



PROFESSIONAL RFID READER

DESFire M30 USB

APPLICATIONS

- Assembly Lines
- Electronic Production
- Industry 4.0
- Supply Chain

FEATURES

- Adopts ARM MCU Solution
- Industry Standard M30 Housing
- Compliant with ISO 14443A/B, ISO 15693, ISO 18092, ISO 18000-3M3 Standard
- 5 V Power Supply via USB
- Integrated Antenna

RFID OPTIONS

- HF | NFC (ISO 14443A/B, ISO 15693)
- ISO 18000-3M3/EPC HF Gen2
- HID iClass

PRODUCT DESCRIPTION

The DESFire M30 USB is with its M30 housing an professional standard RFID Reader. It is ideally suited for the integration into existing systems within automation processes, Industry 4.0 applications or supply chain.

It has an integrated antenna. Therefore it can achieve reading distances of up to 2 centimeters within industrial environments.

With its cutting edge microcontroller and latest HF transceiver technology, the reader series allows users to read and write almost any 13.56 MHz transponders.

The device comes with a USB VCP interface for data exchange and power supply. This RFID device allows a flexible and fast integration into many existing applications with its easy to install cylindrical M30 housing and the standardized USB connector.

iDTRONIC's hardware comes with a useful SDK for the development of controller, Linux or Windows based applications. Beside the documentation, command protocols, the SDK includes a Windows based demo application with full functionality over all supported HF RFID standards.

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

TECHNICAL DATA

ELECTRICAL SPECIFICATIONS

| | |
|---------------------|---|
| Power Supply | 5 Vdc via USB |
| Power Consumption | 100 mA, standby current < 1 mA (low power mode) |
| Operating Frequency | HF NFC: 13.56 MHz |
| Reading Distance | up to 2 cm* |
| Reader IC | CL 663 |
| RF TX Speed | up to 848 kBd |
| Antenna | Integrated* |
| Antenna Baudrate | 9600...115200 bit/s, 115.200 bits/s default |
| Connector | USB VCP |

PHYSICAL SPECIFICATIONS

| | |
|------------|---|
| Dimensions | 74.7 mm × M30 × 1.5 (main body without cable) |
| Weight | 105 g |
| Material | ABS |

USER ENVIRONMENT

| | |
|-----------------------|--------------------------------|
| Operating Temperature | -20 °C to +80 °C |
| Storage Temperature | -40 °C to +85 °C |
| Humidity | 5 % - 95 % RH (Non-condensing) |
| MTBF | 200'000 h |

*Reading distance depends on tag, antenna and environmental conditions

SUPPORTED STANDARDS | TAGS

| | |
|----------------------------|---|
| ISO 14443 A and compatible | Read/Write: MIFARE® Classic Mini / 1K /4K, MIFARE Ultralight®, MIFARE Ultralight® C, MIFARE® DESFire® EV1, MIFARE® Smart MX, MIFARE® Plus S / X, MIFARE® Pro X, NTAG 21x |
| ISO 14443 B and compatible | Read UID only: Read UID only of all other ISO14443A RFID tags |
| ISO 15693 and compatible | SRI4K, SRIX4K, AT88RF020, 66CL160S, SR176 |
| ISO 18000-3M3/EPC HF Gen2 | EM4135, EM4043, EM4x33, EM4x35, I-Code SLI / SLIX, M24LR16/64, TI Tag-it HF-I, SRF55Vxx (my-d vicinity) |
| HID iClass | I-Code ILT-M |
| | Read UID |

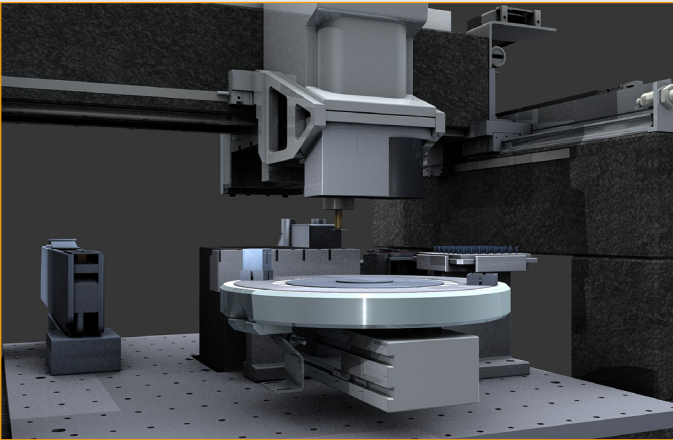
APPLICABLE STANDARDS

| | |
|------------------|--|
| 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 |

