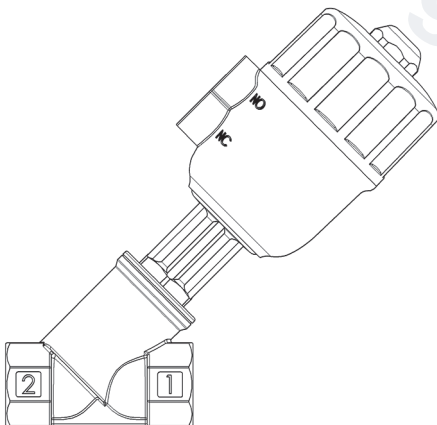


Type PF5 and PF6 Piston Actuated Valves

Installation and Maintenance Instructions



1. Safety information
2. General product information
3. Installation
4. Commissioning
5. Maintenance
6. Spare parts

1. Safety information

Safe operation of these products can only be guaranteed if they are properly installed, commissioned, used and maintained by qualified personnel (see Section 1.11) in compliance with the operating instructions. General installation and safety instructions for pipeline and plant construction, as well as the proper use of tools and safety equipment must also be complied with.

1.1 Intended use

Referring to the Installation and Maintenance Instructions, name-plate and Technical Information Sheet, check that the product is suitable for the intended use/application.

The products listed below comply with the requirements of the European Pressure Equipment Directive 2014/68/EU and carry the  mark when so required.

The products fall within the following Pressure Equipment Directive categories:

Product		Group 2 Gases	Group 2 Liquids
PF51G	DN15 - DN25 (PN25)	SEP	SEP
	DN32 - DN40 (PN25)	SEP	SEP
	DN50 (PN16)	SEP	SEP
PF6_G	DN15 - DN25 (PN40)	SEP	SEP
	DN32 - DN40 (PN25)	SEP	SEP
	DN50 (PN16)	SEP	SEP

- The products have been specifically designed for use on steam, water, compressed air, inert industrial gases and certain oils which are in Group 2 of the above mentioned Pressure Equipment Directive. The PF5G and PF6G (DN15 - DN25 only) can also be used on propane or methane gases which are in Group 1 of the above Pressure Equipment Directive. The products' use on other fluids may be possible but, if this is contemplated, Spirax Sarco should be contacted to confirm the suitability of the product for the application being considered.
- Check material suitability, pressure and temperature and their maximum and minimum values. If the maximum operating limits of the product are lower than those of the system in which it is being fitted, or if malfunction of the product could result in a dangerous overpressure or overtemperature occurrence, ensure a safety device is included in the system to prevent such over-limit situations.
- Determine the correct installation situation and direction of fluid flow.
- Spirax Sarco products are not intended to withstand external stresses that may be induced by any system to which they are fitted. It is the responsibility of the installer to consider these stresses and take adequate precautions to minimise them.
- Remove protection covers from all connections and protective film from all name-plates, where appropriate, before installation on steam or other high temperature applications.

1.2 Access

Ensure safe access and if necessary a safe working platform (suitably guarded) before attempting to work on the product. Arrange suitable lifting gear if required.

1.3 Lighting

Ensure adequate lighting, particularly where detailed or intricate work is required.

1.4 Hazardous liquids or gases in the pipeline

Consider what is in the pipeline or what may have been in the pipeline at some previous time. Consider: flammable materials, substances hazardous to health, extremes of temperature.

1.5 Hazardous environment around the product

Consider: explosion risk areas, lack of oxygen (e.g. tanks, pits), dangerous gases, extremes of temperature, hot surfaces, fire hazard (e.g. during welding), excessive noise, moving machinery.

1.6 The system

Consider the effect on the complete system of the work proposed. Will any proposed action (e.g. closing isolation valves, electrical isolation) put any other part of the system or any personnel at risk?

Dangers might include isolation of vents or protective devices or the rendering ineffective of controls or alarms. Ensure isolation valves are turned on and off in a gradual way to avoid system shocks.

1.7 Pressure systems

Ensure that any pressure is isolated and safely vented to atmospheric pressure. Consider double isolation (double block and bleed) and the locking or labelling of closed valves. Do not assume that the system has depressurised even when the pressure gauge indicates zero.

1.8 Temperature

Allow time for temperature to normalise after isolation to avoid danger of burns.

1.9 Tools and consumables

Before starting work ensure that you have suitable tools and/or consumables available. Use only genuine Spirax Sarco replacement parts.

1.10 Protective clothing

Consider whether you and/or others in the vicinity require any protective clothing to protect against the hazards of, for example, chemicals, high/low temperature, radiation, noise, falling objects, and dangers to eyes and face.

1.11 Permits to work

All work must be carried out or be supervised by a suitably competent person.

Installation and operating personnel should be trained in the correct use of the product according to the Installation and Maintenance Instructions.

Where a formal 'permit to work' system is in force it must be complied with. Where there is no such system, it is recommended that a responsible person should know what work is going on and, where necessary, arrange to have an assistant whose primary responsibility is safety.

Post 'warning notices' if necessary.

1.12 Handling

Manual handling of large and/or heavy products may present a risk of injury. Lifting, pushing, pulling, carrying or supporting a load by bodily force can cause injury particularly to the back. You are advised to assess the risks taking into account the task, the individual, the load and the working environment and use the appropriate handling method depending on the circumstances of the work being done.

1.13 PTFE - Handling precautions

Within its working temperature range PTFE is a completely inert material, but when heated to its sintering temperature it gives rise to a gaseous decomposition product or fumes which can produce unpleasant effects if inhaled. The inhalation of these fumes is easily prevented by applying local exhaust ventilation to atmosphere as near to their source as possible.

