UHF Mid Range Reader
ID ISC.MRU200-USB / ID ISC.MRU200-E

SPECIAL FEATURES

- Robust metal housing for use in industrial environment
- Read Range between 1 Meter (100 mW) and 3 Meters (300 mW) *
- Low Power Mode for short read ranges up to 30 cm
- 2 Inputs and 3 Outputs suit industrial needs
- USB- or LAN- Interface
- Integrated Multiplexer for connection of up to two external antennas
- Full support for the external Multiplexer ID ISC.ANT.UMUX
- Readout of RSSI Values

Description

The OBID i-*scan*® UHF Mid Range Reader ID ISC.MRU200 identifies UHF Transponders in the frequency range between 865 MHz and 868 MHz or between 902 MHz and 928 MHz. A separate reader version is available for each frequency band.
It is a very flexible and cost-effective reader which can be used for each kind of UHF application with short and medium read ranges of view centimeters up to 3 meters*.
The ID ISC.MRU200 is available with either a USB- or a LAN-Interface. Both Versions are equipped with a serial RS232 interface. The USB-Version provides an additional RS485-Interface. This allows an easy connection to different Host Systems.
The reader is licensed according to ETSI, FCC, IC and UL and is characterized by the following features:

- Robust die case aluminum housing for use in industrial and rough environments
- Support of Transponders according to EPC Class1 Gen2 and ISO 18000-6-C (Upgrade Code required)
- High receiver sensitivity cares for an enlarged and at the same time homogeneous tag detection range
- Low Power Mode for Short Range Application with read range of just a few centimeters
- Reader protection against fault conditions like antenna shortcut and electrostatic discharge
- Integrated Multiplexer for connection of up to two external antennas
- Full support for the UHF Multiplexer ID ISC.ANT.UMUX to be used in systems with large antenna quantity
- 2 digital inputs for connection of external sensors suit industrial needs
- 2 digital outputs and 1 relay outputs for connection of external signaler suit industrial needs
- Various configuration options for software and hardware
- Different SDKs for easy programming of application software available
- Easy and fast firmware Update
- Different hardware version according to different radio regulations available
- Readout of RSSI data for localization of identified transponders

Applications

The ID ISC.MRU200 can be used in standard UHF applications with read ranges of just a few centimeters up to 3 meters*. Such applications can be found e.g. in the retail market, logistics, Industry for Asset Management, Inventory and Process and Production Control.

Ordering Information

Model	Description	Ordering Number
ID ISC.MRU200-E-EU	Reader with Ethernet Interface for the European Frequency Band	2891.000.00
ID ISC.MRU200-USB-EU	Reader with USB and RS485 Interface for the European Frequency Band	2838.000.00
ID ISC.MRU200-E-FCC	Reader with Ethernet Interface for the FCC Frequency Band	2892.000.00
ID ISC.MRU200-USB-FCC	Reader with USB and RS485 Interface for the FCC Frequency Band	2839.000.00

* The maximum Read Range is depending on the used antenna, the antenna cable, the used transponder and the environmental conditions.

Note: FEIG ELECTRONIC reserves the right to change specification without notice at any time.
Stand of information: December 2011

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Technical Data

Mechanical Data

Housing	Aluminum, Powder coated, lockable hinged cover
Dimensions	200 mm x 110 mm x 60 mm (7.87 x 4.33 x 2.36 inch)
Weight	1.200 g
Protection Class	IP 54
Color	RAL 7040

Electrical Data

Power Supply	12 V DC to 24 V DC (+/- 5%) Noise Ripple: max. 150 mV
Power Consumption	max. 15 VA
Operating Frequency	
- Version EU:	865 MHz to 868 MHz
- Version FCC:	902 MHz to 928 MHz
Output Power	50 mW to 300 mW; Low-Power Mode
Antenna Connector	2 x SMA-Female (50 Ω)
Outputs	
- 2 Optocoupler	24 V DC / 30 mA
- 1 Relay	24 V DC / 1 A switching current, 24 V DC / 2 A permanent current
Inputs	
- 2 Optocoupler	5 V DC to 10 V DC / 20 mA max. 24 V DC / 20 mA with additional external series resistor
Interfaces	
- MRU200-USB	RS232/RS485, USB
- MRU200-E	RS232, LAN (TCP/IP)
Protocol-Modes	ISO Host Mode, Scan Mode, Buffered Read Mode; Notification Mode (only MRU200-E)

Features

Supported transponder types	EPC Class1 Gen2, ISO 18000-6-C (Upgrade Code)
Signaler	4 LED´s for diagnosis of reader operation and antenna status
Other Features	Anti-Collision RSSI

Environmental Conditions

Temperature Range	
- Operation	-20°C to 55°C
- Storage	-25°C to 85°C
Humidity	5 % to 80 % (non-condensing)
Vibration	
- EN 60068-2-6	10 Hz to 150 Hz: 0,35 mm / 5 g
- EN 60068-2-64	5 Hz to 500 Hz: 1 g_{rms}
Shock	
- EN 60068-2-27	Acceleration: 30 g

Applicable Standards

Radio Regulation	
- Europe	EN 302 208
- USA	FCC 47 CFR Part 15
- Canada	IC RSS-GEN, RSS-210
EMC	EN 301 489
Safety	
- Low Voltage	EN 60950 UL 60950-1
- Human Exposure	EN 50364

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