

## Electro-Pneumatic Positioner



**Ex** ATEX-approved (flameproof)



Intrinsically safe  
/ Non-explosion proof



With Dome Indicator

## 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	Rc 1/4 or NPT 1/4	
Electrical Connections	G 1/2 or NPT 1/2	
Protection Class	Ex md IIB T6, Ex md IIC(Hz) T6, IP66, Ex ia IIB T6 Eex md IIB T5 for ATEX <b>Ex</b>	
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 <sup>2</sup> )	
Flow Capacity	80 LPM (Sup. 1.4 kgf/cm <sup>2</sup> )	
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°

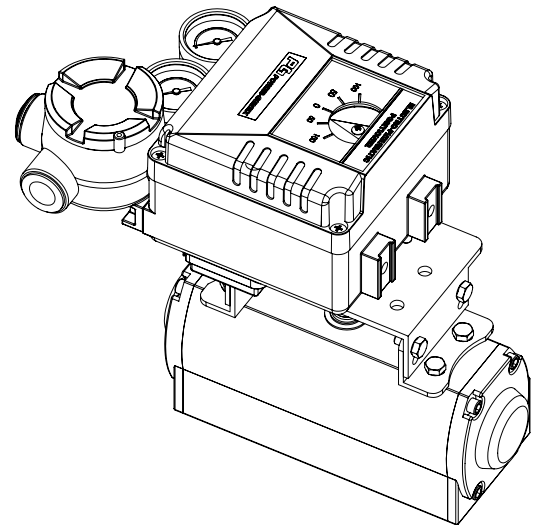
**Robust valve control device giving a confidence in reliable performance and outstanding durability under harsh working environments**

## 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
- ▶ Certified for ATEX **Ex** Eex md IIB T5 (05 ATEX 1076X) by NEMKO in conformance with EN 50014:1997, EN 50018:2000 and EN 50028:1987
- ▶ Certified for EMC (K1046 / E04) in conformance with EN 61000-6-2:2001 and EN 61000-6-4:2001 by RWTUV
- ▶ Certified for Ex md IIB T6 (99-1075-Q1), Ex md IIC T6 (2000-1057-Q1), and Ex ia IIB T6 (2000-1056-Q1) by KOSHA