Smoking should be prohibited in workshops where PTFE is handled because tobacco contaminated with PTFE will during burning give rise to polymer fumes. It is therefore important to avoid contamination of clothing, especially the pockets, with PTFE and to maintain a reasonable standard of personal cleanliness by washing hands and removing any PTFE particles lodged under the fingernails.

1.14 Residual hazards

In normal use the external surface of the product may be very hot. If used at the maximum permitted operating conditions the surface temperature of some products may reach temperatures of 180 °C (356 °F).

Many products are not self-draining. Take due care when dismantling or removing the product from an installation (refer to 'Maintenance instructions').

1.15 Freezing

Provision must be made to protect products which are not self-draining against frost damage in environments where they may be exposed to temperatures below freezing point.

1.16 Disposal

Unless otherwise stated in the Installation and Maintenance Instructions, this product is recyclable and no ecological hazard is anticipated with its disposal providing due care is taken. However, if the valve is fitted with a FKM or PTFE seat, special care must be taken to avoid potential health hazards associated with decomposition/burning of these seats.

FKM:

- Can be landfilled, when in compliance with National and Local regulations.
- Can be incinerated, but a scrubber must be used to remove Hydrogen Fluoride, which is evolved from the product and with compliance to National and Local regulations.
- Is insoluble in aquatic media.

PTFE:

- Can only be disposed of by approved methods, not incineration.
- Keep PTFE waste in a separate container, do not mix it with other rubbish, and consign it to a landfill site.

Please visit the Spirax Sarco product compliance web pages

<https://www.spiraxsarco.com/product-compliance>

for up to date information on any substances of concern that may be contained within this product. Where no additional information is provided on the Spirax Sarco product compliance web page, this product may be safely recycled and/or disposed providing due care is taken. Always check your local recycling and disposal regulations.

1.17 Returning products

Customers and stockists are reminded that under EC Health, Safety and Environment Law, when returning products to Spirax Sarco they must provide information on any hazards and the precautions to be taken due to contamination residues or mechanical damage which may present a health, safety or environmental risk. This information must be provided in writing including Health and Safety data sheets relating to any substances identified as hazardous or potentially hazardous.

2. General product information

2.1 Description

PF51G

A 2-port pneumatically actuated on/off valve for use on water, air, oil, and gases and can also be used on lower specification steam applications. **Note:** These valves are not suitable for vacuum conditions.

PF6_G

A 2-port pneumatically actuated on/off valve for use on steam, water, air, oil and gases.

PF51G and PF6_G operation

A pneumatic signal acts on the actuator piston (depending upon seat position top or bottom) to open or close the valve. The valve plugs have a PTFE soft seal to provide tight shut-off. A position indicator is included on standard and flow regulator models.

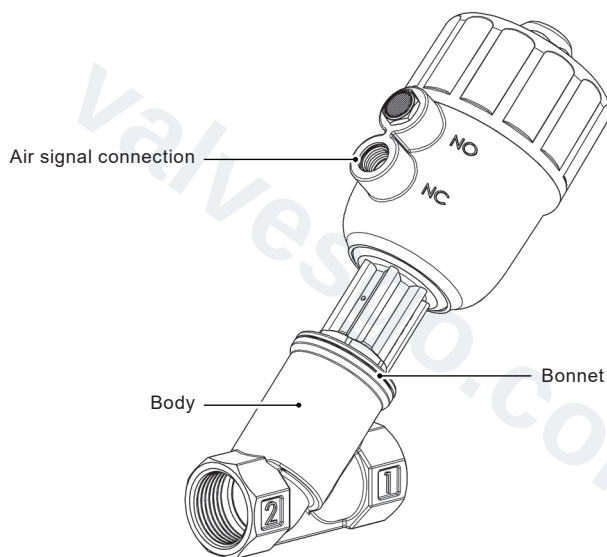


Fig. 1 2-port pneumatically actuated on/off valve

2.2 Technical details

Leakage		PTFE soft seal	ASME Class VI			
Flow characteristic		Fast opening	On/off			
Flow direction	NC - Normally closed	Flow over seat	Port 1 to 2			
	NO - Normally open	Flow under seat	Port 2 to 1			
	BD - Bi-directional	Flow over seat	Port 1 to 2			
Flow under seat		Port 2 to 1				
Pilot media	Instrument air or inert gases - For use with other flow media contact Spirax Sarco		60 °C (140 °F) maximum			
Actuator rotation			360°			
Actuator type and size		Pilot connection	Maximum pilot pressure			
			NC & BD	NO		
			Type 1 = 45 mm (1¾") diameter	⅝" BSP	10 bar g (145 psi g)	10 bar g (145 psi g)
			Type 2 = 63 mm (2½") diameter	¼" BSP	10 bar g (145 psi g)	10 bar g (145 psi g)
	Type 3 = 90 mm (3½") diameter	¼"BSP	8 bar g (116 psi g)	7 bar g 102 psi g		

2.3 Kvs values

Size		DN15 ½"	DN20 ¾"	DN25 1"	DN32 1¼"	DN40 1½"	DN50 2"
Kvs	PG51G	4.5	8.0	15.6	24.6	42.0	57.0
	PF6_G	4.5	8.0	15.6	24.6	42.0	57.0

For conversion:

$C_v \text{ (UK)} = K_v \times 0.963$

$C_v \text{ (US)} = K_v \times 1.156$

2.4 Sizes, pipe connections and actuator combinations

Valve type and pipe connections	Actuator type and version	DN15 ½"	DN20 ¾"	DN25 1"	DN32 1¼"	DN40 1½"	DN50 2"
PF51G Screwed BSP or NPT	1 PTFE	•	•	PF51G only			
PF60G Threaded spigots to ISO 228/1 (DN50 to ISO 338)	2 PTFE	•	•	•	•	•	•
	H	•	•	•			
PF61G Screwed BSP or NPT	PTFE			•	•	•	•
PF62G Butt weld to DIN 11850 pipe, ASME B 36.10/ISO 65 pipe	3 H			Available on request	•	•	•
PF63G Flanged to EN 1092 or ASME Class 150 (welded on flanges)	2 PTFE	•	•	•	•	•	•
	H	•	•	•			
	PTFE			•	•	•	•
	3 H			Available on request	•	•	•

