

# Instrumentation Ball and 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



## 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 from a single piece body design and is supplied complete with an anti blow out stem and lower torque to operate.

#### **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.





Accuracy of information

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



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## Features & Benefits

### **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 components 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**

#### **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 Catalogue).





**Bifold**®

### **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 range from 10,000 psi / 690 bar up to 20,000 psi / 1380 bar (See our Medium Pressure Catalogue).



#### **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. (See our Manifold Catalogue).











## **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 components to be manufactured on site, assembled to the finished product and tested to rigorous quality standards.

All Bifold valves have product traceability via 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).

# **Bifold ISO9001 Product Certification and Specialist Testing Options Include**

- NACE MR-01-75 / ISO 15156 compliant materials as standard.
- Non destructive testing including LPI, MPI, PMI and Ferrite testing.
- Hydrostatic & Pneumatic testing.
- Nitrogen gas testing.
- Nitrogen / Helium leak detection.
- Low temperature testing.
- Fugitive Emission testing.
- HIC testing and other specialist material tests.







Installation Picture Using Our Ball And Needle Valves



Installation Picture Using Our Ball And Needle Valves



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INSTR	UMENTATION	N PROD	UCTS - BALL VALVES (Up	to and including 10,000 psi / 690 bar)
Product	Schematic Representation	Page Number	Product Code	Product Description
			BV0104F025TT1KLK	1/4"NPT, Single Isolate, Ball configuration 1,000 psi / 70 bar 5mm Bore Lockable Handle
The state of the s			BV0108F029.2TT1KLK	½''NPT, Single Isolate, Ball configuration 1,000 psi / 70 bar 9.2mm Bore Lockable Handle
O. P.	-000-	12	BV0112F0212.5TT1KLK	3/4"NPT, Single Isolate, Ball configuration I,000 psi / 70 bar I2.5mm Bore Lockable Handle
BV0 I Single Isolate Low Pressure Ball Type Reduced Bore			BV0116F0215TT1KLK	I''NPT, Single Isolate, Ball configuration I,000 psi / 70 bar I5mm Bore Lockable Handle
			BV0132F0232TT1KLK	2"NPT, Single Isolate, Ball configuration 1,000 psi / 70 bar 32mm Bore Lockable Handle
			BV0104F0211.5TT2KLK	1/4"NPT, Single Isolate, Ball configuration 2,000 psi / 140 bar 11.5mm Bore Lockable Handle
		13	BV0108F0215TT2KLK	1/2"NPT, Single Isolate, Ball configuration 2,000 psi / 140 bar 15mm Bore Lockable Handle
			BV0112F0220TT2KLK	3/4"NPT, Single Isolate, Ball configuration 2,000 psi / 140 bar 20mm Bore Lockable Handle
BV0 I Single Isolate Low Pressure Ball Type Full Bore			BV0116F0225TT2KLK	I"NPT, Single Isolate, Ball configuration 2,000 psi / 140 bar 25mm Bore Lockable Handle
			BV0132F0250TT1KLK	2"NPT, Single Isolate, Ball configuration 1,000 psi / 70 bar 50mm Bore Lockable Handle
			BV0104F025ERV6K	1/4"NPT, Single Isolate, Ball configuration, 6,000 psi / 414 bar 5mm Bore / Hex Body
4	<b>S</b>	14/15	BV0104F025ERV10K	1/4"NPT, Single Isolate, Ball configuration, 10,000 psi / 690 bar 5mm Bore / Hex Body
BV0 I Single Isolate Ball Type 5mm Bore			BV0106F025ERV6K	3% "NPT, Single Isolate, Ball configuration, 6,000 psi / 414 bar 5mm Bore / Hex Body
			BV0106F025ERV10K	3%"NPT, Single Isolate, Ball configuration, 10,000 psi / 690 bar 5mm Bore / Hex Body



Dona don 1	Schematic	Page		ES (Up to and including 10,000 psi / 690 bar)
Product	Representation		Product Code	Product Description
			BV0104F025EV6KPM	1/4"NPT, Single Isolate, Ball configuration, 6,000 psi / 414 bar 5mm Bore Panel Mount
	<b>N</b> -4	16 / 17	BV0104F025EV10KPM	1/4"NPT, Single Isolate, Ball configuration, 10,000 psi / 690 bar 5mm Bore Panel Mount
BV0 I Single Isolate		16/1/	BV0106F025EV6KPM	3% "NPT, Single Isolate, Ball configuration, 6,000 psi / 414 bar 5mm Bore Panel Mount
Ball Type 5mm Bore Panel Mount			BV0106F025EV10KPM	36''NPT, Single Isolate, Ball configuration, 10,000 psi / 690 bar 5mm Bore Panel Mount
all de la constant de	-1001-	18 / 19	BV0108F0210ERV6K	1/2''NPT, Single Isolate, Ball configuration, 6,000 psi / 414 bar 10mm Bore
BV0 I Single Isolate Ball Type I0mm Bore		10/17	BV0108F0210ERV10K	1/2''NPT, Single Isolate, Ball configuration, 10,000 psi / 690 bar 10mm Bore
	¥	20 / 21	BV0504F02F025ERV6K	1/4"NPT, DBB Manifold / Hex Body, Ball - Needle - Ball configuration, 6,000 psi / 414 bar 5mm Bore 1/8" Vent Bleed
33			BV0504F02F025ERV10K	1/4"NPT, DBB Manifold / Hex Body, Ball - Needle - Ball configuration, 10,000 psi / 690 bar 5mm Bore 1/8" Vent Bleed
BV05 Double Block &	-1001-1001-		BV0506F02F025ERV6K	3%"NPT, DBB Manifold / Hex Body, Ball - Needle - Ball configuration, 6,000 psi / 414 bar 5mm Bore 1%"Vent Bleed
Bleed Manifold / Hex Body			BV0506F02F025ERV10K	%"NPT, DBB Manifold / Hex Body, Ball - Needle - Ball configuration, 10,000 psi / 690 bar 5mm Bore %"Vent Bleed
			BV0504F0210ERV6K	1/4"NPT, DBB Manifold, Ball - Needle - Ball configuration, 6,000 psi / 414 bar 10mm Bore 1/4"Vent Bleed
Service Servic	¥	22 / 23	BV0504F0210ERV10K	1/4"NPT, DBB Manifold, Ball - Needle - Ball configuration. 10,000 psi / 690 bar 10mm Bore 1/4"Vent Bleed
BV05	-1001-1001-		BV0508F04F0210ERV6K	1/2"NPT, DBB Manifold, Ball - Needle - Ball configuration, 6,000 psi / 414 bar 10mm Bore 1/4"Vent Bleed
Double Block & Bleed Manifold			BV0508F04F0210ERV10K	1/2"NPT, DBB Manifold, Ball - Needle - Ball configuration. 10,000 psi / 690 bar 10mm Bore 1/4"Vent Bleed

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INSTRU	MENTATION	PRODU	CTS - NEEDLE VALVES (U	Jp to and including 10,000 psi / 690 bar)
Product	Schematic Representation	Page Number	Product Code	Product Description
			NV0104F02M5V6K	1/4"NPT, Single Isolate, Needle configuration, 6,000 psi / 414 bar
			NV0104F02M5V10K	'/4''NPT, Single Isolate, Needle configuration, 10,000 psi / 690 bar
0		24 / 25	NV0108F02M5V6K	1/2"NPT, Single Isolate, Needle configuration, 6,000 psi / 414 bar
NV0 I Single Isolate			NV0108F02M5V10K	½"NPT, Single Isolate, Needle configuration, 10,000 psi / 690 bar
			NV0304F02M5V6K	1/4"NPT, Block & Bleed Manifold, Needle - Captive Vent Plug configuration, 6,000 psi / 414 bar
	¥	26 / 27	NV0304F02M5V10K	1/4"NPT, Block & Bleed Manifold, Needle - Captive Vent Plug configuration, 10,000 psi / 690 bar
NV03	-WI	20 / 27	NV0308F02M5V6K	1/2"NPT, Block & Bleed Manifold, Needle - Captive Vent Plug configuration, 6,000 psi / 414 bar
Block & Bleed Manifold			NV0308F02M5V10K	1/2"NPT, Block & Bleed Manifold, Needle - Captive Vent Plug configuration, 10,000 psi / 690 bar
9	¥	28 / 29	NV2204F02M3V6K	'/4"NPT, Compact Manifold, Needle - Needle configuration, 6,000 psi / 414 bar, '/4"Vent Bleed
			NV2204F02M3V10K	1/4"NPT, Compact Manifold, Needle - Needle configuration, 10,000 psi / 690 bar, 1/4"Vent Bleed
NV22	-MI		NV2208F04F02M3V6K	1/2"NPT, Compact Manifold, Needle - Needle configuration, 6,000 psi / 414 bar, 1/4"Vent Bleed
Block & Bleed Compact Manifold			NV2208F04F02M3V10K	1/2"NPT, Compact Manifold, Needle - Needle configuration, 10,000 psi / 690 bar, 1/4"Vent Bleed
		30 / 31	NV0404F02M5V6K	'/4''NPT, Block & Bleed Manifold, Needle - Needle configuration, 6,000 psi / 414 bar, '/4''Vent Bleed
	+		NV0404F02M5V10K	'/4''NPT, Block & Bleed Manifold, Needle - Needle configuration, I 0,000 psi / 690 bar, '/4''Vent Bleed
0			NV0408F04F02M5V6K	1/2"NPT, Block & Bleed Manifold, Needle - Needle configuration, 6,000 psi / 414 bar, 1/4"Vent Bleed
NV04 Block & Bleed			NV0408F04F02M5V10K	1/2"NPT, Block & Bleed Manifold, Needle - Needle configuration, I 0,000 psi / 690 bar, 1/4"Vent Bleed
Manifold			THIS PRODUCT DE	ESIGN IS UNIQUE TO BIFOLD AND PATENTED
			NV0504F02M5V6K	'/4''NPT, DBB Manifold, Needle - Needle - Needle configuration, 6,000 psi / 414 bar, '/4''Vent Bleed
	Ľ.		NV0504F02M5V10K	'/4''NPT, DBB Manifold, Needle - Needle - Needle configuration, 10,000 psi / 690 bar, '/4''Vent Bleed
	<b>X</b>	32 / 33	NV0508F04F02M5V6K	1/2"NPT, DBB Manifold, Needle - Needle - Needle configuration, 6,000 psi / 414 bar, 1/4"Vent Bleed
NV05 Double Block &			NV0508F04F02M5V10K	½"NPT, DBB Manifold, Needle - Needle - Needle configuration, 10,000 psi / 690 bar, ¼"Vent Bleed
Bleed Manifold			THIS PRODUCT DE	SIGN IS UNIQUE TO BIFOLD AND PATENTED



