



7C.460- E
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PN1673 Series Spring Extend Pneumatic Actuators (for 'K' Series SPIRA-TROL Valves) DN125 ÷ DN200

Description

The PN1673 series are single spring linear actuators for matching the requirements of different valves at various differential pressures. Each actuator is fitted with a combined mechanical stroke indicator and anti-rotation guard.

The actuators are designed for easy conversion from spring retract to spring extend, and vice versa, without the need for special tools.

Available types

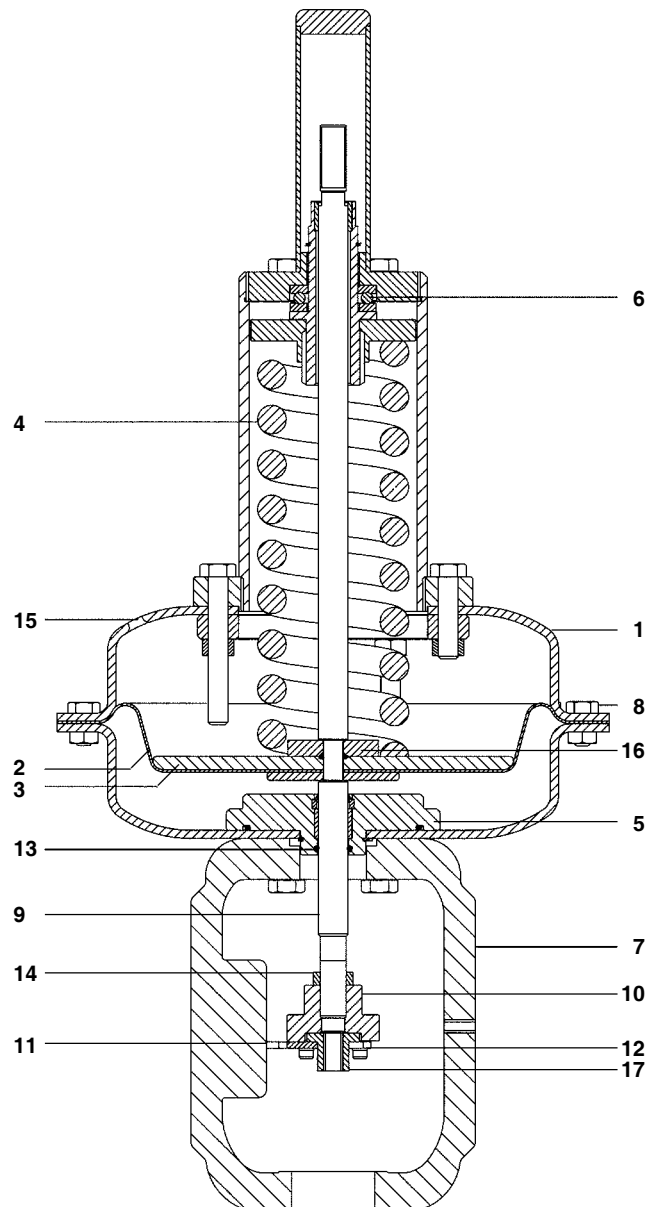
Spring Extend Pneumatic Actuators: PN1673 Series.

Technical data

Temperature range	-20°C to +110°C (-4°F to +230°F)
Maximum operating pressure	4,5 bar (65 psi)
Air supply connection	¼" NPT

Materiali

N°	Part	Material
1	Diaphragm housing	Carbon steel
2	Diaphragm	Reinforced nitrile rubber
3	Diaphragm plate	Stainless steel
4	Spring	Spring Special steel
5	Spindle guide	Bronze
6	Bearing	Hardened steel
7	Yoke	Cast steel
8	Housing securing nuts and bolts	Zinc plated steel
9	Spindle	Stainless steel
10	Connector	Zinc plated steel
11	Travel indicator	Stainless steel
12	Lock plate	Zinc plated steel
13	'O' ring	Nitrile rubber
14	Lock-nut	Zinc plated steel
15	Cap of vent hole	Nickel plated brass
16	Spring location washer	Zinc plated steel
17	Valve spindle adapter	Stainless steel



Sizing instructions:

The tables below provide a guide to the correct sizing of the PN1673 actuator in coupling with the K Series SPIRA-TROL control valves. There are two possible combinations:

- Applications with unbalanced valves and flow tending to open
- Applications with balanced valves

In the tables two conditions are indicated:

Class IV Sealing: Determines the leakage of the valve according to the BS 5793-4 (IEC 60534-4) Class IV standard requirements.

