



## UHF ANTENNA CYLINDRICAL M30

### PRODUCT DESCRIPTION

The world-class Cylindrical M30 UHF Antenna is a fixed and compact UHF RFID antenna for industrial automation processes. The cylindrical design is exclusive and unique on the market and was developed by iDTRONIC.

In combination with RFID readers 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 M30 UHF device comes with a TNC FEMALE antenna connector. This RFID component allows a flexible and fast integration into many existing applications with its easy to install cylindrical M30 housing.

Further customization of this hardware is possible on request and on a project basis

#### ► APPLICATIONS

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

#### ► FEATURES

- 864 – 870 | 913.5 – 919.5 MHz
- IP 65 Protection Class
- Unique M30 Design
- SDK for all BLUEBOX Products
- BLUEBOX SHOW Software
- CE & FCC approved

#### ► RFID OPTIONS

- UHF (ISO 18000-63 EPC C1 GEN2)

## TECHNICAL DATA

ELECTRICAL SPECIFICATIONS: ETSI/EU	
Operating Frequencies	864 – 870 MHz (ETSI)*
Peak Gain	-10 dBic max
Polarization	Circular
VSWR	2.0 : 1 max
F/B Ratio	1 db max
Input Impedance	50 ohm
Axial Ratio at Boresight	3 db max
Connector	TNC female

ELECTRICAL SPECIFICATIONS: FCC/US	
Operating Frequencies	913.5 – 919.5 MHz (FCC)
Peak Gain	-10.5 dBic max
Polarization	Circular
VSWR	2.0 : 1 max
F/B Ratio	1 db max
Input Impedance	50 ohm
Axial Ratio at Boresight	3 db max
Connector	TNC female

MECHANICAL SPECIFICATIONS	
Housing Material	Nickelled Brass + PC
Overall Dimensions	M30 × 1.5 × 90.15 mm M30 × 1.5 × 52 mm (90° Version)
Weight	200 g
Protection Class	IP65

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

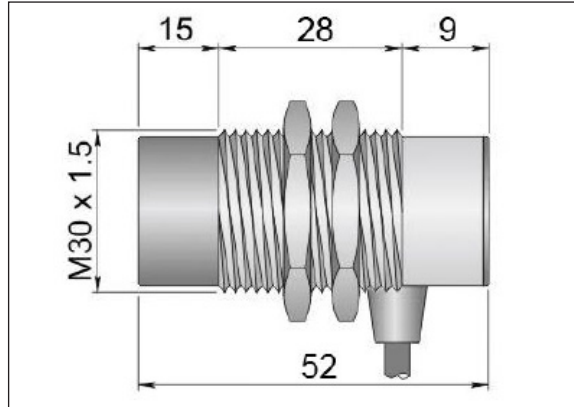
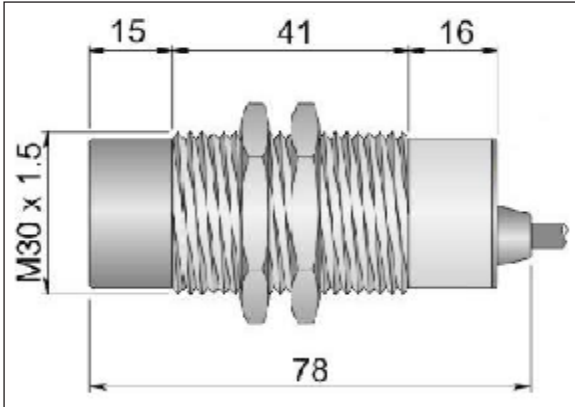
ENVIRONMENTAL CONDITIONS	
Operating Temperature	- 20 °C to +55 °C
Storage Temperature	- 40 °C to +65 °C
Humidity	5 % to 95 %, non-condensing

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 and amendment 2015/863
	EN 50581:2012 (valid till 2024-07-07)
	EN 63000:2018
REACH	EU Guideline 1907/2006, updated by 2018/2005/EU

## ORDER CODES

VERSIONS	ORDER CODES
<b>ETSI (864 – 870 MHz)</b>	
M30 9131U (ETSI) - Size: 90.15 mm	R-IN-UHF-9131U
M30 9132U (ETSI) - Size: 52 mm	R-IN-UHF-9132U
<b>FCC (913.5 – 919.5 MHz)</b>	
M30 9133U (FCC) - Size: 90.15 mm	R-IN-UHF-9133U
M30 9134U (FCC) - Size: 52 mm	R-IN-UHF-9134U

## DIMENSIONS



## APPLICATION EXAMPLES

### AUTOMATED BALE MANAGEMENT SYSTEM

Allow farmers to track the bale during the harvest is an essential task during the harvest. iDTRONIC's UHF RFID systems can help the hay producers to more efficiently manage their production, warehouse and logistic processes. During the harvest the bale will be equipped with an RFID chip and can be tracked throughout the complete process. After baling the farmer can easily scan the RFID transponder with a vehicle mounted RFID reader and external M30 Antennas connected via CAN-Bus directly to the electronic system of the tractor.



### BAGGAGE HANDLING & TRANSPORT SYSTEM

The Cylindrical M30 is reliable hardware that can facilitate the automatic identification of RFID-tagged tote boxes in airports or other baggage handling operations.

By synchronizing a UHF reader with the Cylindrical M30 antenna, operators are equipped for uninterrupted tracking and tracing during peak usage with increased baggage volume.

