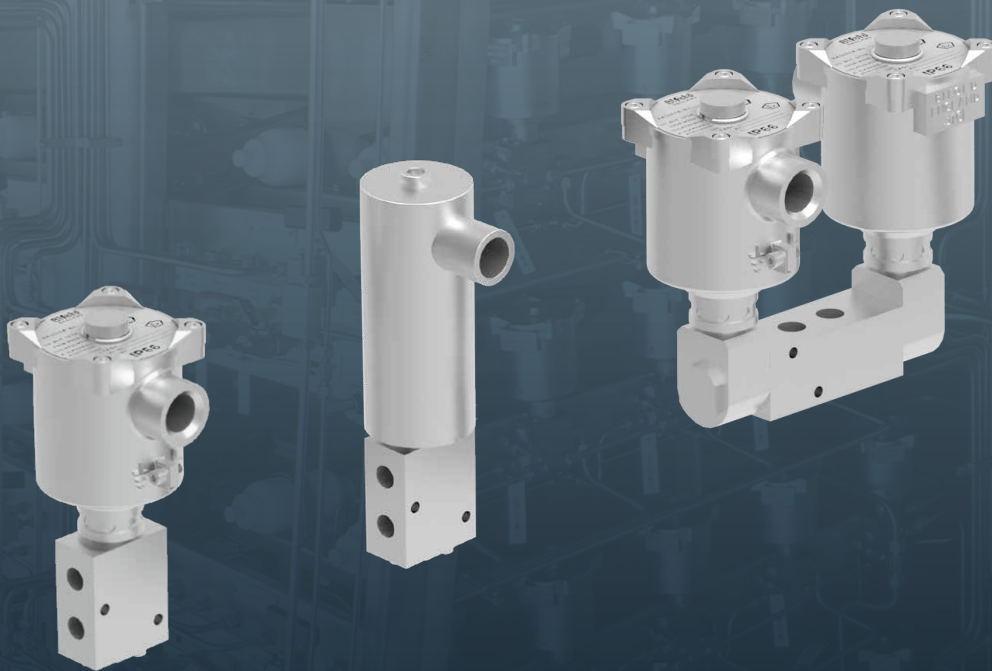


# rotork®

Keeping the World Flowing  
for Future Generations

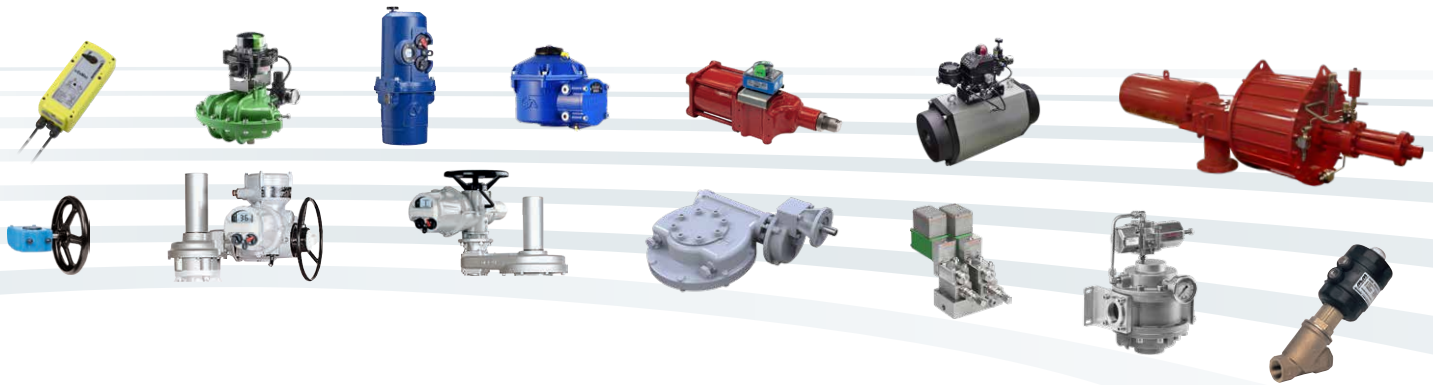
## 07 Solenoid Valves Pneumatic



**Bifold®**  
A rotork® Brand

Direct-Acting and Indirect-Acting

## Reliability in critical flow control applications



### › Reliable operation when it matters

Assured reliability for critical applications and environments. Whether used infrequently or continuously, Rotork products will operate reliably and efficiently.

### › Quality-driven global manufacturing

We offer products that have been designed with over 60 years of industry and application knowledge.

Our research and development ensures cutting edge products are available for multiple applications across multiple industries.

### › Customer focused service and worldwide support

Rotork solve customer challenges and develop new solutions that are tailored to the needs of our clients.

We offer dedicated, expert service and support from initial inquiry, to product installation, to long-term after sales care.

### › Low cost of ownership

Long-term reliability prolongs service life.

Rotork helps to reduce long-term cost of ownership and provides greater efficiency to process and plant.

# Solenoid Valves – Pneumatic

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## Comprehensive product range serving multiple industries

Rotork products offer improved efficiency, assured safety and environmental protection across sectors such as the Power, Oil & Gas, Water & Wastewater, HVAC, Marine, Mining, Pulp & Paper, Food & Beverage, Pharmaceutical and Chemical sectors.

## Market leaders and technical innovators

We have been the recognised market leader in flow control for over 60 years.

Our customers rely upon Rotork for innovative solutions to safely manage the flow of liquids, gases and powders.

## Global presence, local service

We are a global company with local support.

Manufacturing sites, service centres and sales offices throughout the world provide unrivalled customer services, fast delivery and ongoing, accessible support.

## Environmental Social and Governance is at the heart of our business

We have a range of policies in place that support our performance across environmental, social and governance topics. The majority of our policies are publicly available.

## Overview

### Pneumatic Direct-Acting and Indirect-Acting Solenoid Valves

FP03P, FP06P, FP10P, FP12P, BXS, SPR and PPV

Manufactured from 316L stainless steel as standard with aluminium options available, our range of pneumatic solenoid valves are ideally suited for hazardous (classified) locations and corrosive atmospheres and can also be used in low pressure hydraulic applications. Ultra low power consumption, under 1.0 W continuous power ideal for solar applications up to 12.0 W.

