

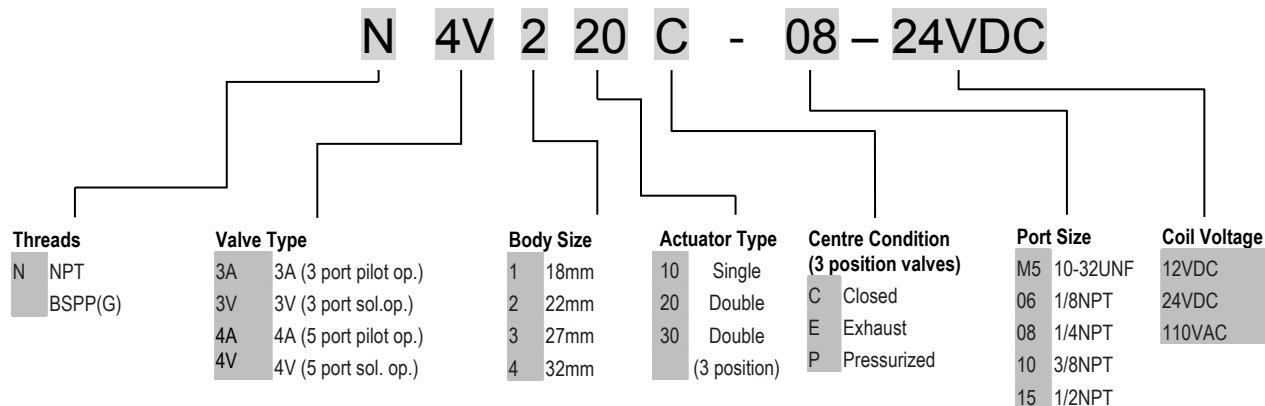
Available in two-way, three-way and four-way configuration and with port sizes from 10-32UNF through to 1/2"NPT.

The N2V & N3V1 offering is a direct acting solenoid poppet style whereas the N3A / V and N4A / V operate using a balanced spool design. Both the poppet and spool valves are body ported but are able to be mounted to an inline manifold system with up to twelve station positions.

The aluminum body construction is offered as standard with a black, hard anodized finish ensuring long life particularly in harsh environments such as wash down or outdoor applications.

- **Materials:** Hard Anodized Aluminum, Stainless Steel, Thermoplastic
- **Maximum Pressure:** 29.9"Hg vacuum to 150psi(g) for direct acting and 20-125psi(g) for spool design models
- **Response:** <20ms
- **Manual Override:** 100 series: non-locking (push button); 200,300 & 400 locking override (push button and "twist")
- **Electrical Connection:** DIN43650 with LED or 18" Lead Wire
- **Temperature Range:** 32°F to 150°F (0-65°C)
- **Seals:** Standard Nitrile (NBR), Viton or Silicone as an option. Please contact us for more information.





STANDARD MODELS

all solenoid valves are stocked with 24VDC DIN coils – Order spare coils for alternative voltages (Table 1)

Body Size 1	Body Size 2	Body Size 3	Body Size 4
N3A110-06	N3A210-08	N3A310-10	N3A410-15
N3A120-06	N3A220-08	N3A320-10	N3A420-15
N3V110-06-24VDC	N3V210-08-24VDC	N3V310-10-24VDC	N3V410-15-24VDC
N3V120-06-24VDC	N3V220-08-24VDC	N3V320-10-24VDC	N3V420-15-24VDC
N4A120-06	N4A210-08	N4A310-10	N4A410-15
N4A130C-06	N4A220-08	N4A320-10	N4A420-15
N4A130E-06	N4A230C-08	N4A330C-10	N4A430C-15
N4A130P-06	N4A230E-08	N4A330E-10	N4A430E-15
N4A110-06	N4A230P-08	N4A330P-10	N4A430P-15
N4V110-06-24VDC ✓	N4V210-08-24VDC ✓	N4V310-10-24VDC ✓	N4V410-15-24VDC ✓
N4V120-06-24VDC ✓	N4V220-08-24VDC ✓	N4V320-10-24VDC ✓	N4V420-15-24VDC ✓
N4V130C-06-24VDC ✓	N4V230C-08-24VDC ✓	N4V330C-10-24VDC ✓	N4V430C-15-24VDC ✓
N4V130E-06-24VDC ✓	N4V230E-08-24VDC ✓	N4V330E-10-24VDC ✓	N4V430E-15-24VDC ✓
N4V130P-06-24VDC ✓	N4V230P-08-24VDC ✓	N4V330P-10-24VDC ✓	N4V430P-15-24VDC ✓

*The valve models listed above are supplied with standard ports as shown in Table 2. Other port sizes are available. Please refer to Table 3 below.

