

## Commissioning..

Once the system has been filled and vented, carry out the following to ensure correct operation of the valve.

- Ensure the manual override lever is in the Auto position.
- Switch on the relevant channel on the programmer.
- Set the thermostat to maximum.
- The valve should move to the fully open position.
- The auxiliary switch should close and thereby switch ON any auxiliary equipment.\*

\*(Examples of auxiliary equipment include boilers and pumps).

Once satisfied with valve operation. Reset the programmer and thermostat to normal operating conditions.

## DETACH Connector wiring information..

V221D  
V222D  
V222FD

1	N/A
2	Grey
3	Orange
4	Brown
5	Blue
6	Earth



V228D  
V228FD

1	White
2	Grey
3	Orange
4	Brown
5	Blue
6	Earth

### WARNING!

UNDER NO CIRCUMSTANCES SHOULD THE ACTUATOR BE INSULATED OR COVERED BY ANY OTHER MATERIAL. LACK OF VENTILATION WILL CAUSE THE ACTUATOR TO HEAT UP BEYOND THE MAXIMUM PERMISSIBLE AMBIENT TEMPERATURE OF 50°C.

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# SAUTER

Creating Sustainable Environments.

## 2 PORT MOTORISED VALVES

### Important: Keep this document.

The V22.D range of valves c/w auxiliary switch have been designed for the use in heating systems and for cold water only.

**Installation and connection should only be carried out by a qualified person and in accordance with wiring regulations.**

Do not open the product. There are no serviceable or adjustable parts inside. The system must be fused to no more than 3 Amps.

### WARNING!

ISOLATE MAINS SUPPLY BEFORE INSTALLATION COMMENCES.  
ISOLATE MAINS SUPPLY BEFORE ATTACHING CABLE TO ACTUATOR.  
ISOLATE MAINS SUPPLY BEFORE DETACHING CABLE FROM ACTUATOR.

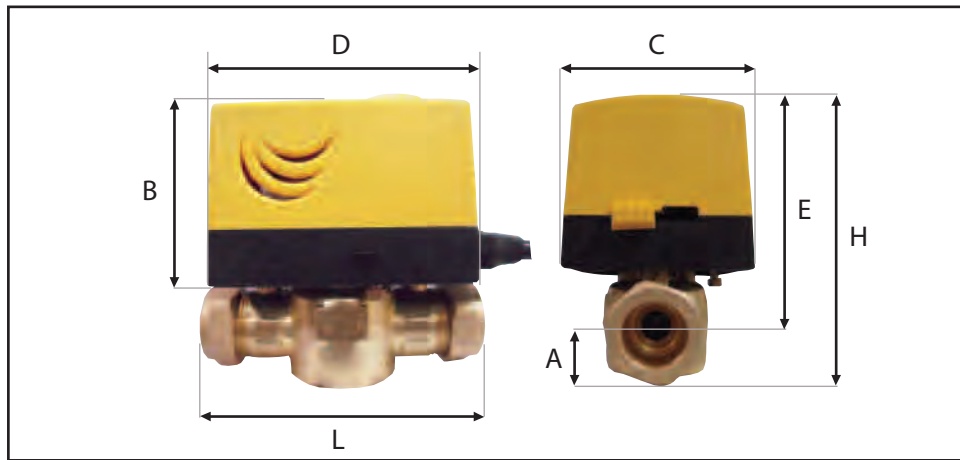
### TECHNICAL SPECIFICATION:

Model	Compression	Female BSP	Kvs (m <sup>3</sup> /h)	Max close off pressure (Bar)
V221D	3/4"		4.6	1.2
V222D	22mm		4.6	1.2
V228D	28mm		6.8	0.8
V222FD		3/4"	4.6	1.2
V228FD		1"	6.8	0.8
<b>Actuator</b>			Max ambient temperature	50°C
Motor supply voltage	230V		Protection rating	IP20
Rated impulse voltage	2500V		<b>Valve</b>	
Power consumption	5W		Max static pressure	21 Bar
Impedance protected motor			Max operating pressure	21 Bar
Auxiliary switch rating	5A		Perm. operating temperature	2...88°C

**Lead Supplied:** 1.2 metre cable. Earth Connection required.

**Actuator operation:** 230V Power to open - Spring return to close. This is not a fail safe, a no fail or a safety product. This control is designated Type 1. AA. C in accordance with EN60730 Type of action is multi position. Type of movement is rotary.

