


## Instrumentation Ball & Needle Valves (Up to and including 10,000 psi / 690 bar)



### Superior Performance Throughout the Full Operational Range

- State of the Art Design to Reduce Potential Leak Paths
- Stem Seal Design Prevents Galling and Contamination
- Low Operating Torque
- Non-Rotating, Anti-Galling Tip as Standard
- Worldwide Instrumentation Approvals  

- Unique Compact Design to Save Space and Weight
- Viton / RTFE Stem Sealing - Maintenance Free
- Available from 1,000 psi / 70 bar to 10,000 psi / 690 bar



- Instrumentation Needle Valve Range - Features & Benefits..... 3
- Instrumentation Ball Valve Range - Features & Benefits..... 4
- Innovative Range - Product Portfolio..... 5
- Innovative Range - Product Portfolio..... 6
- Instrumentation Ball Valve Range - Preferred Range..... 7
- Instrumentation Ball & Needle Valve Range - Preferred Range..... 8
- Instrumentation Needle Valve Range - Preferred Range..... 9
- Instrumentation Needle Valve Range - Preferred Range..... 10
- Instrumentation Ball & Needle Valve Range - Technical Attributes..... 11
- BV01 - Single Isolation Ball Valve, Low Pressure Range - BV01..... 12
- BV02 - 3 Way Ball Valve, Low Pressure Range - BV02..... 13
- BV01 - Single Isolation Ball Valve Range - BV01..... 14
- BV01 - Single Isolation Ball Valve Range - BV01 Selection Chart..... 15
- BV01 - Single Isolation Ball Valve - Panel Mount Range - BV01..... 16
- BV01 - Single Isolation Ball Valve - Panel Mount Range - BV01 Selection Chart..... 17
- BV01 - Single Isolation Ball Valve Range - BV01..... 18
- BV01 - Single Isolation Ball Valve Range - BV01 Selection Chart..... 19
- BV02 - 3 Way Ball Valve Range - BV02..... 20
- BV02 - 3 Way Ball Valve Range - BV02 Selection Chart..... 21
- BV05 - Double Block & Bleed, Ball & Needle Valve Manifold - BV05 ..... 22
- BV05 - Double Block & Bleed, Ball & Needle Valve Manifold - BV05 Selection Chart ..... 23
- BV05 - Double Block & Bleed, Ball & Needle Valve Manifold Range - BV05..... 24
- BV05 - Double Block & Bleed, Ball & Needle Valve Manifold Range - BV05 Selection Chart..... 25
- NV01 - Single Isolation Needle Valve Range - NV01..... 26
- NV01 - Single Isolation Needle Valve Range - NV01 Selection Chart..... 27
- NV03 - Block & Bleed Needle Valve Manifold Range - Captive Vent Plug - NV03..... 28
- NV03 - Block & Bleed Needle Valve Manifold Range - Captive Vent Plug - NV03 Selection Chart..... 29
- NV22 - Block & Bleed Needle Valve Compact Manifold Range - NV22 ..... 30
- NV22 - Block & Bleed Needle Valve Compact Manifold Range - NV22 Selection Chart..... 31
- NV04 - Block & Bleed Needle Valve Manifold Range - NV04..... 32
- NV04 - Block & Bleed Needle Valve Manifold Range - NV04 Selection Chart..... 33
- NV05 - Double Block & Bleed Needle Valve Manifold Range - NV05..... 34
- NV05 - Double Block & Bleed Needle Valve Manifold Range - NV05 Selection Chart..... 35
- NV06(1) - Double Block & Bleed Single Station Needle Valve Manifold Range - NV06(1)..... 36
- NV06(1) - Double Block & Bleed Single Station Needle Valve Manifold Range - NV06(1) Selection Chart..... 37
- NV06(2) - Double Block & Bleed Two Station Needle Valve Manifold Range - NV06(2)..... 38
- NV06(2) - Double Block & Bleed Two Station Needle Valve Manifold Range - NV06(2) Selection Chart..... 39
- NV06(3) - Double Block & Bleed Three Station Needle Valve Manifold Range - NV06(3)..... 40
- NV06(3) - Double Block & Bleed Three Station Needle Valve Manifold Range - NV06(3) Selection Chart..... 41
- Extended Ball Valve Product Range ..... 42
- Extended Needle Valve & Ball and Needle Manifold Product Range ..... 43

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When selecting a product, the applicable operating system design must be considered to ensure safe use. The products function, material compatibility, adequate ratings, correct installation, operation and maintenance are the responsibilities of the system designer and user.

**Quality Assurance**  
 All Bifold products are manufactured to a most stringent QA programme to ensure that every product will give optimum performance and reliability. We are third party certified to BS EN ISO 9001:2008. Functional test certificate, letter of conformity and copies of original mill certificates, providing total traceability are available on request, to BS EN 10204 3.1 where available. We reserve the right to make changes to the specifications and design etc., without prior notice.

**Features & Benefits**

Bifold has manufactured ball and needle valve products for more than 20 years.

The product range has been designed to overcome the problems of traditional assemblies on primary isolation and venting duties.

Our needle valve range incorporates a dynamic sealing system along with a compact design. These valves can be direct mounted to the back plate of a panel and offer a lower torque to operate.

Our ball valve range is manufactured and is supplied complete with an anti blow out stem and lower torque to operate.

**Instrumentation Needle Valves**



**Dynamic Sealing**

- Eliminates the loss of sealing integrity often experienced over the life time of traditional packing glands, reducing the risk of fugitive emissions.

**Compact Patented Design**

- Sleek light weight body with smaller envelope enabling closer mounting, ease of installation and a significant reduction in overall panel size and weight.

**Direct Mount to Back Plate**

- All needles and vents off the back plate enabling lower cost panel construction. No panel cut-outs or spacers required for vents and needle heads.

**Non-Wetted Parts**

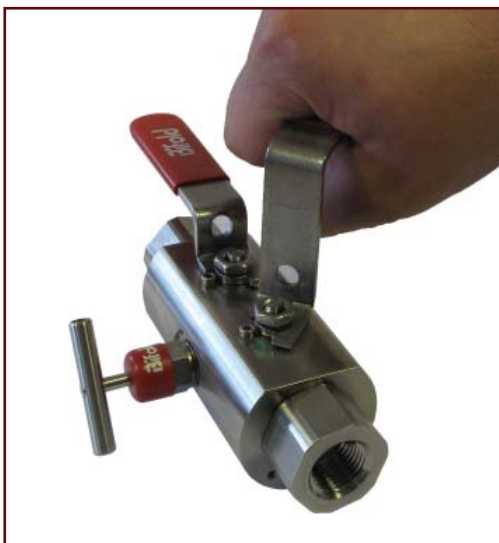
- Needle head threads are clean from process fluid corrosion or contamination using a metal to metal bonnet seal and pre-thread stem seals.

**Lower Torque to Operate**

- No need to mount on a back plate to counteract torque.
- There are design differences between the fire safe and non-fire safe products.

## Features & Benefits

### Instrumentation Ball Valves



#### Single Piece Body

- Reduces potential leak paths to the outside environment.

#### Anti-Blow Out Stem

- The internally loaded and retained stem eliminates risk of injury to operators caused by potential stem blow outs.

#### Pressure Energised Stem Seal

- Combined with an anti-blow out stem, the internally loaded pressure energised stem seals, ensure sealing integrity is maintained regardless of outside influences / interferences such as removal of the handle.

#### Lower and Consistent Torque to Operate

- The unique design principles eliminate the effect of manufacturing variance, ensuring operating torques are both low and consistent throughout the batch.

#### Pressure Tested

- Pressure tested in accordance with API 598 & BS EN 12266-1. Proof tested to 1.5 times maximum working pressure.

#### Why Use Bifold?

- Innovatively progressed and optimised designs throughout our product range.
- Here at Bifold, we are constantly carrying out vigorous research and development on all of our products, ensuring that our valves represent the best of what we do.
- Our state of the art production facilities based in the UK, allow our superior and innovative designs of products to be manufactured on site, assembled to the finished product and tested to rigorous quality standards.
- There are design differences between the fire safe and non-fire safe products.

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## Product Portfolio

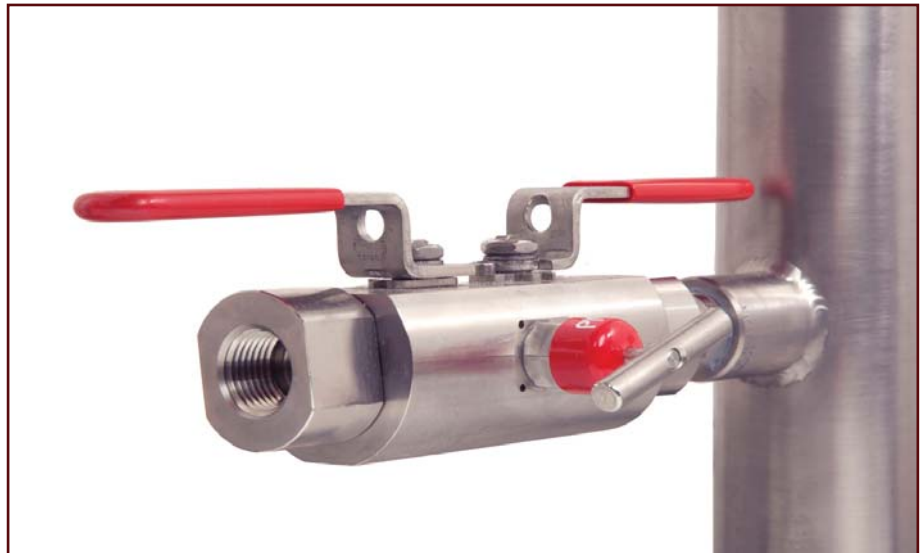
### Instrumentation Needle Valves

The needle valve range is available as a one piece body construction with pressures ranging from 6,000 psi / 414 bar up to 10,000 psi / 690 bar and sizes 1/4" NPT to 1" NPT. Within the needle valve range, we also offer a medium pressure design ranging from 10,000 psi / 690 bar up to 20,000 psi / 1380 bar (see our medium pressure instrumentation valves, fittings & relief valves catalogue).



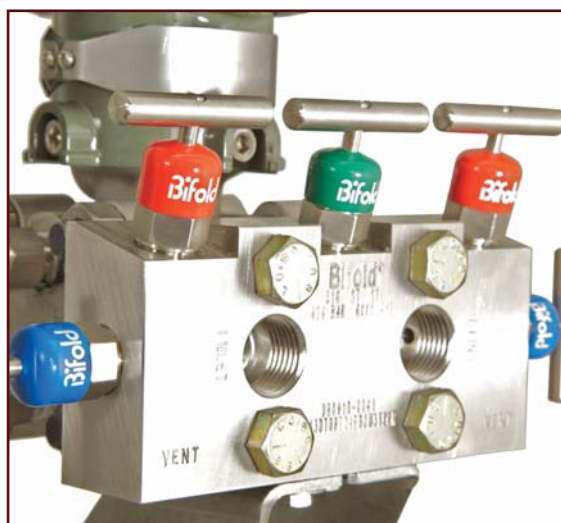
### Instrumentation Ball Valves

The Bifold range of ball valves utilise a state of the art design to reduce potential leak paths with a standard pressure ranging from 1,000 psi / 70 bar up to 10,000 psi / 690 bar and sizes 1/4" NPT to 2" NPT. Within the ball valve range, we also offer a medium pressure design ranging from 10,000 psi / 690 bar up to 20,000 psi / 1380 bar (see our medium pressure instrumentation valves, fittings & relief valves catalogue).



### Instrumentation Manifolds

Suitable for shutting off the impulse lines and for mounting pressure and directional pressure instruments. These manifolds are for direct mounting onto pressure transmitters furnished with mounting interface in accordance with DIN 61518. The manifolds are supplied as standard with 1/2" NPT female threaded inlet and vent connections.



Product Portfolio



State of the Art Machining Centres

Bifold is enhanced by an in house lean and integrated manufacturing policy alongside a unique business model, effectively reducing lead times and providing peace of mind to contractors, installers and end users for over a century. Our state of the art production facilities based in the UK, allow our superior and innovative designs of products to be manufactured on site, assembled to the finished product and tested to rigorous quality standards.

All Bifold valves have product traceability via a unique serial number stamped on all valve bodies, linking them with their testing and component certificates, materials of construction together with full Manufacturers Record Book (MRB).



Installation Picture of our Standard Range of Ball & Needle Valves

Bifold ISO9001 Product Certification and Specialist Testing Options Include

- Non destructive testing including Liquid Penetrant Inspection (LPI), Magnetic Particle Inspection (MPI), Positive Material Identification (PMI) and Ferrite testing.
- Hydrostatic & Pneumatic testing.
- Nitrogen gas testing.
- Nitrogen / Helium leak detection.
- Low temperature testing.
- Fugitive emission testing.
- Hydrogen Induced Cracking (HIC) testing and other specialist material tests.



