



ATEX / KC / NEPSI flameproof



IECEX / ATEX / KC intrinsically safe

Specifications

	EPR	
	Rotary Type (Cam 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	
Operating Angle	60 ~ 100° (Note. 2)	
Pneumatic Connections	PT(Rc) 1/4 or NPT 1/4	
Electrical Connections	PF(G) 1/2 or NPT 1/2	
Protection Class	ATEX Eex md IIB T5, KC Ex dmb IIB+H ₂ T6 IECEX / ATEX Ex ia IIC T6, KC Ex ia IIC T6, IP66	
Ambient Temperature	-20 ~ +70°C	
Pressure Gauge	Stainless steel	
Output Characteristics	Linear	
Linearity	Within ± 1.0 % F.S	Within ± 1.5 % F.S
Sensitivity	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	3.5 kg (with terminal box) 3.2 kg (without terminal box)	

Note : 1) 1/2 split range is available for 4-12mA input signal or 12-20mA input signal
2) Operating angle can be adjusted to 0~60° or 0~100°

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

Features

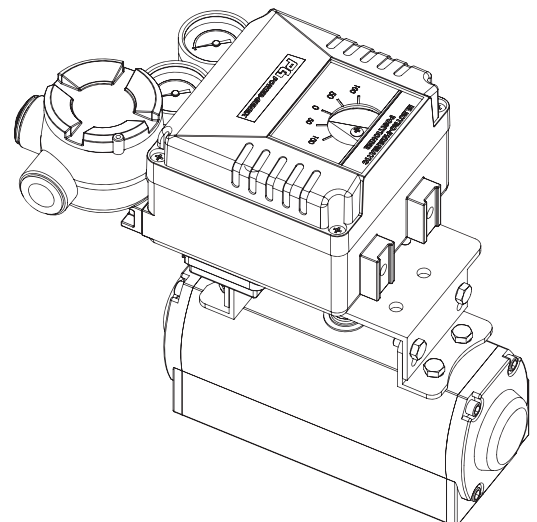
- ▶ Easy maintenance
- ▶ Precise calibration with simple SPAN and ZERO adjustments
- ▶ Simple conversion to direct acting or reverse acting
- ▶ 1/2 split range available
- ▶ Rugged aluminum housing with corrosion-resistant coating
- ▶ Vibration resistant design
- ▶ Stainless steel gauges standard
- ▶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

Options

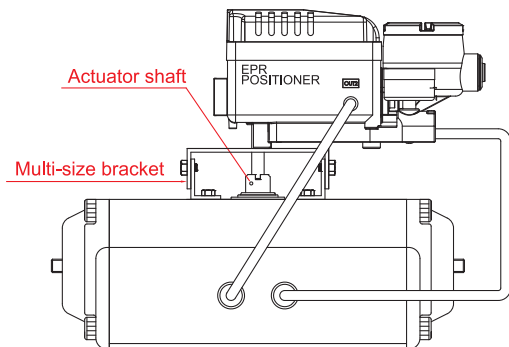
- ▶ Position transmitter (4...20 mA output signal)
- ▶ 2 x SPDT limit switch
- ▶ 2 x P&F proximity sensor NJ2-V3-N
- ▶ Visual dome indicator ▶ High temperature



With Dome Indicator

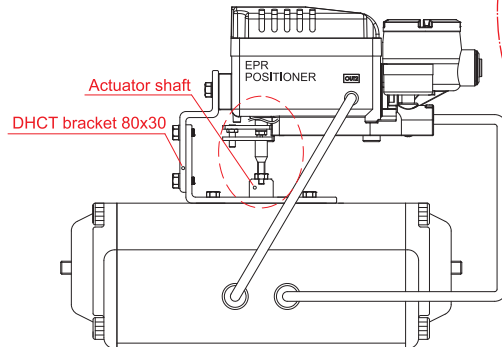


Mounting



NAMUR Type Mounting

Note that feedback lever shaft "A" should be placed in the orifice of fork lever "B" and they should be in perfect alignment with a rotary actuator output shaft



