

Direct & Indirect Acting Solenoid Valves Models FP06P, FP10P, FP12P, BXS & SPR NAMUR Mount Available on FP06P & BXS Solenoid Valve Range (Up to and including 508 psi / 35 bar working pressure)



Superior Performance Throughout the Full Operational Range

- Solenoid ValveSIL 3 Third Party Certified
- Solenoid Free to Rotate
 Through 360°
- 316L Stainless Steel Solenoid Enclosure and Valve. Aluminium Options Available
- Arctic Service Options to -60°C

Worldwide Solenoid Approvals
 Ex emb, Ex d, Ex ia & Explosion Proof



- Low Power 1.8W
- High Flow Up to 11.1 Cv
- Up to and including 508 psi / 35 bar
 Working Pressure

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Bifold

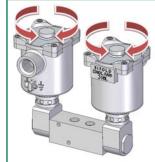
Features & Benefits

Worldwide Approvals



Solenoid Operator is Free to Rotate 360°





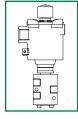
Widest Range of Override Options

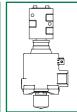


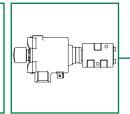




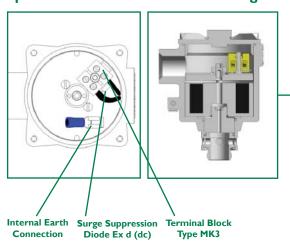
Valve can be Mounted in any Orientation







Spacious Enclosure for Ease of Wiring



Standard Solenoid Operator Equipment Design & Build

- Worldwide Approvals
- Solenoid operator is free to rotate 360° allowing for an easy cable layout and ease of connection wiring. Solenoid operator internals rotate with the enclosure 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).
- Worldwide technical and field support.
- Standard 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 Valve

- Tropicalised solenoid operator design 316L stainless steel enclosure with aluminium options also available; stainless steel or Remko B magnetic parts (dependent upon solenoid Ex type) Fully encapsulated coil.
- Spacious solenoid enclosure for ease of wiring.
- No time penalty for heat dissipation before removing solenoid enclosure cover.
- No special high temperature cable requirements.

We take care to ensure that product information in this catalogue is reasonably accurate and up-to-date. Howeve our products are continually developed and updated so to ensure accurate and up-to-date information please

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

Features & Benefits

Worldwide Approvals





Solenoid Operator is Free to Rotate 360°



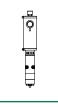


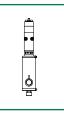
Override Options

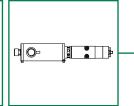




Valve Assembly can be Mounted in any Orientation

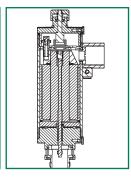






Compact Enclosure Design





Incoming Supply
Leads Connect
+Ve To Red Coil
Lead Connect
-Ve To Black Coil

Terminal Block Surge Suppression Diode Ex d (dc)

Slimline Solenoid Operator Equipment Design & Build

- Worldwide Approvals.
- Solenoid operator is free to rotate 360° allowing for an easy cable layout and ease of connection wiring.
 Solenoid operator internals rotate with the enclosure and prevent cables being pulled out of terminal block.
- 316L Stainless Steel Enclosure.
- Override Options Auto Reset, Manual Override and Manual Reset.
- Worldwide technical and field support.
- Slimline solenoid valve can be mounted in any orientation to simplify installation.

Commissioning and Maintenance Benefits for the Slimline Solenoid Valve

- Tropicalised solenoid operator design Fully encapsulated coil.
- No time penalty for heat dissipation before removing solenoid enclosure cover.
- No special high temperature cable requirements.
- Compact design and space envelope.

Accuracy of information

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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. Quality Assurance

All Bildol products are manufactured to a most stringent QA programme to ensure that every product will give optimum performance and reliability. We are third party certified to BS EN ISO 9001:2008. Functional test certificate, letter of conformity and copies of original mill certificates, providing total traceability are available on request, to BS EN 10204.3.1 where available. We reserve the right to make change.



Features & Benefits

Bifold®

SIL 3 Capability, FMEA, Extensive Qualification Testing Coupled with 100% Computerised Diagnostic Test Procedures.



Please refer to the Bifold website to see full range of SIL 3 capability certificates for the FP06P, FP10P, BXS & SPR.





State of the Art Testing







Simple Maintenance



Safety and Environmental Benefits

- SIL 3 capability: The product has met manufacturer design process requirements of Safety Integrity Level (SIL) 3. (For the FP06P, FP10P, BXS & SPR only).
- Force balanced valve design 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 product qualification and production equipment including flow (Cv), environment (-70°C to +180°C), function and leakage testing, and data logging.
- The standard solenoid operator 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.
- The standard solenoid valve has proven arctic service and 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 solenoid armature to prevent corrosion and affecting safe shut down.
- Simple maintenance Removable transient suppression diode on Ex d DC solenoid valve assemblies and removable solenoid coil without removing valve from the tubing.



	DIRECT AC	ΓING ST	ANDARD SOLENOID VALVES - P	REFERRED RANGE
Product	Schematic Representation	Page Number	Product Code	Product Description
	SCHEMATIC 3/2 NU FP06P Auto Reset	24	FP06P-S1-04-32-NU-V-74AT4-24D-36 FP06P-S1-04-32-NU-V-74AT4-24D-44 FP06P-S1-04-32-NU-V-74AT4-24D-68	ATEX Il 2 GDc, Ex emb IICT4T3 Gb IECEx Ex emb IICT4T3 Gb 3.6 Watt, Cv 0.35, I45 psi / I0 bar.
			FP06P-S1-04-32-NU-V-77A-24D-35 FP06P-S1-04-32-NU-V-77A-24D-57	ATEX II 2 GD, Ex d IICT4/T5/T6 IECEx Ex d IICT4/T5/T6 3.5 Watt, Cv 0.6, 145 psi / 10 bar. 5.7 Watt, Cv 1.0, 145 psi / 10 bar.
		24	FP06P-SI-04-32-NU-V-74AT4-24D-ML-36	1/4" NPT Ports, 3 Way 2 Position, Direct Acting, Normally Universal, 24Vdc, Manual Reset. ATEX I 2 GDc, Ex emb IICT4T3 Gb IECEx Ex emb IIC T4T3 Gb 3.6 Watt, Cv 1.0, 145 psi / 10 bar.
FP06P Manual Reset		24	FP06P-S1-04-32-NU-V-77A-24D-ML-30	ATEX (x) II 2 GD, Ex d IIC T4 / T5 / T6 IECEx Ex d IIC T4 / T5 / T6 3.0 Watt, Cv I.0, I45 psi / I0 bar.



	DIRECT ACTING STANDARD SOLENOID VALVES - PREFERRED RANGE						
Product	Schematic Representation	Page Number	Product Code	Product Description			
FP06P Aluminium Enclosure & Body Auto Reset	SCHEMATIC 3/2 NU VALVE LINTS	24	FP06P-S1-A04-32-NU-V-27A-24D-35 FP06P-S1-A04-32-NU-V-27A-24D-57	1/4" NPT Ports, 3 Way 2 Position, Direct Acting, Normally Universal, 24Vdc, Auto Reset. ■ ATEX I 2 GD, Ex d IICT4/T5/T6 ■ IECEx Ex d IICT4/T5/T6 3.5 Watt, Cv 0.6, 145 psi / 10 bar. 5.7 Watt, Cv 1.0, 145 psi / 10 bar.			
FP06P Aluminium Enclosure & Body Manual Reset	SCHEMATIC 3/2 NU R ALMELINITS	24	FP06P-S1-A04-32-NU-V-27A-24D-ML-30	¼" NPT Ports, 3 Way 2 Position, Direct Acting, Normally Universal, 24Vdc, Manual Reset. ■ ATEX Il 2 GD, Ex d IIC T4 / T5 / T6 ■ IECEx Ex d IIC T4 / T5 / T6 3.0 Watt, Cv 1.0, 145 psi / 10 bar.			
FP06P Aluminium Enclosure 316L Stainless Steel Body Auto Reset	SCHEMATIC 3/2 NU	24	FP06P-SI-04-32-NU-V-27A-24D-35 FP06P-SI-04-32-NU-V-27A-24D-57	1/4" NPT Ports, 3 Way 2 Position, Direct Acting, Normally Universal, 24Vdc, Auto Reset. ■ ATEX II 2 GD, Ex d IICT4/T5/T6 ■ IECEx Ex d IICT4/T5/T6 3.5 Watt, Cv 0.6, 145 psi / 10 bar. 5.7 Watt, Cv 1.0, 145 psi / 10 bar.			
FP06P Aluminium Enclosure 316L Stainless Steel Body Manual Reset	SCHEMATIC 3/2 NU R R VALVE LIMITS	24	FP06P-SI-04-32-NU-V-27A-24D-ML-30	1/4" NPT Ports, 3 Way 2 Position, Direct Acting, Normally Universal, 24Vdc, Manual Reset. ■ ATEX Il 2 GD, Ex d IIC T4 / T5 / T6 ■ IECEx Ex d IIC T4 / T5 / T6 3.0 Watt, Cv 1.0, 145 psi / 10 bar.			



DIRECT ACTING SLIMLINE SOLENOID VALVES - PREFERRED RANGE					
Product	Schematic Representation	Page Number	Product Code	Product Description	
FP06P Auto Reset	SCHEMATIC 3/2 NU	25	FP06P-SI-04-32-NU-V-58A-135	1/4" NPT Ports, 3 Way 2 Position, Direct Acting, Normally Universal, Auto Reset. ■ ATEX II G Ex ia, II C T4 / T6 Ga ■ IECEx Ex ia II C T4 / T6 Ga 135 Ohms, Cv 0.35, 145 psi / 10 bar.	
FP06P Manual Reset	SCHEMATIC 3/2 NU	25	FP06P-SI-04-32-NU-V-58A-ML-135	1/4" NPT Ports, 3 Way 2 Position, Direct Acting, Normally Universal, Manual Reset. ATEX ☑ II IG Ex ia, IIC T4 / T6 Ga IECEx Ex ia IIC T4 / T6 Ga ISS Ohms, Cv 0.35, I45 psi / I0 bar.	

[†] 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.

Preferred Range

	DIRECT AC	TING ST	TANDARD SOLENOID VALVES - PR	REFERRED RANGE
Product	Schematic Representation	Page Number	Product Code	Product Description
(ا			FP06P-S1-N14-32-NC-V-74AT4-24D-36	1/4" NPT Ports, 3 Way 2 Position, Direct Acting, Normally Closed, 24Vdc, Auto Reset Left Hand Feed.
5	SCHEMATIC 3/2 NC		FP06P-S1-N14-32-NC-V-74AT4-24D-44	ATEX (a) II 2 GDc, Ex emb IICT4T3 Gb
	1	26	FP06P-S1-N14-32-NC-V-74AT4-24D-68	3.6 Watt, Cv 0.35, 145 psi / 10 bar. 4.4 Watt, Cv 0.6, 145 psi / 10 bar. 6.8 Watt, Cv 1.0, 145 psi / 10 bar.
FP06P Namur Mount Auto Reset	T VALVE LIMITS		FP06P-SI-N14-32-NC-V-77A-24D-35	ATEX & II 2 GD, Ex d IICT4/T5/T6
Left Hand Feed			FP06P-S1-N14-32-NC-V-77A-24D-57	3.5 Watt, Cv 0.6, 145 psi / 10 bar. 5.7 Watt, Cv 1.0, 145 psi / 10 bar.
	SCHEMATIC 3/2 NC	26	FP06P-SI-N14-32-NC-V-74AT4-24D-ML-36	1/4" NPT Ports, 3 Way 2 Position, Direct Acting, Normally Closed, 24Vdc, Manual Reset Left Hand Feed. ATEX II 2 GDc, Ex emb IICT4T3 Gb IECEx Ex emb IIC T4T3 Gb 3.6 Watt, Cv 1.0, 145 psi / 10 bar.
FP06P Namur Mount Manual Reset Left Hand Feed	3 VALVE LIMITS	2 26	FP06P-S1-N14-32-NC-V-77A-24D-ML-30	ATEX II 2 GD, Ex d IICT4/T5/T6 III ECEx Ex d IICT4/T5/T6 3.0 Watt, Cv 1.0, 145 psi/10 bar.



	DIRECT ACTING SLIMLINE SOLENOID VALVES - PREFERRED RANGE						
Product	Schematic Representation	Page Number	Product Code	Product Description			
FP06P NAMUR Mount Auto Reset Right Hand Feed	SCHEMATIC 3/2 NC	27	FP06P-S1-N4-32-NC-V-58A-135	1/4" NPT Ports, 3 Way 2 Position, Direct Acting, Normally Closed, Auto Reset, Right Hand Feed. ■ ATEX ☑ II I G, Ex ia IIC T4 / T6 Ga ■ IECEx Ex ia IIC T4 / T6 Ga I 35 Ohms, Cv 0.35, 145 psi / 10 bar.			
FP06P NAMUR Mount Manual Reset Right Hand Feed	SCHEMATIC 3/2 NC	27	FP06P-S1-N4-32-NC-V-58A-ML-135	1/4" NPT Ports, 3 Way 2 Position, Direct Acting, Normally Closed, 24Vdc, Manual Reset, Right Hand Feed. ■ ATEX ☑ II I G, Ex ia IIC T6 Ga ■ IECEx Ex ia IIC T4 / T6 Ga 135 Ohms, Cv 0.35, 145 psi / 10 bar.			
FP06P NAMUR Mount Auto Reset Left Hand Feed	SCHEMATIC 3/2 NC	27	FP06P-S1-N14-32-NC-V-58A-135	1/4" NPT Ports, 3 Way 2 Position, Direct Acting, Normally Closed, Auto Reset, Left Hand Feed. ■ ATEX III G, Ex ia IIC T4 / T6 Ga ■ IECEx Ex ia IIC T4 / T6 Ga 135 Ohms, Cv 0.35, 145 psi / 10 bar.			
FP06P NAMUR Mount Manual Reset Left Hand Feed	SCHEMATIC 3/2 NC	27	FP06P-S1-N14-32-NC-V-58A-ML-135	1/4" NPT Ports, 3 Way 2 Position, Direct Acting, Normally Closed, Manual Reset, Left Hand Feed. ■ ATEX II I G, Ex ia IIC T4 / T6 Ga ■ IECEx Ex ia IIC T4 / T6 Ga 135 Ohms, Cv 0.35, 145 psi / 10 bar.			

