Reliable valve control device guaranteeing optimum span and zero settings by smart auto-calibration function

Features

- Auto-Calibration for optimum zero and span setting
- Simple and easy to set
- Precise control performance and high dynamic response
- Pressure regulator built in to eliminate variations in supply air pressure
- Low air consumption due to piezo electric microvalve
- Input / output signal isolated
- Automatic detection for DA(direct acting) or RA(reverse acting)
- Single and double acting available
- No hunting on the small actuators
- 1/2 split range available
- High resistance against shock and vibration

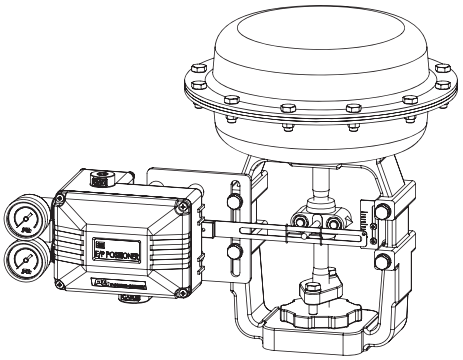
Options

- Position transmitter (4...20mA output signal)
- 2 × alarm limit (open, close)
- Explosion proof type (KC Ex d IIB+H_2 T6 IP66)

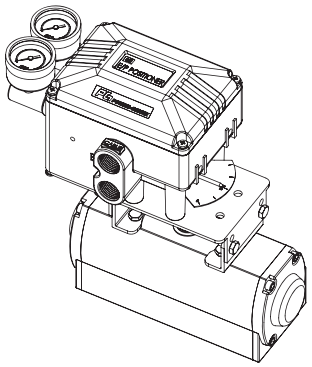
Specifications

Input Signal	4 - 20 mA DC
Voltage Supply Min. /Max.	8.5V DC / 30V DC (425 ohm)
Power Consumption	30.8 mW @ 4 mA / 170 mW @ 20 mA
Characteristic	Linear (Note)
Stroke / Angle	5 - 65 mm (max. up to 150 mm) / 0° - 90°
Air Supply Pressure	1.5 - 7.0 bar (20 - 100 psi) Pressurized air or allowed gas, free of water, oil, and dust
Air Capacity	80 ℓ/min = 4.8 N㎥/h = 2.8 scfm (Sup = 1.4 bar)
Air Consumption	1.3 ℓ/min = 0.08 N㎥/h = 0.05 scfm (Sup = 1.4 ~ 6 bar)
Output Pressure Range	0 - 100% of supply air pressure
Linearity	Within ± 0.5 %
Hysteresis	Within 0.2 %
Sensitivity	Within ± 0.2 %
Operating Temperature	- 30 ~ +80℃
Pneumatic Connections	PT(Rc) 1/4 or NPT 1/4
Electrical Connections	2 x PF(G) 1/2 or NPT 1/2
Protection Class	IP66, flameproof (KC Ex d IIB+H_2 T6 IP66)
Body Material	Aluminum die-cast
Weight	2.5 kg

Note : Equal percentage or Quick-open option is available.
Please contact for more details

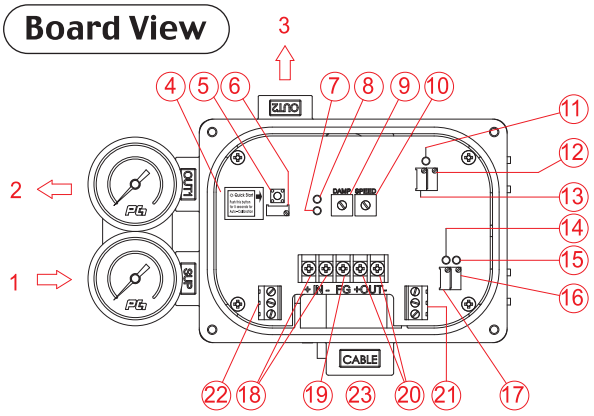


- SEL (Linear Type)



- SER (Rotary Type)

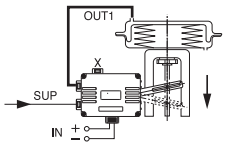
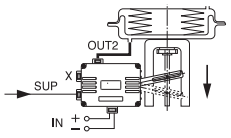
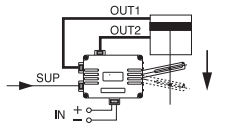
Board View