2.5 Available range

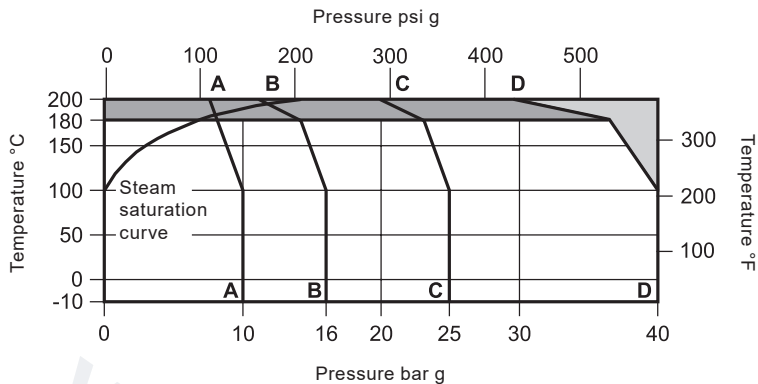
Valve action	Screwed (BSP or NPT)	Butt weld	Flanged (EN or ASME)
NC Normally Closed (flow over seat)	PF51G-1NC PF61G-1NC	PF62G-1NC	
	PF51G-2NC PF61G-2NC	PF62G-2NC	PF63G-2NC
	PF51G-3NC PF61G-3NC	PF62G-3NC	PF63G-3NC
NO Normally Open (flow under seat)	PF51G-1NO PF61G-1NO	PF62G-1NO	
	PF51G-2NO PF61G-2NO	PF62G-2NO	PF63G-2NO
	PF51G-3NO PF61G-3NO	PF62G-3NO	PF63G-3NO
BD Bi-Directional normally closed (flow over or under seat)	PF51G-1BD PF61G-1BD	PF62G-1BD	
	PF51G-2BD PF61G-2BD	PF62G-2BD	PF63G-2BD
	PF51G-3BD PF61G-3BD	PF62G-3BD	PF63G-3BD

Valve action	Threaded spigots
NC Normally Closed (flow over seat)	PF60G-1NC
	PF60G-2NC
	PF60G-3NC
NO Normally Open (flow under seat)	PF60G-1NO
	PF60G-2NO
	PF60G-3NO
BD Bi-Directional normally closed (flow over or under seat)	PF60G-1BD
	PF60G-2BD
	PF60G-3BD

Optional extras:

Travel switch (I)	= PF61G-2BD-I
Flow regulator (R)	= PF61G-2BD-R
Position module mechanical switch (A)	= PF60G-1NC-A
Position module inductive switch (B)	= PF60G-1NC-B

2.6 Pressure/temperature limits



A - A PN10

B - B PN16 and ASME 150

C - C PN25

D - D PN40

The product **must not** be used in this region or beyond the body design conditions quoted in the table opposite as damage to the internals will occur.

High temperature stem seals (Option H) are required for use in this region.

Body design conditions	PF51 Screwed - Bronze	DN15 - DN25	(½" - 1")	PN25
	Screwed, butt weld, threaded spigots, flanged EN 1092	DN15 - DN25	(½" - 1")	PN40
		DN32 and DN40	(1¼" - 1½")	PN25
		DN50	(2")	PN16
	Flanged ASME	DN15 - DN50	(½" - 2")	Class 150
Maximum design pressure		Refer to the graph on the previous page		
Maximum design temperature		200 °C	(392 °F)	
Minimum design temperature		-10 °C	(14 °F)	
Maximum operating pressure for saturated steam service	Standard seals	9 bar g @ 180 °C	(131 psi g @ 356 °F)	
	High temperature seals - Option H	14.5 bar g @ 200 °C	(210 psi g @ 392 °F)	
Maximum operating temperature	Standard seals	180 °C @ 9 bar g	(356 °F @ 131 psi g)	
	High temperature seals - Option H	200 °C @ 14.5 bar g	(392 °F @ 210 psi g)	
Minimum operating temperature		-10 °C	(14 °F)	
Note: For lower operating temperatures consult Spirax Sarco.				
Ambient temperature limits		-10 °C to +60 °C	(14 °F to 140 °F)	
Note: Protection from environmental influences (e.g. UV radiation, humidity, chemicals) is required. Ensure that adequate shelter is provided for outdoor installations.				
Designed for a maximum cold hydraulic test pressure of: 1.5 x body design conditions				
Note: Valves which are being subjected to hydraulic testing must be in the fully open position.				

3. Installation

Note: Before actioning any installation observe the 'Safety information' in Section 1.

Referring to the Installation and Maintenance Instructions, name-plate and Technical Information Sheet, check that the product is suitable for the intended installation:

3.1 Check materials, pressure and temperature and their maximum values. **Do not exceed the performance rating of the valve. Check the limiting conditions and the product label details for pilot pressure limitations.** If the maximum operating limit of the product is lower than that of the system in which it is being fitted, ensure that a safety device is included in the system to prevent overpressurisation.

3.2 Determine the correct installation situation and the direction of fluid flow.

WARNING! We recommend that a bi-directional BD type valve be selected and used to prevent waterhammer on valve closure for liquid flow applications above 2 bar g (29 psi g).

3.3 Remove protective covers from all connections and protective film from all name-plates, where appropriate, before installation on steam or other high temperature applications.

