



TI-P704-01

CTLS Issue 2

PP6

Pneumatic Positioner



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49

Description

The PP6 positioner can control any valve that is actuated by a linear or rotary pneumatic actuator that conforms with NAMUR. It guarantees an exact proportionality between the stroke of the valve and the value of the pneumatic input signal into the positioner. The PP6 has a cast aluminium housing that is also treated for outdoor installation. The unit can be mounted onto pneumatic actuators either rotary 55-90° or linear 20 to 150 mm.

The positioner can be supplied without a mounting kit or with a kit for rotary or linear actuators, the type must be specified when ordering. As standard the PP6 is equipped with two pressure gauges to indicate air pressure command sent to the pneumatic actuator and the air pressure supplied to the positioner.

The PP6 is supplied for a pneumatic control signal 0.2 to 1.0 bar and for an air supply pressure up to 7 bar.

The positioners can be arranged for sequential operation of two or more pneumatic valves in such a way that the stroke of each valve is obtained by a split-range control signal.

For example: 0.2 to 0.6 bar and 0.6 to 1.0 bar in the case of two valves.

The PP6 can also be used to reverse the action of the control signal.

Air supply

The PP6 positioner must be provided with a high quality air supply to ISO 8573-1:2010 Class 3:3:2.



ATEX

rating

II 2G Ex h IIC T6 Gb

EX h IIIC T85°C Db

Applications

The PP6 can be used with any actuator that conforms to NAMUR, this includes all of the following Spirax Sarco pneumatic actuators:

BVA300 rotary

PN1600

PNS3000 and PNS4000 series

PN9000 series

TN2000 series

Materials

Part	Material	Finish
Case and cover	Die cast aluminium	Anti-corrosive paint to RAL9016
Mounting bracket	Steel	EP protected
Feedback pin	Stainless steel	
Feedback lever	Stainless steel	
Feedback pin locator	Stainless steel	
Screws	Stainless steel	

4

Control systems

Positioners and controllers

Technical data

Input signal range	0.2 - 1.0 bar (3 - 15 psi)
Air supply	1.4 to 7.0 bar (regulate 0.4 to 0.7 bar (5 to 10 psi) above actuator spring range)
Air quality	ISO 8573-1:2010 Class 3:3:2.
Output pressure	0 to 100% supply pressure
Actuator stroke	20 mm to 150 mm or 55° to 90°
Action	Single acting/fail vent/Double acting
Operating temperature	-20 °C to +70 °C
Air flow	80 LPM @ 1.4 bar
Steady state air consumption	2.5 LPM @ 1.4 bar supply
Air connections	1/4" NPT female
Sensitivity	Single acting is +/- 0.2%
	Double Acting and Rotary are +/- 0.5%
Hysteresis	+/-1% F.S.
Linearity	Single acting is +/- 1%
	Double Acting and Rotary are +/- 2%
Repeatability	+/- 0.5% F.S
Degree of protection	IP66
Characteristic	Linear
	Linear 2.1 kg (positioner only)
Shipping weight	Mounting Kits for Linear PY3 and PY4 - 1.3 kg, UY1,2,3 - 0.9 kg, UBC - 0.2 kg
	Rotary 3.3 kg (Positioner and mounting kit)

Positioner options

Basic model	Aluminium enclosure Safe Area or Explosion proof protection method	PP6
Acting type	Single acting	S
	Double acting	D
Mounting type	Linear - See page 4 for Mounting Kit selection	L
	Rotary - Mounting Kit included	R
Air connection	1/4" NPT	1
Non standard features	Standard model	A

Ordering code example:

