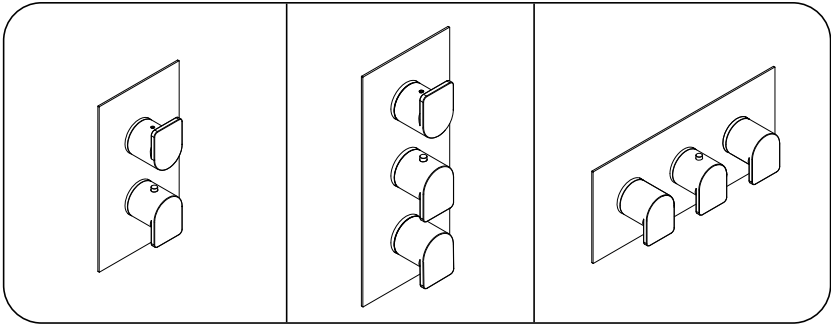
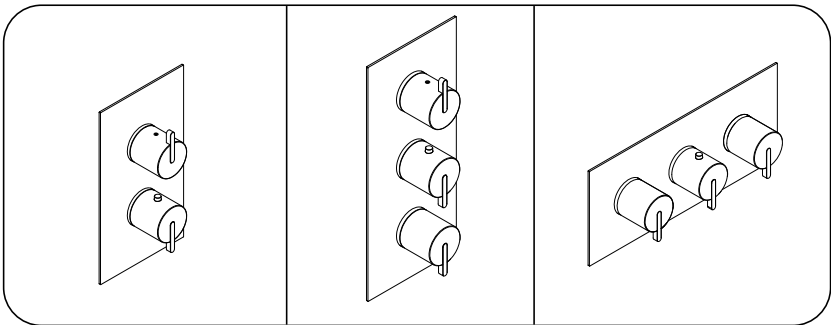


Coordinated Bathrooms Designed For You

**Installation & maintenance instructions**



**FOR concealed thermostatic shower valve two/three hole and one/two/three outlets with square backplate  $\frac{3}{4}$ "**



**KIO concealed thermostatic shower valve two/three hole and one/two/three outlets with square backplate  $\frac{3}{4}$ "**

# CONTENT

<b>IMPORTANT</b> .....	<b>01</b>
<b>GENERAL INSTALLATION</b> .....	<b>01</b>
<b>OPERATION-FOR</b> .....	<b>02</b>
<b>OPERATION-KIO</b> .....	<b>03</b>
<b>OPERATING SPECIFICATIONS</b> .....	<b>04</b>
<b>FLOW RATE</b> .....	<b>04</b>
<b>DIMENSIONS</b> .....	<b>05</b>
<b>INSTALLATION - STANDARD FIXING</b> .....	<b>14</b>
<b>INSTALLATION STEPS</b> .....	<b>15</b>
<b>INSTALLATION - HANDLES</b> .....	<b>18</b>
<b>CARE OF THE MIXER</b> .....	<b>19</b>
<b>SERVICING THE THERMOSTATIC CARTRIDGE</b> .....	<b>19</b>
<b>MAINTENANCE</b> .....	<b>19</b>
<b>NON RETURN VALVES</b> .....	<b>21</b>
<b>TEMPERATURE RESETTNG</b> .....	<b>22</b>
<b>INSTALLING THERMOSTATIC CARTRIDGE</b> .....	<b>22</b>
<b>SETTING SAFE THMPERATURE</b> .....	<b>22</b>
<b>REPLACING DIVERTER CARTRIDGE</b> .....	<b>23</b>
<b>REPLACING FLOW CARTRIDGE</b> .....	<b>23</b>

## IMPORTANT

- Please read these instructions carefully before starting installation and keep for future reference.
- Remove all packaging and check the product for missing parts or damage before starting installation.
- Any alterations made to this product and fittings may infringe water regulations and will invalidate the guarantee.
- The installation must comply with all Local/National Water Supply Authority Regulations/Byelaws and Building and Plumbing (UK:BS6700) Regulations.
- We strongly recommend that you use a qualified and registered plumber.

## GENERAL INSTALLATION

### -Thermostatic Valves

These fittings are mixing devices and therefore water supplies must be reasonably balanced.

Where connections are made to the mains cold water supply, WRC approved single check valves must be fitted to both hot and cold inlets. This is a stated requirement of Water Supply (Water Fittings) Regulations 1999 Schedule 2, Section 6 Before making any inlet pipe connections, all supply pipes MUST be thoroughly flushed to remove debris. Failure to do so could result in damage or low flow from the mixer unit. Water Supply (Water Fittings) Regulations 1999 Schedule 2 Section 4 G13.1

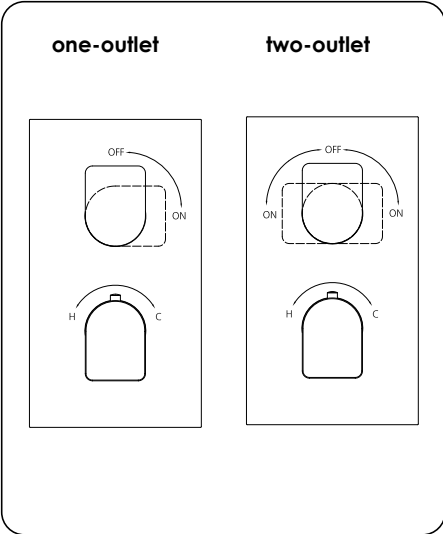
The fitting of isolating valves to the inlet feeds is advised for ease of maintenance. Please take great care when installing this mixer not to damage its surface. Operating pressures (on hot and cold line) should be kept as balanced as possible in order to assure optimum efficiency.

Note: When pressure is higher than 5 bar a pressure reducer is required to be fitted before the valve.

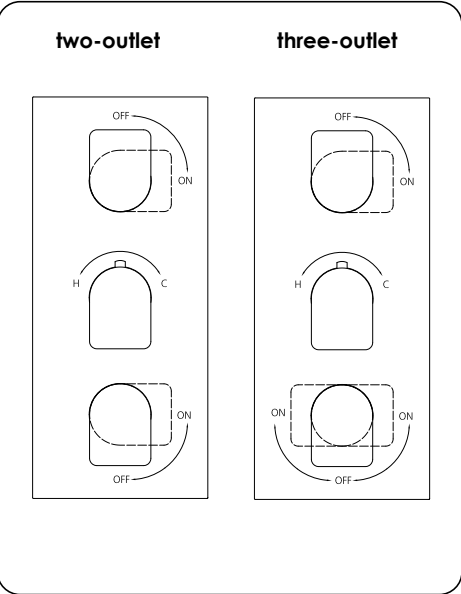
Please note if installing in an enclosed environment, access should be left for servicing and maintenance. No costs relating to inadequate access can be accepted.

