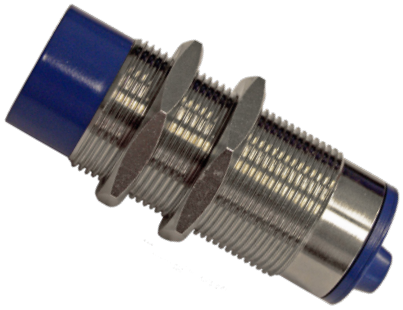
iDTRONIC
PROFESSIONAL RFID

# HF | NFC RFID READER

# CYLINDRICAL READER BLUEBOX



## PRODUCT DESCRIPTION

The HF | NFC Cylindrical Reader BLUEBOX is a fixed and compact all-in-one UHF RFID reader for industrial automation processes.

HF | NFC Cylindrical Reader BLUEBOX can achieve reading distances of up to 8 centimeters within industrial environments.

Typically this device will be used within the industrial automation at production lines and conveyor belt systems. Another wide spread application is the identification of tool attachment at construction, municipal and farming vehicles.

The HF | NFC Cylindrical Reader BLUEBOX comes with a RS232 or RS485 interface and a power supply of 24 V. This RFID device allows a flexible and fast integration into many existing applications with its easy to install cylindrical housing and standardized M12 connectors.

iDTRONIC's HF | NFC Cylindrical Reader BLUEBOX 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.

### ▶ APPLICATIONS

- Industrial Automation
- Material Handling
- Tracking & Tracing
- Attachment Identification
- Production Control

### ▶ FEATURES

- Inegrated Antenna
- RS232 or RS485 interface
- 24V Power Supply
- Up to 8 cm Reading Distance
- Compact Cylindrical Housing
- 1 Bicolor LED for Status Information
- IP67 rated

### ▶ RFID OPTIONS

HF | NFC

- ISO 14443A/B
- ISO 15693
- NXP MIFARE

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RFIDCanada
Automating Identification

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# TECHNICAL DATA

| ELECTRICAL SPECIFICATIONS | |
|---|---|
| Power Supply | 24 V ±10% |
| Power Consumption | 4 W |
| Operating Frequencies | 13.56 MHz |
| Antenna | Integrated |
| Operating Distance | up to 8 cm* |
| Communication Interfaces | RS232<br>RS485 |
| Status Display | 1 bicolor LED |
| Connector | 5 pin M12 A-coded male connector |

| BLUEBOX 5224H, 5225H, 5227H, 5228H | |
|---|---|
| Pin 1 or red wire* | +PWR (24 Vdc ±10 %) |
| Pin 2 or white wire** | RS232 TxD, RS485 RT+ |
| Pin 3 or black wire* | –PWR (GND) |
| Pin 4 or black wire** | RS232 RxD, RS485 RT– |
| *, ** red/black and white/black twisted pairs with 5227H and 5228H | |

| MECHANICAL SPECIFICATIONS | |
|---|---|
| Housing Material | Nickelled brass + PC |
| Overall Dimensions | M30 × 1.5 × 78 mm |
| Weight | 220 g |
| Protection Class | IP67 |

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

| ENVIRONMENTAL CONDITIONS | |
|---|---|
| Operating Temperature | –20 to +65 °C |
| Storage Temperature | -40 to +65 °C |
| Humidity | up to 95 %, non-condensing |

| SUPPORTED STANDARDS \| TAGS |
|---|
| Standard ISO 14443A/B, ISO 15693, NXP MIFARE Family |

| APPLICABLE STANDARDS | |
|---|---|
| EMC | EN 301489-1:2012-04 (v1.9.21)<br>EN 301489-3:2013-12 (V1.6.1) |
| Radio Regulation | EN 300330-1:2015-08 (V1.8.1)<br>EN 300330-2:2015-08 (V1.6.1) |
| Safety | EN 60950-1:2014-08<br>EN 62369-1:2010-03<br>EN 50364:2010-11 |
| RoHS 2 | EC Guideline 2011/65/EU<br>and amendment 2015/863/EU,<br>updated by 2017/2102/EU<br>EN 50581:2012 (valid till 2024-07-07)<br>EN 63000:2018 |
| REACH | European Union (EC) Regulation 1907/2006,<br>including 26th update of SVHC Candicate List as<br>of 2022-01-17 |
| Certificate | CE |

| SDK INFORMATION | |
|---|---|
| Supported OS | Windows 7, 8 |
| Supported Languages | C#, C++, serial command protocol |
| Demo Software | Windows |

# ORDER CODES

| VERSIONS | ORDER CODES |
|---|---|
| HF \| NFC Cylindrical Reader BLUEBOX - M12 without cable - RS232 | R-IN-HF-5224H |
| HF \| NFC Cylindrical Reader BLUEBOX - M12 without cable - RS485 | R-IN-HF-5225H |
| HF \| NFC Cylindrical Reader BLUEBOX - Cable 1.5 m with open ends - RS232 | R-IN-HF-5227H |
| HF \| NFC Cylindrical Reader BLUEBOX - Cable 1.5 m with open ends - RS485 | R-IN-HF-5228H |

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