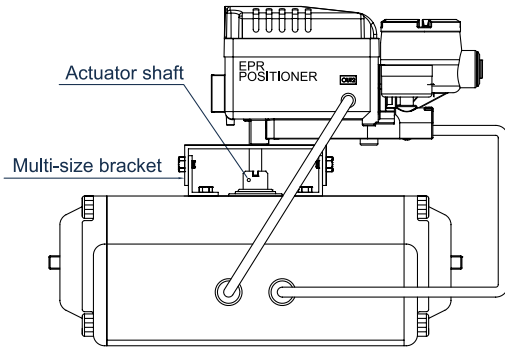
## Options

- ▶ 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



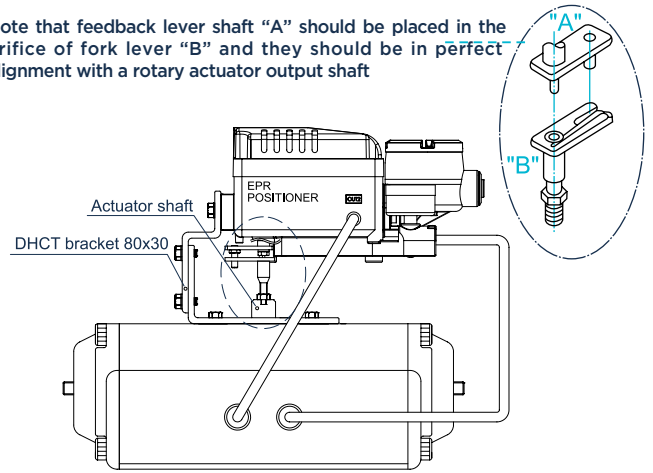
**Electro-Pneumatic Positioner**

**Mounting**



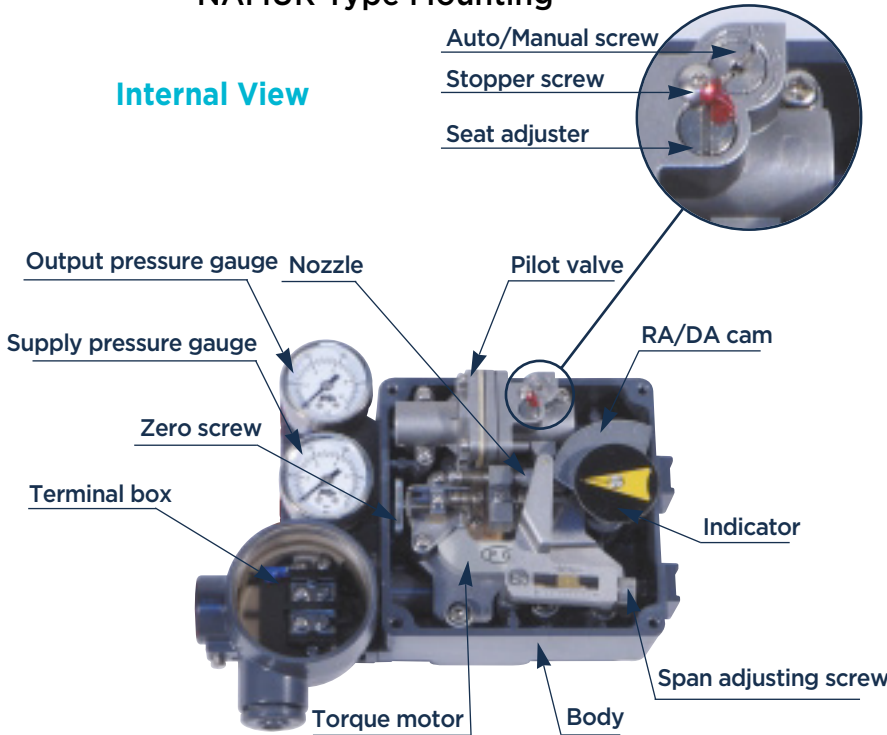
**NAMUR Type Mounting**

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



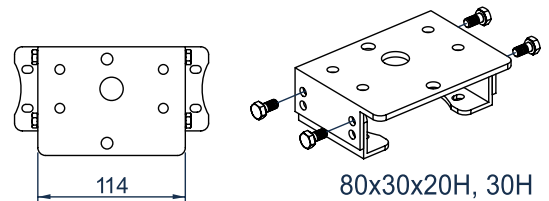
**Fork Lever Type Mounting**

**Internal View**

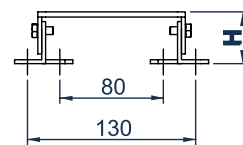


**Multi-size Bracket**

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



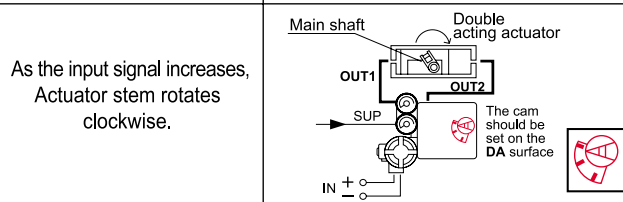
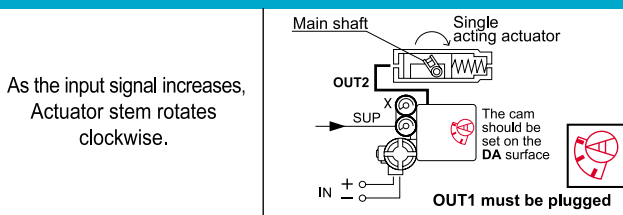
80x30x20H, 30H



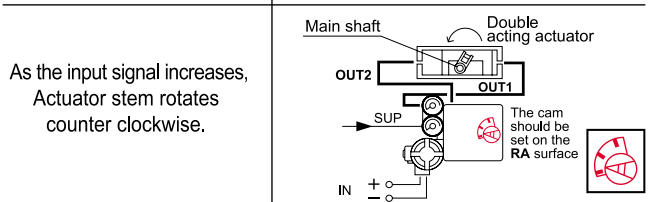
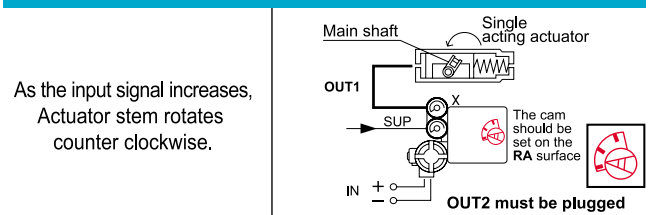
80x30x20H, 30H, 50H

