

KIP Fluid Control Valves - Series 1

Features & Benefits

- 2/2 and 3/2 direct acting
- Designed for long life and reliability
- Ideally suited for air, liquid, and vacuum control in a broad range of sectors
- Different materials available for compatibility with neutral gases and liquids
- Custom fitting or electrical hardware installation available upon request. Minimum order quantity (MOQ) applies.



Technical Data

Operating Pressure:

2/2: 0 to 800 psig, vacuum capable*
3/2: 0 to 230 psig, vacuum capable*

Orifice

Ø1/32" to Ø5/32"

MOPD:**

2/2: 50 to 800 psig
3/2: 10 to 200 psig

Cv Range:

2/2: 0.035 to 0.290
3/2: 0.035 to 0.285

Actuation:

Solenoid

Coil:

AC, DC

Coil Class Options:

B: 266°F (130°C) standard
H: 356°F (180°C)

Connection:

1/8" NPTF or manifold mount
Electrical Connection
24" flying leads

Switching Function:

2/2: NO, NC
3/2: NO, NC, Multi-purpose, Directional Control

Voltage Options:

12VDC, 24VDC, 24/60VAC,
120/60VAC, 240/60VAC

Wattage:

6 Watts, nominal

Duty Cycle:

Continuous

Weight:

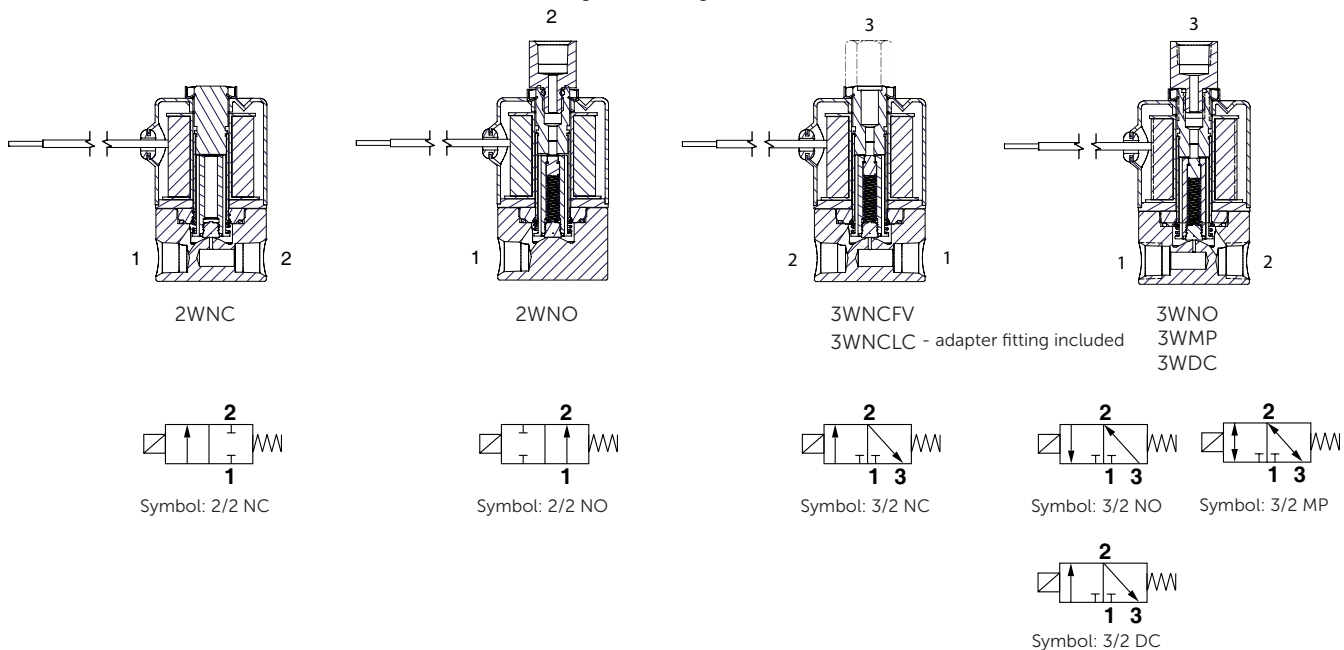
6oz, typical

Material:

Body: brass or stainless steel
Internal wetted parts: 430FR
& 300 series CRES

* For vacuum ratings and rectified coil options, call technical support at 860-677-0272 or email: farmingtontechnical@imiplc.com

** Manifold mount valves are limited to a maximum 400 MOPD rating for UL Recognition.



Option Selector

Prefix (optional)		Substitute	Voltage		Substitute
NSF certified		N	12 VDC		12VDC
UL recognized		U	24 VDC		24VDC
Oxygen clean		Y	24-60 VAC		24-60
Low watt* - 2.0		B	120-60 VAC		120-60
Low watt* - 2.5		C	240-60 VAC		240-60
Low watt* - 3.0		D	Coil Options		Substitute
Port Configuration		Substitute	Dry taped with 24"		01*
1/8" NPTF		4	Flying Leads		
Manifold Mount		6	Free standing molded		41*
			24" Flying Leads		
Housing		Substitute	Seal Options		Substitute
Grommet		1	Buna (NBR)		01
1/2" NPT Conduit		2	Fluorocarbon		02
Grommet w/ bracket		7	Neoprene		03
Slotted		9	Low Temp Buna (NBR)		05
Body Material		Substitute	Low Temp		07
Stainless Steel		0	Fluorocarbon		
Brass		1	Ethylene Propylene (EPR)		13
Function		Substitute	GFLT (FKM)		16
2WNC		1	Orifice		Substitute
2WNO		2	1/32		0
3WNC free vent		3	3/64		1
3WNC line connect		4	1/16		2
3WNO		5	5/64		3
3WMP		6	3/32		4
3WDC		7	1/8		5
			5/32		6

Coil Options

Number	Housing	Type	Class
01	1 - Grommet	Standard - dry tape wrapped with leads	B
01	2 - Conduit	Standard - dry tape wrapped with leads	B
41	9 - Slotted	Free-standing, molded with leads	B
41	1-Grommet	Potted with Leads	B
41	2 - Conduit	Potted with leads	B

*For class H coils replace second digit with 3.
Example: 43 = Class H Potted with leads

Series 1 - 2/2 NC Cv and MOPD Values

Orifice Diameter		Low Watt Specifications (MOPD (psi))						
Body	Stop	MOPD (psi)	Cv Value	Part Numbering	Cv Value Body	2.0 Watt B	2.5 Watt C	3.0 Watt D
1/32	—	800	0.035	1***10	0.030	300	500	775
3/64	—	500	0.050	1***11	0.050	100	175	300
1/16	—	300	0.095	1***12	0.085	30	65	95
5/64	—	200	0.135	1***13	0.125	15	40	65
3/32	—	175	0.175	1***14	0.170	10	25	40
1/8	—	100	0.245	1***15	0.225	—	—	4
5/32	—	50	0.290	1***16	0.280	—	—	—

For low watt options, please use the prefix B for 2.0 watt, C for 2.5 watt, and D for 3.0 watt as shown.

Series 1 - 2/2 NO Cv and MOPD Values

Orifice Diameter		Part Numbering		
Body	Stop	MOPD (psi)	Cv Value	Part Numbering
—	1/32	300	0.035	1***20
—	3/64	200	0.050	1***21
—	1/16	150	0.095	1***22

Series 1 - 3/2 NC Cv and MOPD Values

Orifice Diameter		MOPD (psi)	Cv Value Body	Cv Value Endstop	Part Numbering
Body	Stop				
1/32	1/32	200	0.035	0.025	1***40
3/64	3/64	150	0.050	0.065	1***41
1/16	1/16	100	0.085	0.115	1***42
5/64	1/16	80	0.125	0.115	1***43
3/32	1/16	60	0.165	0.115	1***44
1/8	1/16	40	0.240	0.115	1***45
5/32	1/16	10	0.285	0.115	1***46

For free vent, change fifth digit from 4 to 3

Consult Technical Support for low watt options for 3/2 NC valves

Series 1 - 3/2 NO Cv and MOPD Values

Orifice Size		MOPD (psi)	Cv Value Body	Cv Value Endstop	Part Numbering
Body	Stop				
1/32	1/32	160	0.035	0.025	1***50
3/64	3/64	125	0.050	0.065	1***51
1/16	1/16	100	0.085	0.115	1***52
5/64	1/16	80	0.125	0.115	1***53
3/32	1/16	60	0.165	0.115	1***54
1/8	1/16	40	0.240	0.115	1***55
5/32	1/16	10	0.285	0.115	1***56