① SPARE DIN COILS

Body Size	12VDC	24VDC	110VAC
1	110DIN12VDC	110DIN24VDC	110DIN110VAC
2	210DIN12VDC	210DIN24VDC	210DIN110VAC
3	210DIN12VDC	210DIN24VDC	210DIN110VAC
4	210DIN12VDC	210DIN24VDC	210DIN110VAC



① SPARE LEAD WIRE COILS (450mm / 18" leads)

Body Size	12VDC	24VDC	110VAC
1	110W12VDC	110W24VDC	110W110VAC
2	210W12VDC	210W24VDC	210W110VAC
3	210W12VDC	210W24VDC	210W110VAC
4	210W12VDC	210W24VDC	210W110VAC

② Valve Body Port Sizes

Port Sizes	Supply	Outlet	Exhaust
M5	10-32UNF	10-32UNF	10-32UNF
06	1/8NPT	1/8NPT	1/8NPT
08	1/4NPT	1/4NPT	1/8NPT
10	3/8NPT	3/8NPT	1/4NPT
15	1/2NPT	1/2NPT	1/2NPT

Flow Performance Spool Valves

Supply Ports	Cv	@50 psig	@100 psig
#10-32	0.58	16 SCFM	27 SCFM
1/8" NPT	0.67	18 SCFM	31 SCFM
1/4" NPT	0.89	26 SCFM	49 SCFM
3/8" NPT	1.68	51 SCFM	93 SCFM
1/2" NPT	2.79	91 SCFM	171 SCFM

Spool Valve Specifications

Working Medium	40 micron filtered air
Operating Temperature	-5°C - 60°C
Lubrication	Not Necessary
Working Pressure	1.5 - 8.0 bar(g)
Supply Pressure	<12bar(g)
Coil Power	AC2.5VA DC2.5W
Insulation Class	IP65
Material	Aluminum
Cycle Rate	5 cycle/sec
Insulation	Class F
Voltage Tolerance	+/- 10%
Reaction Time	0.05sec

③ OPTIONAL PORT SIZES

Body Size	Optional Port Size (all ports)	Part Number Indication
1	10-32UNF	-M5
2	1/8NPT	-06
3	1/4NPT	-08
4	only 1/2NPT	only 1/2NPT

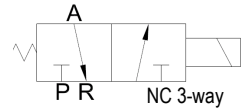
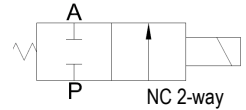
For example N4V310-08-24VDC is a Size 3 body but with 1/4NPT threads for inlet, supply and exhaust ports, (P, A,B,R & S)






✓ indicates standard in stock product

The N2V Series of direct acting poppet valves are available in both a 2-way and 3-way configuration. The exhaust port of the N2V035 valves is a 10-32UNF (M5) thread in the top of the solenoid stem.

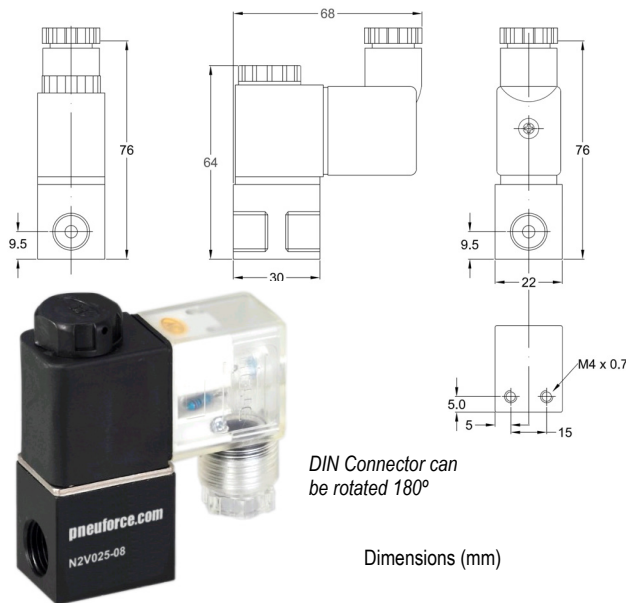
The N3V1 valves series is a 1/8NPT ported valve but is able to be joined directly to a corresponding unit which shares a common supply port at either end of the valve assembly block. Unlike other types of valves, this series of valve does not require a separate manifold block.