3.4 **Caution: Butt weld versions** must have the actuator and valve stem removed prior to welding the body into the pipeline.

This can be carried out in one of two ways:

- i - Undo the actuator cover to relax the spring force while retaining the valve body, then remove the actuator and valve stem by unscrewing the bonnet.
- ii - Apply air pressure at the inlet port of the actuator, which will compress the spring and remove the downward force, then remove the actuator and valve stem by unscrewing the bonnet.

3.5 Support pipework should be used to prevent stresses being exerted on the valve body.

3.6 These valves can be mounted in any orientation. The actuator can also be rotated 360° in the direction indicated on the product label to facilitate easy pilot mounting and connection.

3.7 Ensure adequate space is provided for the removal of the actuator from the valve body for maintenance purposes:

- **Type 1** (NC/NO/BD) = 52 mm
- **Type 2** (NC/NO/BD) = 68 mm
- **Type 3** (NC/NO/BD) = 92 mm

3.8 Isolate connecting pipework. Ensure it is clean from dirt, scale etc. Any debris entering the valve may damage the PTFE head seal preventing a tight shut-off.

3.9 A red travel indicator will appear in the actuator top cover when the valve is fully open.
Note: The red travel indicator is fitted on all models with exception to those with the optional travel switch.

3.10 Check for leaks.

3.11 **Start-up and periodic adjustment:**

During the initial phases of operation the gasket between body and bonnet could settle thermally and mechanically. To avoid small leaks, it is recommended to check the tightening between body and bonnet with a torque wrench calibrated according to the values shown in the Table 1 on 17. We recommend to pay attention especially when fluid is steam or high temperature fluids.

4. Commissioning

4.1 Flow regulator

This option will regulate the maximum flow of either the normally closed (NC) or normally open (NO) valves. The regulator can be used as a manual override for NO valves.

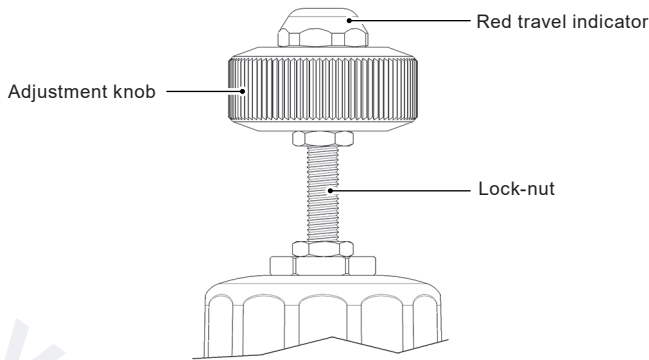


Fig. 2 Flow regulator

Flow regulation - NC (normally closed) valves:

1. Isolate the primary upstream and downstream valves.
2. Undo the flow regulator lock-nut.
3. Rotate the adjustment knob clockwise until the valve is fully closed. A red travel indicator will appear in the top of the handle.
4. Apply sufficient pilot pressure required to overcome the maximum differential pressure condition.
5. Open the primary upstream and downstream valves.
6. Gradually open the valve until the desired maximum flowrate is achieved.
7. Tighten the flow regulator lock-nut.
8. Exhaust the pilot media pressure to check for valve tight shut-off.
9. Apply pilot pressure again to check maximum flow condition.

Flow regulation - NO (normally open) valves:

1. Ensure that the flow regulator is fully open. Undo the flow regulator lock-nut.
2. With the primary medium flowing gradually close the valve using the flow regulator until the desired flowrate is achieved.
3. Tighten the flow regulator lock-nut.
4. Apply sufficient pilot media pressure to ensure the valve achieves tight shut-off.
5. Exhaust the pilot pressure to check maximum flow once again - adjust if necessary.

4.2 Travel switch

The travel switch will provide an electrical signal provided by a magnetic sensor and non contact switch to indicate valve open or closed position.

Relay rating:

Voltage (V) = 500 V

Current (I) = 0.5 A

Power (P) = 30 W/VA

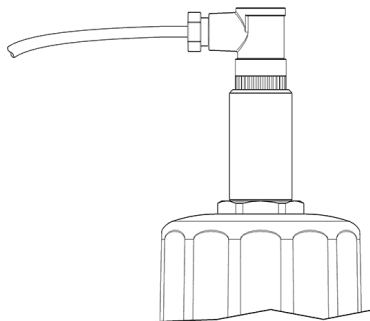


Fig. 3 Travel switch

4.3 Wiring connections

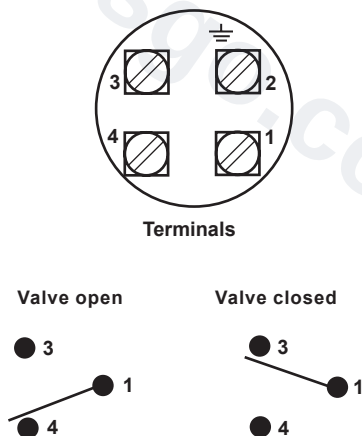


Fig. 4 Wiring connections

4.4 Position module with mechanical or inductive switch

The position modules allow the identification of the opening or closing position through an electrical signal. The detection is carried out by a mechanical microswitch or inductive switch. Mechanical switch or inductive switches can be fitted to all standard Piston Actuated Valves.

