shopvalves.com

EP6
Electro-pneumatic Positioner

Description

The EP6 Electro-pneumatic 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 electrical input signal (mA) into the positioner.
The EP6 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 EP6 is equipped with a pressure gauge to indicate the air pressure command sent to the pneumatic actuator.
The positioner is supplied for a control signal in mA and for an air supply pressure up to 7 bar.
The EP6 positioner can also be used to reverse the action of the control signal.

Air supply

The EP6 positioner must be provided with a high quality air supply to ISO 8573-1:2010 Class 3:3:2

Applications

The EP6 can be used with any actuator that conforms to NAMUR, this includes all of the following Spirax Sarco pneumatic actuators:

BVA300 rotary
PN1600 series
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	

shopvalves.com

Technical data

Input signal range	4-20 mA (split range minimum amplitude 8 mA)	
Impedance	Max 250 +/- 15 Ω	
Air supply	1.4 to 7.0 bar (regulate 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 0 °C to 90 °	
Action	Single acting/fail vent/Double acting	
Operating temperature	Standard temperature	-20 °C to +70 °C
	High temperature	-20 °C to +120 °C
Air flow	80 LPM @ 1.4 bar	
Steady state air consumption	2.4 LPM @ 1.4 bar	
Air connections	¼" NPT female	
Sensitivity	Single : +/- 0.2% F.S. (Full Scale)	
	Double : +/- 0.5% F.S	
Hysteresis	+/- 1% F.S.	
Linearity	Single +/- 1% F.S.	
	Double +/- 2% F.S.	
Repeatability	+/- 0.5% F.S	
Electrical connections	Cable gland M20 internal, terminals for conductors from 0.5 to 2.5 mm² wire	
Degree of protection	IP66	
Characteristic	Linear	
Shipping weight	Linear 2.8 kg (positioner only)	
	Mounting Kits for Linear EY3 and EY4 - 1.3 kg, UY1,2,3 - 0.9 kg, UBC - 0.2 kg	
	Rotary 4.1 kg (Positioner and mounting kit)	

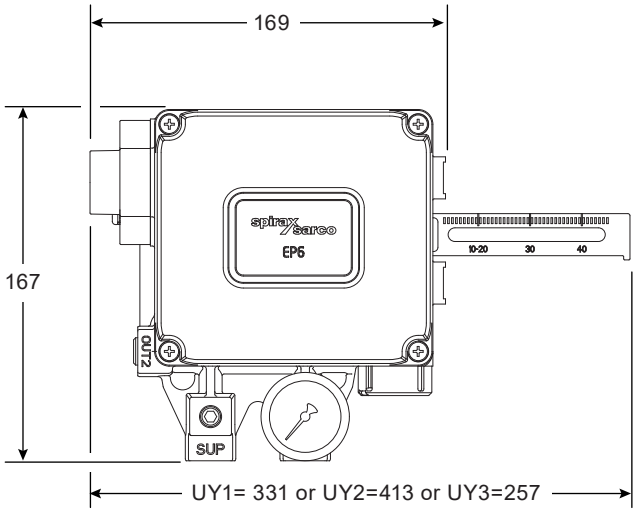
Positioner options

Basic model	Aluminium enclosure	**EP6**
Acting type	Single acting	**S**
	Single Acting + Reduced Orifice Ø 1	**A**
	Double acting	**D**
Mounting type	Linear - See page 4 for Mounting Kit selection	**L**
	Rotary - Mounting Kit included	**R**
Hazardous area protection	Safe area	**S**
Electrical and Air connection	M20 -¼" NPT	**1**
Non standard features	Standard model	**A**
	Standard Model + Supply Pressure Gauge	**B**
	High Temp Model (-20 °C to +120 °C)	**H**
	High Temp Model (-20 °C to +120 °C) + Supply Pressure Gauge	**K**

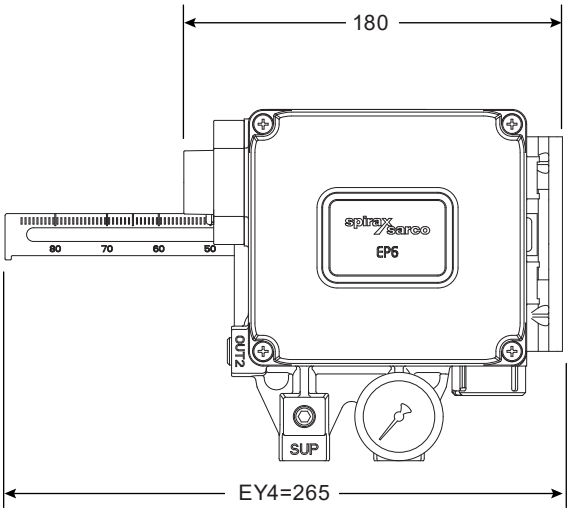
Ordering Code Example: | **EP6** | **S** | **L** | **S** | **1** | - | **A** |