These valves are supplied as standard with a 24VDC coil. For other voltages please order coils separately as shown in Table 1 below. For larger quantities the valve can be supplied with the preferred coil. Please enquire.



Valve Model	N2V025-06-24VDC 	N2V025-08-24VDC 	N2V035-06-24VDC 	N2V035-08-24VDC 	N3V1-06-24VDC 
Valve Type	2-Way Direct Acting		3-Way Direct Acting		
Port Sizes	1/8NPT	1/4NPT	1/8NPT (10-32UNF exhaust)	1/4NPT (10-32UNF exhaust)	1/8NPT (10-32UNF exhaust)
Cv	0.23		0.05		
Orifice Size	Ø2.5mm		Ø1.0mm		
Working Pressure	28" Hg to 115psi(g)				
Working Medium	air, inert gas & liquid				
Ambient Temperature	-5°C - +80°C / 23°F - 176°F				
Working Temperature	5°C - +60°C / 41°F - 140°F (no freezing medium)				
Cycle rate	10 cycles/sec				
Coil Insulation & Protection Class	F Class, IP65 (CE Certification)				
Coil Duty Cycle	100% ED				
Power Consumption	AC: 6.5VA DC: 6.5W				AC 5.5VA DC 4.8W
Voltage Range	+/- 10%				
Reaction Time	0.05 sec				
Electrical Connection	D = Form B DIN (LED indicator) or W = Flying Lead Coil (18" Lead Wire)				
Body Material	Hard Anodized Aluminum				

N2V Series



Spare Coils

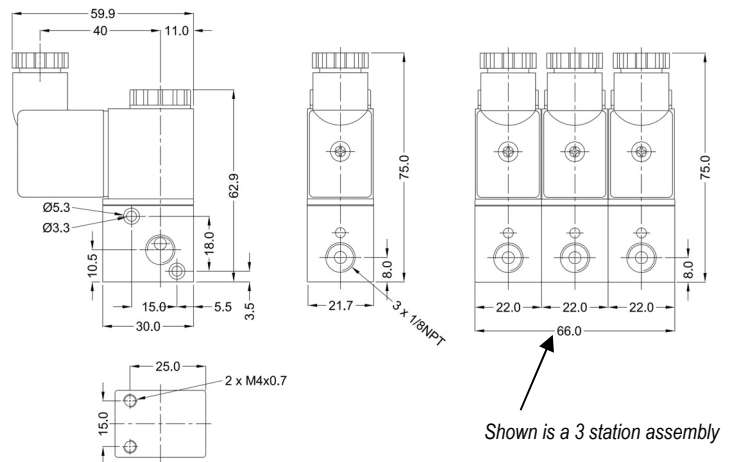


	12VDC	24VDC	110VAC
DIN Connector	210DIN12VDC	210DIN24VDC	210DIN110VAC
18" Lead Wire	210W12VDC	210W24VDC	210W110VAC

N3V1-06 Series



Dimensions (mm)



Shown is a 3 station assembly

 indicates standard in stock product

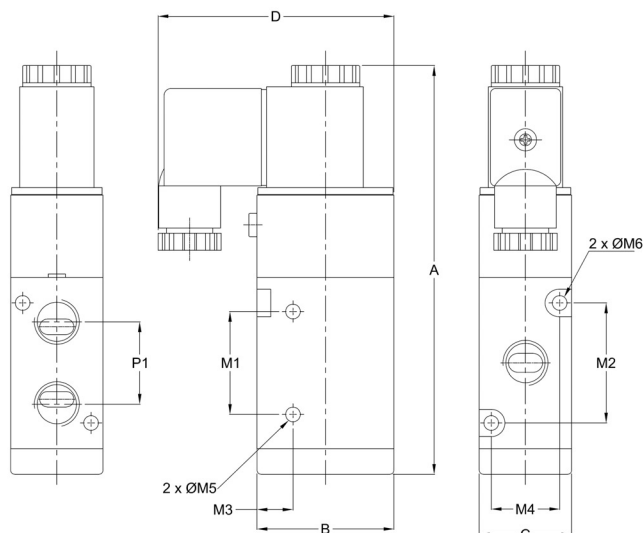
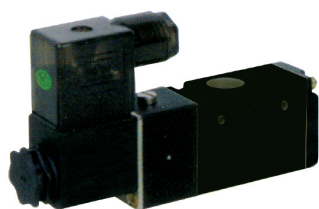
Dimensions (mm)

