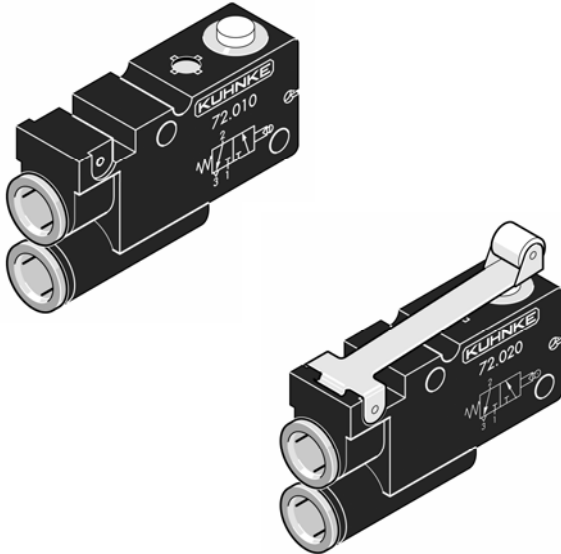


Miniature Valves

Series 72 – 3/2 Micro

Kuhnke Miniature Valves

Mechanically Operated Micro Valves



The Series 72 micro air valve was developed as a low cost, reliable signal element for mounting in confined spaces. The valve has an air assisted servo plunger design providing a low actuation force of 100 grams.

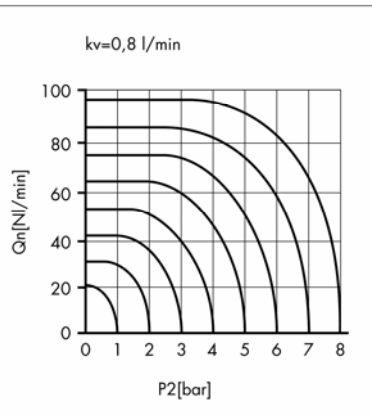
Valves are designed to match the dimensions of standard electrical micro switches and have similar actuating forces. Mounting is via through body holes which minimise the need for brackets and allow the valve to be mounted in very tight spaces.

These valves are equipped with instant push in fittings to accommodate flexible 4mm O.D. tubing, eliminating the need for extra fittings. The exhaust port (3) is internal and non accessible.

An air assisted servo controlled pilot consumes approximately .07 litres per minute and provides an air cushion for the plunger operator. The pilot supply is internally connected to port 1 (air supply) of the valve.

Technical Specifications

Flow in Bars and Litres per Minute



(1 Bar = 14.5 PSI; 1 Litre = .03531 cubic feet)

Operating Pressure:
1.5 to 8 bar.

Vacuum:
Not applicable.

Flow Rate:
See flow chart.

Kv/Cv:
Kv - .8
Cv - .06

Orifice:
2mm

Connection:
Push in fittings for 4mm flexible tubing. Exhaust port 3 is non accessible.

Media:
Filtered air.

Operation:
Air assisted servo controlled element. Supply pressure must be connected to port 1.

Operating time:
65 ms @ 6 bar.

Actuation Force:
100g. @ 8 bar.

Actuator Travel:
Approx. 0.8mm.

Total Travel (override):
1.2mm.

Air Consumption:
Approx. .07 l/min @ 6 bar.

Materials:
Polyamide housing, aluminum plunger, Buna N seals, brass fitting inserts.

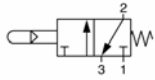
Average Mechanical Life:
10 million operations

Operating Ambient:
-10°C to 60°C (12°F to 140°F)

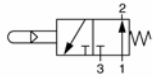
Dimensions:
Valve body- 35mm L x 10mm W x 19.6 H.

Mounting:
(2) 3mm through body mounting holes.

72010
Norm. Closed
Plunger Operator



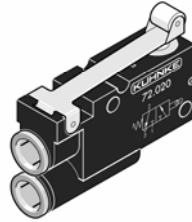
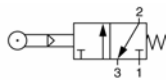
72015
Norm. Open
Plunger Operator



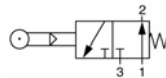
Plunger operated valve can be used as a trigger mechanism on air guns, or to detect end of travel on machinery, tool in position functions, etc. Actuator travel is 1.2mm and actuation occurs at 0.8mm of travel.

Weight: 8g.

72020
Norm. Closed
Roller Lever



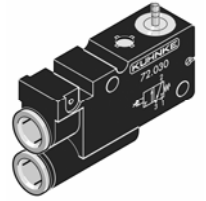
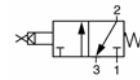
72025
Norm. Open
Roller Lever



Roller lever allows valve to be mounted in small parts conveyors or moving rail applications. Roller has an override of 1.2mm. Actuation occurs at 0.8mm of travel.

Weight: 9g.

72030
Air Jet Detector



Valve is actuated by remote air jet nozzle, connected to valve via a 4mm O.D. hose equipped with a special nozzle. Air jet is supplied by valve. A stream of air is sent from the nozzle. When an object blocks off the flow of air at the nozzle, the build up of back pressure activates the valve. Any length of hose can be used, however, length of tube (volume) determines valve switch over time. Uses hose kit cat. no. 43138, see *accessories*.

Weight: 8g.