## Model Number

MTT6000-F51-S1

Read/write device

Features

- High reading distance 6 m
- Serial interfaces RS 232 and RS 485
- Dual-LED for function display
- Internal database
- Stand-alone functionality
- Inputs and outputs
- Motion recognition possible
- Multi-tag capability
- 100 frequency channels
- Internal control unit with push button switches, 7-segment displays and buzzer
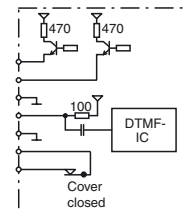- Protection degree IP56

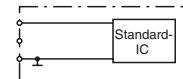## Dimensions
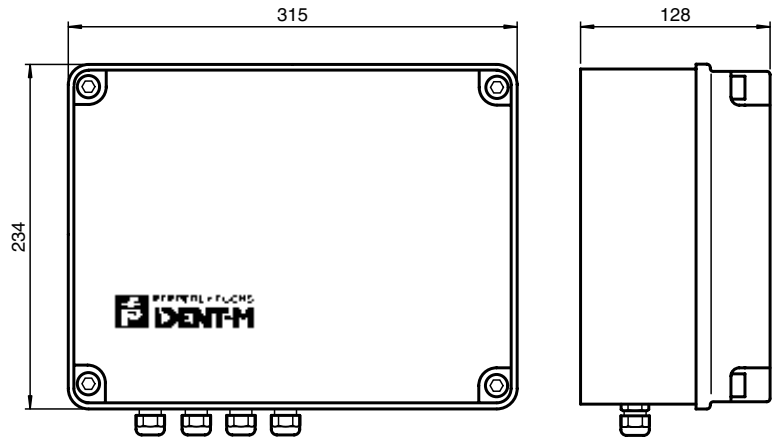
Electrical connection

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
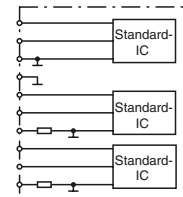
Parallel output and relays

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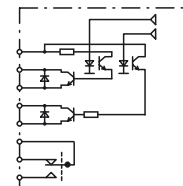
Parallel input

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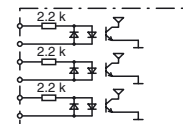
DC supply

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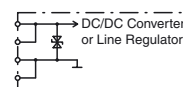
Technical data

General specifications

Operating frequency	2.435 ... 2.465 GHz 100 ID channels, channel separation 300 kHz
Polarization	circular
Transfer rate	read: 4 kBit/s , 16 kBit/s write: 4 kBit/s
Acquisition range of the motion recognition	5 m for velocities between 0.3 and 9.2 m/s
Operating distance	maximum: 6 m

Memory

Type/Size		flash EEPROM 3 x 128 kByte
		SRAM
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 (253 ... 333 K)
Storage temperature		-20 ... 60 °C (253 ... 333 K)
Mechanical specifications		
Protection degree		IP56 according to EN 60529
Material		Polycarbonate
Mass		3 kg
Dimensions		315 mm x 234 mm x 128 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 establishes the connection between the code and/or data carriers of the Ident-M System T and a higher-order computer (industrial-PC, PLC, etc.). Communication with the computer occurs via an RS 232 or RS 485 (2- or 4-wire) serial interface.

The system is multitag capable, i.e. several code or data carriers are identified within the sensing range. The write/read devices can be set to 100 different frequency channels, thereby preventing mutual interference.

Due to their internal data base as well as different inputs and outputs, the devices can also be used in stand-alone operation.

An LED as well as a buzzer integrated in the device indicate the operating status.

The device can be adjusted and tested via an internal control panel with two push button switches and two 7-segment displays.

The device is delivered ex works with the 'Confitalk' protocol software. Defined in this protocol are a wide range of commands which allow the user to perform simple communication operations between the higher-order computer and the read/write device.

The device offers an increased read distance of 6 m.

Additional information can be found in the descriptions of the system and device.

Software

Communication with the identification system is very easy with the demo program IDENT 2005. It shows the system options and simplifies commissioning.

The demo program is included in the scope of delivery.
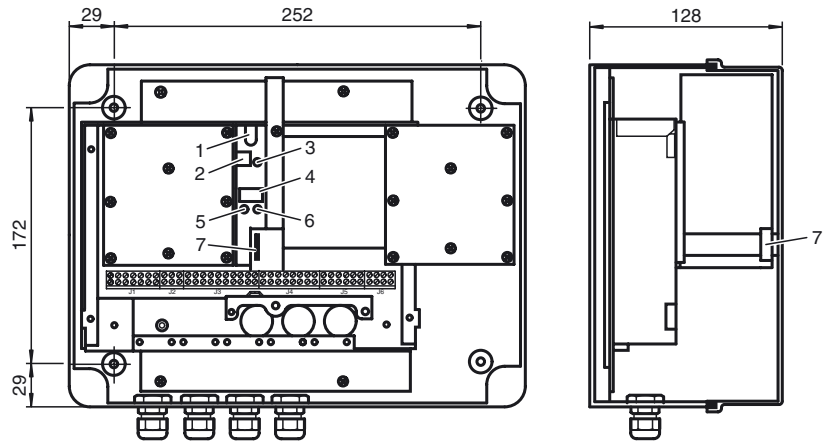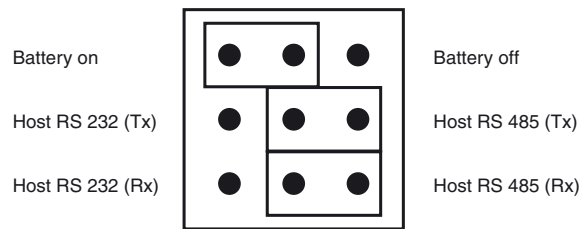
Notes

MTT6000-F51 Internal View

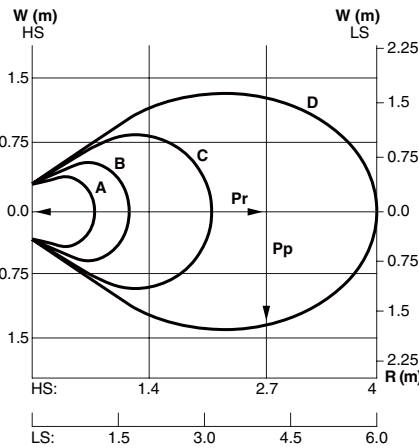**Illustration of MT6000-F51 Hardware Features:**

1 Multicoloured LED
2 Jumper field
3 RESET-button
4 Display

5 "Parameter-selection" button
6 "Value-selection" button
7 Monitor contact for the cover

Jumper settings

Battery on	Battery off
Host RS 232 (Tx)	Host RS 485 (Tx)
Host RS 232 (Rx)	Host RS 485 (Rx)

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