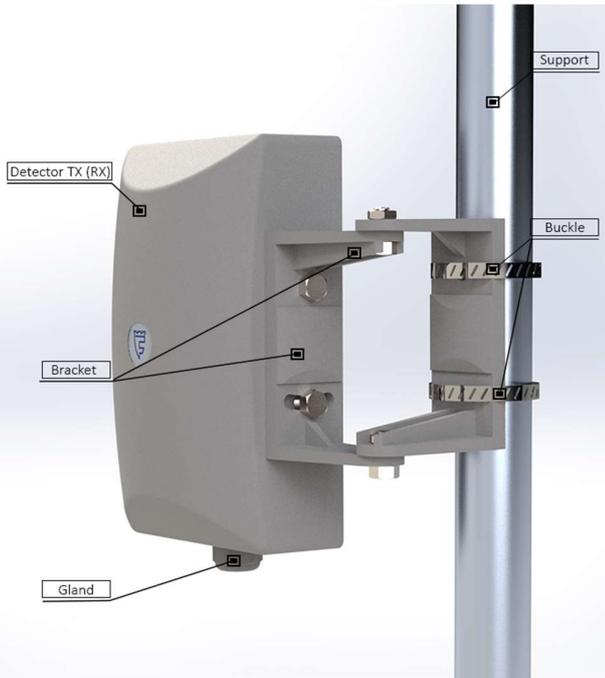


Congratulations on your purchase of a New Forteza FMC 24 Pro Bistatic Microwave Detector !



1. Software

- Android  „Forteza soft“
- Windows  „Forteza software“ (version 3.3.7)
- It is recommended to use it in order to connect to FMC 24, FMC 24 Pro, TRIBO-S

2. Installation

The possibility of mounting the sensor remained universal (support, wall), but it became possible to move the sensors holder from one side to the another. There are plastic screws in the housing for this purpose.

3. Indication

TRANSMITTER. After supplying power LED will blink as many times as the set channel is set, then it will light continuously, which means that the power supply is correct and the transmitter is operating normally.

If the LED blinks in red, it means that the power supply current is below the required value of 9V; A rare blinking of the red LED indicates a transmitter malfunction.

RECEIVER. After supplying power, the LED will flash as many times as the set channel is set, after that it will start to light in green, what means that:

- power is supplied
- synchronization of the receiver with the transmitter happened.
- the signal level is within the appropriate range.
- the protection zone is secured.

Red LED light means that the sensor is in the "alarm trigger" state because:

- no signal is received from the transmitter;
- the received signal is too strong;
- intrusion into the protection zone;

If the LED flashes in red, it means that the supply current is below the required values of 9V;

A rare blinking of red indicates that the signal level is in the wrong range.

- Continuous red light with periodic LED going off (1 time every 4 seconds) means that the level of the received signal exceeds the permissible level (> 650 mV).
- Flashing red LED indicates that an ANDROID or WINDOWS device is connected to the receiver and compatibility is in progress.

4. Adjustment (achieving maximum signal strength)

- **Adjustment can only be started when receivers green LED is on.**
- **The operating signal level range is from 50 mV to 800 mV.**
- **Adjustment is also possible without using the software, just visually (from eye).**

If, after adjustment, the signal is in the wrong range (too high or too low), the receiver LED will indicate a certain blinking frequency.

-For accurate adjustment we strongly recommend using "Forteza software" for connecting to Windows devices or "Forteza soft" for connecting to an Android device (version 3.3.7)

4. Connecting to sensor options for fine tuning and threshold setting.

-Connecting using an Android device is based on the built-in Bluetooth connection. Any **Additional converters are don't required to connect to the FMC 24 Pro sensor.**

You will find the Bluetooth password under the receiver's cover (e.g. BT Pin: XXXX)

To connect with the sensor via Bluetooth, it is necessary to turn the switch to the "ON"



position (the blue LED on the switch will start flashing frequently, what means that the

sensor is ready to be connected via Bluetooth) . On your Android device, you need to take the appropriate steps to connect to the sensor (when successfully connecting to the sensor via Bluetooth, the blue LED flashes twice every 2 seconds).

