iDTRONIC
PROFESSIONAL RFID



UHF RFID READER

LONG RANGE READER BLUEBOX

PRODUCT DESCRIPTION

The UHF Long Range Reader BLUEBOX is an industrial read and write device for the latest industry 4.0 and IoT applications in automation and logistics processes. Its RFID UHF controller operates in global frequency areas from 840 – 960 MHz. The reader is equipped with two external antenna ports for TNC-female antennas. We offer a wide range of compatible antennas within our product portfolio.

Thanks to its IP67 protection class, the UHF Long Range Reader BLUEBOX is resistant to rough and demanding environments in the industrial sector.

Data capturing and collection made easy with the various integrated industrial interface options. Real-Time transfer of ongoing processes can be done via the CANbus port. The RS232/485 interface option is especially developed for the direct control of machines. Wiegand is an port for the identification of access control data.

The integration to all common machines or devices is possible with the UHF Long Range Reader BLUEBOX industrial device. The optionally available M12 or RJ45 (Ethernet) connector are suitable for latest industry 4.0 standards.

Through these communication channels, it is also possible to configure the functional parameters and to upgrade the firmware. We offer a software development kit especially for our BLUEBOX series. The 'BLUEBOX Show' software of the SDK is foreseen to explicate these operations. Additionally we show the functions of the demo software in our demo software introduction on YouTube.

▶ APPLICATIONS

- Machine Authentification
- Automotive Production
- Logistics Applications
- Data Collection (IoT)
- Robotics

▶ FEATURES

- 2 External Antennas (TNC-female)
- Antenna Auto-Tuning
- USB Service Interface
- M12 or RJ45 Connectors
- RS232/RS485, Ethernet, Wiegand or CANbus
- IP67 Protection Class

▶ RFID OPTIONS

- **UHF** (EPC C1 GEN2 | ISO 18000-63)

iDTRONIC GmbH
Ludwig-Reichling-Straße 4
67059 Ludwigshafen
GERMANY

RFIDCanada
Automating Identification

Subject to change without notice.
©2022 iDTRONIC GmbH

iDTRONIC
PROFESSIONAL RFID

TECHNICAL DATA

ELECTRICAL SPECIFICATIONS	
Power Supply	10 ... 36 Vdc, PoE (RJ45 Version)
Power Rating	15 W @30 dBm
Operating Frequency	840 – 960 MHz, software programmable
Max. Power	max 1 W (30 dBm) software programmable in 1 dB steps
Operating Distance	up to 8 meters*
Antennas	Two external (50 Ω) TNC-female
Digitial Inputs	2 optoisolated inputs, 10 – 36 Vdc, max 20 mA @24 Vdc
Digital Outputs	2 relay outputs, 1A@30 Vdc, 0.5 A@125 Vac
Status	3 LED Buzzer
Interfaces	RS232 | RS485 Ethernet 10 – 100 M Wiegand CANbus (SAE J1939 or CANopen)
Service Interface	USB VirtualComPort (VCP)
Connectors	M12 Amphenol RJ45

MECHANICAL SPECIFICATIONS	
Dimensions	110 × 140 × 62 mm
Material	Die-cast aluminum plastic
IP Protection	IP67

*Reading distance depends on tag, antenna and environmental conditions.

ENVIRONMENTAL CONDITIONS	
Operating Temperature	-20 °C to +55 °C
Storage Temperature	-40 °C to + 85 °C
Humidity	up to 95%, non condensing

SUPPORTED STANDARDS | TAGS
Standard ISO 18000-6C, EPC Class 1 Generation 2

APPLICABLE STANDARDS	
EMC	EN 301 489-3
Radio Regulation	EN 302 208-2
Safety	CEI EN 60950-1 CEI EN 50364

SDK INFORMATION	
Supported OS	Windows 7, 8
Supported Languages	C#, C++, serial command protocol

CONNECTOR TYPES



ETHERNET CONNECTION WITH M12 D-CODED



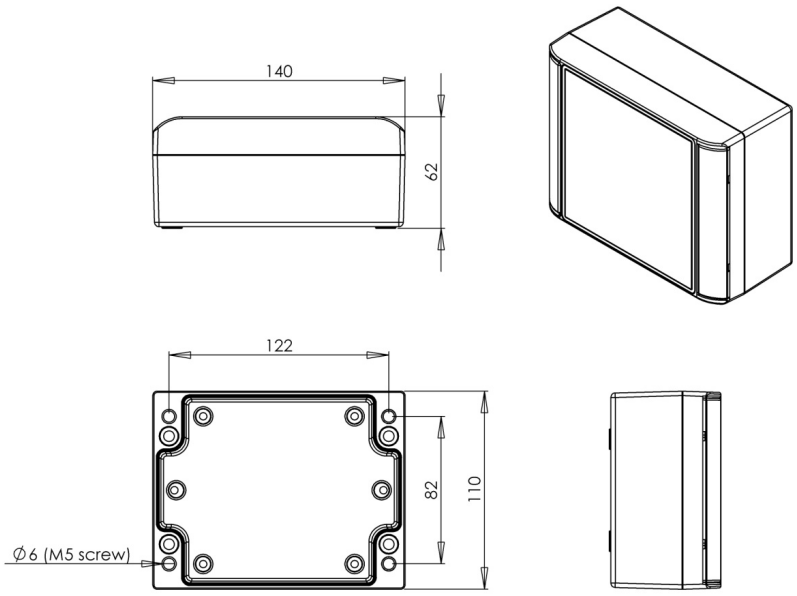
ETHERNET CONNECTION WITH AMPHENOL RJ45

iDTRONIC GmbH
Ludwig-Reichling-Straße 4
67059 Ludwigshafen
GERMANY

RFIDCanada
Automating Identification

Subject to change without notice.
©2022 iDTRONIC GmbH

MECHANICAL VIEW



All Dimensions in millimeters (mm)

ORDER CODES

VERSIONS	ORDER CODES
UHF Long Range Reader BLUEBOX - **RJ45** Ethernet + RS232/485	R-IN-UHF-5345U
UHF Long Range Reader BLUEBOX - **RJ45** Ethernet + RS232/485 + Real Time Clock	R-IN-UHF-5345U-RTC
UHF Long Range Reader BLUEBOX - **M12** Ethernet + RS232/485	R-IN-UHF-5346U
UHF Long Range Reader BLUEBOX - **M12** Ethernet + RS232/485 + Real Time Clock	R-IN-UHF-5346U-RTC
UHF Long Range Reader BLUEBOX - **M12** Wiegand	R-IN-UHF-5347U
UHF Long Range Reader BLUEBOX - **M12** CANbus (SAE J1939 or CANopen) + Ethernet	R-IN-UHF-5348U

iDTRONIC GmbH
Ludwig-Reichling-Straße 4
67059 Ludwigshafen
GERMANY

Phone: 1 905 513 8919
Email: sales@rfidcanada.com
Web: www.rfidcanada.com

Subject to change without notice.
©2022 iDTRONIC GmbH