**OPERATION-FOR**

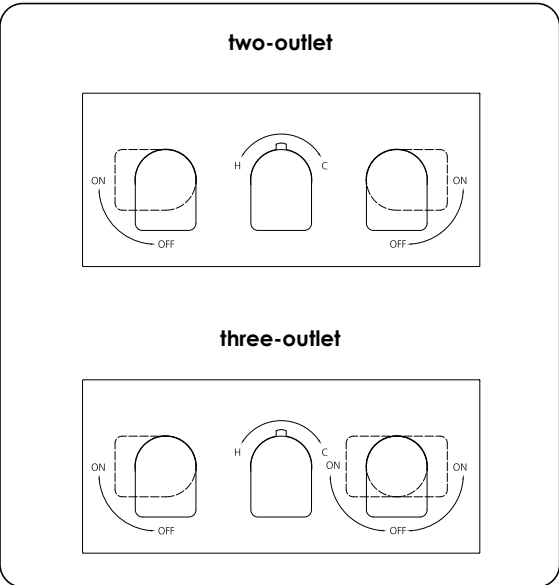
**TWO-HOLE VERTICAL**



**THREE-HOLE VERTICAL**

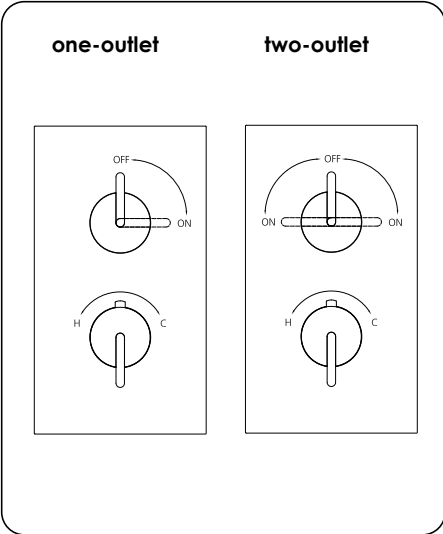


**THREE-HOLE HORIZONTAL**

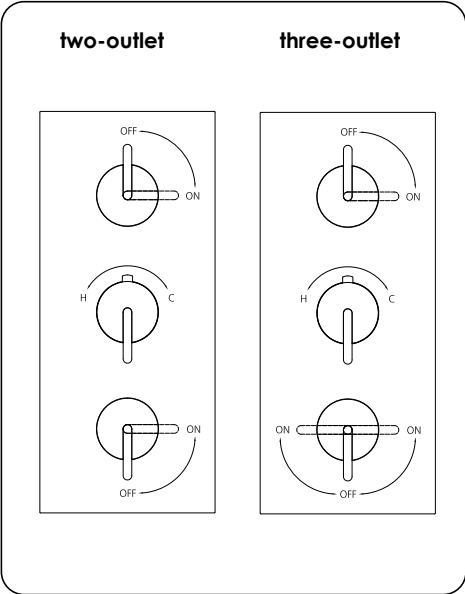


**OPERATION-KIO**

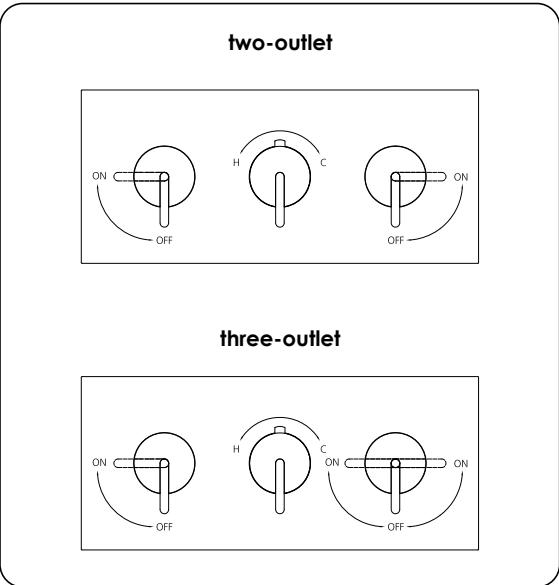
**TWO-HOLE VERTICAL**



**THREE-HOLE VERTICAL**



**THREE-HOLE HORIZONTAL**



## OPERATING SPECIFICATIONS

### Hot Water Supply Temperature:

Maximum: 70° C Minimum: 10° C

### Operating Pressure

Maximum: 5 bar Minimum: 0.5 bar

## FLOW RATE

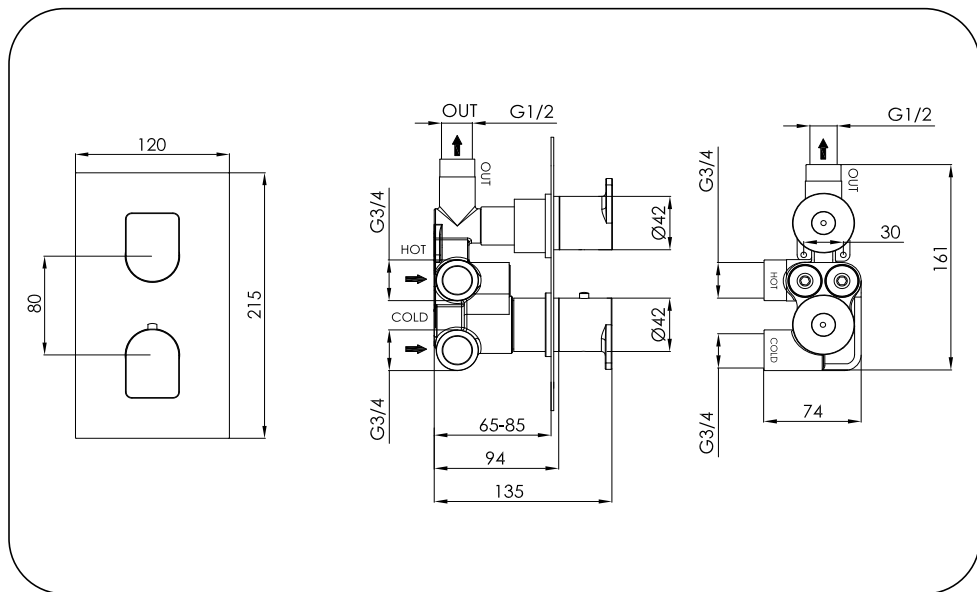
38°MIX (L/MIN)	0.5BAR	1BAR	2BAR	3BAR
ONE-OUTLET	8.7	13.1	19.4	24
TWO-OUTLET	12	17.1	25.5	31.4
THREE-OUTLET	12	17.1	25.5	31.4

### Note:

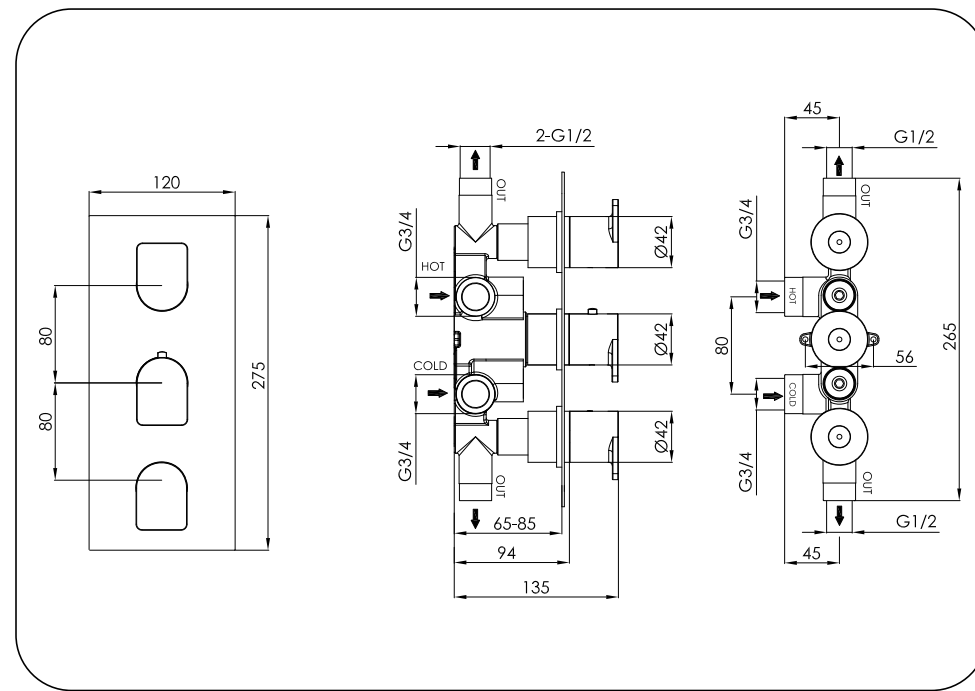
- Balanced pressures shown are applied directly to the hot and cold inlets; flow rates indicated are free flowing and may vary subject to restrictions created by installation, pipework, layout or application.
- The outlet temperature during testing was 38°C.
- The flow rate indicated is for one outlet only