[†] 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.

Accuracy of Information
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	DIRECT ACTING STANDARD SOLENOID VALVES - PREFERRED RANGE						
Product	Schematic Representation	Page Number	Product Code	Product Description			
FP12P Auto Reset	SCHEMATIC 3/2 NU	29	FP12P-S1-08-32-NU-V-77A-24D-120	1/2" NPT Ports, 3 Way 2 Position, Direct Acting, Normally Universal, 24Vdc, Auto Reset. ■ ATEX Il 2 GD, Ex d IIC T4 / T5 / T6 ■ IECEx Ex d IIC T4 / T5 / T6 12.0 Watt, Cv 2.5, 145 psi / 10 bar.			
FP12P Manual Reset	SCHEMATIC 3/2 NU	29	FP12P-S1-08-32-NU-V-77A-24D-ML-65	1/2" NPT Ports, 3 Way 2 Position, Direct Acting, Normally Universal, 24Vdc, Manual Reset. ■ ATEX Il 2 GD, Ex d IIC T4 / T5 / T6 ■ IECEx Ex d IIC T4 / T5 / T6 6.5 Watt, Cv 2.5, 145 psi / 10 bar.			



	DIRECT A	CTING	STANDARD SOLENOID VALVES -	PREFERRED RANGE	
Product	Schematic Representation	Page Number	Product Code	Product Description	
	SCHEMATIC 3/2 NC		BXS-04-04-E1-32-NC-00-V-74AT4-24D-36	1/4" NPT Ports, 3 Way 2 Position, Pilot Operated, Direct Acting, Normally Closed, Spring Return, 24Vdc, Auto Reset Internal Pilot. ■ ATEX II 2 GDc, Ex emb IICT4T3 Gb ■ IECEx Ex emb IIC T4T3 Gb 3.6 Watt, Cv 0.73, 145 psi / 10 bar.	
BXS	3-1 1-2	30	BXS-04-04-E1-32-NC-00-V-77A-24D-18	ATEX (♠) 2 GD, Ex d C T4 / T5 / T6 ■ IECEx Ex d C T4 / T5 / T6 I.8 Watt, Cv 0.73, 45 psi / 10 bar.	
Auto Reset Internal Pilot			BXS-04-04-E1-32-NC-00-V-78A-260	ATEX WII I GD, Ex ia IICT4 / T6 Ga IECEx Ex ia IICT4 / T6 Ga 260 Ohms, Cv 0.73, I45 psi / I0 bar.	
	SCHEMATIC 3/2 NC		BXS-04-04-E5-32-NC-00-V-74AT4-24D-36	'/4" NPT Ports, 3 Way 2 Position, Pilot Operated, Direct Acting, Normally Closed, Spring Return, 24Vdc, Manual Reset Internal Pilot. ■ ATEX ☑ II 2 GDc, Ex emb IICT4T3 Gb ■ IECEx Ex emb IIC T4T3 Gb 3.6 Watt, Cv 0.73, 145 psi / 10 bar.	
BXS		30	BXS-04-04-E5-32-NC-00-V-77A-24D-18	ATEX (♠) 2 GD, Ex d C T4 / T5 / T6 ■ ECEx Ex d C T4 / T5 / T6 1.8 Watt, Cv 0.73, 45 psi / 10 bar.	
Manual Reset Internal Pilot			BXS-04-04-E5-32-NC-00-V-78A-260	■ ATEX II I GD, Ex ia IIC T4 / T6 Ga ■ IECEx Ex ia IIC T4 / T6 Ga 260 Ohms, Cv 0.73, 145 psi / 10 bar.	
	SCHEMATIC 5/2		BXS-04-04-E1-52-XX-00-V-74AT4-24D-36	1/4" NPT Ports, 5 Way 2 Position, Pilot Operated, Direct Acting, Spring Return, 24Vdc, Auto Reset Internal Pilot. ■ ATEX ☑ II 2 GDc, Ex emb IIC T4T3 Gb ■ IECEx Ex emb IIC T4T3 Gb 3.6 Watt, Cv 0.73, 145 psi / 10 bar.	
BXS	S VALVE LIMITS	31	BXS-04-04-E1-52-XX-00-V-77A-24D-18	ATEX (3) II 2 GD, Ex d IIC T4 / T5 / T6 I.8 Watt, Cv 0.73, I45 psi / I0 bar.	
Auto Reset Internal Pilot	VALVE LIMITS		BXS-04-04-E1-52-XX-00-V-78A-260	■ ATEX II I GD, Ex ia IIC T4 / T6 Ga ■ IECEx Ex ia IIC T4 / T6 Ga 260 Ohms, Cv 0.73, 145 psi / 10 bar.	
	SCHEMATIC 5/2		BXS-04-04-E5-52-XX-00-V-74AT4-24D-36	1/4" NPT Ports, 5 Way 2 Position, Pilot Operated, Direct Acting, Spring Return, 24Vdc, Manual Reset Internal Pilot. ■ ATEX Il 2 GDc, Ex emb IIC T4T3 Gb ■ IECEx Ex emb IIC T4T3 Gb 3.6 Watt, Cv 0.73, 145 psi / 10 bar.	
BXS		31	BXS-04-04-E5-52-XX-00-V-77A-24D-18	ATEX (2) II 2 GD, Ex d IIC T4 / T5 / T6 I.8 Watt, Cv 0.73, I45 psi / I0 bar.	
Manual Reset Internal Pilot		VALVE LIMITS	VALVE LIHITS		BXS-04-04-E5-52-XX-00-V-78A-260

[†] 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.



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Quality Assistance
AB Biolid products are manufactured to a most stringent.
AB Biolid products are that every product will give optimum.
AB programme to estuars that every product will give optimum.
BE PIN SO 9001 (2008. Functional test certificate, letter of conformity and copies of original mill certificates, providing the conformity and copies of original mill certificates, providing the conformity and copies of original mill certificates, providing that the conformity and copies of original mill certificates, providing that the conformity and copies of original mill certificates, providing the conformity and t



	INDIRECT AC	CTING S	STANDARD SOLENOID VALVES - F	PREFERRED RANGE
Product	Schematic Representation	Page Number	Product Code	Product Description
BXS Banjo Joint Auto Reset Internal Pilot			BXS-04-04-EI-52-XX-EI-V-74AT4-24D-36-L142	1/4" NPT Ports, Dual Solenoid, 5 Way 2 Position, Pilot Operated, Indirect Acting, Pilot Return, 24Vdc, Auto Reset Internal Pilot. ■ ATEX Il 2 GDc, Ex emb IICT4T3 Gb ■ IECEx Ex emb IICT4T3 Gb 3.6 Watt, Cv 0.73, 145 psi / 10 bar.
	SCHEMATIC 5/2	31	BXS-04-04-E1-52-XX-E1-V-77A-24D-30-L142	ATEX (☑) II 2 GD, Ex d IIC T4 / T5 / T6 ■ ■ IECEx Ex d IIC T4 / T5 / T6 3.0 Watt, Cv 0.73, I45 psi / I0 bar.
			BXS-04-04-E1-52-XX-E1-V-78A-260-L142	ATEX II I GD, Ex ia IICT4/T6 Ga IICECEx Ex ia IICT4/T6 Ga 260 Ohms, Cv 0.73, 145 psi / 10 bar.
			BXS-04-04-E5-52-XX-E5-V74AT4-24D-36-L142	1/4" NPT Ports, Dual Solenoid, 5 Way 2 Position, Pilot Operated, Indirect Acting, Pilot Return, 24Vdc, Manual Reset Internal Pilot. ATEX Il 2 GDc, Ex emb IICT4T3 Gb IECEx Ex emb IICT4T3 Gb 3.6 Watt, Cv 0.73, 145 psi / 10 bar.
BXS Banjo Joint Manual Reset Internal Pilot	SCHEMATIC 5/2 R VALVE LIMITS	31	BXS-04-04-E5-52-XX-E5-V-77A-24D-30-L142	ATEX
			BXS-04-04-E5-52-XX-E5-V-78A-260-L142	ATEX III I GD, Ex ia IIC T4 / T6 Ga EE IECEx Ex ia IIC T4 / T6 Ga 260 Ohms, Cv 0.73, 145 psi / 10 bar.

[†] 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.



	INDIRECT A	CTING	STANDARD SOLENOID VALVES -	PREFERRED RANGE
Product	Schematic Representation	Page Number	Product Code	Product Description
	SCHEMATIC 5/2		BXS-04-N4-E1-52-XX-00-V74AT4-24D-36-L142	1/4" NPT Ports, 5 Way 2 Position, Pilot Operated, Indirect Acting, Pilot Return, 24Vdc, Auto Reset Internal Pilot. ■ ATEX ☑ II 2 GDc, Ex emb IICT4T3 Gb ■ IECEx Ex emb IIC T4T3 Gb 3.6 Watt, Cv 0.73, 145 psi / 10 bar.
BXS NAMUR Mount	VALVE LIMITS	32	BXS-04-N4-E1-52-XX-00-V-77A-24D-30-L142	TEX (II 2 GD, Ex d IIC T4 / T5 / T6 IECEx Ex d IIC T4 / T5 / T6 IC T4 / T5 /
Banjo Joint Auto Reset Internal Pilot			BXS-04-N4-E1-52-XX-00-V78A-260-L142	ATEX
	SCHEMATIC 5/2		BXS-04-N4-E5-52-XX-00-V74AT4-24D-36-L142	1/4" NPT Ports, 5 Way 2 Position, Pilot Operated, Indirect Acting, Pilot Return, 24Vdc, Manual Reset Internal Pilot. ATEX I 2 GDc, Ex emb IICT4T3 Gb IECEx Ex emb IICT4T3 Gb 3.6 Watt, Cv 0.73, 10 bar.
BXS NAMUR Mount	WADELIMIS WADELIMIS	32	BXS-04-N4-E5-52-XX-00-V-77A-24D-30-L142	ATEX
Banjo Joint Manual Reset Internal Pilot			BXS-04-N4-E5-52-XX-00-V78A-260-L142	ATEX II I GD, Ex ia IIC T4 / T6 Ga IECEx Ex ia IIC T4 / T6 Ga 260 Ohms, Cv 0.73, 145 psi / 10 bar.
BXS Aluminium Enclosure & Body NAMUR Mount Banjo Joint Auto Reset Internal Pilot	SCHEMATIC 5/2	32	BXS-04-AN4-EI-52-XX-00-V-27A-24D-30-LI42	1/4" NPT Ports, 5 Way 2 Position, Pilot Operated, Indirect Acting, Pilot Return, 24Vdc, Auto Reset Internal Pilot. ■ ATEX II 2 GD, Ex d IIC T4 / T5 / T6 ■ IECEx Ex d IIC T4 / T5 / T6 3.0 Watt, Cv 0.73, 145 psi / 10 bar.
BXS Aluminium Enclosure & Body NAMUR Mount Banjo Joint Manual Reset Internal Pilot	SCHEMATIC 5/2	32	BXS-04-AN4-E5-52-XX-00-V-27A-24D-30-L142	1/4" NPT Ports, 5 way 2 position, Pilot Operated, Indirect Acting, Pilot Return, 24Vdc, Manual Reset Internal Pilot. ■ ATEX II 2 GD, Ex d IICT4 / T5 / T6 ■ IECEx Ex d IICT4 / T5 / T6 3.0 Watt, Cv 0.73, 145 psi / 10 bar.

[†] 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.

