Global Presence for Peace of Mind

Bifold®

NAMUR Mounted Solutions
Solenoid Valve, Manifolds and Accessories

Superior Performance Throughout the Full Operational Range

- Solenoid Valve
  SIL 3 Third Party Certified
- Solenoid Free to Rotate Through 360°
- 316L Stainless Steel Solenoid Housing and Valve
- Arctic Service Options to -60°C
- Worldwide Solenoid Approvals
  Ex d, Ex ia, Ex emb, explosion proof
  ATEX IECEx CE cULus INMETRO PG Ex NEPSI
- Low Power
- High Flow
- Up to 10 bar Working Pressure

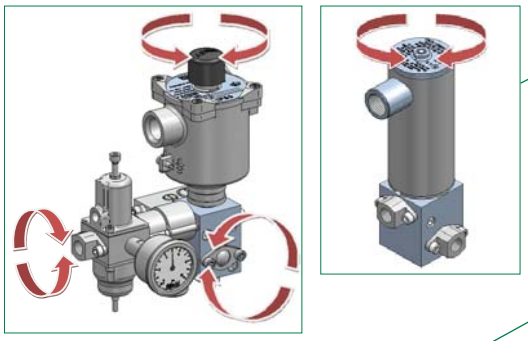
Innovative and Reliable Valve Solutions

www.bifold.co.uk

Features & Benefits

Worldwide Approvals

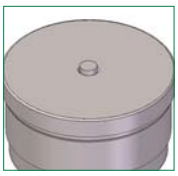
Standard Solenoid Housing & Slimline Solenoid Housing are Free to Rotate 360°



Widest Range of Override Options

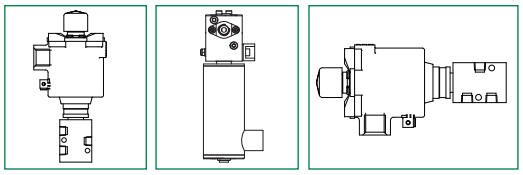
Standard Housing

Standard Housing

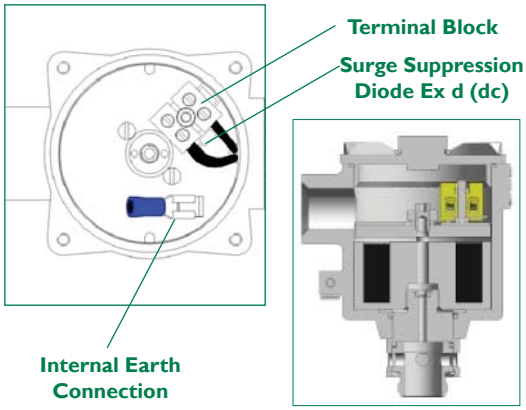


Slimline Housing

Valve can be Mounted in any Orientation



Spacious Enclosure for Ease of Wiring



Equipment Design & Build

- Worldwide Approvals for standard solenoid housing. Worldwide Approvals for slimline solenoid housing include:-
- Solenoid housing and mounting block (patent pending) are free to rotate 360° allowing for an easy cable layout and ease of connection wiring. Solenoid internals rotate with housing and prevent cables being pulled out of terminal block.
- Widest range of override options (Auto Reset, Spring Return Manual Override, Stayput Manual Override, Manual Reset, Tamperproof Manual Latch, Latch Energised). For standard solenoid housing.
  Spring Return Manual Override. For slimline solenoid housing.
- Worldwide technical and field support.
- Standard solenoid valve & slimline solenoid valve can be mounted in any orientation to simplify installation due to all the components having enhanced rotational capabilities.

Commissioning and Maintenance Benefits for the Standard Solenoid

- Tropicalised solenoid design - all stainless steel construction including magnetic parts. Fully encapsulated coil.
- Spacious solenoid enclosure for ease of wiring.
- No time penalty for heat dissipation before removing solenoid cover.
- No special high temperature cable requirements.

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Features & Benefits

SIL certified, FMEA, extensive qualification testing coupled with 100% Computerised Diagnostic Test Procedures.

State of the Art Testing

Simple Maintenance

Safety and Environmental Benefits

- SIL third party certified to IEC 61508, FMEA, extensive qualification testing.
- Balanced valve with high safety factors to de-energise at all pressures in Normally Open and Normally Closed configurations.
- 100% computerised diagnostic testing to ensure each solenoid valve is proven along with confirmed safety factors.
- Bifold has state of the art testing and qualification equipment including endurance, environment, climatic, performance, function and leakage testing.
- The Standard Solenoid design is a holding magnet type which ensures the valve will operate in damp conditions. The risk of corrosion to internal components is reduced, unlike other valve types that incorporate a solenoid core tube design with a 'wetted' armature that will only operate in dry air conditions!
- Tolerant to moist air in control lines.
- Proven arctic service low temperature performance.
- Products are manufactured, inspected, assembled and tested in our state of the art production facilities.
- Large clearances, metal back up to seals and no knife edge sealing to prevent long term valve sticking.
- Dry armature to prevent armature corrosion affecting safe shut down.
- Simple maintenance - Removable transient suppression diode and solenoid coil without removing valve from the tubing.