# DIMENSIONS

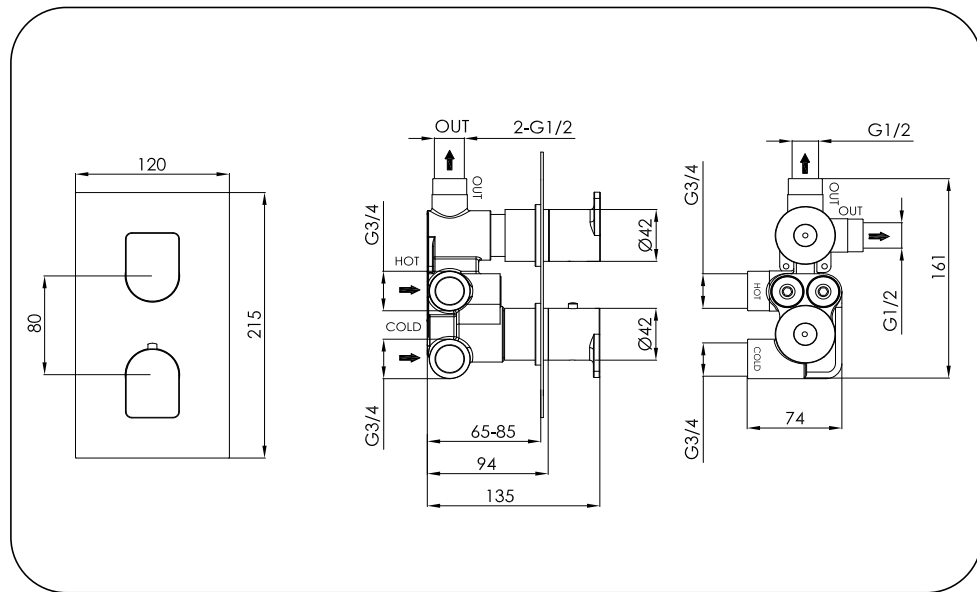
## one-outlet



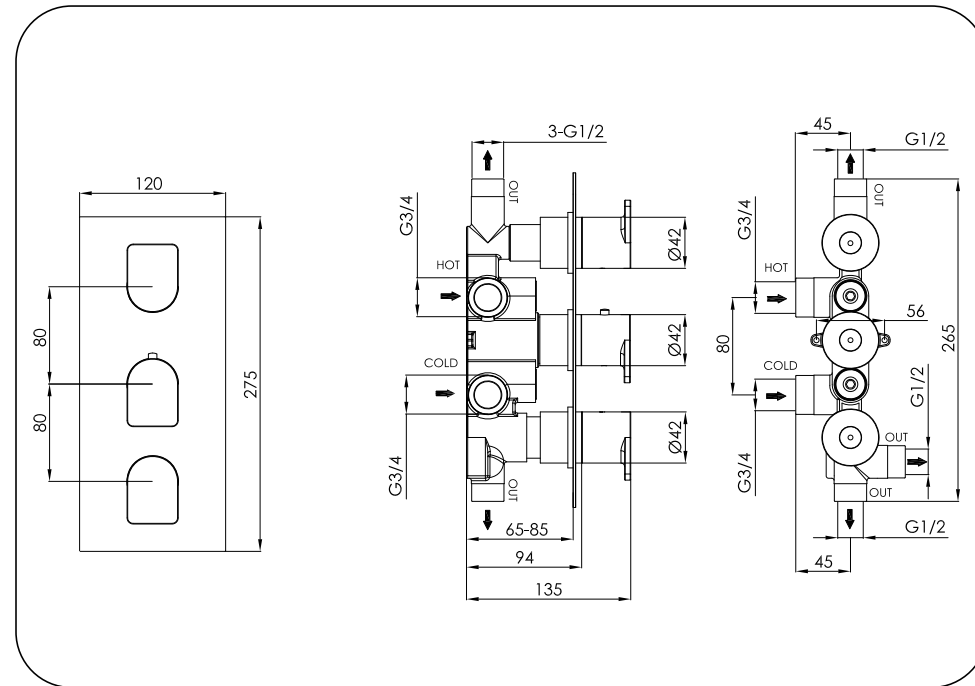
## two-outlet



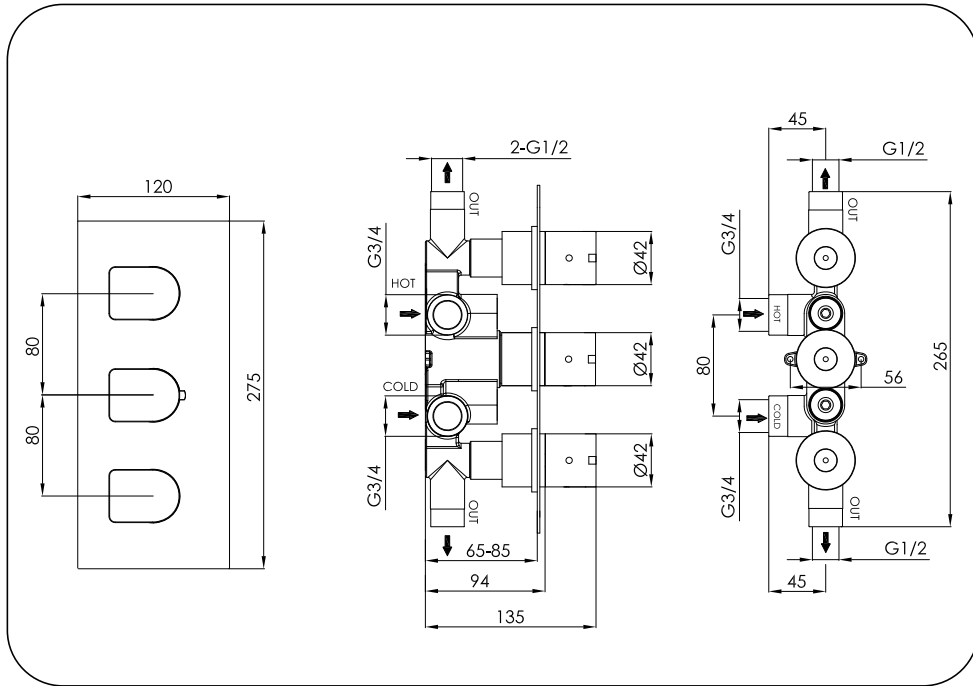
## two-outlet



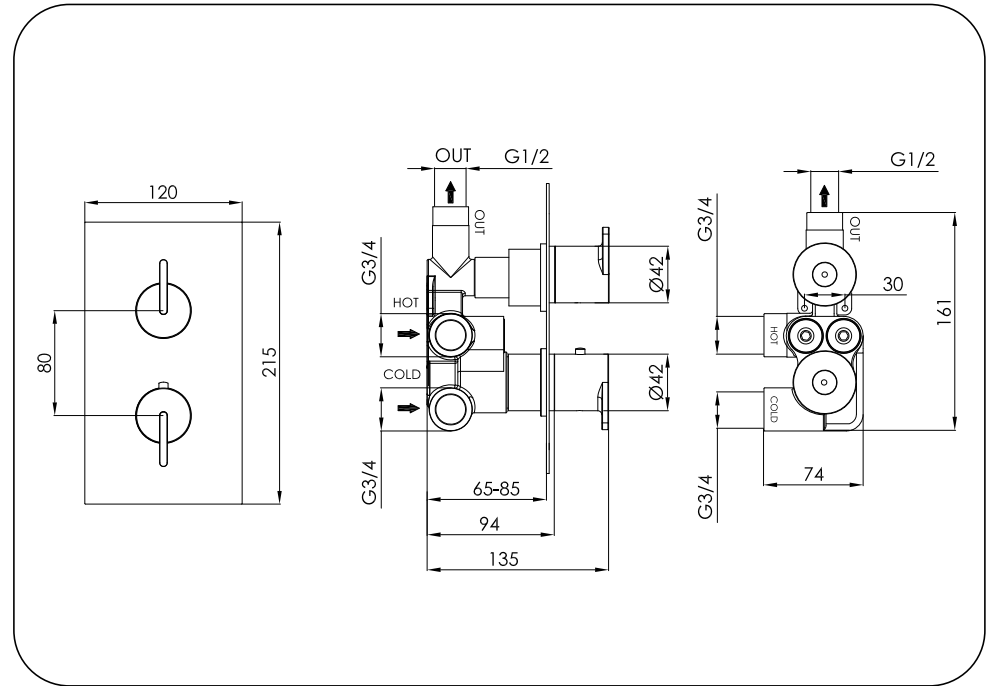
## three-outlet



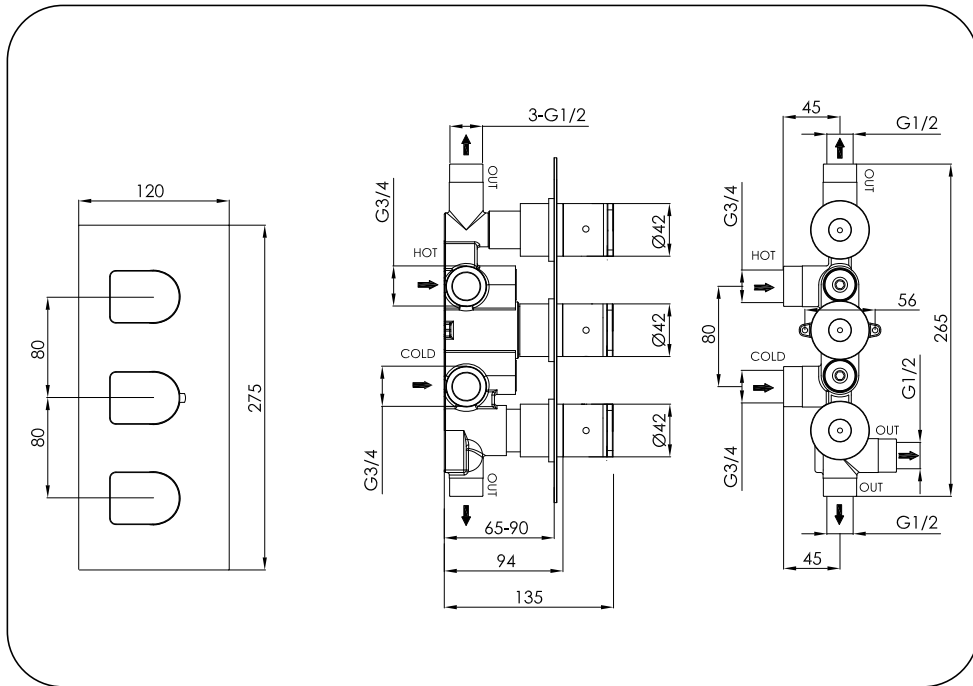
two-outlet



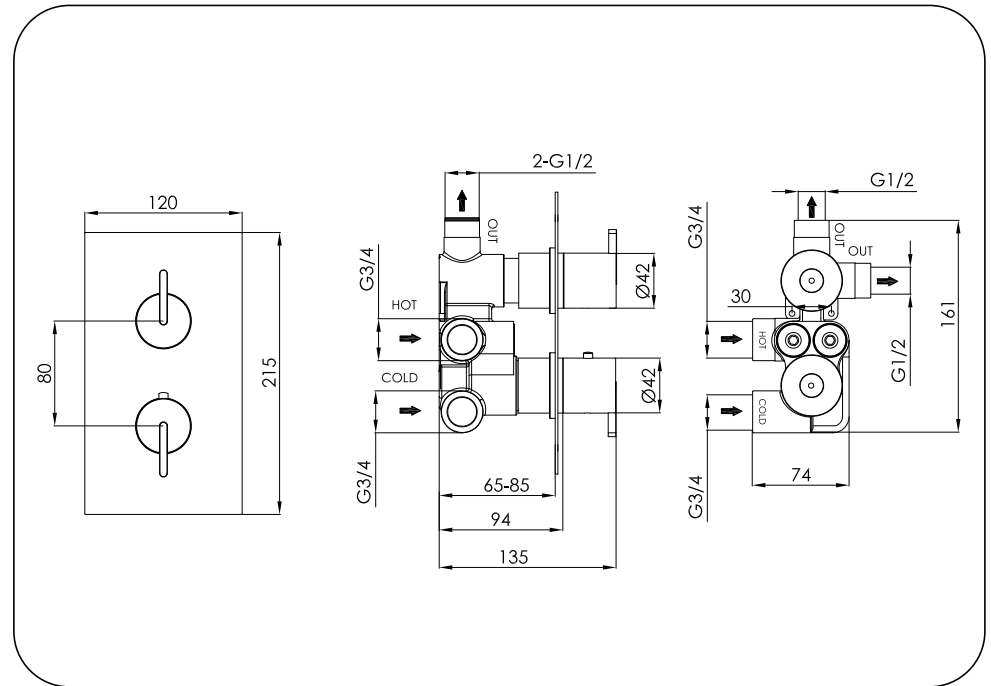
one-outlet



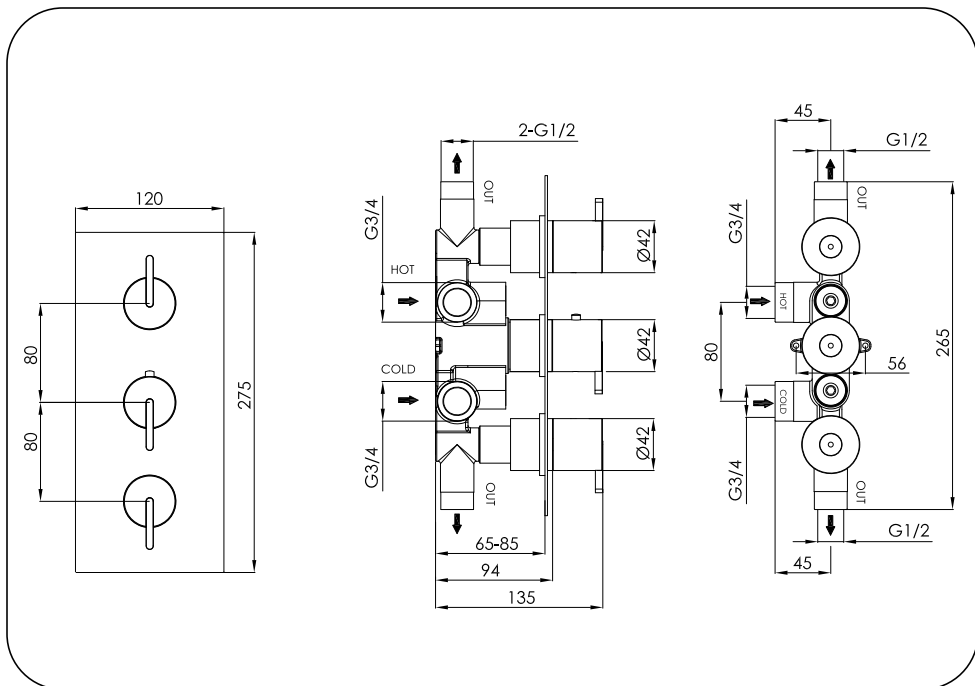
three-outlet



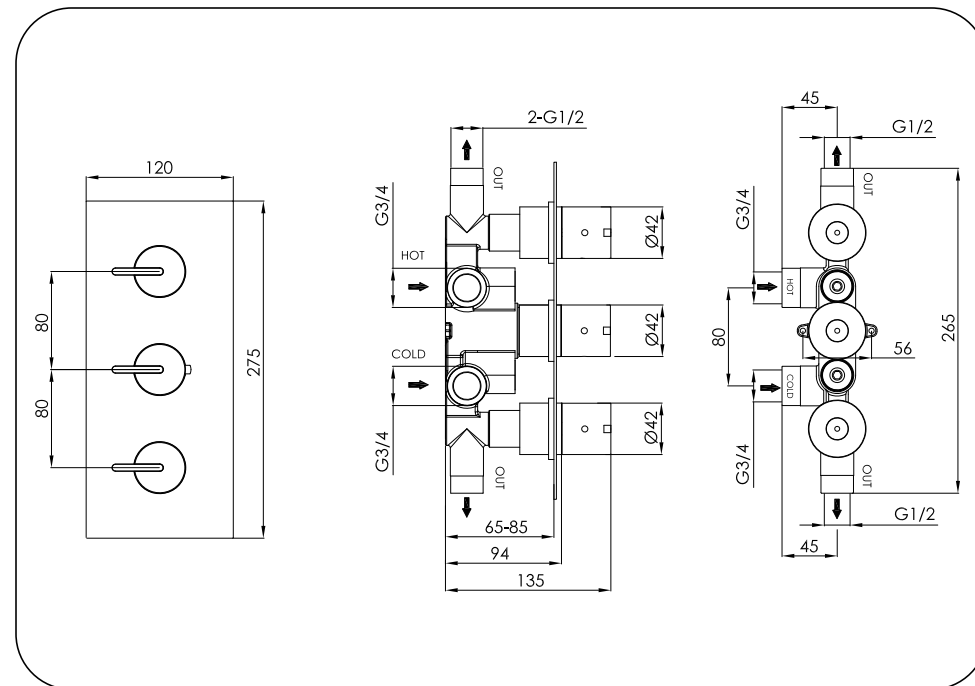
two-outlet



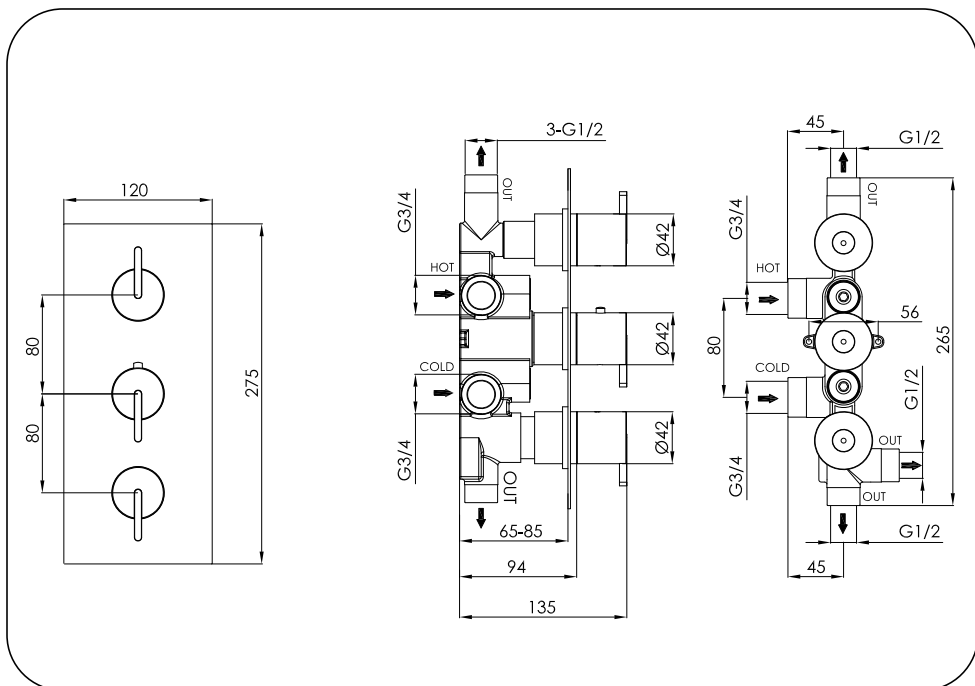
two-outlet



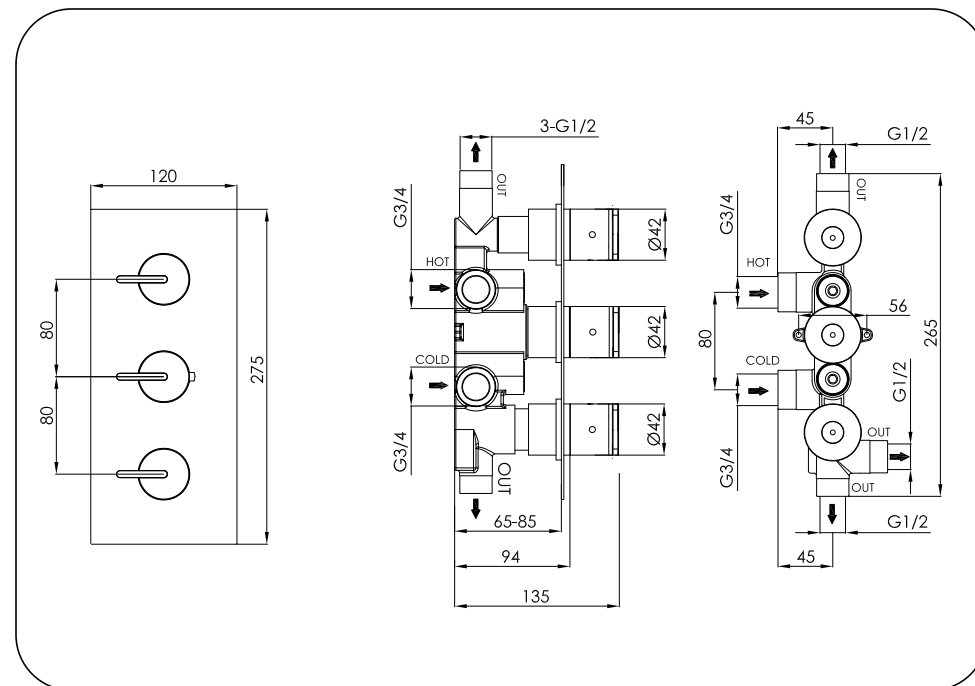
two-outlet



three-outlet