Installation Picture of our Standard Range of Ball & Needle Valves









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Preferred Range

**INSTRUMENTATION BALL VALVES (Up to and including 10,000 psi / 690 bar)**

Product	Schematic Representation	Page Number	Product Code	Product Description
 <p><b>BV01</b> Single Isolation Ball Valve, Low Pressure</p>		12	<b>BV0104F025TTIKLK-N</b>	1/4" NPT, Single Isolation Valve, Ball Configuration, 1,000 psi / 70 bar, Lockable Handle.
			<b>BV0108F029.2TTIKLK-N</b>	1/2" NPT, Single Isolation Valve, Ball Configuration, 1,000 psi / 70 bar, Lockable Handle.
			<b>BV0112F0212.5TTIKLK-N</b>	3/4" NPT, Single Isolation Valve, Ball Configuration, 1,000 psi / 70 bar, Lockable Handle.
			<b>BV0116F0215TTIKLK</b>	1" NPT, Single Isolation Valve, Ball Configuration, 1,000 psi / 70 bar, Lockable Handle.
			<b>BV0132F0232TTIKLK</b>	2" NPT, Single Isolation Valve, Ball Configuration, 1,000 psi / 70 bar, Lockable Handle.
 <p><b>BV02</b> 3 Way Ball Valve, Low Pressure</p>		13	<b>BV02SL04F0211TTIKLK</b>	1/4" NPT, 3 Way Valve, Side Entry, L-Ported Ball Configuration, 1,000 psi / 70 bar, Lockable Handle.
			<b>BV02SL08F0212.5TTIKLK</b>	1/2" NPT, 3 Way Valve, Side Entry, L-Ported Ball Configuration, 1,000 psi / 70 bar, Lockable Handle.
			<b>BV02SL12F0215TTIKLK</b>	3/4" NPT, 3 Way Valve, Side Entry, L-Ported Ball Configuration, 1,000 psi / 70 bar, Lockable Handle.
			<b>BV02SL16F0220TTIKLK</b>	1" NPT, 3 Way Valve, Side Entry, L-Ported Ball Configuration, 1,000 psi / 70 bar, Lockable Handle.
			<b>BV02SL32F0238TTIKLK</b>	2" NPT, 3 Way Valve, Side Entry, L-Ported Ball Configuration, 1,000 psi / 70 bar, Lockable Handle.
 <p><b>BV01</b> Single Isolation Ball Valve</p>		14 / 15	<b>BV0104F025ERV6K</b>	1/4" NPT, Single Isolation Valve, Ball Configuration, 6,000 psi / 414 bar.
			<b>BV0104F025ERV10K</b>	1/4" NPT, Single Isolation Valve, Ball Configuration, 10,000 psi / 690 bar.
			<b>BV0106F025ERV6K</b>	3/8" NPT, Single Isolation Valve, Ball Configuration, 6,000 psi / 414 bar.
			<b>BV0106F025ERV10K</b>	3/8" NPT, Single Isolation Valve, Ball Configuration, 10,000 psi / 690 bar.


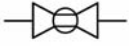

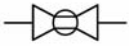

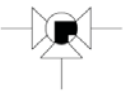



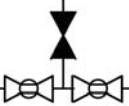
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**INSTRUMENTATION BALL & NEEDLE VALVES (Up to and including 10,000 psi / 690 bar)**

Product	Schematic Representation	Page Number	Product Code	Product Description
 <p><b>BV01</b> Single Isolation Ball Valve, Panel Mount</p>		16 / 17	<b>BV0104F025EV6KPM</b>	1/4" NPT, Single Isolation Valve, Ball Configuration, 6,000 psi / 414 bar, Panel Mount.
			<b>BV0104F025EV10KPM</b>	1/4" NPT, Single Isolation Valve, Ball Configuration, 10,000 psi / 690 bar, Panel Mount.
			<b>BV0106F025EV6KPM</b>	3/8" NPT, Single Isolation Valve, Ball Configuration, 6,000 psi / 414 bar, Panel Mount.
			<b>BV0106F025EV10KPM</b>	3/8" NPT, Single Isolation Valve, Ball Configuration, 10,000 psi / 690 bar, Panel Mount.
 <p><b>BV01</b> Single Isolation Ball Valve</p>		18 / 19	<b>BV0108F0210ERV6K</b>	1/2" NPT, Single Isolation Valve, Ball Configuration, 6,000 psi / 414 bar. Available in a three piece configuration.
			<b>BV0108F0210ERV10K</b>	1/2" NPT, Single Isolation Valve, Ball Configuration, 10,000 psi / 690 bar. Available in a three piece configuration.
 <p><b>BV02</b> 3 Way Ball Valve</p>		20 / 21	<b>BV02SL08F0210ERV6K</b>	1/2" NPT, 3 Way Valve, Side Entry, L-Ported Ball Configuration, 6,000 psi / 414 bar.
			<b>BV02SL08F0210ERV10K</b>	1/2" NPT, 3 Way Valve, Side Entry, L-Ported Ball Configuration, 10,000 psi / 690 bar.
 <p><b>BV05</b> Double Block &amp; Bleed, Ball &amp; Needle Valve Manifold</p>		22 / 23	<b>BV0504F02F025ERV6K</b>	1/4" NPT, DBB Manifold, Ball - Needle - Ball Configuration, 6,000 psi / 414 bar, 1/8" NPT Vent Port.
			<b>BV0504F02F025ERV10K</b>	1/4" NPT, DBB Manifold, Ball - Needle - Ball Configuration, 10,000 psi / 690 bar, 1/8" NPT Vent Port.
			<b>BV0506F02F025ERV6K</b>	3/8" NPT, DBB Manifold, Ball - Needle - Ball Configuration, 6,000 psi / 414 bar, 1/8" NPT Vent Port.
			<b>BV0506F02F025ERV10K</b>	3/8" NPT, DBB Manifold, Ball - Needle - Ball Configuration, 10,000 psi / 690 bar, 1/8" NPT Vent Port.
 <p><b>BV05</b> Double Block &amp; Bleed, Ball &amp; Needle Valve Manifold</p>		24 / 25	<b>BV0504F0210ERV6K</b>	1/4" NPT, DBB Manifold, Ball - Needle - Ball Configuration, 6,000 psi / 414 bar, 1/4" NPT Vent Port.
			<b>BV0504F0210ERV10K</b>	1/4" NPT, DBB Manifold, Ball - Needle - Ball Configuration, 10,000 psi / 690 bar, 1/4" NPT Vent Port.
			<b>BV0508F04F0210ERV6K</b>	1/2" NPT, DBB Manifold, Ball - Needle - Ball Configuration, 6,000 psi / 414 bar, 1/4" NPT Vent Port.
			<b>BV0508F04F0210ERV10K</b>	1/2" NPT, DBB Manifold, Ball - Needle - Ball Configuration, 10,000 psi / 690 bar, 1/4" NPT Vent Port.

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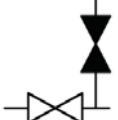

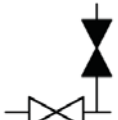

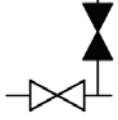

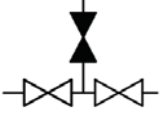
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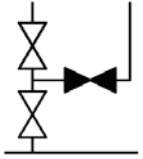

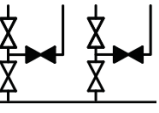

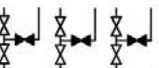
Preferred Range

INSTRUMENTATION NEEDLE VALVES (Up to and including 10,000 psi / 690 bar)

Product	Schematic Representation	Page Number	Product Code	Product Description
 <p><b>NV01</b> Single Isolation Needle Valve</p>		26 / 27	NV0104F02M5V6K	1/4" NPT, Single Isolation Valve, Needle Configuration, 6,000 psi / 414 bar.
			NV0104F02M5V10K	1/4" NPT, Single Isolation Valve Needle Configuration, 10,000 psi / 690 bar.
			NV0108F02M5V6K	1/2" NPT, Single Isolation Valve, Needle Configuration, 6,000 psi / 414 bar.
			NV0108F02M5V10K	1/2" NPT, Single Isolation Valve, Needle Configuration, 10,000 psi / 690 bar.
 <p><b>NV03</b> Block &amp; Bleed Needle Valve Manifold Captive Vent Plug</p>		28 / 29	NV0304F02M5V6K	1/4" NPT, Block & Bleed Manifold, Needle - Captive Vent Plug Configuration, 6,000 psi / 414 bar.
			NV0304F02M5V10K	1/4" NPT, Block & Bleed Manifold, Needle - Captive Vent Plug Configuration, 10,000 psi / 690 bar.
			NV0308F02M5V6K	1/2" NPT, Block & Bleed Manifold, Needle - Captive Vent Plug Configuration, 6,000 psi / 414 bar.
			NV0308F02M5V10K	1/2" NPT, Block & Bleed Manifold, Needle - Captive Vent Plug Configuration, 10,000 psi / 690 bar.
 <p><b>NV22</b> Block &amp; Bleed Needle Valve Compact Manifold</p>		30 / 31	NV2204F02M3V6K	1/4" NPT, Compact Manifold, Needle - Needle Configuration, 6,000 psi / 414 bar, 1/4" NPT Vent Port.
			NV2204F02M3V10K	1/4" NPT, Compact Manifold, Needle - Needle Configuration, 10,000 psi / 690 bar, 1/4" NPT Vent Port.
			NV2208F04F02M3V6K	1/2" NPT, Compact Manifold, Needle - Needle Configuration, 6,000 psi / 414 bar, 1/4" NPT Vent Port.
			NV2208F04F02M3V10K	1/2" NPT, Compact Manifold, Needle - Needle Configuration, 10,000 psi / 690 bar, 1/4" NPT Vent Port.
 <p><b>NV04</b> Block &amp; Bleed Needle Valve Manifold</p>		32 / 33	NV0404F02M5V6K	1/4" NPT, Block & Bleed Manifold, Needle - Needle Configuration, 6,000 psi / 414 bar, 1/4" NPT Vent Port.
			NV0404F02M5V10K	1/4" NPT, Block & Bleed Manifold, Needle - Needle Configuration, 10,000 psi / 690 bar, 1/4" NPT Vent Port.
			NV0408F04F02M5V6K	1/2" NPT, Block & Bleed Manifold, Needle - Needle Configuration, 6,000 psi / 414 bar, 1/4" NPT Vent Port.
			NV0408F04F02M5V10K	1/2" NPT, Block & Bleed Manifold, Needle - Needle Configuration, 10,000 psi / 690 bar, 1/4" NPT Vent Port.
<b>THIS PRODUCT DESIGN IS UNIQUE TO BIFOLD AND PATENTED</b>				
 <p><b>NV05</b> Double Block &amp; Bleed Needle Valve Manifold</p>		34 / 35	NV0504F02M5V6K	1/4" NPT, DBB Manifold, Needle - Needle - Needle Configuration, 6,000 psi / 414 bar, 1/4" NPT Vent Port.
			NV0504F02M5V10K	1/4" NPT, DBB Manifold, Needle - Needle - Needle Configuration, 10,000 psi / 690 bar, 1/4" NPT Vent Port.
			NV0508F04F02M5V6K	1/2" NPT, DBB Manifold, Needle - Needle - Needle Configuration, 6,000 psi / 414 bar, 1/4" NPT Vent Port.
			NV0508F04F02M5V10K	1/2" NPT, DBB Manifold, Needle - Needle - Needle Configuration, 10,000 psi / 690 bar, 1/4" NPT Vent Port.
<b>THIS PRODUCT DESIGN IS UNIQUE TO BIFOLD AND PATENTED</b>				

Preferred Range

**INSTRUMENTATION NEEDLE VALVES (Up to and including 10,000 psi / 690 bar)**

Product	Schematic Representation	Page Number	Product Code	Product Description
 <p><b>NV06 1</b> Double Block &amp; Bleed Single Station Needle Valve Manifold</p>		36 /37	<b>NV06104F02M3V6K</b>	1/4" NPT, DBB Single Station Manifold, Needle - Needle - Needle Configuration, 6,000 psi / 414 bar.
			<b>NV06104F02M3V10K</b>	1/4" NPT, DBB Single Station Manifold, Needle - Needle - Needle Configuration, 10,000 psi / 690 bar.
<b>THIS PRODUCT DESIGN IS UNIQUE TO BIFOLD AND PATENTED</b>				
 <p><b>NV06 2</b> Double Block &amp; Bleed Two Station Needle Valve Manifold</p>		38 /39	<b>NV06204F02M3V6K</b>	1/4" NPT, DBB Two Station Manifold, Needle - Needle - Needle Configuration, 6,000 psi / 414 bar.
			<b>NV06204F02M3V10K</b>	1/4" NPT, DBB Two Station Manifold, Needle - Needle - Needle Configuration, 10,000 psi / 690 bar.
<b>THIS PRODUCT DESIGN IS UNIQUE TO BIFOLD AND PATENTED</b>				
 <p><b>NV06 3</b> Double Block &amp; Bleed Three Station Needle Valve Manifold</p>		40 /41	<b>NV06304F02M3V6K</b>	1/4" NPT, DBB Three Station Manifold, Needle - Needle - Needle Configuration, 6,000 psi / 414 bar.
			<b>NV06304F02M3V10K</b>	1/4" NPT, DBB Three Station Manifold, Needle - Needle - Needle Configuration, 10,000 psi / 690 bar.
<b>THIS PRODUCT DESIGN IS UNIQUE TO BIFOLD AND PATENTED</b>				

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## Technical Attributes

### Materials

Stainless Steel, UNS S31600 / S31603, is used throughout for metallic parts as the standard option. Other options are: Carbon Steel (LF2) with F316 trim; Duplex (UNS S31803) throughout and Super Duplex (UNS S32760) throughout. All material options are in compliance with NACE MR0175 (ISO 15156)

### Pressure Ratings

Maximum pressure ratings of 1,000 psi / 69 bar, 6,000 psi / 414 bar and 10,000 psi / 690 bar depending on seat material selection. The selection chart for each product shows the maximum available. Pressure rating at elevated temperatures is limited, in-line with the graphs shown below. Pressure rating is also limited by connection type, in-line with the table shown below.

### Temperature

Using the correctly selected seal material, all valves have a minimum temperature rating of -20°C (-4°F) and a maximum of +200°C (392°F). Pressure ratings at temperature are limited in-line with the graphs shown below. Additional seal materials (not listed) are available to extend this capability to a minimum of -60°C (-76°F) and a maximum of +300°C (+572°F). Pressure ratings will be limited at these extremes; consult with Bifold for further details.

### Operating Media

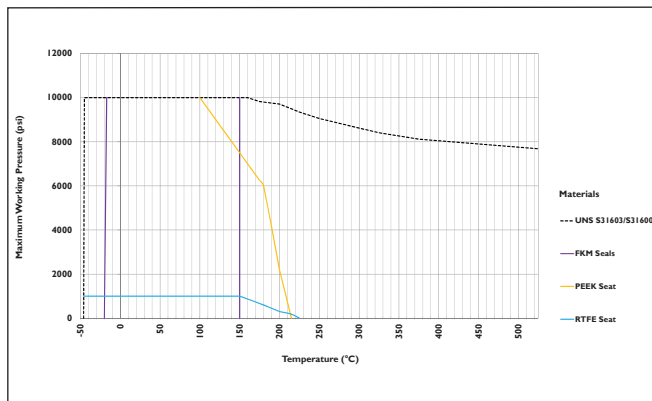
With suitably selected seal materials, all valves can be used with a wide variety of fluids and are also suitable for gas service where the '-NT' option is selected.