Overview

Materials of Construction

Solenoid housing and valve manufactured from 316L stainless steel as standard.
Valve seals are supplied in Viton as standard. Alternative elastomers available for extreme conditions and to suit media.
Springs are manufactured from 302S26 & 316S42 stainless steel as standard.
Fasteners are metric A4 18/10 grade stainless steel; equivalent to 316 grade stainless steel.

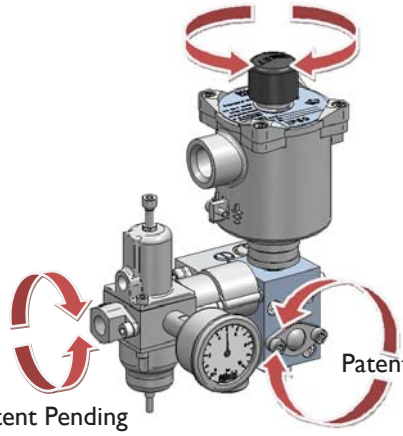
Technical Data

Operating Performance for the FP06P
Duty cycle 100% continuously rated/energised.
Surge suppression diode is fitted on all Ex d dc solenoid coils as standard.
Response times - pull in <100ms, drop out <70ms.
Solenoid Insulation - Class H.
Pull-in volts to 85% of nominal. (Checked at FAT to be within specified limits to guarantee safety factors).
Maximum volts at 110% of nominal.
Drop-out volts typically 10 - 20% of nominal (higher volt options for line monitoring). (Checked at FAT to be within specified limits to guarantee safety factors).
Temperature rating -20°C to upper limit of solenoid classification (standard). Arctic service option to -60°C.
IP66 & IP67 Ingress Protection to IEC 60529 and NEMA 4X.
Bifold solenoid valves must be installed, operated and maintained in accordance with the relevant Bifold installation, operating and maintenance instructions, relevant installation rules, regulations and codes of practice.

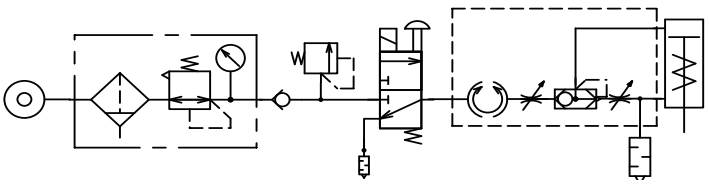
Product Options
Certification & Approval options available for standard solenoid housing

Certification & Approval options available for slimline solenoid housing

SIL 3, Safety Integrity Level, third party certification to IEC 61508.
Solenoid valves can be mounted in any orientation. Solenoid housing can be rotated relative to the valve body to suit cable entry.
Working pressure up to 10 bar. Maximum working pressure according to valve model.
Operating media - Filtered lubricated or unlubricated air, inert gas, sweet (natural) and sour gas options, water, water glycol mixtures and mineral, oil. Maximum viscosity 65 cSt (mm^2/s).
For operating temperature range, please see solenoid valve type and seal options.
Higher drop-out voltage options available for line monitoring applications.
Manual Reset, Manual Override and Manual Latch operator options. (For standard solenoid housing).
Spring Return Manual Override. (For slimline solenoid housing).
Arctic Service options to -60°C.



Typical 'AXIS'® valve actuator control manifold assembly can be adapted to the NAMUR range



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Certification Details

Certification & Approval Details

Type 58 Slimline Solenoid Housing

ATEX, Certificate Number Baseefa 08ATEX0292X.
Ⓔx II 1G Ex ia IIB T6 Ga (-40°C ≤ Ta ≤ +40°C).
Ⓔx II 1G Ex ia IIB T5 Ga (-40°C ≤ Ta ≤ +55°C).
Ⓔx II 1G Ex ia IIB T4 Ga (-40°C ≤ Ta ≤ +60°C).

IECEx, Certificate Number IECEx Bas 08.0095X.
Ex ia IIB T6 Ga (-40°C ≤ Ta ≤ +40°C).
Ex ia IIB T5 Ga (-40°C ≤ Ta ≤ +55°C).
Ex ia IIB T4 Ga (-40°C ≤ Ta ≤ +60°C).

Dual Labelled/Marked

Type 74 Standard Solenoid Housing

ATEX, Certificate Number Baseefa 09ATEX0040X.
Ⓔx II 2GD c Ex emb IIC T3 Gb Tamb -25°C to +40°C.
Ⓔx II 2GD c Ex emb IIC T3 Gb Tamb -25°C to +55°C.

IECEx, Certificate Number IECEx Bas 09.0012X.
Ex emb IIC T3 Gb Tamb -25°C to +40°C.
Ex emb IIC T3 Gb Tamb -25°C to +55°C.

