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Hard copy product catalogues, and CDROMs have been published describing Kuhnke Pneumatics, Solenoids, Relays and Electronics; some divided into different books. A list of current publications is available on this web site or from our sales offices. Some may be available for download, but as substantially larger files.

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Important Note

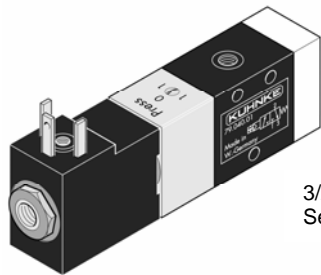
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Miniature Solenoid Valves

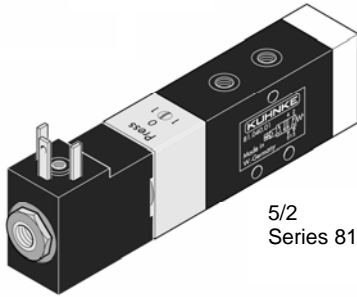
Series 79, 81, 84 – 3/2 or 5/2

Kuhnke Miniature Valves

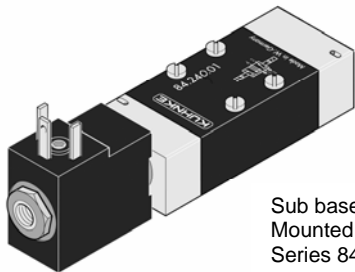
Steel Spool Valves, (M5) Ported



3/2
Series 79



5/2
Series 81



Sub base
Mounted
Series 84

Series 79, 81 and 84 solenoid operated spool valves are constructed of precision lapped steel spools and sleeves. Solenoid coils are encapsulated and have terminals for solder or plug connections. Valves are available for in-line, manifold or sub base mounting.

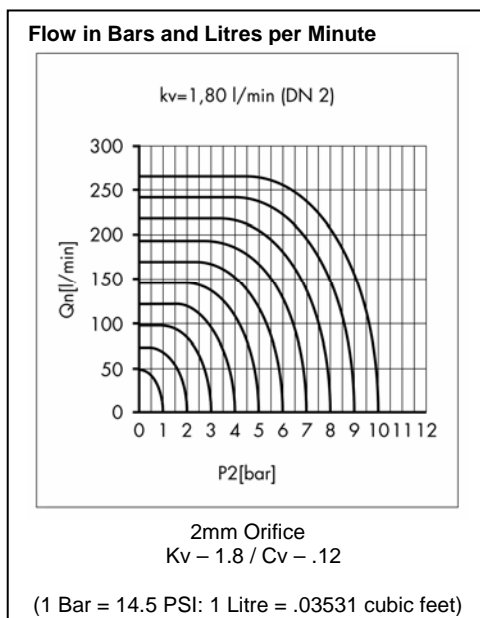
A characteristic feature of these valves is a hardened and cut steel spool running in a similarly hardened and cut steel liner. The precision fit of these metal elements form the seal. The kinetic energies of the spool when switching over are absorbed by special cushioning in the covers and switching noise is reduced to a minimum.

Types: Standard valves are available for in-line (Series 79,81) or sub base (Series 84) mounting. In-line (body ported) valves are mounted using (3) 3.1mm dia. holes through the body. Sub base mounted valves can use a molded or aluminum base. Both in-line or sub base mounted valves can be used with Kuhnke manifolds for built up valve banks.

For replacement purposes, new valves use the 16mm (Series 64) coil while older designs use a 20mm coil (Series 65). Both are currently available.

Valves have a screwdriver operated manual override, as standard, for testing or by-passing the solenoid operator.

Technical Specifications



Operating Pressure:

2 to 10 Bar

Vacuum:

Not applicable.

Flow Rate:

See Chart

Kv/Cv:

$K_v - 1.8$
 $C_v - 0.12$

Orifice:

2mm

Connection:

M5 ports

Media:

Filtered Air

Coils:

Encapsulated, ground connection standard.

Power Consumption:

DC 1.8W
AC 5 VA

Valve Operating Time:

	AC	DC
Pick-up:	4 ms	10 ms
Drop Out:	3.5 ms	8 ms

Dimensions (mm):

5 Way	Single Solenoid	Double Solenoid
Valve -		
Height:	94	135
Width:	15	15
Depth:	26.5	26.5
Weight:	170g.	260g.

Materials:

Aluminum housing, hardened steel spool and sleeve, Buna N seals, encapsulated coil, makrolon end caps.

Average Mechanical Life:

100 million operations

Operating Ambient:

-10°C to 50°C (12°F to 120°F)

Operation:

Air piloted system, supply pressure must be connected to port 1.

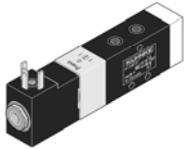
Miniature Solenoid Valves

Kuhnke Miniature Valves

Series 79, 81, 84 – 3/2 or 5/2

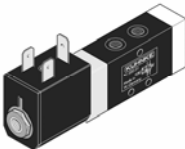
Selection Chart

Valves with Series 64 Coils



The current design for (M5) spool valves includes a Series 64 solenoid system. The coil body is the same size as the valve.

Valves with Series 65 Coils



Older valve designs for (M5) spool valves include a Series 65 solenoid system. The coil body is wider than the valve. For replacement of existing valves only.

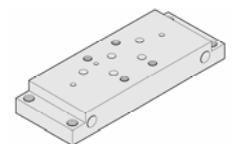
Description	Coil Type	Catalogue number	
		In Line Mounted	Manifold Mounted
3/2 Single Solenoid Spring Return 	AC	79040-02- ● <i>(79030-02- ●)</i>	(Not Available)
	DC	79040-01- ● <i>(79030-01- ●)</i>	(Not Available)
5/2 Single Solenoid Spring Return 	AC	81040-02- ● <i>(81030-02- ●)</i>	84240-02- ● <i>(84230-02- ●)</i>
	DC	81040-01- ● <i>(81030-01- ●)</i>	84240-01- ● <i>(84230-01- ●)</i>
5/2 Double Solenoid Detent 	AC	81044-02- ● <i>(81034-02- ●)</i>	84244-02- ● <i>(84234-02- ●)</i>
	DC	81044-01- ● <i>(81034-01- ●)</i>	84244-01- ● <i>(84234-01- ●)</i>

● - Insert coil voltage required to complete catalogue number. Standard voltages are 12 and 24 VDC; 24, 110 and 230 VAC. Catalogue numbers in *Italics* are older design valves with 20mm coils. Not recommended for new installations. See explanation, this page.

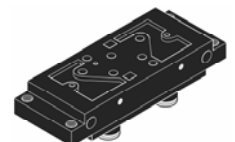
Sub bases / Manifolds

Manifold kits are available for both in-line or sub base mounted 5 way valves. See *accessories*. Single sub bases for mounting series 84 valves are available in 2 versions:

An aluminum sub base, catalogue number **84402-01** can be used to individually mount manifold valves. Base dimensions are 70mm L x 26mm W x 10mm H. Tapped holes (M4) at each corner are used for mounting the base. M5 porting is through the bottom.



A special moulded sub base cat. no. **83450** has instant push in fittings for 4mm tubing and fully adjustable flow controls to provide a compact valve package. Dimensions are 70mm L x 26mm W x 19mm H.



See miniature solenoid valve accessories for manifolds and electrical connectors. For detail dimensions contact us.