### Connection Pressure Rating (psi)

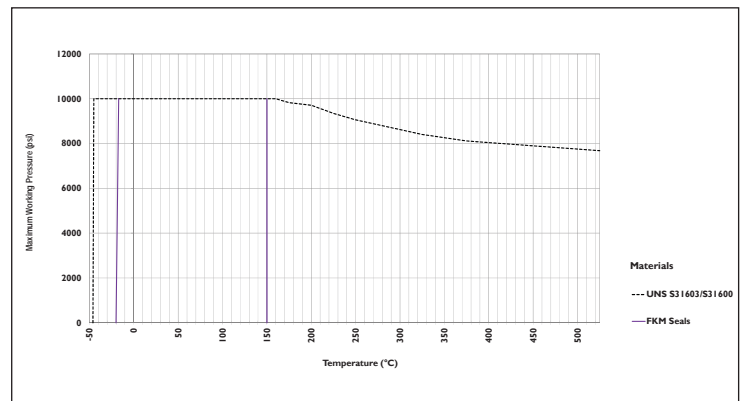
Nominal Pipe Size	Connection Type					
	Female NPT (F)	Male NPT (M)	Male NPT Inlet / Female NPT Outlet (MF)	Female Medium Pressure (FMP)	Female BSPP (FK6)	Female SAE (FSAE)
04 (1/4")	10,000	10,000	10,000	10,000	10,000	10,000
06 (3/8")	10,000	10,000	10,000	10,000	10,000	10,000
08 (1/2")	10,000	10,000	10,000	X	10,000	10,000
09 (5/16")	X	X	X	10,000	X	X
12 (3/4")	6,000	6,000	6,000	10,000	6,000	6,000
16 (1")	6,000	6,000	6,000	10,000	6,000	5,000

### Standard Temperature vs. Pressure Charts

#### Ball Valves



#### Needle Valves



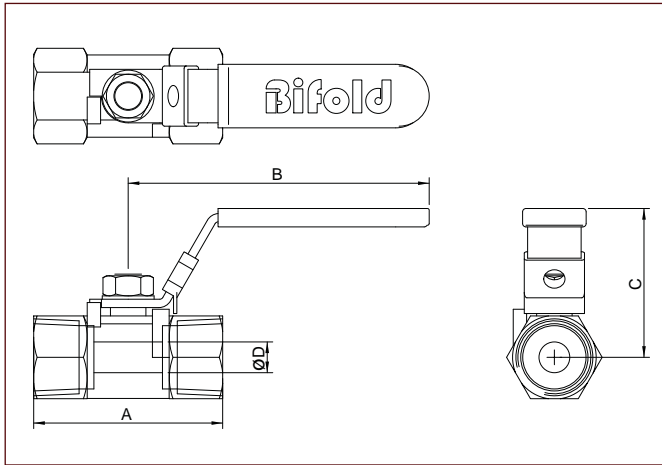
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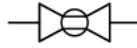
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## BV01

### Typical GA Drawing



**SCHEMATIC**



### BV01 - SELECTION TABLE

Product Code	Size	Rated	Cv (US Gallon)	'A' (mm)	'B' (mm)	'C' (mm)	Ø 'D' (mm)	Weight (Kg)
BV0104F025TTIKLK-N	1/4" NPT	1,000 psi / 70 bar	2.5	40.0	71.0	35.0	5.0	0.07
BV0108F029.2TTIKLK-N	1/2" NPT	1,000 psi / 70 bar	4.8	57.0	95.0	44.0	9.2	0.16
BV0112F0212.5TTIKLK-N	3/4" NPT	1,000 psi / 70 bar	9.5	59.0	95.0	48.0	12.5	0.25
BV0116F0215TTIKLK	1" NPT	1,000 psi / 70 bar	14.0	71.0	103.0	50.0	15.0	0.43
BV0132F0232TTIKLK	2" NPT	1,000 psi / 70 bar	58.0	100.0	127.0	74.5	32.0	1.50

### Product Description

A 1,000 psi / 70 bar rated single isolation ball valve, designed to give bubble tight shut off through 90° operation across the full operating temperature range. Totally enclosed soft seats offer both positive sealing and low operating torques.

### Features & Benefits

- Single piece body design reducing leak paths.
- Bi-directional.
- Precision machined stainless steel ball.
- PTFE seating to the ball.
- Lockable handle as standard.
- Compact design to save space and weight.
- Bubble tight shut-off.

### Technical Data

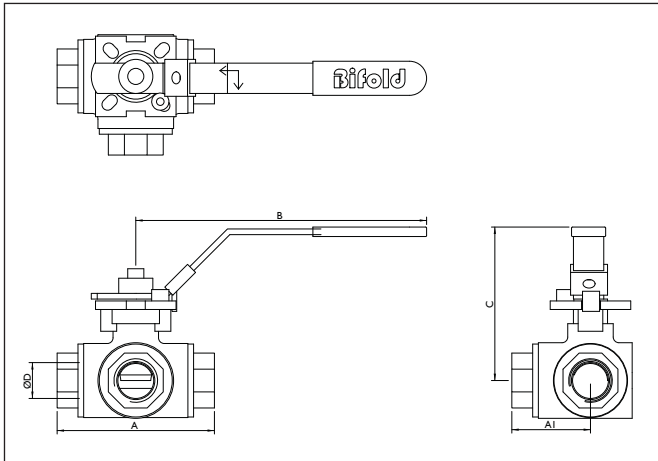
Material grade - ASTM A351 CF8M stainless steel body (standard).  
Operating temperature range -20°C to +200°C.



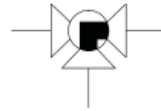
**BV02**



**Typical GA Drawing**



**SCHEMATIC**



**BV02 - SELECTION TABLE**

Product Code	Size	Rated	Cv (US Gallon)	'A' (mm)	'A1' (mm)	'B' (mm)	'C' (mm)	Ø'D' (mm)	Weight (Kg)
BV02SL04F0211TTIKLK	1/4" NPT	1,000 psi / 70 bar	7.0	72.0	36.0	140.0	75.0	11.0	0.66
BV02SL08F0212.5TTIKLK	1/2" NPT	1,000 psi / 70 bar	7.0	72.0	36.0	140.0	75.0	12.5	0.64
BV02SL12F0215TTIKLK	3/4" NPT	1,000 psi / 70 bar	11.0	83.0	41.5	151.0	88.0	15.0	0.85
BV02SL16F0220TTIKLK	1" NPT	1,000 psi / 70 bar	15.0	99.0	49.5	166.0	93.0	20.0	1.46
BV02SL32F0238TTIKLK	2" NPT	1,000 psi / 70 bar	70.0	149.0	74.5	263.0	154.0	38.0	5.24

**Product Description**

A 1,000 psi / 70 bar rated 3 way ball valve, designed to provide a bubble tight shut off through 90° operation across the full operating temperature range. The four seat design prevents leakage across the cavity and provides accurate alignment to the ball.

**Features & Benefits**

- Live Loaded Stem Design provides automatic adjustment required due to wear and pressure temperature fluctuations.
- Anti-blow out stem internally loaded.
- Precision machined stainless steel ball.
- PTFE seating to the ball.
- Lockable handle as standard.
- ISO 5211 Mounting Pad for direct actuator mounting.
- Available in 'T' Ported configuration.

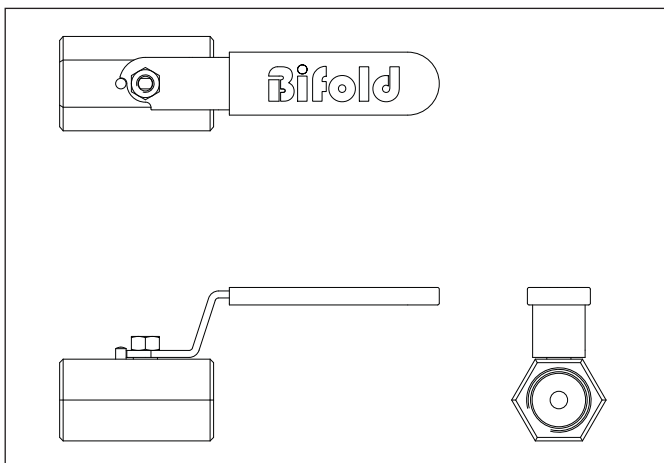
**Technical Data**

Material grade - ASTM A351 CF8M stainless steel body (standard).  
 Operating temperature range -20°C to +200°C.

## BV01



### Typical GA Drawing



### SCHEMATIC



### BV01 - SELECTION TABLE

Product Code	Size	Rated	Cv (US Gallon)	Flow Rate @ 10bar DP (l/min water)
BV0104F025ERV6K	1/4" Female NPT	6,000 psi / 414 bar	1.9	86.0
BV0104F025ERV10K	1/4" Female NPT	10,000 psi / 690 bar	1.9	86.0
BV0106F025ERV6K	3/8" Female NPT	6,000 psi / 414 bar	1.9	86.0
BV0106F025ERV10K	3/8" Female NPT	10,000 psi / 690 bar	1.9	86.0

### Product Description

A single isolate ball valve with pressures rated up to 10,000 psi / 690 bar. The single isolating ball valve is designed to give bubble tight shut off through 90° operation across the full operating temperature range of the valve. Totally enclosed soft seats offer both positive sealing and low operating torques.

### Features & Benefits

- Single piece body design reducing leak paths.
- Anti-blow out stem internally loaded.
- Bi-directional.
- Precision machined stainless steel ball.
- Compact design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.
- O-Ring Stem & body seals.
- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Bubble tight shut-off.
- Low operating torque.
- Pressure energised stem sealing.

### Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 15 for alternative materials.

**BV01**



**BV01 Selection Chart - Ordering Example**

<b>BV01</b>	Single Isolation Ball Valve	Model Code
<b>04F</b>	1/4" Female NPT	Nominal Pipe Size & Connection Type
<b>06F</b>	3/8" Female NPT	
<b>02</b>	UNS S31600 / S31603 Stainless Steel (Standard)	Material
<b>26</b>	F51 / UNS S31803 Duplex	
<b>38</b>	LF2 / Carbon Steel	
<b>39</b>	F55 / UNS S32760 Super Duplex	
<b>5</b>	Standard	Series
<b>T</b>	Glass Filled PTFE (1,000 psi / 70 bar Maximum Cold Working Pressure)	Seat Material
<b>E</b>	PEEK (10,000 psi / 690 bar Maximum Cold Working Pressure)	
<b>RS</b>	RTFE / Nitrile	Seal Arrangement Stem and Body
<b>RV</b>	RTFE / Viton	
<b>RV9</b>	RTFE / V91A	
<b>RE9</b>	RTFE / E985	
<b>1K</b>	1,000 psi / 70 bar Maximum Cold Working Pressure	Pressure Rating
<b>6K</b>	6,000 psi / 414 bar Maximum Cold Working Pressure	
<b>10K</b>	10,000 psi / 690 bar Maximum Cold Working Pressure	
<b>NO LETTER</b>	Standard F.A.T.	F.A.T. Options
<b>-NT</b>	Nitrogen F.A.T. (For Gas Service)	

**BV0104F 02 5 E RS 6K -NT** Ordering Example

Other options may be available upon request. For more information, please contact Bifold sales department.

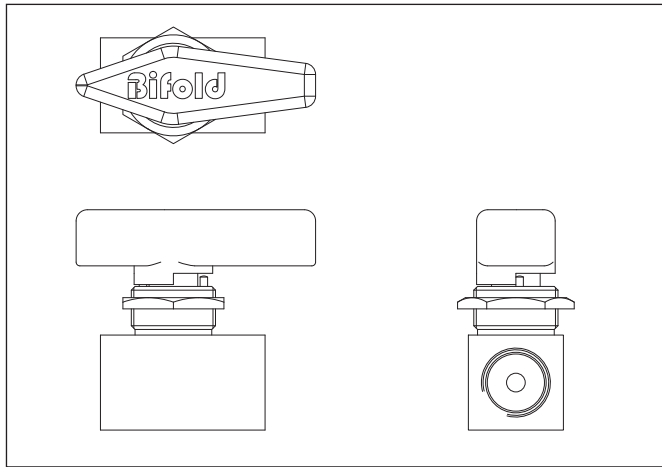
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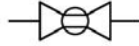
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## BV01

### Typical GA Drawing



### SCHEMATIC



### BV01 - SELECTION TABLE

Product Code	Size	Rated	Cv (US Gallon)	Flow Rate @ 10bar DP (l/min water)
BV0104F025EV6KPM	1/4" Female NPT	6,000 psi / 414 bar	1.9	86.0
BV0104F025EV10KPM	1/4" Female NPT	10,000 psi / 690 bar	1.9	86.0
BV0106F025EV6KPM	3/8" Female NPT	6,000 psi / 414 bar	1.9	86.0
BV0106F025EV10KPM	3/8" Female NPT	10,000 psi / 690 bar	1.9	86.0

### Product Description

A single isolate ball valve with pressures rated up to 10,000 psi / 690 bar. The single isolating ball valve is designed to give bubble tight shut off through 90° operation across the full operating temperature range of the valve. Totally enclosed soft seats offer both positive sealing and low operating torques.

### Features & Benefits

- Single piece construction reducing leak paths.
- Bi-directional.
- Precision machined stainless steel ball.
- Compact design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.
- O-Ring stem and body seals.
- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Bubble tight shut-off.
- Low operating torque.
- Panel mount as standard.

### Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 17 for alternative materials.



