

Instruction and Operating Manual

Pneumatic-Pneumatic Positioner PPL / PPR Series



Power-Genex Ltd.



1. Manual Overview

1.1 Common Articles

This Manual Includes Precautions that needs to be followed to prevent Facilities or Individuals and/or to provide additional information on aspects that may not be readily apparent. Especially, Regarding Individual Safety precautions and Product Settings Guide and precautions that require more attention are highlighted with Safety Signs (⚠)

1.2 Common Safety Instruction

This Product was produced with Strict Quality test and was produced without Fault.

To maintain this Quality and use it safely, All Instruction in the manual must be acknowledged and all safety info and signs must be followed accordingly.

1.3 Correct Operation Methods

- ① This product may only be used for Purposes mentioned in the manual. Unless described in the Manual clearly, Modifications or reforming of this product is solely user's responsibility.
- ② This product is a Devise Operated through air input signal pressure. Air pressure input must be clean compressed air free from oil, moisture, water or any Impurities
- ③ Be aware of installation order for other valve accessories (Air volume booster, Solenoid valve)

1.4 Operator's limits and responsibilities

- ① Operator must wear Safety Gears and work according to safety precautions of the field
- ② Operator must be Educated with Electric circuit works that involves many hazardous systems and must be Entrusted or Instructed.
- ③ Operator Must be Educated or instructed according to Safety precautions to operate appropriate safe Installation and Maintenance.
- ④ Operator with skills and experiences with the product must be able to sense and Identify potential Threats.

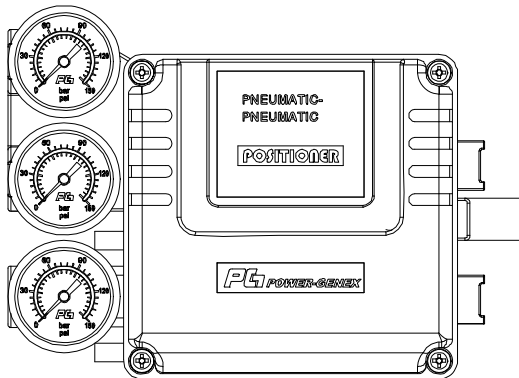
1.5 Transport and Storage

Store with correct packing to prevent damages while transporting or in storage. Products or parts must be placed in original packing to be returned. In case when original Packing is damaged, Pack the Product properly so that product will be protected while transport

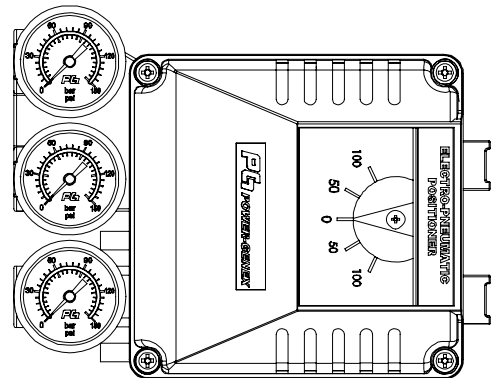
2. Product View

This product is composed with following parts

- Bellows Torque transforms input pressure signal to mechanical motion
- Pilot Valve controls Air pressure
- With other components such as Span, Zero and Shaft

