

# FlowCon FIT



### FlowCon Energy FIT System - Energy-Saving Pressure Independent Temperature Control System

The FlowCon Energy FIT System is the world's first pressure independent temperature controlling regulation valve. With the FIT System you will get monitoring, measuring, connectivity and control in one package including PICV valve, sensor kit and the FlowCon Intelligent Interface.

The FIT System measures energy usage while monitoring performance and adjusts the PICV valve to optimize coil performance. The PICV valve maintains the correct flow, despite pressure changes, and guarantees that flow and actuator position will only change when demand requirements change or  $\Delta T$  is outside specification. The FIT System is suitable for any sub-metering application.

With FIT's SMART control logic, room temperature (i.e. human comfort) will be prioritized as long as temperature is outside user specifications. Once within,  $\Delta T$  control will be prioritized and flow rates may be reduced, providing significant energy savings.

- State-of-the-art Pressure independent temperature control.
- All-in-one including PICV, temperature and pressure sensors, flow meter and energy meter for sub-metering applications.
- User friendly with easy setting. (FIT: on actuator/via BACnet; FIT-G: on insert/valve).
- **Range of actuators** available (standard, failsafe or BACnet).
- Cost savings due to optimized energy consumption and improved efficiency.
- Complete overview of energy and flow.
- Simple monitoring via Bluetooth<sup>®</sup> or BACnet to BMS.
- Clear information regarding ΔT, ΔP, flow rate and energy heat transfer.
- Flexible solution also allowing upside-down installation.
- No piping restriction and most compact system on the market.





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The FlowCon Energy FIT System is typically installed on FCUs, AHUs or in the Plantroom suitable for submetering applications and includes:

#### Intelligent Interface

Connects all FIT components and BMS. It measures energy usage while providing remote monitoring via BACnet. The main FIT control modes are direct  $\Delta T$  control, direct comfort control and SMART control.

#### NICV with electrical actuator

Maintains correct flow despite pressure changes and guarantees that flow and actuator position only change when demand requirements change or  $\Delta T$ is outside specification.

Size: DN15-250 / 1/2"-10".

Max. operational  $\Delta P$ : 800 kPaD / 116 psid.

Max. flow rates: 0.0103-76.8 l/sec / 0.163-1220 GPM. Media temperature:  $-20^{\circ}$ C to  $+120^{\circ}$ C /  $-4^{\circ}$ F to  $+248^{\circ}$ F.

#### U Temperature sensors

PT1000 sensors measure the  $\Delta T$  across the coil allowing the Intelligent Interface to adjust according to  $\Delta T$  target.

#### Pressure sensors

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25 bar pressure sensors measure up/downstream pressure allowing the BMS to lower system pressure to PICV's requirements and reduce pump energy consumption.

#### **W** Integrated energy meter

The Intelligent Interface calculates the energy and displays data via Bluetooth<sup>®</sup> on cell phone or in BMS via BACnet.

#### Integrated Flow meter

Likewise, the Intelligent Interface calculates the flow and displays data via Bluetooth<sup>®</sup> on cell phone or in BMS via BACnet.

#### 8 Bluetooth®

In combination with the FlowCon App, the Intelligent Interface can provide readings from the FIT System locally via Bluetooth<sup>®</sup>. Data includes T1, T2,  $\Delta$ T, P1, P2,  $\Delta$ P, Flow, BTU and  $\Delta$ T Target.

#### **ΔT** control

Flow only changes when demand requirements change or  $\Delta T$  is outside of specification - The FIT System provides full  $\Delta T$  control.

For further information visit www.flowcon.com





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