**BV01**



**BV01 Selection Chart - Ordering Example**

<b>BV01</b>	Single Isolation Ball Valve - Panel Mount	Model Code
<b>04F</b>	1/4" Female NPT	Nominal Pipe Size & Connection Type
<b>06F</b>	3/8" Female NPT	
<b>02</b>	UNS S31600 / S31603 Stainless Steel (Standard)	Material
<b>26</b>	F51 / UNS S31803 Duplex	
<b>38</b>	LF2 / Carbon Steel	
<b>39</b>	F55 / UNS S32760 Super Duplex	
<b>5</b>	Standard	Series
<b>T</b>	Glass Filled PTFE (1,000 psi / 70 bar Maximum Cold Working Pressure)	Seat Material
<b>E</b>	PEEK (10,000 psi / 690 bar Maximum Cold Working Pressure)	
<b>RS</b>	RTFE / Nitrile	Seal Arrangement Stem and Body
<b>RV</b>	RTFE / Viton	
<b>RV9</b>	RTFE / V91A	
<b>RE9</b>	RTFE / E985	
<b>1K</b>	1,000 psi / 70 bar Maximum Cold Working Pressure	Pressure Rating
<b>6K</b>	6,000 psi / 414 bar Maximum Cold Working Pressure	
<b>10K</b>	10,000 psi / 690 bar Maximum Cold Working Pressure	
<b>PM</b>	Panel Mount (Standard)	Mounting Option
<b>NO LETTER</b>	Standard F.A.T.	F.A.T. Options
<b>-NT</b>	Nitrogen F.A.T. (For Gas Service)	

**BV0104F 02 5 E RV 6K PM -NT** Ordering Example

Other options may be available upon request. For more information, please contact Bifold Sales Department.

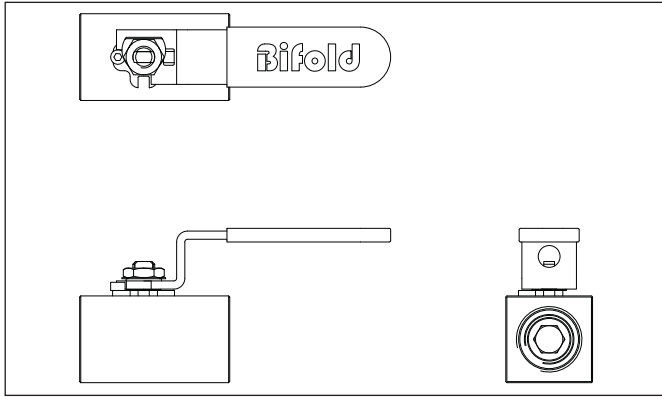
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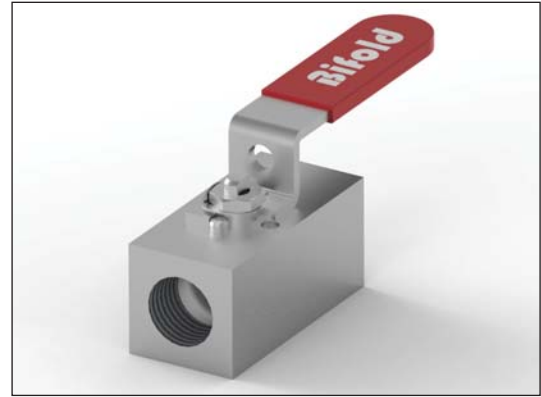
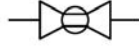
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## BV01

### Typical GA Drawing



**SCHEMATIC**



### BV01 - SELECTION TABLE

Product Code	Size	Rated	Cv (US Gallon)	Flow Rate @ 10bar DP (l/min water)
BV0108F0210ERV6K	½" NPT	6,000 psi / 414 bar	9.6	438.0
BV0108F0210ERV10K	½" NPT	10,000 psi / 690 bar	9.6	438.0

### Product Description

A single isolate ball valve with pressures rated up to 10,000 psi / 690 bar. The single isolating ball valve is designed to give bubble tight shut off through 90° operation across the full operating temperature range of the valve. Totally enclosed soft seats offer both positive sealing and low operating torques.

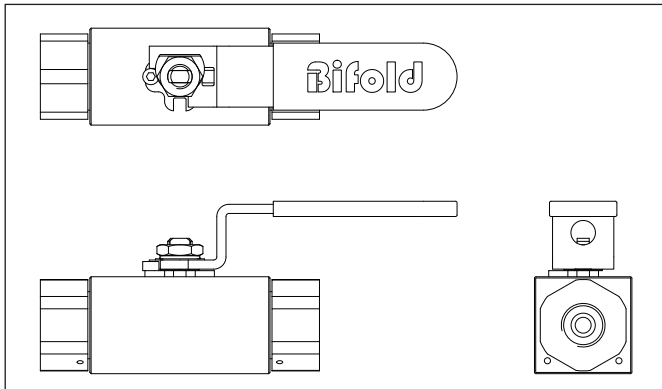
### Features & Benefits

- Anti-blow out stem internally loaded.
- Bi-directional.
- Precision machined stainless steel ball.
- Lever type handle as standard.
- Compact design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.
- RTFE stem seals and O-Ring body seals.
- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Bubble tight shut-off.
- Low operating torque.
- Pressure energised stem sealing.
- Seal integrity maintained if handle is removed.

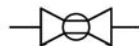
### Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 19 for alternative materials.

### Three Piece Configuration



**SCHEMATIC**



Valves with connection types other than Female NPT will be supplied in the above three piece configuration.

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**BV01**

**BV01 Selection Chart - Ordering Example**

BV01 Single Isolation Ball Valve		Model Code
04	1/4"	Nominal Pipe Size
06	3/8"	
08	1/2"	
09	9/16"	
12	3/4"	
16	1"	
F	Female NPT	Three Piece Configuration
FMP	Female Medium Pressure (Series 10 Option Only)	
FK6	Female BSPP	
FSAE	Female SAE	
02	UNS S31600 / S31603 Stainless Steel (Standard)	Material
26	F51 / UNS S31803 Duplex	
38	LF2 / Carbon Steel	
39	F55 / UNS S32760 Super Duplex	
10	Standard	Series
20	For Nominal Sizes: 3/4" to 1" Excluding FMP (6,000 psi / 414 bar Maximum Cold Working Pressure)	
T	Glass Filled PTFE (1,000 psi / 70 bar Maximum Cold Working Pressure)	Seat Material
E	PEEK (10,000 psi / 690 bar Maximum Cold Working Pressure)	
H	RTFE	Seal Arrangement Stem and Body
RS	RTFE / Nitrile	
RV	RTFE / Viton	
RV9	RTFE / V91A	
RE9	RTFE / E985	
1K	1,000 psi / 70 bar Maximum Cold Working Pressure	Pressure Rating
6K	6,000 psi / 414 bar Maximum Cold Working Pressure	
10K	10,000 psi / 690 bar Maximum Cold Working Pressure	
The pressure may be limited by the connection type, please refer to the connection pressure ratings table on page 11		
NO LETTER	Standard Handle	Handle Options
LK	Lockable Handle	
PH	Pointer Paddle Handle	
NO LETTER	Pipe Mount (Standard)	Mounting Options
PM	Panel Mount (Standard for 20mm Bore Sizes)	
NO LETTER	Standard F.A.T.	F.A.T. Options
-NT	Nitrogen F.A.T. (For Gas Service)	
<b>BV0104</b>	<b>F 02 10 E H 10K LK PM -NT</b>	<b>Ordering Example</b>

Other options may be available upon request. For more information, please contact Bifold Sales Department.

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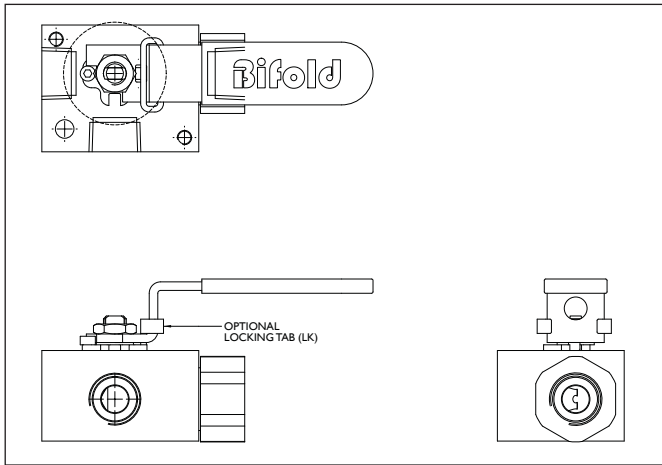
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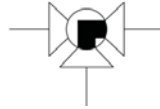
## BV02



### Typical GA Drawing



### SCHEMATIC



### BV02 - SELECTION TABLE

Product Code	Size	Rated	Cv (US Gallon)	Flow Rate @ 10bar DP (l/min water)
BV02SL08F0210ERV6K	1/2" NPT	6,000 psi / 414 bar	4.3	196.0
BV02SL08F0210ERV10K	1/2" NPT	10,000 psi / 690 bar	4.3	196.0

### Product Description

A 3 way ball valve with pressures rated up to 10,000 psi / 690 bar. The 3 way ball valve is designed to give bubble tight shut off through 90° operation across the full operating temperature range of the valve. The standard 'L' port configuration diverts one pressure supply between two outlets. Totally enclosed soft seats offer both positive sealing and low operating torques.

### Features & Benefits

- Anti-blow out stem internally loaded.
- Precision machined stainless steel ball.
- Lever type handle as standard.
- Compact design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.
- RTFE stem seals and O-Ring body seals.
- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Bubble tight shut-off.
- Low operating torque.
- Pressure energised stem sealing.
- Seal integrity maintained if handle is removed.
- Available in 'T' ported configuration.

### Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 21 for alternative materials.





**BV02**

**BV02 Selection Chart - Ordering Example**

<b>BV02</b>	3 Way Ball Valve	Model Code
<b>S</b>	Side Entry	Configuration
<b>B</b>	Bottom Entry	
<b>L</b>	L Ported Ball	Flow Pattern
<b>T</b>	T Ported Ball	
<b>04</b>	1/4"	Nominal Pipe Size
<b>06</b>	3/8"	
<b>08</b>	1/2"	
<b>09</b>	9/16"	
<b>12</b>	3/4"	
<b>16</b>	1"	
<b>F</b>	Female NPT	Connection Type
<b>FMP</b>	Female Medium Pressure (Series 10 Option Only)	
<b>FK6</b>	Female BSPP	
<b>FSAE</b>	Female SAE	
<b>02</b>	UNS S31600 / S31603 Stainless Steel (Standard)	Material
<b>26</b>	F51 / UNS S31803 Duplex	
<b>38</b>	LF2 / Carbon Steel	
<b>39</b>	F55 / UNS S32760 Super Duplex	
<b>10</b>	Standard	Series
<b>20</b>	For Nominal Sizes: 3/4" to 1" Excluding FMP (6,000 psi / 414 bar Maximum Cold Working Pressure)	
<b>T</b>	Glass Filled PTFE (1,000 psi / 70 bar Maximum Cold Working Pressure)	Seat Material
<b>E</b>	PEEK (10,000 psi / 690 bar Maximum Cold Working Pressure)	
<b>H</b>	RTFE	Seal Arrangement Stem and Body
<b>RS</b>	RTFE / Nitrile	
<b>RV</b>	RTFE / Viton	
<b>RV9</b>	RTFE / V91A	
<b>RE9</b>	RTFE / E985	
<b>1K</b>	1,000 psi / 70 bar Maximum Cold Working Pressure	Pressure Rating
<b>6K</b>	6,000 psi / 414 bar Maximum Cold Working Pressure	
<b>10K</b>	10,000 psi / 690 bar Maximum Cold Working Pressure	
The pressure may be limited by the connection type, please refer to the connection pressure ratings table on page 11		
<b>NO LETTER</b>	Standard Handle	Handle Options
<b>LK</b>	Lockable Handle	
<b>PH</b>	Pointer Paddle Handle	
<b>NO LETTER</b>	Standard F.A.T.	F.A.T. Options
<b>-NT</b>	Nitrogen F.A.T. (For Gas Service)	
<b>BV02 S L 04 F 02 10 E H 10K LK -NT</b>		Ordering Example

Other options may be available upon request. For more information, please contact Bifold Sales Department.

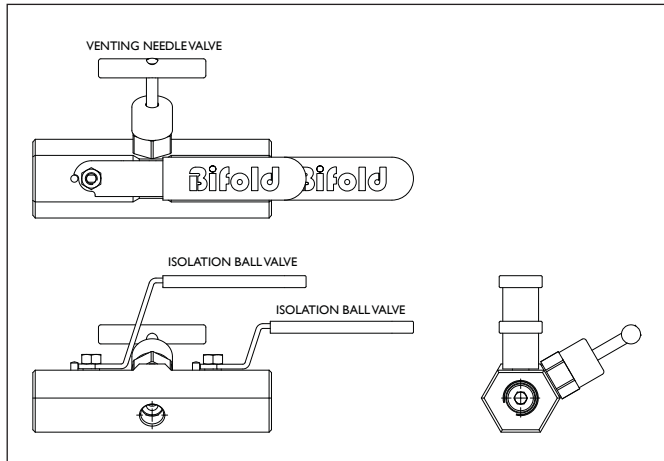
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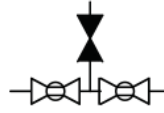
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**BV05**

**Typical GA Drawing**



**SCHEMATIC**



**BV05 - SELECTION TABLE**

Product Code	Size	Rated	Cv (US Gallon)	Flow Rate @ 10bar DP (l/min water)
BV0504F02F025ERV6K	1/4" NPT	6,000 psi / 414 bar	1.3	58.0
BV0504F02F025ERV10K	1/4" NPT	10,000 psi / 690 bar	1.3	58.0
BV0506F02F025ERV6K	3/8" NPT	6,000 psi / 414 bar	1.3	58.0
BV0506F02F025ERV10K	3/8" NPT	10,000 psi / 690 bar	1.3	58.0

**Product Description**

A double block & bleed ball - needle - ball valve manifold with pressures rated up to 10,000 psi / 690 bar. Manufactured from barstock, the two inline balls are the primary and secondary isolating valves with a needle type valve for the vent facility. The ball valve is designed to give bubble tight shut off through a 90° operation across the full operating temperature range of the valve.