- Suitable for air quality to ISO 8573.1 Class 4: dirt, water and oil
- High flow – up to 11.2 Cv
- Versions available for up to 725 psi / 50 bar working pressure
- NAMUR interface available

### Market Sectors

- Wellhead controls and associated field instrumentation
- Shale gas
- Process choke valve actuation
- Process skids and modules
- HVAC, fire damper actuator and fire water deluge controls
- Gas compression and turbine controls
- Process valve actuator and pipeline Emergency Shut Down (ESD) valve actuator controls



Application Example

## One **source** ... one **solution**



› Outperforms all other solenoid valves in the industry

› Ultra low power consumption, under 1.0 W continuous power ideal for solar applications

› No.1 for global wellhead, process, choke, valve actuation, deluge and fire damper markets

› Low cost solution – increase safety with no downtime and no leakage, without compromising on cost

› The operator is a flat plate armature, ensuring the valve will operate in all conditions

› Capability to offer an expedited delivery service

› Wide range of operating media covered – 1/8" to 1" ports, 2/2, 3/2, 5/2, 5/3, 2 out of 3 voting and over  $1.5 \times 10^9$  permutations – every application covered

› Highest qualified safety factors in the industry – worldwide Ex Hazardous Area solenoid approvals: Ex emb, Ex d, Ex ia, Explosionproof and Safe Area use, SIL 3 third party certified options available

› World leading supplier of control valves for low and high temperature applications

## Solenoid Valve Features and Benefits

### Equipment Design and Build

- Standard and slimline 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 the terminal block
- Widest range of override options: auto reset, spring return manual override, stayput manual override, manual latch and manual reset
- Standard solenoid valve can be mounted in any orientation to simplify installation and also due to all the components having enhanced rotational capabilities
- Coils fully encapsulated as standard
- A NAMUR interface is available on 5/2 port configuration valves. These types are supplied with multi-functional adaptor plates to permit valve orientation through 90° or conversion to a 3/2 configuration
- All internal wetted and body materials conforming to NACE MR-01-75 as standard on the FP03P, FP06P, FP10P and FP12P with options available on the BXS and SPR
- Suitable for air quality to ISO 8573.1 Class 4: dirt, water and oil
- Simple installation and operation – single enclosure with integral override options
- Low/high temperature options
- Ultra low power consumption, under 1.0 W continuous holding power, ideal for solar applications
- Compatible within our 'AXIS' valve actuator control modular systems

### Commissioning and Maintenance

- Tropicalised solenoid operator design – 316L stainless steel enclosure with aluminium options also available; stainless steel or Remko B magnetic parts (dependant upon solenoid Ex series). Fully encapsulated coil
- Worldwide technical and field support
- Spacious solenoid enclosure for ease of wiring
- No special high temperature cable requirements
- No time penalty for heat dissipation before removing solenoid enclosure cover
- Simple maintenance – Removable transient suppression diode on Ex d DC solenoid valve assemblies as standard and removable solenoid coil without removing valve from the tubing
- Compact design and space envelope



# Solenoid Valve Features and Benefits

## Safety and Environmental

- Worldwide Ex hazardous area solenoid approvals: Ex emb, Ex d, Ex ia, explosionproof and safe area use
- SIL 3 capability: The product has met manufacturer design process requirements of Safety Integrity Level (SIL) 3 in accordance with IEC 61508. (For the FP03P, FP06P, FP10P, BXS and SPR)
- Consistent high safety factors
- The 77 series Ex d solenoid enclosure has been designed with 'spigot' and 'threaded' type flamepath joints. The minimum spacing requirements for obstruction of 'flange' joints— regarding the installation of the solenoid enclosure and its proximity with other objects is not applicable (in accordance with IEC/BS EN 60079-14 Explosive atmospheres: Electrical installations design, selection and erection)
- Our safe area operator option is designed for continuous duty in conformity to the EN60730 safety standards. They are encapsulated in a self-extinguishing synthetic material and offer high mechanical protection and excellent thermal dissipation
- 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 (-60 to +180 °C), function and leakage testing and data logging
- The standard solenoid operator is a flat plate armature type which ensures the valve will operate in all conditions. Other solenoid valve types using core tube design solenoid operators risk corrosion and seizure of the armature within the core tube
- Tolerant to moist air in control lines
- High tolerance to field misuse
- 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



# Product Spotlight

## Low Power Operator

### FP06P-(10LP and 28LP)

- (10LP) 1.0 W holding power 3.5 W energise (less than 100 mS)
- (28LP) 2.8 W holding power 8.0 W energise (less than 100 mS)
- High flow, low holding power
- Low power consumption
- High cycle capability up to 1 million cycles



## High Flow

### SPR and PPV

- Low power consumption
- High flow capabilities
- Up to 1" NPT
- Operates down to -60 °C
- High cycle capability up to 1 million cycles (PPV)



## Solenoid Valve Enclosure and Valve Body Options



7x | 2x | 2x | 5x | 130 and 140 | 130 and 140



1 | 1 | 2 | 3 and 4

7x	74AT4, 77 and 78 Series	316L Stainless Steel Enclosure and Valve Body
2x	24, 27 and 28 Series	Aluminium Enclosure and 316L Stainless Steel Valve Body
		Aluminium Enclosure and Valve Body
5x	58 Series	316L Stainless Steel Enclosure and Valve Body
130	130 Series	PBT – Polybutylene Terephthalate (Reinforced Fiberglass 30%) Enclosure and 316L Stainless Steel Valve Body
		PBT – Polybutylene Terephthalate (Reinforced Fiberglass 30%) Enclosure and Aluminium Valve Body
140	140 Series	Thermoplastic Resin Enclosure and 316L Stainless Steel Valve Body
		Thermoplastic Resin Enclosure and Aluminium Valve Body