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When selecting a product, the applicable operating system design must be considered to ensure safe use. The produc function, material compactibility, adequate ratings, correct installation, operation and maintenance are the perpositivities of the actual designs and user. All Bildol products are manufactured to a most stringent QA programme to ensure that every product will give optimus performance and reliability. We are third party certified to BS EN ISO 9001-2008. Functional test certificate, letter of conformity and copies of original mill certificates, providing total traceability are available on request, to BS EN 10204 3.1 is a member of the Bifold Group



	DIRECT AC	TING S	TANDARD SOLENOID VALVES - P	REFERRED RANGE	
Product	Schematic Representation	Page Number	Product Code	Product Description	
	SCHEMATIC 3/2 NC		SPR-08-08-E1-32-NC-00-V-74AT4-24D-36	1/2" NPT Ports, 3 Way 2 Position, Pilot Operated, Direct Acting, Normally Closed, Spring Return, 24Vdc, Auto Reset Internal Pilot. ■ ATEX I 2 GDc, Ex emb IICT4T3 Gb ■ IECEx Ex emb IIC T4T3 Gb 3.6 Watt, Cv 3.0, 145 psi / 10 bar.	
SPR	3-1 1-2	33	SPR-08-08-E1-32-NC-00-V-77A-24D-30	ATEX	
Auto Reset Internal Pilot			SPR-08-08-E1-32-NC-00-V-78A-260	ATEX ⟨ II GD, Ex ia IIC T4 / T6 Ga	
	SCHEMATIC 3/2 NC		SPR-08-08-E5-32-NC-00-V-74AT4-24D-36	/2" NPT Ports, 3 Way 2 Position, Pilot Operated, Direct Acting, Normally Closed, Spring Return, 24Vdc, Manual Reset Internal Pilot. ATEX II 2 GDc, Ex emb IICT4T3 Gb IECEx Ex emb IICT4T3 Gb 3.6 Watt, Cv 3.0, 145 psi / 10 bar.	
SPR		33	SPR-08-08-E5-32-NC-00-V-77A-24D-30	ATEX II 2 GD, Ex d IICT4/T5/T6 IECEx Ex d IICT4/T5/T6 3.0 Watt, Cv 3.0, I45 psi/I0 bar.	
Manual Reset Internal Pilot			SPR-08-08-E5-32-NC-00-V-78A-260	ATEX III I GD, Ex ia IIC T4 / T6 Ga EEECEx Ex ia IIC T4 / T6 Ga 260 Ohms, Cv 3.0, 145 psi / 10 bar.	
	SCHEMATIC 5/2		SPR-08-08-E1-52-XX-00-V-74AT4-24D-36	1/2" NPT Ports, 5 Way 2 Position, Pilot Operated, Direct Acting, Spring Return, 24Vdc, Auto Reset Internal Pilot. ■ ATEX Il 2 GDc, Ex emb IICT4T3 Gb ■ IECEx Ex emb IICT4T3 Gb 3.6 Watt, Cv 3.0, 145 psi / 10 bar.	
SPR	S WALVE LIMITS	34	SPR-08-08-E1-52-XX-00-V-77A-24D-30	ATEX II 2 GD, Ex d IIC T4 / T5 / T6 IECEx Ex d IIC T4 / T5 / T6 3.0 Watt, Cv 3.0, I 45 psi / I0 bar.	
Auto Reset Internal Pilot			SPR-08-08-E1-52-XX-00-V-78A-260	ATEX & II GD, Ex ia IIC T4 / T6 Ga ECEx Ex ia IIC T4 / T6 Ga T4 / T6 Ohms, Cv 3.0, 145 psi / 10 bar.	
	I	SCHEMATIC 5/2	SPR-08-08-E5-52-XX-00-V-74AT4-24D-36	1/2" NPT Ports, 5 Way 2 Position, Pilot Operated, Direct Acting Spring Return, 24Vdc, Manual Reset Internal Pilot. ■ ATEX Il 2 GDc, Ex emb IICT4T3 Gb ■ IECEx Ex emb IICT4T3 Gb	
SPR		34	SPR-08-08-E5-52-XX-00-V-77A-24D-30	3.6 Watt, Cv 3.0, 145 psi / 10 bar. ATEX	
Manual Reset Internal Pilot		VALVE LIMITS	VALYE LIMITS		SPR-08-08-E5-52-XX-00-V-78A-260

[†] 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.

Overview



Materials of Construction

Standard and Slimline Solenoid enclosures and valves are manufactured from 316L stainless steel as standard with aluminium options also available. 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 316L grade stainless steel.

Technical Data

Operating Performance for FP06P, FP10P, FP12P, BXS & SPR

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 for standard 7 series solenoid enclosures.

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 2 & 7 series solenoid enclosure

Certification & Approval options available for slimline 5 series solenoid enclosure





SIL 3 capability: The product has met manufacturer design process requirements of Safety Integrity Level (SIL) 3 in accordance with IEC 61508. (For the FP06P, FP10P, BXS & SPR only).

The type 77 Ex d solenoid enclosure has been designed with 'spigot' and 'threaded' type flamepath joints, therefore the minimum spacing requirements for obstruction effects of 'flange' joints in accordance with IEC/BS EN 60079-14 Explosive atmospheres: Electrical installations design, selection and erection regarding the installation of the solenoid enclosure and its proximity with other objects is not applicable.

Solenoid valve assemblies can be mounted in any orientation. Solenoid enclosure can be rotated relative to the pilot stage valve body to suit cable entry.

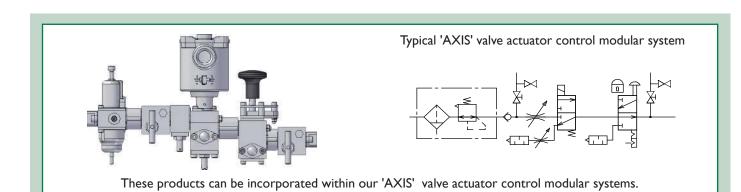
Working pressure up to 508 psi / 35 bar. Maximum working pressure according to valve model.

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 (mm²/s).

For operating temperature range, please see solenoid valve type and seal options.

Higher voltage options available for line monitoring.

Manual Reset, Manual Override and Manual Latch operator options.



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All Bild of products are manufactured to a most stringent
QA programme to ensure that every product will give optimum
performance and reliability. We are third party certified to
BS EN ISO 9001:2008. Functional test certificate, letter of
conformity and copies of original mill certificates, providing
total traceability are available on request, to BS EN 10204 3.1
where available. We reserve the rinks to make channes

Certification Details

Bifold

Certification & Approval Details

Type 74AT4 Standard Solenoid Enclosure



ATEX, Certificate Number Baseefa 09ATEX0040X.

- Il 2 GD c Ex emb IICT3 Gb Tamb -25°C to +40°C. *
 Il 2 GD c Ex emb IICT4 Gb Tamb -25°C to +50°C. *
 Il 2 GD c Ex emb IICT3 Gb Tamb -25°C to +55°C. **

Dual Labelled/Marked

IECEx, Certificate Number IECEx Bas 09.0012X. Ex emb IIC T3 Gb Tamb -25°C to +40°C. Ex emb IIC T4 Gb Tamb -25°C to +50°C. ** Ex emb IIC T3 Gb Tamb -25°C to +55°C. ***

IEC Ex IECEx, Certificate Number IECEx Bas 09.0012X.

Ex d IICT6 (Tamb -40°C to +40°C). Ex d IICT5 (Tamb -40°C to +55°C). Ex d IICT4 (Tamb -40°C to +90°C).

Ex d IICT6 (Tamb -60°C to +40°C). Ex d IICT5 (Tamb -60°C to +55°C).

Ex d IICT4 (Tamb -60°C to +90°C).

Type 27 Standard Solenoid - Aluminium Enclosure



ATEX, Certificate Number Baseefa 10ATEX0026.

- II 2 GD Ex d IIC T6 (Tamb -40°C to +40°C).
 II 2 GD Ex d IIC T5 (Tamb -40°C to +55°C).

Dual Labelled/Marked

Type 77 Standard Solenoid Enclosure

Type 77 Standard Solenoid Enclosure



ATEX, Certificate Number Baseefa 10ATEX0026.

Dual Labelled/Marked



CSA (US), Certificate Number 1398692

Class I, Division I, Groups B, C & D for both us 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.

Type 77 Standard Solenoid Enclosure



ATEX, Certificate Number Baseefa 10ATEX0026.

II 2 GD Ex d IIC T6 (Tamb -60°C to +40°C).
 II 2 GD Ex d IIC T5 (Tamb -60°C to +55°C).
 II 2 GD Ex d IIC T4 (Tamb -60°C to +90°C).

IECEx, Certificate Number IECEx Bas 10.0008.

Dual Labelled/Marked

Type 27 Standard Solenoid - Aluminium Enclosure



NEPSI, Certificate Number GYJ14.1042X Ex d IICT6 up to 40°C ambient. Ex d IICT5 up to 55°C ambient.

Ex d IICT4 up to 95°C ambient.

IECEx, Certificate Number IECEx Bas 09.0012X.

Ex d IIC T6 (Tamb -40°C to +40°C). Ex d IIC T5 (Tamb -40°C to +55°C).

Ex d IICT4 (Tamb -40°C to +90°C).

Dual Labelled/Marked

Type 77 Standard Solenoid Enclosure

NEPSI, Certificate Number GYJ14.1042X Ex d IICT6 up to 40°C ambient. Ex d IICT5 up to 55°C ambient. Ex d IICT4 up to 95°C ambient.

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 Enclosure



INMETRO, Certificate Number CEPEL-EX-097/2003X.

BR-Ex d IICT6 -60°C to +40°C ambient. BR-Ex d IICT5 -60°C to +55°C ambient.

BR-Ex d IICT4 -60°C to +90°C ambient.

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 Enclosure



GOST, Certificate Number B00763, RTN. IEx d IICT6 -60°C to +40°C ambient. IEx d IICT5 -60°C to +55°C ambient.

IEx d IICT4 -60°C to +90°C ambient.

IECEx, Certificate Number IECEx Bas 10.0008. Ex d IICT6 (Tamb -60°C to +40°C). Ex d IICT5 (Tamb -60°C to +55°C).

Ex d IICT4 (Tamb -60°C to +90°C). **Dual Labelled/Marked**

Type 77 Standard Solenoid Enclosure



KTL, Certificate Number 12-KB4BO-0213 Ex d IICT6 -60°C to +40°C ambient. Ex d IICT5 -60°C to +55°C ambient. Ex d IICT4 -60°C to +90°C ambient.

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 IICT4 (Tamb -60°C to +90°C).

Dual Labelled/Marked

Please note that operation ambients are dependent upon seal types.

For solenoid type 74AT4, the maximum permissible ambient temperature is subject to the coil wattage. Please see page 19.

* Powers up to 6.8W

** Powers up to 4.0W

*** Powers up to 1.8W





Certification Details

Certification & Approval Details

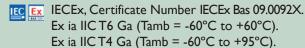


Type 28 Standard Solenoid - Aluminium Enclosure



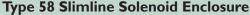
ATEX, Certificate Number Baseefa 02ATEX0124X.

- 1 II I GD Ex ia IICT6 Ga (Tamb = -60°C to +60°C).
- 1 II I GD Ex ia IICT4 Ga (Tamb = -60°C to +95°C).



Dual Labelled/Marked

Dual Labelled/Marked





ATEX, Certificate Number Baseefa 08ATEX0292X.

ⓑ II IG Ex ia IICT6 Ga (-40°C ≤ Ta ≤ +60°C).



EC Ex IECEx, Certificate Number IECEx Bas 08.0095X. Ex ia IICT6 Ga (-40°C \leq Ta \leq +60°C).

Type 78 Standard Solenoid Enclosure



ATEX, Certificate Number Baseefa 02ATEX0124X.

- 1 II I GD Ex ia IICT6 Ga (Tamb = -60°C to +60°C).
- 8 II I GD Ex ia IICT4 Ga (Tamb = -60°C to +95°C).



EX IECEx, Certificate Number IECEx Bas 09.0092X. Ex ia IIC T6 Ga (Tamb = -60° C to $+60^{\circ}$ C). Ex ia IICT4 Ga (Tamb = -60° C to $+95^{\circ}$ C).

Dual Labelled/Marked

Type 28 Standard Solenoid Enclosure - Aluminium Enclosure



EAC, Certificate Number B00293, RTN. 0Ex ia IICT6 -60°C to +60°C ambient.

0Ex ia IICT4 -60°C to +95°C ambient.



IECEx, Certificate Number IECEx Bas 09.0092X. Ex ia IIC T6 Ga (Tamb = -60° C to $+60^{\circ}$ C). Ex ia IIC T4 Ga (Tamb = -60° C to $+95^{\circ}$ C).

Dual Labelled/Marked

Type 58 Slimline Solenoid Enclosure



EAC, Certificate Number B00315, RTN Permit

Number PPC 00-048112

0Ex ia IICT6 -40°C to +40°C ambient. 0Ex ia IICT5 -40°C to +55°C ambient. 0Ex ia IICT4 -40°C to +60°C ambient.



Ex IECEx, Certificate Number IECEx Bas 08.0095X. Ex ia IIC T6 Ga (-40°C \leq Ta \leq +60°C).

Type 78 Standard Solenoid Enclosure



EAC, Certificate Number B00293, RTN. 0Ex ia IICT6 -60°C to +60°C ambient. 0Ex ia IICT4 -60°C to +95°C ambient.



IECEx, Certificate Number IECEx Bas 09.0092X. Ex ia IIC T6 Ga (Tamb = -60° C to $+60^{\circ}$ C). Ex ia IIC T4 Ga (Tamb = -60°C to +95°C).

Dual Labelled/Marked

Dual Labelled/Marked

Type 58 Slimline Solenoid Enclosure



INMETRO, Certificate Number CEPEL 12.2125X. BR-Ex ia IIBT6 -40°C to +60°C ambient.



EX IECEx, Certificate Number IECEx Bas 08.0095X. Ex ia IIC T6 Ga (-40°C \leq Ta \leq +60°C).

Type 78 Standard Solenoid Enclosure



INMETRO, Certificate Number CEPEL-EX-532/05.

BR-Ex ia IICT6 -60°C to + 40°C ambient. BR-Ex ia IICT4 -60°C to + 95°C ambient.

IECEx, Certificate Number IECEx Bas 09.0092X. Ex ia IICT6 Ga (Tamb = -60° C to $+60^{\circ}$ C). Ex ia IIC T4 Ga (Tamb = -60°C to +95°C).

Dual Labelled/Marked

Type 28 Standard Solenoid - Aluminium Enclosure



NEPSI, Certificate Number GYJ14.1042X 0Ex ia IICT6 -60°C to +60°C ambient. 0Ex ia IICT4 -60°C to +95°C ambient.

IEC Ex IECEx, Certificate Number IECEx Bas 09.0092X. Ex ia IIC T6 Ga (Tamb = -60° C to $+60^{\circ}$ C). Ex ia IIC T4 Ga (Tamb = -60°C to +95°C).

Dual Labelled/Marked

Type 58 Slimline Solenoid Enclosure



NEPSI, Certificate Number GYJ14.1314X. BR-Ex ia IIBT6 -40°C to +60°C ambient.

IEC Ex IECEx, Certificate Number IECEx Bas 08.0095X. Ex ia IICT6 Ga (-40°C \leq Ta \leq +60°C).

Dual Labelled/Marked

Please note that operation ambients are dependent upon seal types.





