

**OBID**

Advanced reader technologies

**i-scan<sup>®</sup> UHF**

Fixed RFID UHF  
Mid Range Reader

**ID ISC.MRU200-USB**  
USB Variant

**ID ISC.MRU200-E**  
LAN Variant



RFID Multi Protocol Mid Range Reader for identification of UHF transponders (865-928 MHz) in fields of application like retail, industry, Supply Chain, logistics etc.

### Features:

- Wide variety of ETSI- and FCC certified antenna configurations with reading ranges depending on the RF transmitting power between 1 meter (0,1 W) and 2.5 meters (0,3 W)
- Multi-tag Reader (EPC Gen2, opt. ISO18000-6-B / -C) with various interface options
- High speed anti-collision function identifies large quantity of tags. Buffered Read Mode and notification channel function provides data filtering and buffering
- Connection of one or two external antennas
- Host protocol compatible with OBID i-scan<sup>®</sup> HF reader family

The OBID i-scan® UHF Mid Range Reader identifies UHF transponders within a frequency range from 865 to 928 MHz and so can be used in Europe (EU version) and in North America (FCC version).  
 The ID ISC.MRU200 is a very flexible and cost effective reader which is aimed for UHF applications, operating with a medium reading range (1 - 2.5 meters) and a reduced RF transmitting power (maximum 0.3 Watt).  
 The reader is available as an USB variant and as a LAN variant. Both variants also offer a RS232 interface, the USB variant a RS485, additionally. So the connectivity to several host systems is possible.

Each version of the ID ISC.MRU200 product series has the following RF key features:

- A powerful RF interface to work with maximum speed in European or US DRM (Dense Reader Mode)
- RF front end with blocking features supports adjacent channel operation of RF Readers.
- Reader protection against various fault conditions, such as antenna shortcut and electrostatic discharge.
- Reader is available in different versions to fulfil the different national radio rules of UHF.

The reader platform of the ID ISC.MRU200 product series provides most extensive configuration possibilities and reader commands. The base set of commands and features is compatible with the commands, used throughout the OBID i-scan® product line. The configuration possibilities of the ID ISC.MRU000 readers make it easy to adapt the readers to a range of applications by software and hardware configurations.

The RF section of the reader is controlled by a dedicated ARM controller and a FPGA based RF decoder.

The ID ISC.MRU200-USB has three hardware interface ports (USB, RS232, RS485), the ID ISC.MRU200-E has two interface ports (LAN, RS232). Furthermore, the reader has digital inputs for direct control of various trigger possibilities and various outputs for direct control of several indicators.

Both, the powerful and flexible RF transmitter / receiver and the intelligent digital controller form the basis of an agile multi-protocol reader that can be updated in case of creation of future protocols and features. The reader supports the transponder protocols EPC Gen2, optional ISO18000-6-B and ISO18000-6-C.

FEIG ELECTRONIC provides a library which allows the user to develop their own host applications to exchange data with the ID ISC.MRU200.

## Standard conformity

Radio authorization	
- Europe	EN 302 208, EN 300 220
- USA	FCC 47 CFR Part 15
EMC	EN 301 489
Safety	EN 60950
Vibration	EN 60068-2-6 10 Hz to 150 Hz: 0,075 mm / 1g
Shock resistance	EN 60068-2-27; acceleration: 30g



	ID ISC.MRU200-USB	ID ISC.MRU200-E
Housing	Die-case aluminium, powder-coated, lockable hinged cover	
Dimensions (WxHxD)	200 mm x 110 mm x 60 mm (7.87 inch x 4.33 inch x 2.36 inch)	
Weight	1200 g	
Protective system	IP54	
Power supply	12 - 24 V DC +/- 15%	
Power consumption	max. 15 VA	
Operating frequency	865,6 - 867,6 MHz (200 kHz stepd) Version EU 902 - 928 MHz (500 kHz steps) Version FCC	
Transmitting power	0,1 W, 0.2 W or 0,3 W +/- 1dB	
Data rates	Dense Reader Mode US - 50kbps / 64kbps Dense Reader Mode EU - 50kpps / 80kbps	
Antenna connection	2x SMA-connector (50 Ohm); Multiplexer integrated	
RF Diagnostics	Antenna SWR control; Internal overheating control	
Outputs: - 2 Optocoupler - 1 Relay (1x NO/NC)	24 V DC / 30mA 24 V DC / 2 A	
Inputs: - 2 Optocoupler	max. 24 V DC / 20mA	
Interfaces	RS232 and RS485 USB	Rs232 LAN (802.3)
Protocol-Modes	FEIG ISO HOST Buffered Read Mode Scan Mode	FEIG ISO HOST Buffered Read Mode Scan Mode Notification Mode
Supportes Transponders	EPC Gen2; optional ISO18000-6-B / -C	
Indicators	4 LED (for diagnosis of the operation status)	
Temperature range - operation - storage	-20°C up to +55°C -25°C up to +85°C	
Relative humidity	5-80% (non condensing)	

FEIG ELECTRONIC reserves the right to change specification without notice at any time