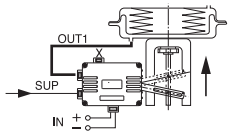
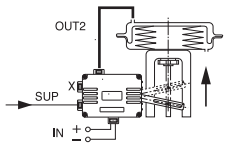
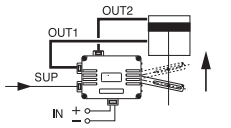


① Supply air	⑬ Feedback zero
② OUT 1	⑭ Limit switch lamp 2
③ OUT 2	⑮ Limit switch lamp 2
④ Board cover	⑯ Limit switch 2 adjusting screw
⑤ Auto-setting button	⑰ Limit switch 1 adjusting screw
⑥ Span adjusting screw	⑱ Input signal +, -
⑦ DA lamp	⑲ Frame ground
⑧ RA lamp	⑳ Output signal +, -
⑨ Damping screw	㉑ Limit switch 2 terminal
⑩ Speed adjusting screw	㉒ Limit switch 1 terminal
⑪ Feedback lamp	㉓ Electrical connections
⑫ Feedback span	

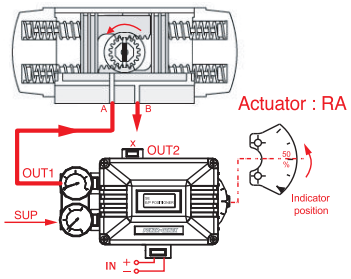
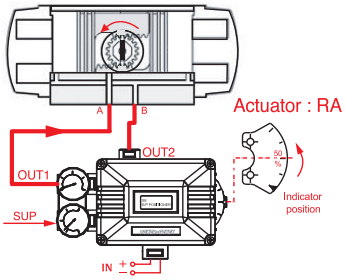
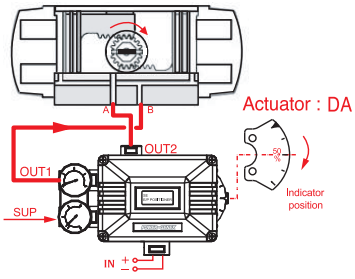
Air Connections

- SEL (Linear Type)

Direct Acting(DA)	
As the input signal increases, Valve stem moves downwards Actuator : DA Switch position : DA	 OUT2 must be plugged
As the input signal increases, Valve stem moves downwards Actuator : DA Switch position : DA	 OUT1 must be plugged
As the input signal increases, Valve stem moves downwards Switch position : DA	

Reverse Acting(RA)	
As the input signal increases, Valve stem moves upwards Actuator : RA Switch position : RA	 OUT2 must be plugged
As the input signal increases, Valve stem moves upwards Actuator : RA Switch position : RA	 OUT1 must be plugged
As the input signal increases, Valve stem moves upwards Switch position : RA	

- SER (Rotary Type)

Spring Return	Double Acting	Double Acting
		
As the input signal increases, Actuator shaft rotates counter-clockwise	As the input signal increases, Actuator shaft rotates counter-clockwise	As the input signal increases, Actuator shaft rotates clockwise

	Spring Return	Double Acting
Reverse Acting	Out1 : piped, Out2 : plugged	Out1 : piped to Actuator port A, Out2 : piped to Actuator port B
Direct Acting	Out1 : plugged, Out2 : piped	Out1 : piped to Actuator port B, Out2 : piped to Actuator port A

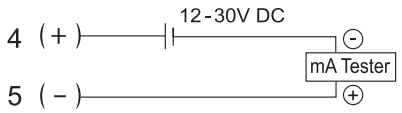
Measuring 4–20mA Output Signal

1) Specifications

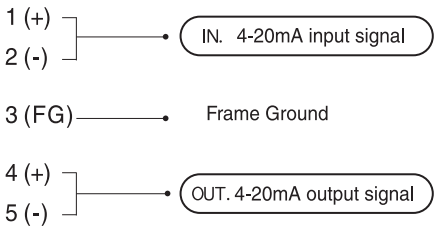
Output Signal	4 - 20 mA, 2 - wire
Power Supply Rating	15 - 30V DC
Recommended Power Supply	24V DC
Operating Temperature	-20 - +70℃
Input Impedance	0 - 430Ω
Characteristic	Linear
Linearity	1.0 % F.S.
Hysteresis	0.5 % F.S.
Repeatability	± 0.5 % F.S.
Adjustment	Zero and span
Rotary Angle	50...90° (max. 100°)