INSTRU	MENTATION	PRODU	CTS - NEEDLE VALVES (U	p to and including 10,000 psi / 690 bar)		
Product	Schematic Representation	Page Number	Product Code	Product Description		
	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	34 / 35	NV06104F02M5V6K	1/4"NPT, DBB Single Station Manifold, Needle - Needle - Needle configuration, 6,000 psi / 414 bar		
NV06 Double Block & Bleed Single Station Manifold			NV06104F02M5V10K	1/4"NPT, DBB Single Station Manifold, Needle - Needle - Needle configuration, I 0,000 psi / 690 bar		
			THIS PRODUCT DE	SIGN IS UNIQUE TO BIFOLD AND PATENTED		
		36 /37	NV06204F02M5V6K	1/4"NPT, DBB Two Station Manifold, Needle - Needle - Needle configuration, 6,000 psi / 414 bar		
NV06 Double Block & Bleed Two Station Manifold	X X		NV06204F02M5V10K	1/4"NPT, DBB Two Station Manifold, Needle - Needle - Needle configuration, 10,000 psi / 690 bar		
			THIS PRODUCT DESIGN IS UNIQUE TO BIFOLD AND PATENTED			
		38 /39	NV06304F02M5V6K	1/4"NPT, DBB Three Station Manifold, Needle - Needle - Needle configuration, 6,000 psi / 414 bar		
NV06 Double Block & Bleed Three Station Manifold			NV06304F02M5V10K	1/4"NPT, DBBThree Station Manifold,Needle - Needle - Needle configuration, 10,000 psi / 690 bar		
			THIS PRODUCT DE	SIGN IS UNIQUETO BIFOLD AND PATENTED		

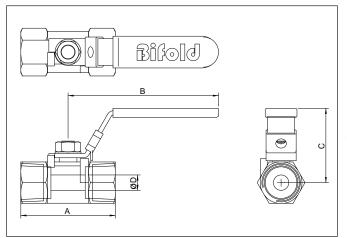
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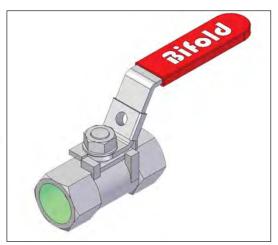


## Typical GA Drawing









		-									
BV01 SELECTION TABLE											
Product Code	Size	Rated	'A' (mm)	'B' (mm)	'C' (mm)	Ø 'D' (mm)	Weight (Kg)				
BV0104F025TT1KLK	1/4" NPT	1,000 psi / 70 bar	39mm	64mm	35mm	5mm	0.07				
BV0108F029.2TT1KLK	1/2" NPT	1,000 psi / 70 bar	56.5mm	90mm	43.5mm	9.2mm	0.16				
BV0112F0212.5TT1KLK	34" NPT	1,000 psi / 70 bar	58mm	90mm	47mm	12.5mm	0.25				
BV0116F0215TT1KLK	I" NPT	1,000 psi / 70 bar	71mm	I03mm	50mm	I5mm	0.43				
BV0132F0232TT1KLK	2" NPT	1,000 psi / 70 bar	I00mm	I27mm	74.5mm	32mm	1.50				

## **Product Description**

A 1,000 psi / 70 bar rated Single Isolate 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 and Benefits**

- Two piece construction reducing leak paths.
- Bi-directional.
- Precision machined stainless steel ball.
- PTFE seating to the ball.

- Tamperproof 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 as standard. Operating temperature range -40°C to +200°C as standard.

Accuracy of information

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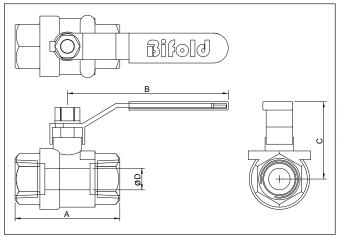
When selecting a product, the applicable operating system design must be considered to ensure safe use. The product function, material compatibility, adequate ratings, correct installation, operation and maintenance are the

Quality Assurance
All Bildiol 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 ISC 9001.2008. Functional east certificate, letter of
conformity and copies of original mill certificates, providing
total tracebility are available on request, to BS EN 10204 3.1

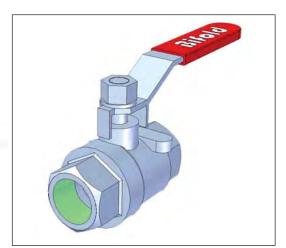












		BV	01 SELECTIO	ON TABLE				
Product Code	Size	Rated	'A' (mm)	'B' (mm)	'C' (mm)	Ø 'D' (mm)	Weight (Kg)	
BV0104F0211.5TT2KLK	1/4" NPT	2,000 psi / 140 bar	55mm	I00mm	50mm	II.5mm	0.285	
BV0108F0215TT2KLK	1/2" NPT	2,000 psi / 140 bar	65mm	I30mm	60mm	15mm	0.430	
BV0112F0220TT2KLK	34" NPT	2,000 psi / 140 bar	74mm	I30mm	64mm	20mm	0.660	
BV0116F0225TT2KLK	I" NPT	2,000 psi / 140 bar	88mm	165mm	71mm	25mm	0.895	
BV0132F0250TT1KLK	2" NPT	1,000 psi / 70 bar	I25mm	I90mm	95mm	50mm	3.400	

## **Product Description**

A 1,000 psi / 70 bar or 2,000 psi / 140 bar rated Single Isolate 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 and Benefits**

- Two piece construction reducing leak paths.
- Bi-directional.
- Precision machined stainless steel ball.
- PTFE seating to the ball.

- Tamperproof lockable handle as standard.
- Compact design to save space and weight.
- Bubble tight shut-off.

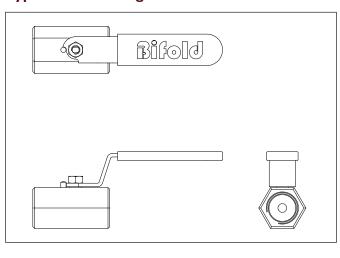
## **Technical Data**

Material grade - ASTM A351 CF8M stainless steel body as standard. Operating temperature range -40°C to +200°C as standard.

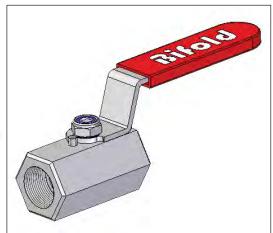
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## Typical GA Drawing









	PREFERRED RANGE BV01 SELECTION TABLE										
Product Code	Size	Rated	Bore (mm)	Single Isolate Ball Configuration, 5mm Bore, Hex Body							
BV0104F025ERV6K	1/4" NPT	6,000 psi / 414 bar	5mm								
BV0104F025ERV10K	1/4" NPT	10,000 psi / 690 bar	5mm	Full dimensions and additional details on request.							
BV0106F025ERV6K	3/8" NPT	6,000 psi / 414 bar	5mm	details on request.							
BV0106F025ERV10K	3/8" NPT	10,000 psi / 690 bar	5mm	See selection table on page 15 for options							

## **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 and Benefits**

- Two piece construction reducing leak paths.
- 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.

## **Technical Data**

Material grades - UNS S31600 / S31603 Stainless Steel (Standard Material). See selection table on page 15 for alternative materials. Operating temperature range -20°C to +180°C as standard. Alternative temperature range -45°C to +225°C. Inlet / Outlet connections can be threaded Male / Male, Male / Female, Female / Male, butt weld and socket weld.

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## **BV01 Selection Chart - Ordering Example**

BV01		Single Is	solatio	n Ball\	/alve /	Hex B	ody			Model Code
04 06		/4" 8/8"								Nominal Pipe Size
	F M FM MF SW BW FMP	Male T Femal Male T Socke Butt V	Thread t Weld Veld	ad Inle Inlet /	Femal	e Thre	ad Outlet ad Outlet			Connection Type
		NO LET K6 BSPT SAE	TER	B B	SP Par SP Tap		ŕ			Thread Form
		NO PG	LETT	ΓER			Inlet / Outlet) tted With A Pressu	ıre Plug		Option For Threaded Inlet / Outlet
			02 26 38 39	F L	51 / U F2 / C	NS S3 arbon	S31603 Stainless 1803 Duplex Steel 2760 Super Duples		l Material)	Material
				5	5	imm B	ore			Bore Size
					T TG E TC	P	TFE Glass Filled PTFE EEK Carbon Filled PEEK	6,000 psi Max 10,000 psi Ma	imum Cold Working Pressure imum Cold Working Pressure ximum Cold Working Pressure ximum Cold Working Pressure	Seat Material
						RV RV9 RE9	RTFE / Viton I RTFE / V91A RTFE / E985 I	Elastomer	-20°C to +180°C -45°C to +225°C -46°C to +160°C	Seal Arrangement Stem and Body
							3K 3,000 p 6K 6,000 p 10K 10,000	osi / 207 bar Ma osi / 414 bar Ma psi / 690 bar N ssures available	kimum Cold Working Pressure aximum Cold Working Pressure aximum Cold Working Pressure Maximum Cold Working Pressure e within the medium pressure	Pressure Rating
							test. For v	Gas S F.A.T only incl	Options required) Service / Nitrogen test * udes hydrostatic and 6 bar air ed on gas service, optional ecified.	Options
BV01 04	F		02	5	E	RV	IOK		BV0104F025ERV10K	Ordering Example

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



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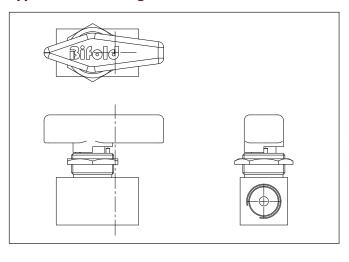
When selecting a product, the applicable operating syster design must be considered to ensure safe use. The produ function, material compatibility, adequate ratings, correct installation, operation and maintenance are the responsibilities of the system designer and user.