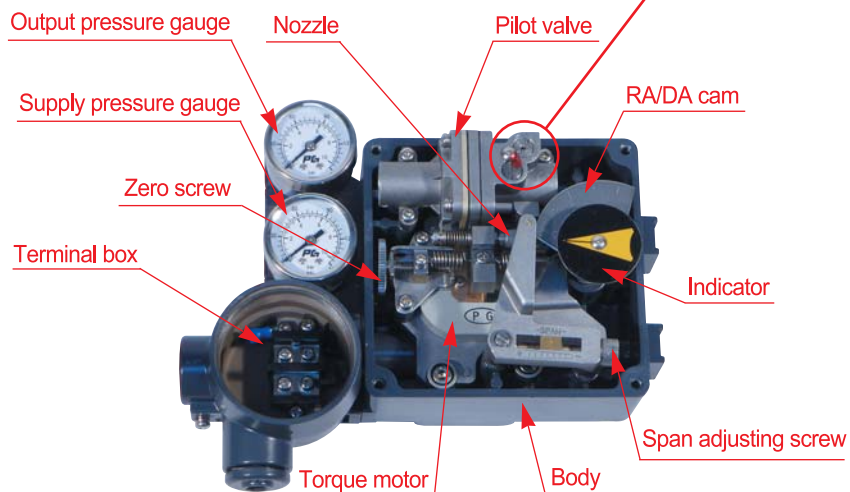
Fork Lever Type Mounting

Internal View

Auto/Manual screw

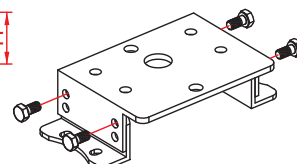
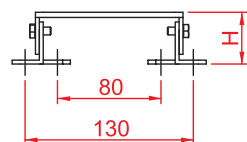
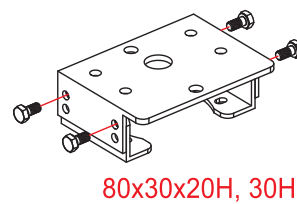
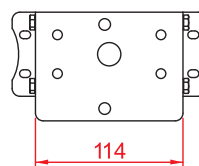
Stopper screw

Seat adjuster



Multi-size Bracket

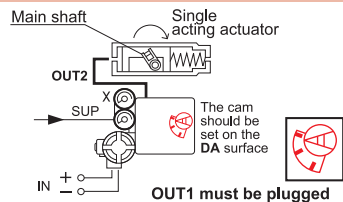
TYPE	H
80 x 30 x 20H	41
80 x 30 x 30H	51
130 x 30 x 20H	41
130 x 30 x 30H	51
130 x 30 x 50H	71



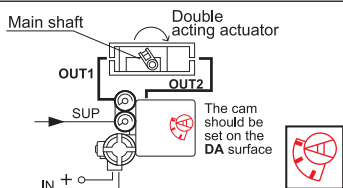
Air Connections

Direct Acting (DA)

As the input signal increases, Actuator stem rotates clockwise.

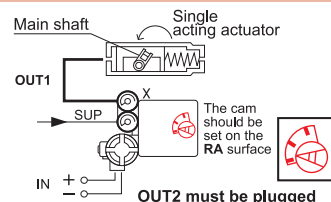


As the input signal increases, Actuator stem rotates clockwise.

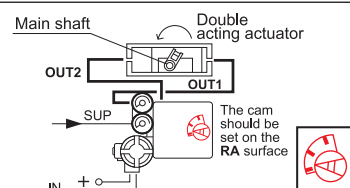


Reverse Acting (RA)

As the input signal increases, Actuator stem rotates counter clockwise.

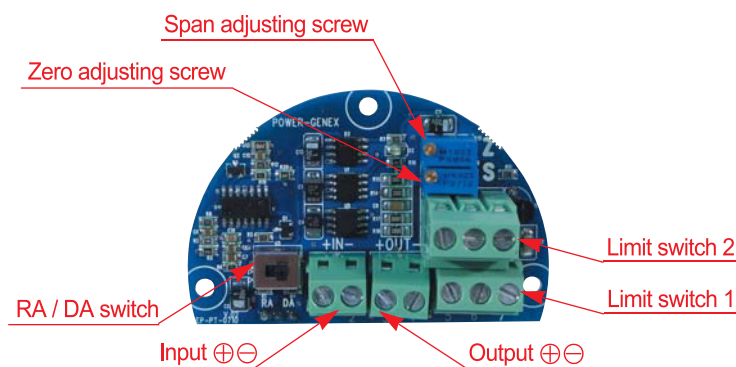


As the input signal increases, Actuator stem rotates counter clockwise.

