



*Pneumatic & Electro-Pneumatic **POSITIONERS***

*and Controls for
Complete Valve
Automation*



SS
SERIES

SS Smart Valve Positioners



Features

- Easy and quick auto-calibration
- Detects RA (reverse acting) or DA (direct acting) automatically
- Available to use with single or double acting actuators
- Compact design allows installation on small actuators
- Provides error messages against performance failures
- Ability to test the actuator assembly with a fixed input signal
- Programmable characteristic curve with 17 points
- Includes logic to eliminate overshooting and hunting, which improves the control of v-port, segment, and quarter-turn ball valves as well as high performance butterfly valves.
- Low air consumption (0.1 SCFM)
- Includes a NAMUR mounting bracket (VDI/VDE 3845, IEC 60534-6-2) that provides mounting to multiple sized rotary actuators

SS2 Rotary Smart Valve Positioner

Smart performance with innovative and ever-strong coil drive even under harsh working environments

- Wide operating temperature range -22° F to 176° F (-40°C on request)
- Remote Type option available
- 316 Stainless Steel body option available
- IP66 (Intrinsically Safe / Weatherproof)



SS3 Rotary Smart Valve Positioner

Sturdy **flame proof** housing and **smart** performance with innovative and ever-strong coil drive even under harsh working environments



- Flameproof IECEx / ATEX / KC Ex d IIC T6 Gb / IP66
- Wide operating temperature range -22°F ~ +167°F

SS5 Rotary Smart Valve Positioner

Perfect combination with reliable fail freeze function and **smart** performance with innovative durable coil drive



- "Fail Freeze" function helps the valve to stay at the last position in the event of an electrical power supply or pneumatic supply air loss
- Wide operating temperature range -22° F to 176° F
- IP66

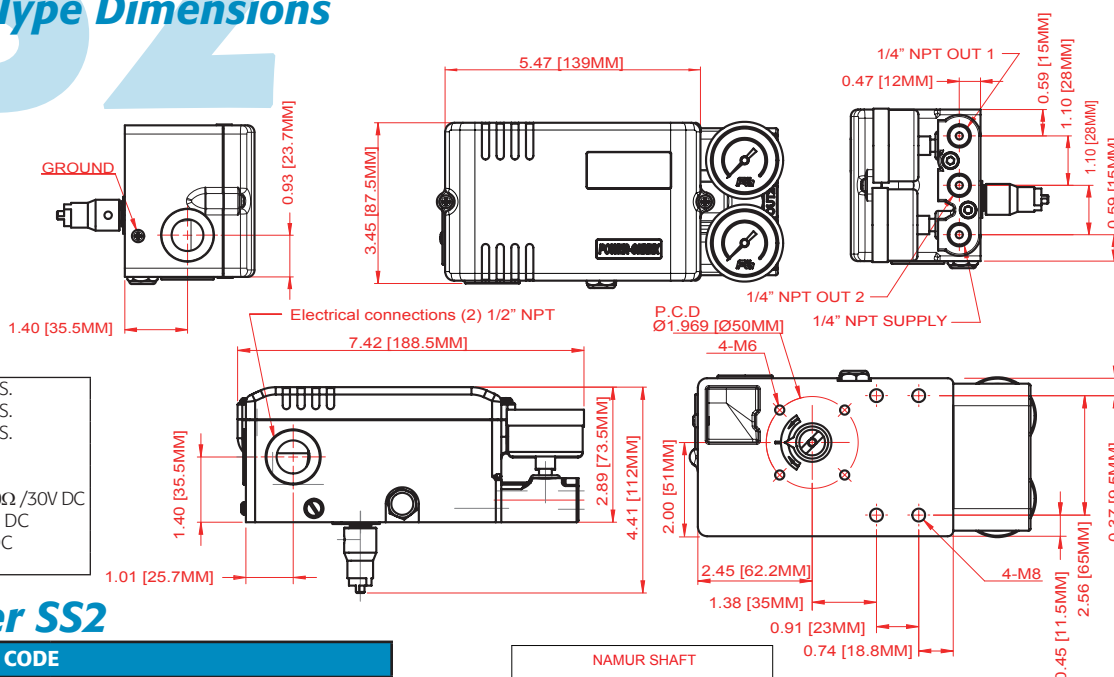


See our website for detailed SS3 & SS5 product information. Call for linear options.
Larger actuators may require volume boosters. Call factory for details.