Quality Assurance
All Biold products are manufactured to a most stringent
QA programme to ensure that every product will give optimum
performance and realishility. We are third party certified to
BE NI ISO 9001:2008. Functional test certificate, letter of
conformity and copies of original mill certificates, providing
rotal traceability are available on request, to BS EN ISO 43.1
where available. We reserve the right to make changes



## Typical GA Drawing









	PREFERRED RANGE BV01 SELECTION TABLE										
Product Code	Size	Rated	Bore (mm)	Single Isolate Ball Configuration, 5mm Bore, Panel Mount.							
BV0104F025EV6KPM	1/4" NPT	6,000 psi / 414 bar	5mm	'							
BV0104F025EV10KPM	1/4" NPT	10,000 psi / 690 bar	5mm	Full dimensions and additional details on request.							
BV0106F025EV6KPM	3%" NPT	6,000 psi / 414 bar	5mm	details of request.							
BV0106F025EV10KPM	3%" NPT	10,000 psi / 690 bar	5mm	See selection table on page 17 for options							

## **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 and Benefits**

- Two piece construction reducing leak paths.
- Bi-directional.
- Precision machined stainless steel ball.
- Pointer type handle as standard.
- 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 Material). See selection table on page 17 for alternative materials. Operating temperature range -20°C to +180°C as standard. Alternative temperature range -45°C to +225°C. Inlet / Outlet connections can be threaded Male / Male, Male / Female, Female / Male, butt weld and socket weld.

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## **BV01 Selection Chart - Ordering Example**

<b>/</b> 01			ngle Is	olatio	n Ball	Valve	Panel I	Mount					Model Code
04		1/4" 3/8"											Nominal Pipe Size
	F M FM MF SW BW FMF	1 F 1 S E	Male T emale Male T Socket Butt W emale	hread Weld Veld Med	ad Inlet Inlet I	/ Fema	ale Thr	read O					Connection Type
	NO LETTER (NPT, SW, BW, FMP)  K6 BSP Parallel  BSPT BSP Taper  SAE SAE Straight Thread								Thread Form				
			NO PG	LET	ΓER				/ Outlet) Vith A Pres	sure F	Plug		Option For Threa Inlet / Outlet
				02 26 38 39		F51 / U LF2 / G	JNS S Carbor	31803 n Steel	603 Stainless Duplex Super Dupl		l (Standard Material)		Material
		-			5		5mm	Bore					Bore Size
						T TG E TC	i	PEEK	illed PTFE n Filled PEEK	6,0 10,	000 psi Maximum Cold Workir 000 psi Maximum Cold Workir ,000 psi Maximum Cold Work ,000 psi Maximum Cold Work	g Pressure ng Pressure	Seat Material
							V V9 E9	V	ton Elastom 91A Elaston 985 Elastom	ner	-20°C to +180°C -45°C to +225°C -46°C to +160°C		Seal Arrangement Stem and Body
								1	3,000 6,000 10,00	psi / 2 psi / 4 0 psi / essur	70 bar Maximum Cold Workir 207 bar Maximum Cold Work 414 bar Maximum Cold Work 690 bar Maximum Cold Wor es available within the mediun talogue).	ing Pressure ing Pressure king Pressure	Pressure Rating
									test. For	Gas S d F.A. valves	I Mount as Standard Service / Nitrogen test * T only includes hydrostatic an s to be used on gas service, op nust be specified.		Options
/01 04	F			02	5	E	V	IOK	PM		BV0104F025	EVI0KPM	Ordering Exam

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

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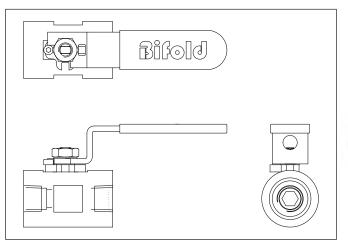
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Quality Assurance
All Biold products are manufactured to a most stringent
QA programme to ensure that every product will give optimum
performance and reliability. We are third party certified to
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conformity and copies of original mill certificates, providing
total traceability are available on request, to BS EN I0204 3.1
where available. We reserve the rinht to make chants.



## Typical GA Drawing







		PREFERRED RA	ANGE BV01	SELECTION TABLE
Product Code	Size	Rated	'A' (mm)	Single Isola Full dimensions and
BV0108F0210ERV6K	½" NPT	6,000 psi / 414 bar	I0mm	
BV0108F0210ERV10K	½" NPT	10,000 psi / 690 bar	I0mm	See selection ta

Single Isolate, Ball Configuration.

Full dimensions and additional details on request.

See selection table on page 19 for options.

## **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 and Benefits**

- Two piece construction reducing leak paths.
- Anti-blow out stem internally loaded.
- Bi-directional.
- Precision machined stainless steel ball.
- Lever type handle as standard.
- Tamperproof lockable handle (Option available).
- 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 Material). See selection table on page 19 for alternative materials. Operating temperature range -20°C to +180°C as standard. Alternative temperature range -45°C to +225°C. Inlet / Outlet connections can be threaded Male / Male, Male / Female, Female / Male, butt weld and socket weld.

Accuracy of information

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performance and reliability. We are third party certified to
BS EN ISG 9001-2008. Functional test certificate, letter of
conformity and cogiest of original mill certificates, providing
total traceability are available on request, to BS EN 10204 3.1
where available. We reserve the richt to make chamber.





## **BV01 Selection Chart - Ordering Example**

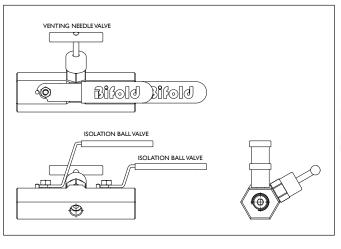
V0I			ngle Is	olatio	n Ball'	Valve					Model Code
04 06 08 09 12 16		1/4" 3/8" 1/2" 9/16" 3/4" 1"		6,00 6,00	0 psi 1 0 psi 1	Maximum C Maximum C	old Wor	·king Pres	sure (For Mediur sure (For Mediur	m Pressure 10,000 psi Maximum) m Pressure 10,000 psi Maximum)	Nominal Pipe Size
	F M FM MF SW BW FMI	 	Male Temale Male Tocket Butt V	hread Weld eld	ad Inle	et / Male Th					Connection Type
		NO K6 BSP SAE		ΓER	B B	IPT, SW, BW SP Parallel SP Taper AE Straight	,				Thread Form
			NO PG	LETT	ER		d Inlet / Fitted W		ssure Plug		Option For Threa
				02 26 38 39	F L	JNS S31600 F51 / UNS S F2 / Carbo F55 / UNS S	31803 D n Steel	Duplex	ss Steel (Standard	d Material)	Material
					10	I 0mn	n Bore		04 06 08 09 12		Bore Size
		20 20mm Bore   12 16									
						TG CG	Carbon PEEK	led PTFE Graphite Filled PEE	6,000 psi M 6,000 psi M 10,000 psi I	laximum Cold Working Pressure laximum Cold Working Pressure laximum Cold Working Pressure Maximum Cold Working Pressure Maximum Cold Working Pressure	Seat Material
						H RV RV RE	' R'	TFE / V9	on Elastomer A Elastomer 35 Elastomer	-100°C to +225°C -20°C to +180°C -45°C to +225°C -46°C to +160°C	Seal Arrangement Stem and Body
								3,000 6,000 10,00 Higher F	) 9 psi / 207 bar Ma 9 psi / 414 bar Ma 90 psi / 690 bar N	ximum Cold Working Pressure aximum Cold Working Pressure aximum Cold Working Pressure Maximum Cold Working Pressure within the medium pressure	Pressure Rating
								test. Fo	Lockable Hand Panel Mount Pointer Paddle Gas Service / N ard F.A.T only incl	Handle Jitrogen test * Judes hydrostatic and 6 bar air ed on gas service, optional	Options
		1	1						<u> </u>		

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

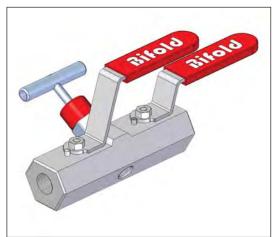


## Typical GA Drawing









	PF	REFERRED RAN	NGE BV05 SE
Product Code	Size	Rated	Bore (mm)
BV0504F02F025ERV6K	1/4" NPT	6,000 psi / 414 bar	5mm
BV0504F02F025ERV10K	1/4" NPT	10,000 psi / 690 bar	5mm
BV0506F02F025ERV6K	%" NPT	6,000 psi / 414 bar	5mm
BV0506F02F025ERV10K	¾" NPT	10,000 psi / 690 bar	5mm

Double Block & Bleed Manifold, Ball - Needle - Ball configuration. 5mm Bore / Hex Body

Full dimensions and additional details on request.

