

# KIP Fluid Control Valves - Series 2



- > 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



## Specifications

### Operating Pressure:

2/2: 0 to 1000 psig, vacuum capable\*

3/2: 0 to 250 psig, vacuum capable\*

### Orifice

Ø1/32" to Ø5/32"

### MOPD:

2/2: 100 - 1000 psig

3/2: 15 - 250 psig

### Cv Range:

2/2: 0.035 to 0.290

3/2: 0.035 to 0.285

### Actuation:

Solenoid

### Coil:

AC, DC, rectified coil\*

### 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 and 3/16" or 1/4" spade terminal

### 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:

7 Watts, nominal

### Duty Cycle:

Continuous

### Response Time:

9ms, typical

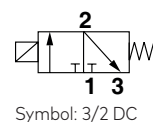
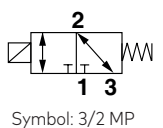
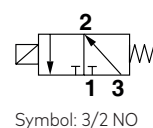
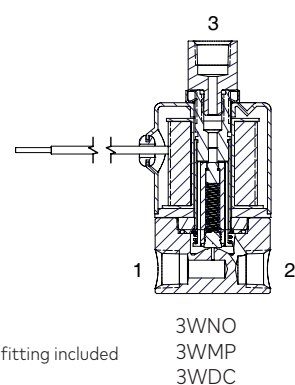
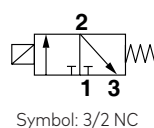
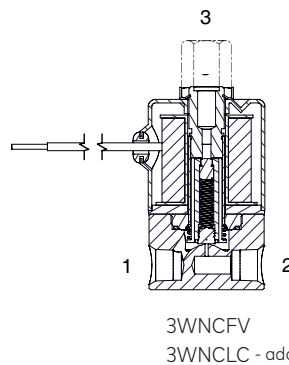
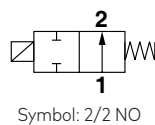
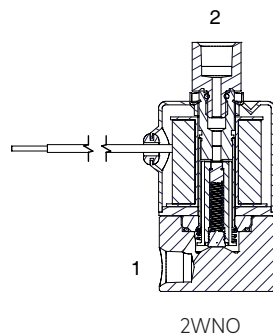
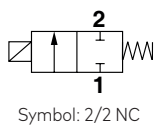
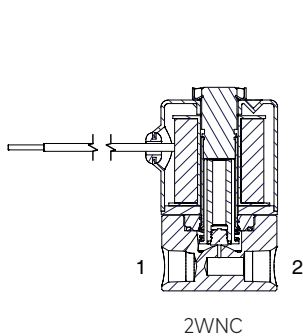
### Weight:

7oz, 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@imi-precision.com](mailto:farmingtontechnical@imi-precision.com)



## Standard Valve Selection

### Series 2 - Valve Configurator

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

### 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
61	9 - Slotted	Free-standing, molded with leads	B
61	3 - Yoke	Free-standing, molded with leads	B
41	2 - Conduit	Potted with leads	B
31	9 - Slotted	3/16" Vertical Spade	B
51	9 - Slotted	1/4" Vertical Spade	B
51	3 - Yoke	1/4" Top Spade (Available with FWR option***)	B

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

### Series 2 - 2/2 NC Cv and MOPD Values

Orifice Diameter		MOPD (psi)	Cv Value	Part Numbering	Cv Value Body	Low Watt Specifications (MOPD (psi))		
Body	Stop					2.0 Watt	2.5 Watt	3.0 Watt
1/32	-	1000	0.035	2***10	0.030	140	225	405
3/64	-	600	0.050	2***11	0.050	105	190	315
1/16	-	400	0.095	2***12	0.085	55	85	155
5/64	-	300	0.135	2***13	0.125	40	60	105
3/32	-	250	0.175	2***14	0.170	25	35	70
1/8	-	150	0.245	2***15	0.225	25	35	50
5/32	-	100	0.290	2***16	0.280	13	20	35