	N3V110	N3V210	N3V310	N3V410	N3V120	N3V220	N3V320	N3V420
Type	Single Solenoid / Spring Return				Double Solenoid			
A	57	77	81	97	69	88	96.5	120
B	27	35	40	50	27	35	40	50
C	18	22	27	34	18	22	27	34
D	55	67	69	75	55	67	69	75
M1	21	25	30	51	21	25	30	51
M2	19	33	35	44	19	33	35	44
M3	7.5	8	10.5	13.5	7.5	8	10.5	13.5
ØM4	18	22	27	34	18	22	27	34
ØM5	3.3	4.3		5.6	3.3		4.3	
ØM6	3.3	3.3	4.3	4.3	3.3	3.3	4.3	4.3
P1	16	18	24	36	16	18	24	36

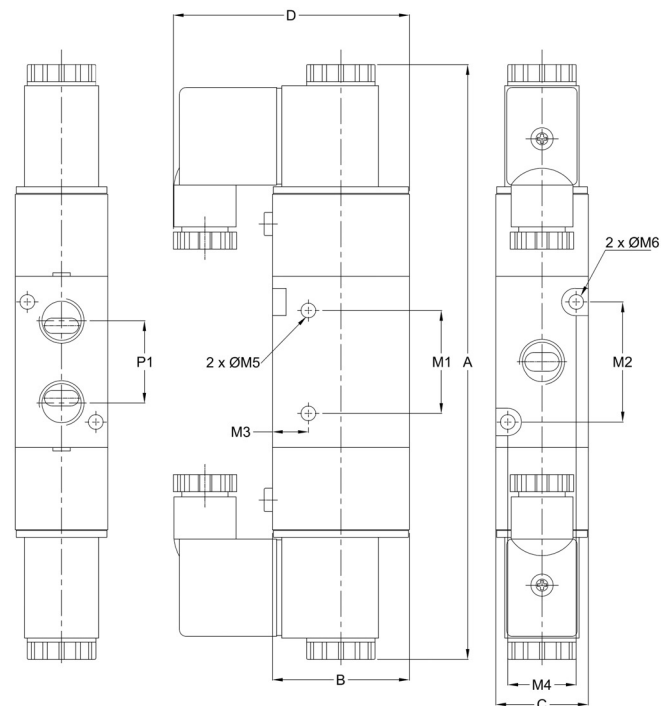
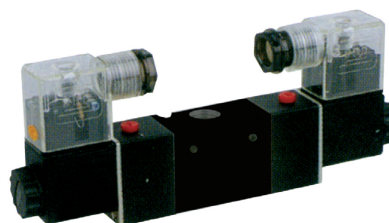
For complete model options including part numbers for ordering, please refer to the control valves specification page(s).

e.g N3V110-06-24VDC

N3V110 N3V210 N3V310 N3V410



N3V120 N3V220 N3V320 N3V420

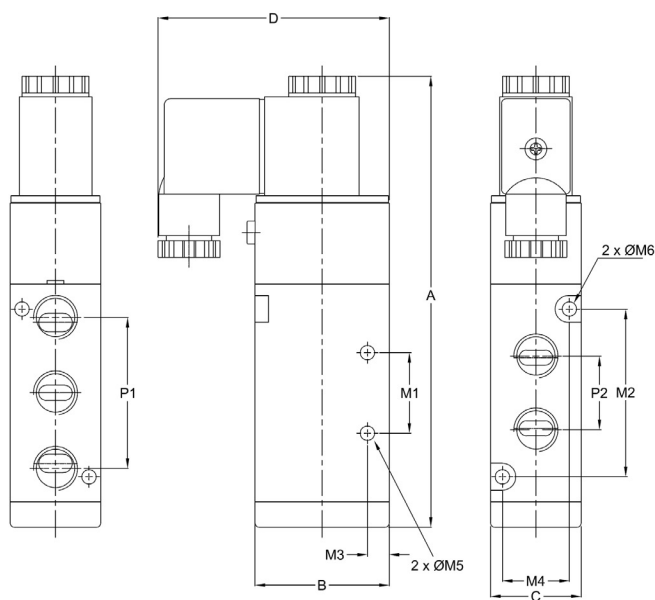
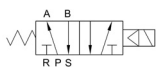


Dimensions (mm)

