iDTRONIC
PROFESSIONAL RFID

BLUEBOX UHF
CYLINDRICAL ANTENNA M30

APPLICATIONS

- Industrial Automation
- Production Chains
- Data Collection
- Access Control

FEATURES

- Global UHF Frequencies:
  865 – 867 MHz | 902 – 928 MHz
- IP 67 Protection Class
- Unique M30 Design
- Common SDK for all BLUEBOX Products
- BLUEBOX SHOW Application Software
- CE & FCC approved

RFID OPTION

- **UHF** (ISO 18000-6B & ISO 18000-6C EPC C1 GEN2)

PRODUCT DESCRIPTION

The BLUEBOX M30 UHF Antenna is a fixed and compact UHF RFID antenna for industrial automation processes.

It has an power output of up to 27 dBm / 500 mW. The power setting can be set in 1 dBm steps starting from 10 dBm. In combination with the integrated circular antenna and a gain of -8 dBic, the M30 UHF Cylindrical Antenna can achieve reading distances of up to 20 centimeters within industrial environments.

Typically this device will be used within the industrial automation at production lines. Another wide spread applications are the data collection and access control.

The device comes with a TNC MALE interface and a power supply of 10 to 36 V. This RFID device allows a flexible and fast integration into many existing applications with its easy to install cylindrical M30 housing and standardized M30 connectors.

iDTRONIC's BLUEBOX M30 UHF Antenna supports the well known BLUEBOX SDK with demo and setup tools. The Windows based tools support all operating systems starting from XP up to Windows 10. Combined with C++, C# and a ASCII command protocol the software development kit offers an easy option to integrate this UHF reader into any environment.

Further customization of firmware and hardware is possible on request and on a project basis.
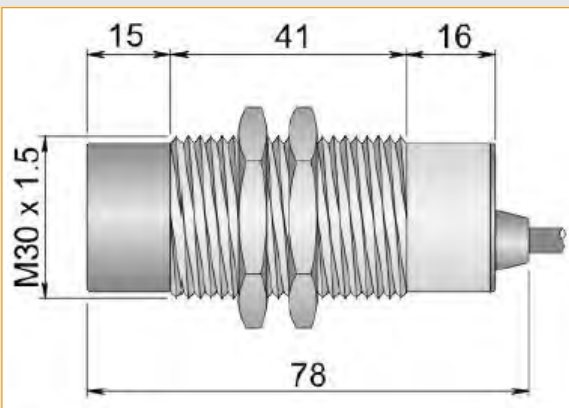
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This cylindrical reader is applicable for construction site machines. The different materials on a construction site require a variety of additional equipment.

Thanks to the cylindrical reader, the additional excavator buckets or drills are immediately ready for use. The specific user data are stored on the transponder on the excavator bucket.
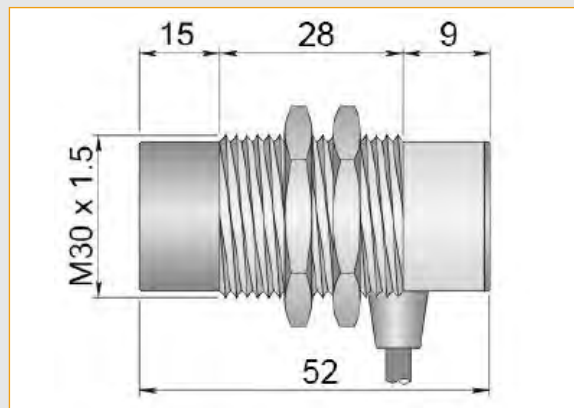
The cylindrical reader is very robust and durable thanks to the IP 67 protection class. Therefore it is well suited for the construction site.

► DIMENSIONS

9131 U	9133 U	9132 U	9134 U
M30 x 1.5 — 15 · 41 · 16 — 78	M30 x 1.5 — 15 · 28 · 9 — 52

TECHNICAL DATA

ELECTRICAL SPECIFICATIONS

Power Supply	
Power Consumption	
Operating Frequencies	865 – 868 MHz (ETSI) 902 – 928 MHz (FCC)
RF Output Power	
RF Input Sensitivity	
Operating Distance	up to 20 cm*
Interface	TNC male, Cable Length: 1.5 m
Connector	M30

ANTENNA SPECIFICATIONS

Antenna Gain	- 8 dBic
Beam Width	100 °|170 °
Axial Ratio	< 1.5 dB
Polarization	Circular, RHCP

MECHANICAL SPECIFICATIONS

Housing Material	Stainless Steel + PC
Overall Dimensions	M30 × 1.5 × 78 mm M30 × 1.5 × 52 mm
Weight	200 g
Protection Class	IP67

ENVIRONMENTAL CONDITIONS

Operating Temperature	– 20 °C to +55 °C
Storage Temperature	- 40 °C to +65 °C
Humidity	5 % to 95 %, non-condensing

SUPPORTED STANDARDS / TAGS

Standard ISO 18000-6B and ISO 18000-6C (EPC Class 1 Generation 2)
E.g.: Alien Higgs 2/3/4, Impinj Monza, NXP UCODE, etc.

APPLICABLE STANDARDS

EMC	EN 301489-1:2012-04 (v1.9.21) EN 301489-3:2013-12 (V1.6.1)
Radio Regulation	EN 300330-1:2015-08 (V1.8.1) EN 300330-2:2015-08 (V1.6.1)
Safety	EN 60950-1:2014-08 EN 62369-1:2010-03 EN 50364:2010-11
RoHS	EC Guideline 2011/65/EU
Certificate	FCC, CE

SDK INFORMATION

Supported OS	Windows XP, Vista, 7, 8, 10
Supported Languages	C#, C++, serial command protocol

*Reading distance depends on tag, antenna and environmental conditions

ORDER CODES

VERSION	ORDER CODE
ETSI (865.7 – 867.5 MHz)	
M30 9131U (ETSI) - Size: 78 mm	R-IN-UHF-9131U
M30 9132U (ETSI) - Size: 52 mm	R-IN-UHF-9132U
FCC (902 – 928 MHz)	
M30 9133U (FCC) - Size: 78 mm	R-IN-UHF-9133U
M30 9134U (FCC) - Size: 52 mm	R-IN-UHF-9134U

For further information & prices, please contact info@idtronic-rfid.com