PP6

S

L

1

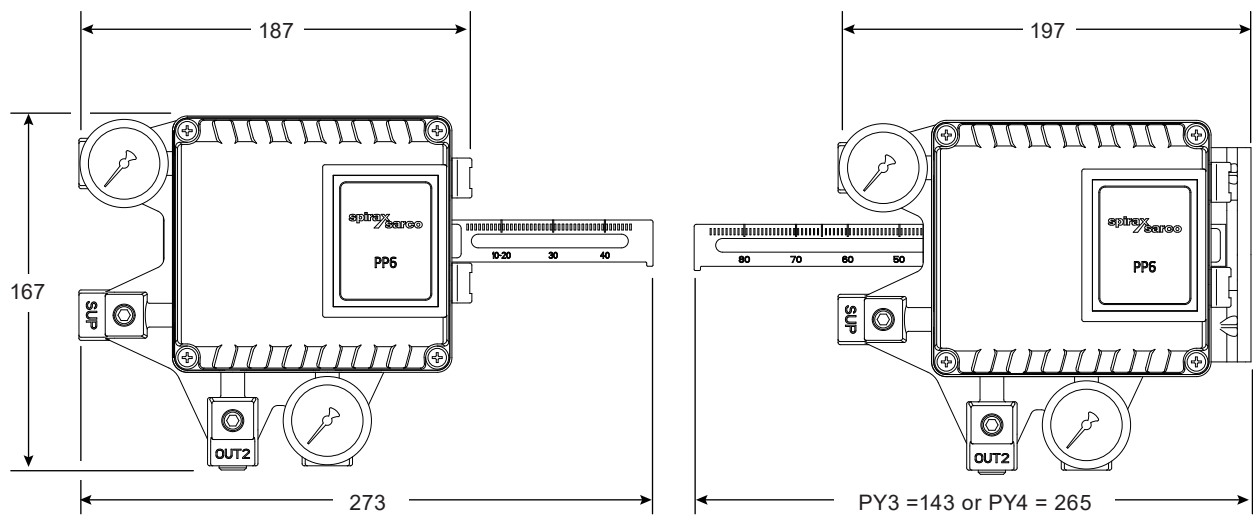
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A

Safety information, installation and maintenance

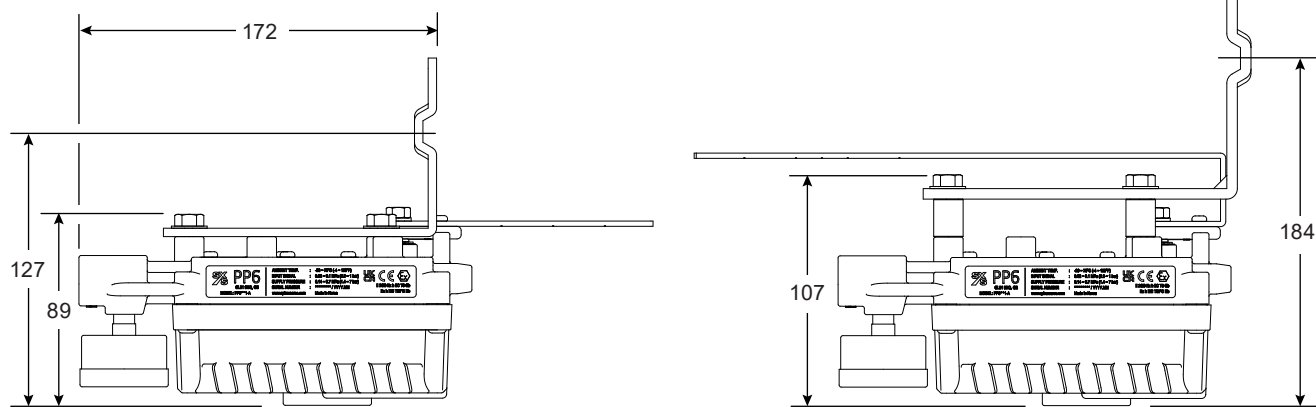
Full details are contained in the PP6 pneumatic positioner Installation and Maintenance Instructions.