**Features & Benefits**

- Single piece construction reducing leak paths.
- Anti-blow out stem internally loaded.
- Bi-directional.
- Precision machined stainless steel balls.
- Lever type handles as standard.
- Compact design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- RTFE stem seals and O-Ring body seals.
- Stem seal design prevents galling and contamination.
- Panel mount as standard.
- Thread milled connections for improved sealing.
- Bubble tight shut-off.
- Low operating torque.
- Pressure energised stem sealing.

**Technical Data**

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 23 for alternative materials.

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**BV05**

**BV05 Selection Chart - Ordering Example**

<b>BV05</b>	Double Block & Bleed, Ball & Needle Valve Manifold	Model Code
<b>04F</b>	1/4" Female NPT	Nominal Pipe Size & Connection Type
<b>06F</b>	3/8" Female NPT	
<b>02F</b>	1/8" Female NPT (Standard)	Vent Connection
<b>02</b>	UNS S31600 / S31603 Stainless Steel (Standard)	Material
<b>26</b>	F51 / UNS S31803 Duplex	
<b>38</b>	LF2 / Carbon Steel	
<b>39</b>	F55 / UNS S32760 Super Duplex	
<b>5</b>	Standard	Series
<b>T</b>	Glass Filled PTFE (1,000 psi / 70 bar Maximum Cold Working Pressure)	Seat Material
<b>E</b>	PEEK (10,000 psi / 690 bar Maximum Cold Working Pressure)	
<b>RS</b>	RTFE / Nitrile	Seal Arrangement Stem and Body
<b>RV</b>	RTFE / Viton	
<b>RV9</b>	RTFE / V91A	
<b>RE9</b>	RTFE / E985	
<b>1K</b>	1,000 psi / 70 bar Maximum Cold Working Pressure	Pressure Rating
<b>6K</b>	6,000 psi / 414 bar Maximum Cold Working Pressure	
<b>10K</b>	10,000 psi / 690 bar Maximum Cold Working Pressure	
<b>NO LETTER</b>	Standard Vent	Vent Operator Options
<b>AV</b>	Anti-Tamper Vent	
<b>NO LETTER</b>	No Plug Vent (Standard)	Vent Outlet Options
<b>PV</b>	Plugged Vent	
<b>NO LETTER</b>	Standard F.A.T.	F.A.T. Options
<b>-NT</b>	Nitrogen F.A.T. (For Gas Service)	

**BV05 04F 02F 02 5 E RV 10K AV PV -NT** Ordering Example

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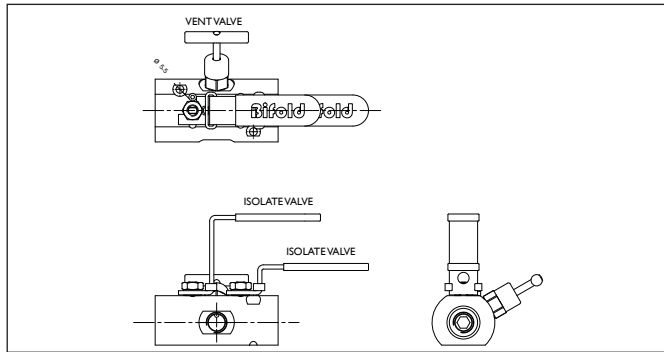
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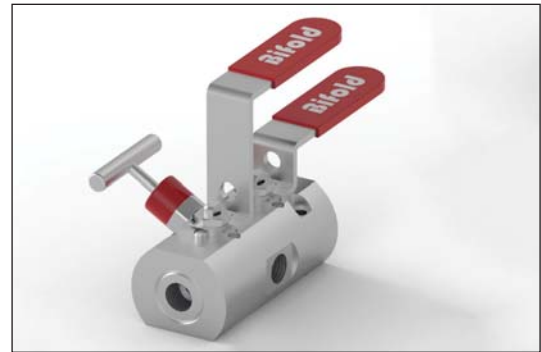
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**BV05**

**Typical GA Drawing**



**SCHEMATIC**



**BV05 - SELECTION TABLE**

Product Code	Size	Rated	Cv (US Gallon)	Flow Rate @ 10bar DP (l/min water)
BV0504F0210ERV6K	1/4" NPT	6,000 psi / 414 bar	7.6	345.0
BV0504F0210ERV10K	1/4" NPT	10,000 psi / 690 bar	7.6	345.0
BV0508F04F0210ERV6K	1/2" NPT	6,000 psi / 414 bar	7.6	345.0
BV0508F04F0210ERV10K	1/2" NPT	10,000 psi / 690 bar	7.6	345.0

**Product Description**

A double block & bleed ball-needle-ball valve manifold with pressures rated up to 10,000 psi / 690 bar. Manufactured from barstock, the two inline balls provide unrestricted flow with a roddable facility, and are the primary and secondary isolating valves with a needle type valve for the vent facility. The ball valve is designed to give bubble tight shut off through a 90° operation across the full operating temperature range of the valve.

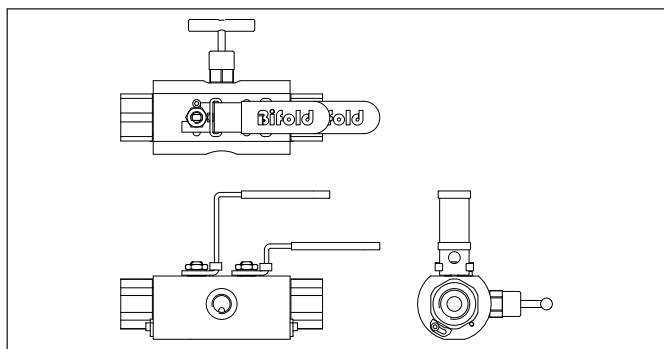
**Features & Benefits**

- Anti-blow out stem internally loaded.
- Bi-directional.
- Precision machined stainless steel balls.
- Compact design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Lever type handle as standard.
- RTFE stem seals and O-Ring body seals.
- Stem seal design prevents galling and contamination.
- Panel mount as standard.
- Thread milled connections for improved sealing.
- Bubble tight shut-off.
- Low operating torque.
- Pressure energised stem sealing.

**Technical Data**

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 25 for alternative materials.

**Three Piece Configuration**



**SCHEMATIC**



Valves with connection types other than Female NPT will be supplied in the above three piece configuration.

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**BV05**

**BV05 Selection Chart - Ordering Example**

BV05 Double Block & Bleed, Ball & Needle Valve Manifold		Model Code
04 06 08 09 12 16	1/4" 3/8" 1/2" 9/16" 3/4" 1"	Nominal Pipe Size
F FMP FK6 FSAE	Female NPT Female Medium Pressure (Series 10 Option Only) Female BSPP Female SAE	Connection Type
Three Piece Configuration		
NO LETTER 04F	1/4" Female NPT (NO LETTER if Nominal Pipe Size / Connection Type option is 04F) 1/4" Female NPT	Vent Connection
02 26 38 39	UNS S31600 / S31603 Stainless Steel (Standard) F51 / UNS S31803 Duplex LF2 / Carbon Steel F55 / UNS S32760 Super Duplex	Material
10 20	Standard For Nominal Sizes: 3/4" to 1" Excluding FMP (6,000 psi / 414 bar Maximum Cold Working Pressure)	Series
T E	Glass Filled PTFE (1,000 psi / 70 bar Maximum Cold Working Pressure) PEEK (10,000 psi / 690 bar Maximum Cold Working Pressure)	Seat Material
RS RV RV9 RE9	RTFE / Nitrile RTFE / Viton RTFE / V91A RTFE / E985	Seal Arrangement Stem and Body
1K 6K 10K	1,000 psi / 70 bar Maximum Cold Working Pressure 6,000 psi / 414 bar Maximum Cold Working Pressure 10,000 psi / 690 bar Maximum Cold Working Pressure The pressure may be limited by the connection type, please refer to the connection pressure ratings table on page 11	Pressure Rating
NO LETTER LK PH	Standard Handle Lockable Handle Pointer Paddle Handle	Handle Options
NO LETTER AV	Standard Vent Anti-Tamper Vent	Vent Operator Options
NO LETTER PV	No Plug Vent (Standard) Plugged Vent	Vent Outlet Options
NO LETTER -NT	Standard F.A.T. Nitrogen F.A.T. (For Gas Service)	F.A.T. Options

**BV0504 F 02 10 E RV 10K LK AV PV -NT** Ordering Example

Other options may be available upon request. For more information, please contact Bifold Sales Department.

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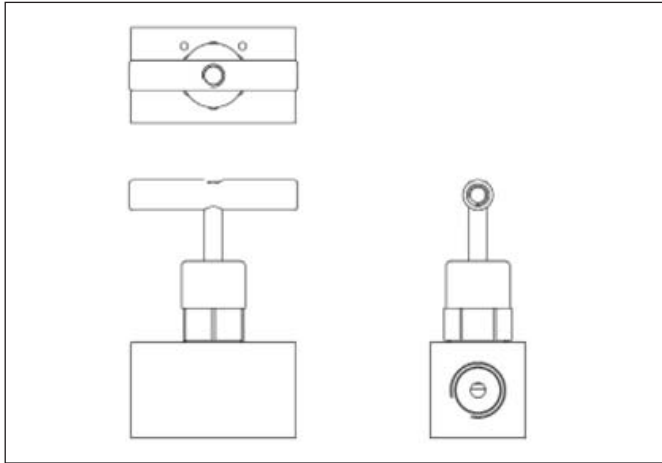
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## NV01



### Typical GA Drawing



### SCHEMATIC



### NV01 - SELECTION TABLE

Product Code	Size	Rated	Cv (US Gallon)	Flow Rate @ 10bar DP (l/min water)
NV0104F02M5V6K	1/4" NPT	6,000 psi / 414 bar	0.48	22.0
NV0104F02M5V10K	1/4" NPT	10,000 psi / 690 bar	0.48	22.0
NV0108F02M5V6K	1/2" NPT	6,000 psi / 414 bar	0.48	22.0
NV0108F02M5V10K	1/2" NPT	10,000 psi / 690 bar	0.48	22.0

### Product Description

A 6,000 psi / 414 bar or 10,000 psi / 690 bar rated, single isolation needle valve. The metal to metal non-rotating tip and metal to metal body to bonnet interface offer leak tight sealing across the full operating temperature range of the valve.

### Features & Benefits

- Single piece construction reducing leak paths.
- Anti-blow out stem.
- Non-rotating, anti-galling tip as standard.
- Viton / RTFE stem sealing - maintenance free.
- Metal to metal seating.
- Compact design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.
- Back seating needle.
- Stem seal design prevents galling and contamination.
- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Pressure energised stem sealing.
- Metal to metal body joint to prevent thread contamination.

### Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 27 for alternative materials.





NV01

NV01 Selection Chart - Ordering Example

<b>NV01</b> Single Isolation Needle Valve		Model Code
04 06 08 09 12 16	1/4" 3/8" 1/2" 9/16" 3/4" 1"	Nominal Pipe Size
F M MF FMP FK6 FSAE	Female NPT Male NPT Male NPT Inlet / Female NPT Outlet Female Medium Pressure (Series 3 and 5 Option Only) Female BSPP Female SAE	Connection Type
02 26 38 39	UNS S31600 / S31603 Stainless Steel (Standard) F51 / UNS S31803 Duplex LF2 / Carbon Steel F55 / UNS S32760 Super Duplex	Material
M MT	Metal Ball Metal Tip (Standard for Series 8 Option, Non-Standard Materials and Nitrogen F.A.T. Valves)	Tip Style
3 5 8	04FMP Only Standard For Nominal Sizes: 3/4" to 1" Excluding FMP (6,000 psi / 414 bar Maximum Cold Working Pressure)	Series
S V V9 E9	Nitrile Viton V91A E985	Seal Arrangement
6K 10K	6,000 psi / 414 bar Maximum Cold Working Pressure 10,000 psi / 690 bar Maximum Cold Working Pressure The pressure may be limited by the connection type, please refer to the connection pressure ratings table on page 11	Pressure Rating
NO LETTER LK	Standard Handle Lockable Handle	Handle Options
NO LETTER PM	Pipe Mount (Standard) Panel Mount (Standard for Series 8 Option)	Mounting Options
NO LETTER -NT	Standard F.A.T. Nitrogen F.A.T. (For Gas Service)	F.A.T. Options
<b>NV01 04 F 02 M 5 S 6K LK PM -NT</b>		Ordering Example

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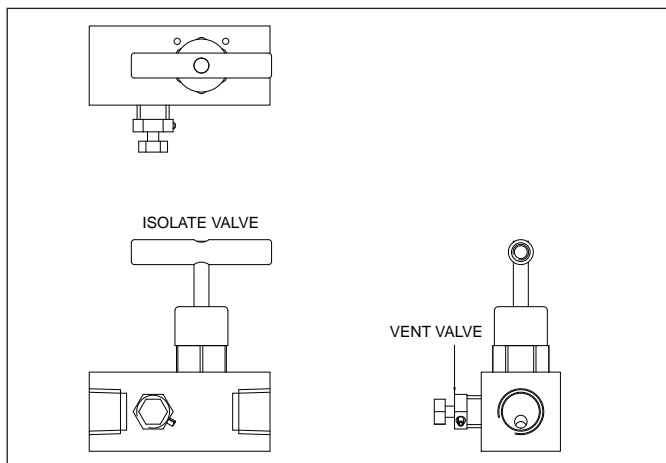
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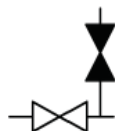
NV03



Typical GA Drawing



SCHEMATIC



NV03 - SELECTION TABLE

Product Code	Size	Rated	Cv (US Gallon)	Flow Rate @ 10bar DP (l/min water)
NV0304F02M5V6K	1/4" NPT	6,000 psi / 414 bar	0.48	22.0
NV0304F02M5V10K	1/4" NPT	10,000 psi / 690 bar	0.48	22.0
NV0308F02M5V6K	1/2" NPT	6,000 psi / 414 bar	0.48	22.0
NV0308F02M5V10K	1/2" NPT	10,000 psi / 690 bar	0.48	22.0

Product Description

A single isolation valve block and captive vent plug bleed gauge / instrument manifold, with pressures rated up to 10,000 psi / 690 bar. The valve is suitable for either panel or pipe mounting. The manifold design permits isolation and controlled venting of the instrument for calibration and or removal from the circuit, whilst leaving the process intact.