Certification Details

Bifold

Certification & Approval Details

Type 78 Standard Solenoid Enclosure



NEPSI, Certificate Number GYJ14.1043. Ex ia IICT6 -60°C to + 40°C ambient. Ex ia IICT4 -60°C to + 95°C ambient.

IEC Ex IECEx, Certificate Number IECEx Bas 09.0092X. Ex ia IIC T6 Ga (Tamb = -60° C to $+60^{\circ}$ C). Ex ia IICT4 Ga (Tamb = -60° C to $+95^{\circ}$ C).

Dual Labelled/Marked

Label Rationalisation

The temperature details on our solenoid valve labels have, to date, been laid out with a single ambient range and 'T' rating, as follows:-

77A3 -T4 (-60°C \leq Tamb \leq +90°C) or $77A6 - T5 (-60^{\circ}C \le Tamb \le +55^{\circ}C)$ or $77A9 - T6 (-60^{\circ}C \le Tamb \le +40^{\circ}C)$

The labels are in the process of being replaced with a single label which covers all potential temperature parameters. Therefore, the label will for example, read as follows:-

77A
$$\left\{ \begin{array}{l} T4 \ (-60^{\circ}C \leq Tamb \leq +90^{\circ}C) \\ T5 \ (-60^{\circ}C \leq Tamb \leq +55^{\circ}C) \\ T6 \ (-60^{\circ}C \leq Tamb \leq +40^{\circ}C) \end{array} \right\}$$

Please note that operation ambients are dependent upon seal types.

Port Connections

Port Connections for 3/2 (FP06P, FP10P, FP12P, BXS & SPR)

PORT CONNECTIONS TABLE						
Configuration Pressure Service Vent						
Normally Closed	I	2	3			
Normally Open 3 2 I						

For port connections, please refer to selection chart ordering example on pages 24, 25, 26, 27, 28, 29, 30, 33 & 35.

Port Connections



Port Connections for 5/2 & 5/3 (BXS), & 5/2 (SPR)

PORT CONNECTIONS TABLE									
Configuration	Pressure	Service	Vent						
XX	I	2 & 4	3 & 5						
YY	1	2 & 4	3 & 5						
ZZ	Ī	2 & 4	3 & 5						

For port connections, please refer to selection chart ordering example on pages 31, 32, 34 & 36.

Solenoid Coil Spare

Solenoid Coil Spare Selection Chart Ordering Example Type 74AT4, 27 & 77

09		Coil Type
XXX Voltage	74AT4 (Ex emb)24 & 48 Vdc 27 (Ex d)	Voltage
XX Powe	r (W) 74AT4 (Ex emb) 1.8, 3.6, 4.4 & 6.8 Watts 27 (Ex d) 1.8, 3.0, 3.5, 5.7 & 6.5 Watts 77 (Ex d) 1.8, 3.0, 3.5, 5.7, 6.5 & 12 Watts	Power
09-XXX-XX		Ordering Example

For solenoid operator Type 27 & 77 (Ex d) Vdc & Vac, the coil spare ordering examples are shown below:-

109-110DC-57 109-110AC-57

Type MK3

Type MK3 Terminal Block

The type MK3 terminal block can accommodate solid conductors between the range of 0.5mm^2 to 2.5mm^2 and flexible conductors between the range of 0.5mm^2 to 1.5mm^2 .

Solenoid Coil Spare

Solenoid Coil Spare Selection Chart Ordering Example Type 58

58				Coil Type
	135	Resistance (Ω) 58 (Ex ia)	135 Ohms	Resistance †
- ['				
58	- 135			Ordering Example
30	.55			C. Co 6 Example

 \dagger 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.

Solenoid Coil Spare

Solenoid Coil Spare Selection Chart Ordering Example Type 28 & 78

Coil Type
Nominal Voltage
Resistance †
Ordering Example

 \dagger 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.

Accuracy of information We take care to ensure that

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Ex emb Options



Options Table I 74AT4 (Ex emb)

			SOLENO	ID OPTIOI	NS T	ABLE I 74AT4 (E	x 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	74AT4	Ex emb II T3 /T4	24Vdc 48Vdc	3.6 4.4 6.8 I.8 (Manual Latch) 3.6 (Manual Latch)	0.35 0.6 1.0 1.0	Media # -20°C to +90°C -55°C to +90°C Ambient -25°C to +55°C (T3) (3.0 W & Below) -25°C to +50°C (T3 & T4) (4.0 W & Below) -25°C to +40°C (T3) (6.8 W & Below)	IP66 IP67 NEMA 4X	M20 x 1.5 (½" NPT Option)	™ ™ ∴ ATEX € ⊗ IECEx
FPIOP	74AT4	Ex emb II T3 /T4	24Vdc 48Vdc	3.6 4.4 6.8	0.35 0.6 1.0	Media # -20°C to +90°C -55°C to +90°C Ambient -25°C to +55°C (T3) (3.0 W & Below) -25°C to +50°C (T3 &T4) (4.0 W & Below) -25°C to +40°C (T3) (6.8 W & Below)	IP66 IP67 NEMA 4X	M20 x 1.5 (½" NPT Option)	™ ≅ ATEX € S IECEx
BXS	74AT4	Ex emb II T3 / T4	24Vdc 48Vdc	3.6	0.73	Media # -15°C to +130°C -55°C to +130°C Ambient -25°C to +55°C (T3) (3.0 W & Below) -25°C to +50°C (T3 & T4) (4.0 W & Below) -25°C to +40°C (T3) (6.8 W & Below)	IP66 IP67 NEMA 4X	M20 x 1.5 (½" NPT Option)	■■■■ATEX iECEx
SPR-08	74AT4	Ex emb II T3 / T4	24Vdc 48Vdc	3.6	3.0	Media # -20°C to +100°C -60°C to +100°C Ambient -25°C to +55°C (T3) (3.0 W & Below) -25°C to +50°C (T3 & T4) (4.0 W & Below) -25°C to +40°C (T3) (6.8 W & Below)	IP66 IP67 NEMA 4X	M20 x 1.5 (½" NPT Option)	<u>™</u>
SPR-16	74AT4	Ex emb II T3 /T4	24 Vdc 48 Vdc	3.6	11.1	Media # -20°C to +120°C -60°C to +90°C Ambient -25°C to +55°C (T3) (3.0 W & Below) -25°C to +50°C (T3 & T4) (4.0 W & Below) -25°C to +40°C (T3) (6.8 W & Below)	IP66 IP67 NEMA 4X	M20 × 1.5 (½" NPT Option)	<u>™</u> ATEX € VIECEX

For detailed information on certification, please see page 16.

Other Wattages available upon request.

Permissible media operating temperatures are dependent upon the selected O-Ring material. Please refer to the product selection charts on pages 24, 26, 28 & 30 to 36.



Ex d Options



Options Table 2 27 (Ex d)

STANDARD SOLENOID OPTIONS TABLE 2 27 (Ex d)									
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 Aluminium Enclosure 316L Stainless Steel Body	27	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 (Manual Stayput) 5.7 6.5 3.0 (Manual Latch)	0.6 1.0 1.0	Media # -20°C to +90°C -55°C to +90°C Ambient -60°C to +40°C (T6) -60°C to +55°C (T5) -60°C to +90°C (T4)		M20 × 1.5 (½" NPT Option)	IS ATEX (€) IECEN
BXS Aluminium Enclosure 316L Stainless Steel Body	27	Ex d IIC T6,T5 or T4	12 Vdc 24 Vdc 48 Vdc 110 Vdc 110 Vac 240 Vac 50 or 60 Hz	1.8	0.73	Media # -15°C to +130°C -55°C to +130°C Ambient -60°C to +40°C (T6) -60°C to +90°C (T4)		M20 x 1.5 (½" NPT Option)	ATEX & IECEX

For detailed information on certification please see page 16.

Other wattages available upon request.

Permissible media operating temperatures are dependent upon the selected O-Ring material. Please refer to the product selection charts on pages 24, 26 & 30 to 32.



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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 reproductivities of the system designer, and user

Quality Assurance
All Biolid 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
SE NI ISO 9001 2008. Functional sets certificate, letter of
conformity and copies of original mill certificates, providing
total traceability are available on request, to BS EN 10094 3.1



Ex d Options

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Options Table 3 77 (Ex d)

		S	TANDARD	SOLENOI	D OPTIC	ONS TABLE 3	77 (Ex o	d)	
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	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 (Manual Stayput) 5.7 6.5 3.0 (Manual Latch)	0.6 1.0 1.0	Media # -20°C to +90°C -55°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 (E) IECEX INMETRO GOST CSA (C, US) NEPSI KTL
FPIOP	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 (Manual Stayput) 5.7 6.5 3.0 (Manual Latch)	0.6 1.0 1.0	Media # -20°C to +90°C -55°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 × 1.5 (½" NPT Option)	ATEX (E) IECEX INMETRO GOST CSA (C, US) NEPSI KTL
FP12P	77	Ex d IIC T6,T5 or T4	12 Vdc 24 Vdc 48 Vdc 110 Vdc 110 Vac 240 Vac 50 or 60 Hz	6.5 (Manual Latch) 12.0	2.5	Media # -15°C to +90°C -30°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 (E) IECEX INMETRO GOST CSA (C, US) NEPSI KTL
BXS	77	Ex d IIC T6,T5 or T4	12 Vdc 24 Vdc 48 Vdc 110 Vdc 110 Vac 240 Vac 50 or 60 Hz	1.8 3.0	0.73	Media # -15°C to +130°C -55°C to +130°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 × 1.5 (½" NPT Option)	ATEX (E) IECEX INMETRO GOST CSA (C, US) NEPSI KTL
SPR-08	77	Ex d IIC T6,T5 or T4	12 Vdc 24 Vdc 48 Vdc 110 Vdc 110 Vac 240 Vac 50 or 60 Hz	1.8 3.0	3.0	Media # -20°C to +100°C -60°C to +100°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 (S) IECEX INMETRO GOST CSA (C, US) NEPSI KTL
SPR-16	77	Ex d IIC T6,T5 or T4	12 V dc 24 V dc 48 V dc 110 V dc 110 V ac 240 V ac 50 or 60 Hz	1.8 3.0	11.1	Media # -20°C to +120°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 (S) IECEX INMETRO GOST CSA (C, US) NEPSI KTL

For detailed information on certification please see page 16.

Other wattages available upon request.

Permissible media operating temperatures are dependent upon the selected O-Ring material. Please refer to the product selection charts on pages 24, 26 & 28 to 36.



Ex ia Options

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Options Table 4 58 (Ex ia)

	SLIMLINE SOLENOID OPTIONS TABLE 4 58 (Ex ia)										
Product Type	Solenoid Order Code	Typical Apparatus Code	Resistance (Ohms)	CV Rate	Temperature Range (°C)	Ingress Protection	Cable Entry Connection	Certification Options			
FP06P	58 †	Ex ia IIC T6	135	0.35	Media # -20°C to +90°C -55°C to +90°C Ambient -40°C to +60°C (T6)	IP66	M20 × 1.5	ATEX (EX) IECEX INMETRO FILE EAC NEPSI			

For detailed information on certification, please see page 17.

† 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. # Permissible media operating temperatures are dependent upon the selected O-Ring material. Please refer to the product selection chart on pages 25 & 27.

Ex ia Options

Options Table 5 28 & 78 (Ex ia)

	STANDARD SOLENOID OPTIONS TABLE 5 28 & 78 (Ex ia)										
Product Type	Solenoid Order Code	Typical Apparatus Code	Resistance	CV Rate	Temperature Range (°C)	Ingress Protection	Cable Entry Connection	Certification Options			
BXS Aluminium Enclosure 316L Stainless Steel Body	28 †	Ex ia IIC T6 or T4	260	0.73	Media# -15°C to +130°C -55°C to +130°C Ambient -60°C to +60°C (T6) -60°C to +95°C (T4)	IP66	M20 x 1.5	ATEX (IECEX FIL EAC NEPSI			
BXS	78 †	Ex ia IIC T6 or T4	260	0.73	Media # -15°C to +130°C -55°C to +130°C Ambient -60°C to +60°C (T6) -60°C to +95°C (T4)	IP66	M20 x 1.5	ATEX & IECEX INMETRO FILE EAC NEPSI			
SPR-08	78 †	Ex ia IIC T6 or T4	260	3.0	Media # -20°C to +95°C -60°C to +95°C Ambient -60°C to +60°C (T6) -60°C to +95°C (T4)	IP66	M20 x 1.5	ATEX (E) IECEX INMETRO [III EAC NEPSI			
SPR-16	78 †	Ex ia IIC T6 or T4	260	11.1	Media # -20°C to +120°C -60°C to +90°C Ambient -60°C to +60°C (T6) -60°C to +95°C (T4)	IP66	M20 x 1.5	ATEX (S) IECEX INMETRO FIEL EAC NEPSI			

For detailed information on certification, please see pages 17 & 18.

† 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. # Permissible media operating temperatures are dependent upon the selected O-Ring material. Please refer to the product selection charts on pages 30 to 36.

Safety Parameters: Type 58

Ui = 35V dc, li = 600 mA, Pi = 3 W, Ci = 0 μ F, Li = 0 mH Coil Resistance : 135 Ohm ± 5%

Minimum Current @ solenoid coil = 80 mA

Safety parameters applicable to table 4.

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Accuracy of information
We take care to ensure that product information in this
catalogue is reasonably accurate and up-to-date. Howeve
our products are continually developed and updated
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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 system designer and user.