1	Standard	Standard – 24 and 74AT4 Series (Ex emb), 27 and 77 Series (Ex d) and 77 Series (Explosion Proof)
2	Slimline	28, 58 and 78 Series (Ex ia)
3	Safe Area	130 Series (Safe Area) (BXS and SPR Only)
4	Hazardous Area	140 Series (Ex ia) (BXS and SPR Only)



## Direct-Acting Solenoid Valve Range

### FP03P

model



<b>Configuration</b>	2/2 and 3/2		
<b>Port Connections</b>	NPT and BSP - 1/8" and 1/4"		
<b>Flow Rate</b>	0.1 Cv		
<b>Pressure</b>	Up to 145 psi / 10 bar		
<b>Power</b>	1.5 W - 3.0 W (Ex d)	1.8 W - 3.6 W (Ex emb)	370 Ohms (Ex ia) / 32 mA
<b>Mounting</b>	Body Ported		
<b>Cycle Testing</b>	Up to 1,000,000 Cycles		

### FP06P

model



<b>Configuration</b>	2/2 and 3/2		
<b>Port Connections</b>	NPT and BSP - 1/4"		
<b>Flow Rate</b>	From 0.32 Cv, up to 1.2 Cv		
<b>Pressure</b>	Up to 232 psi / 16 bar		
<b>Power</b>	1.5 W - 6.5 W (Ex d)	1.8 W - 6.8 W (Ex emb)	135 Ohms (Ex ia) / 80 mA
<b>Mounting</b>	Body Ported NAMUR		
<b>Cycle Testing</b>	Up to 1,000,000 Cycles		

### FP10P

model



<b>Configuration</b>	2/2 and 3/2		
<b>Port Connections</b>	NPT and BSP - 1/4", 3/8" and 1/2"		
<b>Flow Rate</b>	From 0.4 Cv, up to 1.2 Cv		
<b>Pressure</b>	Up to 725 psi / 50 bar		
<b>Power</b>	1.5 W - 6.5 W (Ex d)	1.8 W - 6.8 W (Ex emb)	
<b>Mounting</b>	Body Ported		
<b>Cycle Testing</b>	Up to 1,000,000 Cycles		

### FP12P

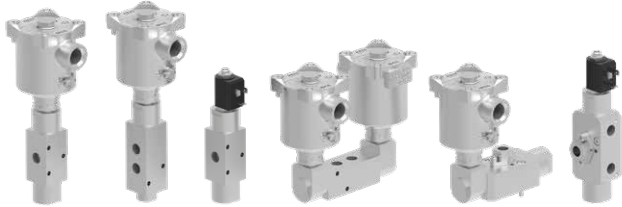
model



<b>Configuration</b>	2/2 and 3/2		
<b>Port Connections</b>	NPT and BSP - 1/2"		
<b>Flow Rate</b>	2.5 Cv		
<b>Pressure</b>	Up to 145 psi / 10 bar		
<b>Power</b>	6.5 W - 12.0 W (Ex d)		
<b>Mounting</b>	Body Ported		
<b>Cycle Testing</b>	Up to 50,000 Cycles		

