myTEM SmartHome

myTEM FT DIN SIX
MTDIN-100-FT

The myTEM FT DIN SIX is used to read up to six buttons, switches or contacts, such as e.g. door or window contacts. Two inputs can be used alternatively as analogue inputs for 0-10V or as temperature sensors. The programmable behavior allows a flexible use in the house. Optionally, a myTEM Touch Add-On control panel can be attached to the connector.

The device is intended for installation in a flush-mounted box.

Further information can be found on our website:
www.mytem-smarthome.com/web/en/downloads/

ATTENTION:
This device is not a toy. Please keep it away from children and animals!

Please read the manual before attempting to install the device!

These instructions are part of the product and must remain with the end user.

Warning and safety instructions

WARNING!
This word indicates a hazard with a risk that, if not avoided, can result in death or serious injury. Work on the device must only be carried out by persons with the necessary training or instruction.

CAUTION!
This word warns of possible damage to property.

SAFETY INSTRUCTIONS

- Operate this device only as described in the manual.
- Do not operate this device if it has obvious damage.
- This device shall not be altered, modified or opened.
- This device is intended for use in buildings in a dry, dust-free location.
- This device is intended for installation in a flush-mounted box. After installation, it must not be openly accessible.

DISCLAIMER

Trademarks

Product description

The myTEM FT DIN SIX is used to read up to six buttons, switches or contacts, such as e.g. door or window contacts. Two inputs can be used alternatively as analogue inputs for 0-10V or as temperature sensors. The read-in signals are sent to the Smart Server or Radio Server, which use them to regulate and control other devices. The programmable behavior allows a flexible use in the house. Optionally, a myTEM Touch Add-On control panel can be attached to the connector.

The device is intended for installation in a flush-mounted box, e.g. directly behind switches.

Applications:

- Reading of buttons, switches or contacts
- Reading of 0-10V signals or temperatures
- Reading the buttons, temperature and humidity from the optional myTEM Touch Add-On
- Wiring according to the tree topology. Supply and communication each have four connection points for distribution to other devices. These push-in terminals can be pulled upwards for easy replacement of the device.
- Operation via the central server

Functions:

- Supply voltage device 24 VDC with 4-pole push-in support terminals for further wiring. The device is working properly even if the supply voltage drops down to 10 VDC.
- 4 digital inputs 24 VDC (DI1 – DI4) for e.g. external switches. They must be connected to V+.
- 2 analogue inputs 0-10 VDC (AI1 – AI2) or used as NTC, PTC or PT1000 sensors. Analogue inputs must be connected to ground (⊥ / GND). These inputs can also be used as digital inputs 24 VDC. They must then be connected to **V+**.
- **Up to 50 FT devices** can be connected per CFT bus.
- CFT bus with free wiring according to the tree topology as indicated in the picture below. The total length of the lines can be up to **500 m**.

Network structure / Structure du réseau — Netzwerk-Struktur / Struttura del network
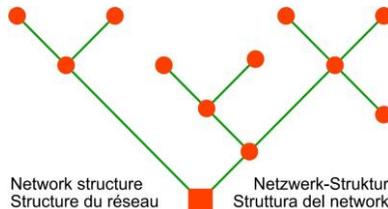
Installation

WARNING! Depending on national safety standards, only authorized and/or trained technicians may be allowed to make electrical installations on the power supply. Please inform yourself about the legal situation before installation.

WARNING! To avoid electrical shock and/or equipment damage, disconnect power to the main fuse or circuit breaker before installation or maintenance. Prevent the fuse from being accidentally switched on again and check that the system is de-energized.

WARNING! The device shall be connected according to the wiring diagram only. Covers of the flush-mounted boxes must comply with relevant safety standards.

**WARNING!** The electrical installation must be protected with a fuse of max. 10 A.

WARNING! The myTEM FT DN SIX should be installed in a flush-mounted box (wall, ceiling) in compliance with relevant national safety standards and with a depth of not less than 60 mm.

Please install the device according to the following steps:

1. For your safety, switch off the mains voltage (break fuse) during installation. Make sure that wires are not short-circuited during and after installation, as this may damage the device.
2. Connect the device according to the circuit diagram of the myTEM ProgTool or the terminal assignment from the picture below. Use solid wires (Ø0.8 mm) for supply and communication, stripped by 5 to 6 mm. Insert the conductors until they hit the backstop.

3. Connect the AWG22 wires either directly to the buttons / switches / sensors or use connecting terminals. Digital inputs (DI1 – DI4) require on the opposite side the red wire (**V+**). Analogue inputs (AI1 / AI2) also require the red wire (**V+**) if configured as digital inputs and the black wire (⊥ / GND) if configured as analogue inputs.

   Option: Connect the device with the ribbon cable to the myTEM Touch Add-On control.