Safety Parameters: Type 28 & 78

Ui = 31 V, Ii = 210 mA, Pi = 1.5 W, Ci = 0 μ F, Li = 0 mH Coil Resistance : 260 Ohm \pm 5%

Minimum Current @ solenoid coil = 45 mA

Safety parameters applicable to table 5.

uality Assurance
Biold products are manufactured to a most stringent
programme to ensure that every product will give optimum
formance and reliability. We are their party certified to
EN ISO 9001:2008. Functional test certificate, letter of
florminy and copies of original mill exertificates, providing
al traceability are available on request; to BS EN 10204 3.1
ere available. We reserve the right or male changes

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FP06P 3/2

For a dimensional drawing of this product please see page 38.





FP06P Selection Chart - Ordering Example

Bespoke configured datasheets are available for specific model numbers, please contact Bifold for more information.

For the shaded block sections, please refer to the same shaded sections on pages 20, 21 & 22.

** Special conditions for safe use Type 74AT4 - The supply circuit shall be fitted with a fuse capable of meeting a 1500 Amp short circuit current. Must be compliant with Special Conditions for Safe Use as defined in EC Type Examination Certificate Sira01ATEX3248U.

We take care to ensure that product information in this catalogue is reasonably accurate and up-to-date. Howe our products are continually developed and updated so to ensure accurate and up-to-date information please

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 system designer and user

All Bitolf products are manufactured to a most stringent QA programme to ensure that every product will give optimum performance and reliability. We are third parry certified to BS EN ISO 9001:2008. Functional test certificate, letter of conforming and copies of original mill certificates, providing total tracability are available on request, to BS EN 10204 3.1 where available. We reserve the right to make change.



FP06P 3/2

For a dimensional drawing of this product please see page 38.





FP06P Selection Chart - Ordering Example

				Model Code					
0.4	145 psi / 10 bar Maximum Valve Pressure								
	04 1/4" Body Ported (Stainless Steel)								
32	32 3 Way 2 Position								
[NU Normally Universal (for the port connections table, please refer to page 19)								
	S Nitrile (-20°C to +130°C) For maximum operating SA Nitrile (Low Temperature) (-25°C to +130°C) temperatures see 'T' Rating V Viton (standard) (-20°C to +90°C) Limitations for Ex ia on AL Flourosilicone (-55°C to +90°C) page 23								
	XX	K Refer	to Solenoid options tables 58 (Ex ia) Page 23 - Table	e 4 Solenoid					
		A	ATEX/IECEx Dual Certified/Labelled EAC/IECEx Dual Certified/Labelled NMETRO/IECEx Dual Certified/Labelled NEPSI/IECEx Dual Certified/Labelled CSA (US)/ATEX Dual Certified/Labelled KTL/IECEx Dual Certified/Labelled	58 (Ex ia)					
		M ML	Electrical to switch or temporary manual override Electrical and manual required to switch or temporary manua						
			XX Resistance (Ω) 58 (Ex ia) - 135 Ohms Page 23 - Tab	le 4 Resistance †					
			NO LETTER M20 x 1.5 Cable Entry K85 1/2" NPT Cable Entry	Cable Entry					
			NO LETTER NPT Ports K6 BSPP Ports	Option					

Bespoke configured datasheets are available for specific model numbers, please contact Bifold for more information.

For the shaded block section, please refer to the same shaded section on page 23.

† 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.



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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.

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QA programme to ensure that every product will give opinium
performance and realishility. We are third party certified to
BE NI SO 9001-2008. Functional test certificate, letter of
conformity and copies of original mill certificates, providing
total traceability are available on request, to BS EN 10204 3.1
where available. We reserve the right on to make changes

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FP06P 3/2 NAMUR

For a dimensional drawing of this product please see page 38.





FP06P NAMUR Selection Chart - Ordering Example

FP06P			Model Code
SI	14	45 psi / 10 bar Maximum Valve Pressure	Operator
	N4 AN4 N14 AN14	 1/4" Body Ported Right Hand Feed (Stainless Steel) 1/4" Body Ported Right Hand Feed (Aluminium) (Option only available with the type 27 Ex d solenoid) 1/4" Body Ported Left Hand Feed (Stainless Steel) 1/4" Body Ported Left Hand Feed (Aluminium) (Option only available with the type 27 Ex d solenoid) 	Connections
	32	3 Way 2 Position	Valve Configuration
		NC Normally Closed (for the port connections table, please refer to page 19)	Valve Configuration
		S Nitrile (-20°C to +130°C) For maximum operating temperatures see 'T' Rating V Viton (standard) (-20°C to +90°C) Limitations for Ex emb & Ex d on pages 20,21 & 22	O-ring Material
		Refer to Solenoid 74AT4 (Ex emb) Page 20 - Table I (For the 74AT4 option only please go straight to voltage) 27 & 77 (Ex d) Pages 21 & 22 - Tables 2 & 3	Solenoid **
		A ATEX/IECEx Dual Certified/Labelled G GOST/IECEx Dual Certified/Labelled INMETRO/IECEx Dual Certified/Labelled NEPSI/IECEx Dual Certified/Labelled V ✓ ✓ (77 Only) N NEPSI/IECEx Dual Certified/Labelled CSA (US)/ATEX Dual Certified/Labelled X ✓ (77 Only) X ✓ (77 Only) K KTL/IECEx Dual Certified/Labelled X ✓ (77 Only)	Solenoid Approval
		Voltage, refer to Solenoid option tables 74AT4 (Ex emb) Page 20 - Table I 27 & 77 (Ex d) Pages 21 & 22 - Tables 2 & 3	Voltage
		M Electrical to switch or temporary manual override ML Electrical and manual required to switch or temporary manual override (3.0 Watts Ex d only) MLT Electrical and manual required to latch - tamperproof MOR Electrical to switch or stayput manual override	Options
		XX Power (W) 74AT4 (Ex emb) 1.8, 3.6, 4.4 & 6.8 Watts Page 20 - Table 1 27 & 77 (Ex d) 3.0, 3.5, 5.7 & 6.5 Watts Pages 21 & 22 - Tables 2 & 3	Power
		NO LETTER M20 x 1.5 Cable Entry K85 ½" NPT Cable Entry	Cable Entry
		NO LETTER NPT Ports K6 BSPP Ports	Option
FP06P-SI-	N14-32-	NC - V - 77 A-24D-ML - 30-K85 - K6	Ordering Example

Bespoke configured datasheets are available for specific model numbers, please contact Bifold for more information. For the shaded block sections, please refer to the same shaded sections on pages 20, 21 & 22.

Note:

All valves are supplied with a full set of mounting option and 3/2 configuration option interface blocks as standard, please see page 45.

^{**} Special conditions for safe use Type 74AT4 - The supply circuit shall be fitted with a fuse capable of meeting a 1500 Amp short circuit current. Must be compliant with Special Conditions for Safe Use as defined in EC Type Examination Certificate Sira01ATEX3248U.

FP06P 3/2 NAMUR

For a dimensional drawing of this product please see page 39.





FP06P NAMUR Selection Chart - Ordering Example

FP06P											Model Code
SI	145	psi / 10 bar I							_		Operator
	N4 NI4	1/4" Body P 1/4" Body F									Connections
	32	3 Way	2 Posi	tion							Valve Configuration
		NC N	Vormal	ly Closed		(fo	r the port connection	ns table, pl	ease refer t	o page 19)	Valve Configuration
		S SA V AL	Vito Flou	ile (Low l n (standa rosilicone	rd)		(-20°C to +130°C) (-25°C to +130°C) (-20°C to +90°C) (-55°C to +90°C) ns tables 58 (Ex ia)	temperat Limitation	mum operati ures see 'T' F ns for Ex ia or Page 23 -	Rating n page 23	O-ring Material
		X	X	Refer to	Solenoi	Solenoid					
			A G I N	EA IN NE	EX/IECE C/IECE> METRO EPSI/IEC	Solenoid Approval					
			U		. ,		Dual Certified/Labelle	ed		Х	
			K	KT	L/IECEx	Dual	Certified/Labelled			Х	
				M ML	Electri Electr	Options					
				×	XX Resi	stance ((Ω) 58 (Ex ia) - 135	Ohms	Page 23	- Table 4	Resistance †
					NO K85	LETTI	M20 x 1.5 Ca ½" NPT Cabl				Cable Entry
						NO LI	ETTER NPT Poi BSPP Po				Option
FP06P-SI	-N14-32-	NC -V - 58	A	- ML-13	85-K85	- K6					Ordering Example

Bespoke configured datasheets are available for specific model numbers, please contact Bifold for more information.

For the shaded block section, please refer to the same shaded section on page 23.

† 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.

Note:

All valves are supplied with a full set of mounting option and 3/2 configuration option interface blocks as standard, please see page 45.

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QA programme to ensure that every product will give optimum
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BE IN ISO 9001:2008. Functional test certificate, letter of
conformity and copies of original mile certificates, providing
cotal traceability are available on request, to BS EN IO204 3.1
where available. We reserve the right to make changes

FPI0P 3/2

For a dimensional drawing of this product please see page 39.





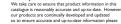
FP10P Selection Chart - Ordering Example

0P	Model Code
 S1	Operator
04	Connections
32 3 Way 2 Position	Valve Configuratio
NU Normally Universal (for the port connections table, please refer to page 19)	Valve Configuratio
S Nitrile (-20°C to +90°C) For maximum operating SA Nitrile (Low Temperature) (-25°C to +130°C) temperatures see 'T' Rating V Viton (Standard) (-20°C to +90°C) Limitations for Ex emb AL Flourosilicone (-55°C to +90°C) & Ex d on pages 20 & 22 XX Refer to Solenoid 74AT4 (Ex emb) Page 20 - Table I	O-ring Material
options tables (For the 74AT4 option only please go straight to voltage) 77 (Ex d) Page 22 - Table 3	Solenoid **
74AT4 (Ex emb) 77 (Ex d)	
■ A ATEX/IECEx Dual Certified/Labelled ✓ ✓	
G GOST/IECEx Dual Certified/Labelled X ✓	Solenoid Approval
I INMETRO/IECEx Dual Certified/Labelled X ✓ N NEPSI/IECEx Dual Certified/Labelled x ✓	
N NEPSI/IECEx Dual Certified/Labelled X ✓ U CSA (US)/ATEX Dual Certified/Labelled X ✓	
K KTL/IECEx Dual Certified/Labelled X ✓	
Voltage, refer to Solenoid option tables 74AT4 (Ex emb) Page 20 - Table I 77 (Ex d) Page 22 - Table 3	Voltage
M Electrical to switch or temporary manual override ML Electrical and manual required to switch or temporary manual override (3.0 Watts Ex d only) MLT Electrical and manual required to latch - tamperproof MOR Electrical to switch or stayput manual override LE Latched Energised (Only available as NU on S1 option, LE only available as NO, 6.5 Watts, Ex d (77) on S2 option)	Options
XX Power (W) 74AT4(Ex emb) 3.6, 4.4 & 6.8 Watts Page 20 - Table I	Power
77 (Ex d) 3.0, 3.5, 5.7 & 6.5 Watts Page 22 - Table 3	
NO LETTER M20 x 1.5 Cable Entry K85 ½" NPT Cable Entry	Cable Entry
NO LETTER NPT Ports K6 BSPP Ports	Option
0P-SI-04-32-NU - V - 77 A - 24D-ML - 30-K85 - K6	Ordering Example

Bespoke configured datasheets are available for specific model numbers, please contact Bifold for more information.

For the shaded block sections, please refer to the same shaded sections on pages 20 & 22.

** Special conditions for safe use Type 74AT4 - The supply circuit shall be fitted with a fuse capable of meeting a 1500 Amp short circuit current. Must be compliant with special conditions for safe use as defined in EC Type Examination Certificate Sira01ATEX3248U.



FPI2P 3/2

For a dimensional drawing of this product please see page 39.





FP12P Selection Chart - Ordering Example

FP12P	Model Code
SI 145 psi / 10 bar Maximum Valve Pressure	Operator
08 1/2" Body Ported (Stainless Steel)	Connections
32 3 Way 2 Position	Valve Configuration
NU Normally Universal (for the port connections table, please refer to page 19)	Valve Configuration
S Nitrile (-15°C to +90°C) For maximum operating SA Nitrile (Low Temperature) (-25°C to +130°C) temperatures see 'T' Rating V Viton (Standard) (-15°C to +90°C) Limitations for Ex d on AL Flourosilicone (-30°C to +90°C) page 22	O-ring Material
Refer to Solenoid 77 (Ex d) Page 22 - Table 3 options tables	Solenoid
A ATEX/IECEx Dual Certified/Labelled G GOST/IECEx Dual Certified/Labelled I INMETRO/IECEx Dual Certified/Labelled N NEPSI/IECEx Dual Certified/Labelled V U CSA (US)/ATEX Dual Certified/Labelled K KTL/IECEx Dual Certified/Labelled	Solenoid Approval
Voltage, refer to Solenoid option tables 77 (Ex d) Page 22 - Table 3	Voltage
M Electrical to switch or temporary manual override ML Electrical and manual required to switch or temporary manual override (6.5 Watts Ex d only) MLT Electrical and manual required to latch - tamperproof MOR Electrical to switch or stayput manual override	Options
XX Power (W) 77 (Ex d) 6.5 & 12.0 Watts Page 22 - Table 3	Power
NO LETTER M20 x 1.5 Cable Entry K85 ½" NPT Cable Entry	Cable Entry
NO LETTER NPT Ports K6 BSPP Ports	Option
FP12P-S1-08-32-NU - V - 77 A - 24D-ML - 120-K85 - K6	Ordering Example

Bespoke configured datasheets are available for specific model numbers, please contact Bifold for more information. For the shaded block sections, please refer to the same shaded sections on page 22.



BXS-04 3/2

For a dimensional drawing of this product please see page 40.





