



### Model Number

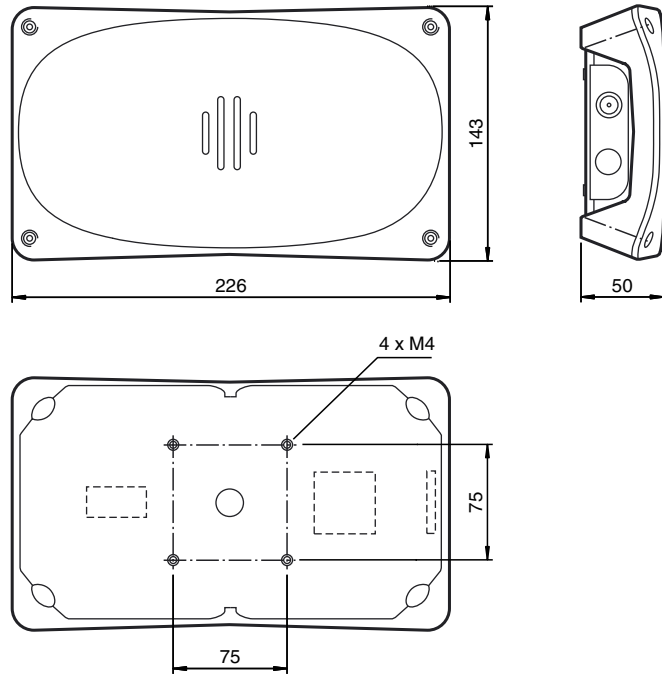
**MTT3000-F180-B12-V45-MON**

Read station

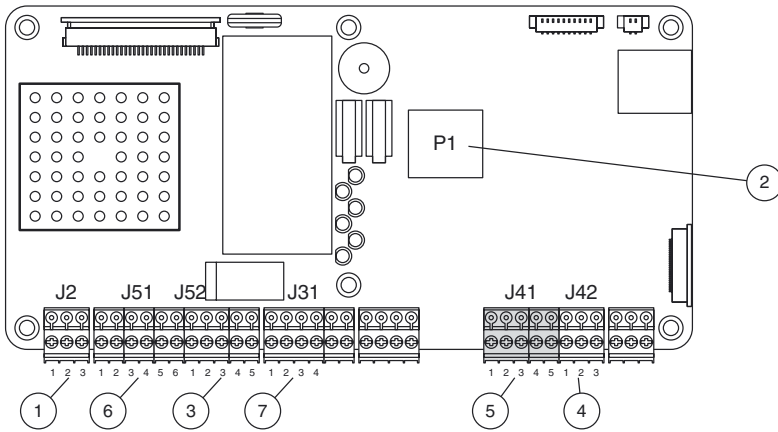
### Features

- Serial interfaces RS 232 and RS 485
- Ethernet interface with TCP/IP
- Frequency hopping (FHSS)
- Integrated buzzer
- Protection degree IP65
- 93 Fixed frequency channels
- Long read range, 3 m
- Multi-tag capability

### Dimensions

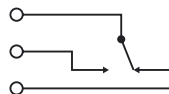


**Electrical connection**



**1 Relay Output Standard Type A**

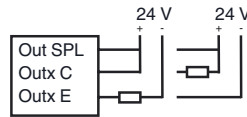
Pin	Label	Description
1	RCOM	Relay common
2	ROPEN	Normally Open contact
3	RCLOSE	Normally Closed contact



**2 Ethernet TCP/IP RJ45 Standard T586A**

**3 Isolated Outputs**

Pin	Label	Description
1	OUT 1C	Output 1 +
2	OUT 1E	Output 1 -
3	OUT SPL	Power for circuit
4	OUT 2C	Output 2 +
5	OUT 2E	Output 2 -



**4 RS 232 Serial Communication Interface**

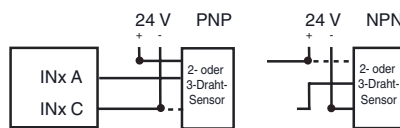
Pin	Label	Description
1	TX	Transmitted data (from Device to Host)
2	RX	Received data (from Host to Device)
3	GND	Ground

