

**TRIAQ**<sup>TM</sup>  
**CONTROLS**  
A Division of AT Controls

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

*and Controls for  
Complete Valve  
Automation*



**SS**  
SERIES

# SS Smart Valve Positioners



Fieldbus  
Foundation

## Features

- Easy and quick auto-calibration
- Detecting 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 (0.07 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 option)



## 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 / 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 (-40°C on request)
- IP66 (Intrinsically Safe option)

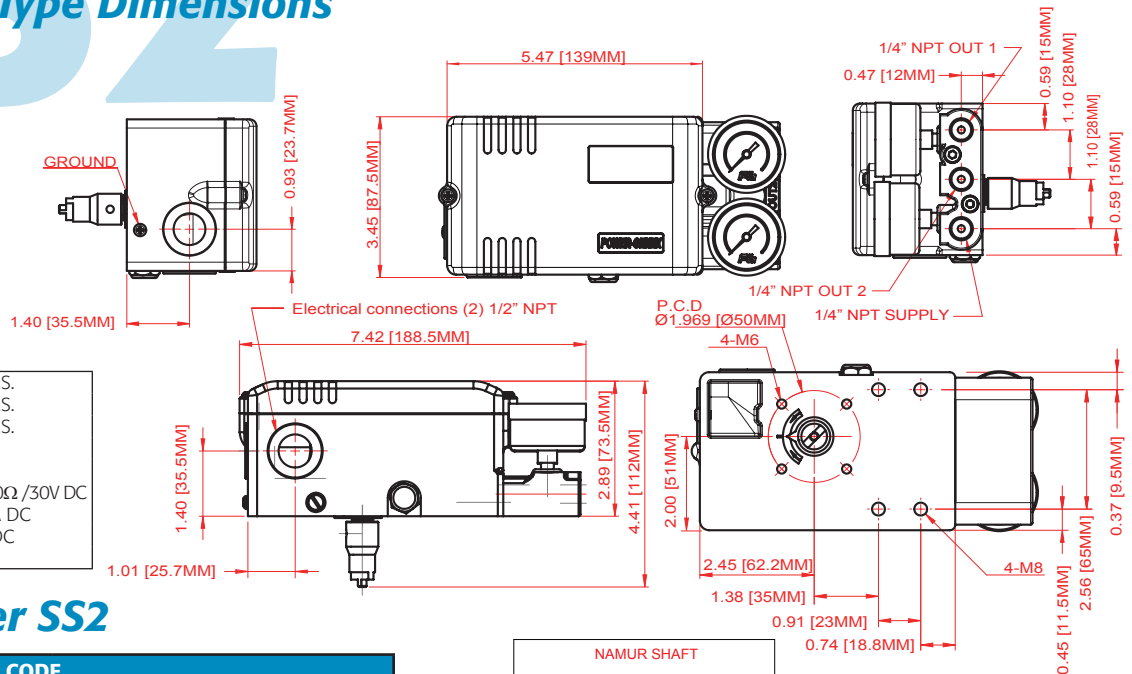


See our website for detailed SS3 & SS5 product information. Call for linear options.

Larger actuators may require volume boosters. Call factory for details.

# SS2

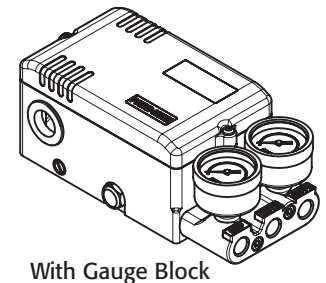
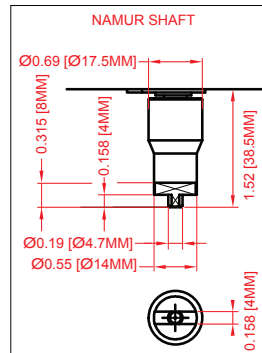
## SS2R Rotary Type Dimensions



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 Ex ia IIC T5 / ATEX Eex ia IIC T5)
	K Intrinsically safe (KC Ex ia IIC 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
Communication	Q* O + S
	N* None
Communication	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



### 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

\*Denotes the typically stocked units



**Example: SS2R-IN2NQH4R0**

See [www.atcontrols.com](http://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

