



Small actuator
FKS-SV

Only skilled electricians may install this electrical equipment otherwise there is the risk of fire or electric shock!

Temperature at mounting location:
0°C up to +40°C.
Storage temperature: -20°C up to +65°C.
Relative humidity:
annual average value <75%.

Wireless small actuator Smart Valve for radiators. Without battery and wire. With thermic Energy Harvesting. Smart Home sensor. Bidirectional wireless with EnOcean protocol EEP A5-20-01.

Function

The actuator obtains its power supply from the temperature difference ($\Delta T > 4K$) between the radiator and the room. The internal storage device prevents power supply bottlenecks needed to run the actuator.

Applications

The actuator is designed both for use in private homes and in industrial premises. In rooms that are seldom heated, it may be necessary to recharge the device via the micro-USB.

Installation

The actuator can be fitted directly to valves with a thread of M30 x 1.5. Metal adapters which are available on the web or in specialist shops can be used to fit them to valves with different mounting options.

As-delivered state

When delivered the pin is fully retracted. If the pin is not retracted, insert a thin stylus into the pushbutton opening and press the pushbutton for 3 to 6 seconds.



Installation and start-

1. Remove the existing control valve from the radiator.
2. Fit the actuator.
3. Set the wireless thermo clock/hygrostat FUTH to teach-in mode.
4. Briefly press the pushbutton on the actuator once.
 - The FUTH confirms successful teach-in with 'Telegram received'.
 - The actuator executes a reference run and assumes the control value of the FUTH.

Normal mode

The actuator communicates with the wireless clock/hygrostat FUTH by wireless every 10 mins. The actuator assumes the new control value to control the heating. If you require an additional control value request between default transmit intervals (e.g. for rapid storage of the new control value after changing the default temperature in the room), briefly press the pushbutton once.

Status-LED

The concealed status LED provides feedback for certain functions:

1x flash: Single press of pushbutton with successful teach-in to the remote device; or after successful communication with the remote device

3x flash: Single press of pushbutton

with failed teach-in to the remote device; or after failed communication with the remote device

Special functions

Event	Consequence
Interrupted wireless connection to the FUTH:	The actuator adjusts to the last setpoint temperature transmitted.
Low power:	Radiator valve at 50% and switch to idle state. As soon as sufficient hot water flows, the actuator starts up automatically and resumes control of the heating. The actuators storage device can also be charged via the micro-USB.
Limescale protection:	To prevent limescale formation, the actuator opens and closes the radiator valve at regular intervals.
Frost protection:	At very low temperatures the actuator automatically adjusts the temperature to a value above freezing point.
Reset:	To trigger a reset, depress the pushbutton. After approx. 6 seconds, the red LED starts to light up. When the LED goes out, a reset is triggered and you can release the pushbutton.

Removal

If the actuator needs to be removed from the radiator, press the pushbutton once for 3 to 6 seconds. The actuator changes to installation position. You then have a time frame of 10 minutes to remove the actuator. If the actuator was taught in to a FUTH, the actuator reverts from installation position back to normal mode.

Technical data

Wireless controller	EnOcean protocol: EEP A5 20-01
Actuating force	max. 100N
Ambient temperature	0-40°C
Media temperature	max. 100°C
Size (WxHxD)	62x63x60mm
Actuating time	approx. 4s/mm
Max. valve stroke	3.8mm
Connection	M 30x1.5

EnOcean wireless

Frequency	868.3MHz
Transmit power	max. 10mW

Hereby, Eitako GmbH declares that the radio equipment type FKS-SV is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: eltako.com

Must be kept for later use!

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