

# ePoz

Electro-pneumatic Positioner



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## Electro-pneumatic Positioner



### Quick Response

Quick response to step change in signal with voice coil technology



### Unique Housing Support Plate Design

Upto 50% reduction in downtime



### Compatibility

Can be mounted on any make and type of linear single acting control valves

The ePoz series is the latest in the family of positioners offered by Forbes Marshall. A simple to calibrate, operator friendly device, the ePoz is an electro-pneumatic positioner that operates on an input signal of 4-20 mA.

The robust aluminium housing coupled with innovative support plate assembly design ensures ease of maintenance and high uptime, thereby reducing the overall cost of ownership and adding to the versatility of the ePoz.

### Benefits



#### Low Air Consumption

Ensured for each positioner during calibration



#### Easy Zero and Span Adjustment

Frequent calibration not required



#### Line Replaceable

Entire positioner does not need to be removed from the actuator, only the module



#### Light Weight Design

Aesthetically pleasing, compact design with rugged construction



#### Global Presence

Strong sales and service network

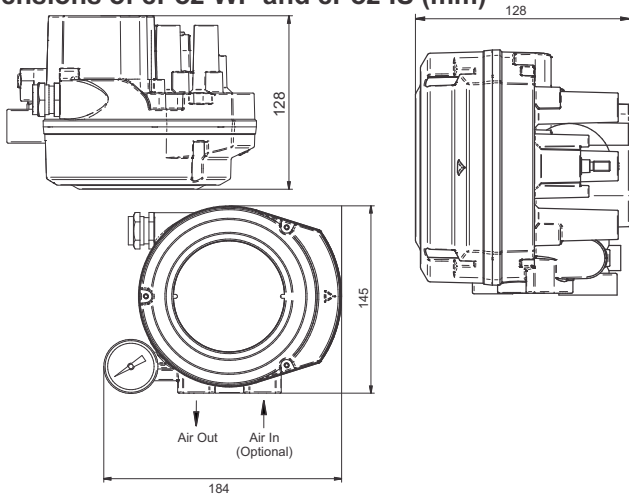
### Operating Principle

The ePoz positioner is two-wire device powered by 4-20 mA input signal, which also acts as a setpoint. The positioner compares the setpoints with actual position of the actuator through a voice coil and flapper-nozzle based actuation.

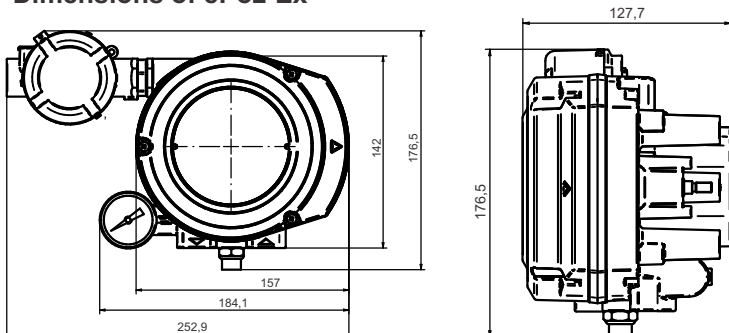
Once the positioner receives the control input signal in mA, the coil responds with either a forward or backward movement, which directly controls the gap between flapper and nozzle. The nozzle of the flapper and nozzle assembly is connected to the booster chamber and controls the air pressure in the booster chamber. As the gap in the flapper and nozzle assembly changes, the plunger connected to the chamber diaphragm moves forward or backward to open or close the inlet valve of the booster. The supply air either goes to the valve actuator and moves the valve stem upwards or the exhaust air from the actuator is let out from the booster exhaust and the valve stem moves downwards. The feedback lever senses the movement of the stem and accordingly adjusts the feedback spring tension to bring back the gap to the original position and a new equilibrium is achieved as per the new input signal in mA.

