Wiring diagrams

VOLT-FREE 230V

| 1 | 2 | 3 | | 4 | 5 | 6 | 7 | | L | N |

Relay

AC Sensor

VOLT-FREE

PUSH BUTTON

LED

230V POWERED VALVE 230V

| 1 | 2 | 3 | | 4 | 5 | 6 | 7 | | L | N |

Relay

AC Sensor
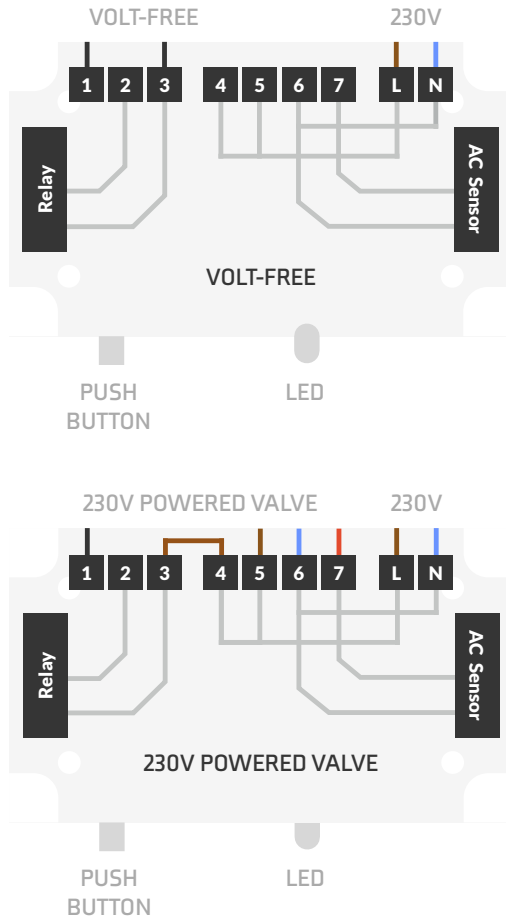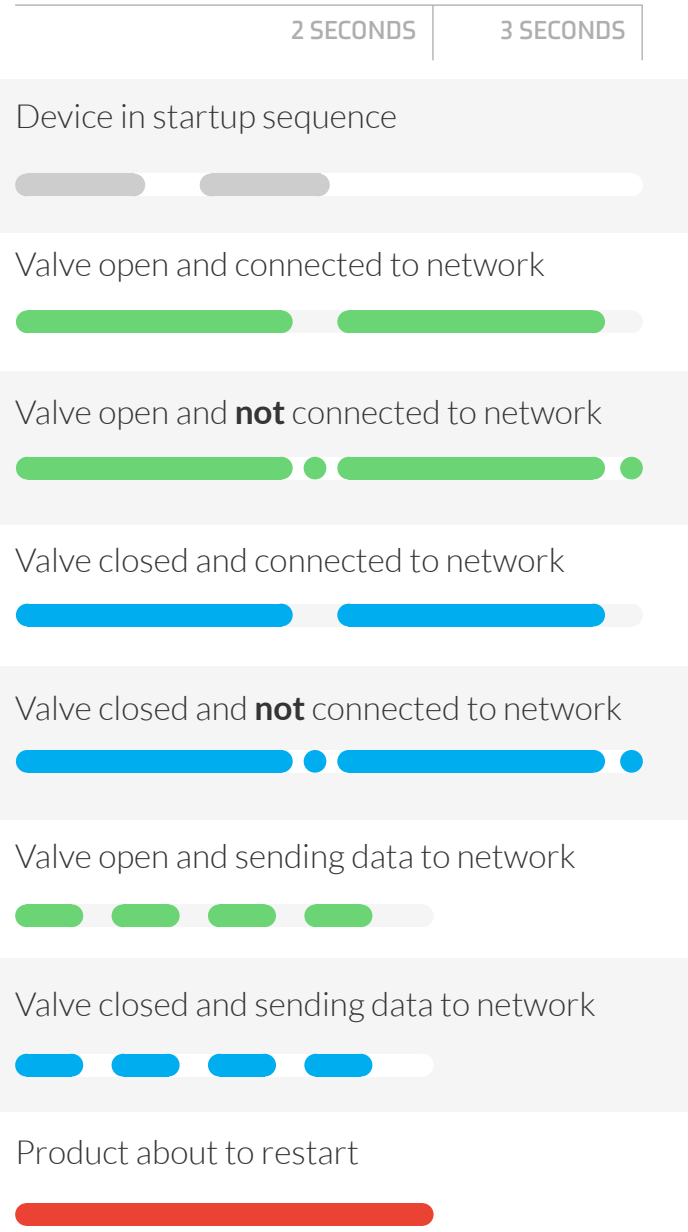
230V POWERED VALVE

PUSH BUTTON

LED

Push button

The SmartValve push button can be used to manually override the valve.

