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### Important Note

The information shown in these documents is for guidance only. No liability is accepted for any errors or omissions. The designer or user is solely responsible for the safe and proper application of the parts, assemblies or equipment described.

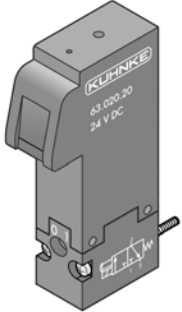
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# Micro Solenoid Valves

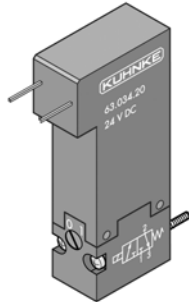
## Series 63 – 2 or 3 Way Standard

Kuhnke Miniature Valves

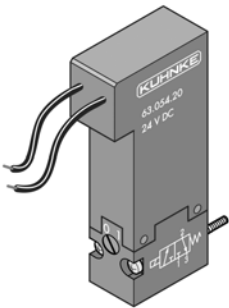
### Micro Solenoid Valves, 10mm Wide (Standard Version)



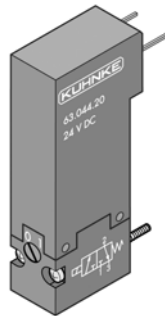
Plug Connector



Outboard Pin Connector



Pigtail Version



Inboard Pin Connector

The Series 63 solenoid valve is a manifold mounted 10mm (3/8 inch) wide valve with low power consumption, ideal for compact installations where small volumes of air or liquids are required.

The standard valve is available with 3 orifice sizes each with different flow values and maximum air pressures. 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.



Pneumatics for Life Science

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, 1.8W  
Optional 12VDC, 1.8W

**Valve Operating Time:**

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

**Materials:**

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

**Average Mechanical Life:**

100 million operations

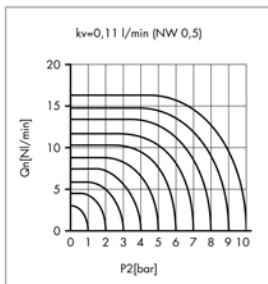
**Operating Ambient:**

-10°C to 50°C (12°F to 120°F)

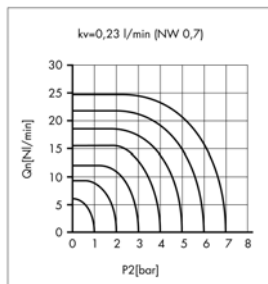
**Dimensions (inches):**

3/8" W x 1 5/8" H x 7/8" D.  
(10mm W x 42.5mm H x 22.6mm D)

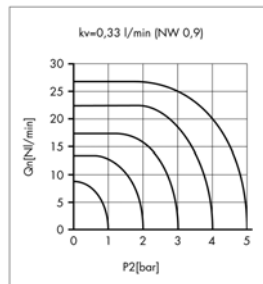
**Flow Graphs in Bar and Liters per Minute**



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



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

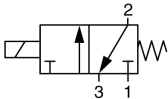
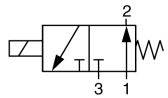


.9mm Orifice  
Cv - .075 / Kv - .33

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

### Selection Chart



Description	Orifice (Maximum Operating Pressure and Flow)	Catalog Number			
		Plug Socket	With Pigtails	Pin Connector (Outboard)	Pin Connector (Inboard)
<b>3 Way</b> Normally Closed, 24 VDC  	<b>0.5mm</b> (145 PSI, 17 Liter 0.6 CFM)	<b>63020-10</b>	<b>63054-10</b>	<b>63034-10</b>	<b>63044-10</b>
	<b>0.7mm</b> (100 PSI, 25 Liter 0.9 CFM)	<b>63020-20</b>	<b>63054-20</b>	<b>63034-20</b>	<b>63044-20</b>
	<b>0.9mm</b> (75 PSI, 27 Liter 0.95 CFM)	<b>63020-30</b>	<b>63054-30</b>	<b>63034-30</b>	<b>63044-30</b>
<b>3 Way</b> Normally Open, 24 VDC  	<b>0.7mm</b> (100 PSI, 25 Liter 0.9 CFM)	<b>63021-20</b>	<b>63055-20</b>	<b>63035-20</b>	--
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For 2 way valve operation using these standard valves, see manifold assembly details. Standard coil voltage 24 VDC, specify 12 VDC if required.

#### Coil Options

Several coil connection versions are available to suit application preferences.

*Plug socket type*- Uses a plug in connector with wire leads for connection to terminal blocks or other devices. See accessories for catalog numbers and wire lengths.

*Pigtails*- Valves have 18 inch (500mm) pigtails molded into coil.

*Pin connectors* – 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 7.6mm apart. Outboard pins face away from valve ports while inboard types have pins facing in the same side as 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.**