Series 1 - 3/2 MP Cv and MOPD Values

Orifice Diameter		MOPD (psi)	Cv Value Body	Cv Value Endstop	Part Numbering
Body	Stop				
1/32	1/32	150	0.035	0.025	1***60
3/64	3/64	100	0.050	0.065	1***61
1/16	1/16	80	0.085	0.115	1***62
5/64	1/16	60	0.125	0.115	1***63
3/32	1/16	35	0.165	0.115	1***64
1/8	1/16	20	0.240	0.115	1***65
5/32	1/16	10	0.285	0.115	1***66

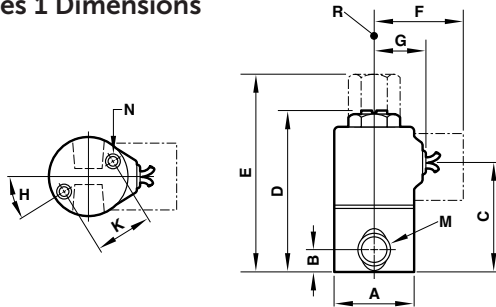
Consult Technical Support for low watt options for 3/2 MP valves

Series 1 - 3/2 Directional Control

Orifice Diameter		MOPD (psi)	Cv Value Body	Cv Value Endstop	Part Numbering
Body	Stop				
1/32	1/32	230	0.035	0.025	1***70
3/64	3/64	160	0.050	0.065	1***71
1/16	1/16	120	0.085	0.115	1***72
5/64	1/16	80	0.125	0.115	1***73
3/32	1/16	60	0.165	0.115	1***74
1/8	1/16	35	0.240	0.115	1***75
5/32	1/16	20	0.285	0.115	1***76



Series 1 Dimensions



Standard Valve

	A	B	C	D	E	F	G	H	K	M	N	R
Series 1	.99 (25)	.28 (7)	1.33 (33)	2.12 (54)	2.47 (63)	1.12 (29)	.64 (16)	32-1/2°	.73 (19)	1/8-27 NPTF	#8-32 UNC x 1/4 MFT	1/8-27 NPTF

Manifold Mount Valve

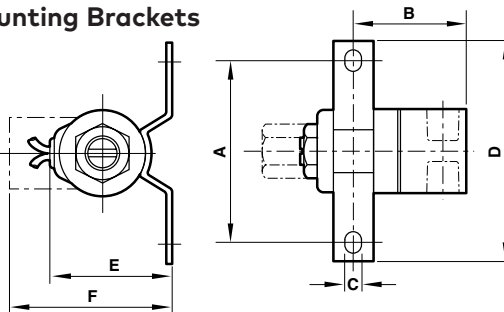
	A	B	C	D	E	F	m	n	r
Series 1	.99 (25)	1.07 (27)	1.87 (48)	2.22 (56)	.64 (16)	1.12 (29)	5/16 24 UNF	.25 (6)	1/8-27 NPTF

Manifold Mount Interface

	A	B	R
Series 1	5/16 - 24 UNF-2B x .26 MFT	.09 (2)	.31 (8)

NOTE: A is underseat connection** B is overseat connection***

Mounting Brackets



Bracket Dimensions

	A	B	C	D	E	F
Series 1	2.13 (54)	1.33 (34)	.20 (5)	2.63 (67)	1.45 (37)	1.93 (49)

Warning

Improper selection, misuse, age or malfunction of components used in systems can cause failure in various modes. The system designer is warned to consider the failure modes of all component parts and to provide adequate safeguards to prevent personal injury or damage to equipment or property in the event of such failure modes. System designers and end users are cautioned to consult instruction sheets and specifications available from the factory. The system designer/end user is responsible for verifying that all requirements for the application are met.

Warranty

The products described herein are warranted subject to seller's Standard Terms and Condition of Sale, available at seller's website.

Proposition 65: These products may contain chemicals known to the state of California to cause cancer, or birth defects, or other reproductive harm.