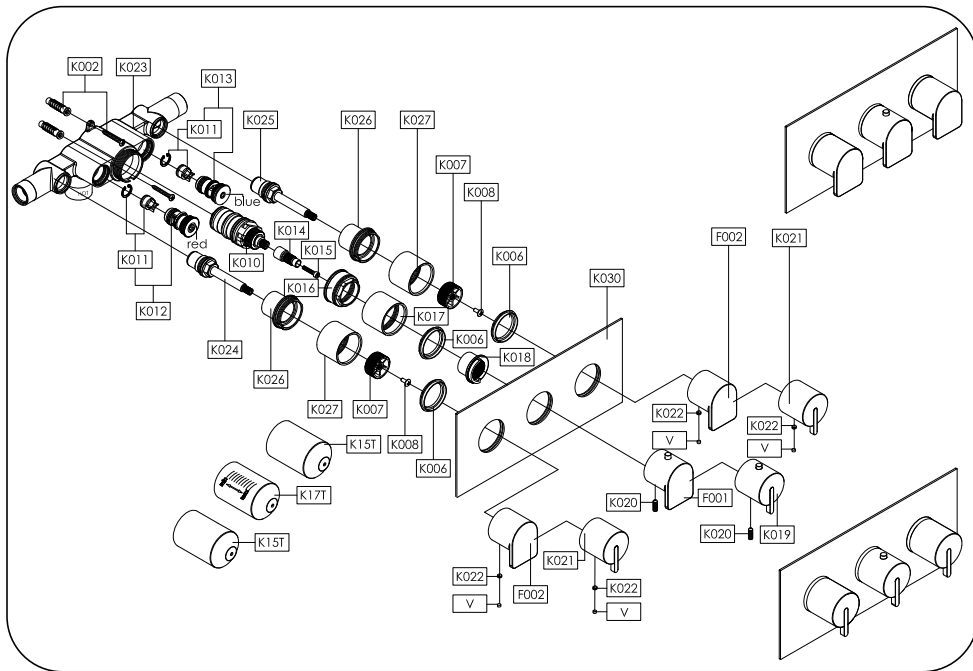
three-outlet



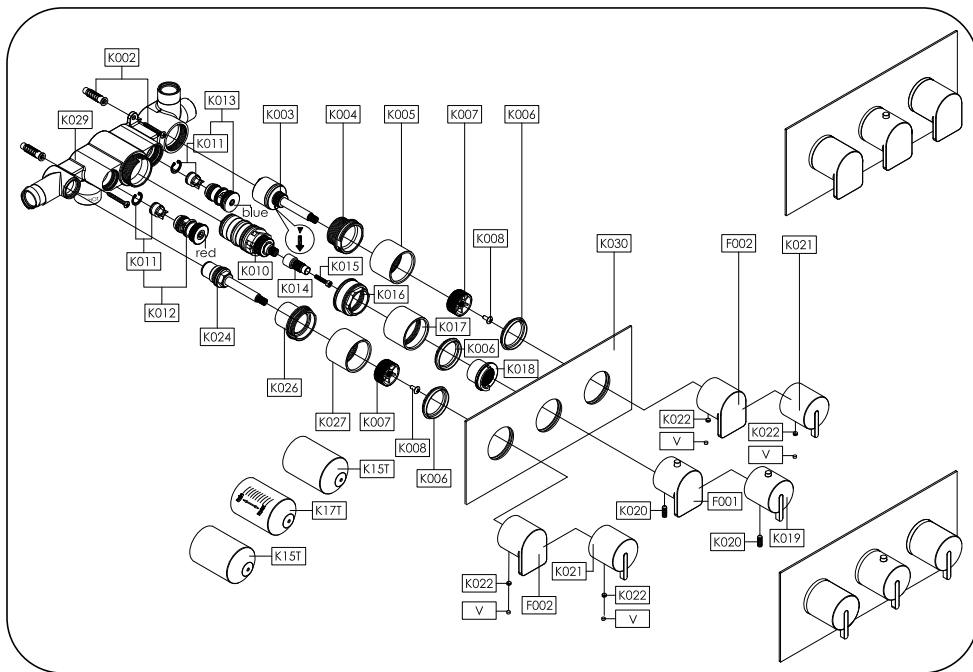




## Two-outlet




## Three-outlet



## INSTALLATION - STANDARD FIXING

Rinse pipework thoroughly before fitting the valve: do not allow dirt, metal particles or shavings to block the filters fitted on inlets.

 **Warning!** Please check for any hidden cables and pipes before drilling holes in the wall.

Please ensure that sufficient access is left between the tile cut out to the non return valve housing and isolation point, in order to carry out maintenance when necessary.

**The valve must be set into the wall between (65mm minimum – 85mm maximum).**

If you are fitting the valve to a partition wall or a wall of particularly soft substrate you will need specialist fixings. Select the position for the shower valve and offer the shower valve to the wall, mark the 4 fixing points with a suitable pencil. Remove the shower valve from the wall, drill the holes to a suitable depth for the wall plugs and secure with suitable screws.

During and after installation protect the outer parts by leaving the clear plastic protective carton on the valve to avoid damage to plated surfaces.