4. Check the wiring and then push the device into the flush-mounted box.
5. Switch on the mains voltage and include the device with the myTEM ProgTool in the server.
6. Switch off the mains voltage and fit a cover over the flush-mounted box. When you switch the mains voltage back on again is your device ready.
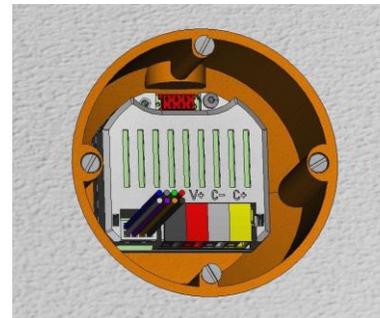
NOTE: To release a wire from the push-in terminal, hold it firmly and pull it out of the terminal by simultaneously twisting it back and forth.
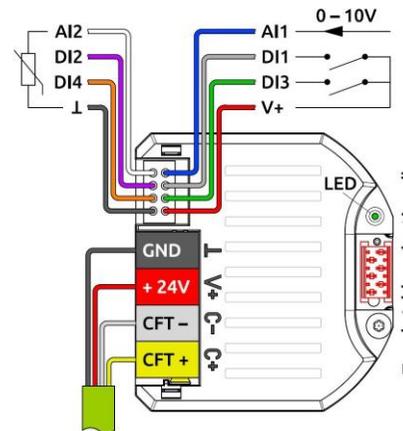
LED display

The LED next to Touch Add-On connector may show these states:

LED flashing green:	Device is connected to the FT Base Modul and is in normal operating mode
LED green:	Device gets network configurations from the FT Base Modul
LED flashing blue:	Device is identified using the myTEM ProgTool
LED flashing green and red:	Device started and connected to the FT Base Modul but not yet added to a Smart Server or Radio Server. (Requires an action in myTEM ProgTool.)
LED red:	Device started but has no connection to the FT Base Modul
LED off:	Device not powered, not started or broken

Behavior after power failure

After a power failure, all outputs are switched off until the new settings are received from the Smart Server or Radio Server.

Quick trouble shooting

The following hints may help solving trouble:

1. Make sure that the power supply is connected with the correct polarity. With wrong polarity the device does not start.
2. Make sure that the voltage has not dropped below the allow operating voltage. The push-in terminals have openings (Test) for test probes.
3. If a device cannot establish communication to the myTEM FT Base Modul, check if the CFT bus (C+ / C–) is correctly wired and the ground (⊥ / GND) is connected. A missing ground connection can affect the communication.

Configuration

The products can be used immediately after being added to the Smart Home network. However, depending on the function, a configuration may be helpful or required. After setting the parameters, further optional corrections such as offset, etc. are sometimes possible.

CAUTION! Depending on the function, the server may change some settings.

Description	Settings					
Analog inputs	Analog 0 – 10V	Digital	NTC 5k	NTC 10k	PT 1000	PTC (KTY81/110)

Technical specifications

Dimensions (W × H × D)	44 × 41 × 18.5 mm
Installation / mounting	In flush-mounted box (wall, ceiling) ≥ Ø 60 mm, depth ≥ 60 mm
Operating voltage	24 VDC (The device is working between 10 VDC and 26 VDC)
Power consumption in standby	Continuous operation, therefore no standby operation
Power consumption in operation	0.14 W (without consumption of external devices)
Logic digital input Logic analogue input (used as digital input)	< 6.5 VDC = 0 > 7.8 VDC = 1 6.5 VDC – 7.8 VDC undefined Ri = 100 kΩ < 3.0 VDC = 0 > 4.0 VDC = 1 3.0 VDC – 4.0 VDC undefined Ri = 50 kΩ
Ambient temperature for operation	0 °C – 40 °C
Ambient temperature for storage	-20 °C – 60 °C
Ambient humidity	5 %RH – 85 %RH (non condensing)
Wire cross-section push-in terminals 4-pole	0.6 mm – 0.8 mm solid, when using identical conductor diameters – 1.0 mm solid
Stripping length for push-in terminals 4-pole	5.0 mm – 6.0 mm
Degree of protection provided by enclosure	IP 20 (after installation) (according to EN 60529)
Protection class	III (according to EN 60730-1)
Overvoltage category	I (according to EN 60730-1, resp. EN 60664-1)
Pollution degree	2 (according to EN 60730-1)
Electrical safety	EN 60730-1:2016 + A1:2019
EMC	EN 60730-1:2016 + A1:2019 EN IEC 61000-6-2:2019 EN 61000-6-3:2007 + A1:2011 / AC:2012
RoHS	EN IEC 63000:2018
CE conformity C E	2014/30/EU (EMC) 2011/65/EU (RoHS)

Dimensions: 41.0 × 44.0 × 18.5

Terminals: GND, + 24V, CFT –, CFT +, V+, C–, C+

LED, Touch Add-on (optional)

AI1	Analogue input AI1
DI1	Digital input DI1
DI3	Digital input DI3
V+	Supply for digital inputs V+
AI2	Analogue input AI2
DI2	Digital input DI2
DI4	Digital input DI4
⊥	Ground for analogue inputs (⊥ / GND)