Dual Labelled/Marked

Type 77 Standard Solenoid Housing

ATEX, Certificate Number Baseefa 10ATEX0026.
Ⓔx II 2 GD Ex d IIC T6 (Tamb -60°C to +40°C).
Ⓔx II 2 GD Ex d IIC T5 (Tamb -60°C to +55°C).
Ⓔx II 2 GD Ex d IIC T4 (Tamb -60°C to +90°C).

IECEx, Certificate Number IECEx Bas 10.0008.
Ex d IIC T6 (Tamb -60°C to +40°C).
Ex d IIC T5 (Tamb -60°C to +55°C).
Ex d IIC T4 (Tamb -60°C to +90°C).

Dual Labelled/Marked

Type 77 Standard Solenoid Housing

CSA (US), Certificate Number 1398692
Class 1, Division 1, Groups B, C & D for both Canada & USA.
Ex d IIC for Canada, AEx d IIC for USA.

T85°C	-60°C to +40°C ambient.
T100°C	-60°C to +55°C ambient.
T135°C	-60°C to +90°C ambient.

Dual Labelled/Marked

Type 77 Standard Solenoid Housing

ATEX, Certificate Number Baseefa 10ATEX0026.
Ⓔx II 2GD Ex d IIC T6 (Tamb -60°C to +40°C).
Ⓔx II 2GD Ex d IIC T5 (Tamb -60°C to +55°C).
Ⓔx II 2GD Ex d IIC T4 (Tamb -60°C to +90°C).

Type 77 Standard Solenoid Housing

INMETRO, Certificate Number CEPEL-EX-097/2003X.
BR-Ex d IIC T6 -60°C to +40°C ambient.
BR-Ex d IIC T5 -60°C to +55°C ambient.
BR-Ex d IIC T4 -60°C to +90°C ambient.

Type 78 Standard Solenoid Housing

INMETRO, Certificate Number CEPEL-EX-532/05.
BR-Ex ia IIC T6 -60°C to + 40°C ambient.
BR-Ex ia IIC T4 -60°C to + 95°C ambient.

Type 77 Standard Solenoid Housing

GOST, Certificate Number B00763, RTN.
Ex d IIC T6 -60°C to +40°C ambient.
Ex d IIC T5 -60°C to +55°C ambient.
Ex d IIC T4 -60°C to +90°C ambient.

Type 78 Standard Solenoid Housing

GOST, Certificate Number B00015, RTN.
Permit Number PPC 00-28504.
Ex ia IIC T6 -60°C to +40°C ambient.
Ex ia IIC T5 -60°C to +55°C ambient.
Ex ia IIC T4 -60°C to +90°C ambient.

Type 87 Standard Solenoid Housing

NEPSI, Certificate Number GYJ081011.
Ex d IIC T6 up to 40°C ambient.
Ex d IIC T5 up to 55°C ambient.
Ex d IIC T4 up to 95°C ambient.

Type 77 & 78 Standard Solenoid Housing

GOST K, GGTN K Permit, Kazakhstan, BIF 7727 2.

Please note that operation ambients are dependant upon seal types.
For solenoid type 74 the maximum permissible ambient temperature is subject to the coil wattage. Please see page 6 .

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Solenoid Coil Spare

Solenoid Coil Spare Selection Chart - Ordering Example (FP06P)

109	Coil Type
XXX Voltage 74 (Ex emb) 24 & 48 Vdc 77 (Ex d) 12, 24, 48 & 110 Vdc 77 (Ex d) 110 & 240 Vac	Voltage
XX Power (W) 74 (Ex emb) 4.4 & 6.8 Watts 77 (Ex d) 3.5 & 5.7 Watts	Power
109-24DC-35	Ordering Example

For detailed information, please contact Bifold Sales Department.

Spacer Options

Namur Interface Kit - Ordering Example

NIK-04	Model Code
02 316L Stainless Steel **53** Aluminium Anodised	Material
25mm Spacer Block **50mm** Spacer Block	Block Size
V Viton (standard) (-20°C to +180°C) **AL** Fluorosilicone (-60°C to +180°C)	O-ring Material
XX	Revision Number
NIK-04-53-25-V-XX	Ordering Example

For detailed information, please contact Bifold Sales Department.

Ex emb Options

Options Table 1 74 (Ex emb)

SOLENOID OPTIONS TABLE 1 74 (Ex emb)

Product Type	Solenoid Order Code	Typical Apparatus Code	Standard Voltage	Power Consumption (W)	CV Rate	Temperature Range (°C)	Ingress Protection	Cable Entry Connection	Certification Options
 FP06P	74	Ex emb II T3	24 Vdc	4.4	0.5	**Media #** -20°C to +40°C -25°C to +40°C **Ambient** -25°C to +40°C (T3)	IP66 IP67 NEMA 4X	M20 x 1.5 (½" NPT Option)	ATEX IECEx
			48 Vdc	6.8	0.75				

Ex d Options

Options Table 2 77 (Ex d)

SOLENOID OPTIONS TABLE 2 77 (Ex d)

