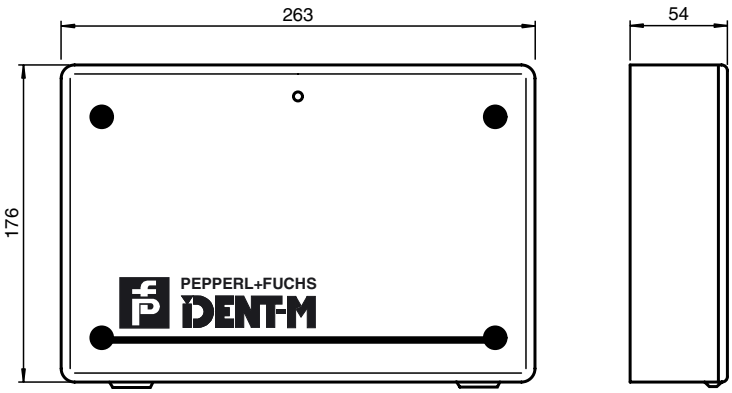
Dimensions



Model Number

MTT-S1-MON

Read/write device

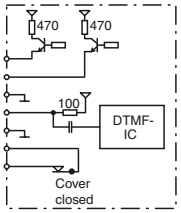
Features

- Serial interfaces RS 232 and RS 485
- Dual-LED for function display
- Stand-alone functionality
- Inputs and outputs
- Multi-tag capability
- Internal control unit with push button switches, 7-segment displays and buzzer
- 99 fixed frequency channels

Electrical connection

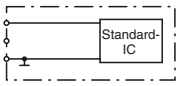
Interface Description:
DTMF, LED, external control input

J1:	1	LED 1
	2	LED 2
	3	GndLED
	4	SDTMF
	5	RtnDTMF
	6	Tamp a
	7	Tamp b



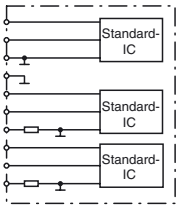
RS 232 for data station

J2:	1	Tx 232a
	2	Rx 232a
	3	Gnd 232a



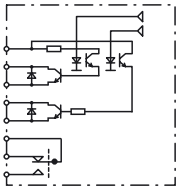
RS 232 / RS 485 for host processor

J3:	1	Tx 232b
	2	Rx 232b
	3	Gnd 232b
	4	CGnd
	5	Tx-/Rx-485
	6	Tx+/Rx+485
	7	Gnd 485t
	8	Rx 485-
	9	Rx485+
	10	Gnd 485r



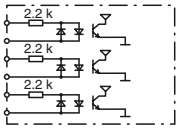
Parallel output and relays

J4:	1	Outspl 1
	2	Out 1c
	3	Out 1e
	4	Out 2c
	5	Out 2e
	6	R1c
	7	R1b
	8	R1m



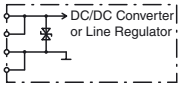
Parallel input

J5:	1	In 1a
	2	In 1c
	3	In 2a
	4	In 2c
	5	In 3a
	6	In 3c



DC supply

J6:	1	Spl 1
	3	Spl 2
	2	Rtnspl 1
	4	Rtnspl 2



Technical data

General specifications

Description	Stand alone read head, 2.45 GHz, read distance up to 4 m
Operating frequency	2.435 ... 2.465 GHz , 100 ID-channels channel separation 300 kHz
Polarization	circular
Transfer rate	read: , 16 kBit/s write: 4 kBit/s
Operating distance	maximum: 4 m