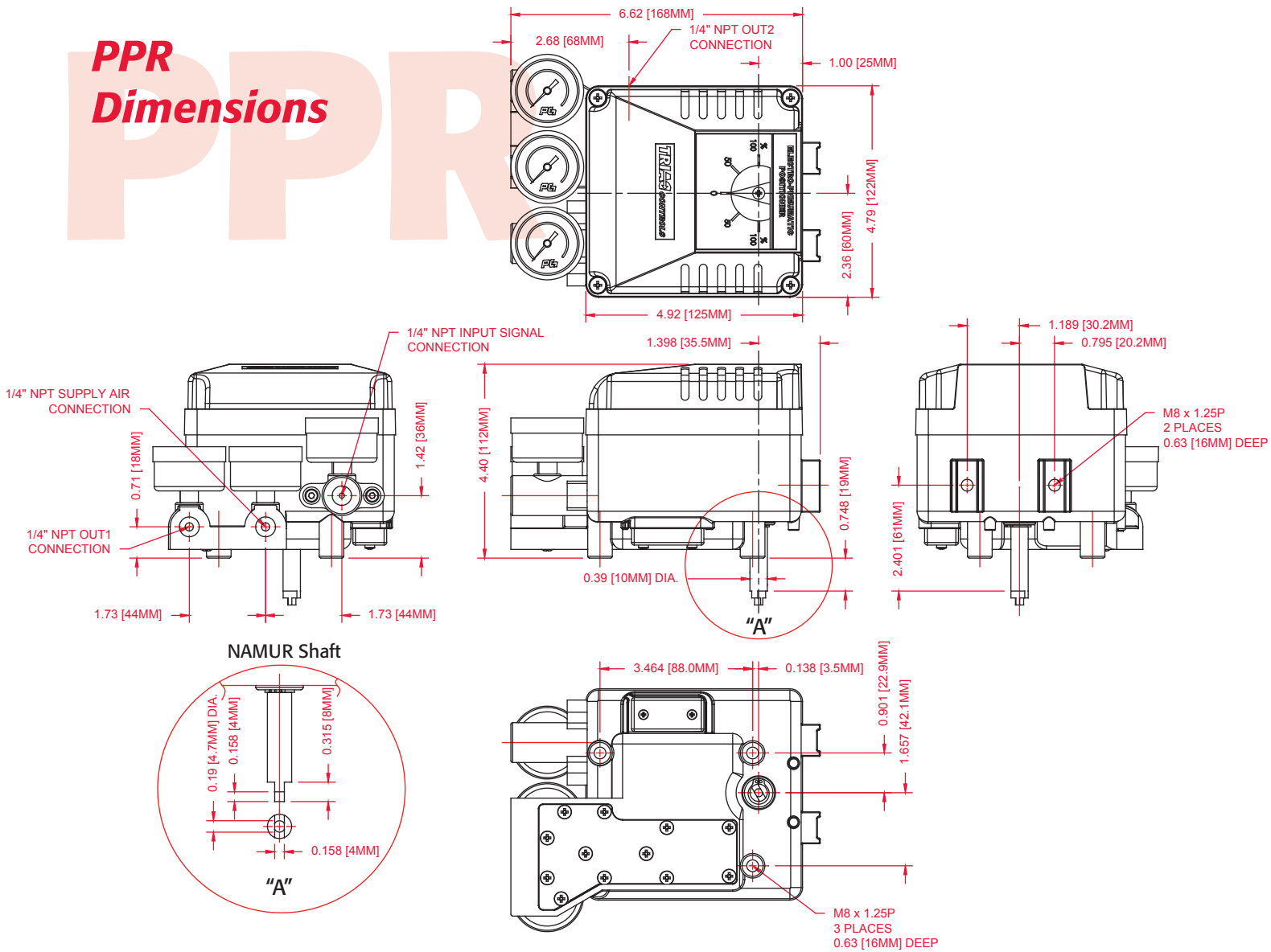
Item	Type	PPL		PPR	
		Linear Type (lever feedback)		Rotary Type (cam feedback)	
		Single	Double	Single	Double
Input Signal	3-15 psi (0.2 - 1.0 kgf/cm <sup>2</sup> ) (NOTE 1)				
Supply Air Pressure	100 psi Max. (7.0 kgf/cm <sup>2</sup> )				
Standard Stroke	10 - 80 mm (NOTE 2)		60 - 100° (NOTE 3)		
Air Piping Connection	1/4" NPT				
Ambient Temperature	-4°F - 158°F (-20° - 70°C)				
Pressure Gauge	Stainless Steel				
Output Characteristics	Linear				
Linearity	Within ±1.0% F.S.		Within ±1.5% F.S.		
Sensitivity	Within ±0.1% F.S.		Within ±0.5% F.S.		
Hysteresis	Within ±0.5% F.S.		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 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
- Certified for ATEX, EEx md IIB T5 (05 ATEX 1076X) by NEMKO in conformance with EN 50014:1997 + A1:1999 + A2:1999, EN 50018:2000, EN 50028:1987