Features & Benefits

- Single piece construction reducing leak paths.
- Anti-blow out stem.
- Non-rotating, anti-galling tip as standard.
- Non-removable stem on the captive vent plug.
- Viton / RTFE stem sealing - maintenance free.
- Metal to metal seating.
- Compact design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.
- Back seating needle.
- Stem seal design prevents galling and contamination.
- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Bubble tight shut-off.
- Pressure energised stem sealing.
- Metal to metal body joint to prevent thread contamination.

Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 29 for alternative materials.

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NV03

NV03 Selection Chart - Ordering Example

<b>NV03</b> Block & Bleed Needle Valve Manifold - Captive Vent Plug		Model Code
<b>04</b> 1/4" <b>06</b> 3/8" <b>08</b> 1/2"		Nominal Pipe Size
<b>F</b> Female NPT <b>M</b> Male NPT <b>MF</b> Male NPT Inlet / Female NPT Outlet		Connection Type
<b>02</b> UNS S31600 / S31603 Stainless Steel (Standard) <b>26</b> F51 / UNS S31803 Duplex <b>38</b> LF2 / Carbon Steel <b>39</b> F55 / UNS S32760 Super Duplex		Material
<b>M</b> Metal Ball <b>MT</b> Metal Tip (Standard for Non-Standard Materials and Nitrogen F.A.T. Valves)		Tip Style
<b>5</b> Standard		Series
<b>S</b> Nitrile <b>V</b> Viton <b>V9</b> V91A <b>E9</b> E985		Seal Arrangement
<b>6K</b> 6,000 psi / 414 bar Maximum Cold Working Pressure <b>10K</b> 10,000 psi / 690 bar Maximum Cold Working Pressure The pressure may be limited by the connection type, please refer to the connection pressure ratings table on page 11		Pressure Rating
<b>NO LETTER</b> Standard Handle <b>LK</b> Lockable Handle		Handle Options
<b>NO LETTER</b> Standard F.A.T. <b>-NT</b> Nitrogen F.A.T. (For Gas Service)		F.A.T. Options

**NV03 04 F 02 M 5 S 6K LK -NT** Ordering Example

Other options may be available upon request. For more information, please contact Bifold Sales Department.

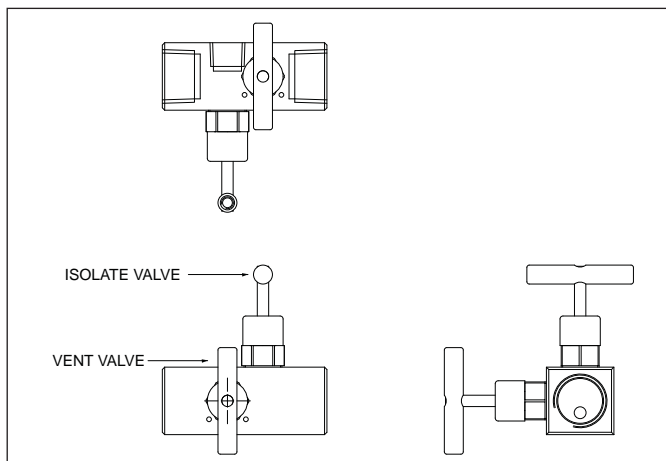
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## NV22

### Typical GA Drawing



### NV22 - SELECTION TABLE

Product Code	Size	Rated	Cv (US Gallon)	Flow Rate @ 10bar DP (l/min water)
NV2204F02M3V6K	1/4" NPT	6,000 psi / 414 bar	0.17	7.6
NV2204F02M3V10K	1/4" NPT	10,000 psi / 690 bar	0.17	7.6
NV2208F04F02M3V6K	1/2" NPT	6,000 psi / 414 bar	0.17	7.6
NV2208F04F02M3V10K	1/2" NPT	10,000 psi / 690 bar	0.17	7.6

### Product Description

A 6,000 psi / 414 bar or 10,000 psi / 690 bar rated, two valve compact block & bleed gauge / instrument manifold. The manifold design permits controlled venting of the instrument for calibration and or removal from the circuit, whilst leaving the process intact.

### Features & Benefits

- Single piece construction reducing leak paths.
- Anti-blow out stem.
- Non-rotating, anti-galling tip as standard.
- Viton / RTFE stem sealing - maintenance free.
- Metal to metal seating.
- Back seating needle.
- Full material traceability and individual serial number stamped on the valve.
- Compact design to save space and weight.
- Stem seal design prevents galling and contamination.
- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Pressure energised stem sealing.
- Metal to metal body joint to prevent thread contamination.

### Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 31 for alternative materials.

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NV22



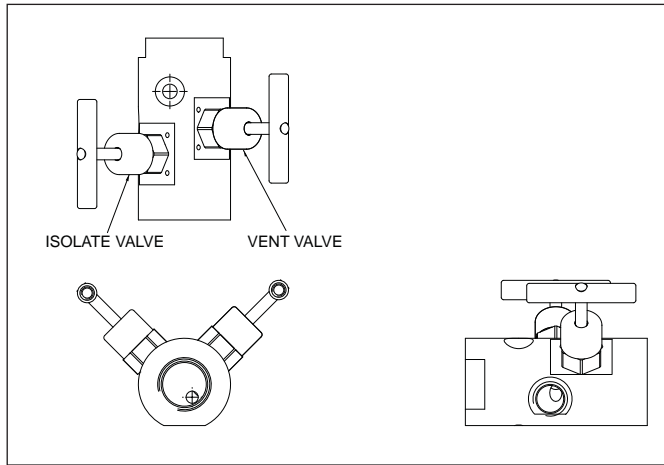
NV22 Selection Chart - Ordering Example

<b>NV22</b> Block & Bleed Needle Valve Compact Manifold		Model Code
<b>04</b> 1/4" <b>06</b> 3/8" <b>08</b> 1/2"		Nominal Pipe Size
<b>F</b> Female NPT <b>M</b> Male NPT <b>MF</b> Male NPT Inlet / Female NPT Outlet <b>FM</b> Female NPT Inlet / Male NPT Outlet		Connection Type
<b>NO LETTER</b> 1/4" Female NPT (NO LETTER if Nominal Pipe Size / Connection Type option is 04F) <b>04F</b> 1/4" Female NPT		Vent Connection
<b>02</b> UNS S31600 / S31603 Stainless Steel (Standard) <b>26</b> F51 / UNS S31803 Duplex <b>38</b> LF2 / Carbon Steel <b>39</b> F55 / UNS S32760 Super Duplex		Material
<b>M</b> Metal Ball <b>MT</b> Metal Tip (Standard for Non-Standard Materials and Nitrogen F.A.T. Valves)		Tip Style
<b>3</b> Standard		Series
<b>S</b> Nitrile <b>V</b> Viton <b>V9</b> V91A <b>E9</b> E985		Seal Arrangement
<b>6K</b> 6,000 psi / 414 bar Maximum Cold Working Pressure <b>10K</b> 10,000 psi / 690 bar Maximum Cold Working Pressure The pressure may be limited by the connection type, please refer to the connection pressure ratings table on page 11		Pressure Rating
<b>NO LETTER</b> Standard Handle <b>LK</b> Lockable Handle		Handle Options
<b>NO LETTER</b> Standard Vent <b>AV</b> Anti-Tamper Vent		Vent Operator Options
<b>NO LETTER</b> No Plug Vent (Standard) <b>PV</b> Plugged Vent		Vent Outlet Options
<b>NO LETTER</b> Standard F.A.T. <b>-NT</b> Nitrogen F.A.T. (For Gas Service)		F.A.T. Options
<b>NV22 04 F 04F 02 M 5 S 6K LK AV PV -NT</b>		Ordering Example

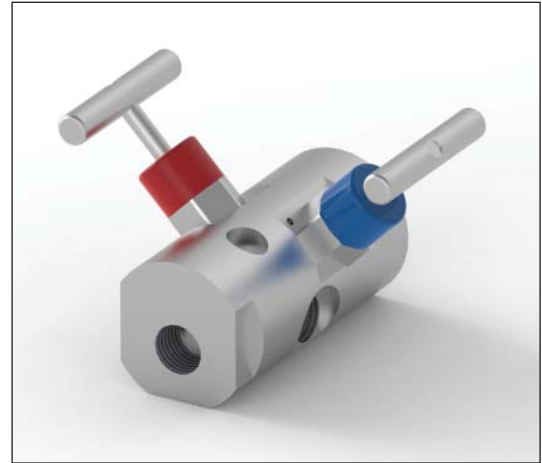
Other options may be available upon request. For more information, please contact Bifold Sales Department.

## NV04

### Typical GA Drawing



### SCHEMATIC



### NV04 - SELECTION TABLE

Product Code	Size	Rated	Cv (US Gallon)	Flow Rate @ 10bar DP (l/min water)
NV0404F02M5V6K	1/4" NPT	6,000 psi / 414 bar	0.39	18.0
NV0404F02M5V10K	1/4" NPT	10,000 psi / 690 bar	0.39	18.0
NV0408F04F02M5V6K	1/2" NPT	6,000 psi / 414 bar	0.39	18.0
NV0408F04F02M5V10K	1/2" NPT	10,000 psi / 690 bar	0.39	18.0

### Product Description

A 6,000 psi / 414 bar or 10,000 psi / 690 bar rated, two valve block & bleed gauge / instrument manifold. The angled bonnets allow for either panel or pipe mounting. The manifold design permits controlled venting of the instrument for calibration and or removal from the circuit, whilst leaving the process intact.

### Features & Benefits

- Single piece construction reducing leak paths.
- Anti-blow out stem.
- Non-rotating, anti-galling tip as standard.
- Viton / RTFE stem sealing - maintenance free.
- Metal to metal seating.
- Back seating needle.
- Unique patented product, compact design to save space and weight.
- European patent granted EP2242943.
- Stem seal design prevents galling and contamination.
- Full material traceability and individual serial number stamped on the valve.
- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Pressure energised stem sealing.
- Metal to metal body joint to prevent thread contamination.
- Panel mount as standard.

### Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 33 for alternative materials.

**Accuracy of information**  
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NV04

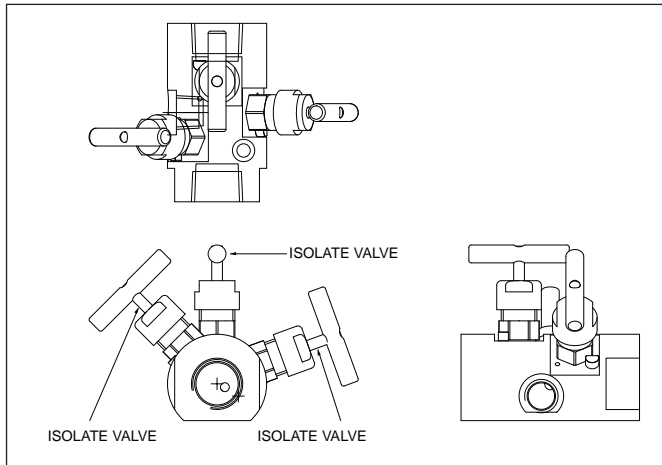
NV04 Selection Chart - Ordering Example

NV04 Block & Bleed Needle Valve Manifold		Model Code
04 06 08 09 12 16	1/4" 3/8" 1/2" 9/16" 3/4" 1"	Nominal Pipe Size
F FMP FK6 FSAE	Female NPT Female Medium Pressure (Series 3 and 5 Option Only) Female BSPP Female SAE	Connection Type
NO LETTER 04F	1/4" Female NPT (NO LETTER if Nominal Pipe Size / Connection Type option is 04F) 1/4" Female NPT	Vent Connection
02 26 38 39	UNS S31600 / S31603 Stainless Steel (Standard) F51 / UNS S31803 Duplex LF2 / Carbon Steel F55 / UNS S32760 Super Duplex	Material
M MT	Metal Ball Metal Tip (Standard for Series 8 Option, Non-Standard Materials and Nitrogen F.A.T. Valves)	Tip Style
3 5 8	04FMP Only Standard For Nominal Sizes: 3/4" to 1" Excluding FMP (6,000 psi / 414 bar Maximum Cold Working Pressure)	Series
S V V9 E9	Nitrile Viton V91A E985	Seal Arrangement
6K 10K	6,000 psi / 414 bar Maximum Cold Working Pressure 10,000 psi / 690 bar Maximum Cold Working Pressure The pressure may be limited by the connection type, please refer to the connection pressure ratings table on page 11	Pressure Rating
NO LETTER LK	Standard Handle Lockable Handle	Handle Options
NO LETTER AV	Standard Vent Anti-Tamper Vent	Vent Operator Options
NO LETTER PV	No Plug Vent (Standard) Plugged Vent	Vent Outlet Options
NO LETTER -NT	Standard F.A.T. Nitrogen F.A.T. (For Gas Service)	F.A.T. Options
<b>NV04 04 F 02 M 5 S 6K LK AV PV -NT</b>		<b>Ordering Example</b>

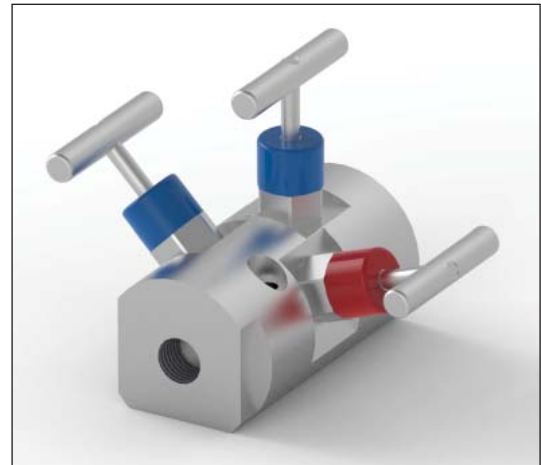
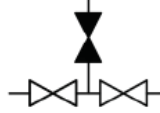
Other options may be available upon request. For more information, please contact Bifold Sales Department.