Specifications	
Electrical position feedback	Mechanical limit switches or inductive limit switches
Body/cover material	Polyamide PA6 (reinforced fibreglass 30%)
Connector material	Copper-zinc alloy/aluminium alloy/cast zinc-nickel plating treatment
Electrical connection	Connector M16 - 10 poles/wire Ø 5 - 9 mm
Ambient temperature	-10 to +60 °C
Protection class	IP65

Technical data of mechanical switches	
Number of switches	2
Type of switch	Change-over contacts (NC and/or NO) – in silver
Max. tension connector	230 Vac with dirt level 2, 160 Vac with dirt level 3
Max. current	6 A with resistive load 2 A with inductive load

Technical data of inductive switches	
Number of switches	2
Output version	Normally open contact (PNP)
Power supply	12 - 24 Vdc
Max. load current	50 mA per output
Power consumption	13 mA max. at 24 Vdc without load

4.5 Wiring connections for position module

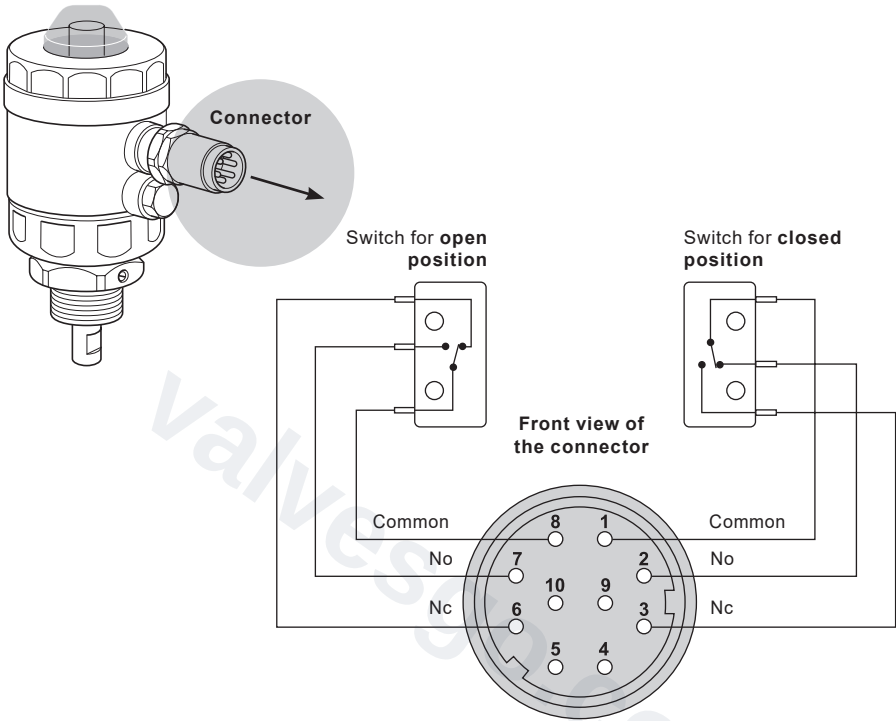


Fig. 6 Schematic illustrating the electrical connection for mechanical switches

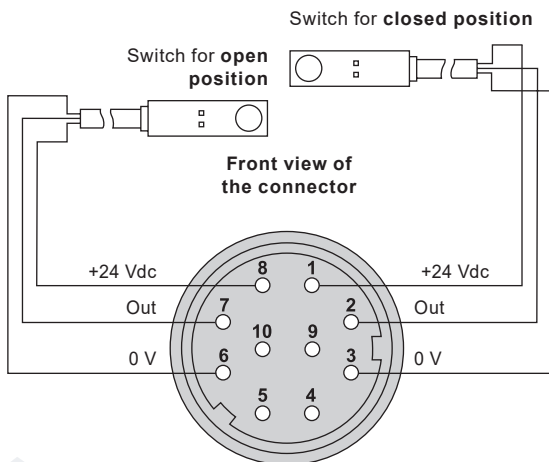


Fig. 7a Schematic illustrating the electrical connection for inductive switches

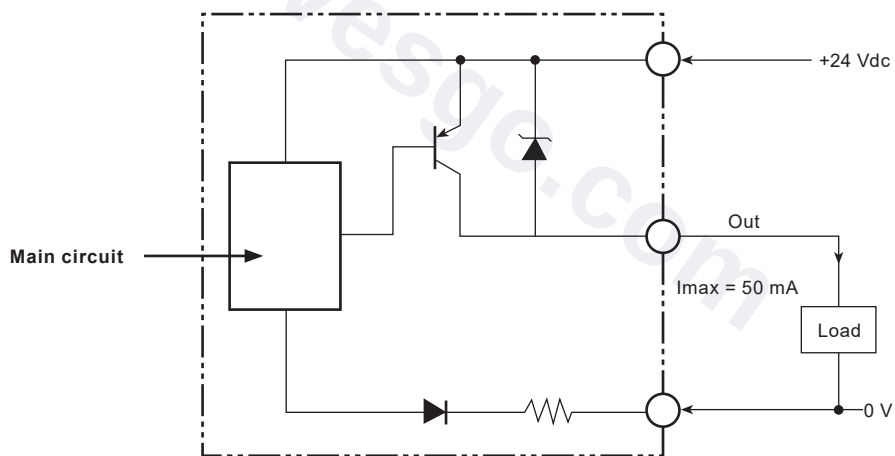


Fig. 7b Electrical diagram for the inductive position module

4.6 Solenoid valves (type DM - if fitted)

DM type solenoid valves should be mounted onto the piston actuator as shown below.

To fit a solenoid valve onto a normally closed valve use the pilot connection marked 'NC', for normally open valves use the connection marked 'NO'.

Contact Spirax Sarco before using water as the pilot media - When using water as a pilot media, remove the cap from the exhaust connection and connect a drain line.

Note: Maximum torque on the thread of the pilot fluid port is 5 Nm (3.68 lbf ft or 44.25 lbf in).

Please refer to TI-P373-04 or IM-P373-12 for further information.