Dimensions (approximate) in mm



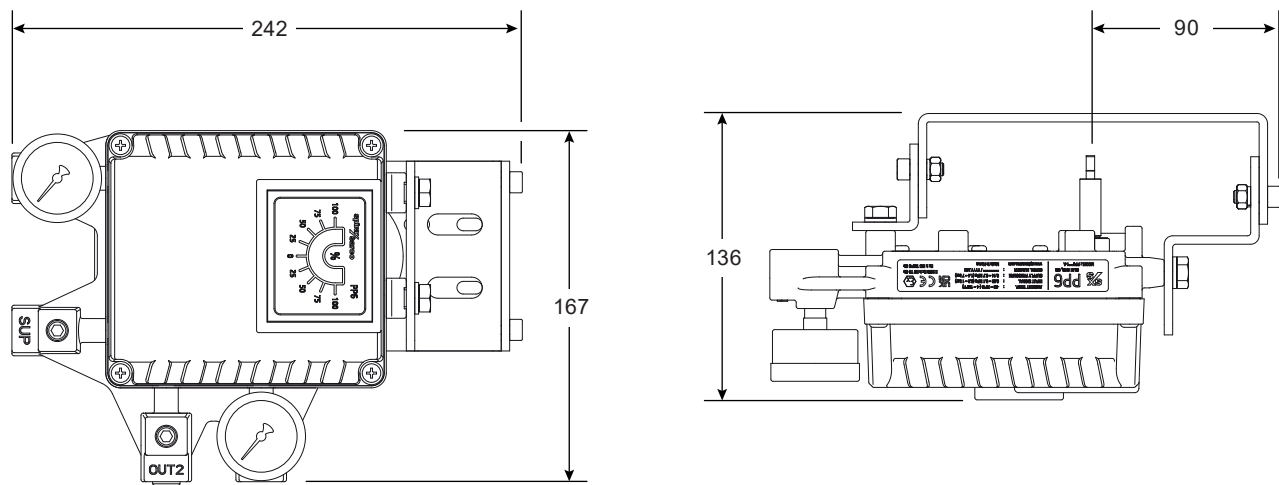
Linear left mounted

Linear centrally mounted



4.4

51



Rotary mounted

4

Control systems
Positioners and controllers

Mounting/linkage kit : Positioner mounting kits will be supplied for central mounting as standard.

Mounting Position	Actuator Model	Valve Models	Valve Sizes	Spirax kit Nomenclature
Central	PN9100	Spira-trol™ two port and QL three port	DN15 to DN50	PY3
	PN9200		DN15 to DN100	
	PN9300		DN125 to DN300	PY4
	PN9400			
	TN2150	Spira-trol™ two port and QL three port	DN15 to DN100	PY3
	TN2300		DN125 to DN300	PY4
	TN2400			Not compatible
	TN2270		PY4	
	PN3000 Sprg Ext	LE, LEA and Steri-trol	DN15 to DN100	PY3
	PN4000 Sprg Ret			
	PN5000	KE, KEA, LE and LEA	DN15 to DN100	PY3 + UBC
	PN6000			
	PN5000	Spira-trol™ QL three port	DN125 to DN200	PY4 + UBC
	PN6000			
Left side	PN9100	Spira-trol™ two port and QL three port	DN15 to DN50	UY3
	PN9200		DN15 to DN100	
	PN9300		DN125 to DN300	
	PN9400			
	TN2150	Spira-trol™ two port and QL three port	DN15 to DN100	Not compatible
	TN2300		DN125 to DN300	UY1
	TN2400			Not compatible
	TN2270			UY1
	PN3000 Sprg Ext	LE, LEA and Steri-trol	DN15 to DN100	UY3
	PN4000 Sprg Ret			
	PN5000	KE, KEA, LE and LEA	DN15 to DN100	UY3 + UBC
	PN6000			
	PN5000	Spira-trol™ QL three port	DN125 to DN200	UY1 + UBC
	PN6000			
	PN1600	'C' series	DN65 to DN100	UY1
	PN1600	'C' series	DN125 to DN200	UY2
	PN1600	Spira-trol™	DN125 to DN300	

Customer requirement example:
1 off Pneumatic positioner for use with single acting PN9300 actuator, having 30 mm stroke.

How to order
Example: 1 off Spirax Sarco PP6SL1-A Pneumatic-Pneumatic Positioner + PY3 mounting kit.
Caution: The PP6 positioner must have a high quality air supply to ISO 8573-1:2010 Class 3:3:2