Product Type	Solenoid Order Code *	Typical Apparatus Code	Standard Voltage	Power Consumption (W)	CV Rate	Temperature Range (°C) Media	Temperature Range (°C) Ambient	Ingress Protection	Cable Entry Connection	Certification Options
 FP06P	77	Ex d IIC T6, T5 or T4	12 Vdc 24 Vdc 48 Vdc 110 Vdc 110 Vac 240 Vac 50 or 60 Hz	3.5	0.5	**Media #** -20°C to +90°C -60°C to +90°C	**Ambient** -60°C to +40°C (T6) -60°C to +55°C (T5) -60°C to +90°C (T4)	IP66 IP67 NEMA 4X	M20 x 1.5 (½" NPT Option)	ATEX IECEx INMETRO GOST GOST K GGTN CSA (C, US) * NEPSI PESO
				5.7	0.75					

Ex ia Options

Options Table 3 58 (Ex ia)

SOLENOID OPTIONS TABLE 3 58 (Ex ia)

Product Type	Solenoid Order Code	Typical Apparatus Code	CV Rate	Temperature Range (°C) Media	Temperature Range (°C) Ambient	Ingress Protection	Cable Entry Connection	Certification Options
 FP06P	58 †	Ex ia IIB T6, T5 or T4	0.5	**Media #** -20°C to +60°C -60°C to +60°C	**Ambient** -40°C to +40°C (T6) -40°C to +55°C (T5) -40°C to +60°C (T4)	IP66	M20 x 1.5 (½" NPT Option)	ATEX IECEx

For detailed information on certification please see page 5. Other Wattages available upon request.

† Solenoid must be used in conjunction with a correctly matched, Intrinsically Safe (IS) solenoid driver. The valve installer is responsible for a correct and safe IS system.

* For China NEPSI approvals, please note that the solenoid operator is Type 87.

Permissible media operating temperatures are dependent upon the selected O-Ring material. Please refer to the product selection chart on page 7.

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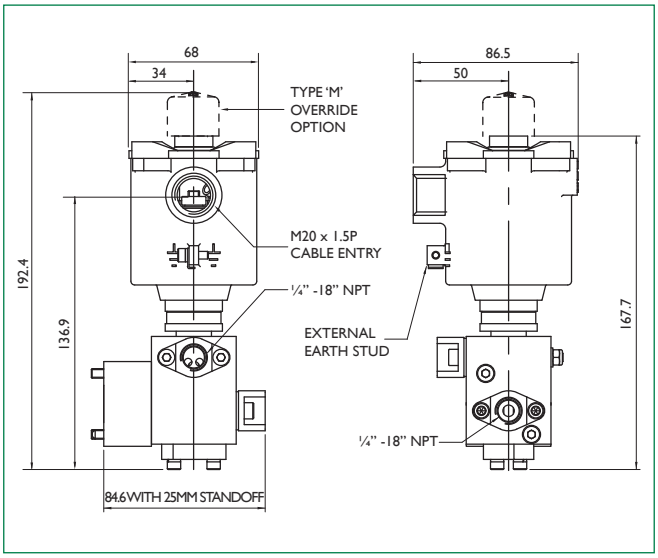
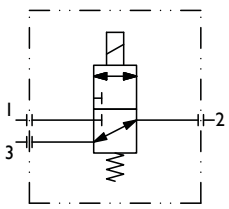
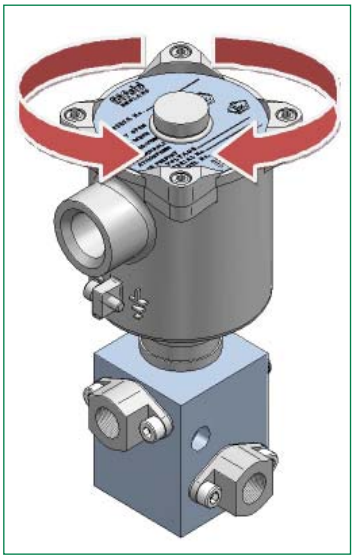
FP06P NAMUR

Dimensional Drawings (Type 74 & 77 Solenoid)



SCHEMATIC 3/2 NC





FP06P NAMUR Selection Chart - Ordering Example

FP06P					Model Code
S1	10 bar maximum valve pressure				Operator
N4	¼" NPT body ported				Connections
32	3-way, 2-position				Valve Configuration
NC	Normally Closed				
S	Nitrile	(-20°C to +130°C)	For maximum operating temperatures see 'T' Rating Limitations for Ex emb, Ex d & Ex ia on page 6.		O-ring Material
V	Viton (standard)	(-20°C to +180°C)			
AL	Fluorosilicone (arctic service)	(-60°C to +180°C)			
XX	Refer to Solenoid options tables.	74 (Ex emb) Page 6 - Table 1	77 (Ex d) Page 6 - Table 2	58 (Ex ia) Page 6 - Table 3	Solenoid * **