**Manual Override:** Valve may be manually opened for filling or draining the system. In normal operation, the lever must be in the Auto position.



Compression	L	H	A	B	C	D	E
3/4"	110	108	21	65	68	91	87
22mm							
28mm	120	110	23				

BSP Female	L	H	A	B	C	D	E
3/4"	89	108	21	65	68	91	87
1"	93	110	23				

If the mains power is disconnected, the valve will automatically spring return to the closed position (Port A)

## INSTALLATION & OPERATING INSTRUCTIONS

### Valve positioning...

Install the valve so the actuator head is not below the horizontal level of the pipework. The open vent and cold feed must not be isolated. The flow must be in the direction of the arrow (A to B).

### Fitting the valve body to the pipework...

Fit the valve body using the nuts and olives provided. When tightening the compression nuts ensure that only the valve body is used for grip. Take care not to overtighten.

### Removal of actuator from the valve body...

To remove the actuator head from the valve body ensure that the manual override lever is in the manual position. Ensure that the fixing screw located under the detach button is loosened and then press the detach button. The actuator will detach from the valve body.

### Fitting of actuator to the valve body...

Before fitting the actuator to the valve, please ensure that the manual override lever is in the raised manual position and the fixing screw is loosened. The actuator is mounted by aligning the 4mm flat spindle on the valve body to the identically sized slot on the actuator. When the valve and actuator are successfully coupled, the actuator locking mechanism will "click" into place. Now tighten the fixing screw located under the detach button. Once the valve is fitted, place the manual override lever in the raised manual position. It is now possible to flush and drain the system to remove any foreign matter. The system can then be refilled and corrosion inhibitor may be added if required.

### Wiring Connections...

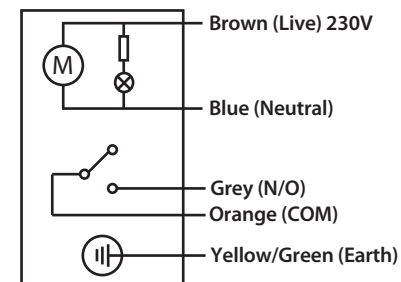
Ensure that no more than a 3A fuse is used to supply all controls.

The 1.2 Metre cable can be connected as follows:

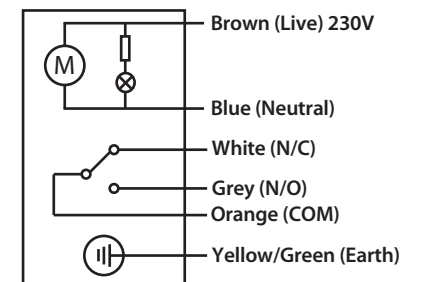
Wire Colour	Description
Brown	230V live (normally connected via room or cylinder stat)
Blue	Neutral supply
White	Auxiliary switch N/C
Grey	Auxiliary switch N/O (normally connected to Boiler and Pump)
Orange	Auxiliary switch COM (normally connected to 230V)
Yellow / Green	Earth connection

**Caution: It is not permissible to use any voltage other than 230V on the auxiliary switch.**

#### V221D/V222D/V222FD



#### V228D/V228FD



Electrical installation must conform with current I.E.E. regulations.

The auxiliary switch can be used as an interlock facility, thereby ensuring any auxiliary equipment is switched OFF when the valve is in the closed position. When the valve is in the fully open position the auxiliary equipment will be switched ON.\*