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

### Series 2 - 2/2 NO Cv and MOPD Values

Orifice Diameter Body	Stop	MOPD (psi)	Cv Value	Part Numbering
-	1/32	400	0.035	2***20
-	3/64	300	0.050	2***21
-	1/16	180	0.095	2***22
-	5/64	140	0.135	2***23

### Series 2 - 3/2 NC Cv and MOPD Values

Orifice Diameter Body	Stop	MOPD (psi)	Cv Value Body	Cv Value Endstop	Part Numbering
1/32	1/32	250	0.035	0.025	2***40
3/64	3/64	175	0.050	0.065	2***41
1/16	1/16	125	0.085	0.115	2***42
5/64	5/64	100	0.125	0.140	2***43
3/32	5/64	75	0.165	0.140	2***44
1/8	5/64	45	0.240	0.140	2***45
5/32	5/64	20	0.285	0.140	2***46

For free vent, change fifth digit from 4 to 3

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

### Series 2 - 3/2 NO Cv and MOPD Values

Orifice Diameter Body	End	MOPD (psi)	Cv Value Body	Cv Value Endstop	Part Numbering
1/32	1/32	200	0.035	0.025	2***50
3/64	3/64	150	0.050	0.065	2***51
1/16	1/16	125	0.085	0.115	2***52
5/64	5/64	100	0.125	0.140	2***53
3/32	5/64	75	0.165	0.140	2***54
1/8	5/64	60	0.240	0.140	2***55
5/32	5/64	25	0.285	0.140	2***56

### Series 2 - 3/2 MP Cv and MOPD Values

Orifice Diameter Body	Stop	MOPD (psi)	Cv Value Body	Cv Value Endstop	Part Numbering
1/32	1/32	175	0.035	0.025	2***60
3/64	3/64	125	0.050	0.065	2***61
1/16	1/16	100	0.085	0.115	2***62
5/64	5/64	75	0.125	0.140	2***63
3/32	5/64	50	0.165	0.140	2***64
1/8	5/64	25	0.240	0.140	2***65
5/32	5/64	15	0.285	0.140	2***66

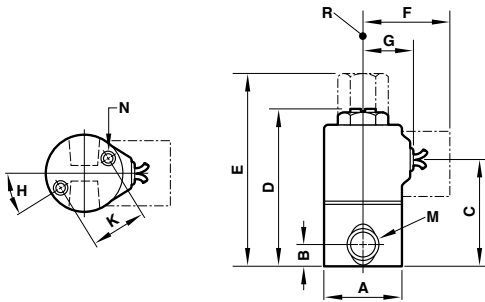
Consult Technical Support for low watt options for 3/2 MP valves

### Series 2 - 3/2 Directional Control

Orifice Diameter Body	Stop	MOPD (psi)	Cv Value Body	Cv Value Endstop	Part Numbering
1/32	1/32	250	0.035	0.025	2***70
3/64	3/64	160	0.050	0.065	2***71
1/16	1/16	120	0.085	0.115	2***72
5/64	5/64	80	0.125	0.140	2***73
3/32	5/64	60	0.165	0.140	2***74
1/8	5/64	35	0.240	0.140	2***75
5/32	5/64	20	0.285	0.140	2***76

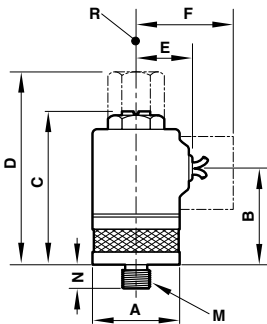
## Series 2 Dimensions

Dimensions in mm  
Projection/Third angle



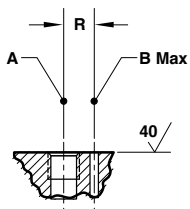
### Standard Valve

A	B	C	D	E	F	G	H	K	M	N	R
.99 (25)	.28 (7)	1.51 (38)	2.32 (59)	2.66 (68)	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
.99 (25)	1.26 (32)	1.98 (50)	2.41 (61)	.64 (16)	1.12 (29)	5/16 24 UNF	.25 (6)	1/8-27 NP



### Manifold Mount Interface

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

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