		74(Ex emb)	77(Ex d)	58(Ex ia)	
A	ATEX/IECEx Dual Certified/Labelled	✓	✓	✓	Solenoid Approval
G	GOST	X	✓	X	
I	INMETRO	X	✓	X	
N	NEPSI*	X	✓	X	
U	CSA (US) ATEX Dual Certified/Labelled	X	✓	X	

3	T4	No Code No. for Ex emb	See 'T' Rating and Gas Group Limitations for Ex emb, Ex d & Ex ia on page 6.	T-Rating
6	T5		
9	T6		
XXX	Voltage, refer to Solenoid option tables.	74 (Ex emb) Page 6 - Table 1	77 (Ex d) Page 6 - Table 2	Voltage
M	Electrical to switch or temporary manual override	All		Options
ML	Electrical and manual required to latch or temporary manual override (3.0 Watts Ex d Only)	74 & 77 Only		
MLT	Electrical and manual required to latch - tamperproof			
LE	Latched Energised (NO/NC Only) (6.5 Watts Ex d Only)			
XX	Power (W)	4.4 & 6.8 Watts - 74 (Ex emb) Page 6 - Table 1	3.5 & 5.7 Watts - 77 (Ex d) Page 6 - Table 2	Power
XX	Resistance (Ω)	135 Ohms - 58 (Ex ia) Page 6 - Table 3		Resistance
K6	¼" BSPP Ports			Option
K85	½" NPT cable entry			Option
XX				Revision Number

FP06P-S1 - N4 - 32 - NC - V - 77 A 9 - 24D - ML - 35 - K6 - K85 - XX	Ordering Example

For green block sections, please refer to the same colour section on page 6.

* For China NEPSI approvals, please note that the solenoid operator is Type 87.

** Special conditions for safe use - The supply circuit shall be fitted with a fuse capable of meeting a 1500Amp short circuit current.

Selection Chart

For NAMUR Manifold Dimensional Drawings please refer to the images at the top of page 9.

NAMUR Manifold Selection Chart - Ordering Example

Model Code

XSN1	Single Solenoid	3/2	- Namur ¼" interface according to VDI / VDE 3845 multifunction mounting block system
XSN2	Double Solenoid	3/2	- Namur ¼" interface according to VDI / VDE 3845 multifunction mounting block system
XSN3	Single Solenoid	3/2	- Namur ¼" interface according to VDI / VDE 3845 standard rotating mounting system
XSN4	Double Solenoid	3/2	- Namur ¼" interface according to VDI / VDE 3845 standard rotating mounting system
XSN5	Single Solenoid	5/2 ‡	- Namur ¼" interface according to VDI / VDE 3845 multifunction mounting block system
XSN6	Double Solenoid	5/2 ‡	- Namur ¼" interface according to VDI / VDE 3845 multifunction mounting block system
XSN7	Single Solenoid	5/2 ‡	- Namur ¼" interface according to VDI / VDE 3845 standard rotating mounting system
XSN8	Double Solenoid	5/2 ‡	- Namur ¼" interface according to VDI / VDE 3845 standard rotating mounting system

Base Configuration

X	Solenoid Only
FR	Compact Filter Regulator
FR1	SH Filter Regulator
FR2	Rotating Compact Filter Regulator
FR3	Rotating SH Filter Regulator

Logic Options

A	Ball Valve	**K**	Pressure Relief Valve
E	Gauge - See Gauge Options	**P1**	Manual Reset on 1st
G	Single Check Valve	**P2**	Manual Reset on 2nd
H	Double Check Valve	**P3**	Manual Override on 1st
L	Inlet Flow Control	**P4**	Manual Override on 2nd

Solenoid ***

XX	Refer to Solenoid options tables.	74 (Ex emb) Page 6 - Table 1 77 (Ex d) Page 6 - Table 2 58 (Ex ia) Page 6 - Table 3

Solenoid Approval

		74(Ex emb)	77(Ex d)	58(Ex ia)
A	ATEX/IECEx Dual Certified/Labelled	✓	✓	✓
G	GOST	X	✓	X
I	INMETRO	X	✓	X
N	NEPSI*	X	✓	X
U	CSA (US) ATEX Dual Certified/Labelled	X	✓	X

T-Rating

3	T4	No Code No. for Ex emb	See 'T' Rating and Gas Group Limitations for Ex emb, Ex d & Ex ia on page 6.
6	T5		
9	T6		

Voltage

XXX	Voltage, refer to Solenoid option tables.	74 (Ex emb) 77 (Ex d)	Page 6 - Table 1 Page 6 - Table 2

Options

M	Electrical to switch or temporary manual override	All
ML	Electrical and manual required to latch or temporary manual override (3.0 Watts Ex d Only)	74 & 77 Only
MLT	Electrical and manual required to latch - tamperproof	74 & 77 Only
LE	Latched Energised (NO/NC Only) (6.5 Watts Ex d Only)	74 & 77 Only

Power

XX	Power (W)	4.4 & 6.8 Watts - 74 (Ex emb) 3.0 & 5.7 Watts - 77 (Ex d)	Page 6 - Table 1 Page 6 - Table 2

