RFID read/write device

IUT-F190-B40-2V1D-FR2-02

- Flexible UHF read/write device with medium detection range
- Ready-made PLC function blocks designed for quick and easy system integration
- Compact and robust housing for harsh industrial environments
- Switchable antenna polarization guarantees reliable tag detection and enhances process flow
- LED status indicator for bus communication and read/write station
- Network loop through by means of integrated 2 port switch
- Multi-tag reading increases productivity

UHF RFID read/write device, USA, Canada and Mexico

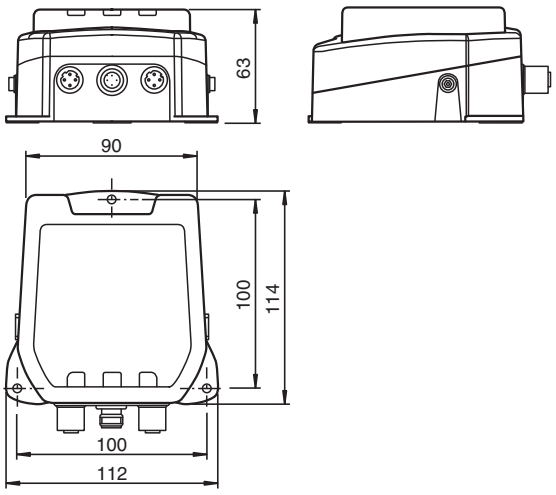
Function

The compact read/write device IUT-F190-B40-2VD1-* operates in the UHF frequency range and is optimized for industrial use over medium distances. The device writes and reads passive transponders according to EPC Gen2 (ISO/IEC 18000-63). The read/write device complies with the respective local radio regulations.
Extensive possibilities for data filtering are supported. The read/write device has an ethernet interface and is connected via an 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 about 2 m, which is determined by the transponder used and can be adjusted by setting the transmission power. Further influencing factors are the mounting or installation for the specific application and the surrounding materials, especially 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 read/write device 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

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Technical Data

Operating frequency		902 MHz … 928 MHz: USA, Canada, Mexico Other countries available on request
Emitted power		3 … 1250 mW EIRP adjustable
Operating distance		typ. 2 m
UL File Number		E468231
MTBF		55 a (Operation at +40 °C)
Indicators/operating means		
LED green		Power on
LED yellow		Read/write operation successful
LED blue		Transmission mode
LED Link/Traffic		green: network connection yellow: flashes in rhythm with the transmitted data
Electrical specifications		
Rated operating voltage	U_e	20 ... 30 V DC , PELV
Ripple		≤ 10 % at 30 V DC
Current consumption		≤ 500 mA
Power consumption	P_0	≤ 10 W
Surge protection		category 2
Interface 1		
Physical		Ethernet
Protocol		HTTP EtherNet/IP PROFINET IO
Transfer rate		10 MBit/s or 100 MBit/s
Interface 2		
Physical		Ethernet
Protocol		HTTP EtherNet/IP PROFINET IO
Transfer rate		10 MBit/s or 100 MBit/s
Standard conformity		
Degree of protection		EN 60529
RFID		ISO/IEC 18000-63
Approvals and certificates		
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.
IFT approval		
Certificate		PEPEIU23-25034
Radio approval		USA: Contains FCC IREIURF190 Canada: Contains 7037A-IURF190
Ambient conditions		
Classification		Environmental condition A (controlled environment)
Ambient temperature		-20 ... 70 °C (-4 ... 158 °F) (Operation with nontransmission periods, adjustable) -20 ... 50 °C (-4 ... 122 °F) (Continuous transmission mode)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Pollution degree		2

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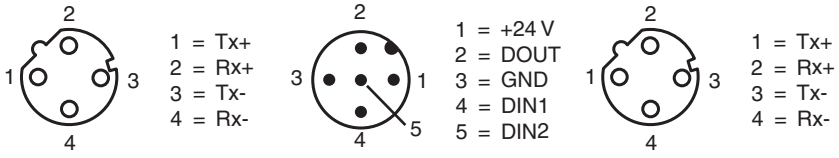
Mechanical specifications		
Housing length		114 mm
Housing width		112 mm
Housing height		63 mm
Degree of protection		IP67
Connection		Power supply: M12 connector Protective earth: M4 earthing screw Ethernet: M12 plug connection
Material		
Housing		PA 6.6
Base		diecast aluminum
Mass		820 g

Connection Assignment



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

	**IUC77-25L100-GBL 1000pcs**	RFID Transponder
	IUC77-28L90-M-FR2 25pcs	RFID Transponder
	**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
	**IUZ-MH13**	Mounting bracket for wall mounting
	**IUZ-MH15**	Mounting aid for round steel ø 12 mm or sheet 1.5 mm ... 3 mm

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Accessories

	**V15-G-*M-PUR-ABG**	Female cordset single-ended M12 straight A-coded, 5-pin, PUR cable grey, shielded
	**V1SD-G-GN*M-PUR-E1S-V45-G**	Ethernet bus cable M12 plug straight D-coded to RJ45 Ethernet-coded, 4-pin, PUR cable green, Cat5e, shielded, drag chain suitable

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