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

This product has been dicontinued in October 2013 and can be replaced by the model ID ISC.LRU1002.
Last acceptance for puchase orders of ID ISC.MRU200 is the end of June 2014,
last shipment the end of September 2014.

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

FEIG ELECTRONIC GmbH · Lange Straße 4 · D-35781 Weilburg
Tel.: +49 6471 3109-0 · Fax: -99 · E-Mail: OBID@feig.de · www.feig.de

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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