BXS-04 Selection Chart - Ordering Example

BXS-0	4	1/4"															Model Code
	04 A04							ss Steel nium) (only a	vailabl	e with the ty	/pe 27 E	x d ar	nd type 28 Ex	ia solenoids)	Connections
		EI E3 E5 E13		Ma Ma Ma	nual nual nual	Over Rese Rese	ride I t Inte t Tam	al Pilot nternal nal Pilo perproc Rotary I	ot (ML) of Inter) mal Pilo							Primary Operator
			22 32		' (for the port connections table place reter to page 19)												Configuration
				NC NO													Configuration
				00				Return Return		nger							
					3	\ \ \	1anua 1anua 1anua	eset In Overri Reset Reset Overri	ide Inte Interna Tampe	ernal P al Pilot rproof	(ML) Interi	M) nal Pilot (MI l Pilot (MOF	LT) R)				Secondary Operator
					SA V A		Vit	trile (Lo on (Sta orosilio	ndard)		ure)	(-25°C to (-15°C to (-55°C to	+130°C +130°C	ter Lin Ex	r maximum op nperatures see nitations for Ex ia on pages 20	e 'T' Rating c emb, Ex d &	O-ring Material
					XX Refer to 74AT4 (Ex emb) Page 20 - Table I Solenoid (For the 74AT4 option only please go straight to voltage) options 27 & 77 (Ex d) Pages 21 & 22 - Tables 2 & 3 tables 28 & 78 (Ex ia) Page 23 - Table 5											Solenoid **	
							A G I N U K	*GOSTINMET NEPSI CSA (L	T/EAC/I TRO/IE /IECEx I JS)/ATE	:CEx Du Dual Ce	Dual Ceral Certified/I	ertified/Labelled tified/Labelled Labelled fied/Labelled	74A (Ex e	emb) / (((27 & 77 (Ex d)	28 & 78 (Ex ia)	Solenoid Approval *
								XXX	Vo	oltage, r Solence otion ta	efer oid	74AT4 (Ex 27 & 77 (E	emb)	Page	e 20 - Table I es 21 & 22 -		Voltage
								XX			` ′		· · · · · ·		nms Page 2	3 - Table 5	Resistance †
									XX P	ower (\	VV)	74AT4 (Ex 27 & 77 (E	ŕ	Page 1.8	Watts e 20 - Table I & 3.0 Watts es 21 & 22 -		Power
									NC K8	LET [*]	TER	M20 x ½" NP			,		Cable Entry
										LI4	12	Banjo Asse	mbly				Option
											NO K6 K54	LETTER	BSP	P Port		re Bleed (BBB) B)	Options
BXS-0	4.04	F1-2	2-N	1C-00) ₋ V	_ 77	Δ.,	24D - 1	8-K8	5-1 142)_K 5/	ı					Ordering Example
DV2-0	1-VT-	_ 1 - 3	∠ -1\	-U-U	<i>,</i> - v	- , ,	~-	ا - س.	0-IXU3	,-L:72	1234	•					Cracing Example

Bespoke configured datasheets are available for specific model numbers, please contact Bifold for more information.

For the shaded block sections, please refer to the same shaded sections on pages 20, 21, 22 & 23.

^{*} For details on specific approvals for Russian territories, please contact Bifold for more information.

** Special conditions for safe use Type 74AT4 - The supply circuit shall be fitted with a fuse capable of meeting a 1500 Amp short circuit current. Must be compliant with special conditions for safe use as defined in EC Type Examination Certificate Sira01ATEX3248U.





[†] 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 further product options, please contact Bifold.

BXS-04 5/2

For dimensional drawings of these products please see page 40.







BXS-04 Selection Chart - Ordering Example

XS-04 1/4"	Model Code
04 /4" Body Ported (Stainless Steel) A04 /4" Body Ported (Aluminium) (Option only available with the type 27 Ex d and type 28 Ex ia solenoids)	Connections
EI Auto Reset Internal Pilot E3 Manual Override Internal Pilot (M) E5 Manual Reset Internal Pilot (ML) E13 Manual Reset Tamperproof Internal Pilot (MLT) E15 Manual Override Rotary Internal Pilot (MOR)	Primary Operator
52 5 Way 2 Position 53 5 Way 3 Position	Configuration
XX 5/2 Valve YY 5/3 Valve All Ports Blocked ZZ 5/3 Valve Cylinder Ports Vented (for the port connections table, please refer to page 19)	Configuration
00 Spring Return 02 Spring Return + Plunger	
EI Auto Reset Internal Pilot E3 Manual Override Internal Pilot (M) E5 Manual Reset Internal Pilot (ML) E13 Manual Reset Tamperproof Internal Pilot (MLT) E15 Manual Override Rotary Internal Pilot (MOR)	Secondary Operato
SA Nitrile (Low Temperature) (-25°C to +130°C) For maximum operating temperatures see 'T' Rating Viton (Standard) (-15°C to +130°C) Limitations for Ex emb, Ex d & Ex ia on pages 20,21,22 & 23	O-ring Material
XX Refer to 74AT4 (Ex emb) Page 20 - Table I Solenoid (For the 74AT4 option only please go straight to voltage) options 27 & 77 (Ex d) Pages 21 & 22 - Tables 2 & 3 table 28 & 78 (Ex ia) Page 23 - Table 5	Solenoid **
A ATEX/IECEx Dual Certified/Labelled G *GOST/EAC/IECEx Dual Certified/Labelled I INMETRO/IECEx Dual Certified/Labelled N NEPSI/IECEx Dual Certified/Labelled N NEPSI/IECEx Dual Certified/Labelled X √ (77 Only) √ (78 Only) N NEPSI/IECEx Dual Certified/Labelled X √ (77 Only) √ (78 Only) X ✓ (77 Only) X X K KTL IECEx Dual Certified/Labelled X √ (77 Only) X	Solenoid Approval *
Voltage, refer to Solenoid option tables Voltage, refer 74AT4 (Ex emb) Page 20 - Table I 27 & 77 (Ex d) Pages 21 & 22 - Tables 2 & 3	Voltage
XX Resistance (Ω) 28 & 78 (Ex ia) - 260 Ohms Page 23 - Table 5	Resistance †
XX Power (W) 74AT4 (Ex emb) 3.6 Watts Page 20 - Table I 27 & 77 (Ex d) 1.8 & 3.0 Watts Pages 21 & 22 - Tables 2 & 3	Power
NO LETTER M20 x 1.5 Cable Entry K85 1/2" NPT Cable Entry	Cable Entry
L142 Banjo Assembly	Option
NO LETTER NPT Ports - Block Before Bleed (BBB) K6 BSPP Ports K54 Block After Bleed (BAB)	Options
XS-04-04-E1-52-XX-00-V - 77	Ordering Example

Bespoke configured datasheets are available for specific model numbers, please contact Bifold for more information.

^{*} For details on specific approvals for Russian territories, please contact Bifold for more information.

** Special conditions for safe use Type 74AT4 - The supply circuit shall be fitted with a fuse capable of meeting a 1500 Amp short circuit current. Must be compliant with special conditions for safe use as defined in EC Type Examination Certificate Sira01ATEX3248U.



Bifold Bifold Group

For the shaded block sections, please refer to the same shaded sections on pages 20, 21, 22 & 23. † 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 further product options, please contact Bifold.

BXS-04 5/2 NAMUR

For a dimensional drawing of this product please see page 41.





BXS-04 Selection Chart - Ordering Example

BXS-04		Model Code
N4 AN4	1/4" Body Ported NAMUR Mount (Stainless Steel) 1/4" Body Ported NAMUR Mount (Aluminium)(Option only available with the type 27 Ex d and type 28 Ex ia solenoids)	Connections
	E13 Manual Reset Tamperproof Internal Pilot (MLT) E15 Manual Override Rotary Internal Pilot (MOR)	Primary Operator
	52 5 Way 2 Position 53 5 Way 3 Position	Configuration
	XX 5/2 Valve YY 5/3 Valve All Ports Blocked ZZ 5/3 Valve Cylinder Ports Vented (for the port connections table, please refer to page 19)	Configuration
	00 Spring Return 02 Spring Return + Plunger	
	EI Auto Reset Internal Pilot	Secondary Operator
	SA Nitrile (Low Temperature) (-25°C to +130°C) to the population of T. Paring	O-ring Material
	Refer to Solenoid (For the 74AT4 (Ex emb) Page 20 - Table I (For the 74AT4 option only please go straight to voltage) options 27 & 77 (Ex d) Pages 21 & 22 - Tables 2 & 3 tables 28 & 78 (Ex ia) Page 23 - Table 5	Solenoid **
	A ATEX/IECEx Dual Certified/Labelled G *GOST/EAC/IECEx Dual Certified/Labelled I INMETRO/IECEx Dual Certified/Labelled N NEPSI/IECEx Dual Certified/Labelled CSA (US)/ATEX Dual Certified/Labelled X 1/77 Only) X 27 & 77 (Ex d) 28 & 78 (Ex ia) 74AT4 (Ex emb) 77 AT7 X 77 (Ex d) 28 & 78 (Ex ia) X 7/77 Only) X 7/77 Only) X 7/77 Only) X 7/77 Only) X X X X 7/77 Only) X X X X X X X X X X X X X X X X X X X	Solenoid Approval *
	XXX Voltage, refer 74AT4 (Ex emb) Page 20 - Table I	Voltage
	XX Resistance (Ω) 28 & 78 (Ex ia) - 260 Ohms Page 23-Table 5	Resistance †
	XX Power (W) 74AT4 (Ex emb) 3.6 Watts Page 20 - Table I 27 & 77 (Ex d) 1.8 & 3.0 Watts Pages 21 & 22 - Tables 2 & 3	Power
	NO LETTER M20 x I.5 Cable Entry K85 1/2" NPT Cable Entry	Cable Entry
	L142 Banjo Assembly	Option
	NO LETTER NPT Ports - Block Before Bleed (BBB) K6 BSPP Ports K54 Block After Bleed (BAB)	Options
BXS-04 - N4	-E1-52-XX-00-V - 77 A - 24D-18-K85-L142-K54	Ordering Example

Bespoke configured datasheets are available for specific model numbers, please contact Bifold for more information.

For the shaded block sections, please refer to the same shaded sections on pages 20, 21, 22 & 23.

Note

All valves are supplied with a full set of mounting option and 3/2 configuration option interface blocks as standard, please see page 45.





[†] 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 further product options, please contact Bifold.

^{*} For details on specific approvals for Russian territories, please contact Bifold for more information.

^{**} Special conditions for safe use Type 74AT4 - The supply circuit shall be fitted with a fuse capable of meeting a 1500 Amp short circuit current. Must be compliant with special conditions for safe use as defined in EC Type Examination Certificate Sira01ATEX3248U.

SPR-08 3/2

For dimensional drawing of this product please see page 41.





SPR-08 Selection Chart - Ordering Example

SPR-08	1/2"																Model Code
04 06 08		3/8"	Boo	dy Po	orted	(Stair	iless Ste iless Ste iless Ste	eel)									Ports
	EI E3 E5 E1	3														Primary Operator	
		32 3 Way 2 Position														Configuration	
		NC Normally Closed NO Normally Open (for the port connections table, please refer to page 19)													Configuration		
	00 Spring Return 02 Spring Return + Plunger E1 Auto Reset Internal Pilot E3 Manual Override Internal Pilot (M) E5 Manual Reset Internal Pilot (ML) E13 Manual Reset Tamperproof Internal Pilot (MLT) E15 Manual Override Rotary Internal Pilot (MOR)													Secondary Operator			
	SA Nitrile (Low Temperature) (-25°C to +130°C) V Viton (Standard) (-20°C to +100°C) AL Fluorosilicone (-60°C to +100°C) For maximum operating temperatures see 'T' Rating Limitations for Ex emb, Ex d & Ex ia on pages 20, 22 & 23														O-ring Material		
				XX Refer to 74AT4 (Ex emb) Page 20 - Table I Solenoid (For the 74AT4 option only please go straight to voltage) options 77 (Ex d) Page 22 - Table 3 tables 78 (Ex ia) Page 23 - Table 5												Solenoid **	
														74AT4 (Ex emb)	77 (Ex d)	78 (Ex ia)	
						Α						/Labelled		✓	✓	√	
						G.							Labelled	X	√	√	Solenoid Approval *
												ertified/La t/Labelle		X	√	✓ ✓	
						U						tified/Lat		X	∨ ✓	X	
						K		. ,				abelled	Delled	×	∨	×	
						Ī	XX		Vol	ltage, Soler	refer	74 <i>A</i> 77 (AT4 (Ex (Ex d)	emb) Pag	e 20 - Table e 22 - Table	I	Voltage
							XX		Re	sista	nce (0	Ω) 78	(Ex ia)	- 260 Ohms	Page 23 -	Table 5	Resistance †
								XX	C Pc	ower	(W)	74AT4 77 (Ex	4 (Ex en		Vatts Page 2 Watts Page		Power
		NO LETTER M20 x 1.5 Cable Entry K85 ½" NPT Cable Entry											Cable Entry				
										N K		TTEF		IPT Ports - B SPP Ports	lock Before B	leed (BBB)	Option
SPR-08-08-	EI-3	1 32-N	IC-0	ـــــــــــــــــــــــــــــــــــــ	✓ - 77	7 A	- 24D	-18-	K85	- K6							Ordering Example
		•		_	• • •												8

Bespoke configured datasheets are available for specific model numbers, please contact Bifold for more information.

^{*} For details on specific approvals for Russian territories, please contact Bifold for more information.

** Special conditions for safe use Type 74AT4 - The supply circuit shall be fitted with a fuse capable of meeting a 1500 Amp short circuit current. Must be compliant with special conditions for safe use as defined in EC Type Examination Certificate Sira01ATEX3248U.



Bifold Bifold Group

For the shaded block sections, please refer to the same shaded sections on pages 20, 22 & 23. † 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 further product options, please contact Bifold.

SPR-08 5/2

For a dimensional drawing of this product please see page 41.