See selection table on page 21 for options.

## **Product Description**

A Double Block & Bleed Ball-Needle-Ball Valve Manifold with pressures rated up to 10,000 psi / 690 bar. Manufactured from forged 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 and Benefits**

- Anti-blow out stem internally loaded.
- Bi-directional.
- Precision machined stainless steel balls.
- Lever type handles as standard.
- Tamperproof lockable handle is available on the vent. (Option available).
- 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 seal and O-Ring body seals.
- Stem seal design prevents galling and contamination.
- Panel mount as standard.

**ELECTION TABLE** 

- 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 Material). See selection table on page 21 for alternative materials. Operating temperature range -20°C to +180°C as standard. Alternative temperature range -45°C to +225°C. Inlet / Outlet connections can be threaded Male / Male, Male / Female, Female / Male, butt weld and socket weld.

Accuracy of information

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Quality Assurance
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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 to original mill certificates, providing
total tracebility are available on request, to 85 EN 10204 31.
Where available. We reserve the richt no mule changes.





## **BV05 Selection Chart - Ordering Example**

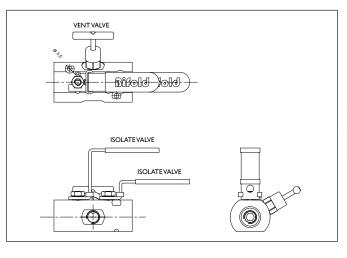
04 06		Double	e Blocl	k &	Blee	M be	lanii	told / I	Hex Bo	ody				Model Code
	1/4' 3/8 <b>'</b>	1												Nominal Pipe Si
	F M FM MF SW BW FMP	Male Fem: Male Sock Butt	iale Thi e Threa iale Thi e Threa ket We t Weld nale Me	ad read ad Ir eld	d Inle	/ Fer	mal	e Thre						Connection Typ
	K	NO LE <sup>T</sup> K6 BSPT SAE	TTER	L	B B	SP P SP T	ara ape		,					Thread Form
		NC PG	O LET	ГТЕ	:R					Outlet) /ith A Press	ure	Plug		Option For Thr Inlet / Outlet
			02F	=				½" N	NPT					Vent Connectio
				3	12 16 18 19		F5 LF2	1 / UN 2 / Cai	IS S318 rbon S	803 Duplex	(	ss Steel (Standard Material) llex		Material
				T		5		5m	m Bor	re				Bore Size
						T	T TG E P TC		PEEK PPS	filled PTFE n Filled PEEK		1,000 psi Maximum ColdWorking Pn 6,000 psi Maximum ColdWorking Pn 10,000 psi Maximum ColdWorking P 10,000 psi Maximum ColdWorking P 10,000 psi Maximum ColdWorking P 10,000 psi Maximum ColdWorking Pn	essure ressure ressure	Seat Material
								RV RV9 RE9	R	FE / Viton E FFE / V9 I A FFE / E98E E	Elas	stomer		Seal Arrangeme
										3,000 ps 6,000 ps 10,000 p	si / si / psi / ssur	70 bar Maximum Cold Working Pr 207 bar Maximum Cold Working F 414 bar Maximum Cold Working F / 690 bar Maximum Cold Working res available within the medium pre talogue).	Pressure Pressure Pressure	Pressure Rating
									P N *	V Plu IT Ga Standard F. est. For valv	iti Ta igge is Se A.T ves	amper Vent d Vent ervice / Nitrogen test * only includes hydrostatic and 6 ba to be used on gas service, optional ust be specified.		Options

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

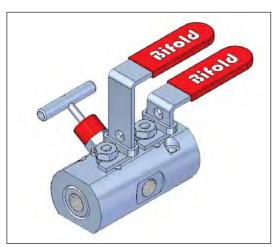


## Typical GA Drawing









ELECTION TABLE	NGE BV05 SE	REFERRED RAN	PF	
Double B Ball - Nee	Bore (mm)	Rated	Size	Product Code
	I0mm	6,000 psi / 414 bar	1/4" NPT	BV0504F0210ERV6K
Full dime	I0mm	10,000 psi / 690 bar	1/4" NPT	BV0504F0210ERV10K
i de	I0mm	6,000 psi / 414 bar	½" NPT	BV0508F04F0210ERV6K
See selection t	I0mm	10,000 psi / 690 bar	½" NPT	BV0508F04F0210ERV10K

Double Block & Bleed Manifold, Ball - Needle - Ball configuration.

Full dimensions and additional details on request.

See selection table on page 23 for options.

## **Product Description**

A Double Block & Bleed Ball-Needle-Ball Valve Manifold with pressures rated up to 10,000 psi / 690 bar. Manufactured from forged 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 and Benefits**

- Anti-blow out stem internally loaded.
- Bi-directional.
- Precision machined stainless steel balls.
- Lever type handles as standard.
- Tamperproof lockable handle is available on both isolates and vents. (Option available).
- 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 seal 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 Material). See selection table on page 23 for alternative materials. Operating temperature range -20°C to +180°C as standard. Alternative temperature range -45°C to +225°C. Inlet / Outlet connections can be threaded Male / Male, Male / Female, Female / Male, butt weld and socket weld.

Accuracy of informatio

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BS EN ISO 9001:2008. Functional test certificate, letter of
conformity and copies to original mill certificates, providing
total traceability are available on request, to BS EN I0204 3.1
where available. We reserve the richt name character.





## **BV05 Selection Chart - Ordering Example**

BV05		Double	e Block & Bl	eed Manifold		Model Code							
04 06 08 09 12 16	3, 1, 9, 3,	/4" /8" /2" /16" /4"	6,000 psi 6,000 psi	6,000 psi Maximum Cold Working Pressure (For Medium Pressure 10,000 psi Maximum) 6,000 psi Maximum Cold Working Pressure (For Medium Pressure 10,000 psi Maximum)									
	F M FM MF SW BW FMF	Male Fema Male Sock Butt		nlet / Male Thread Outlet et / Female Thread Outlet Pressure	Connection Type								
		NO LET K6 BSPT SAE	TTER	(NPT, SW, BW, FMP) BSP Parallel BSP Taper SAE Straight Thread		Thread Form							
		NC PG	LETTER	(Standard Inlet / Outlet) Outlet Fitted With A Pressur	~ Plug	Option For Threaded Inlet / Outlet							
			NO LET 04F 08F			Vent Connection							
			02 26 38 39	26 F51 / UNS S31803 Duplex 38 LF2 / Carbon Steel									
				10 I 0mm Bore 04 06 08 09 12									
				20 20mm Bore	12 16								
				T PTFE TG Glass Filled PTFE CG Carbon Graphite E PEEK P PPS TC Carbon Filled PEEK	1,000 psi Maximum Cold Working Pressure 6,000 psi Maximum Cold Working Pressure 6,000 psi Maximum Cold Working Pressure 10,000 psi Maximum Cold Working Pressure 10,000 psi Maximum Cold Working Pressure 10,000 psi Maximum Cold Working Pressure	Seat Material							
				RV RTFE / Viton Ela RV9 RTFE / V91A El RE9 RTFE / E985 Ela	astomer -45°C to +225°C	Seal Arrangement							
			/ 70 bar Maximum Cold Working Pressure / 207 bar Maximum Cold Working Pressure / 414 bar Maximum Cold Working Pressure is / 690 bar Maximum Cold Working Pressure ures available within the medium pressure catalogue).	Pressure Rating									
		Options											
BV05 04	F		02	IO E RV IOK	BV0504F0210ERV10K	Ordering Example							
· · · · ·	Г.		02	t For more information places center		Ordering Example							

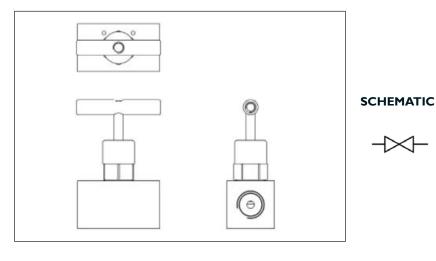
Other options may be available upon request. For more information, please contact Bifold Sales Department.



## **NV0I**

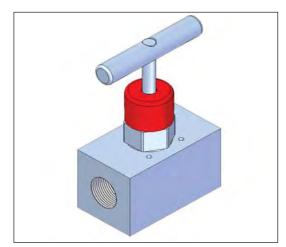
## Typical GA Drawing











	PF	REFERRED RAN	IGE NV01 SI
Product Code	Size	Rated	Bore (mm)
NV0104F02M5V6K	1/4" NPT	6,000 psi / 414 bar	5mm
NV0104F02M5V10K	1/4" NPT	10,000 psi / 690 bar	5mm
NV0108F02M5V6K	½" NPT	6,000 psi / 414 bar	5mm
NV0108F02M5V10K	½" NPT	10,000 psi / 690 bar	5mm

Single Isolate, Needle configuration.

Full dimensions and additional details on request.

See selection table on page 25 for options.

## **Product Description**

A 6,000 psi / 414 bar or 10,000 psi / 690 bar rated Single Isolate 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 and Benefits**

- Robust one piece body construction.
- Anti-blow out stem.
- Non-rotating, anti-galling tip as standard.
- Viton / RTFE stem sealing maintenance free.
- Metal to Metal seating.
- Unique 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.
- Anti Tamper T-Bar option.
- Pressure energised stem sealing.

**ELECTION TABLE** 

Metal to Metal body joint to prevent thread contamination.