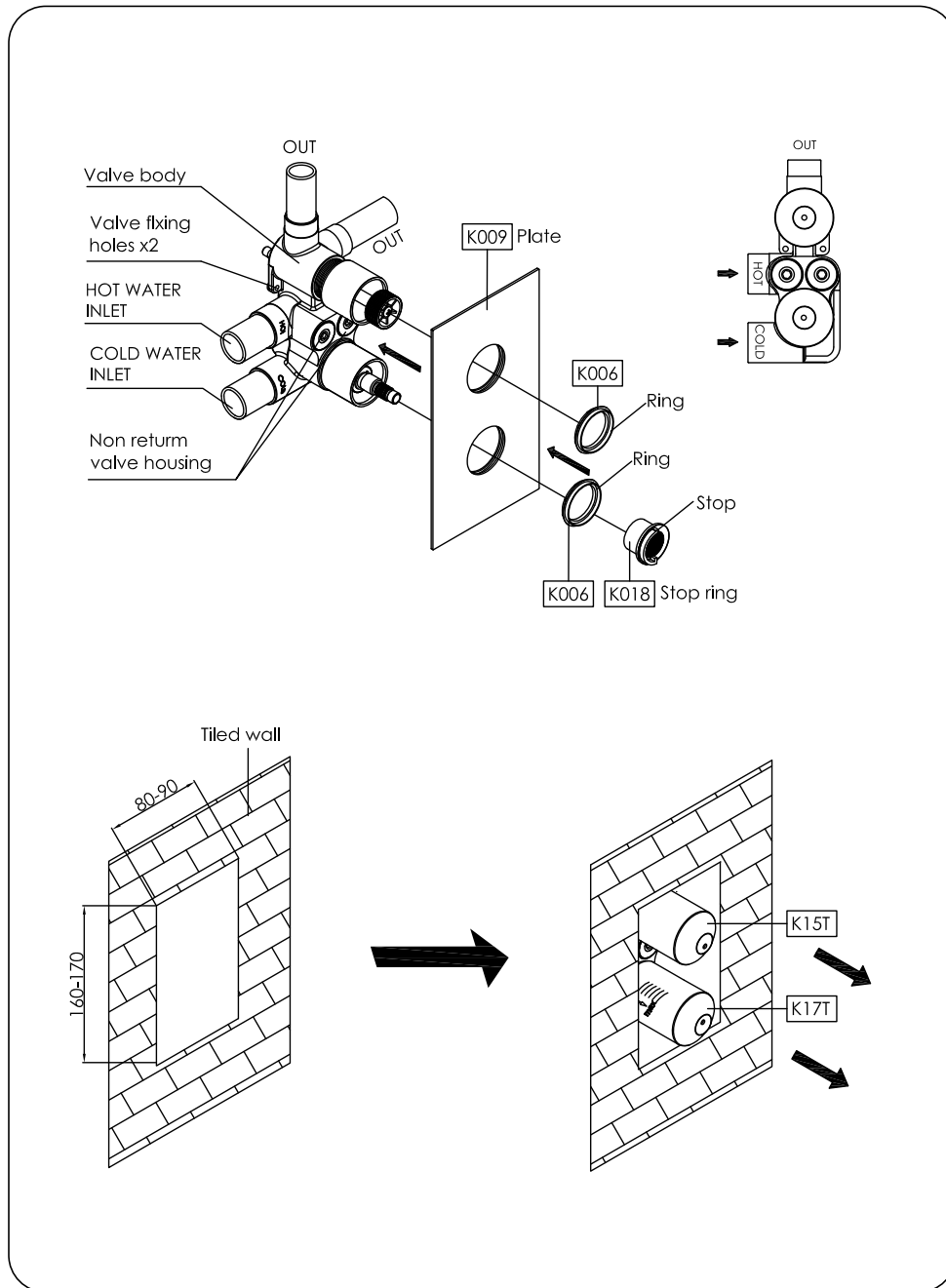
Connect hot supply to left inlet of the valve and cold supply to right inlet.

Make all outlet connections to the valve.

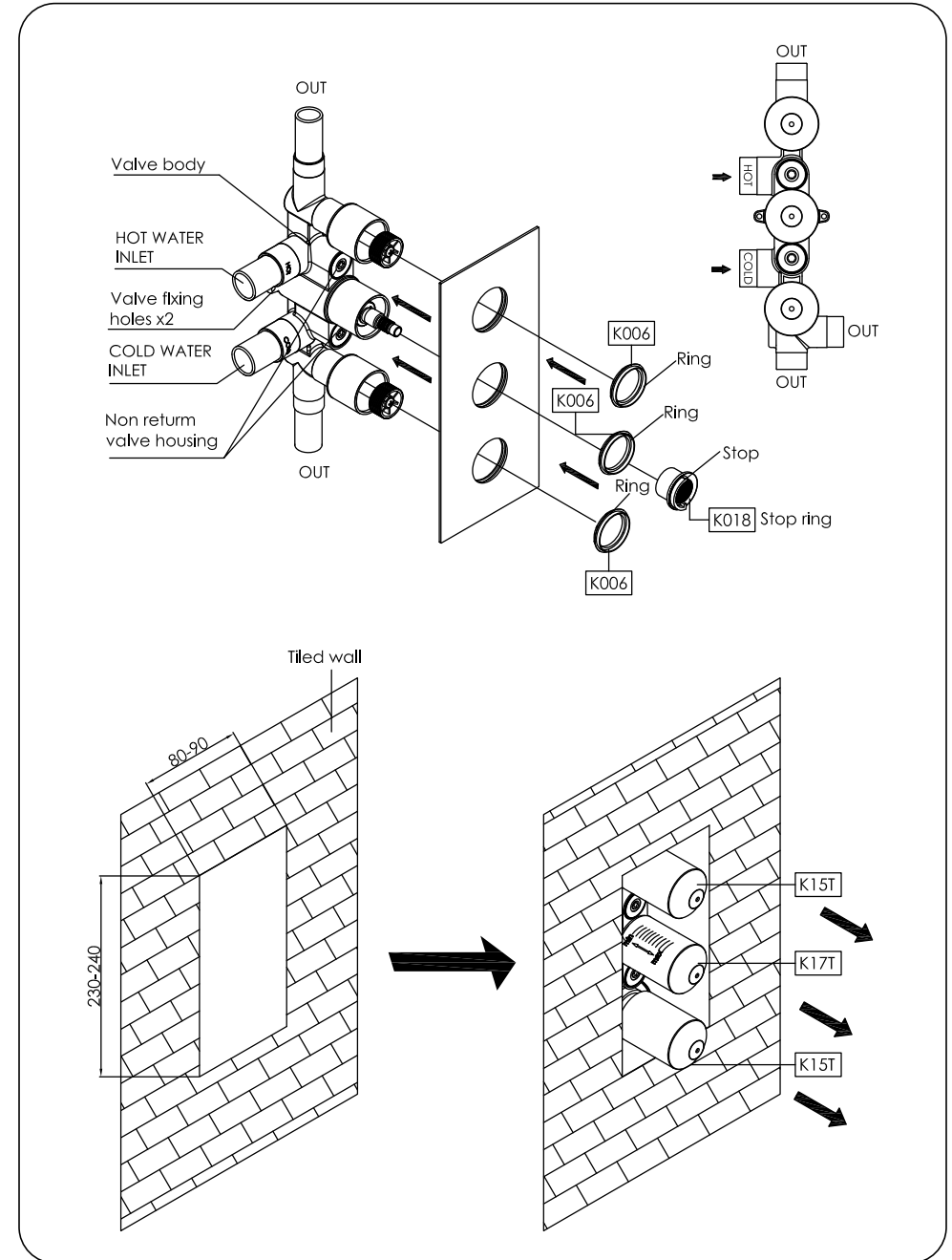
If blanking plug at base of valve is removed for additional outlets, please ensure a separate volume control is installed i.e. stop valve, between valve and delivery point.

Apply a thin bead of silicone around the outside to seal against the tiled surface.