SPR-08 Selection Chart - Ordering Example

SPR-0	08	1/2																Model Code
	04 06 08		3/8	" Bod	y Po	rted	l (Sta	inless S inless S inless S	Steel)									Ports
		EI E3 E1 E1	3	Ma Ma Ma	nual nual nual	Ove Reso Reso	erride et In et Ta	ternal l mperp	nal Pilo Pilot (M roof Int	IL) ernal	Pilot (N lot (MC	MLT) DR)						Primary Operator
			52		5 V	/ay 2	Posi	tion										Configuration
				XX		5/2	Valve	!	(fo	or the	port co	onnectio	ns tab	le, pleas	e ref	er to page I	9)	Configuration
				0				ig Retu ig Retu	rn rn + Pl	unger								
					3		Manı Manı Manı	Resetual Ove ual Resual Resual Resual Resual Res	Secondary Operator									
					V	A L	,	√iton ((Low To Standar Silicone	.d)	rature)	(-20°C	C to +	130°C) 100°C)	tem Lim	maximum op peratures see itations for Ex a on pages 20	T' Rating emb, Ex d &	O-ring Material
						X	X	Sol	fer to enoid tions les			d)	optio Pa	nge 20 - n only p nge 22 - nge 23 -	olease Table	e go straight e 3	to voltage)	Solenoid ***
							A G	*GO	OST/EA 1ETRO	C/IECE /IECEx	x Dual C Dual Ce	l/Labelled Certified/Lab ertified/Lab d/Labelled		74AT (Ex en		77 (Ex d) ✓ ✓ ✓	78 (Ex ia) ✓ ✓ ✓	Solenoid Approval *
							K		. ,		Dual Cer Certified/L	tified/Label _abelled	lled	X		√	X X	
								XXX	Vo to	ltage, Solen tion ta	refer oid		4 (Ex 6 x d)	emb)		e 20 - Table e 22 - Table 3		Voltage
								XX	Re	esistan	ice (Ω)	78 (E	x ia) - :	260 Oh	ms	Page 23 - 7	able 5	Resistance †
								П	XX	Power	(VV)	74AT4 (/atts Page 20 Watts Page 1		Power
										IO LE 85	TTER		NPT (Cable Cable E	ntry	,		Cable Entry
										N K	O LET 6	TER		Ports Ports	- Bloo	ck Before Ble	ed (BBB)	Option
SPR-0	8-08-	E1-!	2-X	X-00	- V	- 77	Α.	24D -	18-K8	5 - K	6							Ordering Example

Bespoke configured datasheets are available for specific model numbers, please contact Bifold for more information.

For the shaded block sections, please refer to the same shaded sections on pages 20, 22 & 23.

* For details on specific approvals for Russian territories, please contact Bifold for more information.

^{**} Special conditions for safe use Type 74AT4 - The supply circuit shall be fitted with a fuse capable of meeting a 1500 Amp short circuit current. Must be compliant with special conditions for safe use as defined in EC Type Examination Certificate Sira01ATEX3248U.



[†] 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 further product options, please contact Bifold.

SPR-16 3/2

For a dimensional drawing of this product please see page 42.





SPR-16 Selection Chart - Ordering Example

SPR-16 I"	Model Code
12 3/4" Body Ported (Stainless Steel) 16 I" Body Ported (Stainless Steel)	Ports
E2 Auto Reset External Pilot E4 Manual Override External Pilot (M) E6 Manual Reset External Pilot (ML) E14 Manual Reset Tamperproof External Pilot (MLT) E16 Manual Override Rotary External Pilot (MOR)	Primary Operator
32 3 Way 2 Position	Configuration
NU Normally Universal (for the port connections table, please refer to page 19)	Configuration
00 Spring Return E2 Auto Reset External Pilot E4 Manual Override External Pilot (M) E6 Manual Reset External Pilot (ML) E14 Manual Reset Tamperproof External Pilot (MLT) E16 Manual Override Rotary External Pilot (MOR)	Secondary Operator
SA Nitrile (Low Temperature) (-25°C to +130°C) For maximum operating V Viton (Standard) (-20°C to +120°C) AL Fluorosilicone (-60°C to +90°C) Ex ia on pages 20, 22 & 23	O-ring Material
Refer to 74AT4 (Ex emb) Page 20 - Table I Solenoid (For the 74AT4 option only please go straight to voltage) options 77 (Ex d) Page 22 - Table 3 tables 78 (Ex ia) Page 23 - Table 5	Solenoid **
74AT4 (Ex emb) 77 (Ex d) 78 (Ex ia)	
A ATEX/IECEx Dual Certified/Labelled ✓ ✓ ✓	Solenoid Approval *
G *GOST/EAC/IECEx Dual Certified/Labelled x ✓ ✓	
I INMETRO/IECEx Dual Certified/Labelled X ✓ ✓	
N NEPSI/IECEx Dual Certified/Labelled X √ √ W U CSA (US)/ATEX Dual Certified/Labelled X ✓ X	
U CSA (US)/ATEX Dual Certified/Labelled X ✓ X K KTL IECEx Dual Certified/Labelled X ✓ X	
Voltage, refer to Solenoid option tables Voltage, refer 74AT4 (Ex emb) Page 20 - Table I Page 22 - Table 3	Voltage
XX Resistance (Ω) 78 (Ex ia) - 260 Ohms Page 23 - Table 5	Resistance †
XX Power (W) 74AT4 (Ex emb) 3.6 Watts Page 20 - Table I 77 (Ex d) 1.8 & 3.0 Watts Page 22 - Table 3	Power
NO LETTER M20 x 1.5 Cable Entry K85 1/2" NPT Cable Entry	Cable Entry
NO LETTER NPT Ports - Block Before Bleed (BBB) K6 BSPP Ports	Option
SPR-16-16-E2-32-NU-00 - V - 77 A - 24D-18-K85 - K6	Ordering Example

Bespoke configured datasheets are available for specific model numbers, please contact Bifold for more information.

^{*} For details on specific approvals for Russian territories, please contact Bifold for more information.

** Special conditions for safe use Type 74AT4 - The supply circuit shall be fitted with a fuse capable of meeting a 1500 Amp short circuit current. Must be compliant with special conditions for safe use as defined in EC Type Examination Certificate Sira01ATEX3248U.



Bifold Bifold Group

For the shaded block sections, please refer to the same shaded sections on pages 20, 22 & 23.

† 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 further product options, please contact Bifold.

SPR-16 5/2

For a dimensional drawing of this product please see page 42.





SPR-16 Selection Chart - Ordering Example

SPR-I	6	1"														Model Code
	12							less Ste ess Ste								Ports
		E2 E4 E6 E1 E1	4	Mai Mai Mai Mai Air Lov	nual C nual R nual R	overreset eset overr (Stares	ide E Exte Tamp ide F idard Pilor	Rotary)	l Pilot ot (M of Exte							Primary Operator
		П	52		5 Way			,								Configuration
		'		XX	5	/2 Va	lve			(for th	e port coi	nnecti	ons table, pl	ease refer to	page 19)	Configuration
				P P	2 4 6 14 16	Au Ma Ma Ma Ma Ai Lo	uto R anual anual anual anual r Pilo w Pr	Reset Reset	cterna ide Ex Exter Tampe ide Ro dard) Pilot	cternal Pilo nal Pilot (erproof Ex otary Exte						Secondary Operator
				SA Nitrile (Low Temperature) Viton (Standard) Viton (Standard) Fluorosilicone (-25°C to +130°C) (-20°C to +120°C) (-60°C to +90°C) For maximum operating temperatures see 'T' Rating Limitations for Ex emb, Ex d & Ex ia on pages 20, 22 & 23												O-ring Material
						XX		Refer Solend option tables	bid		d)	optior Pa	ge 20 - Table n only please ge 22 - Table ge 23 - Table	go straight t	o voltage)	Solenoid **
							^	∧ TE∨	/IECE.	Dund Court	ied/Labelled		74AT4 (Ex emb) ✓	77 (Ex d)	78 (Ex ia) ✓	
							A G				led/Labelled Il Certified/L	ahelled	X	✓	V ✓	
							ī				Certified/Lat		X	→	✓	Solenoid Approval *
							N				ied/Labelled		X	√	√	
							U	CSA (I	JS)/AT	EX Dual C	Certified/Labo	elled	Х	✓	Х	
							K	KTL II	ECEx D	Dual Certifie	d/Labelled		Х	✓	Х	
								XXX	to	oltage, ref Solenoid ption tabl	l 77	AT4 ((Ex d	,	Page 20 - Tabl Page 22 - Tabl		Voltage
								XX	R	esistance	(Ω) 78	(Ex ia	a) - 260 Ohm	s Page 23	-Table 5	Resistance †
										Power (W	[^] 77 (I	Ex d)	1.8 & 3.	Watts Page 2 0 Watts Page		Power
										85	7	2" NP	1.5 Cable Er T Cable Ent	·y		Cable Entry
										K6	ETTER		PP Ports - Bl	ock Before B	leed (BBB)	Option
000	,							217	0.55							
SPR-I	6-16-	E2	52-X	X-00	- V -	11	Α-	24D-1	8-K8	5-K6						Ordering Example

Bespoke configured datasheets are available for specific model numbers, please contact Bifold for more information.

For the shaded block sections, please refer to the same shaded sections on pages 20, 22 & 23.

st For details on specific approvals for Russian territories, please contact Bifold for more information.

^{**} Special conditions for safe use Type 74AT4 - The supply circuit shall be fitted with a fuse capable of meeting a 1500 Amp short circuit current. Must be compliant with special conditions for safe use as defined in EC Type Examination Certificate Sira01ATEX3248U.



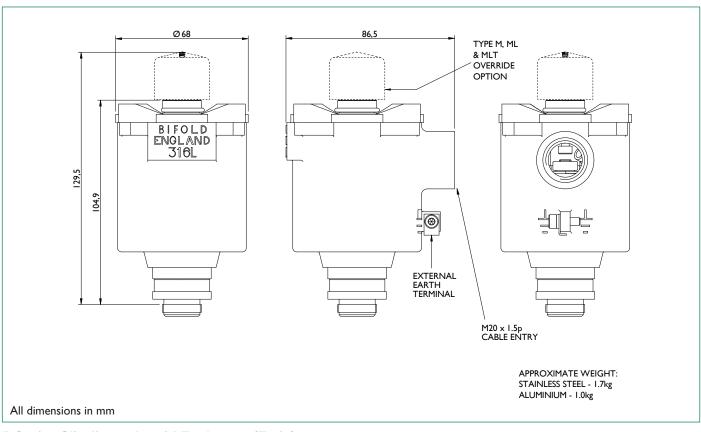


BFD370 November '14

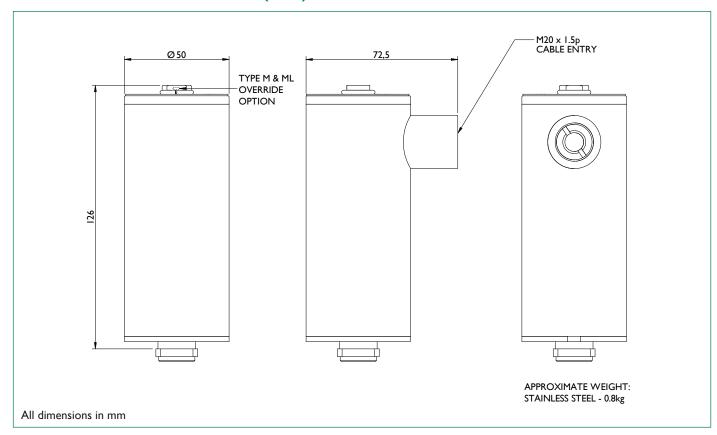
[†] Solenoid must be used in conjunction with a correctly matched Intrinsically Safe (IS) solenoid driver. The valve installer is responsible for a correct and safe IS system. For further product options, please contact Bifold.

Bifold

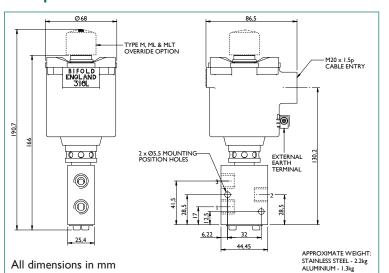
2 & 7 Series Standard Solenoid Enclosure (Ex emb & Ex d)



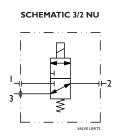
5 Series Slimline solenoid Enclosure (Ex ia)



Example Code - FP06P-S1-04-32-NU-V-74AT4-24D-36



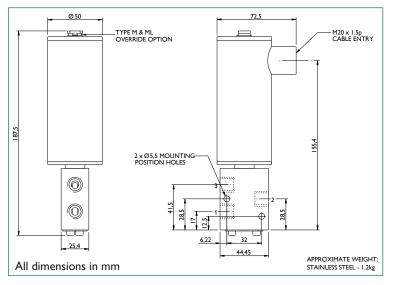


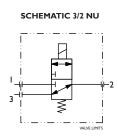


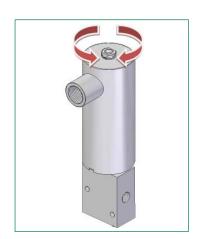


FP06P Auto Reset

Example Code - FP06P-SI-04-32-NU-V-58A-135

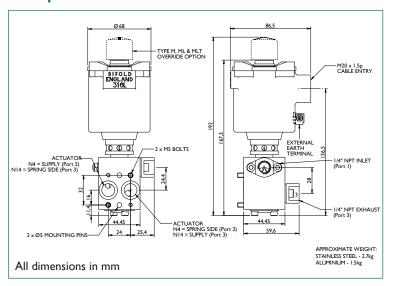


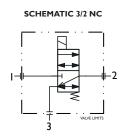


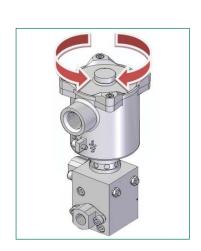


FP06P Auto Reset

Example Code - FP06P-S1-N14-32-NC-V-74AT4-24D-36







FP06P Namur Mount Auto Reset Left Hand Feed

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 o

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

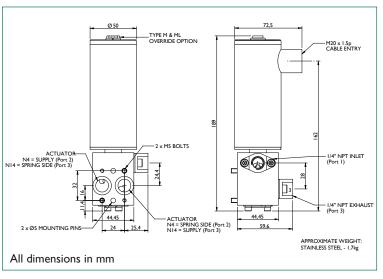
Quality Assurance

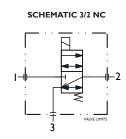
QA programme to ensure that every product will give optimum performance and reliability. We are third parry certified to BS EN ISO 9012:008. Functional test certificate, letter of conformity and copies of original mill certificates, providing total traceability are available on request, to BS EN IO 1024 3.1 where available. We reserve the right to make changes to the specifications and design etc., without prior notice.