Resistance

XX	Resistance (Ω)	135 Ohms - 58 (Ex ia)	Page 6 - Table 3

O-ring Material

V	Viton (standard)	**AL**	Fluorosilicone (arctic service)

Filter Regulator Configuration

10X1	0-10 bar -10 micron
10X3	-25 micron
10X4	-50 micron

Gauge

X5	10 bar 50mm dry gauge
X8	10 bar 50mm glycerine filled gauge
X10	10 bar 40mm dry gauge
X11	10 bar 40mm glycerine filled gauge

Option

L125	½" Port Blocks

Option

K6	BSPP Ports

Option

K85	½" NPT Cable Entry

Pressure Relief Setting

PRx.x	Pressure Relief Setting

Ordering Example

XSN1-FR2-EGKP1-77-A-9-24D-M-57-V-10X3-X10-L125-K6-K85-PR5.5

For green block sections, please refer to the same colour section on page 6.

* For China NEPSI approvals, please note that the solenoid operator is Type 87.

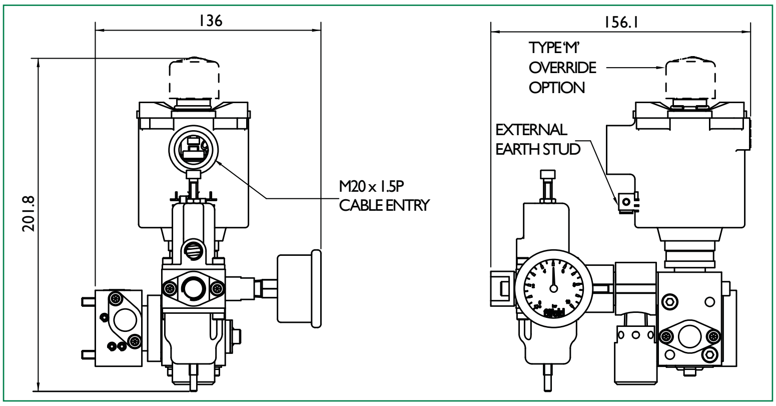
** Special conditions for safe use - The supply circuit shall be fitted with a fuse capable of meeting a 1500Amp short circuit current.

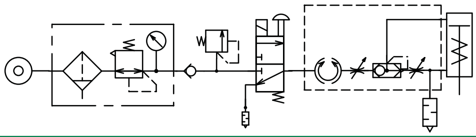
*** Other options available as per AXIS® selection code, please contact Bifold Sales Department.

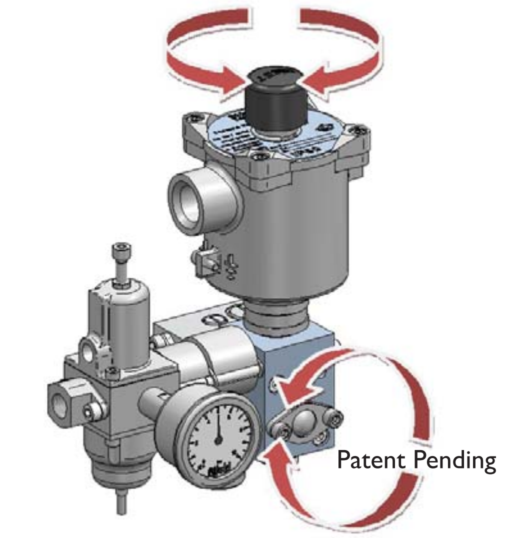
‡ The 5/2 range is currently under development.

NAMUR Manifold

Dimensional Drawings (Type 74 & 77 Solenoid)