- Additional converter is not required to connect to the sensor using a Windows device, all you need to do is to connect the sensor to a computer with a USB-USB cable.

– To connect to the sensor using 485 interface, it requires a 485/USB converter and setting appropriate switch position, then connecting the white/green wires to A B converter terminals.

5. The channel switches in the receiver and transmitter are located under the covers, but switching them is much easier. The channel names remained the same as the FMC 24 sensor, the LED indication also remained the same as the FMC 24 sensor, i. y 1A -1 ch., 2A- 2ch., 3A- 3ch., 4A -4 ch. - Single flash and 1B- 5ch., 2B- 6ch., 3B- 7ch., 4B- 8ch. - double LED flash.

6. Under the receivers cover there now is a possibility to connect the end-line resistor and the tamper line resistor, what allows protecting the sensor output wire from sabotage (receivers). Changing the position of the switch between 2W and 4W allows you to select the operating mode with the central security control panel.

Receivers control panel (RX)

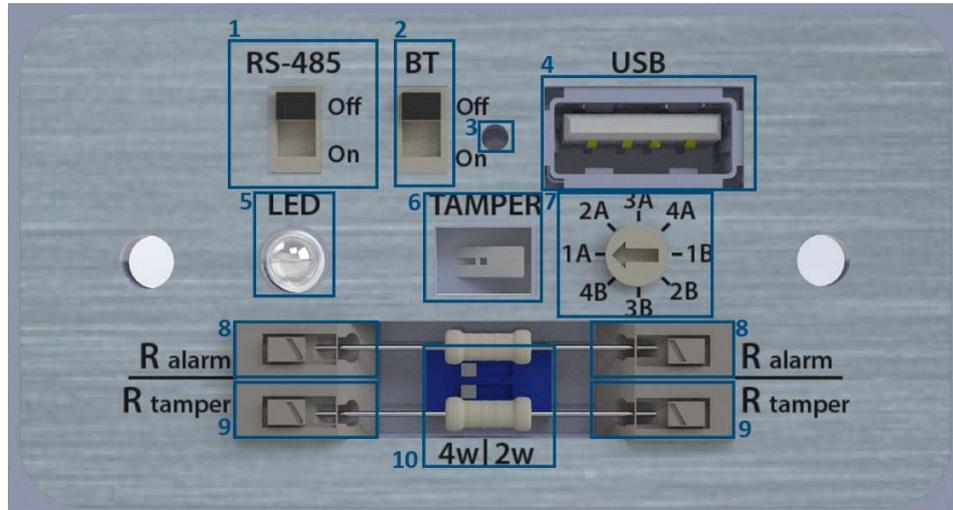


Fig. 1

Marking (RX):

1 – “RS-485“ interface switch	5 – LED indication
2 – “Bluetooth” interface switch	6 – Tamper circuit
3 – “Bluetooth” interface indication	7 – Frequency band switch 1-8
4 – USB connection	8 –End of Line resistor of triggering circuit
	9- Tamper circuit resistor
	10- Alarm signal commutating scheme switch

Transmitters control panel (TX)