**NOTE: A Filter Regulator is REQUIRED for reliable service.**

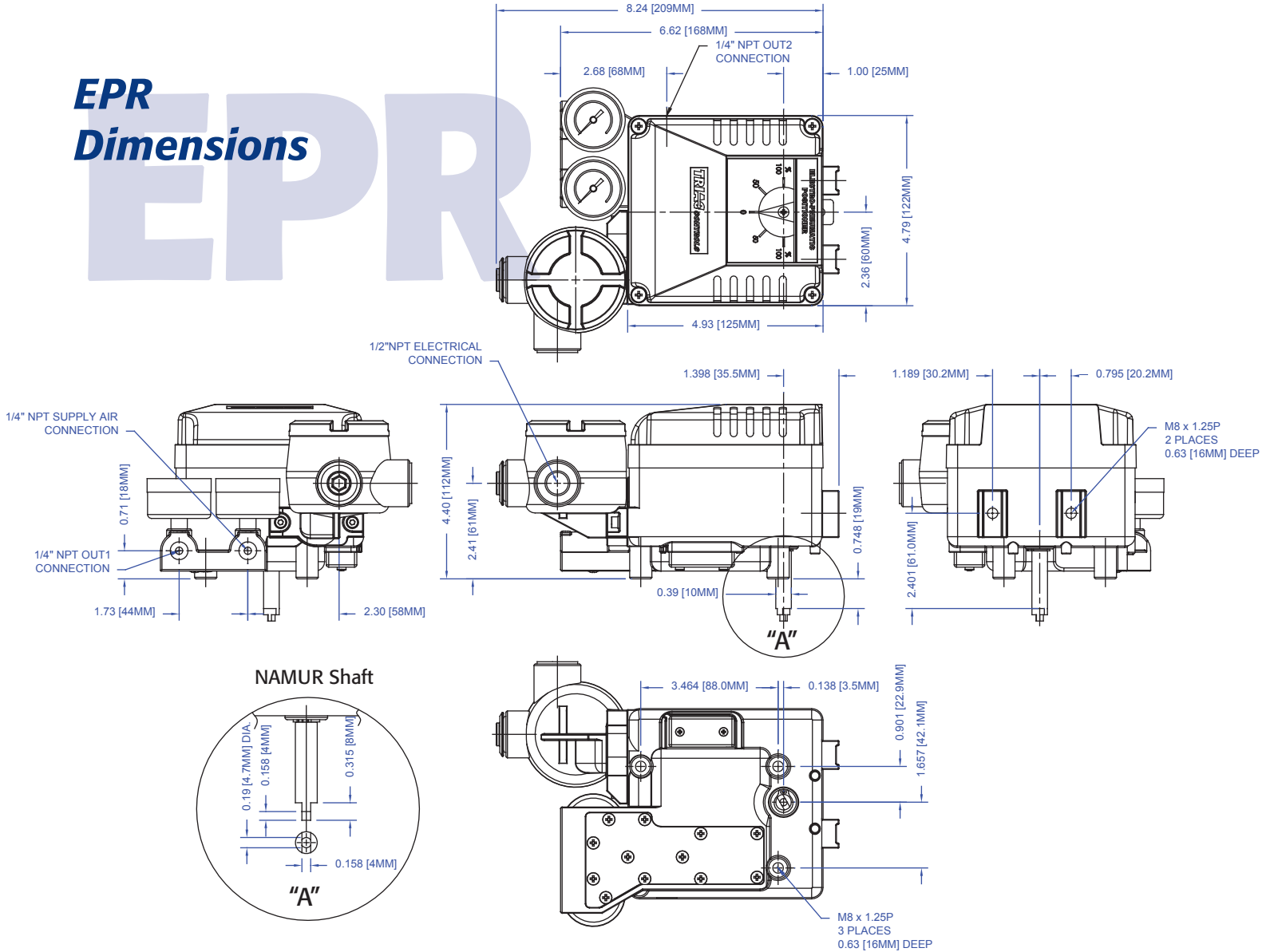
### Specifications

Item \ Type	EPL		EPR	
	Linear Type (lever feedback)		Rotary Type (cam feedback)	
	Single	Double	Single	Double
<b>Input Signal</b>	4...20 mA DC (NOTE 1)			
<b>Input Resistance</b>	235±15Ω			
<b>Supply Air Pressure</b>	100 psi Max. (7.0 kgf/cm <sup>2</sup> )			
<b>Standard Stroke</b>	10 - 80 mm (NOTE 2)		60 - 100° (NOTE 3)	
<b>Air Piping Connection</b>	1/4" NPT			
<b>Conduit Connection</b>	1/2" NPT			
<b>Explosion-Proof Classification</b>	EEx md IIB T5, IP66 (standard) Exia II BT6 (optional)			
<b>Ambient Temperature</b>	-4°F - 158°F (-20° - 70°C)			
<b>Pressure Gauge</b>	Stainless Steel			
<b>Output Characteristics</b>	Linear			
<b>Linearity</b>	Within ±1.0% F.S.		Within ±1.5% F.S.	
<b>Sensitivity</b>	Within ±0.5% F.S.		Within ±2.0% F.S.	
<b>Hysteresis</b>	Within ±0.5% F.S.		Within ±1.0% F.S.	
<b>Repeatability</b>	Within ±0.5% F.S.			
<b>Air Consumption</b>	0.18 scfm @ 20 psi			
<b>Flow Capacity</b>	2.83 scfm @ 20 psi			
<b>Material</b>	Aluminum Diecast Body			
<b>Weight</b>	6.5 lbs. with a terminal box			
<b>Limit Switches</b>	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)

# 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

# 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.**