#### **Technical Data**

Material grades - UNS S31600 / S31603 Stainless Steel (Standard Material). See selection table on page 25 for alternative materials. Operating temperature range -20°C to +180°C as standard. Alternative temperature range -45°C to +225°C. Inlet / Outlet connections can be threaded Male / Male, Male / Female, Female / Male, butt weld and socket weld.





## **NV01 Selection Chart - Ordering Example**

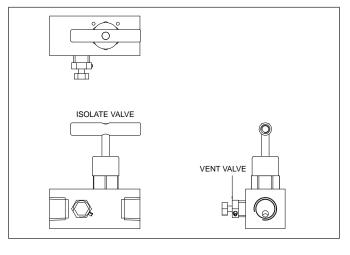
NV01		Sin	igle Iso	olate	<u>:</u>					Model Code	
04 06 08 09 12 16		1/4" 3/8" 1/2" 9/16" 3/4" 1"		6,00	00 psi	Maxii Maxii	mum mum	Cold Working Pressure (F Cold Working Pressure (F	for Medium Pressure 10,000 psi Maximum) for Medium Pressure 10,000 psi Maximum)	Nominal Pipe Size	
	F M FM MF SW BW FMP	F N S B	emale Jale TI emale Jale TI ocket Butt W emale	hread Thread hread Weld	Connection Type						
		NO K6 BSP SAE		TER	l	BSP BSP	Para Tape			Thread Form	
			NO PG	LE1	TER	2	(Sta	andard Inlet / Outlet) utlet Fitted With A Pressur	e Plug	Option For Threaded Inlet / Outlet	
				02 26 38 39		F51 LF2	S S3   / UN / Ca	1600 / S31603 Stainless Ste NS S31803 Duplex rbon Steel NS S32760 Super Duplex		Material	
					M MT			etal Ball etal Tip		Tip Style	
	5 5mm Bore 04 06 08 09 12						06 08 09	Bore Size			
						8		8mm Bore	12 16		
							V V9 E9	Viton Elastomer V91A Elastomer E985 Elastomer	-20°C to +180°C -45°C to +225°C -46°C to +160°C	Seal Arrangement	
								<b>10K</b> 10,000 psi / 690	bar Maximum Cold Working Pressure 0 bar Maximum Cold Working Pressure vailable within the medium pressure gue).	Pressure Rating	
						Options					
NV0108	F	į	i	02	M	5	V	6K	NV0108F02M5V6K	Ordering Exam	

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

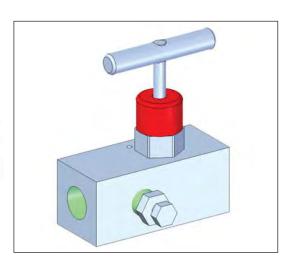


## Typical GA Drawing









	PR	REFERRED RAN	IGE NV03 SI
Product Code	Size	Rated	Bore (mm)
NV0304F02M5V6K	1/4" NPT	6,000 psi / 414 bar	5mm
NV0304F02M5V10K	1/4" NPT	10,000 psi / 690 bar	5mm
NV0308F02M5V6K	½" NPT	6,000 psi / 414 bar	5mm
NV0308F02M5V10K	½" NPT	10,000 psi / 690 bar	5mm

Block & Bleed Manifold, Needle - Captive Vent Plug configuration.

Full dimensions and additional details on request.

See selection table on page 27 for options.

#### **Product Description**

A Single Isolate 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 and Benefits**

- Robust one piece body construction.
- 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.
- Unique 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.
- Anti Tamper T-Bar option.
- Pressure energised stem sealing.

**ELECTION TABLE** 

 Metal to Metal body joint to prevent thread contamination.

#### **Technical Data**

Material grades - UNS S31600 / S31603 Stainless Steel (Standard Material). See selection table on page 27 for alternative materials. Operating temperature range -20°C to +180°C as standard. Alternative temperature range -45°C to +225°C. Inlet / Outlet connections can be threaded Male / Male, Male / Female, Female / Male, butt weld and socket weld.

Accuracy of information

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Quality Assurance
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performance and reliability. We are third party certified to
BS EN ISG 9001-2008. Functional test certificate, letter of
conformity and copiest of original mill certificates, providing
total traceability are available on request, to BS EN 10204 3.1
where workship.





## **NV03 Selection Chart - Ordering Example**

NV03		Blo	ock &	Blee	ed Ma	nifo	ld	•		Model Code				
04 06 08 09 12	: !	1/4" 3/8" 1/2" 9/6" 3/4" 6,000 psi Maximum Cold Working Pressure (For Medium Pressure 10,000 psi Maximum) 6,000 psi Maximum Cold Working Pressure (For Medium Pressure 10,000 psi Maximum)  F Female Thread												
	F M FM MF SW BW FMF	1 F 1 S	Connection Type											
		NO K6 BSP SAE		TER		BSF BSF	Para PTape			Thread Form				
	'		NO PG	LE1	TTER		(Sta	andard Inlet / Outlet) utlet Fitted With A Pressure	a Plug	Option For Threade Inlet / Outlet				
				02 26 38 39		F5 I LF2	IS S3   / U1   / Ca		0 / S31603 Stainless Steel (Standard Material) S31803 Duplex on Steel					
					M M	г		etal Ball etal Tip		Tip Style				
							5	5mm Bore	04 06 08 09 12	Bore Size				
						1	3	8mm Bore	12 16					
		1									V V9 E9		-20°C to +180°C -45°C to +225°C -46°C to +160°C	Seal Arrangement
										<b>10K</b> 10,000 psi / 69	bar Maximum Cold Working Pressure 0 bar Maximum Cold Working Pressure vailable within the medium pressure gue).	Pressure Rating		
								PM Panel Mou NT Gas Servic * Standard F.A.T only	e / Nitrogen test * y includes hydrostatic and 6 bar air e used on gas service, optional	Options				
NV03 08	F			02	М	5		6K	NV0308F02M5V6K	Ordering Example				

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

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Quality Assurance

All Bild of products are manufactured to a most stringent

Ab programme to ensure that every product will give optimum

beformance and reliability. We are third party certified to

SE IN ISO 9001:2008. Functional test certificate, letter of

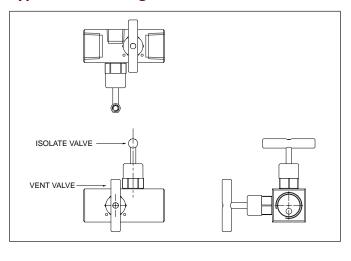
conformity and copies of original mill certificates, providing

roult traceability are available on request, to SE SIN 10204.3.1

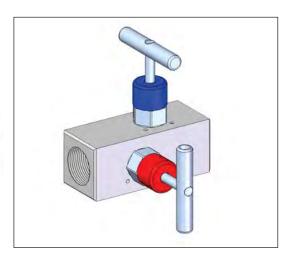
where available. We reserve the right to make changes

## Typical GA Drawing









	PR	REFERRED RAN	IGE NV22 SE
Product Code	Size	Rated	Bore (mm)
NV2204F02M3V6K	1/4" NPT	6,000 psi / 414 bar	3mm
NV2204F02M3V10K	1/4" NPT	10,000 psi / 690 bar	3mm
NV2208F04F02M3V6K	½" NPT	6,000 psi / 414 bar	3mm
NV2208F04F02M3V10K	½" NPT	10,000 psi / 690 bar	3mm

Block & Bleed Compact Manifold, Needle - Needle configuration.

Full dimensions and additional details on request.

See selection table on page 29 for options.

#### **Product Description**

A 6,000 psi / 414 bar or 10,000 psi / 690 bar rated 2 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 and Benefits**

- Robust one piece body construction.
- Anti-blow out stem.
- Non-rotating, anti-galling tip as standard.
- Viton / RTFE stem sealing maintenance free.
- Metal to Metal seating.
- Back seating needle.
- Compact in design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.

- 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.
- Anti Tamper T-Bar option.
- Pressure energised stem sealing.

ELECTION TABLE

Metal to Metal body joint to prevent thread contamination.

#### **Technical Data**

Material grades - UNS S31600 / S31603 Stainless Steel (Standard Material). See selection table on page 29 for alternative materials. Operating temperature range -20 $^{\circ}$ C to +180 $^{\circ}$ C as standard. Alternative temperature range -45 $^{\circ}$ C to +225 $^{\circ}$ C. Inlet / Outlet connections can be threaded Male / Male, Male / Female, Female / Male, butt weld and socket weld.

Accuracy of information

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Quality Assurance
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QA programme to ensure that every product will give optimum
performance and reliability. We are third party certified to
BS EN ISG 9001-2008. Functional test certificate, letter of
conformity and cogiest of original mill certificates, providing
total traceability are available on request, to BS EN 10204 3.1
where available. We reserve the richt to make chamber.





