

UHF Long Range Reader

BLUEBOX

PRODUCT DESCRIPTION

The UHF Long Range Reader BLUEBOX is an industrial RFID read/write device for Industry 4.0 and IoT applications in automation and logistics. Its RFID UHF controller operates globally in the 840–960 MHz range and includes an integrated antenna with auto-tuning for optimal performance.

The reader connects to a host (PC or PLC) via RS232/RS485, Ethernet 10–100M, or USB VirtualCom. It supports real-time data transfer and interaction with transponders within the antenna range.

With its IP67 protection, the BLUEBOX is built for harsh environments. It features three signal LEDs and an integrated buzzer for quick status updates. Optional features include a Real-Time Clock (RTC), two optoisolated inputs, and two relay outputs for automation tasks. Durable M12 connectors or optional Amphenol RJF 544 Ethernet connectors ensure reliable operation.

Firmware updates and parameter configurations are available via the communication interfaces. The reader complies with ISO 18000-6C (EPC C1G2) standards.

A software development kit (SDK) is available, including test/configuration software and an ANSI C library (*.dll, *.h, *.def, *.lib files).



APPLICATIONS

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

FEATURES

- Integrated Antenna with Auto-Tuning
- USB Service Interface
- M12 or RJ45 Connectors
- RS232/RS485, Ethernet, Wiegand or CANbus
- IP67 Protection Class
- 3 Signalling Led and integrated buzzer

RFID OPTIONS

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



TECHNICAL DATA

ELECTRICAL SPECIFICATIONS

Power Supply	10...36 Vdc, PoE IEEE 802.3af-2003 A/B
Power Rating	15 W @ 27dBm
Operating Frequency	865 MHz – 868 MHz
Max. Power	0.5 W (27 dBm), 1dB step software programmable
Status	3 LED Buzzer
Antenna	Integrated
Operating Distance	up to 4 meters*
Digital Inputs	2 optoisolated inputs, 10 – 36 Vdc, max 20 mA @24Vdc
Digital Outputs	2 relay outputs, 1A@30Vdc, 0.5A@125Vac
Interfaces	RS232 / RS485 Ethernet 10–100M
Service Interface	USB VirtualComPort (VCP)
Connector	M12 Amphenol RJ45

MECHANICAL CONDITIONS

Housing Material	Die-cast aluminum plastic
Overall Dimensions	110 x 140 x 62mm
Protection Class	IP67

ENVIRONMENTAL CONDITIONS

Operating Temperature	-20°C up to +55°C
Storage Temperature	-40°C up 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

SUPPORTED STANDARDS / TAGS

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

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

ORDER CODES

	RJ45	M12
ORDER CODES		
RS232 / 485	R-IN-UHF-5325U	R-IN-UHF-5326U
RS232 / 485 + Real Time Clock	R-IN-UHF-5325U-RTC	R-IN-UHF-5326U-RTC