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## Installation and Operation Instruction


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The Bluetooth® Commissioning Meter **FlowCon FBT** is a pressure and flow meter with integrated Bluetooth® communication, intended for HVAC applications. In combination with the FlowCon App, the FlowCon FBT can provide system readings via Bluetooth®. Data includes  $\Delta P$  and Flow based on selected valve and setting. The FlowCon FBT consists of a handle and a plug-in module. The module is as standard 0-700 kPaD (PT85 for FBT25), alternatively a module with a wider range of 0-2000 kPaD (PT86 for FBT30) can be selected.

### Step 1: Fitting Plug-in Module and Hoses

1. Remove the top cover by pushing the release button on the backside of the handle and pull out the cover.
2. Fit the FBT plug-in module in the handle, knob facing forward, and push until it clicks in place. If it needs to be taken out, release the plug-in module by pushing on the release button on the backside of the handle and then pull the plug-in module out.
3. Connect the hoses to the plug-in module. Blue hose connects to blue fitting and red hose connects to red fitting.
4. Finger-turn the knob on the FBT clockwise until end position.

### Step 2: Bluetooth® Connection

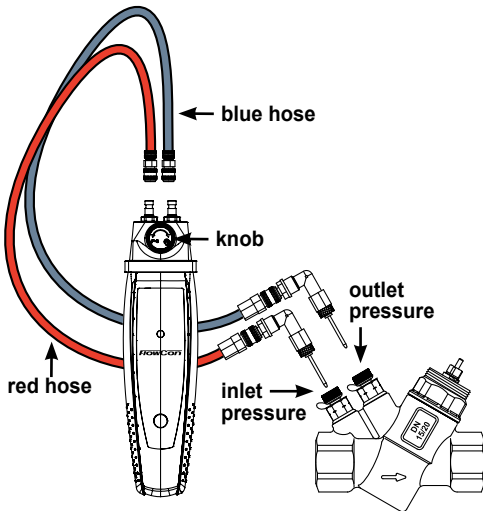
1. Turn the FlowCon FBT on by pushing the  on the front of the handle for 3 seconds until the LED starts blinking. First it will very shortly show a green constant light, then it will shortly blink in yellow and turn into blinking rapidly in blue. This indicates that the FBT is ready for Bluetooth® connectivity. It will stay in this mode for 60 seconds. If it is not connected to a smart phone during this period, it will automatically switch power off.
2. Connect smart phone and FlowCon FBT via Bluetooth® menu. The LED on the FBT will now blink slowly green.
3. Open the FlowCon App and follow these steps:
  - Tap '**Connection**' and press '**Search**'.
  - From the list you should see CAPBs PTxx. **Select** this and press '**Add**'.
  - From the next page select the '**Product Type**' from the dropdown menu and edit Max. Flow or Setting if required (setting is only visible where applicable) and tap '**Add**'.
  - Tap **CAPBs PTxx** and get the readings on  $\Delta P$  and flow on the following 'Information Page'. Pressure- and flow units can be changed in the App under 'Setting'.

Note: that for any actuated valve, measurement can only be done with actuator fully open allowing max. flow according to setting.

**IT IS IMPORTANT to connect the FlowCon FBT to the App BEFORE fitting the p/t needles in the valve p/t plugs.**


## Step 3: Valve Connection and Disconnection

1. Connect the FlowCon FBT hoses via the p/t needles to the p/t plugs on the valve. Connect the red hose to plus side / inlet pressure and blue hose to minus side / outlet pressure.



2. Finger-turn the knob counter-clockwise until end position, i.e. P=0, to release air inside the hoses, needles and probe and wait a few seconds. Then finger-turn the knob clockwise until end position, i.e. measurement icon. The FBT is now properly air vented.
3. Take readings via FlowCon App.
4. Before moving on to the next valve reading, finger-turn the knob clock wise to disconnect the FBT from system pressure (this will ensure that water will not flow through the tubes and the FBT and safeguard no water leakage)

**NOTE: Water may eject if the FBT is not disconnected from system pressure.**

5. Remove the p/t needles from the valve and finger-turn the knob counter-clockwise to release pressure.
6. Zero the FBT by turning the knob counter-clockwise and then turn OFF the meter. On the FlowCon App push <Back on the Information screen top. Turn the meter ON and select the CAPBs PTxx. When flashing green the FBT is connected, and meter is zeroed.
7. Repeat steps 1-6 until all valve readings are performed.
8. Once completed, turn off the FBT and Bluetooth® connection by pushing the  for 3 seconds. LED will switch off.

## Battery Re-placement

The FlowCon FBT is supplied with 2 pcs. 1.5V AAA batteries. Once battery life (up to 32 hours of battery operation) runs out, simply open the battery cover on the backside of the handle and replace the batteries. Alternatively, 2 pcs. 900mAh AAA NiMH rechargeable batteries can be used.

## Cleaning, Service and Disposal

Clean the FlowCon FBT after each use with a dry, lint-free cloth. If necessary, use a damp cloth to remove difficult dirt. No kind of cleaning agent is allowed.

The FlowCon FBT must be serviced by the manufacturer or an authorized service point at regular intervals.

Dispose the FBT in compliance with applicable directives, standards and safety regulations. Electronic components and batteries must not be disposed as normal household waste.