## **NV22 Selection Chart - Ordering Example**

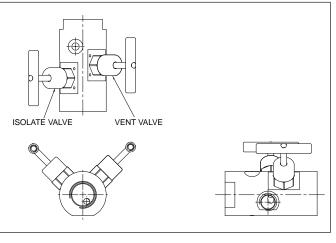
NV22 Bloc	ck and Bleed Compact Manifold	Model Code				
04	6,000 psi Maximum Cold Working Pressure (For Medium Pressure 10,000 psi Maximum) 6,000 psi Maximum Cold Working Pressure (For Medium Pressure 10,000 psi Maximum)	Nominal Pipe Size				
M   M   F   MF   MF   SW   S	emale Thread lale Thread emale Thread Inlet / Male Thread Outlet lale Thread Inlet / Female Thread Outlet ocket Weld utt Weld	Connection Type				
NO I K6 BSP <sup>-</sup> SAE	LETTER (NPT, SW, BW) BSP Parallel F BSP Taper SAE Straight Thread	Thread Form				
	NO LETTER (Standard Inlet / Outlet) PG Outlet Fitted With A Pressure Plug	Option For Threade Inlet / Outlet				
	NO LETTER (For 04F In, Out and Vent) 04F	Vent Connection				
	02 UNS S31600 / S31603 Stainless Steel (Standard Material) 26 F51 / UNS S31803 Duplex 38 LF2 / Carbon Steel 39 F55 / UNS S32760 Super Duplex					
	M Metal Ball MT Metal Tip					
	3 3mm Bore 04 06 08 12	Bore Size				
	5 5mm Bore   12   16					
	V Viton Elastomer -20°C to +180°C V9 V91A Elastomer -45°C to +225°C E9 E985 Elastomer -46°C to +160°C	Seal Arrangement				
	6K 6,000 psi / 414 bar Maximum Cold Working Pressure 10K 10,000 psi / 690 bar Maximum Cold Working Pressure Note: Higher pressures available within the medium pressure range (see separate catalogue).	Pressure Rating				
	NO LETTER LK Lockable T-Bar Isolate AV Anti Tamper Vent PV Plugged Vent NT Gas Service / Nitrogen test * * Standard F.A.T only includes hydrostatic and 6 bar air test. For valves to be used on gas service, optional nitrogen test must be specified.	Options				
IV2204 F	02 M 3 V 10K NV2204F02M3V10K	Ordering Example				

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

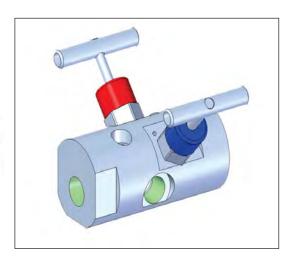


## Typical GA Drawing









ELECTION TABLE	NGE NV04 SE	REFERRED RAN	PF	
Block Needle -	Bore (mm)	Rated	Size	Product Code
	5mm	6,000 psi / 414 bar	1/4" NPT	NV0404F02M5V6K
Full dime	5mm	10,000 psi / 690 bar	1/4" NPT	NV0404F02M5V10K
de	5mm	6,000 psi / 414 bar	½" NPT	NV0408F04F02M5V6K
See selection t	5mm	10,000 psi / 690 bar	½" NPT	NV0408F04F02M5V10K

Block & Bleed Manifold, Needle - Needle configuration.

Full dimensions and additional details on request.

See selection table on page 31 for options.

## **Product Description**

A 6,000 psi / 414 bar or 10,000 psi / 690 bar rated 2 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 and Benefits**

- Robust one piece body construction.
- 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 in design to save space and weight.
- European patent granted EP2242943.
- Full material traceability and individual serial number stamped on the valve.

- 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.
- Anti Tamper T-Bar option.
- 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 Material). See selection table on page 31 for alternative materials. Operating temperature range -20°C to +180°C as standard. Alternative temperature range -45°C to +225°C. Inlet / Outlet connections can be threaded Male / Male, Male / Female, Female / Male, butt weld and socket weld.

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performance and reliability. We are third party certified to
BS EN ISO 9001:2008. Functional test certificate, letter of
conformity and copiest of original mill certificates, providing
total traceability are available on request, to 85 EN 10204 3.1
where available. We reserve the rich tra male charges.



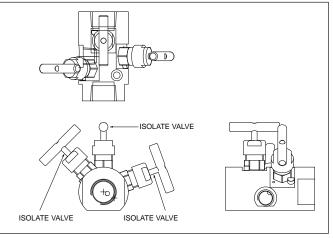


## **NV04 Selection Chart - Ordering Example**

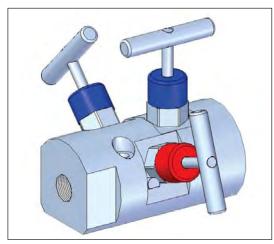
NV04		Е	Block (	& Bleed	l Mar	nifold						Model Code	
04 06 08 09 12 16	9	/4" 3/8" 1/2" 3/16" 3/4" 1"				aximu aximu	m Cole m Cole	l Work I Work	ing Pressure (Fo	or Me	edium Pressure 10,000 psi Maximum edium Pressure 10,000 psi Maximum	Nominal Pipe Size	
	F M FM MF SW BW	, <b>,</b>	Male <sup>-</sup> Femal Male <sup>-</sup> Socke Butt V	le Thread Ihread Ie Thread Ihread et Weld Weld Ie Medi	ad Inl Inlet	/ Fem	nale Thi					Connection Type	
		NO K6 BSF SAE	т	TER	E E	BSP Pa BSP Ta		,				Thread Form	
			NO PG	LETT	ER				/ Outlet) Vith A Pressure	Plug		Option For Threadon Inlet / Outlet	
				NO L 04F	ETT.	ER		r 04F I ' NPT	n, Out and Vent	)		Vent Connection	
		02 UNS S31600 / S31603 Stainless Steel (Standard Material) 26 F51 / UNS S31803 Duplex 38 LF2 / Carbon Steel 39 F55 / UNS S32760 Super Duplex							Material				
		M Metal Ball MT Metal Tip						Tip Style					
							5		m Bore m Bore	04 06 08 09 12		Bore Size	
								/ /9 :9	Viton Elastor V91A Elastor E985 Elaston	mer	-20°C to +180°C -45°C to +225°C -46°C to +160°C	Seal Arrangement	
									K 10,000 ps te: Higher press	6,000 psi / 414 bar Maximum Cold Working Pressure			
									AV An Plu	ckable ti Tam gged \ s Ser\ A.T o ves to	Options		
NV0404						M	5 \			D:( ! :	NV0404F02M5V6 Sales Department.	Ordering Example	

## Typical GA Drawing









	PR	REFERRED RAN	IGE NV05 SE
Product Code	Size	Rated	Bore (mm)
NV0504F02M5V6K	1/4" NPT	6,000 psi / 414 bar	5mm
NV0504F02M5V10K	1/4" NPT	10,000 psi / 690 bar	5mm
NV0508F04F02M5V6K	½" NPT	6,000 psi / 414 bar	5mm
NV0508F04F02M5V10K	½" NPT	10,000 psi / 690 bar	5mm

Double Block & Bleed Manifold, Needle - Needle configuration.

Full dimensions and additional details on request.

See selection table on page 33 for options.

## **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 and Benefits**

- Robust one piece body construction.
- 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 in design to save space and weight.
- European patent granted EP2242943.
- Full material traceability and individual serial number stamped on the valve.

- 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.
- Anti Tamper T-Bar option.
- Pressure energised stem sealing.

ELECTION TABLE

- Metal to Metal body joint to prevent thread contamination.
- Panel mount as standard.

### **Technical Data**

Material grades - UNS S31600 / S31603 Stainless Steel (Standard Material). See selection table on page 33 for alternative materials. Operating temperature range -20°C to +180°C as standard. Alternative temperature range -45°C to +225°C. Inlet / Outlet connections can be threaded Male / Male, Male / Female, Female / Male, butt weld and socket weld.

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## **NV05 Selection Chart - Ordering Example**

NV05 Doub	le Block & Bleed Manifold	Model Code
04	6,000 psi Maximum Cold Working Pressure (For Medium Pressure 10,000 psi Maximum) 6,000 psi Maximum Cold Working Pressure (For Medium Pressure 10,000 psi Maximum)	Nominal Pipe Size
F Fem M Male FM Fem MF Male SW Sock BW Butt	ale Thread 2 Thread ale Thread Inlet / Male Thread Outlet 3 Thread Inlet / Female Thread Outlet 3 Set Weld Weld ale Medium Pressure	Connection Type
NO LE K6 BSPT SAE	TTER (NPT, SW, BW, FMP) BSP Parallel BSP Taper SAE Straight Thread	Thread Form
NO PC	O LETTER (Standard Inlet / Outlet) Outlet Fitted With A Pressure Plug	Option For Threaded Inlet / Outlet
	NO LETTER (For 04F In, Out and Vent) 04F	Vent Connection
	02 UNS S31600 / S31603 Stainless Steel (Standard Material) 26 F51 / UNS S31803 Duplex 38 LF2 / Carbon Steel 39 F55 / UNS S32760 Super Duplex	Material
	M Metal Ball MT Metal Tip	Tip Style
	5 5mm Bore 04 06 08 09 12 8 8mm Bore 12	Bore Size
	V   Viton Elastomer   -20°C to +180°C   V9   V91A Elastomer   -45°C to +225°C   E9   E985 Elastomer   -46°C to +160°C	Seal Arrangement
	6K 6,000 psi / 414 bar Maximum Cold Working Pressure 10K 10,000 psi / 690 bar Maximum Cold Working Pressure Note: Higher pressures available within the medium pressure range (see separate catalogue).	Pressure Rating
	NO LETTER  LK Lockable T-Bar Isolate  AV Anti Tamper Vent  PV Plugged Vent  NT Gas Service / Nitrogen test *  * Standard F.A.T only includes hydrostatic and 6 bar air test. For valves to be used on gas service, optional nitrogen test must be specified.	Options
NV05 04 F	02 M 5 V 10K NV0404F02M5V10K	Ordering Example

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

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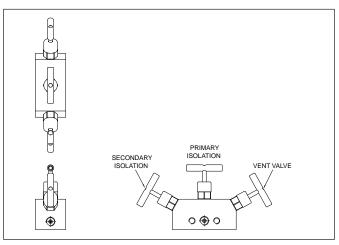
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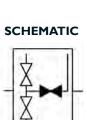
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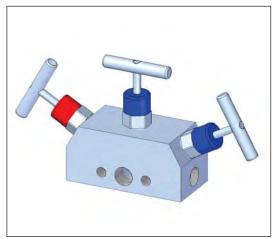
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performance and realishility. We are third party certified to
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where available. We reserve the right on make changes











	1	PREFERRED RA	ANGE NV06	SELECTION TABLE
Product Code	Size	Rated	'A' (mm)	Double Block & B Needle -Needl
NV06104F02M5V6K	1/4" NPT	6,000 psi / 414 bar	5mm	Full dimensions and
NV06104F02M5V10K	1/4" NPT	10,000 psi / 690 bar	5mm	See selection ta

Double Block & Bleed Single Station Manifold, Needle -Needle - Needle configuration. Full dimensions and additional details on request. See selection table on page 35 for options.