**5 RS 485 Serial Communication Interface**

Pin	Label	Description	Label	Description
1	TX+	Transmitted data (from Device to Host)	TX/RX+	Transmitted/Received data
2	TX-	Transmitted data (from Device to Host)	TX/RX-	
3	GND	Ground	GND	Ground
4	RX+	Received data (from Host to Device)	n.c.	Not used
5	RX-	Received data (from Host to Device)	n.c.	Not used

**6 Isolated Inputs**

Pin	Label	Description
1	IN 1A	Input 1 +
2	IN 1C	Input 1 -
3	IN 2A	Input 2 +
4	IN 2C	Input 2 -
5	IN 3A	Input 3 +
6	IN 3C	Input 3 -



**7 Power Supply**

Pin	Signal	Description
1,3	SPL	Positive DC supply input
2,4	RTN SPL	Negative DC supply input

**Technical data**

**General specifications**

Description	Stand alone read head, 2.45 GHz, read distance up to 3 m
Operating frequency	2.402 ... 2.482 GHz Frequency Hopping (FHSS) 2.400 ... 2.484 GHz
Polarization	circular
Transfer rate	16 kBit/s

Emitted power	1 mW
Operating distance	Read ... 3 m

**Memory**

Type/Size	Flash 16 MByte RAM 32 MByte
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**Indicators/operating means**

LED green/yellow/red	controllable per software
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**Function**

The read only device MTT3000-F180-B12-V45-MON establishes a link between the code/data carriers of the RFID system MT and a higher-level computer (such as an industrial PC or PLC).

The read only device communicates with the computer via the interfaces Ethernet (TCP/IP), RS 232, or RS 485 (2 or 4 wire). The maximum range for reading in the frequency range 2.45 GHz is 3 m.

In addition to offering many innovative functions, this read/write device also features frequency hopping (FHSS). This function enables the read/write device to "jump" between frequencies within the specified frequency band. This significantly reduces communication interference, especially when several read/write devices are used in close proximity to one another.

The read/write device can also partition the specified frequency band into 93 different channels, thus making it compatible with older systems.

The system is also multi-tag capable, i.e. several code or data carriers are identified within the field without interference.

Four operating modes allow for complete application flexibility. Configurable parameters allow for fixed data length, hardware and software triggering, and optional heartbeat.

This hardware has been equipped with a relay output, 3 optocoupler inputs, and 2 open collector outputs.

The status of the read/write device is indicated by several integrated LEDs and a buzzer.

For further information, please refer to the system and device manuals.

**Accessories**

**RTS-UP-1**  
Ethernet DeviceServer

**RTS-UP-4**  
Ethernet DeviceServer

**MTO-C1**  
Code carrier

**MTO-C2**  
Code carrier

**MTM-C1**  
Data carrier

**MTM-C2**  
Data carrier

**MTA-MH09**  
Mounting bracket for pole and wall mounting

**Electrical specifications**

Rated operational voltage	$U_e$	10 ... 30 V DC
Current consumption		at 24 V: 150 mA at 12 V: 500 mA

**Interface**

Physical	Ethernet
Protocol	TCP/IP
Transfer rate	10/100 Mbit/s

**Interface 1**

Physical	RS 232
Protocol	ASCII
Transfer rate	1.2 kBit/s ... 115.2 kBit/s standard setting: 9.6 kBit/s

**Interface 2**

Physical	RS 485: full- (4-wire) or half-duplex (2-wire)
Protocol	ASCII
Transfer rate	1.2 kBit/s ... 115.2 kBit/s standard setting: 9.6 kBit/s

**Input**

Optocoupler	3 inputs
Input level	ON: $\geq 2.4$ V , max. 30 V OFF: $\geq 0$ V , max. 0.2 V

**Output**

Electronic	output 1: open-collector; 1 ... 30 V DC, max. 500 mA output 2: open-collector; 1 ... 30 V DC, max. 100 mA
Relay	switching current $\leq 2$ A; $P_{max} = 50$ W switching voltage $\leq 60$ V DC; 30 V AC

**Ambient conditions**

Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
Storage temperature	-20 ... 60 °C (-4 ... 140 °F)

**Mechanical specifications**

Protection degree	IP65
Material	PC-PBT
Mass	3 kg
Dimensions	226 mm x 143 mm x 50 mm (W x H x D)

**Compliance with standards and directives**

Directive conformity	
R&TTE Directive 1995/5/EC	EN 60950, IEC 60215, ETS 300683, ETS 300440
Standard conformity	
Protection degree	EN 60529