## NV05

### Typical GA Drawing



#### SCHEMATIC



### NV05 - SELECTION TABLE

Product Code	Size	Rated	Cv (US Gallon)	Flow Rate @ 10bar DP (l/min water)
NV0504F02M5V6K	1/4" NPT	6,000 psi / 414 bar	0.34	16.0
NV0504F02M5V10K	1/4" NPT	10,000 psi / 690 bar	0.34	16.0
NV0508F04F02M5V6K	1/2" NPT	6,000 psi / 414 bar	0.34	16.0
NV0508F04F02M5V10K	1/2" NPT	10,000 psi / 690 bar	0.34	16.0

### Product Description

A 6,000 psi / 414 bar or 10,000 psi / 690 bar rated, double block & bleed manifold. The angled bonnets allow for either panel or pipe mounting. The manifold design permits controlled venting of the instrument for calibration and or removal from the circuit, whilst leaving the process intact.

### Features & Benefits

- Single piece construction reducing leak paths.
- Anti-blow out stem.
- Non-rotating, anti-galling tip as standard.
- Viton / RTFE stem sealing - maintenance free.
- Metal to metal seating.
- Back seating needle.
- Unique patented product, compact design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.
- European patent granted EP2242943.
- Stem seal design prevents galling and contamination.
- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Pressure energised stem sealing.
- Metal to metal body joint to prevent thread contamination.
- Panel mount as standard.

### Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 35 for alternative materials.



NV05

NV05 Selection Chart - Ordering Example

NV05 Double Block & Bleed Needle Valve Manifold		Model Code
04 06 08 09 12 16	1/4" 3/8" 1/2" 9/16" 3/4" 1"	Nominal Pipe Size
F FMP FK6 FSAE	Female NPT Female Medium Pressure (Series 3 and 5 Option Only) Female BSPP Female SAE	Connection Type
NO LETTER 04F	1/4" Female NPT (NO LETTER if Nominal Pipe Size / Connection Type option is 04F) 1/4" Female NPT	Vent Connection
02 26 38 39	UNS S31600 / S31603 Stainless Steel (Standard) F51 / UNS S31803 Duplex LF2 / Carbon Steel F55 / UNS S32760 Super Duplex	Material
M MT	Metal Ball Metal Tip (Standard for Series 8 Option, Non-Standard Materials and Nitrogen F.A.T. Valves)	Tip Style
3 5 8	04FMP Only Standard For Nominal Sizes: 3/4" to 1" Excluding FMP (6,000 psi / 414 bar Maximum Cold Working Pressure)	Series
S V V9 E9	Nitrile Viton V91A E985	Seal Arrangement
6K 10K	6,000 psi / 414 bar Maximum Cold Working Pressure 10,000 psi / 690 bar Maximum Cold Working Pressure The pressure may be limited by the connection type, please refer to the connection pressure ratings table on page 11	Pressure Rating
NO LETTER LK	Standard Handle Lockable Handle	Handle Options
NO LETTER AV	Standard Vent Anti-Tamper Vent	Vent Operator Options
NO LETTER PV	No Plug Vent (Standard) Plugged Vent	Vent Outlet Options
NO LETTER -NT	Standard F.A.T. Nitrogen F.A.T. (For Gas Service)	F.A.T. Options

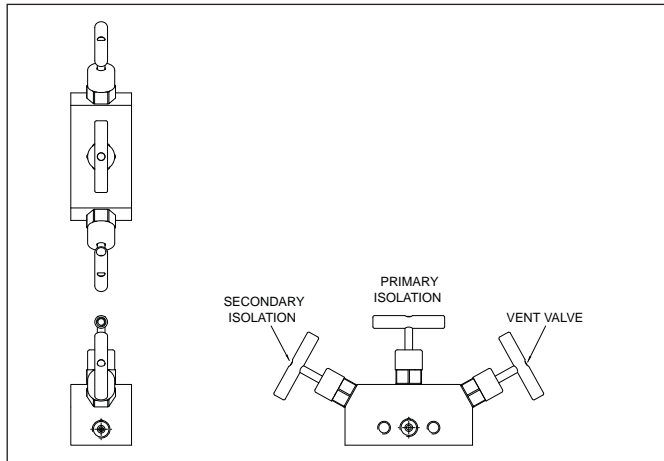
NV05 04 F 02 M 5 S 6K LK AV PV -NT Ordering Example

Other options may be available upon request. For more information, please contact Bifold Sales Department.

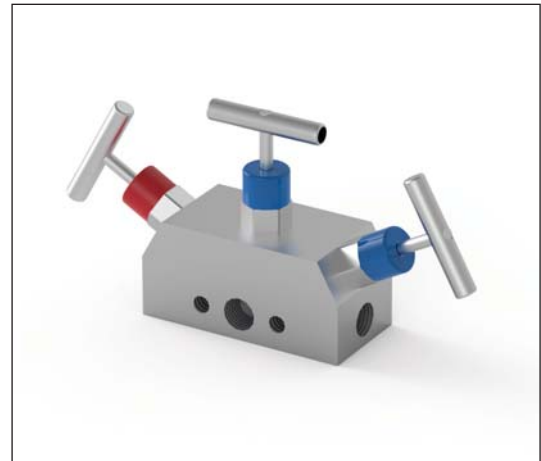
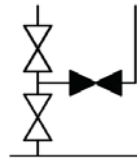
NV06 I



Typical GA Drawing



SCHEMATIC



NV06 I - SELECTION TABLE

Product Code	Size	Rated	Cv (US Gallon)	Flow Rate @ 10bar DP (l/min water)
NV06 I04F02M3V6K	1/4" NPT	6,000 psi / 414 bar	0.12	5.4
NV06 I04F02M3V10K	1/4" NPT	10,000 psi / 690 bar	0.12	5.4

Product Description

A 6,000 psi / 414 bar or 10,000 psi / 690 bar rated, single station double block & bleed gauge / instrument compact panel mounted manifold. The manifold design permits controlled venting of the instrument for calibration and or removal from the circuit, whilst leaving the process intact. This unique design allows direct inline connection to pipe systems, through 1/4" NPT connections, thus eliminating the requirement for additional 'T' and elbow fittings.

Features and Benefits

- Single piece construction reducing leak paths.
- Anti-blow out stem.
- Non-rotating, anti-galling tip as standard.
- Viton / RTFE stem sealing - maintenance free.
- Metal to metal seating.
- Back seating needle.
- Unique patented product, compact design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.
- European patent granted EP2225485.
- Unrestricted through the bore.
- Stem seal design prevents galling and contamination.
- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Pressure energised stem sealing.
- Metal to metal body joint to prevent thread contamination.
- Panel mount as standard.

Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 37 for alternative materials.

**Accuracy of information**  
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NV06 I



NV06 I Selection Chart - Ordering Example

<b>NV06 I</b> Double Block & Bleed Single Station Needle Valve Manifold		Model Code		
<b>04</b> 1/4"	<b>06</b> 3/8"	Nominal Pipe Size		
<b>F</b> Female NPT		Connection Type		
<b>NO LETTER</b> 1/4" Female NPT (NO LETTER if Nominal Pipe Size / Connection Type option is 04F)	<b>04F</b> 1/4" Female NPT	Vent & Gauge Connection		
<b>02</b> UNS S31600 / S31603 Stainless Steel (Standard)	<b>26</b> F51 / UNS S31803 Duplex	<b>38</b> LF2 / Carbon Steel	Material	
<b>39</b> F55 / UNS S32760 Super Duplex				
<b>M</b> Metal Ball	<b>MT</b> Metal Tip (Standard for Non-Standard Materials and Nitrogen F.A.T. Valves)		Tip Style	
<b>3</b> Standard			Series	
<b>S</b> Nitrile	<b>V</b> Viton	<b>V9</b> V91A	<b>E9</b> E985	Seal Arrangement
<b>6K</b> 6,000 psi / 414 bar Maximum Cold Working Pressure		<b>10K</b> 10,000 psi / 690 bar Maximum Cold Working Pressure		Pressure Rating
<b>NO LETTER</b> Standard Handle		<b>LK</b> Lockable Handle		Handle Options
<b>NO LETTER</b> Standard Vent		<b>AV</b> Anti-Tamper Vent		Vent Operator Options
<b>NO LETTER</b> No Plug Vent (Standard)		<b>PV</b> Plugged Vent		Vent Outlet Options
<b>NO LETTER</b> Standard F.A.T.		<b>-NT</b> Nitrogen F.A.T. (For Gas Service)		F.A.T. Options

**NV06 I04 F 04F02 M 3 S 6K LK AV PV -NT** Ordering Example

Other options may be available upon request. For more information, please contact Bifold Sales Department.

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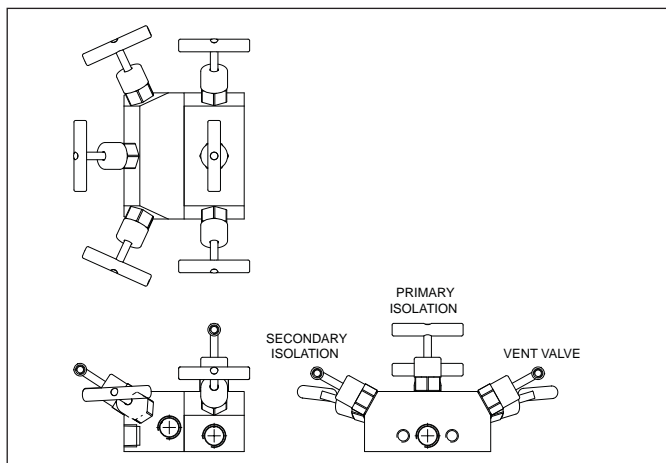
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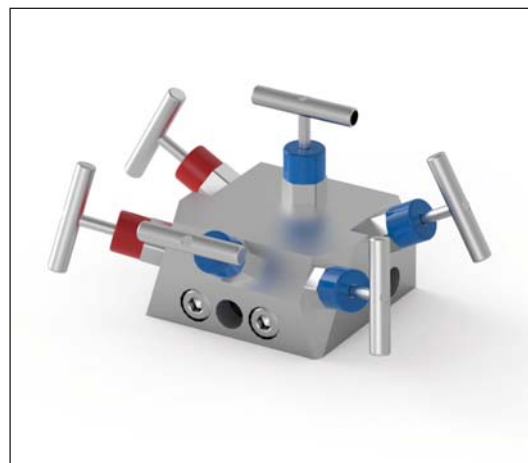
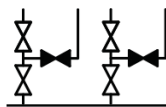
NV06 2



Typical GA Drawing



SCHMATIC



NV06 2 - SELECTION TABLE

Product Code	Size	Rated	Cv (US Gallon)	Flow Rate @ 10bar DP (l/min water)
NV06204F02M3V6K	1/4" NPT	6,000 psi / 414 bar	0.12	5.4
NV06204F02M3V10K	1/4" NPT	10,000 psi / 690 bar	0.12	5.4

Product Description

A 6,000 psi / 414 bar or 10,000 psi / 690 bar rated, two station double block & bleed gauge / instrument compact panel mounted manifold. The manifold design permits controlled venting of the instrument for calibration and or removal from the circuit, whilst leaving the process intact. This unique design allows direct inline connection to pipe systems, through 1/4" NPT connections, thus eliminating the requirement for additional 'T' and elbow fittings.

Features & Benefits

- Each station is a single piece construction, reducing leak paths.
- Anti-blow out stem.
- Non-rotating, anti-galling tip as standard.
- Viton / RTFE stem sealing - maintenance free.
- Metal to metal seating.
- Back seating needle.
- Unique patented product, compact design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.
- Unrestricted through the bore.
- Stem seal design prevents galling and contamination.
- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Pressure energised stem sealing.
- Metal to metal body joint to prevent thread contamination.
- European patent granted EP2225485.
- Panel mount as standard.

Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 39 for alternative materials.

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NV06 2



NV06 2 Selection Chart - Ordering Example

<b>NV06 2</b> Double Block & Bleed Two Station Needle Valve Manifold		Model Code		
<b>04</b> 1/4"	<b>06</b> 3/8"	Nominal Pipe Size		
<b>F</b> Female NPT		Connection Type		
<b>NO LETTER</b> 1/4" Female NPT (NO LETTER if Nominal Pipe Size / Connection Type option is 04F)	<b>04F</b> 1/4" Female NPT	Vent & Gauge Connection		
<b>02</b> UNS S31600 / S31603 Stainless Steel (Standard)	<b>26</b> F51 / UNS S31803 Duplex	<b>38</b> LF2 / Carbon Steel	Material	
<b>39</b> F55 / UNS S32760 Super Duplex				
<b>M</b> Metal Ball	<b>MT</b> Metal Tip (Standard for Non-Standard Materials and Nitrogen F.A.T. Valves)		Tip Style	
<b>3</b> Standard			Series	
<b>S</b> Nitrile	<b>V</b> Viton	<b>V9</b> V91A	<b>E9</b> E985	Seal Arrangement
<b>6K</b> 6,000 psi / 414 bar Maximum Cold Working Pressure	<b>10K</b> 10,000 psi / 690 bar Maximum Cold Working Pressure			Pressure Rating
<b>NO LETTER</b> Standard Handle	<b>LK</b> Lockable Handle			Handle Options
<b>NO LETTER</b> Standard Vent	<b>AV</b> Anti-Tamper Vent			Vent Operator Options
<b>NO LETTER</b> No Plug Vent (Standard)	<b>PV</b> Plugged Vent			Vent Outlet Options
<b>NO LETTER</b> Standard F.A.T.	<b>-NT</b> Nitrogen F.A.T. (For Gas Service)			F.A.T. Options

**NV06 204 F 04F 02 M 3 S 6K LK AV PV -NT** Ordering Example

Other options may be available upon request. For more information, please contact Bifold Sales Department.