## Indirect-Acting Solenoid Valve Range

### BXS model

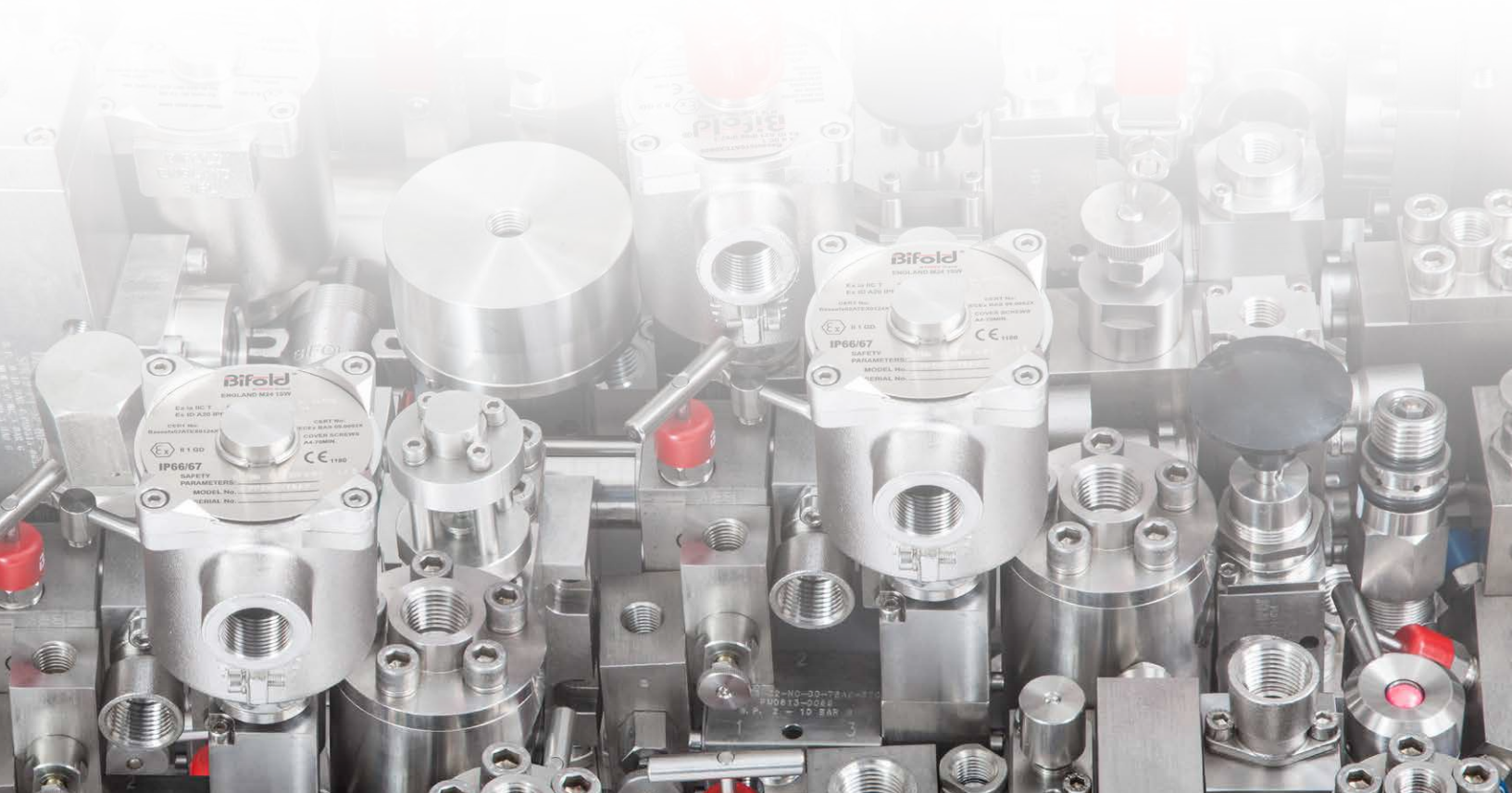


<b>Configuration</b>	2/2, 3/2, 5/2 and 5/3		
<b>Port Connections</b>	NPT and BSP - 1/4"		
<b>Flow Rate</b>	0.73 Cv		
<b>Pressure</b>	Up to 145 psi / 10 bar		
<b>Power</b>	0.8 W - 3.0 W (Ex d)	1.8 W (Ex emb)	260 Ohms - 45mA 370 Ohms - 32mA (Ex ia)
<b>Mounting</b>	Body Ported NAMUR		
<b>Cycle Testing</b>	Up to 1,000,000 Cycles		

### SPR and PPV model



<b>Configuration</b>	2/2, 3/2 and 5/2		
<b>Port Connections</b>	NPT and BSP - 1/4" up to 1"		
<b>Flow Rate</b>	From 2.0 Cv, up to 11.2 Cv		
<b>Pressure</b>	Up to 145 psi / 10 bar		
<b>Power</b>	0.8 W - 3.0 W (Ex d)	1.8 W (Ex emb)	260 Ohms - 45mA 370 Ohms - 32mA (Ex ia)
<b>Mounting</b>	Body Ported		
<b>Cycle Testing</b>	Up to 20,000 Cycles (SPR)	Up to 1,000,000 Cycles (PPV)	



# Technical Specifications Standard and Slimline

## Solenoid Valve Information

<b>Model Codes</b>	FP03P, FP06P, FP10P, FP12P, BXS and SPR								
<b>Connections</b>	1/8" up to 1" (NPT and BSP)								
<b>Cv</b>	0.1 up to 11.2								
<b>Working Pressure</b>	0 - 725 psi / 0 - 50 bar (Maximum)								
<b>Enclosure Type</b>	Standard				Slimline		Safe Area	Hazardous Area	
<b>Enclosure Series</b>	24	74AT4	27	77	28	78	58	130	140
<b>Solenoid Classification</b>	Ex emb IIC Gb T3 / T4		Ex d IIC Gb T4 / T5 / T6		Ex ia IIC Gb T4 / T6		Ex ia IIC Ga T4 / T6		Ex ia IIC Ga T6
<b>Ingress Protection</b>	IP66, IP67 and 4X		IP66, IP67 and 4X		IP66, IP67 and 4X		IP66		IP65
<b>Maximum Leakage Rate</b>	40 Pa/S Maximum (Closed) Compressed Air								

## Materials of Construction

<b>Enclosure and Valve Body</b>	316L stainless steel as standard with aluminium options also available	
<b>Internal Components</b>	316L stainless steel	
<b>Springs</b>	302S26 and 316S42 stainless steel as standard	
<b>Fasteners</b>	Metric A4 18/10 grade stainless steel; equivalent to 316L grade stainless steel	
<b>O-ring Material</b>	NBR - Nitrile (Standard) HNBR - Nitrile (Low Temperature) FKM - Fluoroelastomer FVMQ - Fluorosilicone FFKM - Perfluoroelastomer	<b>Media Temperature Range</b> -60 to +130 °C (Dependant on seal type. Alternative elastomer's available for extreme conditions and to suit media)
		<b>Ambient Temperature Range</b> -60 to +90 °C (Dependant on Solenoid Classification)
<b>Operating Media</b>	Filtered lubricated or unlubricated air, inert gas, sweet (natural) and sour gas options. Water, water glycol mixtures and mineral oil (excluding IPV operated valves)	
<b>Conformity</b>	All internal wetted and body materials conforming to NACE MR-01-75 as standard on the FP06P, FP10P and FP12P with options available on the BXS and SPR SIL 3 capability: The product has met manufacturer design process requirements of Safety Integrity Level (SIL) 3 in accordance with IEC 61508. (For the FP03P, FP06P, FP10P, BXS and SPR)	

## Electrical Characteristics

<b>Duty Cycle</b>	100% continuously rated/energised	
<b>Response Times</b>	Pull in <100 ms, drop out <70ms	
<b>Solenoid Insulation</b>	Class H	
<b>Volts</b>	Pull-In volts 90% up to 110% nominal	Drop-out volts, typically 10 - 20% of nominal
<b>Coil Voltage DC (=)</b>	12 VDC up to 240 VDC	
<b>Coil Voltage AC 50 Hz and 60 Hz (~)</b>	24 VAC up to 240 VAC	
<b>Cable Entry</b>	M20 x 1.5 and 1/2" NPT	

**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.**

## Technical Specifications Safe Area and Hazardous Area

### Safe Area Solenoid Valve Information

Enclosure Series	130
Compatible with Valve Model Codes	BXS and SPR

### Materials of Construction

Enclosure and Valve Body	PBT - Polybutylene Terephthalate (Reinforced Fiberglass 30%) enclosure and 316L stainless steel valve body as standard with aluminium options also available	
Tube	Stainless Steel AISI 304	
Flange	Stainless Steel 1.4305 EN 10088 (AISI 303)	
Plunger	Stainless Steel 1.4105 EN 10088 (AISI 430F) or equivalent	
Top Stop	Stainless Steel 1.4105 EN 10088 (AISI 430F)	
Springs	Stainless Steel AISI 302	
O-ring Material	FKM – Fluoroelastomer	Media Temperature Range -10 to +130 °C
		Ambient Temperature Range -10 to +50 °C

