



IECEX / ATEX / KC / NEPSI flameproof



IECEX / ATEX / KC intrinsically safe

Robust valve control device giving a confidence in reliable performance and outstanding durability under harsh working environments

Features

- ▶ Easy maintenance
- ▶ Precise calibration with simple SPAN and ZERO adjustments
- ▶ Simple conversion to direct acting or reverse acting
- ▶ 1/2 split range available
- ▶ Rugged aluminum housing with corrosion-resistant coating
- ▶ Vibration resistant design
- ▶ Stainless steel gauges standard
- ▶ Restricted pilot valve orifice kit for small actuators included
- ▶ **Ex** ATEX-certified flameproof Ex md IIB T5
- ▶ **KC** KC-certified flameproof Ex dmb IIB+H₂ T6
- ▶ **Ex NEPSI** NEPSI-certified flameproof Ex dmb IIB+H₂ T6
- ▶ **IECEX** IECEX-certified flameproof Ex dmb IIC T6/T5
- ▶ **Ex** ATEX-certified flameproof Ex dmb IIC T6/T5
- ▶ **KC** KC-certified flameproof Ex dmb IIC T6/T5
- ▶ **IECEX** IECEX-certified intrinsically safe Ex ia IIC T6
- ▶ **Ex** ATEX-certified intrinsically safe Ex ia IIC T6
- ▶ **KC** KC-certified intrinsically safe Ex ia IIC T6

Specifications

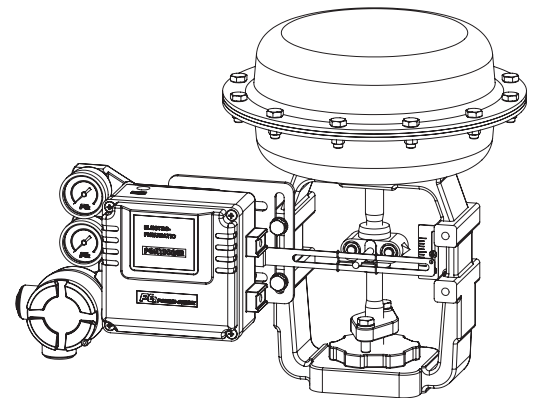
	EPL	
	Linear Type (Lever Feedback)	
	Single	Double
Input Signal	4~20 mA DC (Note. 1)	
Input Resistance	235 ± 15 Ω	
Air Supply	Max. 7.0 bar (100 psi) free of oil, water, and moisture	
Standard Stroke	10~80mm (Note. 2)	
Pneumatic Connections	PT(Rc) 1/4 or NPT 1/4	
Electrical Connections	PF(G) 1/2 or NPT 1/2	
Protection Class	Ex dmb IIB+H ₂ T6 / Ex dmb IIC T6/T5 Ex ia IIC T6 / IP66	
Ambient Temperature	-20 ~ +70°C (Note. 3)	
Pressure Gauge	Stainless steel	
Output Characteristics	Linear	
Linearity	Within ±1.0 % F.S	Within ±1.5 % F.S
Sensitivity	Within ±0.2 % F.S	Within ±0.5 % F.S
Hysteresis	Within 1.0 % F.S	
Repeatability	Within ±0.5 % F.S	
Air Consumption	5 LPM (Sup. 1.4 kgf/cm ²)	
Flow Capacity	80 LPM (Sup. 1.4 kgf/cm ²)	
Material	Aluminum die-cast	
Weight	3.3 kg (with terminal box) 3.0 kg (without terminal box)	

Note : 1) 1/2 split range is available for 4~12mA input signal or 12~20mA input signal
2) Feedback lever can be extended to stroke 80 ~ 150mm

3) Temperature option : up to +120°C without feedback options
up to +85°C with feedback options
up to -40°C without feedback options

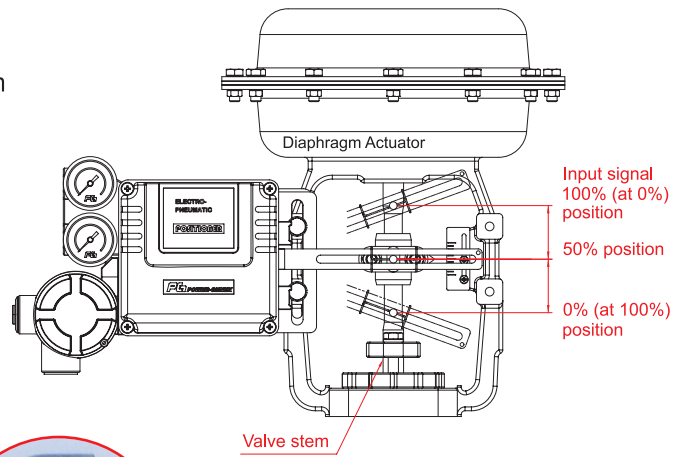
Options

- ▶ Position transmitter (4...20 mA output signal)
- ▶ High temperature (+120°C)
- ▶ Low temperature (-40°C)