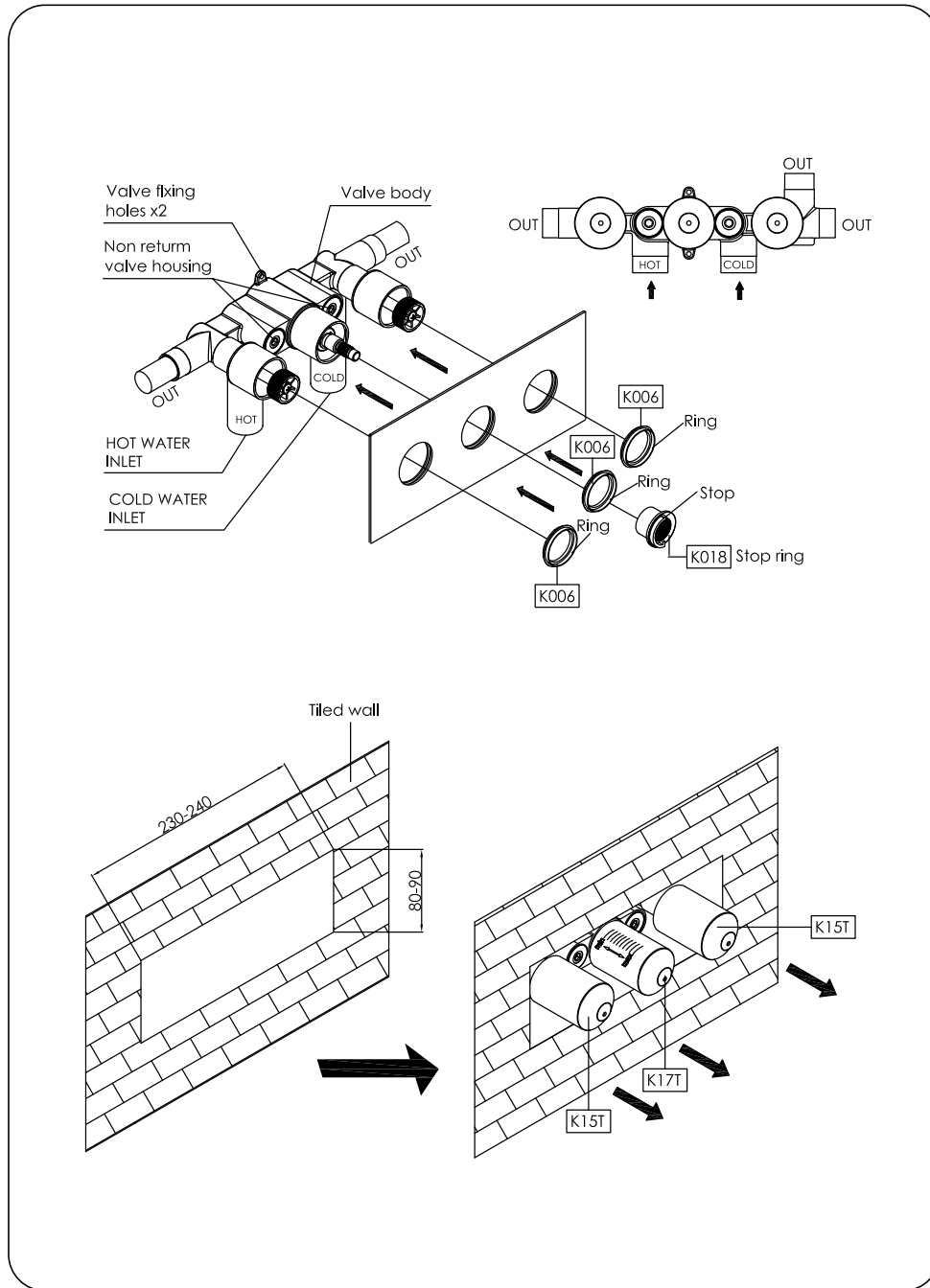
## INSTALLATION STEPS



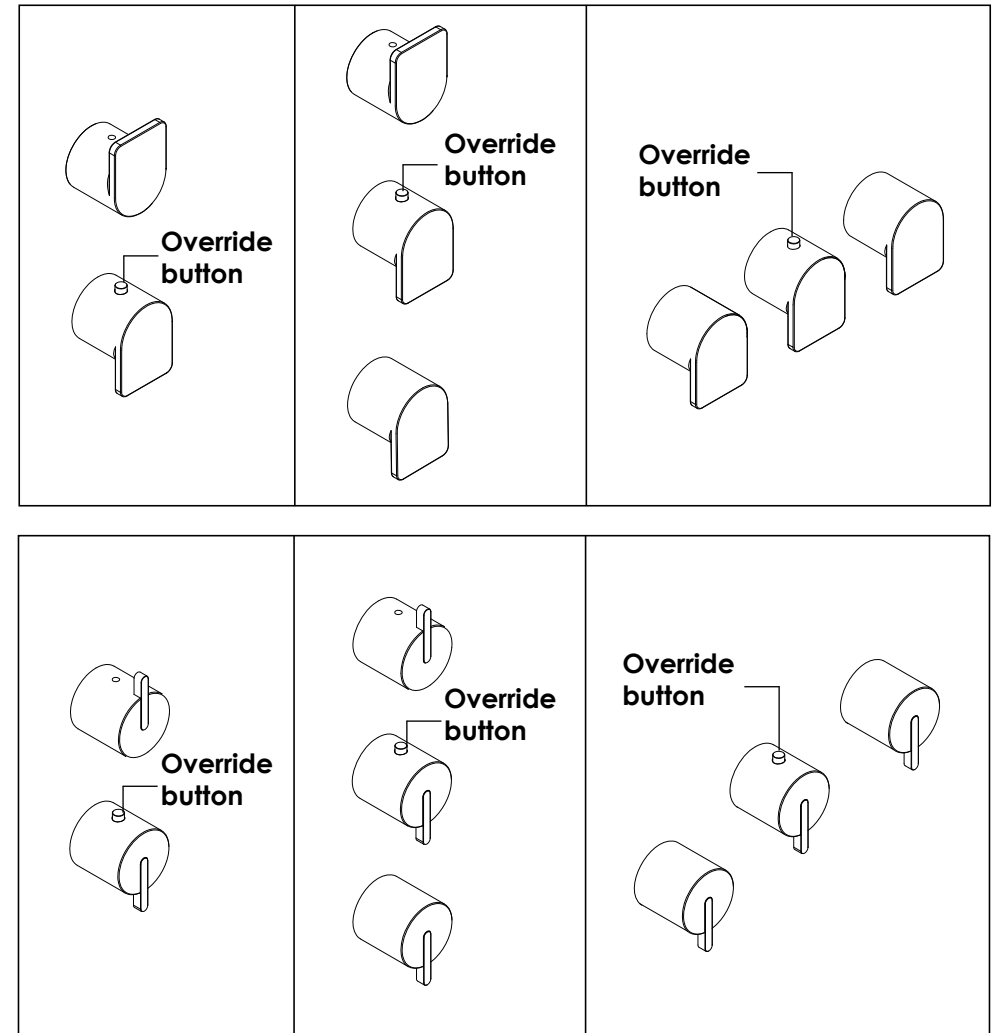
## INSTALLATION STEPS



## INSTALLATION STEPS



## INSTALLATION - HANDLES



### Flow control handle (top)

Carefully slide the flow control handle onto the splines of the top valve and secure in position with the grub screw on the underside.

### Temperature control handle (bottom)

With the temperature override button pointing at 12 o'clock, press down on the button and push the handle onto the splines, being careful not to turn the spline of the valve, secure in position with the grub screw on the underside. Ensure the plastic spacer ring is firmly positioned inside the handle before installation.

## MAINTENANCE

### CARE OF THE MIXER

Our products are finished to the highest standard and due care needs to be taken to ensure their looks are retained.

We recommend cleaning all products with a soft damp cloth **ONLY** and advise strongly against the use of **ALL** cleaning products i.e. powders and liquids.

If the above instructions are not followed this will invalidate your guarantee in the event of a problem occurring.



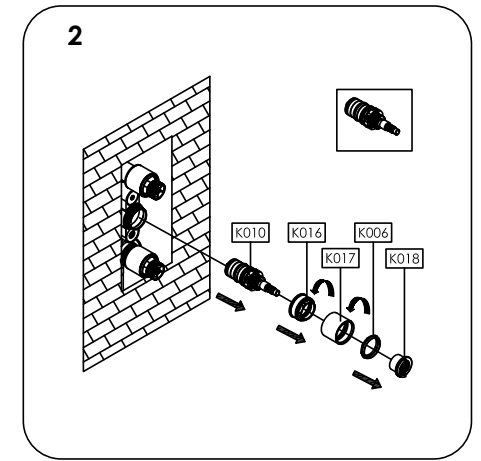
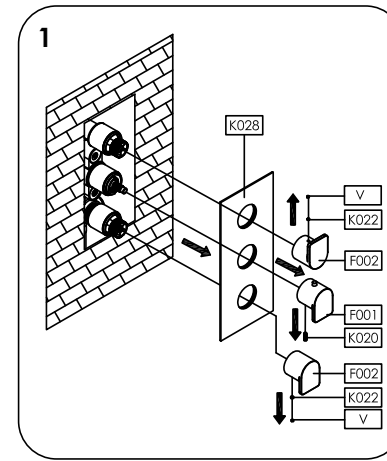
### SERVICING THE THERMOSTATIC CARTRIDGE

If after a period of time you experience temperature problems with your shower valve, particularly if you are in a hard water area, it is quite common for limescale deposits to have formed in the thermostatic cartridge. We recommend you remove the cartridge and soak it in a descaling fluid which normally resolves the problem. It is difficult to set a regular servicing time scale as it is subject to water conditions and usage.