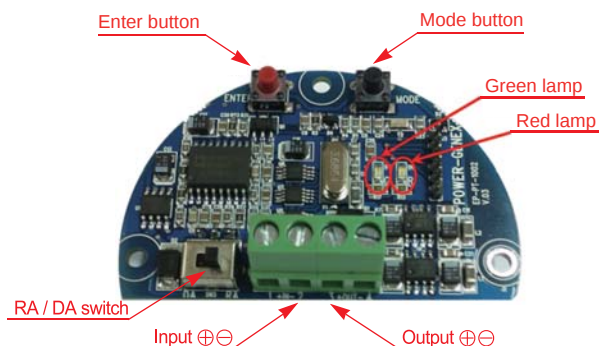


Position Transmitter Options (Built-in Type)

1. Board View



< Analog position transmitter & Limit switches board >



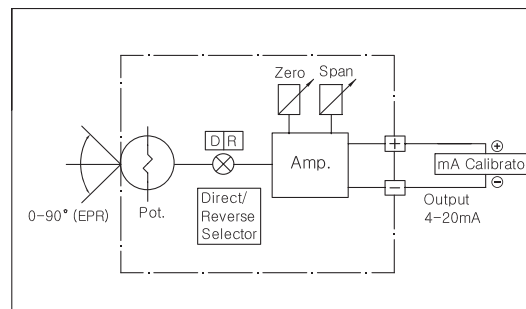
< Smart position transmitter board >
(ZERO / SPAN Auto setting)

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

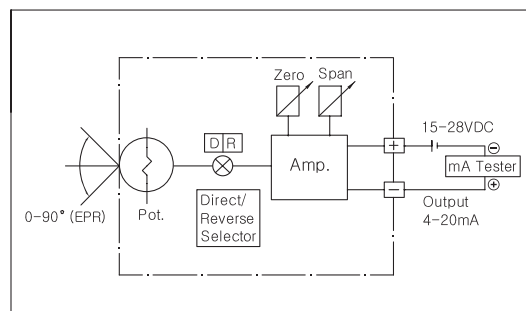
a. Specifications

Power Supply Rating	5.5 - 30 VDC loop power
Recommended Power Supply	24 VDC
Output Signal	4 - 20 mA, 2-wire
Operating Temperature	-20° to 70°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

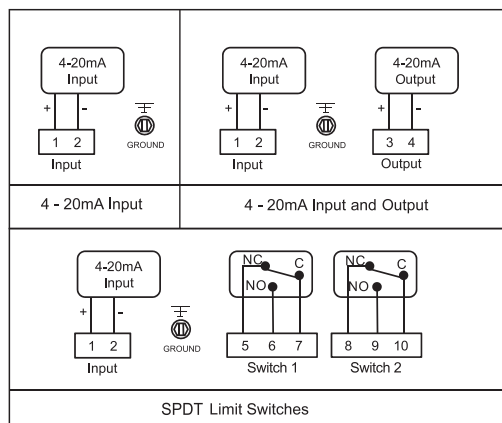
b. with mA calibrator



c. with multimeter



3. Wiring Diagram

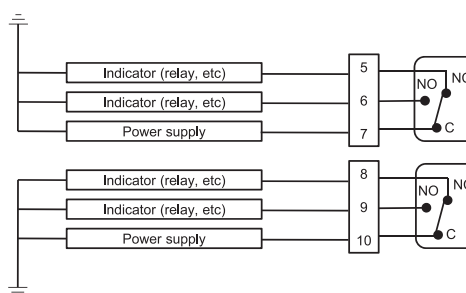


4. SPDT Limit Switches

a. Specifications

Contacts	SPDT Form C
AC Rating	16 A 1/2 HP 125/250 VAC
DC Rating	0.6 A 125 VDC / 0.3 A 250 VDC
Adjustment	Cams with set screws (L-wrench included for setting)

b. Wiring and Application



How to Order

EPR

Protection
Class

Feedback
Shaft

Pressure
Gauge
(SUP. OUT)