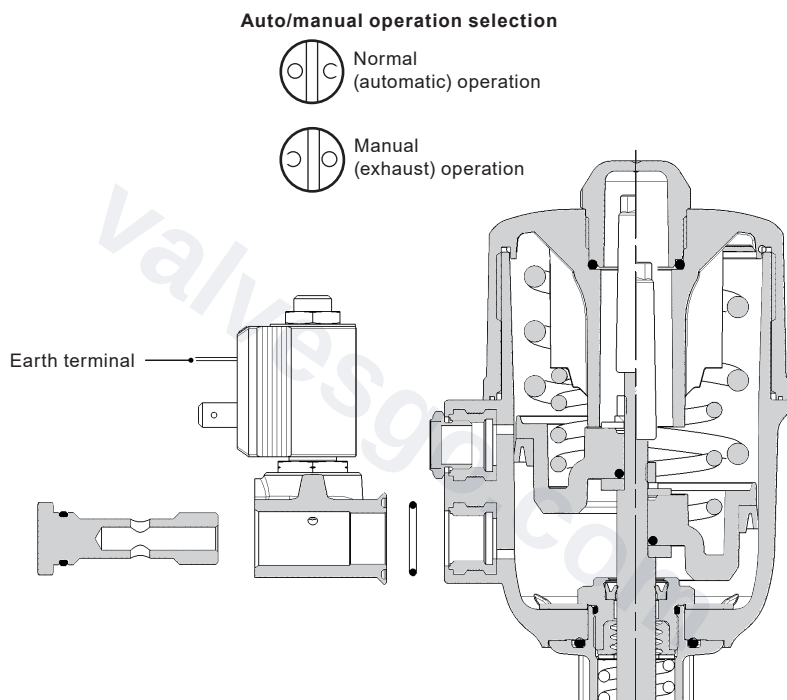


Fig. 8 DM solenoid valve mounting (normally closed valves)

5. Maintenance

Note:

Before undertaking any maintenance on the valve observe the 'Safety Information' in Section 1.

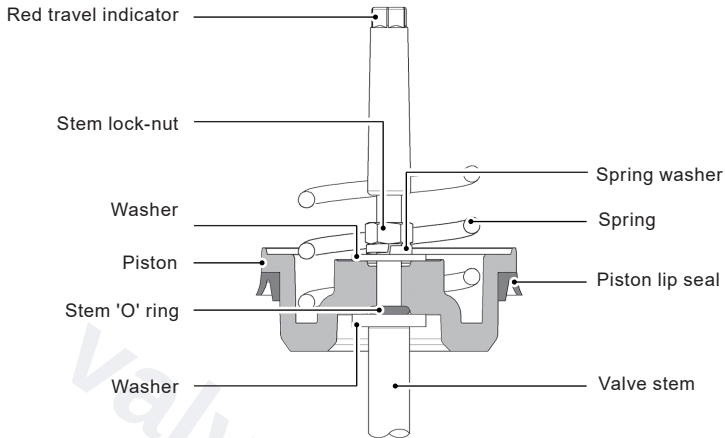


Fig. 9 NC (Normally Closed) and BD (Bi-Directional normally closed valves)

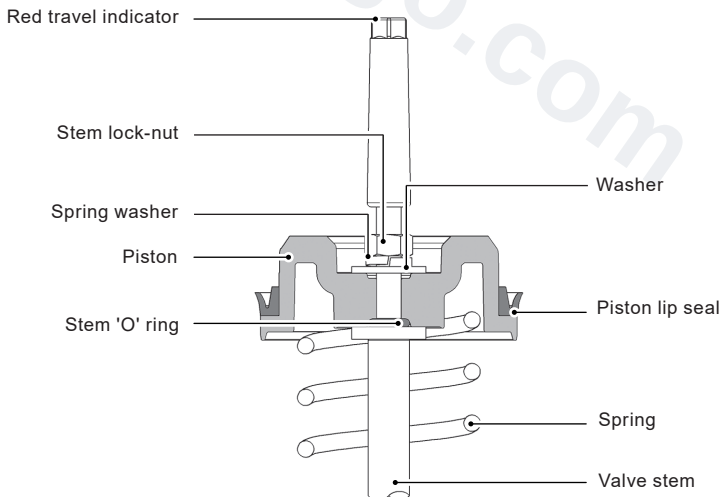


Fig. 10 NO (Normally Open) valves

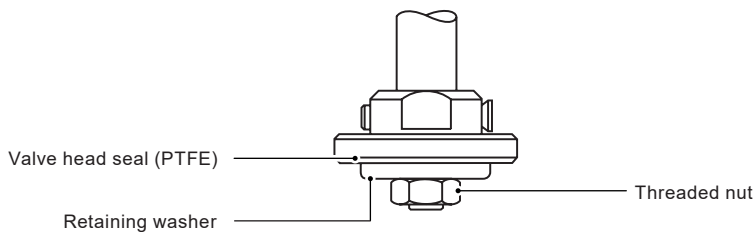


Fig. 11 Plug and seat seal arrangement for the standard version

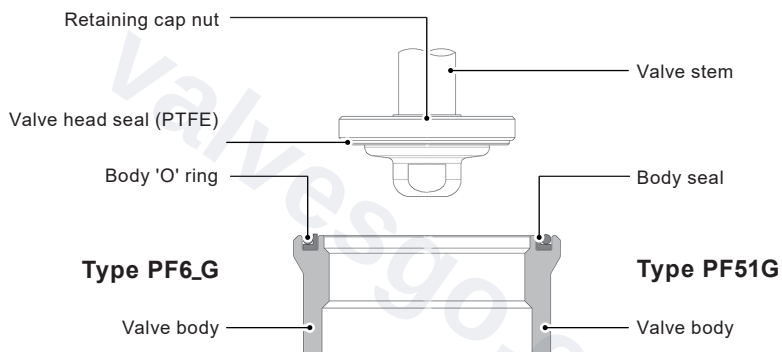


Fig. 12 Plug and seat seal arrangement for the high temperature version - Option H

Table 1 Body/bonnet recommended tightening torque - N m (lbf ft)

Valve size	Torque	
	N m	(lbf ft)
DN15 ½"	55	(40)
DN20 ¾"	55	(40)
DN25 1"	80	(59)
DN32 1¼"	80	(59)
DN40 1½"	110	(81)
DN50 2"	110	(81)

5.1 General information

When removing the actuator and valve stem use one of the following methods (except for normally open version):

- i - Undo the actuator cover to relax the spring force while retaining the valve body, then remove the actuator and valve stem.
- ii - Apply air pressure at the inlet port of the actuator, which will compress the spring and remove the downward force, then remove the actuator and valve stem.