shopvalves.com

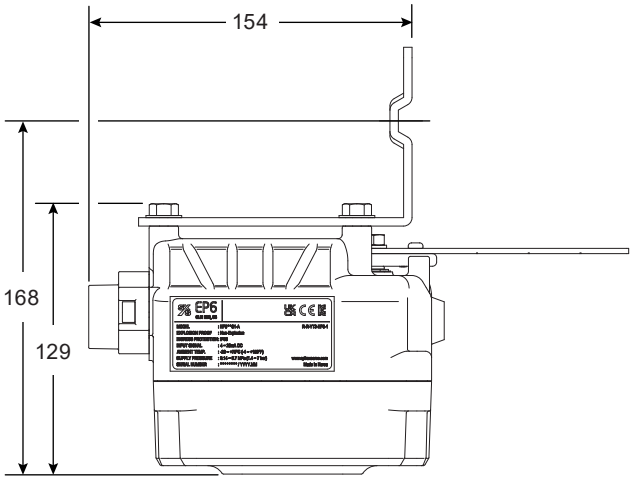
Dimensions (approximate) in mm

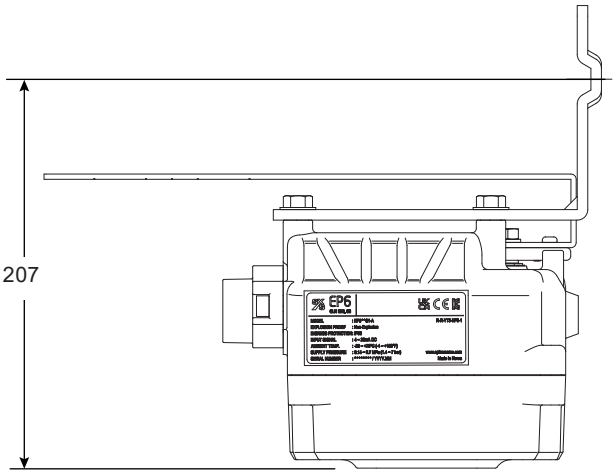


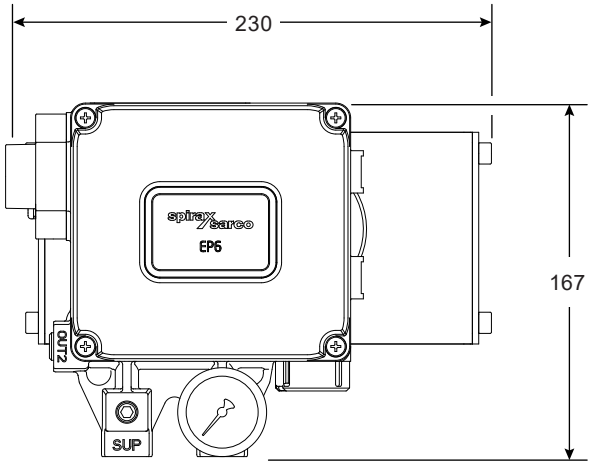
Linear left mounted

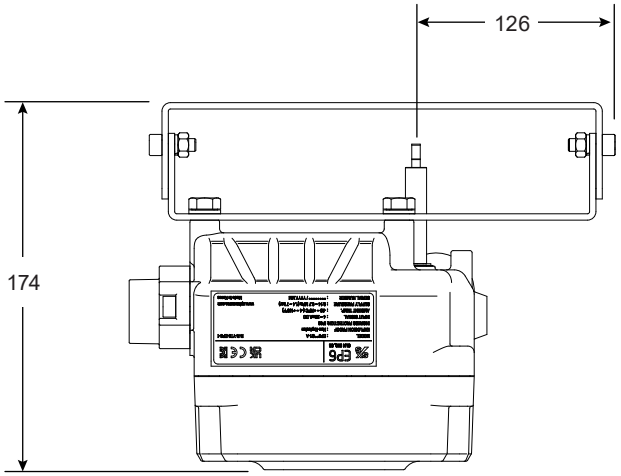


Linear centrally mounted









Rotary mounted

shopvalves.com

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	EY3
	PN9200		DN15 to DN100	
	PN9300			
	PN9400		DN125 to DN300	EY4
	TN2150	Spira-trol™ two port and QL three port	DN15 to DN100	EY3
	TN2300		DN125 to DN300	EY4
	TN2400			
	TN2270			
	PN3000 Sprg Ext	LE, LEA and Steri-trol	DN15 to DN100	EY3
	PN4000 Sprg Ret			
	PN5000	KE, KEA, LE and LEA	DN15 to DN100	EY3 + UBC
	PN6000			
	PN5000	Spira-trol™ QL three port	DN125 to DN200	EY4 + UBC
	PN6000			
Left side	PN9100	Spira-trol™ two port and QL three port	DN15 to DN50	UY3
	PN9200		DN15 to DN100	
	PN9300			
	PN9400		DN125 to DN300	UY1
	TN2150	Spira-trol™ two port and QL three port	DN15 to DN100	Not Compatible
	TN2300		DN125 to DN300	UY1
	TN2400			
	TN2270			
	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 Electro-pneumatic positioner for use with single acting PN9300 actuator, having 30 mm stroke.

How to order

Example: 1 off Spirax Sarco EP6SLS1-A Electro-pneumatic Positioner + EY3 mounting kit.
Caution: The EP6 positioner must have a high quality air supply to ISO 8573-1:2010 Class 3:3:2.