BUTTON ACTION	HOLD FOR
Send message	1 second
Toggle valve	5 seconds
Restart	15 seconds

LED flash indicators

	2 SECONDS	3 SECONDS

Device in startup sequence

Valve open and connected to network

Valve open and **not** connected to network

Valve closed and connected to network

Valve closed and **not** connected to network

Valve open and sending data to network

Valve closed and sending data to network
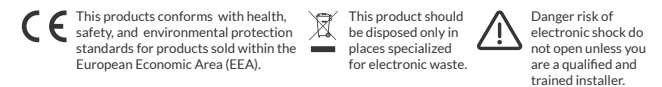
Product about to restart

cThings®

SmartValve

Installation guide

SmartValve - Volt-free & 230V powered controllers (2001101)

Our SmartValve is a secure valve control unit that provides energy service providers with the ability to remotely manage and instantly control the supply of energy to their customers.

The installation of the SmartValve should only be carried out by a trained qualified engineer to the latest standards in the country of installation.

For more documents and datasheets visit https://cthings.io/documents-and-datasheets/

CE   This products conforms with health, safety, and environmental protection standards for products sold within the European Economic Area (EEA).

This product should be disposed only in places specialized for electronic waste.

Danger risk of electronic shock do not open unless you are a qualified and trained installer.

cthings.io/help

How to install

1 Unpack the cThings SmartValve unit (henceforth the SmartValve).

2 Locate a 230V fuse spur within three meters of the mounting location of the SmartValve. Ensure the fused spur is protected by a 1A fuse.

3 Unscrew the four screws to remove the SmartValve backplate.

4 Connect a live and neutral supply to the SmartValve L and N terminals using a two core cable with cross- sectional area between 1.0-1.5 mm2 (see wiring diagrams overleaf). This cable must be passed through the power gland.

5 The SmartValve wiring will depend on whether it is being used as a volt-free or 230V powered controller. All control cables must be no longer than three meters and pass through the valve gland.

> **ⓘ VOLT-FREE CONTROLLER**
>
> — Connect the HIU control cables to the SmartValve terminals 1 and 3 for a normally closed connection and 2 and 3 for a normally open connection (see volt-free wiring diagram overleaf).

> **ⓘ 230V POWERED CONTROLLER**
>
> — Connect the control cable to terminal 1 (see 230V powered controller wiring diagram overleaf).
>
> — Connect the motorised ball valve's control and feedback cables to the SmartValve terminals 5, 6 and 7 according to the 230V.
>
> — Insert a bridging link between terminals 3 and 4. The link needs to have a cross-sectional area between 1.0 and 1.5 mm2 and should be in keeping with the live colour scheme.

6 Reattach the backplate to the SmartValve using the four screws removed in step four. Ensure the screws are well aligned, tightened securely and the enclosure is fully sealed.

7 Use a set of hand grips to tighten the glands so they cannot be undone by hand. Check that the gland is fully sealed.

8 Fix the SmartValve to a vertical surface (such as a wall) with the glands facing downwards. The SmartValve should be fixed in place using screws.

9 Power the SmartValve from the fuse spur. The LED on the SmartValve will turn on once the unit is powered.

10 Wait for the SmartValve to complete its start-up sequence. The startup sequence lasts for 60 seconds and is indicated by a flashing white LED.

11 Upon completion of the start-up process, the LED flash pattern will indicate the current status of the unit (refer to SmartValve LED flash indicator table).

12 The installation of the SmartValve is complete, the unit must now be setup.

How to setup

1 Scan the QR code using a mobile device or open it directly in cThings Cloud.

2 Update the Device Name of the SmartValve in cThings Cloud (for example Apartment 10).

3 Check Connection Status in cThings Cloud is *Connected*. Also check the Smartvalve Last Connection is recent. If disconnected, the SmartValve may need to be repositioned or the LoRaWAN network coverage improved.

4 Set the SmartValve to close the valve. If the SmartValve is working correctly the valve will shut. The physical status of the valve should be checked.

5 Set the SmartValve to open the valve. Check the valve opens.

6 The setup is now complete.