SS2

SS2R Rotary Type Dimensions

| | |
|-----------------|-------------------|
| Sensitivity | ±0.2% F.S. |
| Hysteresis | ±0.5% F.S. |
| Linearity | ±0.5% F.S. |
| Protection | IP66 |
| Adjustment | Auto Cal. |
| Load Resistance | Max 1000Ω /30V DC |
| Output Signal | 4~20mA DC |
| Supply Voltage | 12~3V DC |
| Input Signal | 2 Wire |



How To Order SS2

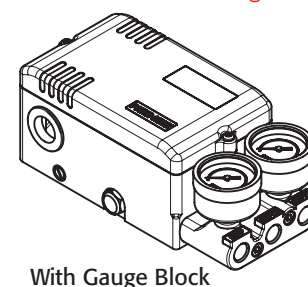
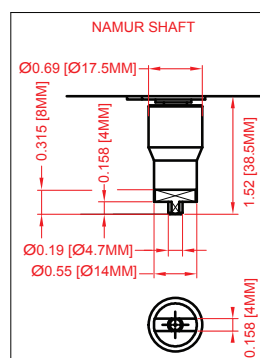
| DESCRIPTION | CODE |
|---|--|
| Actuator Operation | R* Rotary Type |
| Protection Class | I* Intrinsically safe (IECEx/ATEX Ex ia IIC T6/T5) |
| | K Intrinsically safe (KTL Ex ia IIC T6/T5) |
| | W Weatherproof to IP66 |
| Feedback Lever | N* NAMUR shaft (direct mounting) |
| Gauge Block | 0 Not mounted |
| | 1 6 bar (90 psi) |
| | 2* 10 bar (150 psi) |
| By-pass | N* None (standard) |
| | Y Yes (auto/manual screw) |
| Position Feedback | N None |
| | O Position transmitter (4~20mA output signal) |
| | L 2 x alarm limit |
| | S 2 x micro switch (SPDT) |
| | M O + L |
| | Q* O + S |
| Communication | N* None |
| | H* Hart |
| | P Profibus PA |
| | F Foundation Fieldbus |
| Connection Threads (pneumatic - electrical) | 4* NPT 1/4 - NPT 1/2 |
| Mounting Bracket | N0 None |
| | R0* VDI/VDE 3845 |

*Denotes the typically stocked units

SS2

| | | | | | | | | |
|--------------------|------------------|----------------|-------------|---------|-------------------|---------------|--------------------|------------------|
| Actuator Operation | Protection Class | Feedback Lever | Gauge Block | By-pass | Position Feedback | Communication | Connection Threads | Mounting Bracket |
|--------------------|------------------|----------------|-------------|---------|-------------------|---------------|--------------------|------------------|

Example: SS2R-IN2NQH4R0



With Gauge Block

Limit Switches

| | |
|---------|-----------------|
| Type: | SPDT Form C |
| Rating: | 10.1A @ 250 VAC |

Available Models

| | |
|-----|---------------------------------------|
| SS2 | Rotary Digital Smart Valve Positioner |
| SS3 | Flame Proof Digital Smart Positioner |
| SS5 | Fail Freeze Digital Smart Positioner |

See www.atcontrols.com or call for How to Order SS3 or SS5

PPR
SERIES

PPR Pneumatic Positioners



Features

- Available in rotary (PPR) or linear (PPL)
- Precise calibration with simple span and zero adjustments
- Direct or reverse action
- Split range available
- Rugged aluminum enclosure with epoxy coating
- Vibration resistant
- Stainless steel gauges standard
- Various orifices available to increase/decrease flow

NOTE: A Filter Regulator is REQUIRED for reliable service.