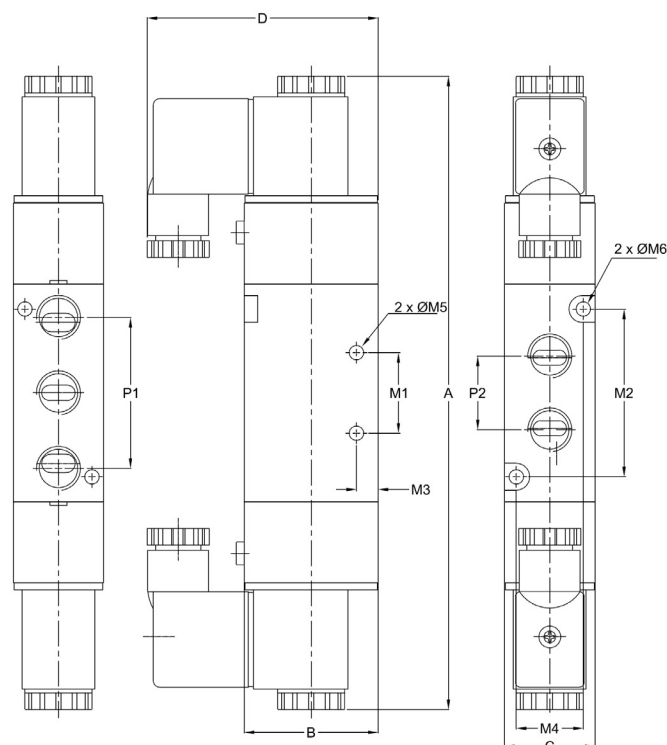
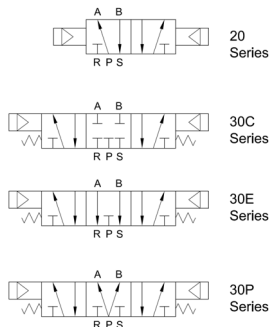
	N4V110	N4V210	N4V310	N4V410	N4V120	N4V220	N4V320	N4V420	N4V130	N4V230	N4V330	N4V430
Type	Single Solenoid / Spring Return				Double Solenoid				Double Solenoid 3 Position			
A	98	117	135	169	140	170	188	245	155	189	208	215
B	27	35	40	50	27	35	40	50	27	35	40	50
C	18	22	27	34	18	22	27	34	18	22	27	34
D	55	67	69	75	55	67	69	75	55	67	69	75
M1	14	20	24	28	14	20	24	28	14	20	24	28
M2	30	36	50	72	30	36	50	72	30	36	50	72
M3	4	7	6.5	7.5	4	7	6.5	7.5	4	7	6.5	7.5
ØM4	13	17	20	27	13	17	20	27	13	17	20	27
ØM5	3.3	4.3		5.5	3.3	4.3		5.5	3.3	4.3		5.5
P1	16	18	22	36	16	18	22	36	16	18	22	36
P2	28	36	45	63	28	36	45	63	28	36	45	63

For complete model options including part numbers for ordering, please refer to the control valves specification page(s).
e.g N4V110-06-24VDC

N4V110 N4V210 N4V310 N4V410



N4V120/30 N4V220/30 N4V320/30 N4V420/30



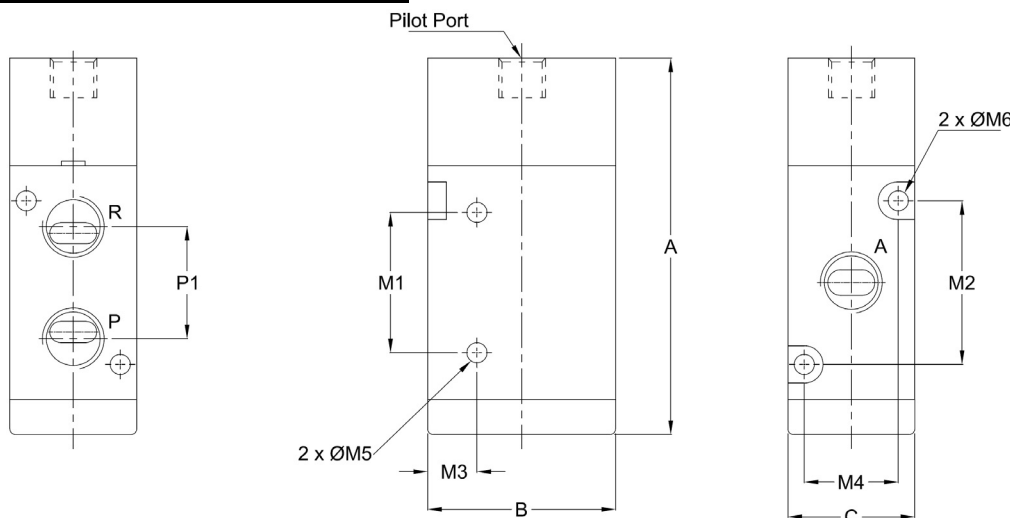
Dimensions (mm)

