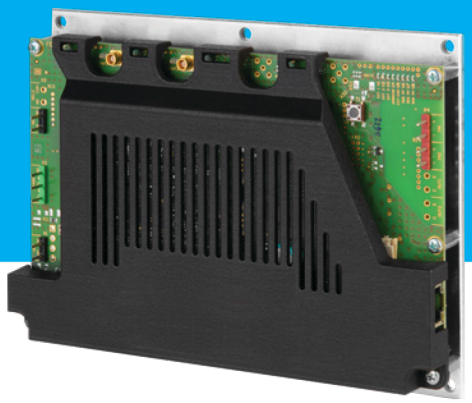
ID MRMU400

UHF MID RANGE READER MODULE

- 1 Watt Output Power
- Connections for up to 2 antennas
- 1 Inputs / 2 Outputs
- Edge Computing Device



UHF Mid Range Reader for a wide range of applications

With a reading range more than 4 m and two external antenna connections, numerous Mid Range applications can be realized in industrial environments, such as in mechanical and plant engineering.

Perfect for integration into machines and systems

As an electronic module without a housing, the ID MRMU400 is perfectly suited for integration into machines and systems that already provide appropriate control boxes or housings to protect the electronics.

Easy installation

The reader module can be easily mounted using the aluminum mounting plate. There are several screwing points available for this. The mounting plate also serves heat dissipation and cooling the module.

A plastic cover protects the reader module from accidental access or mechanical stress on the electronics. Access to the interfaces and connections is still possible and easy.

Features:

- Support for transponders according to EPC Class1 Gen2 and ISO 18000-63
- Realization of secure UHF systems through full support of transponder chips according to EPC Class1 Gen2 specification and ISO 29167 (e.g. NXP UCODE DNA)
- Storage of application keys in a secure storage (Secure Element)
- 1 Input, 1 Output and 1 Relay output enable the control of external components and the signaling of various events
- Edge computing platform with Linux operating system for the installation and operation of customer-specific applications directly on the reader
- Availability of various software applications, e.g. for EPCglobal™ LLRP support

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Technical data

Dimensions (w x h x d)	185 mm x 135 mm x 35 mm
Weight	535 g
Power Supply	12 V – 24 V DC ± 10 %, Power-over Ethernet (PoE+)
Power Consumption	max. 12 W
Output Power	max. 1 W, adjustable in 100 mW steps
Antenna Connector	2 x MCX socket (50 Ohm), multiplexer integrated
RF Diagnosis	RF channel monitoring, antenna SWR monitoring, integrated overheating protection
Connections	Power supply, RS485, Mini USB Connector, I/Os: plug-in terminals Ethernet: RJ45 socket
Outputs	
1 Optocoupler	max. 24 V DC / 20 mA
1 Relays	max. 24 V DC / 1 A switching current, 2 A permanent current
Inputs	
1 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
Signal Generator	Numerous LEDs for status display
Others	Anti-collision function, RSSI values, phase angle, secure key storage, “Config Cloning” function, 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

Standard Conformity

* additional measures may be necessary

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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 MRMU400, front view

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