Example Code - FP06P-S1-N4-32-NC-V-58A-135



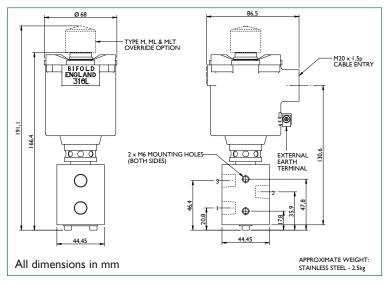


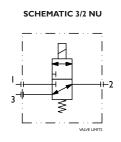


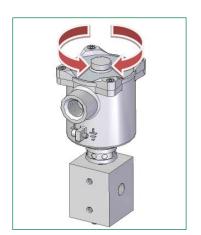


FP06P
NAMUR Mount Auto Reset
Right Hand Feed

Example Code - FPI0P-SI-04-32-NU-V-74AT4-24D-36

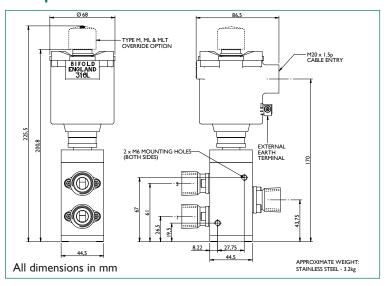


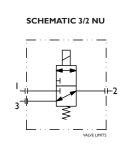


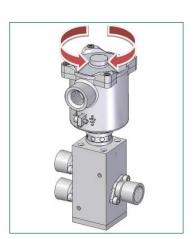


FPI0P Auto Reset

Example Code - FP12P-S1-08-32-NU-V-77A-24D-120







FPI2P Auto Reset

We take care is no

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

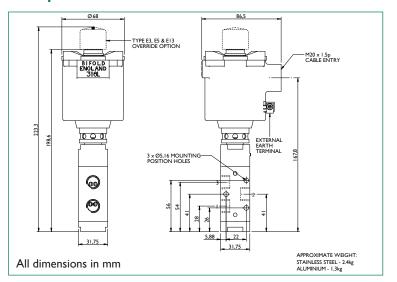
Quality Assurance All Bifold products are r

QA programme to ensure that every product will give optiming performance and reliability. We are third parry certified to BS EN ISO 9001-2008. Functional test certificate, letter of conformity and copies of original mill certificates, providing total traceability are available on expense, to BS EN 10204 3.1 where available. We reserve the right to make changes to the specifications and design etc., without prior notice.

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Bifold®

Example Code - BXS-04-04-E1-32-NC-00-V-74AT4-24D-36

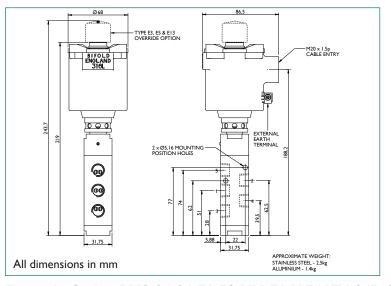


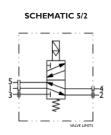




BXS
Auto Reset Internal Pilot

Example Code - BXS-04-04-E1-52-XX-00-V-74AT4-24D-36

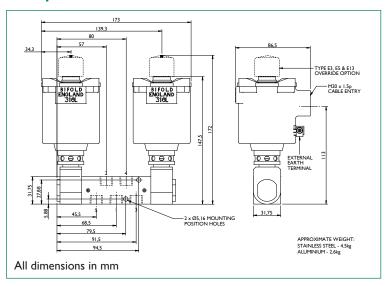


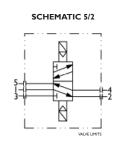




BXS
Auto Reset Internal Pilot

Example Code - BXS-04-04-E1-52-XX-E1-V-74AT4-24D-36-L142







BXS
Banjo Joint Auto Reset
Internal Pilot

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 reaconshibilities of the sustain designer, and user.

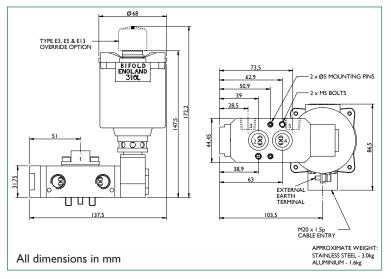
Quality Assurance

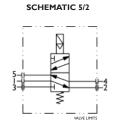
QA programme to ensure that every product will give optimum performance and reliability. We are third party certified to 85 EN ISO 90012008. Functional test certificate, letter of conformity and copies of original mill certificates, providing total traceability are available on request, to 85 EN 10024 31, where available. We reserve the right to make changes to the specifications and design etc., without prior notice.

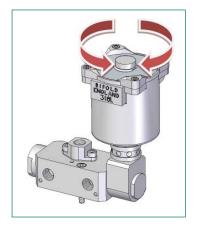


Bifold®

Example Code - BXS-04-N4-E1-52-XX-00-V-74AT4-24D-36-L142

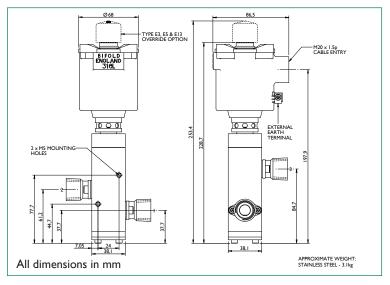


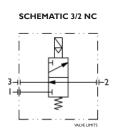


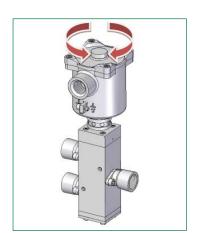


BXS
NAMUR Mount Banjo Joint
Auto Reset Internal Pilot

Example Code - SPR-08-08-E1-32-NC-00-V-74AT4-24D-36

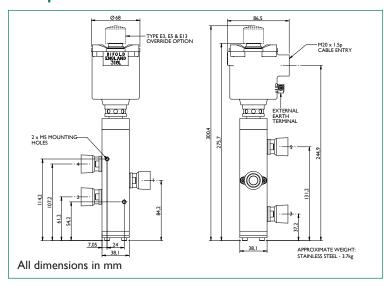


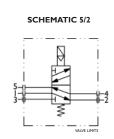




SPR
Auto Reset Internal Pilot

Example Code - SPR-08-08-E1-52-XX-00-V-74AT4-24D-36







SPR
Auto Reset Internal Pilot

Accuracy of informatio We take care to ensure th

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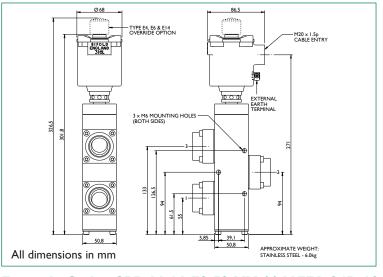
When selecting a product, the applicable operating system design must be considered to ensure safe use. The product function, material compactibility, adequate ratings, correct installation, operation and maintenance are the

Quality Assurance All Bifold products

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Example Code - SPR-16-16-E2-32-NU-00-V-77A-24D-18



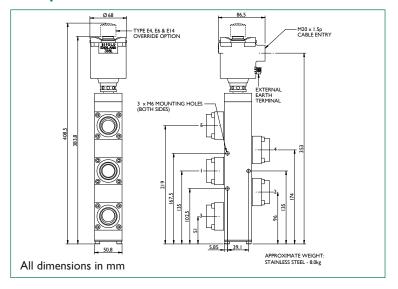


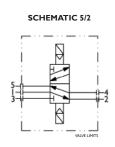


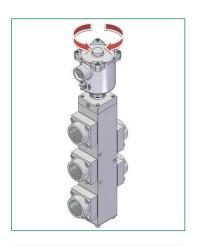


SPR
Auto Reset External Pilot

Example Code - SPR-16-16-E2-52-XX-00-V-77A-24D-18







SPR
Auto Reset External Pilot

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Options

Product Options for Type 74, 27, 77, 28 & 78



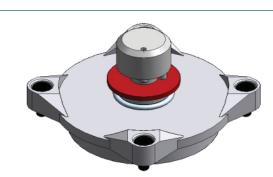
The range of products displayed in this brochure, are designed to accommodate all the options shown below. If the style or arrangement required for your application is not shown, please contact our office with full description and specification details.



Type M - Electrical to Switch or Temporary **Manual Override**

Manual Override Type M (E3 & E4)

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.



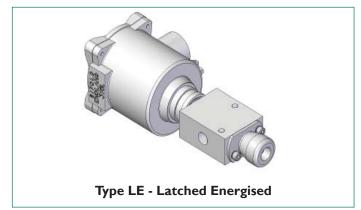
Type MOR - Electrical to Switch or Stayput **Manual Override**

Manual Rotary Override Type MOR (E15 & E16)

The solenoid valve switches on and off with the electrical supply. The manual override button is rotated through 3/4 turn to operate the valve when the solenoid is in the electrically de-energised position. The manual override is detented, i.e. remains in position until rotated back to its original position when the valve spring returns.



Type ML - Electrical and Manual Required to Switch or Temporary Manual Override Type MLT - Electrical and Manual Required to **Latch - Tamperproof**



Manual Reset Type ML (E5 & E6) & MLT (E13 & E14)

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.

Latch Energised Type LE

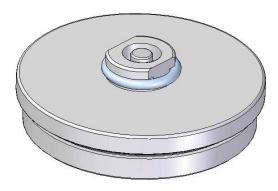
Designed specifically for Deluge systems. The solenoid valve can be used in the electrically de-energised condition. When an electrical signal is applied to the valve, the valve shifts to the energised position and stays in this position, even if the electrical signal is removed, and until the valve is manually moved back to the de-energised position by pressing the reset button. The valve can only be manually reset after the electrical signal is removed. The reset button is fitted at the base of the valve.

Options

Product Options for Type 58



The range of products displayed in this brochure, are designed to accommodate 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

Type ML - Electrical and Manual Required to Switch or Temporary Manual Override

(Slimline 58 - Series)

Manual Override Type M & Manual Reset Type ML

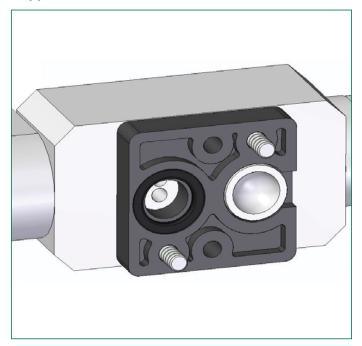
The solenoid valve switches on and off with the electrical supply. The manual override button can be pressed to operate the valve when the solenoid is in the electrically de-energised position. The manual override is non-detented, i.e. does not latch in position. When the button is released, the valve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

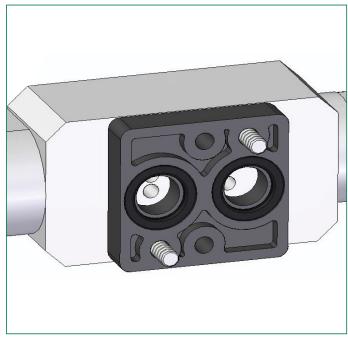
For Type ML, apply the electrical signal and press the reset button. The valve moves to the energised position and will not de-energise until the electrical supply is removed. The manual reset button also acts as a manual override, when the valve is in the de-energised position and the electrical supply is off. The manual reset is non-detented, spring return, i.e. does not latch in position.

Options



Supplied as Standard for use with: BXS-04-N4.., & BXS-04-AN4.. Solenoid Valves





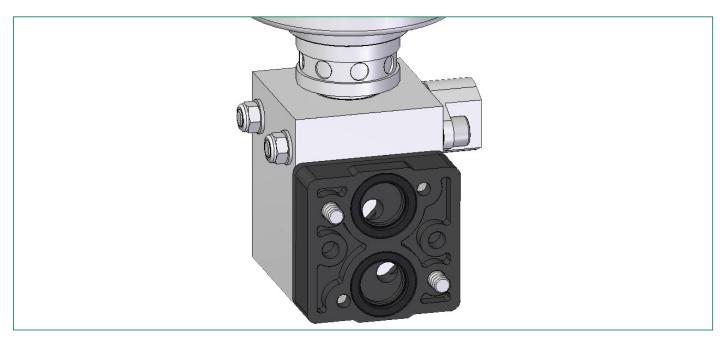
Mounting Configuration:

3 Way 2 Position

Mounting Configuration:

5 Way 2 Position & 5 Way 3 Position

Standard for use with: FP06P-SI-N4.. & FP06P-SI-N14.. & FP06P-SI-AN4.. & FP06P-SI-AN14.. Solenoid Valves



Mounting Configuration:

FP06P 3 Way 2 Position with 90° Rotation

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Quality Assurance All Bifold products an

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Instrument, Process, Directional Control Valves, Pumps and Actuator Electronic Control and Positioning



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



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Innovative and Reliable Valve Solutions

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