**Air Connections**

**Direct Acting (DA)**



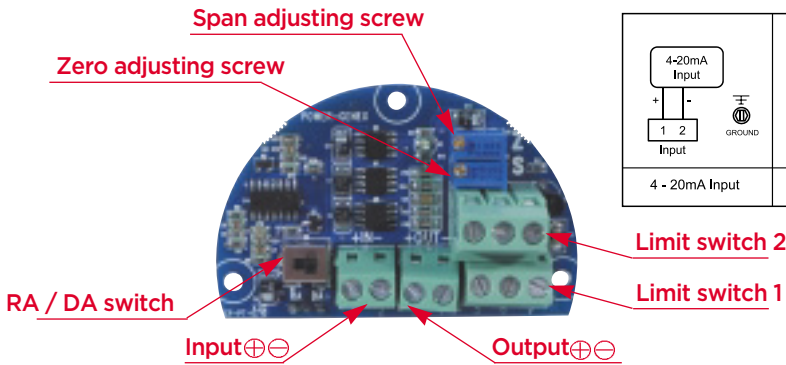
**Reverse Acting (RA)**



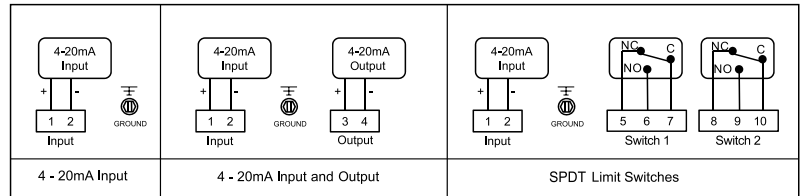
**Electro-Pneumatic Positioner**

**Position Transmitter Options (Built-in Type)**

**1. Board View**



**2. Wiring Diagram**

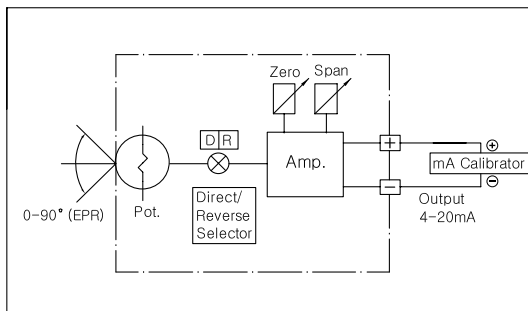


**3. Position Transmitter (4-20mA output signal)**

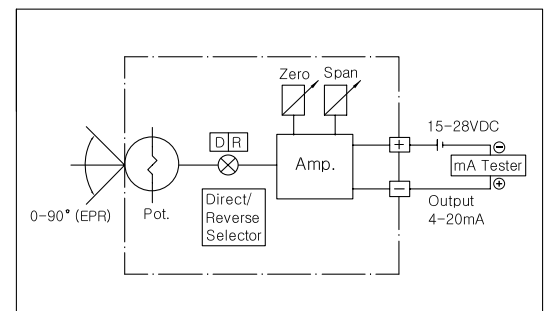
**a. Specifications**

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°
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**

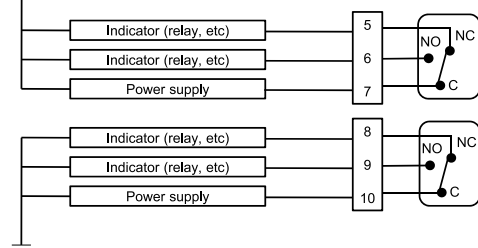


**4. SPDT Limit Switches**

**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**



**Electro-Pneumatic Positioner**

**How to Order**

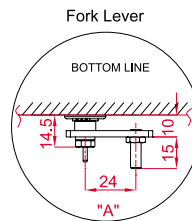
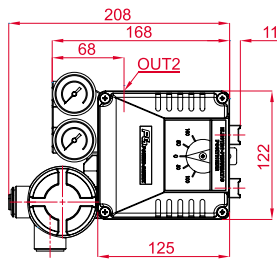
<b>EPR</b>	Protection Class	Feedback Shaft	Pressure Gauge (SUP. OUT)	Pilot Valve Orifice	Position Feedback	Connection Threads	Dome Indicator	High Temp	Mounting Bracket
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Description	Code
<b>Protection Class:</b>	F : Flameproof Ex md IIB T6 D : Flameproof Ex md IIC T6 A : Flameproof Eex md IIB T5 ATEX (Ex) I : Intrinsic safety (Ex ia IIB T6) W : Weatherproof to IP66
<b>Feedback Shaft:</b>	N : NAMUR shaft (direct mounting) A : Fork lever M6 x 40L B : Fork lever other size on request
<b>Pressure Gauge:</b>	1 : 6 bar (90 psi) 2 : 10 bar (150 psi, standard)
<b>Pilot Valve Orifice:</b>	S : Standard (Actuator volume over 180 cm <sup>3</sup> ) M : Small orifice (φ1.0 or φ0.7) (Actuator volume 90~180 cm <sup>3</sup> )
<b>Position Feedback: (only for weatherproof type)</b>	N : None (standard) O : Position transmitter (4~20mA output signal) L : 2 x SPDT limit switch P : 2 x proximity sensor P&FNJ2-V3-N M : O+L Q : O+P

Description	Code
<b>Connection Threads: (pneumatic - electrical)</b>	3 : Rc 1/4 - G 1/2 (standard) 4 : NPT 1/4 - NPT 1/2 5 : Rc 1/4 - M20 x 1.5
<b>Dome Indicator:</b>	N : Flat indicator (standard) D : Dome indicator
<b>High Temperature: (only for weatherproof type)</b>	T : 70 °C (standard) H : 120 °C (without position feedback option) 85 °C (with position feedback option)
<b>Mounting Bracket:</b>	N : None R : Multi-size NAMUR bracket for DIN VDI/VDE 3845 (130 x 30 x 50 bracket on request) F : DHCT bracket 80x30 for fork lever type E : Multi-size NAMUR bracket for fork lever type (130 x 30 x 50 bracket on request)

**Dimensions**

A. With Flat Indicator



B. With Dome Indicator