	N3A110	N3A210	N3A310	N3A410	N3A120	N3A220	N3A320	N3A420
Type	Single Pilot / Spring Return				Double Pilot			
Pilot Port	1/8NPT							
A	57	77	81	97	69	88	96.5	120
B	27	35	40	50	27	35	40	50
C	18	22	27	34	18	22	27	34
M1	21	25	30	51	21	25	30	51
M2	18	22	27	34	18	22	27	34
M3	7.5	8	10.5	13.5	7.5	8	10.5	13.5
M4	18	22	27	34	18	22	27	34
ØM5	3.3		4.3		3.3		4.3	
ØM6	3.3	4.3		5.6	3.3	4.3		5.6
P1	16	18	24	36	16	18	24	36

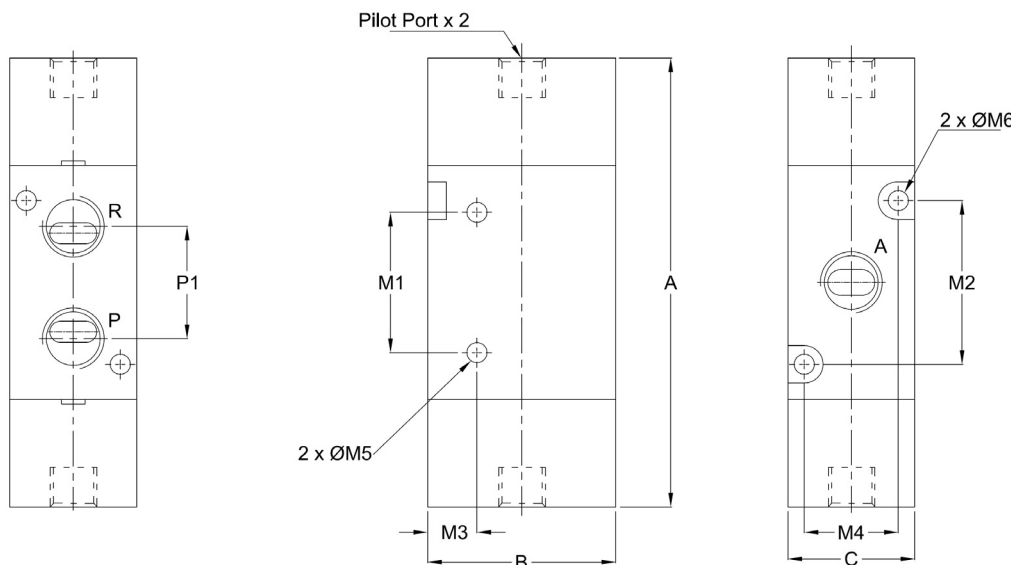
For complete model options including part numbers for ordering, please refer to the control valves specification page(s).