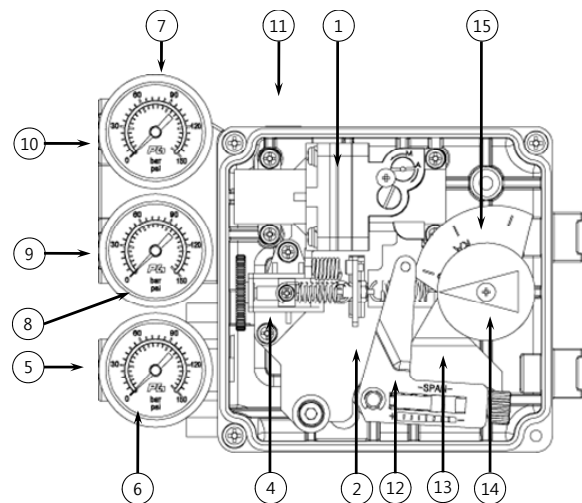
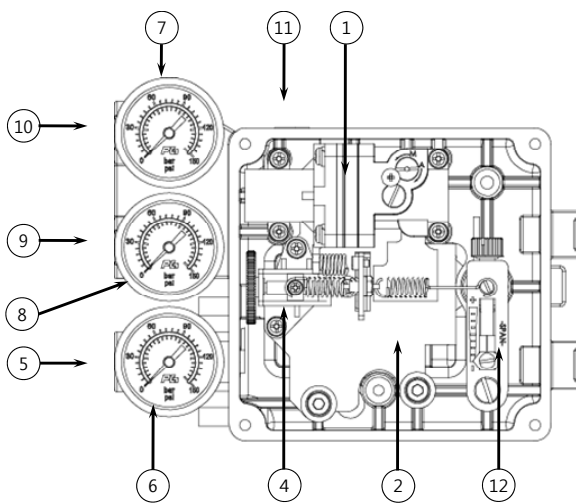


PPL



PPR

Below Is the name and internal view of the product with open cover



1	Pilot Valve	7	OUT1 Air Gauge	13	(CAM)
2	Bellows Torque	8	Air Gauge Supplier	14	Indicator
3	Shaft	9	Supplier Port	15	RA/DA Plate
4	Zero	10	OUT1 Port		
5	SIGNAL Port	11	OUT2 Port		
6	SIGNAL Air Gauge	12	Span (L-SPAN / R-SPAN)		

3. Product Specification

		PPL		PPR	
Input Signal		3 ~ 15 psi *			
Acting Stroke / Angle		Linear Type: 10 - 80mm(Max. up to 150mm) Rotary Type: 60 - 100° **			
Air Supplier Pressure		Max 7.0 bar (20 - 100 psi)			
Output pressure Range		0 - 100% of Input Air Pressure			
Output Property		Linearity			
Pressure Gauge		Stainless Steel			
Air Flux		80LPM (Sup = 1.4 bar)			
Air Consumption		5LPM (Sup = 1.4 ~ 6 bar)			
Operation Properties	Type	Single	Double	Single	Double
	Linear	1.0% F.S	1.5% F.S	1.0% F.S	1.5% F.S
	Sensitivity	0.2% F.S	0.5% F.S	0.5% F.S	
	Histry	1.0% F.S			
	Repeatability	0.5% F.S			
Valve Operation		Direct acting (DA) / Reverse Acting (RA)			
Operating Temperature		-20 ~ +70°C (-4 ~ +158°F)			
Air pressure connection		Rc 1/4 OR NPT 1/4			
Electrical connection		G 1/2, NPT 1/2 OR M20 X 1.5			
Body Material / Painting		Aluminum DI-CAST / Fission Painting			
Weight		2.1 kg		2.5 kg	