### Electrical Characteristics

Duty Cycle	100%
Coil Insulation	Class F 155 °C
Coil Voltage DC	24 VDC
Voltage Tolerance	+10% / -5%
Electrical Connection	PG9 EN 175301-803 Form B

### Hazardous Area Solenoid Valve Information

Enclosure Series	140
Compatible with Valve Model Codes	BXS and SPR

### Materials of Construction

Enclosure and Valve Body	Thermoplastic Resin enclosure and 316L stainless steel valve body as standard with aluminium options also available	
Tube	Brass	
Flange	Brass	
Plunger	Magnetic Steel	
Top Stop	Magnetic Steel	
O-ring Material	FKM - Fluoroelastomer	Media Temperature Range -10 to +50 °C
		Ambient Temperature Range -40 to +50 °C

### Electrical Characteristics

Duty Cycle	100%
Coil Insulation	Class F 155°C
Coil Voltage DC	28 V DC
Voltage Tolerance	± 10 %
Electrical Connection	PG9 EN 175301-803 Form A

Impregnated coils for use in damp/humid environments are available on request, must be used with connector and gasket.

# Technical Specifications Enclosures

## Certification



(Please contact Rotork for available certification)

## Protection Class (Ex emb) – 24 and 74AT4 Series

II 2 GD c Ex emb IIC Gb T3 T<sub>amb</sub> -25 to +55 °C (powers up to 3.0 W or below)  
 II 2 GD c Ex emb IIC Gb T4 T<sub>amb</sub> -25 to +50 °C (powers up to 4.0 W or below)  
 II 2 GD c Ex emb IIC Gb T3 T<sub>amb</sub> -25 to +45 °C (powers up to 4.5 W or below)  
 II 2 GD c Ex emb IIC Gb T3 T<sub>amb</sub> -25 to +40 °C (powers up to 6.8 W or below)

## Protection Class (Ex d) – 27 and 77 Series

II 2 GD Ex db IIC Gb T6 (T<sub>amb</sub> -60 to +40 °C)  
 II 2 GD Ex db IIC Gb T5 (T<sub>amb</sub> -60 to +55 °C)  
 II 2 GD Ex db IIC Gb T4 (T<sub>amb</sub> -60 to +90 °C)

## Protection Class (Ex ia) – 28, 58 and 78 Series

28 – II 2 GD Ex ia IIC Gb T6 (T<sub>amb</sub> = -60 to +60 °C)  
           II 2 GD Ex ia IIC Gb T4 (T<sub>amb</sub> = -60 to +95 °C)  
 58 – II I GD Ex ia IIC Ga T6 (T<sub>amb</sub> = -60 to +60 °C)  
 78 – II I GD Ex ia IIC Ga T6 (T<sub>amb</sub> = -60 to +60 °C)  
           II I GD Ex ia IIC Ga T4 (T<sub>amb</sub> = -60 to +95 °C)

## Protection Class (Ex ia) – 140 Series

II 2 G Ex ia IIC Ga T6 (T<sub>amb</sub> = -40 to +40 °C)  
 II 2 G Ex ia IIC Ga T4 (T<sub>amb</sub> = -40 to +85 °C)

## Power

24 and 74AT4 (Ex emb) – up to 6.8 Watts  
 27 and 77 (Ex d) – up to 6.5 Watts  
 77 (Ex d) – (10LP)\* 1.0 W holding power 3.5 W Energise and (28LP)\* 2.8 W holding power 8.0 W Energise  
 130 (Safe Area) – up to 3.0 Watt

## Resistance (Ω) and (Ex ia) – Safety Parameters

<p>28 and 78 (Ex ia) – 260 Ohms  <b>Safety Parameters: 28 and 78 Series</b>                  U<sub>i</sub> = 31 VDC, I<sub>i</sub> = 210 mA, P<sub>i</sub> = 1.5 W, C<sub>i</sub> ≈ 0 μF, L<sub>i</sub> ≈ 0mH                  Coil Resistance: 260 Ohm ± 5%                  Minimum Current Required @ solenoid coil = 45 mA</p> <p>58 (Ex ia) – 135 Ohms  <b>Safety Parameters: 58 Series</b>                  U<sub>i</sub> = 35 VDC, I<sub>i</sub> = 600 mA, P<sub>i</sub> = 3 W, C<sub>i</sub> ≈ 0 μF, L<sub>i</sub> ≈ 0 mH                  Coil Resistance: 135 Ohm ± 5%                  Minimum Current Required @ solenoid coil = 80 mA</p> <p>140 (Ex ia) – 275 (Nominal) up to 375 (Warm) Ohms  <b>Safety Parameters: 140 Series</b>                  U<sub>i</sub> = 28 VDC, I<sub>i</sub> = 115 mA, P<sub>i</sub> = 1.6 W, C<sub>i</sub> ≈ 0 μF, L<sub>i</sub> ≈ 0mH                  Coil Resistance: 275 Ohm (nominal)                                            375 Ohm (warm)                  Minimum Current Required @ solenoid coil = 37 mA</p>	<p>28 and 78 (Ex ia) – 370 Ohms  <b>Safety Parameters: 28 and 78 Series</b>                  U<sub>i</sub> = 31 VDC, I<sub>i</sub> = 210 mA, P<sub>i</sub> = 1.5 W, C<sub>i</sub> ≈ 0 μF, L<sub>i</sub> ≈ 0mH                  Coil Resistance : 370 Ohm ± 5%                  Minimum Current Required @ solenoid coil = 32 mA</p>
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## Terminal Block (FP Operator)

The type MK3 terminal block can accommodate solid conductors between the range of 0.5 mm<sup>2</sup> to 2.5 mm<sup>2</sup> and flexible conductors between the range of 0.5 mm<sup>2</sup> to 1.5 mm<sup>2</sup>

## Seal Repair Kit

For solenoid operator specific SRK (Seal Repair Kits), please contact Rotork sales department

## Coil Repair Kit

For solenoid operator specific CRK (Coil Repair Kits), please contact Rotork sales department