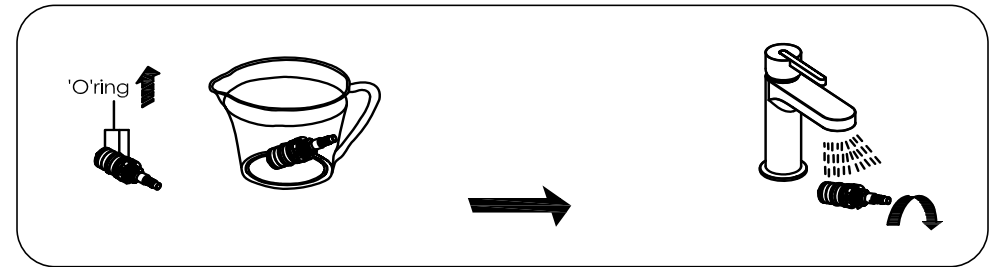
To clean the filters, you must first remove the cartridge from the housing.

Removing the Cartridge

1. Shut off the water supply to both inlets at the isolating valves.
2. Remove the handle, cover plate ring, cover plate to gain access to back of valve.
3. Remove the thermostatic cartridge by unscrewing with a spanner.



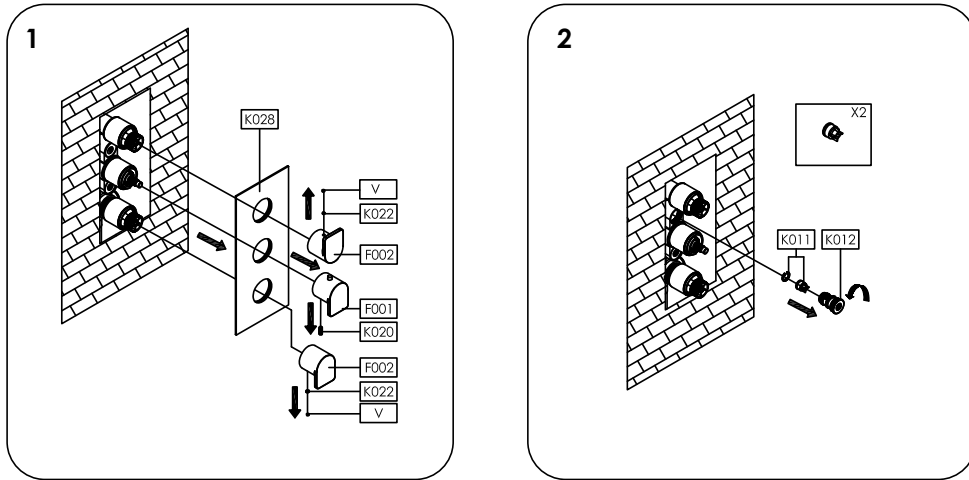
4. Clean the filters by rinsing them in water to remove the dirt and soaking them in vinegar or descaling agent.



5. Before reassembling the cartridge, clean its housing with a wet cloth and grease the 'O' rings using a suitable silicone lubricant. Reassemble the cartridge.
6. Place cartridge back into valve and tighten the nut with a spanner.
7. Place the black plastic stop ring so that the stop is at the 12 o'clock position.
8. Make sure everything is tight and secure, turn on the water supply at the isolating valves.
9. Now check the water temperature to ensure correct calibration (see page 22 for temperature resetting).
10. Replace the handles and cover plate.

## NON RETURN VALVES

Undo both hex nuts each side of the cartridge using a suitable spanner. Pull out the non return valve, rinse in water to remove the dirt, and then soak them in vinegar or descaling agent. Grease the 'O' rings using a suitable silicone lubricant and replace.



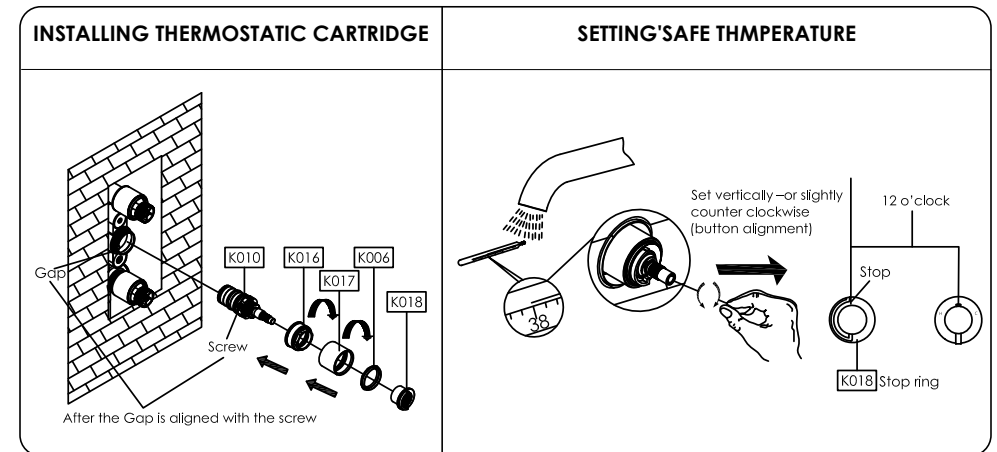
## TEMPERATURE RESETTING

The valve has been factory set under balance pressures and hot water supply at 65° C. When your specific operating conditions are significantly different from the above, the temperature of the water may vary from the setting.

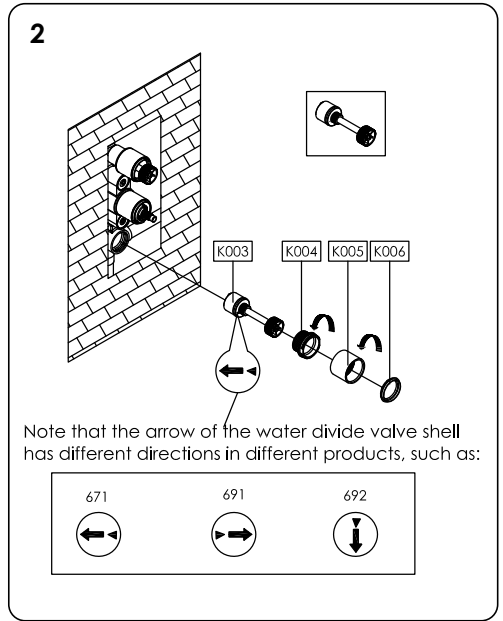
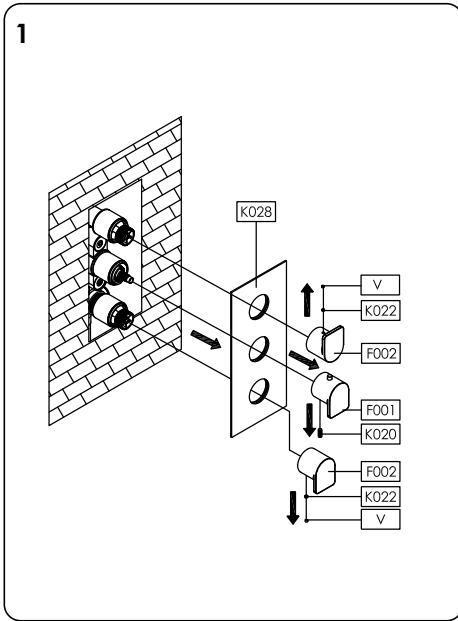
When the difference is too great, you can adjust the calibration of the valve to suit individual requirements of the installation:

1. Select 38° C or the arrow on the handle and check the temperature of the water being delivered to the outlet with a thermometer.
2. If the temperature is unacceptable proceed to reset the calibration as follows: Remove the handle. Do not remove the plastic stop ring. Turn the spline of the valve clockwise to decrease the temperature and anti-clockwise to increase the temperature until 38° is achieved at outlet.
3. Ensure that the stop on the stop ring is at 12 o'clock and replace the handle with the temperature override button also pointing at 12 o'clock being careful not to turn the spline of the valve, replace the handle.

Our valve setting is now calibrated.



## REPLACING DIVERTER CARTRIDGE



## REPLACING FLOW CARTRIDGE