* Input 3~9psi / Input 9~15psi enables 1/2 Split Control

Beyond 3 ~ 15psi Input Signal, Please ask Us

** PPR Operating Angle can be adjusted from 0~60° Or 0~100°

*** For High Temperature -20 ~ 120°C (Without Feed Back Option) / -20 ~ 85°C (With Feed Back Option) Enable with option.

4. How to Create Product Code (How to Create Purchase order Code)

		PP	x -	x	x	x	x	x	x	x	x
Actuator Operation	Linear Type	L									
	Rotary Type	R									
Feedback lever	Linear Type	10 ~ 40mm Stroke	A								
		10 ~ 80mm Stroke	B								
		Up to 150mm Stroke	C								
	Rotary type	NAMUR shaft	N								
		Fork lever M6 x 40L	A								
		Fork lever other size on request	B								
Gauge	6 bar (90psi)			1							
	10 bar (150psi)			2							
Pilot Valve Orifice	Standard(When Actuator' Volume is above 180)					S					
	Small Orifice (1.0 or 0.7)					M					
	(When Actuator' Volume is above 90~180)										
Position Feedback (only Rotary type)	Not Included					N					
	Position Transmitter (4~20mA Output Signal)					O					
	2 x SPDT					L					
	2 x P&F (NJ2-V3-N)					P					
	O + L					M					
	O + P					Q					
Air Pressure –	Rc 1/4 - G 1/2 (Standard)							3			
Electrical	NPT 1/4 - NPT 1/2							4			
Connection	Rc1/4 - M20 x 1.5							5			
Dome Indicator (Only PPR)	Standard(Flat Indicator)									N	
	Dome Indicator									D	
For High Temperature	70°C (Standard)										T
	120°C (Without Feedback Option)										H
	85°C (With Feedback Option)										
Bracket	Not Included										N
	DIN / IEC 534 (PPL Exclusive)										L
	DIN VDI/VDE 3845 (PPR-NAMUR Exclusive)										R
	DHCT bracket 80x30 (PPR-Fork Lever Exclusive)										F
	Multi-size NAMUR bracket for fork lever type (130 x 30 x 50 bracket on request)										E

5. Installation Guide

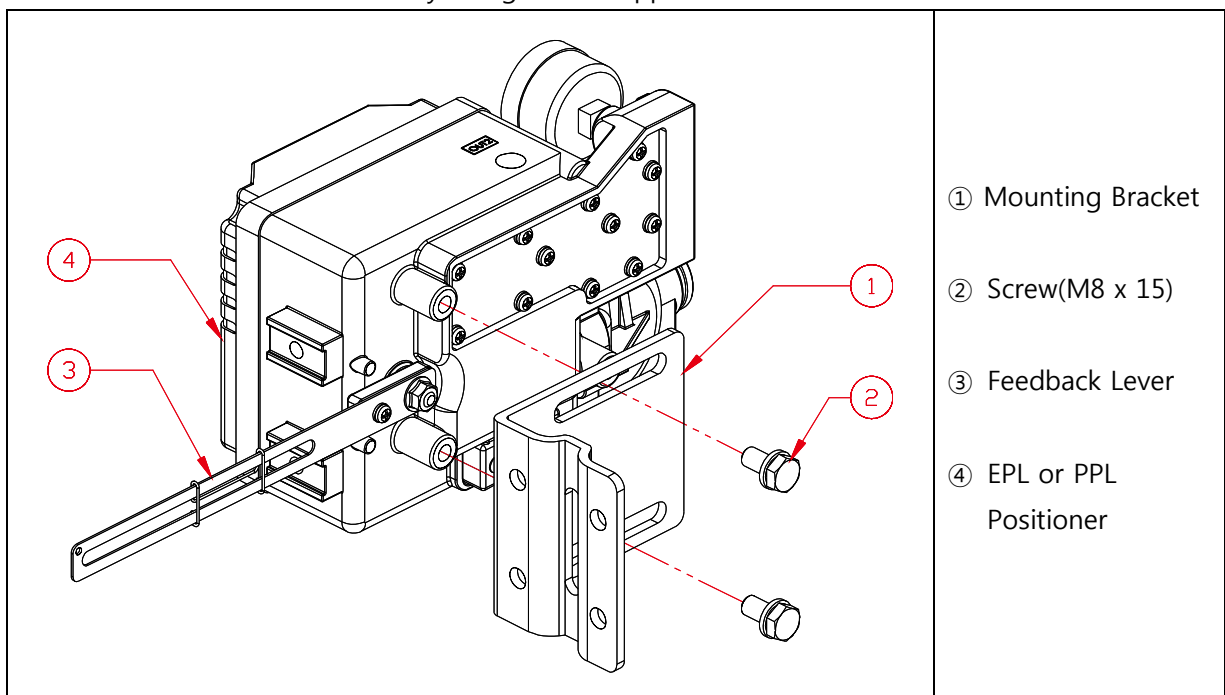


- ① Remove all Input Signals and Air pressure from Valve and other surrounding Equipment
- ② Remove by-pass Valve and Block Valve to Prevent Valve from affecting the Entire System and other Accessories that may affect the Control Valve.

