

ID LRU4000

## UHF LONG RANGE READER

- Robust housing with cable glands & plug-in terminals
- Designed for applications in harsh environments (indoor & outdoor) (IP65/IP67)
- 2 Watt Output Power
- 4 Antenna Ports (internal Multiplexer)
- 2 Inputs / 4 Outputs
- Edge Computing Device



### UHF Long Range Reader for various applications

With a reading range of more than 10 m, 4 antenna connections and 4 cable glands several long range applications can be realized.

### Applications in industry and logistics

For applications in harsh environments, the reader offers sealed connections and cable glands as well as plug-in terminals inside the device. This makes it the first choice for use on machines, conveyor systems or other industrial applications.

### Various mounting options

The reader can be mounted directly on a flat surface, via a VESA on a post, via an adapter on a DIN rail or via an plastic insulation plate on a vehicle chassis – you have the choice!

### Features:

- › High receiver sensitivity cares for an enlarged and at the same time homogeneous tag detection range
- › Support of Transponders according to EPC Class1 Gen2 and ISO 18000-63
- › Allows the realization of secure UHF systems by full support of transponder chips according to EPC Class1 Gen2 specification and ISO 29167 (e. g. NXP UCODE DNA)
- › Secure storage of application keys in a secure memory (Secure Element)
- › 2 Inputs, 2 Outputs and 2 Relay Outputs suit industrial needs and allow control of external components and signalization of different events
- › Edge-Computing Platform with Linux OS for installation and operation of custom specific applications directly on the reader
- › Different software applications available e.g. for EPCglobal™ LLRP support
- › Reader protection against fault conditions like antenna shortcut, antenna mismatching and electrostatic discharge

# UHF LONG RANGE READER FOR VARIOUS APPLICATIONS

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## Technical data

### Dimensions (w x h x d)

Without Connectors approx. 225 mm x 140 mm x 55 mm

With Connectors ca. 225 mm x 190 mm x 55 mm

**Weight** approx. 1200 g

**Housing** Aluminium housing, plastic cover

**Color** Aluminium, anthracite (cover)

**Protection Class** IP65, IP67

**Power Supply** 12 V – 24 V DC  $\pm$  10 %, Power-over Ethernet (PoE+)

**Power Consumption** max. 18 W\*

**Output Power** 100 mW to max. 2 W configurable in steps of 100 mW

**Antenna Connector** 4 x R-TNC-Jack (50 Ohm), integrated Multiplexer, support of external Multiplexer  
ID ANT.UMUX

**RF Diagnosis** RF-channel monitoring, Antenna SWR control, internal overheating control

**Connections** Power supply, RS485, Mini USB Connector, I/Os: plug-in terminals  
Ethernet: RJ45 socket on the outside of the housing with the option of sealing

### Outputs

2 Optocoupler max. 24 V DC / 20 mA

2 Relays max. 24 V DC / 1 A switching current, 2 A permanent current

### Inputs

2 Optocoupler max. 24 V DC / 20 mA

**Interfaces** RS485, Ethernet (IPv4/IPv6), USB (On-the-Go)

**Computing Platform (Linux OS)** ARM single Cortex-A7 800 MHz + Cortex-M4 (RFID), 1 GB Flash, 512 MB RAM

**Reader Modes** Host Mode, Buffered Read Mode, Notification Mode

**Supported Transponders** EPC Class1 Gen2, ISO 18000-63, ISO/IEC 29167

**Indicator** Highly visible status display (green/red/blue; customizable indication)

**Others** Anti-Collision, Output of RSSI values and phase angle, Secure Key Storage,  
"Config Cloning" function, Action-on-EPC, Web-Interface

### Temperature Range

Operation -40 °C – +70 °C\*\*

Storage -40 °C – +85 °C

**Relative Air Humidity** 5 % up to 95 % (non-condensing)

**Vibration** EN 60068-2-6 10 Hz up to 150 Hz: 0.075 mm / 1 g

## Versions

**EU** 865 MHz to 868 MHz

**FCC** 902 MHz to 928 MHz

\* not including power consumption due to external Multiplexer

\*\* additional measures may be required

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## Standard Conformity

Radio License

Europe, UK	EN 302 208
USA	FCC 47 CFR Part 15
Canada	IC RSS-247
EMC	EN 301 489
Safety & Health	EN 62368-1, EN 50364
Cyber Security	EN 18031-1



ID LRU4000, front view



ID LRU4000, antenna connections



ID LRU4000, Connections for VCC, Interfaces, I/Os