## **Product Description**

A 6,000 psi / 414 bar or 10,000 psi / 690 bar rated 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**

- Robust one piece body construction.
- 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 in design to save space and weight.
- European patent granted EP2225485.
- Full material traceability and individual serial number stamped on the valve.

- 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.
- Anti Tamper T-Bar option.
- 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 Material). See selection table on page 35 for alternative materials. Operating temperature range -20 $^{\circ}$ C to +180 $^{\circ}$ C as standard. Alternative temperature range -45 $^{\circ}$ C to +225 $^{\circ}$ C.

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## **NV06 Selection Chart - Ordering Example**

" " " " " " " " " " " " " " " " " " "		Nominal Pipe S				
Famala Thusa d		·				
	F Female Thread FMP Female Medium Pressure					
K6 BSPT	NPT, FMP) SP Parallel SP Taper AE Straight Thread	Thread Form				
NO LETTER PG	(Standard Inlet / Outlet) Outlet Fitted With A Pressure Plug	Option For Thre Inlet / Outlet				
NO LETT 04F 04FMP	ER (For 04F In, Out and Vent) 1/4" NPT 1/4" Medium Pressure	Vent and Gauge Connection				
02 26 38 39	UNS S31600 / S31603 Stainless Steel (Standard Material) F51 / UNS S31803 Duplex LF2 / Carbon Steel F55 / UNS S32760 Super Duplex	Material				
	M Metal Ball MT Metal Tip	Tip Style				
	5 5mm Bore	Bore Size				
	V         Viton Elastomer         -20°C to +180°C           V9         V91A Elastomer         -45°C to +225°C           E9         E985 Elastomer         -46°C to +160°C	Seal Arrangeme				
	6K 6,000 psi / 414 bar Maximum Cold Working Pressure 10K 10,000 psi / 690 bar Maximum Cold Working Pressure Note: Higher pressures available within the medium pressure range (see separate catalogue).	Pressure Rating				
	NO LETTER LK Lockable T-Bar Isolate AV Anti Tamper Vent PV Plugged Vent NT Gas Service / Nitrogen test * * Standard F.A.T only includes hydrostatic and 6 bar air test. For valves to be used on gas service, optional nitrogen test must be specified.	Options				

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

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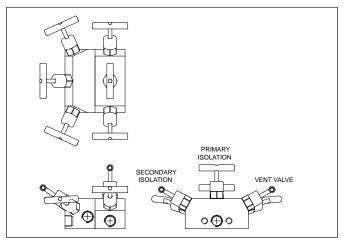
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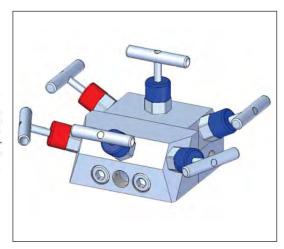
## Typical GA Drawing











	PREFERRED RANGE NV0			
Product Code	Size	Rated	'A' (mm)	
NV06204F02M5V6K	1/4" NPT	6,000 psi / 414 bar	5mm	
NV06204F02M5V10K	1/4" NPT	10,000 psi / 690 bar	5mm	

Double Block & Bleed Two Station Manifold, Needle - Needle - Needle configuration. Full dimensions and additional details on request. See selection table on page 37 for options.

## **Product Description**

A 6,000 psi / 414 bar or 10,000 psi / 690 bar rated 2 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**

- Each station is a robust one piece body construction.
- 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 in design to save space and weight.
- European patent granted EP2225485.
- Full material traceability and individual serial number stamped on the valve.

Unrestricted through the bore.

**SELECTION TABLE** 

- 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.
- Anti Tamper T-Bar option.
- 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 Material). See selection table on page 37 for alternative materials. Operating temperature range -20 $^{\circ}$ C to +180 $^{\circ}$ C as standard. Alternative temperature range -45 $^{\circ}$ C to +225 $^{\circ}$ C.

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total tracebility are available on request, to 85 EN 10204 31.
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## **NV06 Selection Chart - Ordering Example**

NO LET K6 BSPT SAE NO PG	D LETTER  NO LETTEI  04F  04FMP  02  26  38  39	IPT, FMP) SP Parallel SP Taper AE Straight Thread  (Standard Inlet / Outlet) Outlet Fitted With A Pressure Plug	Pressure Rating
NO LET K6 BSPT SAE NO PG	NO LETTEI  OLETTER  NO LETTEI  O4F  O4F  O4F  O4F  O4F  MARKET  O4F  MARKET  M	IPT, FMP) SP Parallel SP Taper AE Straight Thread  (Standard Inlet / Outlet) Outlet Fitted With A Pressure Plug  ER  (For 04F In, Out and Vent) 1/4" NPT 1/4" Medium Pressure  UNS \$31600 / \$31603 Stainless Steel (Standard Material) F51 / UNS \$31803 Duplex LF2 / Carbon Steel F55 / UNS \$32760 Super Duplex  M  Metal Ball MT  Metal Tip  5  5  5mm Bore  V Viton Elastomer V9 V91A Elastomer F9 E985 Elastomer V9 L76°C to +180°C -45°C to +225°C -46°C to +160°C -46°C to +160°C  OK 6,000 psi / 414 bar Maximum Cold Working Pressure Note: Higher pressures available within the medium pressure range (see separate catalogue).  NO LETTER	Thread Form  Option For Thread Inlet / Outlet  Vent and Gauge Connection  Material  Tip Style  Bore Size  Seal Arrangement
K6 BSPT SAE NO PG	D LETTER  NO LETTEI  04F  04FMP  02  26  38  39	SP Parallel SP Taper AE Straight Thread  (Standard Inlet / Outlet) Outlet Fitted With A Pressure Plug  ER (For 04F In, Out and Vent) //4" NPT //4" Medium Pressure  UNS \$31600 / \$31603 Stainless Steel (Standard Material) F51 / UNS \$31803 Duplex LF2 / Carbon Steel F55 / UNS \$32760 Super Duplex  M Metal Ball MT Metal Tip  5 5mm Bore  V Viton Elastomer -20°C to +180°C -45°C to +225°C -46°C to +160°C  6K 6,000 psi / 414 bar Maximum Cold Working Pressure Note: Higher pressures available within the medium pressure range (see separate catalogue).  NO LETTER	Option For Threat Inlet / Outlet  Vent and Gauge Connection  Material  Tip Style  Bore Size  Seal Arrangement
PG	NO LETTER 04F 04FMP	Outlet Fitted With A Pressure Plug  ER (For 04F In, Out and Vent)  '/4" NPT  '/4" Medium Pressure  UNS \$31600 / \$31603 Stainless Steel (Standard Material)  F51 / UNS \$31803 Duplex  LF2 / Carbon Steel  F55 / UNS \$32760 Super Duplex  M Metal Ball MT Metal Tip  5 5mm Bore  V Viton Elastomer  -45°C to +180°C  -45°C to +225°C  E9 E985 Elastomer -46°C to +160°C  6K 6,000 psi / 414 bar Maximum Cold Working Pressure  10K 10,000 psi / 690 bar Maximum Cold Working Pressure  Note: Higher pressures available within the medium pressure range (see separate catalogue).	Vent and Gauge Connection  Material  Tip Style  Bore Size  Seal Arrangement
	04F 04FMP 02 26 38 39	UNS S31600 / S31603 Stainless Steel (Standard Material) F51 / UNS S31803 Duplex LF2 / Carbon Steel F55 / UNS S32760 Super Duplex  M Metal Ball MT Metal Tip  5 5mm Bore  V Viton Elastomer -20°C to +180°C -45°C to +225°C E9 E985 Elastomer -46°C to +160°C  6K 6,000 psi / 414 bar Maximum Cold Working Pressure 10K 10,000 psi / 690 bar Maximum Cold Working Pressure Note: Higher pressures available within the medium pressure range (see separate catalogue).	Connection  Material  Tip Style  Bore Size  Seal Arrangement
	26 38 39	F51 / UNS S31803 Duplex LF2 / Carbon Steel F55 / UNS S32760 Super Duplex  M Metal Ball Metal Tip  5 5mm Bore  V Viton Elastomer V9 V91A Elastomer F9 E985 El	Tip Style  Bore Size  Seal Arrangement
		MT Metal Tip  5 5mm Bore  V Viton Elastomer -20°C to +180°C -45°C to +225°C -46°C to +160°C  6K 6,000 psi / 414 bar Maximum Cold Working Pressure 10K 10,000 psi / 690 bar Maximum Cold Working Pressure Note: Higher pressures available within the medium pressure range (see separate catalogue).  NO LETTER	Bore Size  Seal Arrangement
		V Viton Elastomer V9 IA Elastomer E9 E985 Elastomer E985 Elastomer I0K I0,000 psi / 414 bar Maximum Cold Working Pressure Note: Higher pressures available within the medium pressure range (see separate catalogue).	Seal Arrangement
		V9 V91A Elastomer E985 Elastomer -45°C to +225°C -46°C to +160°C  6K 6,000 psi / 414 bar Maximum Cold Working Pressure 10K 10,000 psi / 690 bar Maximum Cold Working Pressure Note: Higher pressures available within the medium pressure range (see separate catalogue).  NO LETTER	e Pressure Rating
		IOK 10,000 psi / 690 bar Maximum Cold Working Pressure Note: Higher pressures available within the medium pressure range (see separate catalogue).  NO LETTER	Pressure Rating
		AV Anti Tamper Vent PV Plugged Vent NT Gas Service / Nitrogen test *  * Standard F.A.T only includes hydrostatic and 6 bar air test. For valves to be used on gas service, optional nitrogen test must be specified.	Options
			nitrogen test must be specified.

