



PROCESS INSTRUMENTATION

Series 760 P/E Valve Positioners

Pneumatic valve positioners for cost-effective valve control

www.usa.siemens.com/positioners

The Series 760 Valve Positioners provide a cost effective, universal approach to your valve control. Their modular concept allows all models to be built on the base pneumatic unit model 760P. The electro-pneumatic model 760E is created by installing an I/P Transducer into the base. A wide range of accessories is easily installed inside the unit.

The 760 base pneumatic unit provides split ranging, direct or reverse action, and single or double action without requiring additional parts. The mechanical linkage and characterized cam can be replaced in the field to configure the positioner for use with either a linear or rotary actuator. Key design features include non-interaction of the zero and span adjustments.

Series 760 Valve Positioners include provisions for internal limit switch mounting and position feedback devices without requiring additional housings. Thus, the need for positioners that impede access to the main enclosure is eliminated.

Features and Benefits

- Universal design and choice of interchangeable NAMUR IEC 534-6 rectilinear VDI/VDE 3845 rotary mountings provide wide application flexibility
- Double-acting or single-acting service and split ranging afford application versatility in a single unit
- Non-interaction of the zero and span adjustments and CAMLOC™ cam locking mechanism significantly reduce the calibration and setup time
- Modular design reduces inventory because it allows interchangeable spare parts
- Comes standard with 3 cams-linear, quick opening, and equal % for application versatility

Functional specifications

Temperature Range:

760P without options.....	-40°C to +85°C (-40°F to +185°F)
760P with high temperature option.....	-29°C to +149°C (-20°F to +300°F), Viton® input diaphragm
760E without options.....	-40°C to +75°C (-40°F to +167°F)
760P or E with Option Kit.....	Refer to product manual
Ingress.....	NEMA 4X, IP65

Connections:

Pneumatic.....	1/4 NPT
Gauge.....	1/8 NPT
Electrical.....	3/4 NPT or M25
Exhaust.....	1/4 NPT
Finish.....	Epoxy/Polyester Powder Coat
Output Configuration.....	Single or Double-Acting
Action.....	Direct or Reverse
Supply Pressure.....	150 psig maximum

Air Consumption:

Standard Spool.....	0.5 scfm
Low Gain Spool.....	0.5 scfm
High Flow Capacity Spool.....	1.0 scfm typical

Flow Capacity (at 60 psi with 25% drop)

Standard Spool.....	9 scfm (Cv = 0.3)
Low Flow Spool.....	9 scfm (Cv = 0.3) (1/2 pressure gain of standard)
High Flow Spool.....	18 scfm (Cv = 0.6)

Input Signal

760P.....	3-15 psig, 3-27 psig
760E.....	4-20 mA

Mechanical Feedback

Rotary.....	90 degree standard
Linear.....	1/2-inch to 6-inches, longer lengths available on request
Cam Characterization.....	Equal %, Quick Opening, Linear
Pressure Gain.....	160%/1% @ 60 psi supply standard, 80%/1% with high temp option
Span.....	Adjustable -60% to +25% of normal span ¹⁾
Zero.....	Adjustable -10% to +60% of normal span ¹⁾

Performance

Linearity:

760P.....	0.5% of normal span ¹⁾ (typical)
760E.....	0.75% of normal span ¹⁾ (typical)

Hysteresis:

760P.....	0.75% of normal span ¹⁾ (typical)
760E.....	1.0% of normal span ¹⁾ (typical)

Deadband..... Less than or equal to 0.25% of span

Repeatability..... Within 0.5% of span²⁾

Supply Pressure Effect..... Less than 0.2% of span²⁾ for a 5 psi change in supply pressure