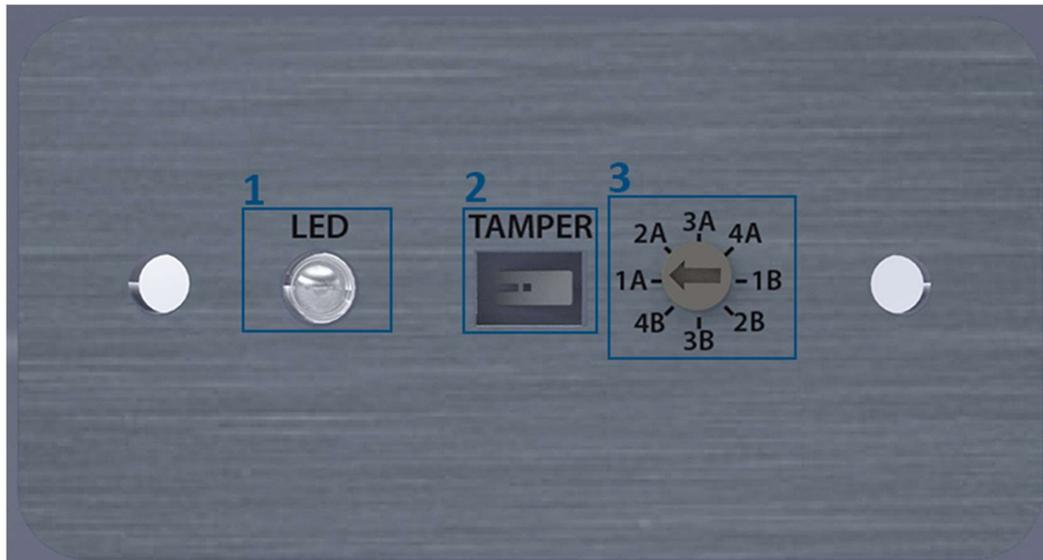


Fig. 2

Markings (TX):

- 1 – LED indication
- 2 – Tamper circuit
- 3 – Frequency band switch 1-8

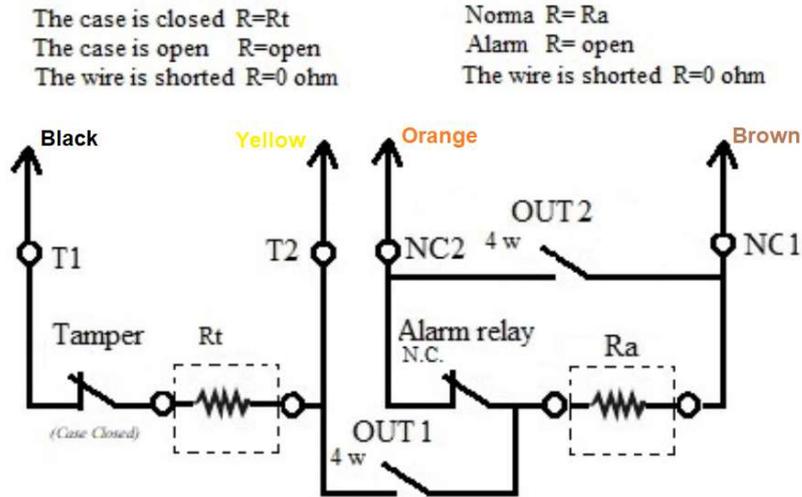
Methods of connecting the system to the main security control panel

In the transmitter, the tamper circuit contacts (“TAMPER”) must be connected to the control unit in a separate closed circuit.

In the receiver, tamper circuit contacts (“TAMPER”) and alarm circuit contacts can be connected to the control unit (security panel) in two ways:

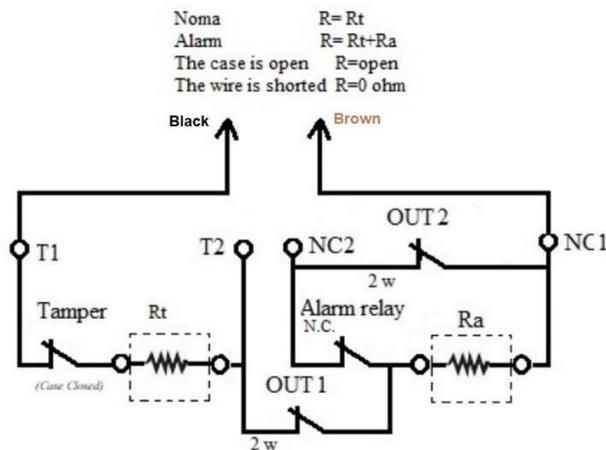
1st way, Separate closed circuit:

4 Wire, Alarm relay N.C



2nd way: The actuator TAMPER relay is switched on sequentially with the contacts of the actuator relay contacts.

2 Wire, Alarm relay N.C



NOTE. In order to use 1st way, switches no. 10 (see figure Fig 1) must be switched to position 4w.

In order to use 2nd way, switches no. 10 (see figure 1) must be switched to position 2w.

Factory settings: $R_{TAMPER} = R_{ALARM} = 5,6\text{ kOhm}$.