e.g N3A110-06

N3A110 N3A210 N3A310 N3A410



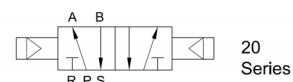
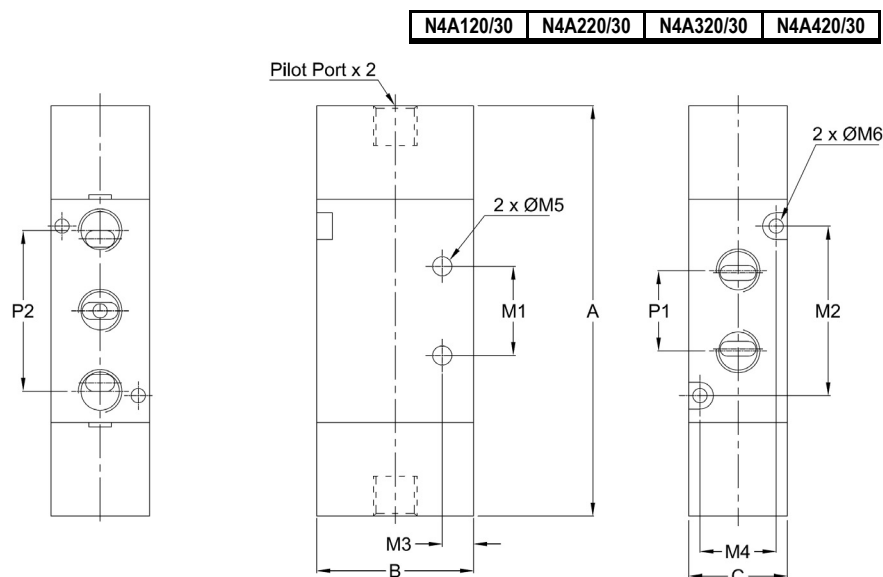
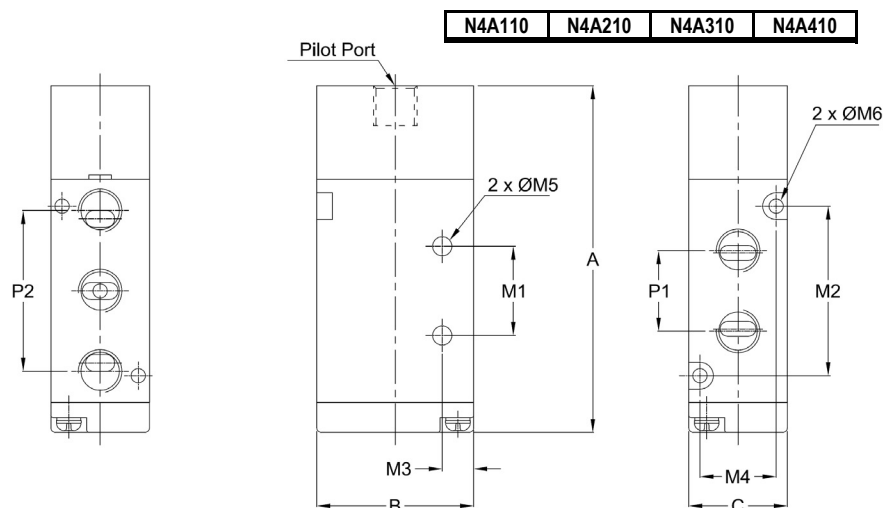
N3A120 N3A220 N3A320 N3A420



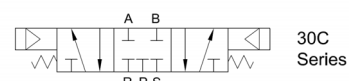
Dimensions (mm)

	N4A110	N4A210	N4A310	N4A410	N4A120	N4A220	N4A320	N4A420	N4A130	N4A230	N4A330	N4A430
Type	Single Pilot / Spring Return				Double Pilot				Double Pilot 3 Position			
Pilot Port	1/8NPT											
A	69	78	96	124	81	92	111	138	96	111	130	159
B	27	35	40	50	27	35	40	50	27	35	40	50
C	18	22	27	34	18	22	27	34	18	22	27	34
M1	14	20	24	28	14	20	24	28	14	20	24	28
M2	30	38	50	72	30	38	50	72	30	38	50	72
M3	4	7	6.5	7.5	4	7	6.5	7.5	4	7	6.5	7.5
ØM4	13	17	20	27	13	17	20	27	13	17	20	27
ØM5	3.3	4.3		5.5	3.3	4.3		5.5	3.3	4.3		5.5
P1	16	18	22	36	16	18	22	36	16	18	22	36
P2	28	36	45	63	28	36	45	63	28	36	45	63

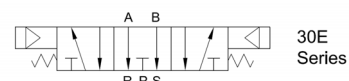
For complete model options including part numbers for ordering, please refer to the control valves specification page(s).
e.g N4V110-06



20 Series



30C Series

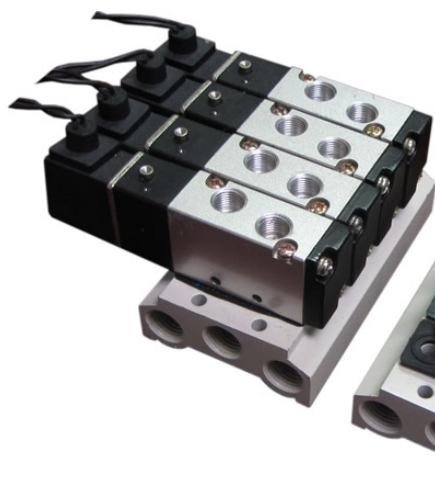


30E Series



30P Series

Spool Valve Manifolds



These manifold blocks enable the connection of a common pressure supply (P) and exhaust ports (R & S) to multiple valves stations.

These manifolds are suitable for the spool valves N4V and N4A. Manifolds for the N3V and N3A are also available. Please enquire.

Manufactured in aluminum with an anodized finish.

