

LK Actuator

DESIGN

The LK Actuator is a thermoelectric actuator intended to be used for regulating individual rooms/zones in the LK Manifold. The actuator is available in different designs, normally open (NO) or normally closed (NC) when disconnected from the mains. The actuator is used together with the wired or wireless LK Room Control system.

ASSEMBLY

The LK Actuator is mounted on the manifold's return valve. It is attached to the valve using a snap-on plastic adapter. The adapter pre-installed on the LK Manifold RF is intended for one time use. Please use the included adapter if the pre-installed has been removed. Press the button on the side of the actuator to remove it from the valve.

REQUIREMENTS

The heating system must be equipped with a control system that monitors and controls the indoor temperature. Weather compensation heating control is often used where pre-shunting the secondary flow takes place using the LK Shunt or similar system. An automatic speed-controlled circulation pump set to constant pressure control is recommended for the underfloor heating flow.

CONNECTION

The actuator is controlled using either a wired or wireless LK Room Thermostat. The actuator is powered using a LK Connection Box or the LK Receiver.

Note! The inrush current is much higher than during continuous operation, see technical data.

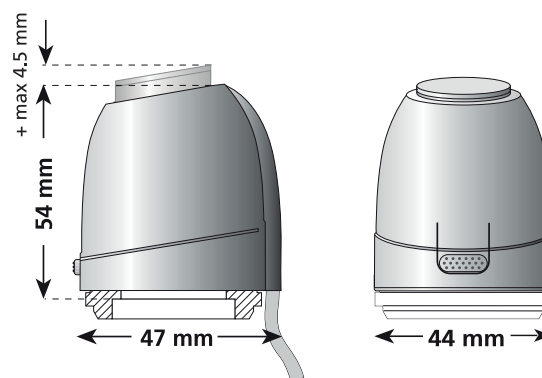
CABLE EXTENSION 24 VOLT

If the actuator intended for a 24 Volt system cannot be mounted in the vicinity of the control unit, an extension cable can be used up to 100 metres using a 1.5 mm² conductor cross-sectional area. Connect the conductors properly, so the voltage drop has no impact the actuator performance. Avoid extensions along installations that could result in interference.

FIRST-OPEN FUNCTION (ONLY NC)

The NC version of the LK Actuator is normally closed, which means the actuator presses down the valve when disconnected from the mains. Upon delivery, the actuator is latched in open position to facilitate easy installation on the valve.

The actuator must therefore be powered for at least 6 minutes when used for the first time to release the latch. The easiest way to do this is to set the thermostat so the actuator is powered.



TECHNICAL DATA

Article no	Marking	Input	Current-less
241 75 91	A 4104 NO	24 V DC / AC 50/60 Hz	Open
241 81 20	A 4004 NC	24 V DC / AC 50/60 Hz	Closed
83306	A 2104 NO	230 V AC 50/60 Hz	Open
241 81 21	A 2004 NC	230 V AC 50/60 Hz	Closed

Power consumption (continuous mode)	1.8 W
Max. inrush current 230 V	300 mA < 200 ms
Max. inrush current 24 V	250 mA < 2 minutes
Voltage tolerance 230 V type	+10% / -10%
Voltage tolerance 24 V type	+20% / -10%
Ambient temperature	0 - 60 °C
Protection class	IP54
Electric safety class	III
Actuator force	100 N ±5%
Position indicator	Blue ring in upper position
Assembly	Snap-on to adapter
Stroke	4 mm
Stroke time	~ 6 minutes
Cable	1 meter, 2 x 0.75 mm ²

The adapters included fits VKF, VKF-i, VKF-RF. Adapter solutions are also available for other manufacturers. Contact LK Technical support.