

Models 30-70 and 30-80 Actuated Cryogenic Valves

These cryogenic valves provide a highly reliable means of automatically controlling liquid nitrogen flow. The valves are of the ball type, giving positive shut-off characteristics, with a high tolerance to ice and other particles which can cause leakage or jamming of globe-type solenoid valves and control valves.

The stem and spindle are extended so that the gland seal remains warm and free of ice, and the actuator mechanism is unaffected by the operating temperature.

Materials of construction are brass and stainless steel, with special fluoropolymer seals suitable for use at -200 C.

Actuation is normally of the air-to-open, spring-to-close, failsafe type. (For special applications, the units may be converted to the opposite mode of operation.)

The model 30-70 is an on-off valve, incorporating a 3-way air solenoid valve and is suitable for emergency shut-off, on/off and slow-cycle time control duties.

The model 30-80's a variable-orifice valve, suitable for flow control duties. A built-in positioner, with

electro- pneumatic interface, converts an input signal of 4-20 mA to a valve position and hence controls the flow of liquid nitrogen according to the input signal.

This is achieved by means of an integral position feedback potentiometer, which is used to generate a proportional electrical signal. This signal is compared, within the positioner circuitry, with the incoming control signal, and the deviation signal triggers either an input or release of air from the actuator. The valve position is thus adjusted until the control signal matches the position feedback signal.

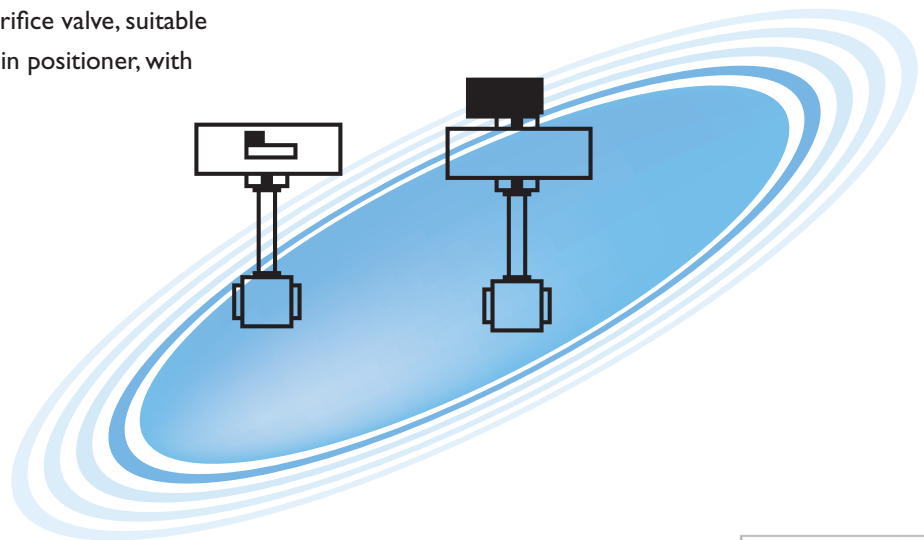
The following services are required :

Model 30-70 :

Compressed air, pressure from 8 down to 2 bar g
Electrical supply 110 or 240V ac,
24V dc

Model 30-80 :

Compressed air, pressure from 8 down to 2 bar g
Position control signal 4-20 mA



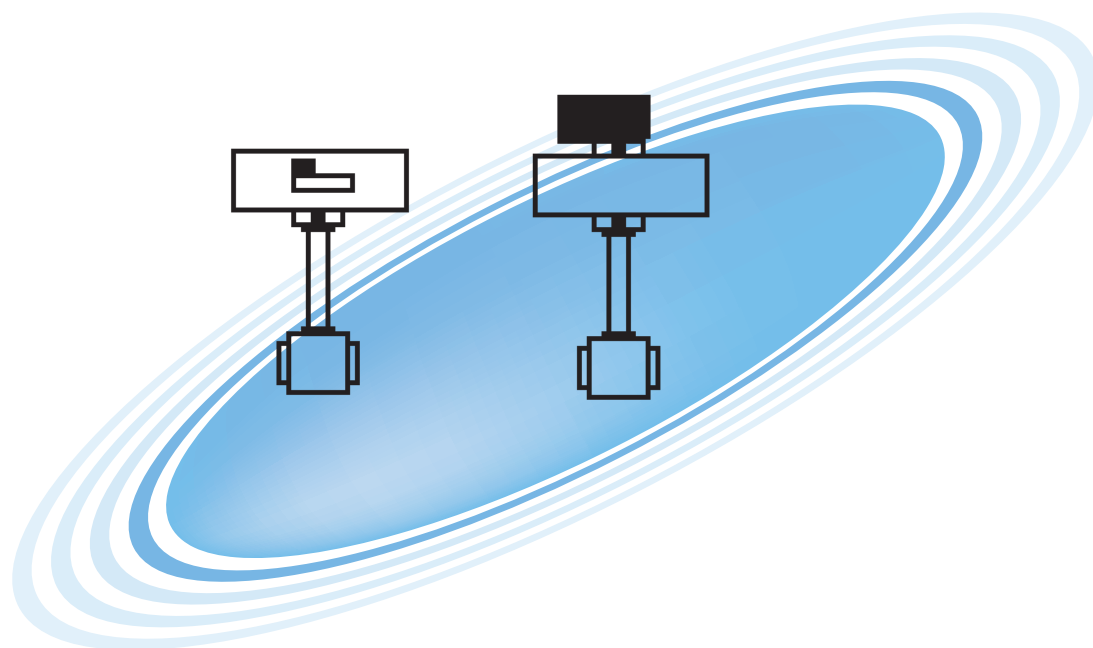
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Models 30-70 and 30-80 Actuated Cryogenic Valves Specifications

Valve size (bspf)	1/2"	1"
Maximum orifice (mm)	11.1	20.6
Overall height (from valve centre line)	420 x 470	545 x 595
Actuator depth	87	142
Actuator length	205	250
Valve body length	66	96
Maximum Working Pressure (bar g)	19	19



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