Class VI Sealing: Determines the leakage of the valve according to the BS 5793-4 (IEC 60534-4) Class VI standard requirements.

For conditions exceeding those provided in the table, please contact Spirax Sarco.

DN (mm)	DN125	DN150	DN200
Stroke (mm)	70		
Kvs	245	370	580

Maximum differential pressure for K Series unbalanced Spira-Trol valves with standard metallic trim - Class IV Sealing

Actuator	Spring Range (bar)	Air supply (bar)	Positioner	DN125		DN150		DN200	
				PTFE	Graphite	PTFE	Graphite	PTFE	Graphite
PN1673	2,0 - 4,0	4,5	Required	9	9	6	5	2	2

Maximum differential pressure for K Series unbalanced Spira-Trol valves with soft sealed trim - Class VI Sealing

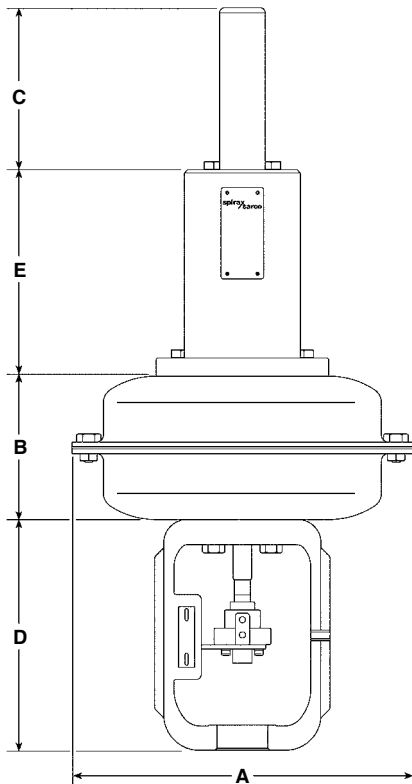
Actuator	Spring Range (bar)	Air supply (bar)	Positioner	DN125		DN150		DN200	
				PTFE	Graphite	PTFE	Graphite	PTFE	Graphite
PN1673	2,0 - 4,0	4,5	Required	16	15	11	11	6	6

Maximum differential pressure for K Series balanced Spira-Trol valves with standard metallic trim - Class IV Sealing

Actuator	Spring Range (bar)	Air supply (bar)	Positioner	DN125		DN150		DN200	
				PTFE	Graphite	PTFE	Graphite	PTFE	Graphite
PN1673	2,0 - 4,0	4,5	Required	40	40	40	40	40	40

Maximum differential pressure for K Series balanced Spira-Trol valves with trim soft sealed trim - Class VI Sealing

Attuatore	Spring Range (bar)	Air supply (bar)	Positioner	DN125		DN150		DN200	
				PTFE	Graphite	PTFE	Graphite	PTFE	Graphite
PN1673	2,0 - 4,0	4,5	Required	40	40	40	40	40	40



Installation

Actuators should be mounted on the valve with the stem in a vertical position. Installation and Maintenance Instructions are supplied with the product.

Spare parts

Information regarding available spare parts is shown in Spirax Sarco technical specification 7C.455.

PN1000 actuator selection table:

Actuators can be selected using the differential pressure charts shown (above) in conjunction with the following part codes:

Actuation	PN = Pneumatic	PN							
Actuator action	1 = Spring to extend	1							
Diaphragm size	6	6							
Actuator travel	7 = 70 mm (2")	7							
Spring range	3 = 2,0 ÷ 4,0 bar (30 ÷ 60 psi)	3							
Yoke	C = Type C for DN150 - 200 (6"÷ 8") valves dimension	C							
Spring-holder size	4 = Type 4	4							
<table border="1" style="display: inline-table; margin-right: 10px;"> <tr> <td>PN</td> <td>1</td> <td>6</td> <td>7</td> <td>3</td> <td>C</td> <td>4</td> </tr> </table>		PN	1	6	7	3	C	4	
PN	1	6	7	3	C	4			

How to order

Example: 1 off Spirax Sarco PN1673 Actuator, Spirax Sarco, spring range set 2,0 to 4,0 bar.

Dimensions/weights (approximately) in inches (mm) and pounds (kg)

Actuator	Actuator diaphragm			Actuator Joke Type C	Actuator spring holder Type 4	Weight
	A	B	C	D	E	
PN1673	465 (18 5/16")	180 (7")	200 (7 7/8")	299 (11 3/4")	270 (10 1/2")	70 (154)