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Important Note

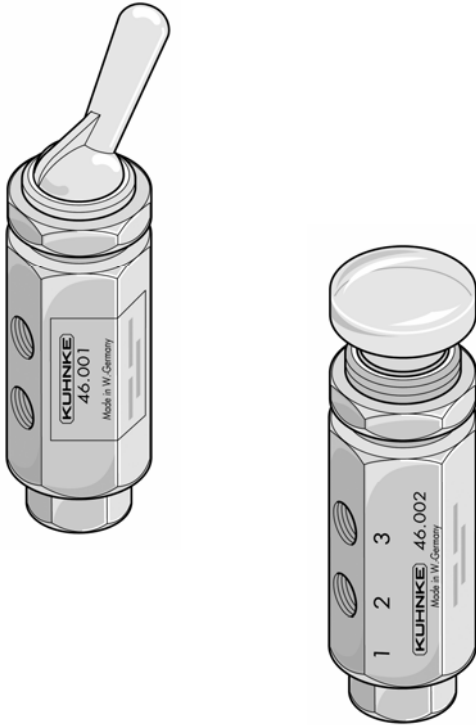
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Miniature Valves

Series 46 – 3/2 Brass

Kuhnke Miniature Valves

Brass Poppet Valves, Manually and Mechanically Operated



The Series 46 valve is a rugged general purpose 2 or 3 way device. The valve series is available with 7 types of mechanical actuators and 2 types with pneumatic actuation to suit a variety of application requirements.

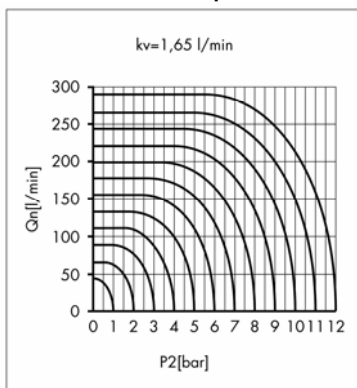
Series 46 valves can be used for normally closed, normally open or diverter circuits as well as on vacuum or liquid applications.

Constructed from a hex brass bar, valves have M5 ports on its side and rear for easy connections. A nickel chromium plunger and buna N seals provide long life.

Valves can be panel mounted or used with mounting brackets. Standard mounting brackets are available. A hex nut is included for panel or bracket mounting in a 12 mm diameter hole.

Technical Specifications

Flow in Bars and Litres per Minute



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

Operating Pressure:

0 to 12 bar

Vacuum:

Up to 90%, consult factory with specific application.

Flow Rate:

See flow chart.

Kv/Cv:

Kv – 1.65

Cv - .13

Orifice:

2mm

Connection:

M5 ports

Media:

All neutral liquid or gaseous media. (Consult factory before use on liquids.)

Actuation:

Mechanical or pneumatic force required depends on model. Spring assisted return.

Materials:

Brass housing, buna N seals, Nickel chromium plunger.

Average Mechanical Life:

100 million operations

Operating Ambient:

-10°C to 70°C (12°F to 160°F)

Dimensions:

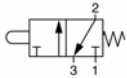
Valve body- 43mm L x 14mm Hex.

For operator dimensions see valve descriptions.

Mounting:

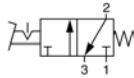
Valve mounts in a 12mm dia. hole.

46000
Plunger Operated



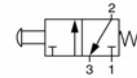
Valve is operated by a plunger. Travel approx. 2mm for actuation, spring return. Plunger force is dependent on line pressure (force at 6 bar is 13N). Ideal for "end of travel" applications. Above panel dimension 10mm. Weight: 43 g.

46001
Toggle Switch



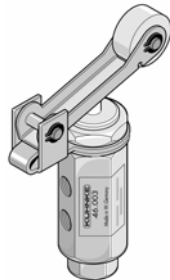
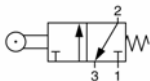
Toggle switch (2 pos.) operated. Ideal for switching air supplies on small equipment. Weight: 57 g. Above panel dimension 25mm.

46002
Pushbutton



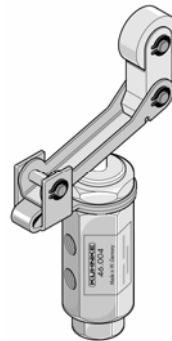
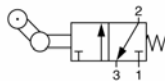
Pushbutton operated, (spring return). Used for momentary air pressure switching. Pushbutton force approx. 13 N @ 6 bar. Weight 57 g. Above panel dimension 14mm.

46003
Roller Lever Operated



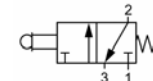
Used as pneumatic limit switch or position detector. Actuator travel 4mm for valve operation. Actuation force approx. 6 N. Weight: 75g. Dimension above valve body is 22.5mm.

46004
1 Way Roller Lever Operated



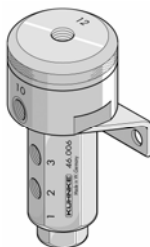
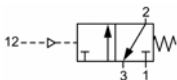
Roller lever operates valve only in one direction. Can be used for limiting travel on machinery. Actuator travels and force, same as 46003. Weight: 80g. Dimension above valve body is 38.5mm.

46005
Ball Operator



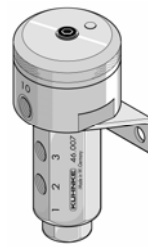
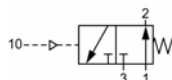
Actuated by pressure on a ball bearing. Travel approx. 2mm for actuation. Ball bearing rolls with mass as it moves by. Force required (vertical to valve axis) is 13 N at 6 bar. Can be used for detecting items on conveyors. Weight: 75g. Dimension above valve body is 17mm.

46006
Pneumatic Operator
Normally Closed Valve



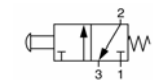
Pneumatically actuated valves can be used for piloting secondary systems. Valves are supplied with mounting bracket. Actuated by applying a pilot pressure between 1.5 and 6 bar to the control port. Weight: 142 g.

46007
Pneumatic Operator
Normally Open Valve



Same as 46006 except equipped with a normally open valve,

46010-03
Valve for Oil-Tight
Pushbuttons



Valve is designed for use with standard miniature size (22mm dia.) pushbutton operators. Enables pneumatic switching to be combined with electromechanical switching on control consoles. Fits *Moeller* operators, see *accessories*. Weight (valve only): 75g.