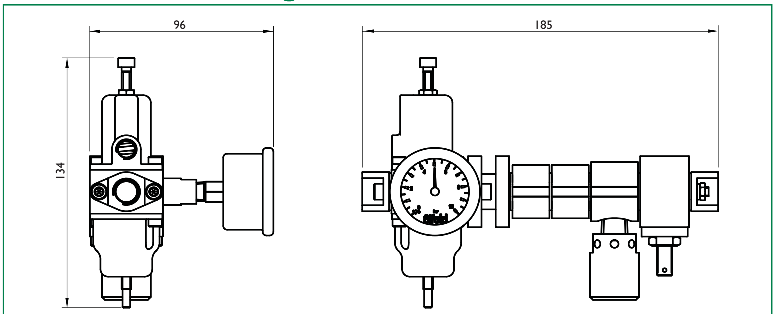


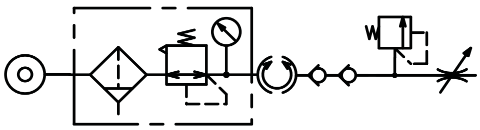


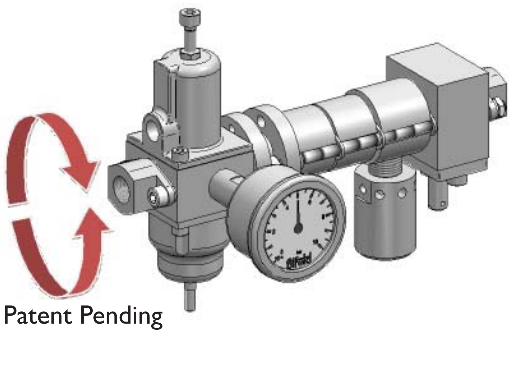


Modular Logic

Dimensional Drawings







Modular Logic Units Selection Chart - Ordering Example

XSN9	Model Code
FR Compact Filter Regulator - ¼" Only; **FR1** SH Filter Regulator; **FR2** Rotating Compact Filter Regulator - ¼" Only; **FR3** Rotating SH Filter Regulator	Base Configuration
A Ball Valve; **E** Gauge - See Gauge Options; **G** Single Check Valve; **H** Double Check Valve; **L** Inlet Flow Control; **K** Pressure Relief Valve	Logic Options ***
V Viton (standard) (-20°C to +180°C); **AL** Fluorosilicone (arctic service) (-60°C to +180°C) — For maximum operating temperatures see 'T' Rating Limitations for Ex emb & Ex d on page 6.	O-ring Material
10X1 0 - 10 bar -10 micron; **10X3** -25 micron; **10X4** -50 micron	Filter Regulator Configuration
X5 10 bar 50mm dry gauge; **X8** 10 bar 50mm glycerine filled gauge; **X10** 10 bar 40mm dry gauge; **X11** 10 bar 40mm glycerine filled gauge	Gauge
L125 ½" Port Blocks	Option
K6 BSPP Ports	Option
L115 (No Brackets)	Option
PRx.x Pressure Relief Setting	Pressure Relief Setting
XSN9-FR-EGK - V - 10X3 - X10 - L125 - K6 - L115 - PR5.5	Ordering Example

*** Other options available as per AXIS® selection code, please contact Bifold Sales Department.

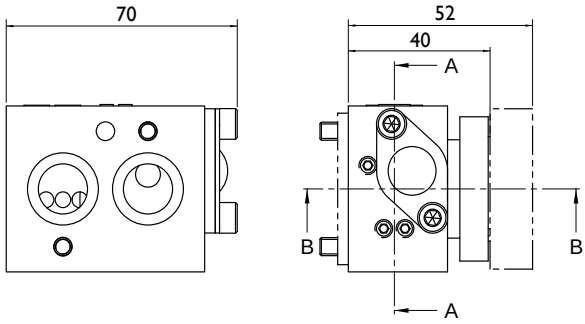
Accuracy of information
We take care to ensure that product information in this catalogue is reasonably accurate and up-to-date. However, our products are continually developed and updated so to ensure accurate and up-to-date information please refer to the product catalogue issue list on our web site or contact a member of our sales team.

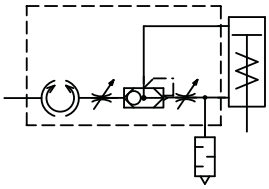
When selecting a product, the applicable operating system design must be considered to ensure safe use. The products function, material compatibility, adequate ratings, correct installation, operation and maintenance are the responsibilities of the system designer and user.

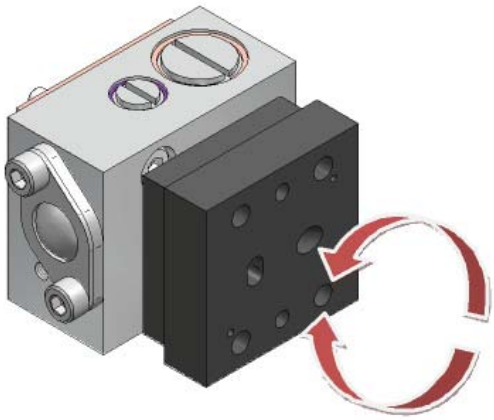
Quality Assurance
All Bifold products are manufactured to a most stringent QA programme to ensure that every product will give optimum performance and reliability. We are third party certified to EN ISO 9001:2008. Functional test certificate, letter of conformity and copies of original mill certificates, providing total traceability are available on request, to BSEN 10204.3.1.B where available. We reserve the right to make changes to the specifications and design etc., without prior notice.

