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

ID LRU4000

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 ± 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, USB, 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, Action-on-EPC, Web-Interface
Temperature Range	
Operation	-40 °C to +55 °C
Extended temperature range	-40 °C to +70 °C*
Temperature Range	
Storage	-40 °C to +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

* At operating temperatures above 55°C, the configured transmit power must not exceed 1.0W, and power supply via PoE is not permitted in this case.

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UHF LONG RANGE READER FOR VARIOUS APPLICATIONS

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Versions

EU	865 MHz to 868 MHz
FCC	902 MHz to 928 MHz

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, Frontansicht

ID LRU4000, Antennenanschlüsse

ID LRU4000, Anschlüsse für VCC, Schnittstellen, I/Os

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