Hazardous Area Class Approvals

FM / CSA / ATEX / CE Refer to product manual for details

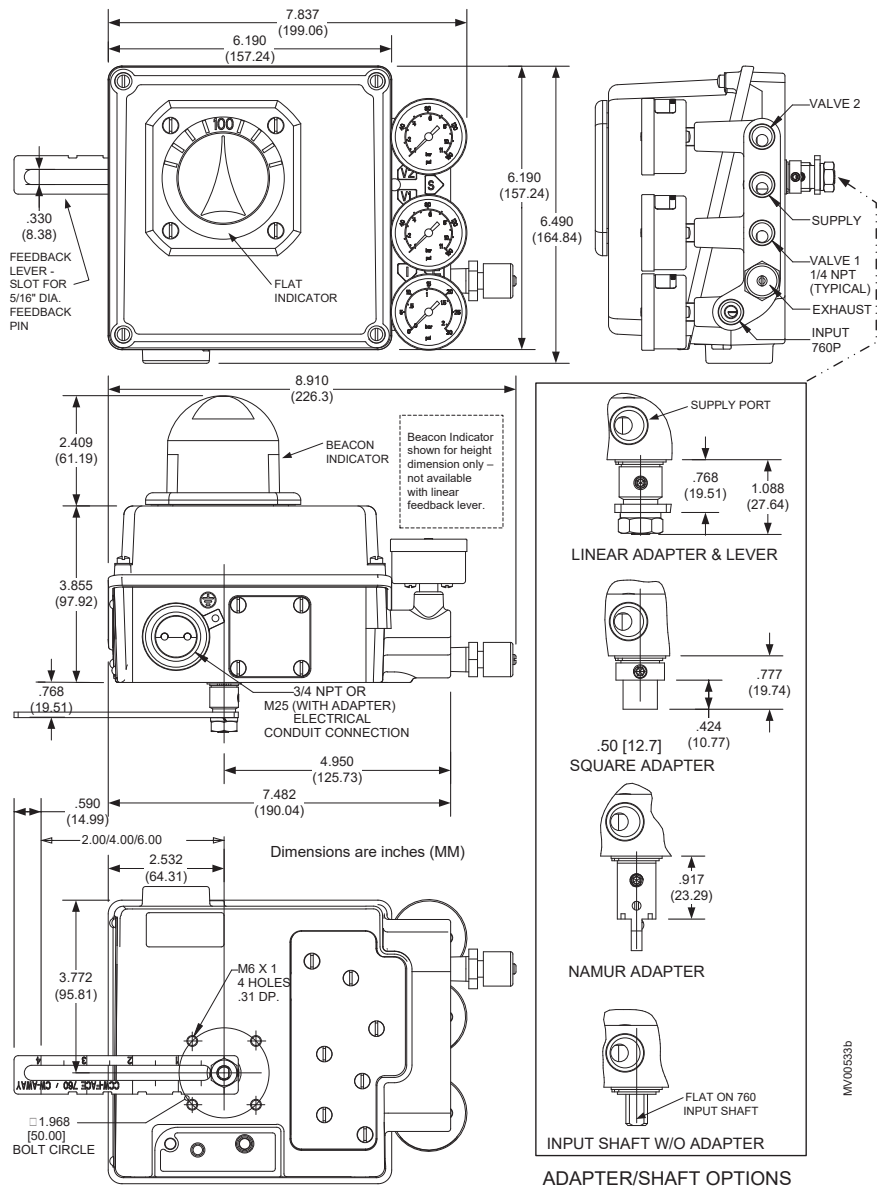
¹⁾Normal span is 12 psig (760P) or 16 mA (760E)

²⁾ Valve span travel

Valve Positioner Base Model	760														
Output Options ¹⁾															
Not Required															N
Potentiometer 1K Ohm															1
4-20 mAdc Feedback															2
Potentiometer, 1K Ohm with Stainless Steel Feedback Gear															3
4-20 mA Feedback with Stainless Steel Feedback Gear															4
Design Level															D
Electrical Certification Non-Approved															N
FM / CSA / ATEX / CE ¹⁾															6

- 1) Not available with High Temperature Option.
- 3) For 3/4NPT to M25 conduit adapter, order TGX:16300-1439.
- 4) Used on small volume actuators (i.e., piston diameter less than 4" (10mm))

Dimensional Drawings



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