product news

ifm electronic

Identification systems

# RFID with Profibus-DP for production and conveying.

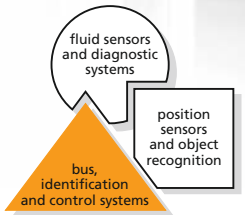
## Flexible RFID system with evaluation unit, antennas and transponders.

- **RFID evaluation unit with Profibus-DP and web server.**
- **Evaluation unit with 4 antenna connections or digital I/Os.**
- **Read/write antennas in industrially compatible housing.**
- **Antennas and transponders from a few bits to Kbytes.**
- **Protection rating IP 67 meets the requirements for harsh environments.**


**The new RFID evaluation unit** with integrated Profibus-DP interface and web server can be used in production to mark tools, for quality assurance such as monitoring production steps, in conveying and in automation technology. Easy to use – flexible parameter setting – you can solve any identification task.

**The antenna concept** guarantees easy and fast connection of the LF and HF RFID antennas to the evaluation unit by means of M12 connectors from 0.3...20 m from ifm electronic.

**The production range of the transponders** includes not only LF transponders with up to 2 Kbit-memory but also HF transponders with 16 Kbits as FRAM version which can be rewritten an unlimited number of times.

## Applications

The new ifm RFID system platform can be used in production for quality assurance such as for electronic route cards, in assembly/handling technology for the automotive industry and in conveying.

The RFID system is optimised for applications in

- production control
- asset management
- material flow control
- track&trace

All connections have industrial-compatible M12 connections. Current is supplied directly via an M12 connection.

The fast and easy integration into the higher-level automation/process control is effected by means of provided program examples. Complex identification tasks are as easy to implement as reading a simple UID.

As an option the RFID antenna inputs can also be used for controlling outputs or detecting input signals. The ifm standard configuration ensures that no complex wiring is necessary. The connected sensors/actuators are supplied directly from the RFID evaluation unit.

The RFID system features a robust housing in the high protection rating IP 67 and a broad temperature range thus meeting the requirements of harsh industrial environments.

The comprehensive accessories such as Profibus connection cables and terminating resistors further facilitate the system set-up.

## Connectors and splitter boxes

| Type | Description | Order no. |
|---|---|---|
|  | M12 jumper<br>1 m, black, PUR cable | **EVC012** |
| | M12 jumper<br>5 m, black, PUR cable | **EVC059** |
|  | Ethernet, cross-over patch cable,<br>2 m, PUR cable, M12 / RJ45 | **E11898** |
| | Ethernet, screened patch cable,<br>2 m, PUR cable, M12 / RJ45 | **E12090** |

## Zubehör

| Description | Order no. |
|---|---|
| Profibus terminating resistor,<br>M12 connector, 4 poles, B coding | **E12315** |
| PROFIBUS cable: straight M12 connector to straight M12 socket, connection cable, 10 m | **E12317** |
| PROFIBUS cable: M12 connector to free cable end, straight connector, 10 m | **E12319** |
| PROFIBUS cable: M12 connector to free cable end, straight socket, 10 m | **E12321** |

Further cable lengths on request

## The products

| Description | Order no. |
|---|---|
| **RFID evaluation unit** | |
|  RFID evaluation unit,<br>Profibus-DP EU/ETSI | **DTE100** |
| **RFID antennas** | |
|  RFID antenna 125 KHz | **ANT512** |
| RFID antenna 13.56 MHz | **ANT513** |
| **RFID transponders for ANT512** | |
|  ID tag/30X2.5/05 – 125 KHz 256 bits | **E80360** |
| ID tag/30X2.5/05 – 125 KHz 2048 bits | **E80361** |
| **RFID transponders for ANT513** | |
|  ID tag/30X2.8/03–13.56 MHz 16 Kbits – FRAM | **E80370** |
| ID tag/30X2.5/06 – 13.56 MHz 896 bits | **E80371** |

| Technical data<br>RFID evaluation unit DTE100 | | |
|---|---|---|
| Operating voltage | [V] | 18...30 DC |
| Current consumption AUX | [mA] | < 0.2 A closed circuit current consumption;<br>< 3.0 A at max. load on IO-1 to IO-4 |
| Current rating outputs | [mA] | (IO-1, IO-2) 500<br>(IO-3, IO-4) 1000 |
| Ambient temperature | [°C] | -20...60 |
| Protection | | IP 67 |
| Material | | metal housing with plastic cover |
| Switching inputs at option | | 4 |
| Switching outputs at option | | 4 |
| Frequency range for ANT512 | [KHz] | 125 |
| Frequency range for ANT513 | [MHz] | 13.56 |
| Air interface ANT513 | | ISO 15693 |
| Range | [mm] | 60, tag dependent |
| Indicators | LED | red / green / yellow |
| Antenna concept, external | | 4 |
| Antenna terminal, external | | M12,<br>20 m unscreened |

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