Specifications

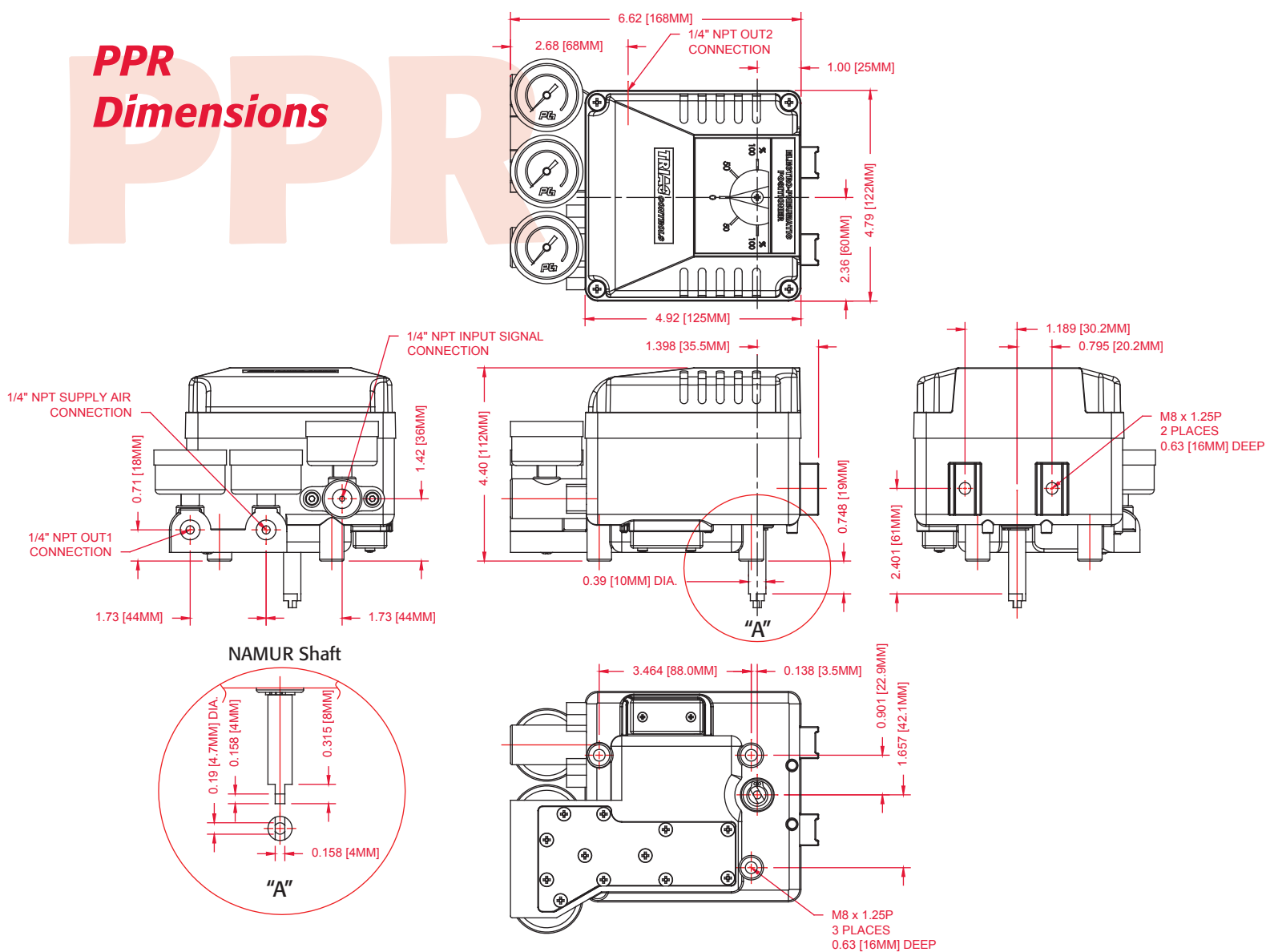
| Item \ Type | PPL | | PPR | |
|------------------------|---|--------|----------------------------|--------|
| | Linear Type (lever feedback) | | Rotary Type (cam feedback) | |
| | Single | Double | Single | Double |
| Input Signal | 3-15 psi (0.2 - 1.0 bar) (NOTE 1) | | | |
| Supply Air Pressure | 100 psi Max (7.0 bar) | | | |
| Standard Stroke | 10 - 80 mm (NOTE 2) | | 60 - 100° (NOTE 3) | |
| Air Piping Connection | 1/4" NPT | | | |
| Ambient Temperature | -4°F - 158°F (-20° - 70°C) | | | |
| Pressure Gauge | Stainless Steel | | | |
| Output Characteristics | Linear | | | |
| Linearity | Within ±1.5% F.S. | | | |
| Sensitivity | Within ±2.0% F.S. | | | |
| Hysteresis | Within ±1.0% F.S. | | | |
| Repeatability | Within ±0.5% F.S. | | | |
| Air Consumption | 0.18 scfm @ 20 psi | | | |
| Flow Capacity | 2.83 scfm @ 20 psi | | | |
| Material | Aluminum Diecast Body | | | |
| Weight | 4.63 lbs | | | |
| Limit Switches | SPDT, 16A 1/2 HP 125/250 VAC; 0.6A 125VDC / 0.3A 250VDC | | | |

NOTE:

- 1) Split range is available.
- 2) Feedback lever for stroke 80 - 150mm is available (PPL)
- 3) Stroke can be adjusted to 0° - 60° or 0° - 100° (PPL)

PPR

PPR Dimensions



Call for PPL (Linear) dimensional info.

