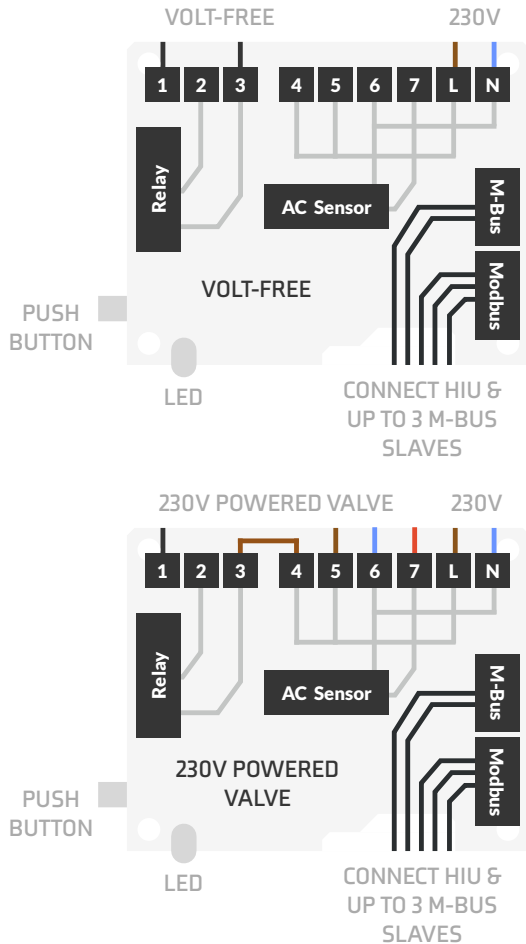


Wiring diagrams

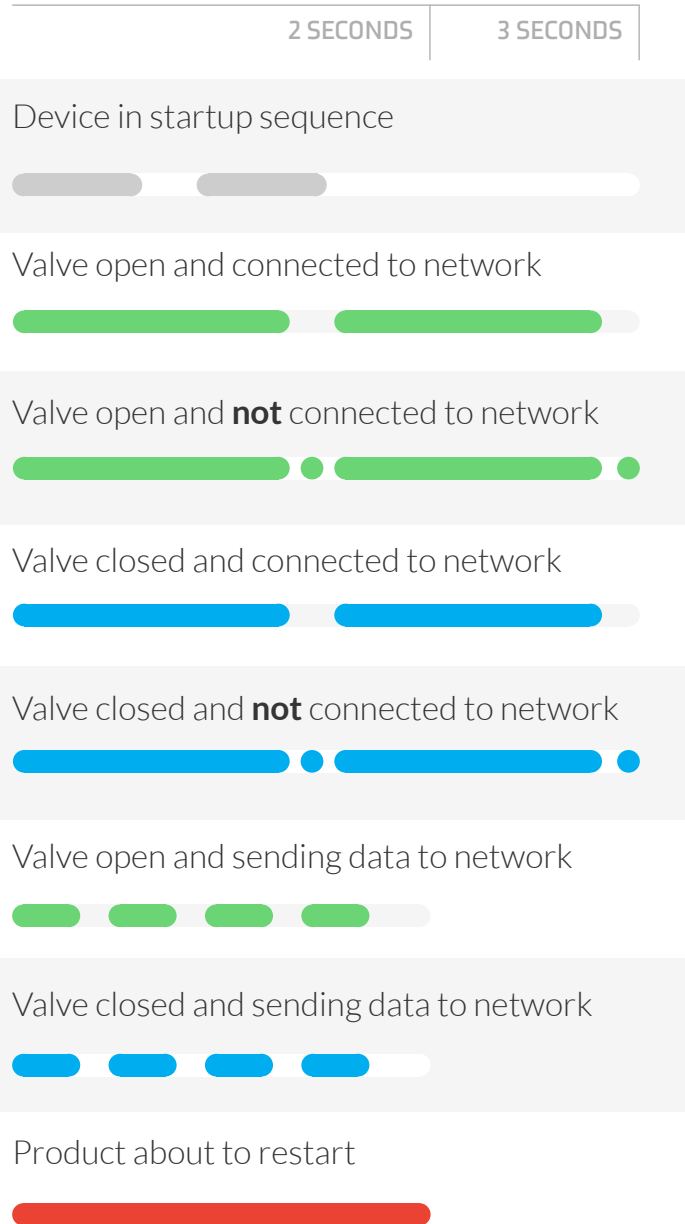


Push button

The HIU Controller 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



HIU Controller

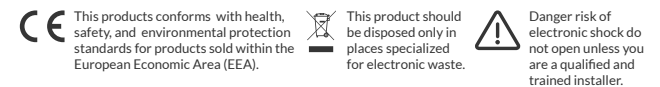
Installation guide

HIU Controller Volt-free & 230V (2001202)

Our HIU Controller enables you to remotely monitor and control intelligent HIUs (Heat Interface Unit). The HIU Controller interfaces with any HIU and allows for parameters to be remotely read or configured. It also has the functionality to read up to three M-Bus slaves.

The installation of the HIU Controller 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/>



How to install

- 1 Unpack the cThings HIU Controller unit.
- 2 Locate a 230V fuse spur within three meters of the mounting location of the HIU Controller. Ensure the fused spur is protected by a 1A fuse.
- 3 Remove the logo embossed cover, unscrew the four screws and carefully remove the HIU Controller front plate with the attached circuit board.
- 4 Fix the HIU Controller box to a vertical surface (such as a wall) by using four screws through the mounting holes at the back of the box. The cable holes must face downwards.
- 5 Feed a two core cable with cross-sectional area between 1.0-1.5 mm² into the right-most hole at the bottom of the box. Connect the live and neutral supply to the L and N terminals (see wiring diagrams overleaf).
- 6 Connect the HIU to the Modbus terminals and up to three M-Bus Slaves (in a bus network) to the M-Bus terminals. The cables must be passed through the two small left-most holes at the bottom of the box.
- 7 The HIU Controller 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 passed through the hole to the left of the power cable at the bottom of the box (see wiring diagram overleaf).

i 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).

i 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.

- 8 Insert the cable retention bar into the retention slot in the enclosure and screw tight until cables are securely retained.
- 9 Reattach the front plate to the HIU Controller using the four screws removed in step three. Ensure the screws

are tightened securely and the enclosure is fully sealed. Reaffix the logo cover.

- 10 Power the HIU Controller from the fuse spur. The LED on the HIU Controller will turn on and initially flash white. Wait for the start-up sequence to complete. This should last approximately 60 seconds.
- 11 Upon completion of the start-up process, the LED flash pattern will indicate the current status of the unit (refer to HIU Controller LED flash indicator table).
- 12 The installation of the HIU Controller 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 HIU Controller in cThings Cloud.
- 3 Check Connection Status in cThings Cloud is *Connected*. Also check the HIU Controller Last Connection is recent. If disconnected, the HIU Controller may need to be repositioned or the LoRaWAN network coverage improved.
- 4 Set the HIU Controller to close the valve. Check the valve closes.
- 5 Set the HIU Controller to open the valve. Check the valve opens.
- 6 The setup is now complete.