cable grey, shielded

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