\* Low power

# Direct-Acting and Indirect-Acting Schematics

Configuration

Direct-Acting Schematics

Indirect-Acting Schematics

	2/2	3/2		2/2	3/2
Auto Reset NO (Normally Open)			*		
Manual NO (Normally Open)			*		
Auto Reset NC (Normally Closed)			*		
Manual NC (Normally Closed)			*		
Auto Reset NU (Normally Universal)					
Manual NU (Normally Universal)					

Configuration

Indirect-Acting Schematics

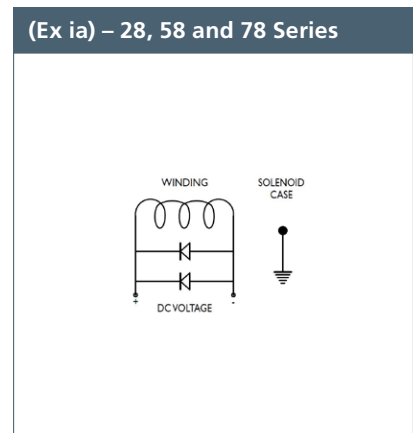
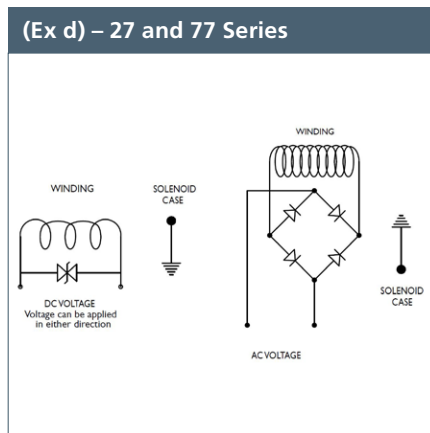
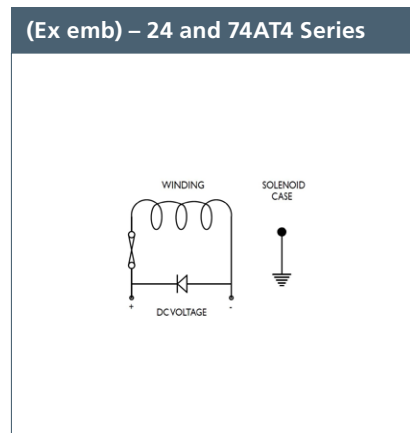
	5/2	5/3
Auto Reset		
Manual		

\* NAMUR Mounted

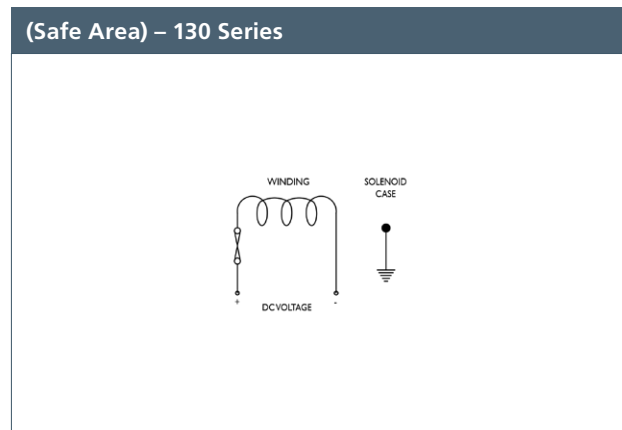
The manual operator feature attached to the valve schematics in this table defines the push button/spring return manual override option, other manual options are also available – please contact Rotork

# Wiring Diagrams

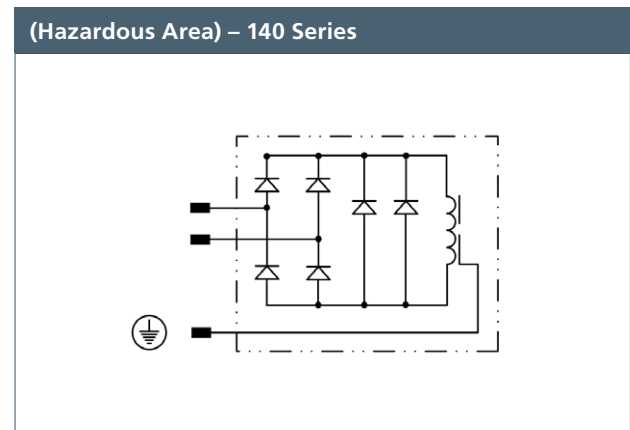
## Standard and Slimline



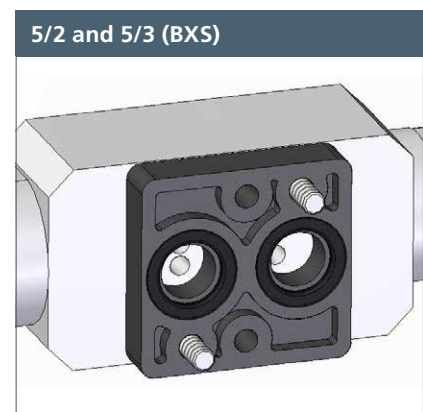
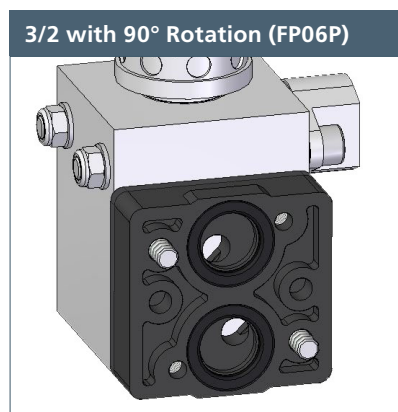
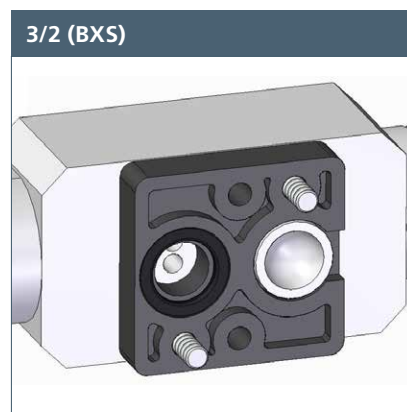
## Safe Area



