

MOTOBALANCE VALVES

MOTORISED FIXED ORIFICE DOUBLE REGULATING VALVES - DS981 | DS983 | DS984

- The Motobalance valve offers actuated balancing solutions for heating and cooling applications.
- Its unique fixed orifice design gives greater accuracy of flow measurement.
- Operation of the valve is by means of motorised actuator.
- MotoBalance is based on the proven Crane D931 FODRV.
- Y-pattern globe valve.
- Integral square edged entrance orifice plates and P84 insertion test points.
- Double regulating feature allows valve to be manually set.



INSTALLATION

Preparation

The flow direction must comply with the arrow cast on the valve body. The valve may be installed in any position other than with the actuator pointing vertically downwards. Please refer to the actuator installation instructions. Ensure fluid is clean, free from debris and non-degrading to EPDM. To ensure flow measurement accuracy, it is essential that the piping on the inlet and outlet is straight and has a minimum length equivalent to 5 diameters at inlet and 2 diameters at outlet.

End connections:

Sizes 1/2 & 3/4" DN15 & DN20, ISO 228-1 parallel

Jointing:

No thread jointing materials must be allowed to protrude inside the bore. For compression connections to copper tube, the tightening torque on the compression nut should not be so great as to cause crushing on the tube wall.

Tube cutting:

After cutting and threading steel tube, the end must be deburred or reamed before fitting to the flow measurement device. With copper tube, especially when cutting is carried out by roller cutters, the end must be deburred and reamed to tube bore dimension before fitting to the flow measurement device. Failure to carry out this procedure may lead to errors in flow measurement.

OPERATION

Protective cap:

The protective cap can be used to operate the valve during the construction period, i.e. when no actuator available but the cap must not be used for permanent shut-off of the valve against system pressure.

Regulation and flow measurement:

Flow regulation is achieved by adjusting the stem position with the key supplied until the required flowrate is obtained, as derived from the 'signal' measured across the pressure test valves. The set position can then be recorded from the dial. Valves have a coloured dial to represent the following:

DS981 - White

1/2" flow range of 0.061 to 0.132 l/s.

3/4" flow range of 0.131 to 0.289 l/s.

DS983 - Yellow

1/2" flow range of 0.03 to 0.07 l/s.

DS984 - Green

1/2" flow range of 0.016 to 0.04 l/s.

Flow charts are available for all valve sizes.



Actuator:

Suitable for use with all manufacturers actuators meeting the following

Specification:

- M30 x 1.5 connecting thread
- Suitable for use with either
- 24v/230v on/off OR 24v/230v modulating actuator
- Actuators need a force of 90 Newtons against a differential pressure of 1.2 bar to close the valve

Nominal stroke length is 4.0mm

Nominal closing dimension of 11.5mm

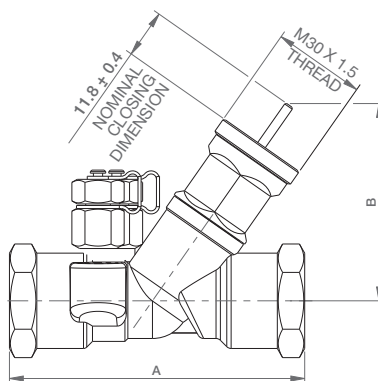
Pressure temperature rating:

Maximum static pressure: 16 bar

Maximum differential pressure: 1.2 bar

Maximum working temperature: 120°C

Minimum working temperature: -20°C



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