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

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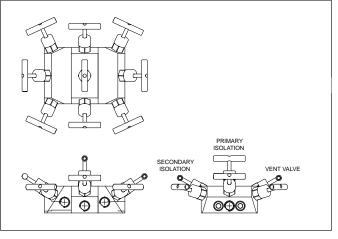
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When selecting a product, the applicable operating system design must be considered to ensure safe use. The produc function, material compatibility, adequate ratings, correct installation, operation and maintenance are the responsibilities of the system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

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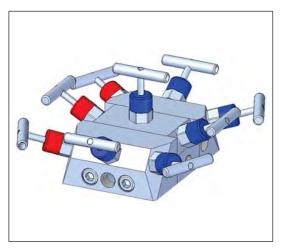
## Typical GA Drawing





# SCHEMATIC





	PREFERRED RANGE NV0				
Product Code	Size	Rated	'A' (mm)		
NV06304F02M5V6K	1/4" NPT	6,000 psi / 414 bar	5mm		
NV06304F02M5V10K	1/4" NPT	10,000 psi / 690 bar	5mm		

Double Block & Bleed Three Station Manifold, Needle - Needle - Needle configuration. Full dimensions and additional details on request. See selection table on page 39 for options.

## **Product Description**

A 6,000 psi / 414 bar or 10,000 psi / 690 bar rated 3 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**

- Each station is a robust one piece body construction.
- 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 in design to save space and weight.
- European patent granted EP2225485.
- Full material traceability and individual serial number stamped on the valve.

Unrestricted through bore.

**SELECTION TABLE** 

- 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.
- Anti Tamper T-Bar option.
- 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 Material). See selection table on page 39 for alternative materials. Operating temperature range -20°C to +180°C as standard. Alternative temperature range -45°C to +225°C.

Accuracy of informatio

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Where available. We reserve the richt no mule changes.





## **NV06 Selection Chart - Ordering Example**

IV06 3		Double	Block &	Bleed	d Thre	ee Stat	ion Ma	nifold	Model Code
04 06	] 3	/ <sub>4</sub> " /8"							Nominal Pipe Size
	F Female Thread FMP Female Medium Pressure							Connection Type	
		NO LETTER (NPT, FMP) K6 BSP Parallel BSPT BSP Taper SAE SAE Straight Thread							
		NO PG	LETTE	R	(Standard Inlet / Outlet) Outlet Fitted With A Pressure Plug				Option For Thread Inlet / Outlet
	NO LETTE 04F 04FMP				ĒR	(For	Vent and Gauge Connection		
	02 UNS S31600 / S31603 Stainless Steel (Standard Material) 26 F51 / UNS S31803 Duplex 38 LF2 / Carbon Steel 39 F55 / UNS S32760 Super Duplex						Material		
				<b>M</b>	1 1T		tal Ball tal Tip		Tip Style
					5		5mr	n Bore	Bore Size
						V V E	9	Viton Elastomer V91A Elastomer E985 Elastomer -20°C to +180°C -45°C to +225°C -46°C to +160°C	Seal Arrangement
								·	Pressure Rating
								NO LETTER  LK Lockable T-Bar Isolate  AV Anti Tamper Vent  PV Plugged Vent  NT Gas Service / Nitrogen test *  * Standard F.A.T only includes hydrostatic and 6 bar air test. For valves to be used on gas service, optional nitrogen test must be specified.	Options
V0630	4 F		02	2 M	1 '	5 V	<b>' 10</b> 1	NV06304F02M5V10K	Ordering Example

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

## **Product Range**

# Bifold®

BV02

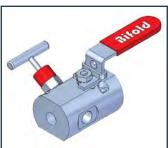


3-Way Diverting Ball Valve, T-Port & L-Port Versions Available.

Block & Bleed with Integral

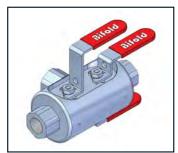
Check Valve.





Block & Bleed, Ball - Needle Manifold.

BV19



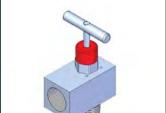
Double Block & Bleed, Ball - Ball - Ball Manifold.

Accumulator Manifold with Pressure Relief.

**BV24** 

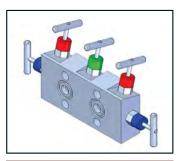


NV02



Single Isolate Angled
Pattern Needle Valve.

NV<sub>13</sub>



Manifold, Direct & Remote Mount (2, 3, 4 & 5 Valve Options Available).

NV17

BV2I



Block, Block, Needle - Needle, Manifold.

GA01



Gauge Adaptors.

## **Blanking Plug**



Blanking Plugs & Captive Venting Plugs.

Please contact Bifold sales department for further enquires on our extended product range.

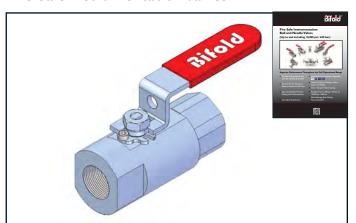
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## **Product Range**

#### Fire Safe Instrumentation Valves



Please see the Ball and Needle Valve Fire Safe Catalogue for the full product range.

## **Medium Pressure**





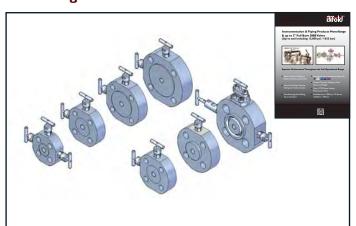
Please see the Instrumentation Ball and Needle Valve Catalogue for the full product range.

## 13K and 15K



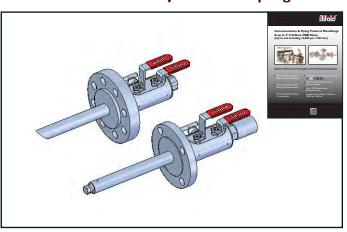
Please see the Instrumentation Ball and Needle Valve 13K and 15K Catalogue for the full product range.

## **Monoflanges**



Please see the Instrumentation and Piping Catalogue for the full product range of monoflanges.

## **Double Block & Bleed Injection / Sampling Valves**



Please see the Instrumentation and Piping Catalogue for the full product range of DBB Injection / Sampling Valves.

## **Double Block & Bleed Valves**



Please see the Instrumentation and Piping Catalogue for the full product range of Double Block & Bleed Valves.

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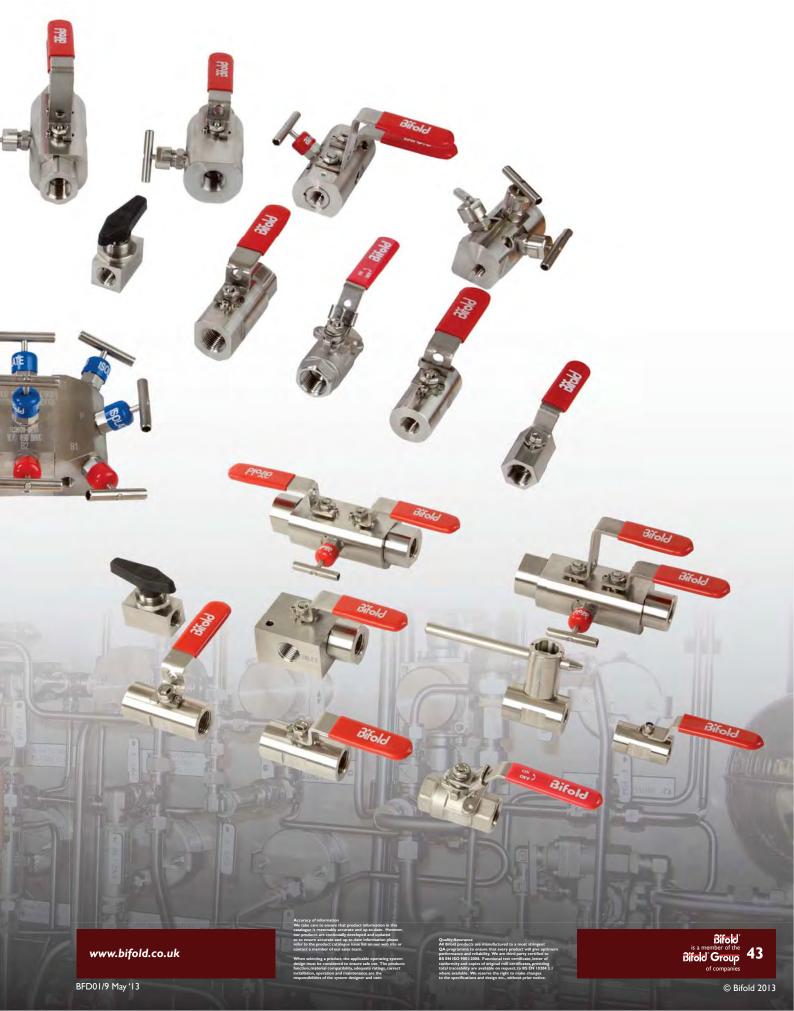
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# Instrument, Process, Directional Control Valves, and Pumps



Pneumatic and Instrumentation Valves

**Hydraulic Valves** 

Subsea Valves

Hydraulic Pumps, Intensifiers and Valves



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