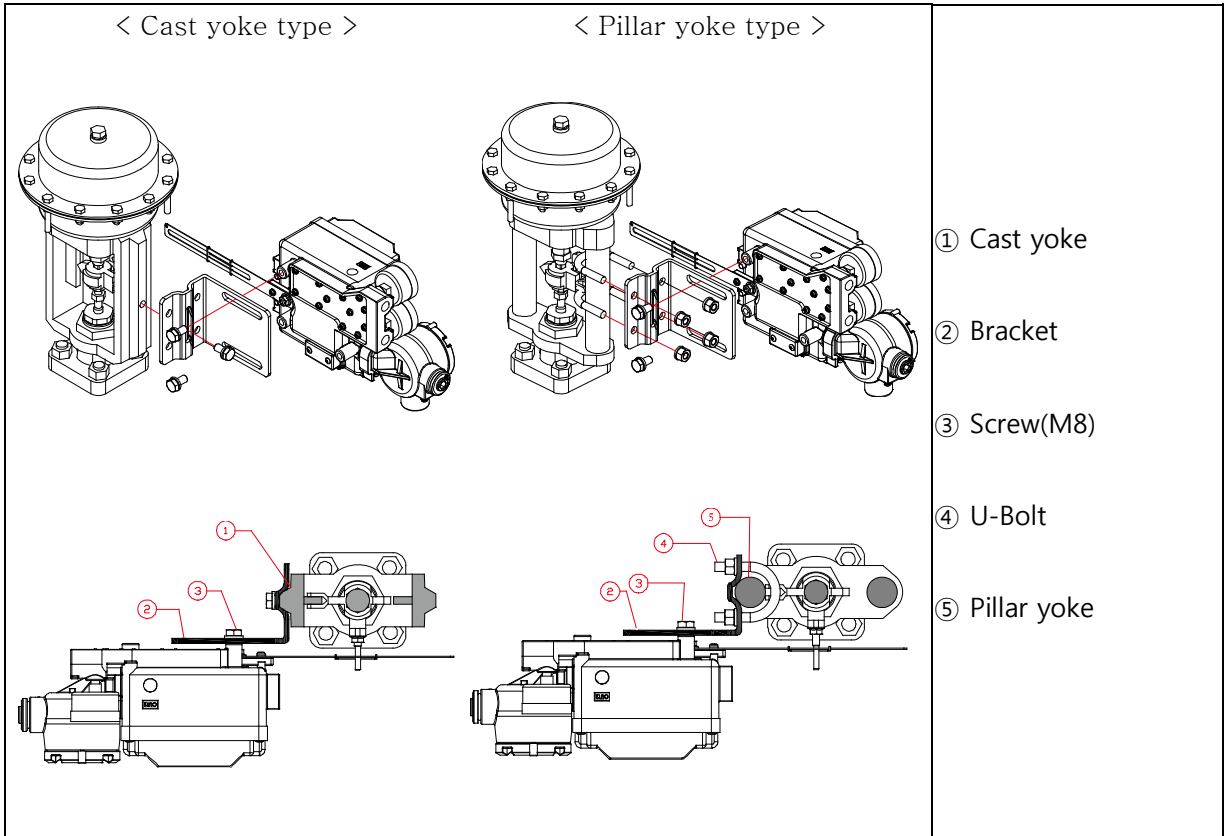
5.1 Installing Linear Actuator

5.1.1 Installing Bracket and Feedback Lever

PPL Positioner Bracket was Basically Designed to support IEC 60534-6-1.



5.1.2 Installing on Cast Yoke and Pillar Yoke



6.1.3 Installing on different type of Cast Yoke