5.2 How to fit a new seal kit:

A spare seal kit is available comprising: valve head seal (PTFE), stem 'O' ring, piston lip seal, body seal (and body 'O' ring for the type PF6_G). To replace these items proceed as follows:

- Isolate the upstream and downstream valves.
- Vent the pilot pressure from the actuator and disconnect the pilot pipework/solenoid valve.
- Remove the piston actuated valve from the pipeline.
- Remove the valve body and inspect the valve head seal. Replace if necessary. **Caution:** Before removing the valve body on normally closed valves (type NC and BD), the spring pressure acting down onto the valve head seal should be relaxed to prevent damage. This can be carried out in one of two ways, see Section 5.1.
If a replacement valve head seal is required, remove the retaining cap nut whilst holding the valve head firmly (two flats are provided on the valve head for this purpose). Fit a new (PTFE) valve head seal and refit the retaining cap (paying attention to keep the dented profile in contact with the PTFE seal) nut applying Loctite 620 to the threaded portion of the stem. Tighten the cap nut to 13 N m (9.5 lbf ft). Replace the valve body and tighten the bonnet to the recommended torque as specified in Table 1.
- To inspect or replace the stem 'O' ring or piston lip seal, remove the actuator housing cover whilst holding the valve body firmly. **Warning: The internal spring is under compression.** Remove the valve body as previously described in Section 5.1.
- Whilst holding the valve head, unscrew the red travel indicator and stem lock-nut and remove together with the two washers.
- Remove the piston, stem 'O' ring and washer. Inspect the piston lip seal and 'O' ring and replace if required.
- Clean out any dirt or waste deposits from inside the piston housing area and carefully apply Viton compatible inert grease to the 'O' ring and piston lip seal.
- Reassemble in reverse order referring to the drawings showing correct location of components. Whilst holding the valve head, tighten the stem lock-nut. Replace the red travel indicator and finger tighten.
- Refit the actuator cover and tighten to the following tightening torques:
Type 1 = 20 Nm (14.7 lbf ft)
Type 2 = 50 Nm (36.8 lbf ft)
Type 3 = 70 Nm (51.6 lbf ft)
- Refit the valve body replacing the body seal (and body 'O' ring type PF61G) and tighten the bonnet to the recommended torque as specified in Table 1.

5.3 How to replace the stem seal

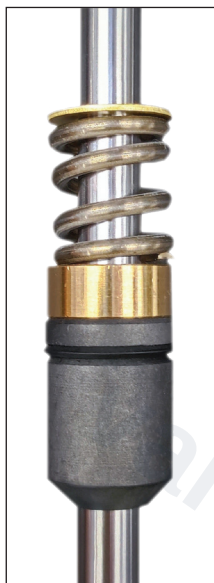


Fig. 13
Stem seal
replacement kit for
type PF51 Type 2 and
Type 3 actuators



Fig. 14
Stem seal kit for
Types PF5 and PF6
piston actuated
valves with
Type 1 actuator
(INC-BD-NO)



Fig. 15
Stem seal kit for
Type PF6 piston
actuated valves
with Types 2 and 3
actuator
(2NC-NO-BD and
3NC-NO-BD) -
Stainless steel only

- Isolate the upstream and downstream valves.
- Vent the pilot pressure from the actuator and disconnect the pilot pipework/solenoid valve.
- Remove the piston actuated valve from the pipeline.
- Remove the valve body.
Caution: Before removing the valve body on normally closed valves, the spring pressure acting down onto the valve head seal should be relaxed to prevent damage. This can be carried out in one of two ways:
 1. Undo the actuator cover to relax the spring force while retaining the valve body and then remove the actuator and valve stem.
 2. Apply air pressure at the inlet port of the actuator, which will compress the spring and remove the downward force, then remove the actuator and valve stem.
- To replace the main stem seals, remove the actuator housing cover whilst holding the valve body firmly.
Warning: The internal spring is under compression.
 Remove the valve body.
- Whilst holding the valve head securely, unscrew the red travel indicator and stem lock-nut then remove complete with the two washers.
- Remove the piston, stem 'O' ring and washer along with the spring and valve stem.
- Remove the piston housing securing nut, whilst holding the bonnet in a secure position.
- Replace as required the stem sealing kit.
- Clean out any dirt or waste deposits from inside the piston housing area and carefully apply Viton compatible inert grease to the 'O' ring and piston lip seal.
- Reassemble in reverse order referring to the drawings showing correct location of components, see Figure 11 and torque settings.

6. Spare parts

Available spares

A main spare seal kit is available comprising: valve head seal (PTFE), stem 'O' ring, bonnet/actuator 'O' ring, piston lip seal, body seal (and body 'O' ring for the type PF6_G).

