

## ➡ iDTRONIC's Cylindrical Reader M30 UHF ⤵

Product Update: New Interface with CANbus (SAE J1939 or CANopen)



The **Cylindrical Reader M30 UHF** is a read and write device from the **iDTRONIC BLUEBOX line**.

The reader now utilizes CANbus connection (SAE J1939 or CANopen) to enhance the existing **RS-232** and **RS-485** interfaces.

### ► INTERFACE OPTIONS FOR VARIOUS CONNECTIONS

The reader has a variety of interface solutions for easy integration into existing systems. The **RS-232** COM interface is a serial port ideally suited for connection to monitors, POS terminals, measuring instruments, or printers. The **RS-485** interface is an asynchronous serial connection for data communication over long distances. It is a bidirectional bus system that may be operated with up to 128 devices on one bus.

The **Cylindrical Reader M30 UHF** is now available with the additional **CANbus (SAE J1939 or CANopen)** interface option. The serial CANbus system enables data exchange between several control units. This has applications in motor vehicles, shipping, or air freight. This interface eliminates the need for long cables. The **SAE J1939** network protocol is used for the transmission of diagnostic data and control information. The **CANopen** connection is a communication protocol which is mainly used in automation processes. Complex devices may be networked with it.

### ► EXCELLENT TECHNICAL PREREQUISITES FOR YOUR APPLICATION

The reader has a **10 - 36 volt power supply**. The **output line** supports up to **27 dBm / 500 mW**. The power can be regulated from **10 dBm in 1 dBm steps**. The reader is, therefore, ideally suited for high-performance devices within various applications.

### ► HIGH READING RANGES DUE TO INTEGRATED CIRCULAR ANTENNA

The **Cylindrical Reader M30 UHF** is equipped with an internal, circular antenna. The antenna has a strength of **-8 dBi**, achieving a **high reading range of up to 50 centimetres**.

## ▶ ULTRA-HIGH FREQUENCY WITH A VARIETY OF SUPPORTED TAGS

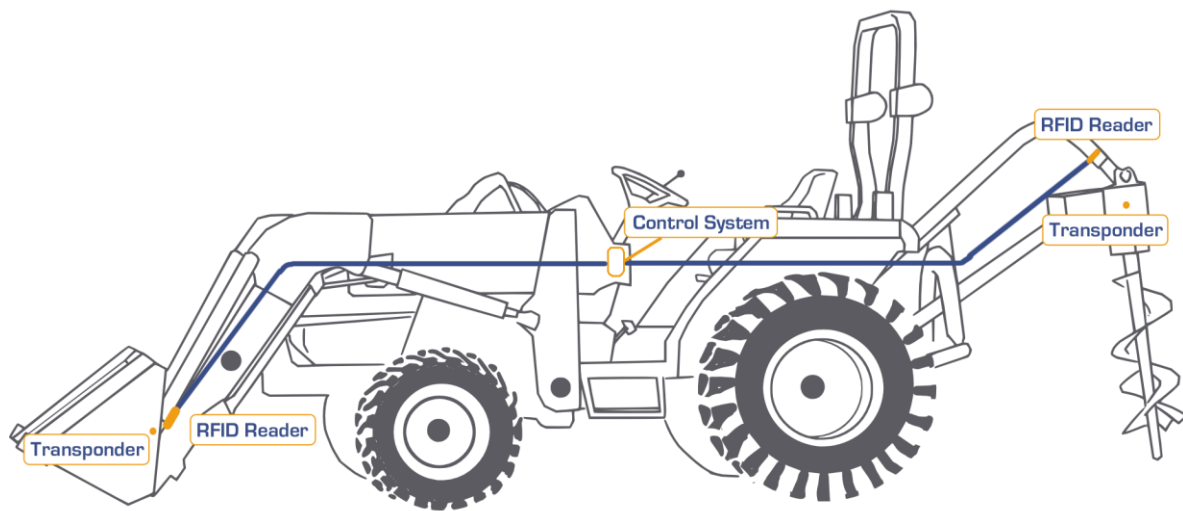
The reader is standard equipped with the **UHF frequency 865 - 868 MHz (ETSI)**.

Optionally, the reader may also be operated with an **FCC frequency of 902 - 928 MHz**. Both frequencies support the **ISO 18000-6C standard (EPC Class 1 Generation 2)** with **Alien Higgs 2/3/4, Impinj Monza, NXP UCODE** tags, as well as many more.

A user-friendly **software development kit (SDK)** and **configuration tool**, for Windows operating systems, are provided as well as an operating system-independent command protocol.

*Further adjustments to the firmware and hardware are possible on request and project basis.*

## ▶ APPLICATION EXAMPLE: IDENTIFICATION OF ATTACHMENTS



The **BLUEBOX Cylindrical Reader M30 UHF** is ideally suited for the identification and automatic configuration of attachments in agricultural machinery, construction machinery, or municipal multifunction vehicles. The RFID reader is mounted close to the holding points of the vehicle's attachments and identifies various external attachments. These may include excavator shovels, sweepers, ice sliders or drills, which are all equipped with an RFID transponder. The attached transponders contain all necessary configuration data about the attachment part. After the readout process, the corresponding data is forwarded to the central control system via the **CANbus interface**.

### Example 1:



Construction site vehicles require a variety of additional equipment to meet the requirements of the modern construction industry. Thanks to the cylindrical design of the reader and the **IP67 protection class**, the reader is ideally suited for the requirements of such harsh environments. In addition to its

resistance to environmental influences, the simple integration of the existing **CANbus interface** was also considered during development. Thanks to the standardized interface and UHF technology, the attachments may be identified and adjusted immediately.

## Example 2:



The demands of a fast harvest with high yields increase from year to year in the agricultural industry. Thanks to modern technology, today's agricultural vehicles can take on a variety of tasks and thus meet these ever-demanding requirements. However, due to the multitude of possibilities, the systems are also

becoming more and more complex. Automated identification systems should take over the configuration of the various attachments so that users do not require extensive training to operate the vehicles. An important component for this is **iDTRONIC's BLUEBOX Cylindrical Reader M30 UHF**. Thanks to the standardized UHF RFID (ISO18000-6C / EPC Class 1 Generation 2) transmission standard and a reading range of up to 50cm, the various tools can be identified easily.

### ► iDTRONIC's SPECIAL TAGS FOR USE IN HARSH ENVIRONMENTS

#### ► Equipment and Logistics Tag: Confidex Ironside Micro



Thanks to its **IP68 protection class**, it is perfectly suited for use on fields or construction sites. It withstands temperatures from **-35 °C to +85 °C** without any problems. The tag can be used on all materials and is also especially suitable for installation on metallic substrates.

#### ► On Metal Tag: Xerafy MicroX II



This tag is durable and suitable for demanding applications, such as those found on construction sites. It has been specially developed for use on metallic surfaces. The material has a long service life and can withstand temperature fluctuations without any issues.

You can find further information about our presented devices on our website:

[Cylindrical Reader M30 UHF](#) | [Confidex Ironside Micro](#) | [Xerafy MicroX II](#)

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