

## **Direct and Indirect Acting Solenoid Valves Models FP03P, FP06P, FP10P, FP12P, SJ06, S06/S09/S12 & SPR**



### **Superior Performance Throughout the Full Operational Range**

- SIL 3 Third Party Certified
- Solenoid Free to Rotate Through 360°
- 316 Stainless Steel Solenoid Housing and Valve
- Arctic Service Options to -60°C
- Worldwide Solenoid Approvals  
Ex d, Ex ia, Ex emb, explosion proof
- Low Power
- High Flow
- Up to 35 bar Working Pressure





## Port Connections

### Port Connections (FP03P Only)

PORT CONNECTIONS TABLE			
Configuration	Pressure	Service	Vent
Normally Closed	1	2	3

For port connections please refer to selection chart ordering example. Page 14.

### Port Connections for (FP06P, FP10P, FP12P, SJ06, S06/S09/S12 & SPR)

PORT CONNECTIONS TABLE			
Configuration	Pressure	Service	Vent
Normally Closed	1	2	3
Normally Open	3	2	1
Selector	1 & 3	2	N/A
Diverter	2	1 & 3	N/A

For port connections please refer to selection chart ordering example. Pages 15, 16, 17, 18, 19 & 20.

## Product Weights

### Approximate Standard Product Weights

PRODUCT WEIGHTS	
Product	Approximate Weight (Kg)
FP03P	1.75
FP06P	2.1
FP10P	2.5
FP12P	3.0
SJ06	2.7
S06/S09/S12	3.4
SPR	3.2

For more information, please contact Bifold Sales Department.

## Seal Repair Kit

### Seal Repair Kit Selection Chart - Ordering Example (FP03P, FP06P, FP10P & FP12P)

SRK		Seal Repair Kit
FP03P FP06P FP10P FP12P		Model Code
S Nitrile (-20°C to +130°C) V Viton (Standard) (-20°C to +180°C) AG Silicone (-60°C to +180°C) AL Fluorosilicone (-60°C to +180°C)		O-ring Material
	XX	Revision Number
SRK-FP06P-V-XX		Ordering Example

For SJ06, S06/S09/S12 & SPR, please contact Bifold Sales Department.

## Solenoid Coil Spare

### Solenoid Coil Spare Selection Chart - Ordering Example (FP03P, FP06P, FP10P & FP12P)

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) 1.8, 3.6, 4.4 & 6.8 Watts 77 (Ex d) 3.0, 3.5, 5.7 & 12 Watts	Power
109-24DC-30		Ordering Example

For solenoid operator Type 78 (Ex ia), the coil spare ordering code is shown below:-

**109-12-370 Ohms**

For solenoid operator Type 77 (Ex d) Vac, the coil spare ordering example is shown below:-

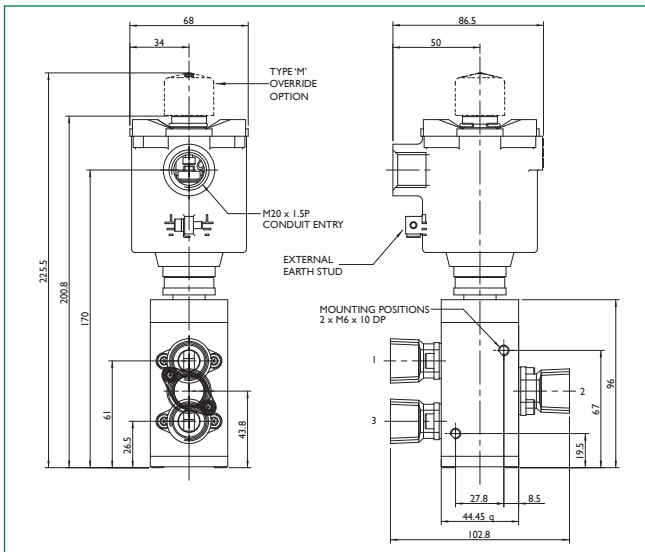
**109-110AC-57**

For detailed information, please contact Bifold Sales Department.