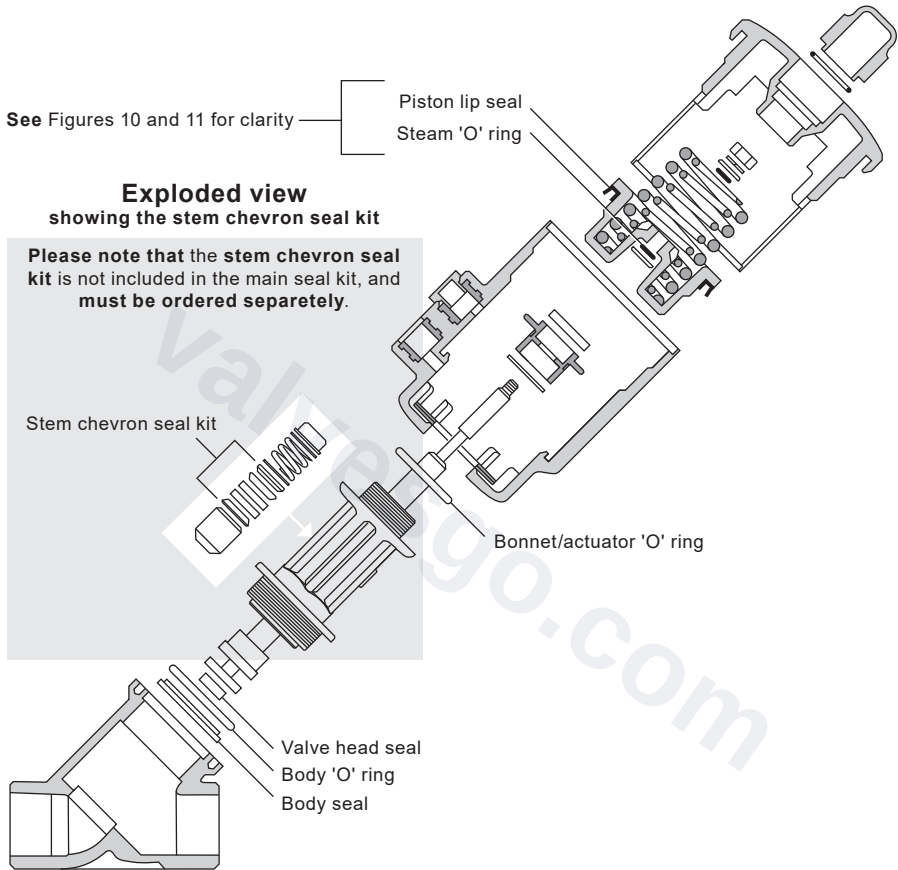


Fig. 16 Available spares - 45 mm

Exploded view showing the stem chevron seal kit

Please note that the stem chevron seal kit is not included in the main seal kit, and must be ordered separately.

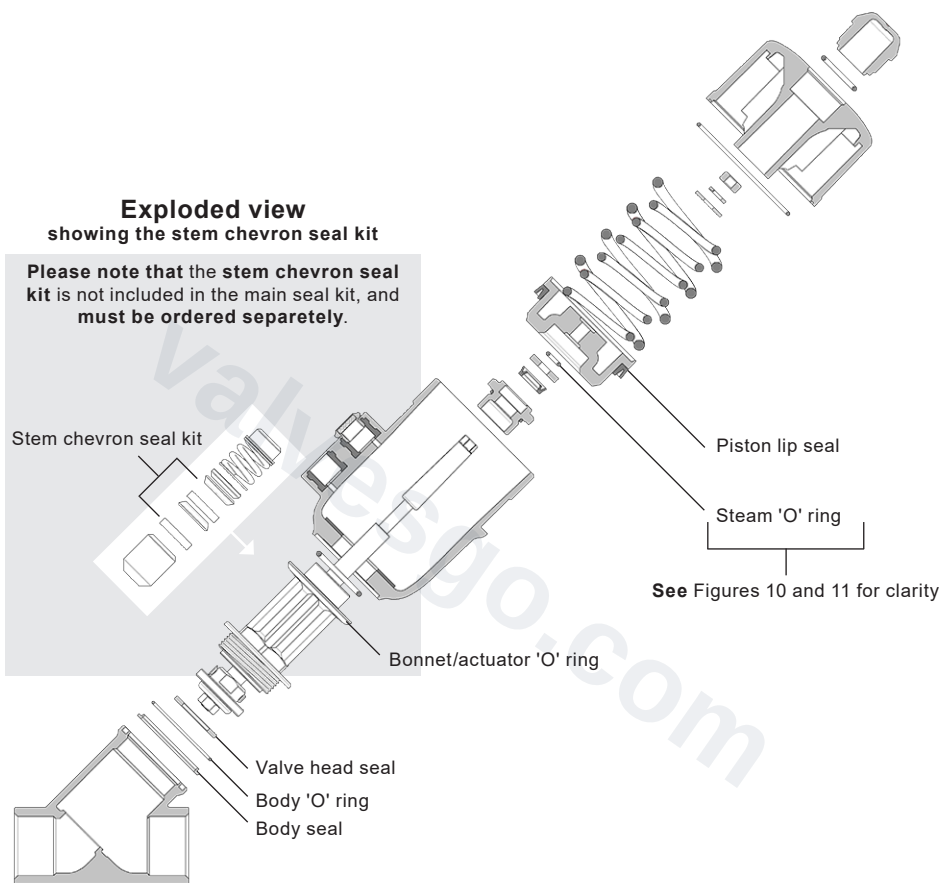


Fig. 17 Available spares - 63 mm and 93 mm

How to order a spare seal kits

Always order spares by specifying the valve size, type and date code (month and year) given on the actuator label i.e.: 04/14 (April 2014).

Example: 1 - Seal kit for a 1" PF51G-2NO, date code xx/xx

Please note that the stem seal kit for the high temperature version is different from the standard one.

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