Available Models

| | |
|-------------|--|
| PPR-1200 | TRIAC® 3-15psi Pneumatic Positioner |
| PPR-1200 LS | TRIAC® 3-15psi Pneumatic Positioner with (2) SPDT limit switches |

EPR
SERIES

EPR Electro-Pneumatic Positioners



Features

- Available in rotary (EPR) or linear (EPL)
- Precise calibration with simple span and zero adjustments
- Direct or reverse action
- Split range available
- Rugged aluminum enclosure with epoxy coating
- Vibration resistant
- Stainless steel gauges standard
- Various orifices available to increase/decrease flow

NOTE: A Filter Regulator is REQUIRED for reliable service.

Specifications

| <div>Item \ Type</div> | EPL | | EPR (EPX) | |
|------------------------|--|--------|----------------------------|--------|
| | Linear Type (lever feedback) | | Rotary Type (cam feedback) | |
| | Single | Double | Single | Double |
| Input Signal | 4...20 mA DC (NOTE 1) | | | |
| Input Resistance | 235±15Ω | | | |
| Supply Air Pressure | 100 psi Max. (7.0 bar) | | | |
| Standard Stroke | 10 - 80 mm (NOTE 2) | | 60 - 100° (NOTE 3) | |
| Air Piping Connection | 1/4" NPT | | | |
| Conduit Connection | 1/2" NPT | | | |
| Enclosure | IP 66 Ex dmb IIC T6/T5, Gb (NOTE 4) Ex ia IIC T6 Ga (NOTE 5) | | | |
| Ambient Temperature | EPR: -4°F - 158°F (-20° - 70°C) EPX: -40°F - 131°F/158°F (T6/T5) (-40° - 55°C/70°C) | | | |
| Pressure Gauge | Stainless Steel | | | |
| Output Characteristics | Linear | | | |
| Linearity | Within ±1.5% F.S. | | | |
| Sensitivity | Within ±2.0% F.S. | | | |
| Hysteresis | Within ±1.0% F.S. | | | |
| Repeatability | Within ±0.5% F.S. | | | |
| Air Consumption | 0.18 scfm @ 20 psi | | | |
| Flow Capacity | 2.83 scfm @ 20 psi | | | |
| Material | Aluminum Diecast Body | | | |
| Weight | 7.7 lbs. with a terminal box | | | |
| Limit Switches | SPDT, 16A 1/2 HP 125/250 VAC; 0.6A 125VDC / 0.3A 250VDC | | | |

NOTE:

1) Split range is available.

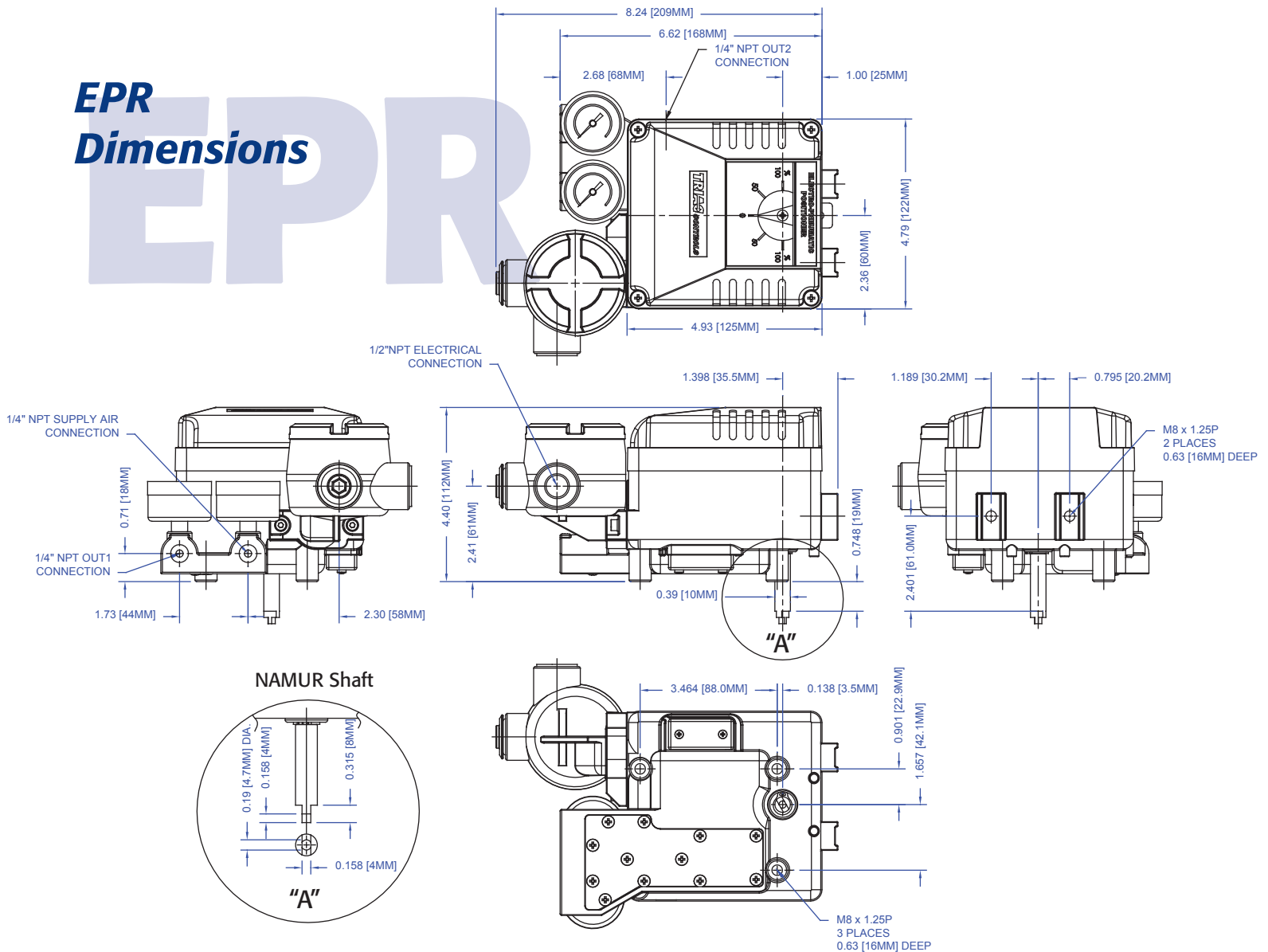
2) Feedback lever for stroke 80-150mm is available (EPL)