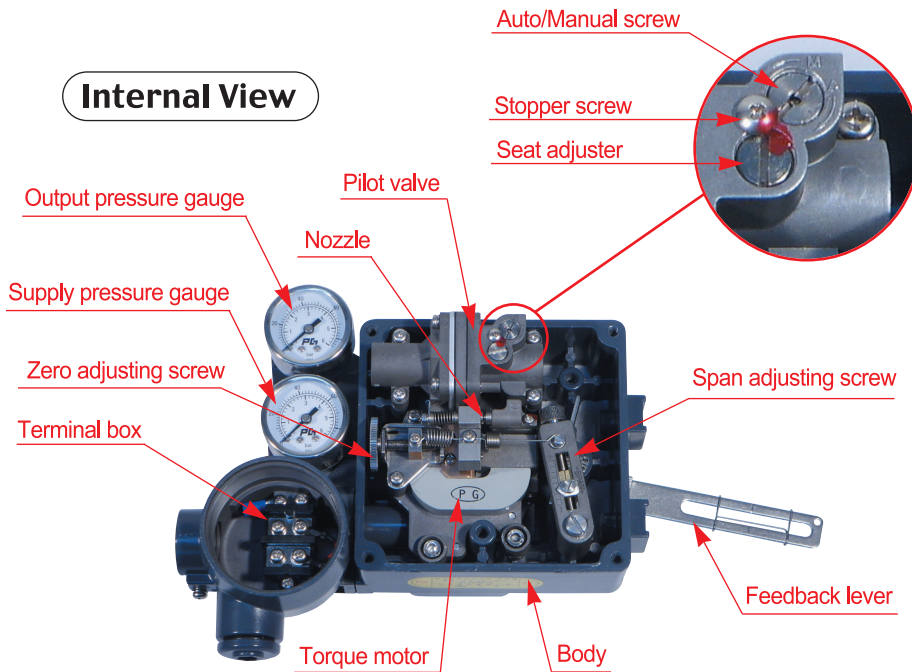


Mounting

1. Install the EPL positioner so that the angle between the valve stem and the feedback lever can be 90° at 12mA input signal (50%) as shown to the right.
2. The operating angle of the EPL feedback lever is minimum 10° to maximum 30° .



Internal View



Air Connections

Direct Acting (DA)

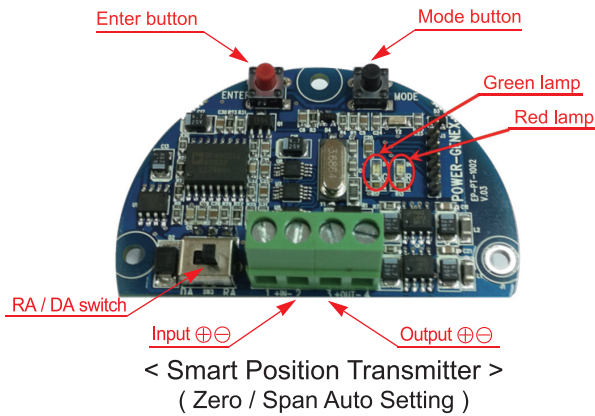
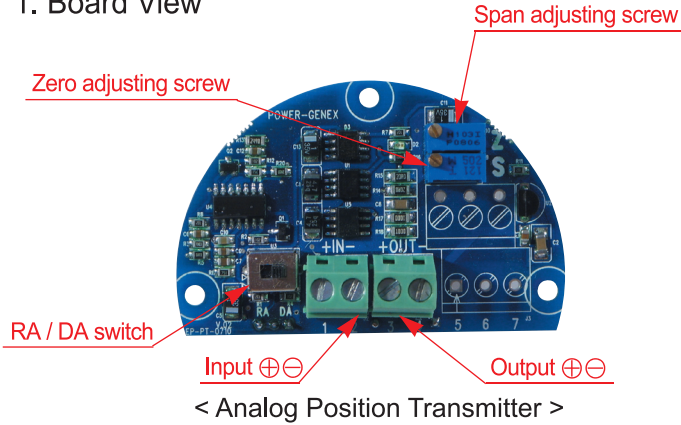
As the input signal increases, Valve stem moves downwards Actuator : DA Connection : out 1	
As the input signal increases, Valve stem moves downwards Actuator : DA Connection : out 2	
As the input signal increases, Valve stem moves downwards	

Reverse Acting (RA)

As the input signal increases, Valve stem moves upwards Actuator : RA Connection : out 2	
As the input signal increases, Valve stem moves upwards Actuator : RA Connection : out 1	
As the input signal increases, Valve stem moves upwards	

Position Transmitter Options (Built-in Type)