Technical Specifications	
Type	ePoz- Electro Pneumatic
Stroke	10-120mm
Input	4-20mA
Impedance	250 ohms
Supply pressure	1.4-6 kg/cm <sup>2</sup> (20-85 psig)
Air consumption	4 LPM at 1.4 kg/cm <sup>2</sup> (8.48 ft <sup>3</sup> /hr at 20psig)
Air flow capacity	80 LPM at 1.4 kg/cm <sup>2</sup> (170 ft <sup>3</sup> /hr at 20psig)
Linearity	± 1% of F.S
Hysteresis	± 1% of F.S
Repeatability	± 0.5%
Air connection	1/4" NPT(F)
Gauge connection	1/8" NPT(F)
Operating temperature, deg C	-20°C to 70°C
Material	Aluminium die cast
Protection	IP 66
Weight	2.6 kg (5.7lbs)
Ex. Proof (options)	Ex d ia IIC T6 Gb
Cable connection	M20x1.5
Variants available	ePoz-WP, ePoz-IS, ePoz-Ex
Certifications & standards	IP66, Ex ia IIC T6 Gb, Ex db ia (ia Ga) IIC T6 Gb

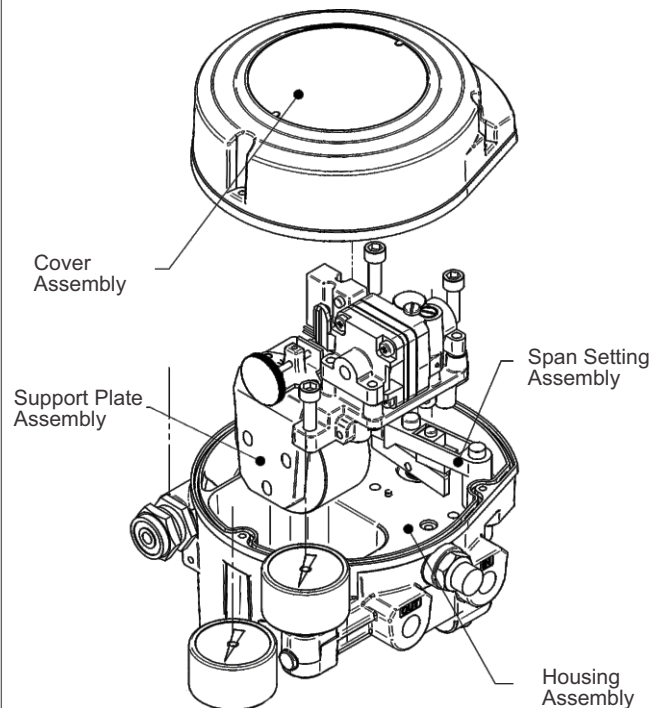
### Dimensions of ePoz-WP and ePoz-IS (mm)



### Dimensions of ePoz-Ex



### Housing Assembly





## We Cater to All Industries



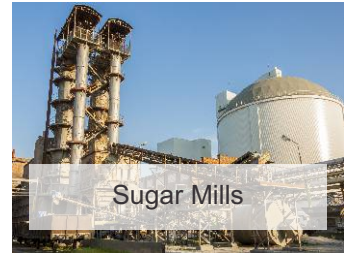
Chemicals



Power



Metals and Mining



Sugar Mills



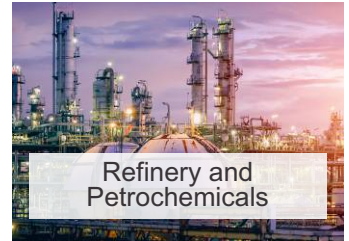
Pharmaceuticals



Fertilisers



Oil and Gas



Refinery and Petrochemicals



Brewery and Distillery



Edible Oil



Paper



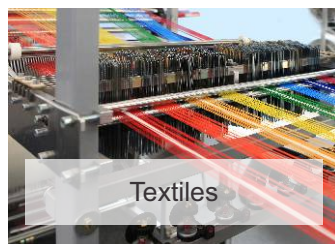
Food and Beverages



Tyre and Rubber



Engineering



Textiles



Pure Water Treatment

## Customer Speak

The Forbes Marshall make new Electropneumatic Positioner has been installed since the last four and half years. We found trouble free functioning since the installation till date.

**- A multinational pharmaceutical organisation**

The Forbes Marshall make new Electropneumatic Positioner is installed at our distillery, and functioning very satisfactorily, since the last three years.

**- A leading sugar mill in Western India**

The Forbes Marshall make new Electropneumatic Positioner was installed at our factory three and a half years ago. We have not observed any challenges in the functioning since the installation

**- A leading chocolate producer in Maharashtra**



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Forbes Solar  
Forbes Vyncke  
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