3) Stroke can be adjusted to 0°-60° or 0°-100° (EPL)

4) ATEX/IECEx flameproof ratings on model EPX-1000 only

5) ATEX/IECEx intrinsically safe ratings on model EPR-1100 only

EPR Dimensions



Call for EPL (Linear) dimensional info.

Available Models

| | |
|---------------|--|
| EPR-1000 | TRIAC® 4-20mAdc Electro-Pneumatic Positioner, IP66 |
| EPR-1000 LS | TRIAC® 4-20mAdc Electro-Pneumatic Positioner with (2) SPDT Limit Switches, IP66 |
| EPR-1000 TR | TRIAC® 4-20mAdc Electro-Pneumatic Positioner with 4-20mA Transmitter, IP66 |
| EPR-1000 LSTR | TRIAC® 4-20mAdc Electro-Pneumatic Positioner with (2) SPDT Limit Switches and 4-20mA Transmitter, IP66 |
| EPX-1000 | TRIAC® 4-20mAdc Explosion Proof Electro-Pneumatic Positioner, Ex dmb IIC T6/T5 Gb, IP66 |
| EPX-1100 | TRIAC® 4-20mAdc Intrinsically Safe Electro-Pneumatic Positioner, Ex ia IIC T6 Ga, IP66 |

Other Positioner Options

Siemens



Series PS-2 (Call for complete part numbers)

Digital Electro-Pneumatic with Hart Protocol

Profibus PA

Foundation Fieldbus

FM & CSA Approved

- Explosion Proof
- Class I, Division 1, Groups A, B, C & D

ATEX Approved

- II 2 G Ex d IIC, T4, T5, T6 Gb

Series 760 FM & CSA Approved

(not pictured)

- Explosion Proof
- Class I, Division 2
- Group A, B, C & D

ABB



ABB TZID (Call for complete part numbers)

Digital Electro-Pneumatic with Hart Protocol

Profibus PA

Foundation Fieldbus

FM & CSA Approved

- Explosion Proof
- Class I, Division 1, Groups A, B, C & D

ATEX Approved

- Ex d IIC, T4, T5, T6

YT Series



FM Class I, Div 1 Grps C & D
(20°C to 60°C)

YT-1000R-FM



FM Class I, Div 1 Grps A, B, C & D T5/T6
(-40°C to 80°C)

YT-3400

FM Approved Explosion Proof
Electro-Pneumatic

Other Control Accessories

- Single and Dual Lockup Valves
- Filter Regulators (required with all positioners)
- Flow Controls and Speed Controls
- Volume Boosters



A-T Controls, Inc.