Pilot
Valve
Orifice

Position
Feedback

Connection
Threads

Dome
Indicator

High Temp

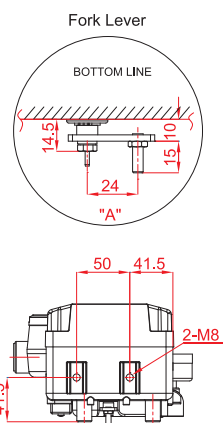
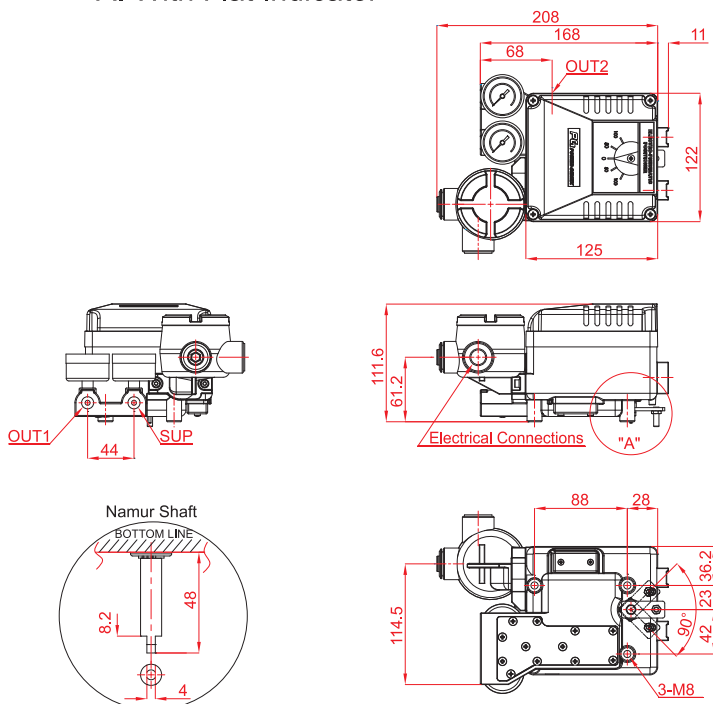
Mounting
Bracket

Description	Code
Protection Class :	F : KC flameproof Ex dmb IIB+H ₂ T6 NEPSI flameproof Ex dmb IIB+H ₂ T6 D : KC flameproof Ex dmb IIC T5 A : ATEX flameproof Eex md IIB T5 I : IECEx intrinsically safe Ex ia IIC T6 ATEX intrinsically safe Eex ia IIC T6 K : KC intrinsically safe Ex ia IIC T6 W : Weatherproof to IP66
Feedback Lever :	A : NAMUR shaft (direct mounting) B : Fork lever M6 x 40L C : Fork lever other size on request
Pressure Gauge :	1 : 6bar (90psi) 2 : 10bar (150psi)
Pilot Valve Orifice :	S : Standard (Actuator volume over 180) M : Small orifice (1.0 or 0.7) (Actuator volume over 90 ~180)
Position Feedback : (only for weatherproof type)	N : None (standard) O : Position transmitter (4 ~ 20mA output signal) L : 2 x SPDT limit switch P : 2 x proximity sensor P&F NJ2-V3-N M : O + L Q : O + P

Description	Code
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
Dome Indicator :	N : Flat indicator (standard) D : Dome indicator
High Temperature : (only for weatherproof type)	T : 70°C (standard) H : 120°C (without position feedback option) 85°C (with position feedback option)
Mounting Bracket :	N : None R : Multi-size NAMUR bracket for DIN VDI/VDE 3845 (130x30x50 bracket on request) F : PG bracket 80x30 for Fork lever type E : Multi-size NAMUR bracket for Fork lever type (130x30x50 bracket on request)

Dimensions

A. With Flat Indicator



B. With Dome Indicator