2) With mA Loop Calibrator

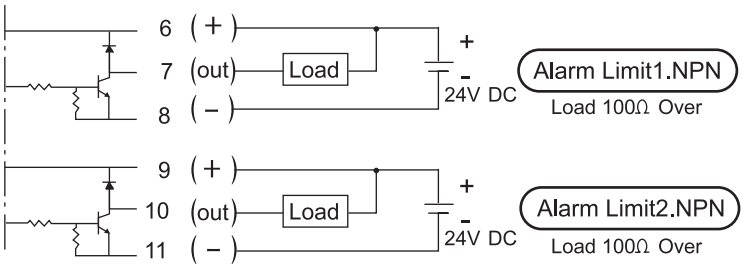
3) With Multi-Meter



Electrical Connections



Setting Alarm Limits



How to Order

SE | Actuator Operation | — | Protection Class | Feedback Lever | Pressure Gauge (SUP. OUT) | Position Feedback | Connection Threads | Mounting Bracket

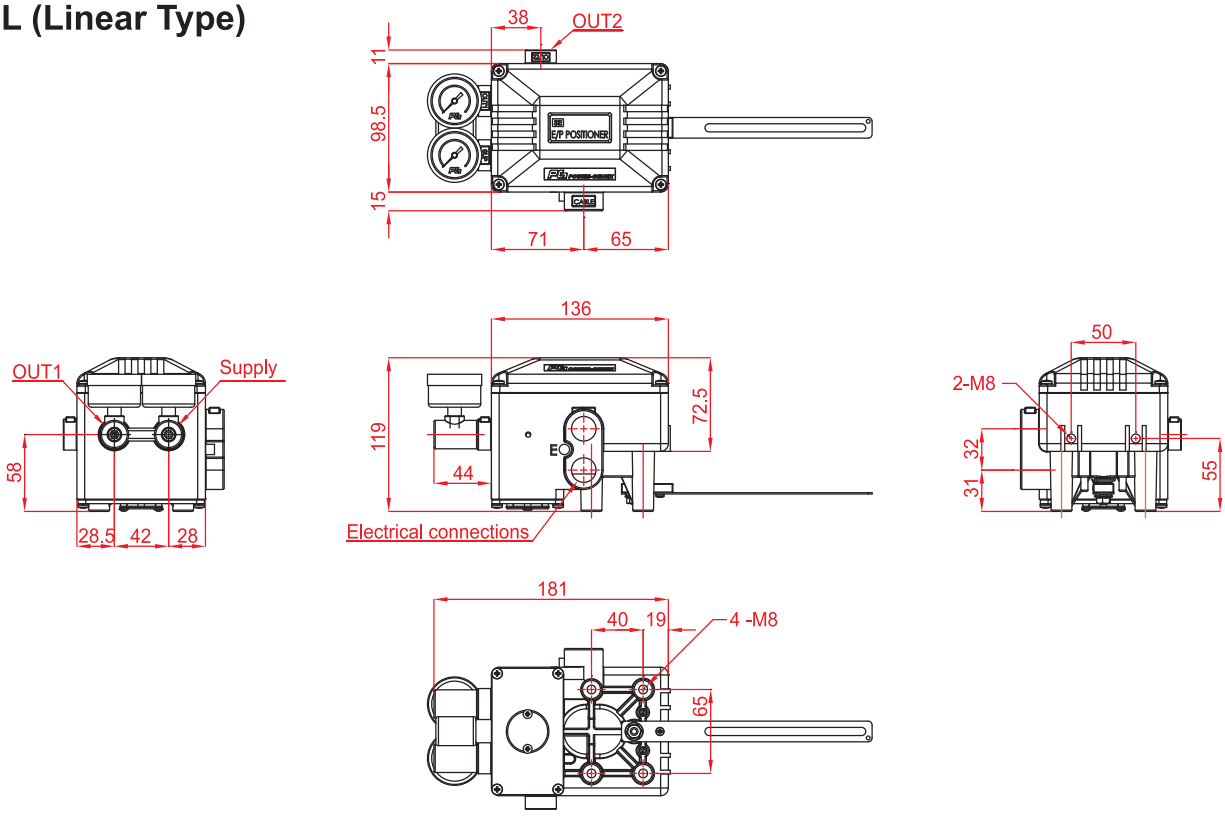
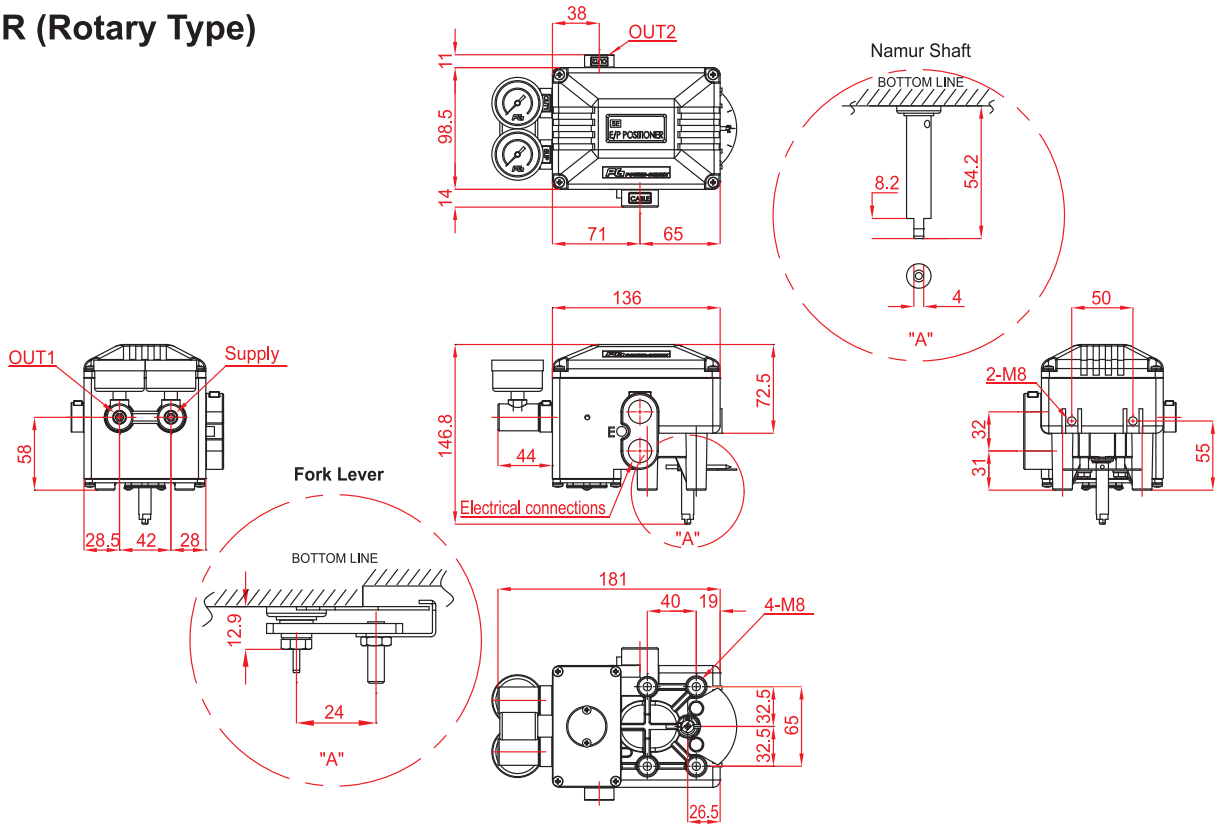
Description	Code
Actuator Operation :	L : Linear type R : Rotary type
Protection Class :	F : Flameproof (KC Ex d IIB+H_2 T6 IP66) W : Weatherproof to IP66
Feedback Lever :	A : Stroke (5~40mm) B : Stroke (5~80mm) C : Stroke (up to 150mm) F : Fork lever N : NAMUR shaft(direct mounting)
Presure Gauge :	1 : 6 bar (90 psi) 2 : 10 bar (150 psi)

Description	Code
Position Feedback :	N : None O : Position transmitter (4~20mA output signal) L : 2 x alarm limit M : O + L
Connection Threads : (pneumatic - electrical)	3 : PT(Rc) 1/4 - PF(G) 1/2 4 : NPT 1/4 - NPT 1/2 5 : PT(Rc) 1/4 - M20 x 1.5
Mounting Bracket :	N : None L : DIN / IEC 534 R : Multi-size bracket for DIN VDI/VDE 3845 (130x30x50 bracket on request)

Ex) SEL-WA1ON (weatherproof, 5 - 65mm stroke, 10 bar pressure gauges, position transmistter)

Dimensions

- SEL (Linear Type)



- SER (Rotary Type)