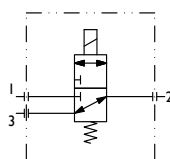


FPI2P

Dimensional Drawings

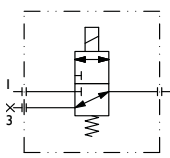


SCHEMATIC 3/2 NU



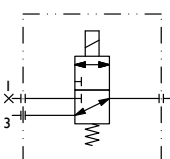
NU Normally Universal offered as standard.

SCHEMATIC 2/2 NC

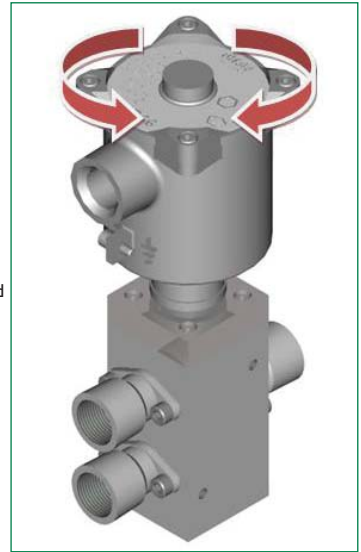


Valve suitable for universal operation 2/2 & 3/2. Normally Open and Normally Closed. Plug port 3 for 2/2 Normally Closed function. (Plugs available as a line item).

SCHEMATIC 2/2 NO



Plug port 1 for 2/2 Normally Open function. (Plugs available as a line item).



FPI2P Selection Chart - Ordering Example

<b>FPI2P</b>		Model Code
<b>SI</b>	10 bar maximum valve pressure - standard	Operator
<b>08</b>	1/2" NPT body ported	Connections
<b>32</b>	3-way, 2-position	Valve Configuration
<b>NU</b>	Normally Universal	
<b>S</b>	Nitrile (-20°C to +130°C)	For maximum operating temperatures see 'T' Rating Limitations for Ex d on page 12.
<b>V</b>	Viton (standard) (-20°C to +180°C)	
<b>AG</b>	Silicone (-60°C to +180°C)	
<b>AL</b>	Fluorosilicone (-60°C to +180°C)	
<b>XX</b>	Refer to Solenoid options tables. 77 (Ex d) Page 12 - Table 2	Solenoid *
<b>A</b>	ATEX/IECEX Dual Certified/Labelled	Solenoid Approval
<b>G</b>	GOST	
<b>I</b>	INMETRO	
<b>N</b>	NEPSI*	
<b>U</b>	CSA (US) ATEX Dual Certified/Labelled	
<b>3</b>	T4 IIC 77 (Ex d)	T-Rating & Gas Group
<b>6</b>	T5 IIC 77 (Ex d)	
<b>9</b>	T6 IIC 77 (Ex d)	
<b>XXX</b>	Voltage, refer to Solenoid 77 (Ex d) Page 12 - Table 2 option tables	Voltage
<b>M</b>	Electrical to switch or temporary manual override	Options
<b>ML</b>	Electrical and manual required to latch or temporary manual override (3.0Watts Ex d Only)	
<b>MLT</b>	Electrical and manual required to latch - tamperproof	
<b>120</b>	12 Watts - auto reset Page 12 - Table 2	Power
<b>65</b>	6.5 Watts - manual reset only (ML)	
<b>K6</b>	BSP ports	Option
<b>K85</b>	1/2" NPT conduit entry	Option
<b>XX</b>		Revision Number

**FPI2P-SI-08-32-NU-V-77 A 9-24D-ML-65-K6-K85-XX** Ordering Example

For green block sections, please refer to the same colour section on page 12.

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

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 certificates, letter of conformity and copies of original mill certificates, providing total traceability are available on request, to BS EN 10204 3.1.B where available. We reserve the right to make changes to the specifications and design etc., without prior notice.