## Hazardous Area



## 3/2 and 5/2 NAMUR Mounting Options



Supplied as Standard with NAMUR mounted valves

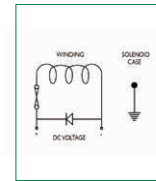
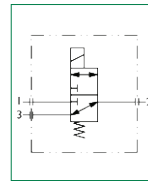
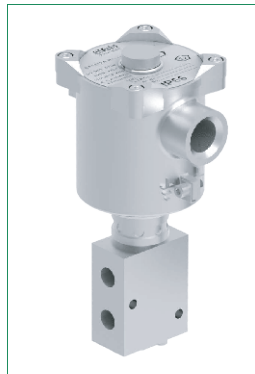
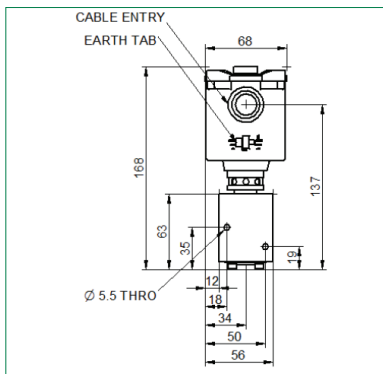
# Configurable Datasheet

The Bifold Product Configurator can be used to configure valves to your exact specifications and automatically create a bespoke datasheet, 2D dimensional drawing and 3D CAD / Step file in real time, ready to download. Simply choose the product you would like from the products list and configure each option to your exact specification. Then simply click 'Request Documents' to download the relevant documents. To configure your product online visit [www.bifold.co.uk/Product-Configurator.aspx](http://www.bifold.co.uk/Product-Configurator.aspx), follow the instructions detailed on the following page or contact Bifold for products not listed.

## FP06P Datasheet

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A rotork Brand



### FP06P-SI-04-32-NU-S-74AT4-24D-36

FP06P	Direct Acting Solenoid Valve	Model Code
SI	145 psi / 10 bar Maximum Valve Pressure	Operator
04	1/4" Body Ported - Stainless Steel	Connections
32	3-way, 2-position	Valve Configuration
NU	Normally Universal	Valve Configuration
S	Nitrile -20°C to +130°C	O-ring Material
74	Ex emb	Solenoid
AT4	ATEX/IECEx Dual Certified/Labelled	Solenoid Approval
24D	24VDC	Voltage
	Auto Reset	Options
36	3.6 Watts	Power
	M20 x 1.5 Cable Entry	Cable Entry
	NPT Ports	Port Type
	No Identifier	Identifier
FP06P-SI-04-32-NU-S-74AT4-24D-36		Model Number

### Protection Class

- II 2 GD c Ex emb IIC Gb T3 Tamb -25°C to +55°C (powers up to 3.0W or below)
- II 2 GD c Ex emb IIC Gb T4 Tamb -25°C to +50°C (powers up to 4.0W or below)
- II 2 GD c Ex emb IIC Gb T3 Tamb -25°C to +45°C (powers up to 4.5W or below)
- II 2 GD c Ex emb IIC Gb T3 Tamb -25°C to +40°C (powers up to 6.8W or below)

[www.bifold.co.uk](http://www.bifold.co.uk)

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

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

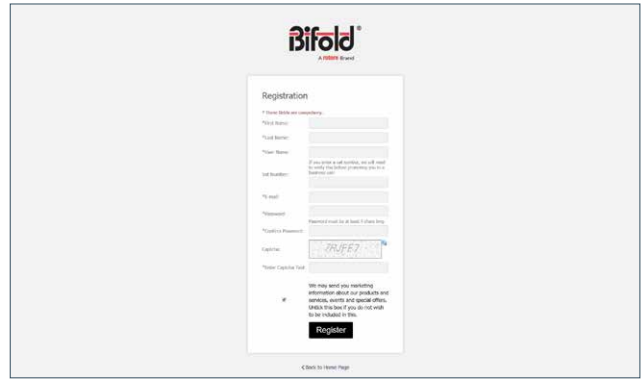
**Quality Assurance**  
All Bifold products are manufactured to a stringent QA programme to ensure that every product will give optimum performance and reliability. We are third party certified to BS EN ISO 9001. We reserve the right to make changes to the specifications and design etc, without prior notice.



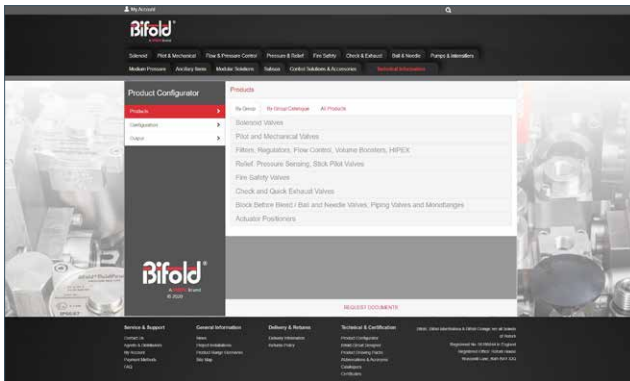
# Product Configurator



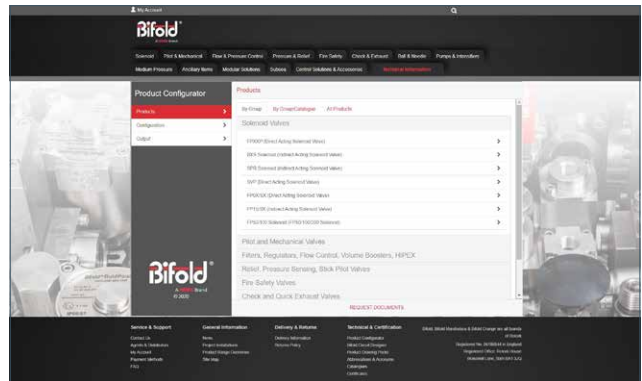
1. Visit [www.bifold.co.uk/Index.aspx](http://www.bifold.co.uk/Index.aspx) and go to the technical information tab or the technical and certification section of the footer and click the product configurator link.