Memory

Type/Size	flash EEPROM 3 x 128 kByte SRAM 128 kByte

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Indicators/operating means		
LED green/yellow/red		controllable per software
Electrical specifications		
Rated operational voltage	U_e	20 ... 28 V DC selectable via Jumper 10 ... 14 V DC
Current consumption		at 24 V: 150 mA at 12 V: 500 mA
Interface 1		
Physical		RS 232
Protocol		ASCII
Transfer rate		≥ 1.2; ≤ 19.2 kBit/s standard setting: 9.6 kBit/s
Interface 2		
Physical		RS 232 or RS 485; for RS 485: full- (4-wire) or half-duplex (2-wire)
Protocol		ASCII
Transfer rate		≥ 1.2; ≤ 38.4 kBit/s default setting: 9.6 kBit/s
Input		
Optocoupler		3 inputs
Input level		ON: ≥ 2.4 V , max. 30 V OFF: ≥ 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 ≤ 2 A; P_{max} = 50 W switching voltage ≤ 220 V DC; 48 V AC
Ambient conditions		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
Storage temperature		-20 ... 60 °C (-4 ... 140 °F)
Mechanical specifications		
Protection degree		IP43 according to EN 60529
Material		front: polycarbonate back face: high grade steel
Mass		1.9 kg
Dimensions		263 mm x 176 mm x 54 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

Function

The read/write device, MTT-S1-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/write device communicates with the computer via the RS 232 or RS 485 (2- or 4-wire) interfaces. The maximum range for reading in the frequency range 2.45 GHz is 4 m and the maximum write range is .25 m.

The read/write device can partition the specified frequency band into 99 different channels, allowing multiple readers to reside in the same area without interference.

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.

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Notes

MTT Internal View

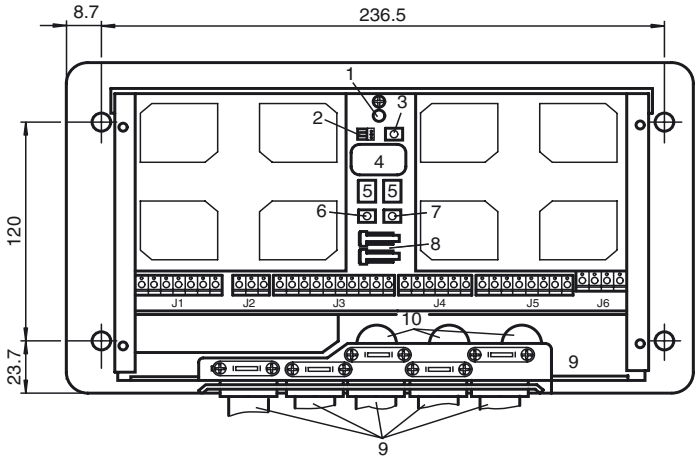
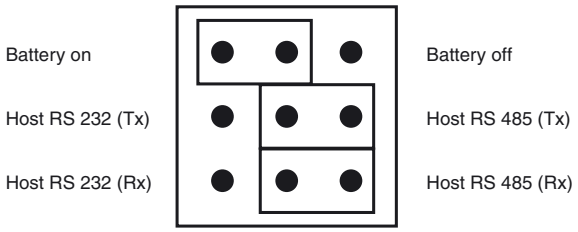


Illustration of MTT-S1 Hardware Features:

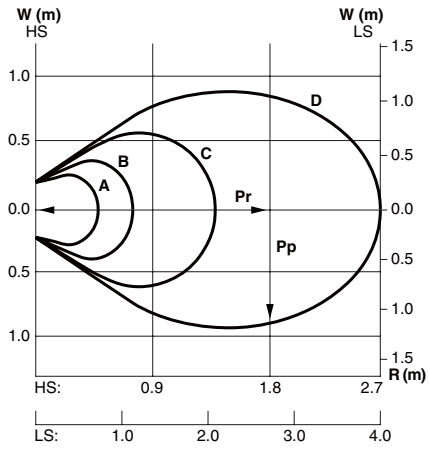
1	Multicoloured LED	6	"Parameter-selection" button
2	Jumper field	7	"Value-selection" button
3	RESET-button	8	Monitor contact for the cover
4	Buzzer	9	Cable connection access, bottom
5	Display	10	Cable connection access, back

Jumper settings



Microwave field shape

HS	Reading speed (16 kBit/s)
LS	Reading speed (4 kBit/s)
W(m)	Wave width
Pr	Transfer range (70 % of R_{max})
Pp	Data transfer range (70 % of R_{max})
R (m)	Range



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