

RFID read/write device

IUT-F190-B40-2V1D-FR2-09

- 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, South Korea

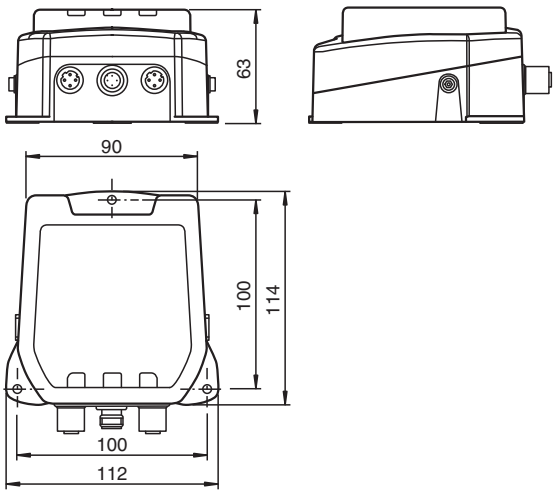
Function

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



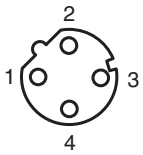
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Technical Data

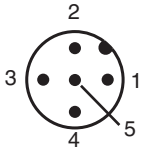
General specifications		
Operating frequency		917.2 MHz … 920.4 MHz: South Korea Transmission licenses for other countries on request
Emitted power		3 … 1250 mW EIRP adjustable
MTBF		55 a (Operation at +40 °C)
Indicators/operating means		
LED green		Power on
LED yellow		Read/write operation successful
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		
KCC approval		R-C-PF1-IUTF190B402V1D
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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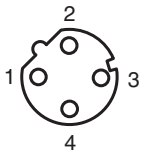
Connection Assignment



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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