

RFID read/write device

IUT-F190-B40-2V1D-FR2-03



- Compact, high-performance UHF RFID read/write device for medium detection ranges
- Rugged housing for harsh industrial environments
- Switchable antenna polarization and multi-tag reading
- Clearly visible LED status indicator
- Integrated 2-port switch enables line or ring topology
- Simple operation and configuration via integrated web server
- OPC UA Server and AutoID Companion Specification enable standardized communication
- Easy integration into IT systems via REST API

UHF RFID read/write device, China



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.

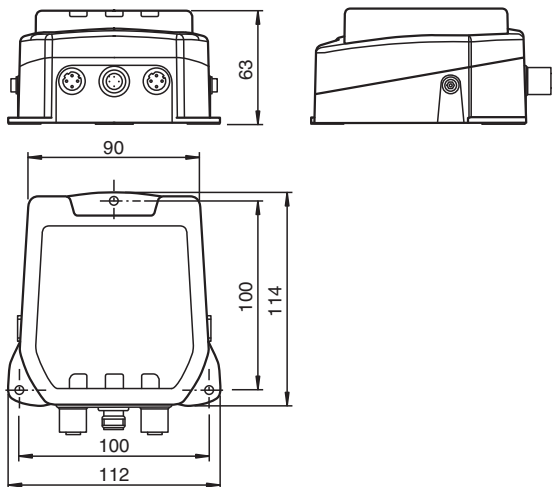
Application

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



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

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Technical Data

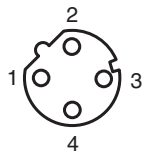
General specifications	
Operating frequency	920.5 ... 924.5 MHz: China Transmission licenses for other countries on request
Emitted power	3 ... 800 mW ERP adjustable
UL File Number	E468231
MTBF	55 a (Operation at +40 °C)
Indicators/operating means	
LED green	Power on
LED yellow	Read/write operation successful
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 (REST API) OPC UA (AutoID Companion Specification) EtherNet/IP PROFINET IO
Transfer rate	10 MBit/s or 100 MBit/s
Interface 2	
Physical	Ethernet
Protocol	HTTP (REST API) OPC UA (AutoID Companion Specification) 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	
SRRC approval	CMIIT ID: 2021DJ7850
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
Mechanical specifications	
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
Dimensions	
Height	63 mm
Width	112 mm
Length	114 mm

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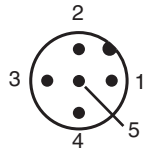
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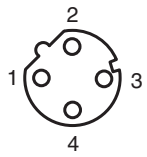
Connection Assignment



- 1 = Tx+
- 2 = Rx+
- 3 = Tx-
- 4 = Rx-



- 1 = +24 V
- 2 = DOUT
- 3 = GND
- 4 = DIN1
- 5 = DIN2



- 1 = Tx+
- 2 = Rx+
- 3 = Tx-
- 4 = Rx-

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