Block Options

Dimensional Drawings

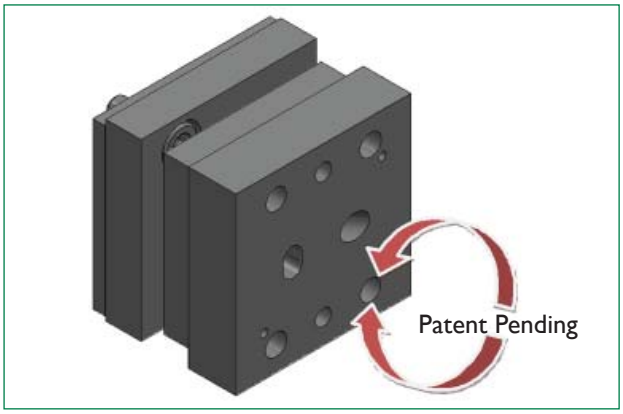




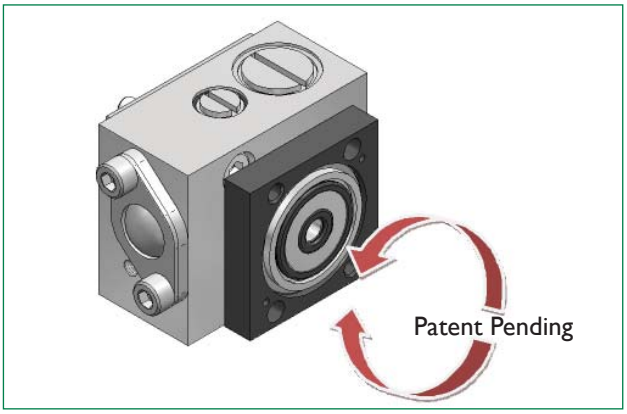


NAMUR Mounting Block Options Selection Chart - Ordering Example

NAM-04	NAMUR ¼" Interface according to VDI / VDE 3845		Model Code
MFB	Multifunction Mounting Block		Function
SRB	Standard Rotating Mounting Block		
V	Viton (standard)	(-20°C to +180°C)	O-ring Material
AL	Fluorosilicone (arctic service)	(-60°C to +180°C)	
	For maximum operating temperatures see 'T' Rating Limitations for Ex emb & Ex d on page 6.		
XX			Revision Number
NAM-04 - MFB - V - 01			Ordering Example



Rotating 3rd party solenoid valve interface.



Multifunction rotating block.

Options

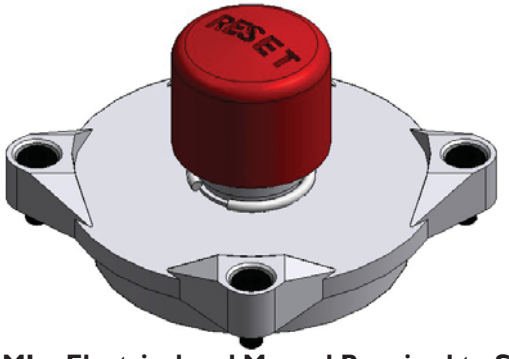
Product Options

The range of products displayed in this brochure, are designed to accommodate all the options shown below. If the style or arrangement required for your application is not shown, please contact our office with full description and specification details.

Type M - Electrical to Switch or Temporary Manual Override - Standard Housing

Manual Override Type M

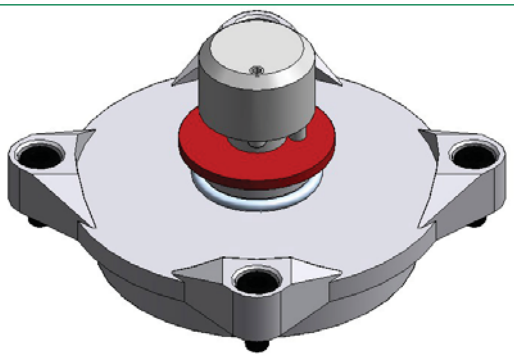
The solenoid valve switches on and off with the electrical supply. The manual override button can be pressed to operate the valve when the solenoid is in the electrically de-energised position. The manual override is non-detented, i.e. does not latch in position. When the button is released, the valve spring returns.



Type ML - Electrical and Manual Required to Switch or Temporary Manual Override
Type MLT - As above - Tamperproof - Standard Housing

Manual Reset Type ML & MLT

For Types ML and MLT, apply the electrical signal and press the reset button. With type ML, the valve moves to the energised position and will not de-energise until the electrical supply is removed. The manual reset button also acts as a manual override, when the valve is in the de-energised position and the electrical supply is off. The manual reset is non-detented, spring return, i.e. does not latch in position. With type MLT, the valve cannot be moved to the energised position by pressing the button if there is no electrical supply to the solenoid.



Type MOR - Electrical to Switch or Temporary Manual Rotary Override - Standard Housing

Manual Rotary Override Type MOR

The solenoid valve switches on and off with the electrical supply. The manual override rotary operator can be turned to operate the valve when the solenoid is in the electrically de-energised position. The manual override is detented, i.e. does latch in position.

Type M - Electrical to Switch or Temporary Manual Override - Slimline Housing

Manual Override Type M

The solenoid valve switches on and off with the electrical supply. The manual override button can be pressed to operate the valve when the solenoid is in the electrically de-energised position. The manual override is non-detented, i.e. does not latch in position. When the button is released, the valve spring returns.

Instrument, Process, Directional Control Valves, and Pumps

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Pneumatic and Instrumentation Valves

Hydraulic Valves

Subsea Valves

Hydraulic Pumps, Intensifiers and Valves

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Bifold® Marshalsea

Accuracy of Information
We take care to ensure that product information in this catalogue is reasonably accurate and up-to-date. However, our products are continually developed and updated so to ensure accurate and up-to-date information please refer to the product catalogue issue list on our web site or contact a member of our sales team.

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