SDK INFORMATION

| | |
|---------------------------------------|--|
| Supported OS by Silabs USB VCP Driver | Windows 7/8/8.1/10 (v6.7.3) Windows XP/Server 2003/Vista/7/8/8.1 (v6.7) Windows 2K (v6.3a) WinCE (5.0, 6.0) Macintosh OSX (v4) Linux (3.x.x., 2.6.x) Android 4.2 |
| Supported Languages | Binary command protocol, VS2005 C++ Library |
| Demo Software | Windows |

ASSEMBLY LINES: ELECTRONIC PRODUCTION

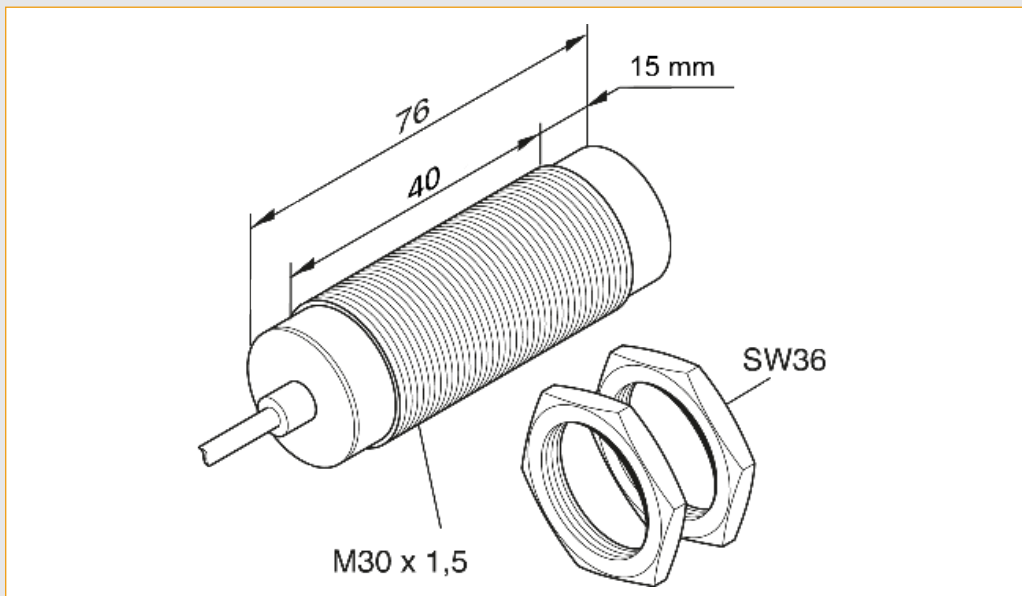


Assembly line production is of great importance in Industry 4.0 applications for large-volume production or parts production within the electronic sector. The correct allocation of parts and goods within the individual process steps is important for a flowing production.

The DESFire M30 USB Reader is best suited for assembly line production. The professional RFID reader can be connected directly to PCs through its integrated USB interface. The DESFire M30 USB RFID Reader can be easily attached to many machines thanks to the M30 housing. The RFID reader locates the parts and goods by means of an attached label. The data is directly transferred to the PC and evaluated.

As soon as an electronic part or good is not mounted in the right place, an error message appears. The reject rate can be reduced by using RFID technology. Costly checks no longer need to be carried out. This has a positive effect on sales.

MECHANICAL VIEW



ORDER CODES

| VERSION | ORDER CODE |
|-----------------|------------------|
| DESFire M30 USB | R-IN-DES-M30-USB |

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