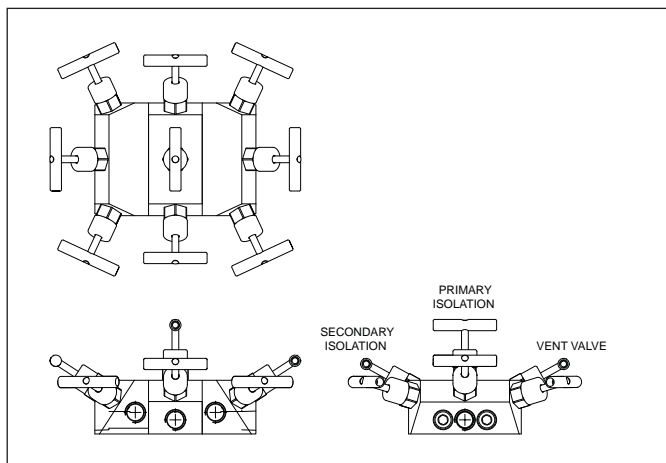
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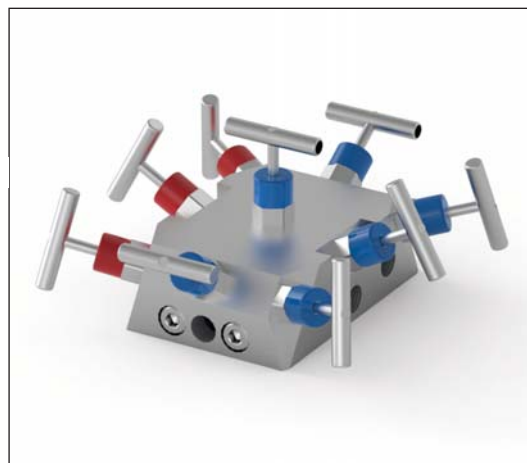
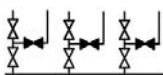
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NV06 3

Typical GA Drawing



SCHMATIC



NV06 3 - SELECTION TABLE

Product Code	Size	Rated	Cv (US Gallon)	Flow Rate @ 10bar DP (l/min water)
NV06304F02M3V6K	1/4" NPT	6,000 psi / 414 bar	0.12	5.4
NV06304F02M3V10K	1/4" NPT	10,000 psi / 690 bar	0.12	5.4

Product Description

A 6,000 psi / 414 bar or 10,000 psi / 690 bar rated, three station double block & bleed gauge / instrument compact panel mounted manifold. The manifold design permits controlled venting of the instrument for calibration and or removal from the circuit, whilst leaving the process intact. This unique design allows direct inline connection to pipe systems, through 1/4" NPT connections, thus eliminating the requirement for additional 'T' and elbow fittings.

Features & Benefits

- Each station is a single piece construction, reducing leak paths.
- Anti-blow out stem.
- Non-rotating, anti-galling tip as standard.
- Viton / RTFE stem sealing - maintenance free.
- Metal to metal seating.
- Back seating needle.
- Unique patented product, compact design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.
- European patent granted EP2225485.
- Unrestricted through the bore.
- Stem seal design prevents galling and contamination.
- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Pressure energised stem sealing.
- Metal to metal body joint to prevent thread contamination.
- Panel mount as standard.

Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 41 for alternative materials.

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NV06 3



NV06 3 Selection Chart - Ordering Example

<b>NV06 3</b> Double Block & Bleed Three Station Needle Valve Manifold		Model Code
<b>04</b>	1/4"	Nominal Pipe Size
<b>06</b>	3/8"	Nominal Pipe Size
<b>F</b>	Female NPT	Connection Type
<b>NO LETTER</b>	1/4" Female NPT (NO LETTER if Nominal Pipe Size / Connection Type option is 04F)	Vent & Gauge Connection
<b>04F</b>	1/4" Female NPT	Vent & Gauge Connection
<b>02</b>	UNS S31600 / S31603 Stainless Steel (Standard)	Material
<b>26</b>	F51 / UNS S31803 Duplex	
<b>38</b>	LF2 / Carbon Steel	
<b>39</b>	F55 / UNS S32760 Super Duplex	
<b>M</b>	Metal Ball	Tip Style
<b>MT</b>	Metal Tip (Standard for Non-Standard Materials and Nitrogen F.A.T. Valves)	
<b>3</b>	Standard	Series
<b>S</b>	Nitrile	Seal Arrangement
<b>V</b>	Viton	
<b>V9</b>	V91A	
<b>E9</b>	E985	
<b>6K</b>	6,000 psi / 414 bar Maximum Cold Working Pressure	Pressure Rating
<b>10K</b>	10,000 psi / 690 bar Maximum Cold Working Pressure	
<b>NO LETTER</b>	Standard Handle	Handle Options
<b>LK</b>	Lockable Handle	
<b>NO LETTER</b>	Standard Vent	Vent Operator Options
<b>AV</b>	Anti-Tamper Vent	
<b>NO LETTER</b>	No Plug Vent (Standard)	Vent Outlet Options
<b>PV</b>	Plugged Vent	
<b>NO LETTER</b>	Standard F.A.T.	F.A.T. Options
<b>-NT</b>	Nitrogen F.A.T. (For Gas Service)	

**NV06 304 F 04F 02 M 3 S 6K LK AV PV -NT** Ordering Example

Other options may be available upon request. For more information, please contact Bifold Sales Department.

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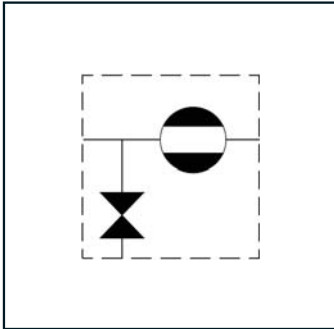
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**Quality Assurance**  
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Product Range

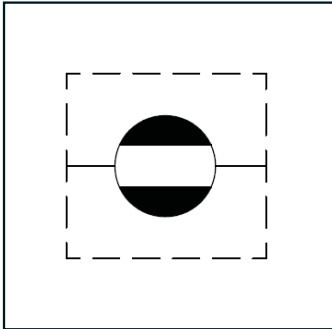


**BV04**



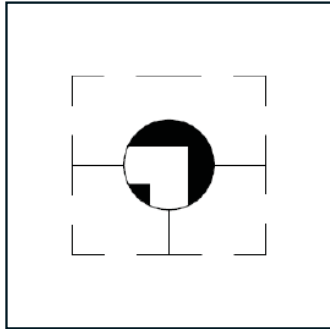
Block & Bleed (Ball/Needle) Manifold

**BV11**



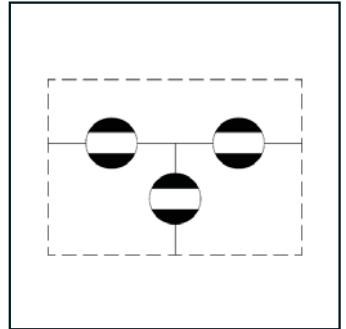
Single Isolate (Trunnion) Ball Valve

**BV12 & BV47**



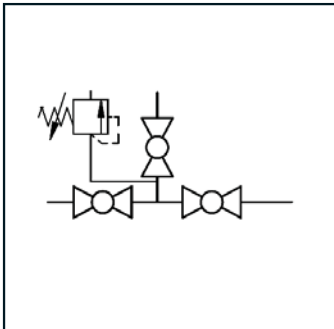
3-Way (Trunnion) Ball Valve

**BV19**



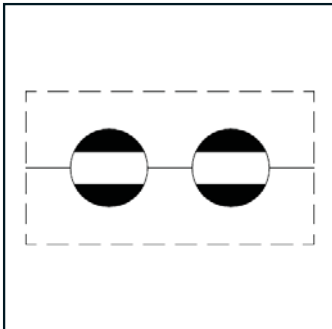
Double Block & Bleed (Ball/Ball/Ball) Manifold

**BV21**



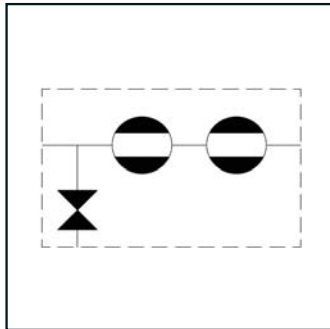
Accumulator Manifold with Pressure Relief Valve

**BV27**



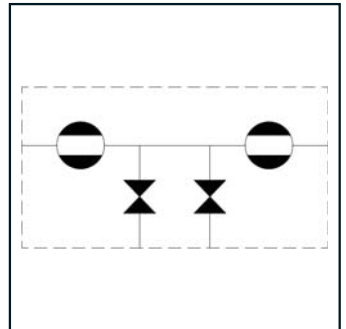
Double Block (Ball/Ball) Manifold

**BV40**



Block/Block/Bleed (Ball/Ball/Needle) Manifold

**BV63**



Double Block & Double Bleed (Ball/Needle/Needle/Ball) Manifold

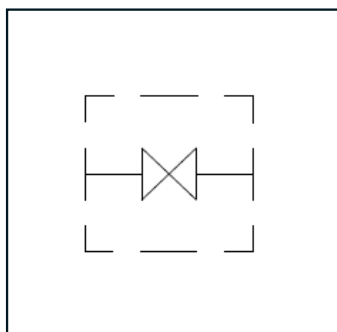
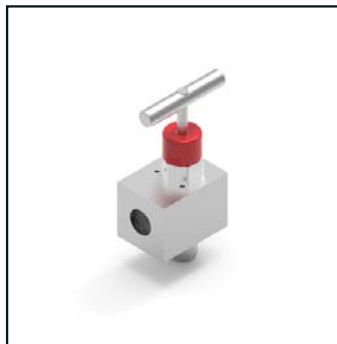
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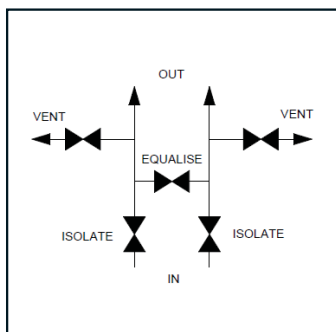
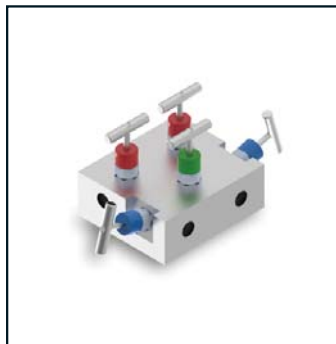
Product Range

NV02



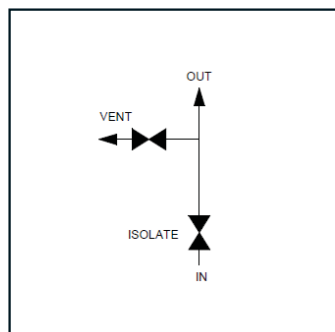
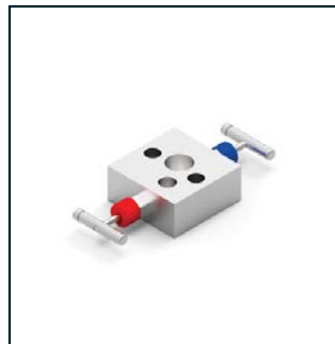
Single Isolate Angled Pattern Needle Valve

NV13



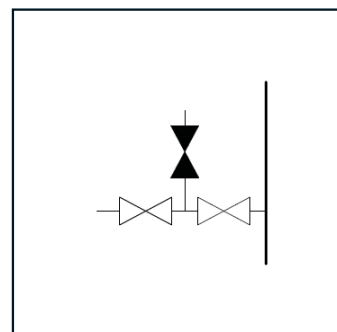
Direct & Remote Mount Manifold (5 Valve Option)

NV21



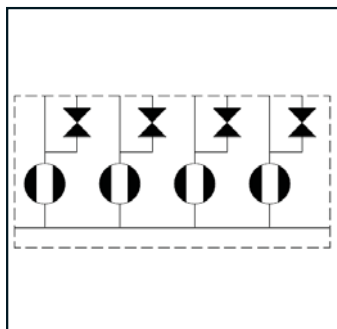
Direct & Remote Mount Manifold (2 Valve Option)

NV55



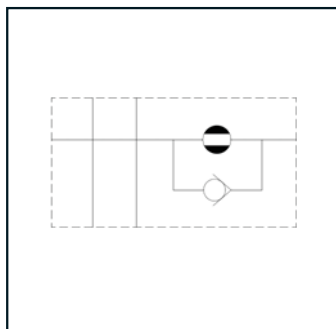
Direct Pipe Mount Double Block & Bleed Needle Valve

BVA1286



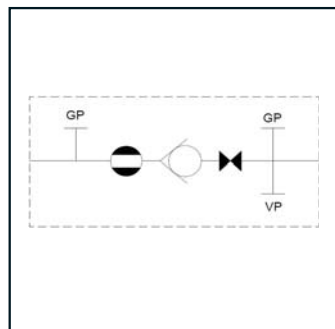
4 Station Block Bleed (Ball/Needle) Manifold (Common Inlet)

BVA1304



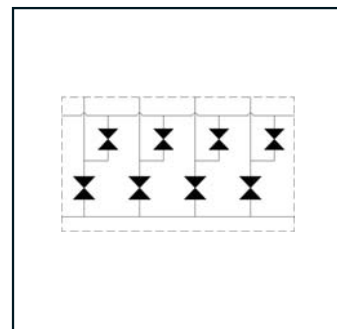
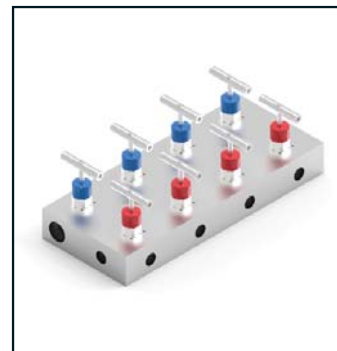
Ball Valve with Bypass Check Valve Manifold

NVA0503



Ball Valve / Check Valve / Needle Valve Manifold

NVA0529



4 Station Block Bleed (Needle/Needle) Manifold (Common Inlet & Vent)

**Pneumatic and  
Instrumentation Valves  
Hydraulic Valves  
Subsea Valves  
Hydraulic Pumps,  
Intensifiers and Valves  
Actuator Electronic  
Control and Positioning**



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Bifold, Bifold Fluidpower, Bifold Subsea, Marshalsea Hydraulics and Bifold Orange are all members of the Bifold Group.

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