Manifold Kit Contents

- Manifold
- Sealing Gaskets
- Connecting Bolts

N **4V** **110F** - **2**

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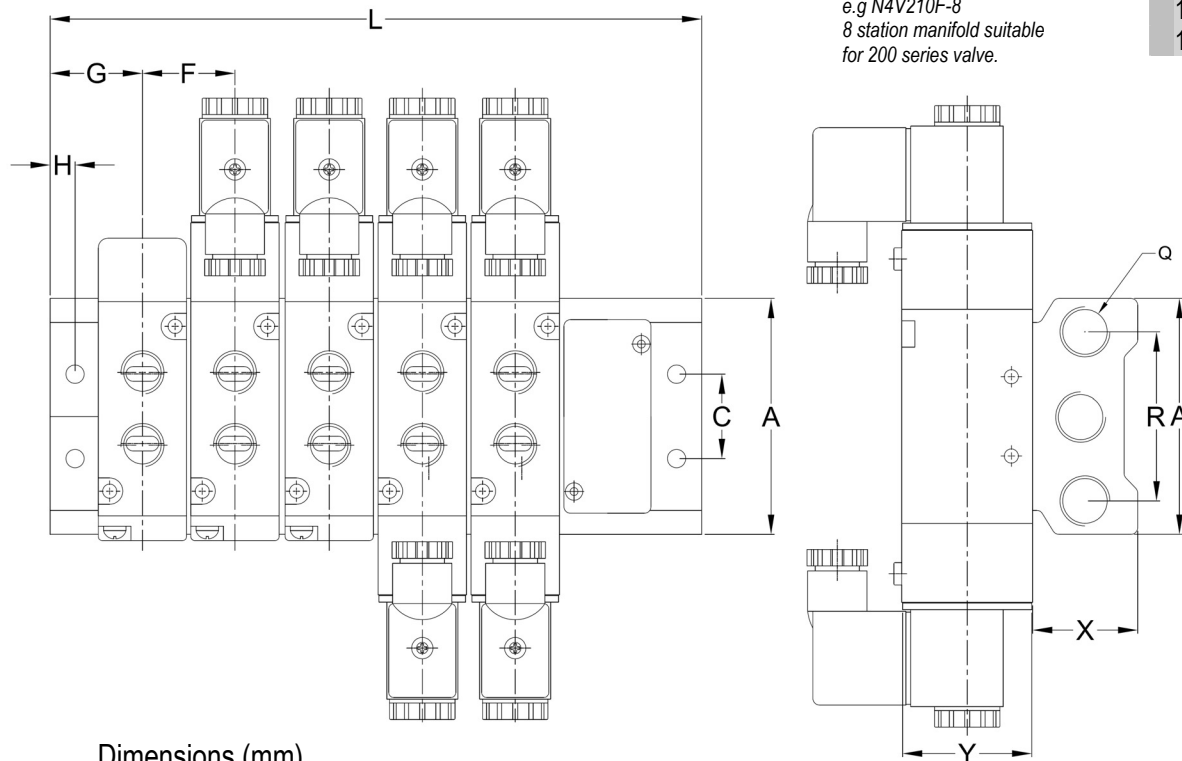
NPT **4V**

110F 100 Series	22 station ✓
210F 100 Series	44 station ✓
310F 300 Series	66 station ✓
410F 400 Series	88 station ✓
	10 10 station
	12 12 station
	16 16 station

BLANKING PLATES (to seal an empty valve station)	
Kit Part Number*	Manifold Series
N4V1BGS	N4V110F
N4V2BGS	N4V210F
N4V3BGS	N4V310F
N4V4BGS	N4V410F

*Kit comprises of one blanking plate, gasket and 2 screws

e.g N4V210F-8
8 station manifold suitable
for 200 series valve.



Dimensions (mm)

	A	B	C	E	F	G	H	K	L*	M	Q	R	X	Y
110F	58	43	20	4.2	18.3	19	5	140	N * 19 + 19	155	1/4NPT	40	25	27
210F	59	50	21	4.3	22.2	23	6	170	N * 23 + 23	189	1/4NPT	43	26	35
310F	75	64	26	4.5	27.3	27	6	189	N * 28 + 26	208	3/8NPT	53	30	40
410F	98	94	32	4.5	34.3	31.5	7	222	N * 35 + 28	243	1/2NPT	68	38	50

Dimension L explained

N equals number of valve positions. For a 6 station manifold for the 110F series the calculation would be (6-1) x 19 + 38 = 133

 indicates standard in stock product