

## UHF Long Range Reader ID ISC.LRU1002



### SPECIAL FEATURES

- Robust metal housing for use in industrial environment
- 2 Watt Output Power
- High Receive Sensitivity
- 4 Antenna ports (internal Multiplexer), support of external UHF Multiplexer ID ISC.ANT.UMUX
- 4 Inputs / Outputs suit industrial needs
- Output of RSSI values and phase angle
- Full support of new transponder chips with encryption (NXP UCODE DNA)
- Support of EPC Low Level Reader Protocol (LLRP) with LLRP Library
- Optimum price performance ratio



## Description

The UHF Long Range Reader ID ISC.LRU1002 is a high performance Long Range Reader that can be used in different kind of applications. The reader convinces with an excellent price performance ratio. The ID ISC.LRU1002 is characterized by the following features:

- High receiver sensitivity cares for an enlarged and at the same time homogeneous tag detection range
- Possible secure read range of up to 12 m (40 ft) \*
- Constant high receive sensitivity and high read range also in disturbed environments and applications with a large number of readers operating at the same time
- Support of Transponders according to EPC Class1 Gen2 and ISO 18000-6-C
- Allows the realization of secure UHF systems by full support of new transponder chips according to EPC Class1 Gen2 V2 specification and ISO 29167 (e.g. NXP UCODE DNA)
- Support of EPCglobal™ Low Level Reader Protocol with special LLRP Library
- Readout of RSSI data and phase angle of identified transponders (e.g. for localization of transponders)
- Various configuration options for software and hardware
- Support of 4 hardware interface ports: Ethernet, RS232, USB and Wiegand
- Reader protection against fault conditions like antenna shortcut, antenna mismatching and electrostatic discharge
- Robust aluminum die case housing for usage in rough and industrial 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
- 1 Input and 3 outputs suit industrial needs and allow control of external components and signalization of different events
- Antenna Port Indication: Display of active antennas (green), read events (blue) and possible antenna mismatching (red) via 4 separate LED's

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

## Typical Application

- Vehicle Access Control
- Logistics
- Installation on a forklift
- Industry
- Automotive
- Traffic Monitoring
- Traffic management systems
- Parking slot management
- Laundry services
- Waste management



Note:  
FEIG ELECTRONIC reserves the right to change specification without notice at any time.  
Stand of information: October 2015

## Technical Data

### Mechanical Data

Housing	Aluminum, powder coated
Dimensions	260 mm x 157 mm x 65 mm (10.23 x 6.18 x 2.56 inch)
Weight	1.800 g
Protection Class	IP 53, IP 64 (with protection cap)*
Color	RAL9003 Signal-White

### Electrical Data

Power Supply	24 V DC (± 10 %)
Power Consumption	max. 18 VA
Operating Frequencies	
- Version EU:	865 MHz to 868 MHz
- Version FCC:	902 MHz to 928 MHz
Output Power	configurable, 100 mW e.i.r.p. to 2 W e.i.r.p. in combination with antenna ID ISC.ANT.U270/270 Tolerance: ± 3 dB
Antenna Connector	4 x SMA-Female (50 Ohm), integrated Multiplexer, support of external Multiplexer ID ISC.ANT.UMUX
RF-Diagnosis	RF-channel monitoring, Antenna SWR control, internal overheating control
Outputs	
- 2 Optocoupler	max. 24 V DC / 30 mA
- 1 Relay	max. 24 V DC / 1 A switching current, 2 A permanent current
Inputs	
- 1 Optocoupler	max. 24 V DC / 20 mA
Interfaces	RS232, Ethernet, USB, Wiegand (Scan Mode Interface)
Protocol-Modes	ISO Host Mode, Scan Mode (HID), Notification Mode, Buffered Read Mode

### Features

Supported transponder types	EPC Class1 Gen2 ISO 18000-6-C (Upgrade Code)
16 LEDs for diagnosis of reader operation and antenna status	
Other Features	Anti-Collision, Output of RSSI values, Output of phase angle, Supports encrypted transponder communication

### Environmental Conditions

Temperature	
- Operation	-25 °C to 55 °C
- Storage	-25 °C to 85 °C
Humidity	5 % to 95 % (non-condensing)
Vibration	EN 60068-2-6 10 Hz to 150 Hz: 0,075 mm / 1 g
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
- 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.

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