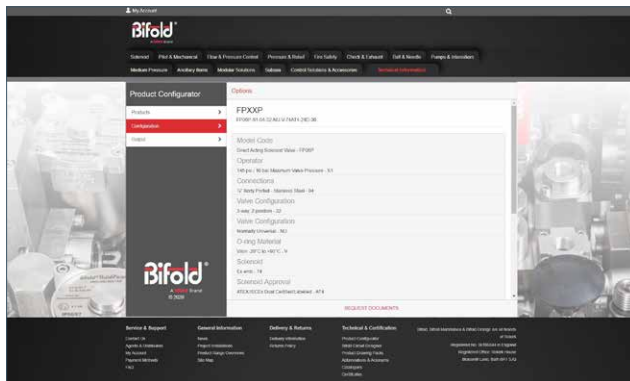
2. Register or login to enter the product configurator.



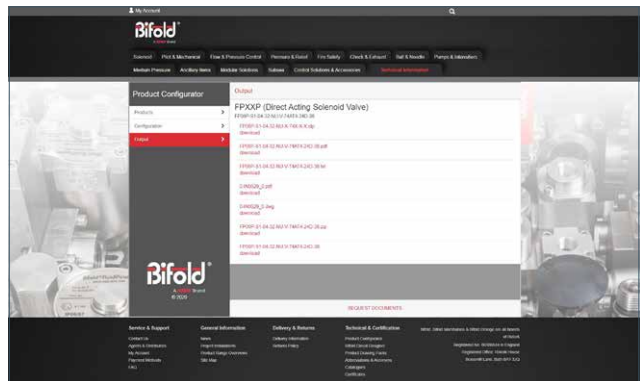
3. Simply choose and click the product range you would like from the products list.



4. Choose and click the model code you would like to configure from the products list.



5. Configure the selected product to your required specification.



6. Once you have configured the products to your exact specifications, simply click 'request documents' which will automatically create a bespoke datasheet, 2D dimensional drawing and 3D CAD / Step file in real time, ready to download.

## Site Services

Rotork understands the value of prompt, punctual and superior site services. Rotork Site Services have specialist expertise, insight and experience in service support for mission-critical flow control and instrumentation solutions for oil and gas, water and wastewater, power, chemical process and industrial applications. We offer global frontline support backed by dedicated in-house experts.

Our service solutions increase plant efficiency and reduce maintenance costs, while workshop services return equipment to as-new condition. Our experience and understanding of the flow control industry means we have extensive insight and ideas of what we can do to provide significant value to our customers and their operations.

Rotork Site Services is comprised of two main areas; Lifetime Management and Site Services. Lifetime Management is the suite of services within Rotork Site Services which help you manage the risk associated with aging assets and includes our Reliability Services offering. Site Services comprises essential actuator service, repair, maintenance and upgrades.

Rotork has specialist expertise, insight and experience in flow control.

We provide insight into how we can deliver value to our customers.

Our service solutions increase plant efficiency and reduce maintenance costs.



## Site Services

### Lifetime Management

The services available within Lifetime Management offer a complete solution to managing the risks associated with the life cycle of your equipment and their obsolescence (which compromise reliable performance and valuable uptime).

The aim of Lifetime Management is to provide you with constant support and minimum- to- no disruption to your production flow. It is a customisable service, offering designed to seamlessly maintain and improve your assets. We manage the inherent risks associated with advances in technology, component obsolescence and ageing equipment for you. We are committed to helping customers maximise the continuous, fault-free operation and working life of their actuators. Supporting the continuous and reliable operation of your plant allows for improved performance and increases in valuable uptime.

#### Lifetime Management covers:

- Reliability Services
  - Basic - Health Check
  - Standard - Planned Maintenance
  - Premium - Enhanced Maintenance
- Upgrade Services (Retrofit)
- Planned Shutdown Support
- Life Cycle Services
- Overhauls/Refurbishment
- Customised Spares Programme
- Intelligent Asset Management Reporting



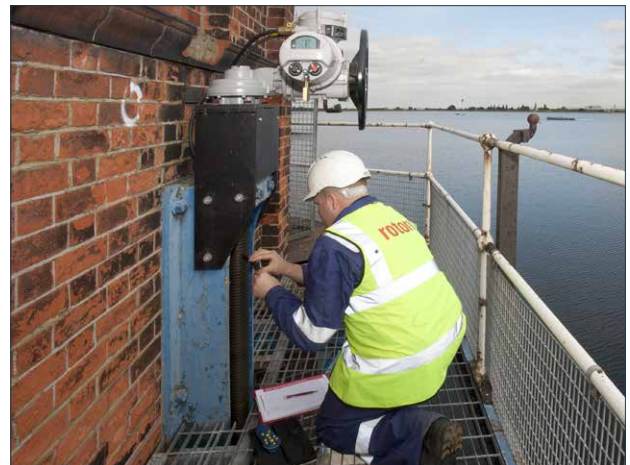
### Site Services

Rotork Site Services (RSS) provides the essential on-site actuator service, repair, maintenance and upgrades part of our service offering, plus the commissioning of new actuators and applications. It includes off-site work completed at a Rotork Support Centre including recertification, automation, testing and product selection.

Our decades of experience in the industrial actuation and flow control markets means that customers can rely on us to understand their problems and to deliver reliable, economic solutions. Rotork's talented and experienced engineers have an in-depth understanding of the problems that are faced in the field and they know how to fix them.

On sites where providing evidence of valid asset certification is a legal requirement, Rotork engineers can carry out the necessary OEM level inspections and provide the statutory paperwork to comply with regulations.

- Field Support
- Planned Shutdown Support
- Actuator Workshop Overhaul
- Valve Automation Services
  - On-site
  - Off-site
- Global Support



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[www.rotork.com](http://www.rotork.com)

A full listing of our worldwide sales and service network is available on our website.

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Issue 08/23

As part of a process of on-going product development, Rotork reserves the right to amend and change specifications without prior notice. Published data may be subject to change. For the very latest version release, visit our website at [www.rotork.com](http://www.rotork.com)

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