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Contact Details

Kuhnke sales and service in North America

Kuhnke
Automation Inc.
P.O Box 1369
Wayne, N.J.

T: (973) 633 0690
F: (973) 633 7230
Email: sales@kuhnkeusa.com

Important Note

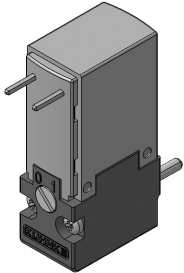
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Micro Solenoid Valves

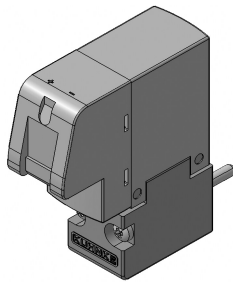
Series 63 – 2 or 3 Way Low Power

Kuhnke Miniature Valves

Micro Solenoid Valves, 10mm Wide (Low Power Version)



Pin Connector



Plug Connector

The Series 63 low power solenoid valve is a manifold mounted 10mm (3/8 inch) wide valve for compact installations where switching small volumes of air or liquids is required. The valve has a power consumption of 1 watt. The power saver version, which includes an electronic circuit built in to the coil body, reduces power consumption to minimum holding current of 0.2 watt.

The Series 63 valve is available with 3 orifice sizes each with different flow values and maximum air pressures. Standard valves are designed for 24 volts DC operation and feature a molded housing, NBR seals, encapsulated coils and are mountable in any position.

Accessories include modular manifolds and connectors.

Options include viton, silicone or EPDM seal materials. A manual operator can be added for testing valve circuits. For a comprehensive list of options see page 15. Pneumatic or electrical modifications can be made to suit specific application requirements.



In addition to general purpose use, Series 63 valves are designed for the special requirements of medical, dental and laboratory equipment. Custom designs available.

Technical Specifications

Operating Pressure:

0 to 145 PSI, see selection chart.

Max. Flow Rate and Pressure:

See selection chart.

Cv/Kv:

See flow graphs.

Connection:

See manifold details.

Media:

All neutral liquid or gaseous media.

Power Consumption:

24VDC, 1W
Optional 12VDC, 1W
Power Saver Coil 0.2W (after 200ms on time)

Valve Operating Time:

Pick-up: 5-10 ms
Drop out: 4-6 ms

Materials:

Molded body POCAN (PBT),
NBR Seals,
Brass inserts.
Optional Viton, Silicone or EPDM seals

Average Mechanical Life:

100 million operations

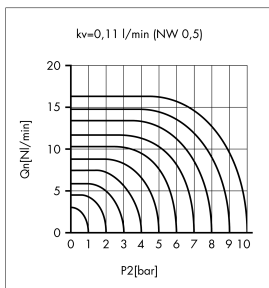
Operating Ambient:

-10°C to 50°C (12°F to 120°F)

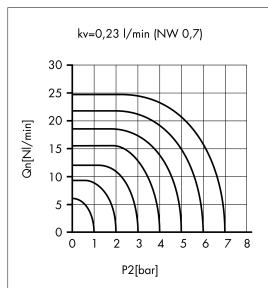
Dimensions (inches):

3/8" W x 1 1/4" H x 1 1/16" D.
(10mm W x 31.2mm H x 26.9mm D)

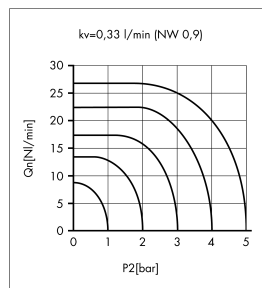
Flow Graphs in Bar and Liters per Minute



0.5mm Orifice
Cv - .01 / Kv - .11



.7mm Orifice
Cv - .015 / Kv - .23



.9mm Orifice
Cv - .075 / Kv - .33

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

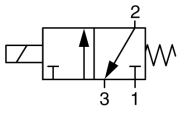
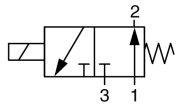
Micro Solenoid Valves

Kuhnke Miniature Valves

Series 63 – 2 or 3 Way, Low Power



Selection Chart

Description		Plug Socket with LED and Surge Suppressor		Plug Socket with Power Saver Circuit		Pin Connectors (Outboard)	
		Max. Press. and Flow	Catalog Number	Max. Press. and Flow	Catalog Number	Max. Press. and Flow	Catalog Number
3 Way Normally Closed, 24VDC 	Orifice 0.5mm	115 PSI, 0.38 SCFM (8 Bar 11 Liters)	63110-10	145 PSI, 0.60 SCFM (10 Bar 17 Liters)	63120-10	115 PSI, 0.38 SCFM (8 Bar 11 Liters)	63130-10
	Orifice 0.7mm	45 PSI, 0.42 SCFM (3 Bar 12 Liters)	63110-20	105 PSI, 0.88 SCFM (7 Bar 25 Liters)	63120-20	45 PSI, 0.42 SCFM (3 Bar 12 Liters)	63130-20
	Orifice 0.9mm	30 PSI, 0.49 SCFM (2 Bar 14 Liters)	63110-30	60 PSI, 0.77 SCFM (4 Bar 22 Liters)	63120-30	30 PSI, 0.49 SCFM (2 Bar 14 Liters)	63130-30
3 Way Normally Open, 24VDC 	Orifice 0.7mm	45 PSI, 0.42 SCFM (3 Bar 12 Liters)	63111-20	105 PSI, 0.88 SCFM (7 Bar 25 Liters)	63121-20	45 PSI, 0.42 SCFM (3 Bar 12 Liters)	63131-20
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For 2 way valve operation using these 3 way valves, see manifold assembly details. For 2 way valves, see catalog system chart on page 15. Standard coil voltage 24 VDC, specify 12 VDC if required.

Coil Options

Plug socket type with LED and surge suppressor- Coil has built in surge protection and visual indicator for on-off status.

Plug socket type with power saver circuit- Coil has built in circuit for reducing power consumption to 0.2 watts after the coil is energized.

Both plug socket types use a plug in connector with wire leads for connection to terminal blocks or other devices. See accessories for wire lengths and catalog numbers.

Pin connector – Valves are equipped with connector pins for direct connections to printed circuit board assemblies or can be used with crimp on wire connectors (ie. AMP No. 925366-3, crimp 167301-4). Pins are 0.64mm square and are spaced 5mm apart. Outboard pins face away from valve ports.

Manifolds and Sub Bases

A modular manifold system is available for constructing custom manifolds for Series 63 valves. A molded single sub base can be used for individually mounting valves. Aluminum manifolds and sub bases are also available. See accessories.

See page 15 for a list of non-standard types of Series 63 valves.

Consult factory for special seals, flow requirements or custom manifold designs including electronic intelligence circuits.

See 63 valve accessories for manifolds and connectors. For detail dimensions contact factory.