1. Board View

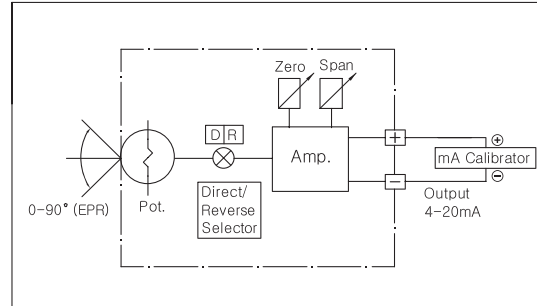


2. Position Transmitter (4-20mA output signal)

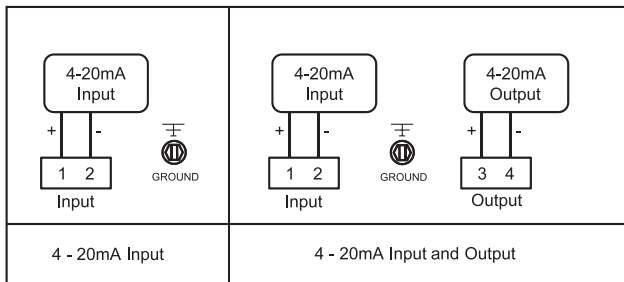
a. Specifications

Power Supply Rating	5.5 - 30 VDC loop power
Recommended Power Supply	24 VDC
Output Signal	4 - 20 mA, 2-wire
Operating Temperature	-20 °C ~ +85 °C
Load Impedance	0 ~ 600 ohms
Max. Output	30 mA DC
Linearity	±1.0 %
Hysteresis	1.0 % of full scale
Repeatability	±0.5 % of full scale
Adjustment	Zero and Span in terminal box

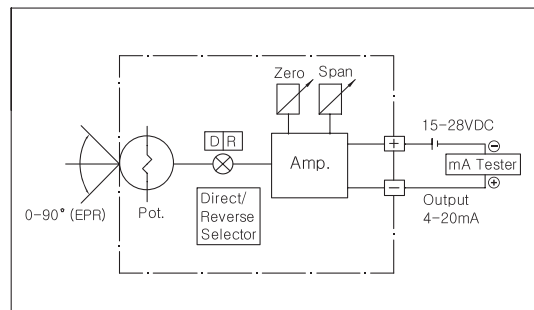
b. with mA calibrator



3. Wiring Diagram

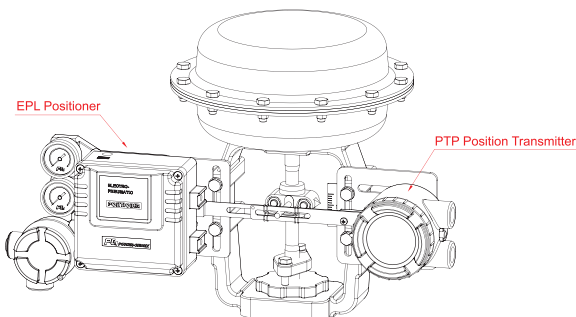


c. with multimeter

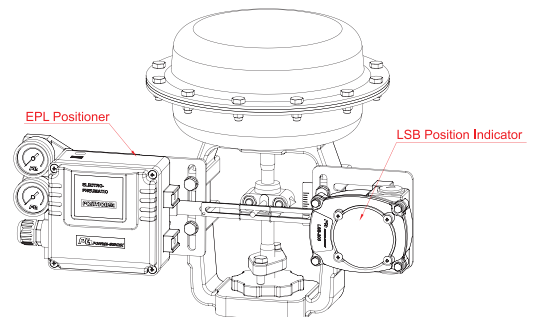


Application for Limit Switches (External Type)

1) With explosion proof PTP-L



2) With non-explosion proof LSB-200



How to Order

EPL	Protection Class	Feedback Lever	Pressure Gauge (SUP. OUT)	Pilot Valve Orifice	Position Feedback	Connection Threads	Operating Temp.	Mounting Bracket
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Description	Code
Protection Class :	F : KC flameproof Ex dmb IIB+H ₂ T6 NEPSI flameproof Ex dmb IIB+H ₂ T6 A : KC flameproof Ex dmb IIC T6/T5 D : IECEx flameproof Ex dmb IIC T6 ATEX flameproof Ex dmb IIC T6 I : IECEx intrinsically safe Ex ia IIC T6 ATEX intrinsically safe Ex ia IIC T6 KC intrinsically safe Ex ia IIC T6 W : Weatherproof to IP66
Feedback Lever :	A : Stroke 10 ~ 40mm B : Stroke 10 ~ 80mm C : Stroke 80 ~ 150mm
Pressure Gauge :	1 : 6 bar (90 psi) 2 : 10 bar (150 psi)
Pilot Valve Orifice :	S : Standard (Actuator volume over 180cm ³) M : Small orifice (φ1.0 or φ0.7) (Actuator volume over 90 ~ 180cm ³)

Description	Code
Position Feedback : (only for weatherproof type)	N : None (standard) O : Analog position transmitter (4 ~ 20mA output signal) S : Smart position transmitter (4 ~ 20mA output signal)
Connection Threads : (pneumatic - electrical)	3 : PT(Rc) 1/4 - PF(G) 1/2 (standard) 4 : NPT 1/4 - NPT 1/2 5 : PT(Rc) 1/4 - M20 x 1.5
Operating Temperature : (only for weatherproof type)	T : 70°C (standard) H : 120°C (without position feedback option) 85°C (with position feedback option) L : -40°C (without position feedback option)
Mounting Bracket :	N : None L : IEC 60534-6-1

Dimensions

