



OBID i-scan® UHF

UHF Long Range Reader ID ISC.LRU3000 / ID ISC.LRU3500



FEATURES

- Reading ranges up to 16 m
- Power over Ethernet (PoE)
- 4 Antenna Port Indicators
- USB-Host for WLAN dongle or memory stick
- Linux operating system
- 4 different reader modes
- RSSI Data Readout

OBID® – RFID by FEIG ELECTRONIC

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UHF Long Range Reader ID ISC.LRU3000 / ID ISC.LRU3500

Description

The UHF Long Range Readers ID ISC.LRU3000 and ID ISC.LRU3500 are the most powerful readers of the product line OBID *i-scan*[®] UHF.

ID ISC.LRU3000 and ID ISC.LRU3500 are licensed according to ETSI, FCC and IC and are characterized by the following features:

- New Low Noise Transmitter Architecture
- High receiver sensitivity cares for an enlarged and at the same time homogeneous tag detection range
- Powerful tag response decoding engine decodes FM0- and Miller coded return link signals for e.g. Dense Reader Mode or ISO 18000-6-B
- Reader protection against fault conditions like antenna shortcut, antenna mismatching and electrostatic discharge
- Robust aluminium die case housing for usage in rough environments
- Increase of enclosure rating to IP 64 due to optional available connector sealing cap for the connector block
- Quick installation due to easy access to interfaces and antenna ports
- Antenna Port Indication: Display of active antennas (green), read events (blue) and possible antenna mismatching (red) via 4 separate LED´s
- Full support for the UHF Multiplexer ID ISC.ANT.UMUX to be used in antenna systems with a maximum number of 2.048 antennas
- Various configuration options for software and hardware
- ACC (Application Connectivity Controller) with Linux operation system for installation of individual application software directly on the reader platform
- 5 hardware interface ports: Ethernet, RS232, RS485, USB and an USB-Host for WLAN dongle or memory stick
- Readout of RSSI data for localization of identified transponders

Variants

	ID ISC.LRU3000	ID ISC.LRU3500
Supply voltage	24 V DC (+/- 5%)	24 V DC (+/- 5%) or Power over Ethernet (PoE)
Transmitting power	max. 2 W	max. 4 W
Reading distance*	12 m	16 m
Applications	Standard UHF applications with reading distances > 3 m Low / middle tag population (< 150)	For operation in particularly disturbed and metallic environments High tag population (> 150)
Radio license	EN 302 208, FCC 47 CFR Part 15, IC RSS-GEN and RSS-210	EN 302 208, FCC 47 CFR Part 15, IC RSS-GEN and RSS-210 Ready for upcoming radio regulations

*depends on used transponder / measured with 1 W transmitting power

FEIG ELECTRONIC reserves the right to change specification without notice at any time. Stand of information: June 2010.



UHF Long Range Reader ID ISC.LRU3500

Technical Data

Mechanical Data

Housing	Aluminium, powder coated
Dimensions	260 mm x 157 mm x 65 mm (10.23 x 6.18 x 2.56 inch)
Weight	2.000 g
Enclosure rating	IP 53 IP 64 (with protection cap)*
Colour	light grey / aluminium

Electrical Data

Power supply	24 V DC (+/- 5%) or Power over Ethernet (PoE)**
Power consumption	max. 2 A
Operating frequency	860...960 MHz
Transmitting power	
- LRU3000	max. 2 W
- LRU3500	max. 4 W
Antenna connection	4 x SMA connector (50 Ohm); Reader internally multiplexed
RF Diagnostics	RF Channel monitoring Antenna SWR control Internal overheating control
Outputs	
2 Optocoupler	24 V DC / 30 mA
3 Relays	24 V DC / 1 A
Inputs	
5 Optocoupler	max. 24 V DC / 20 mA
Interfaces	RS232, RS485, Ethernet, USB, USB-Host for WLAN dongle or memory stick
Reader Modes	ISO Host Mode, Scan Mode, Notification Mode, Buffered Read Mode
Operation system	Linux (64 MB RAM, 256 MB FLASH)

Functional features

Supported transponders	
- LRU3000	EPC Gen2
- LRU3500	EPC Gen2, optional EM 4222 and ISO 18000-6-B/-C
Indicators	8 LED's for diagnosis of reader operation status and antenna status
Supply voltage on antenna outputs (only LRU3500)	24 V DC / 200 mA
Others	Anticollision Real time clock RSSI Data Readout

Environmental conditions

Temperature range	
Operation	-25° C – 55° C
Storage	-25° C – 85° C
Relative Humidity	5 % - 95 % (non-condensing)
Vibration	EN 60068-2-6 10 Hz – 150 Hz: 0,075 mm / 1 g
Shock resistance	EN 60068-2-27 Acceleration: 30 g

Standard conformity

Radio license	
Europe	EN 302208
USA	FCC 47 CFR Part 15
Canada	IC RSS-GEN, RSS-210
EMC	EN 301 489
Safety	
Low voltage	EN 60950
Human Exposure	EN 50364

*Optionally a connector sealing cap is available which covers the connectors, offers a pull relief for the connected cables and guarantees enclosure rate IP 64.

**PoE only with ID ISC.LRU3500