

## KEY FEATURES

Bray's Series 6A Smart Electro-Pneumatic Positioners offer precise flow control, advanced communication, and enhanced diagnostics for linear and part-turn actuators in industrial applications.

- > Simple mounting and automatic commissioning
- > Low air consumption of **0.0059 SCFM** in steady state
- > Wide stroke range providing high control performance
- > Modular design capable of field upgradeable options
- > Optional pressure sensor-based diagnostics
- > Suitable pneumatic media: natural gas, carbon dioxide, nitrogen, or noble gases

## CERTIFICATIONS & APPROVALS

- > SIL (Safety Integrity Level) 2
- > FM, CSA, ATEX, IECEx, CCC
- > INMETRO
- > Intrinsically safe, explosion proof
- > NEMA 4X/IP66

## OPTIONS & ACCESSORIES

- > Communications
  - Analog 4-20mA
  - Foundation Fieldbus
  - Profibus PA
  - HART
- > Stainless steel, aluminum, and polycarbonate enclosures
- > Limit Switches Inductive/Mechanical
- > Remote Mounting Kit
- > Position feedback, 4-20 mA
- > Non-contact sensor (NCS) for extreme vibration environments
- > Alarm card module
- > Fail Freeze
- > Fail to Open
- > Volume Boosters

## SELECTABLE FAIL-SAFE MODES

- > **Fail Safe:** Valve moves to the safety position; also suitable for SIL2 applications
- > **Fail Freeze (Optional):** Valve remains in its last position upon loss of electrical and/or pneumatic power
- > **Fail to Open (Optional):** Venting upon loss of electrical power; the valve moves to the preferred position



Standard Housing



Stainless Steel Housing



Intrinsically Safe Housing



Explosion-Proof Housing



Stainless Steel Explosion-Proof Housing

### APPLICATIONS

- > Suitable for both single and double-acting actuators
- > Operational Temperature: -22°F to +176°F (Optional -40°F to +176°F)
- > Compatible for rotary and linear valves
- > Integrated volume booster designed for pneumatic actuators that require high flow fast stroking times
- > Control and On-off applications
- > Suitable for emergency shutdown (ESD/SIS) SIL applications

### POSITIONER WITH VARIOUS EXTERNAL POSITION DETECTION SYSTEMS

- > Ideal for extreme conditions - high temperature, vibration or difficult to reach locations.
- > Position detection available as standard solution or integrated in a robust aluminum enclosure
- > Distance between positioner and valve can be up to 40 meters



### LOCAL USER INTERFACE FUNCTIONS

- > Calibration
- > Advanced diagnostics checks
- > Confirmation of the setpoint and progress to the setpoint
- > Operate local position using push buttons
- > Potentiometer alignment
- > Air pressure monitor
- > Maintenance alarms
- > Air leakage test
- > Live control signal readout

### STANDARD DIAGNOSTICS AT A GLANCE

- > Valve Performance Test (IEC-61298-2)
- > Multi Step Response Test (IEC -61514-2)
- > Partial Stroke Test
- > Air leakage
- > Valve jamming
- > Packing wear and tear
- > Wear of the valve seat or plug
- > Deposits or caking on the valve seat
- > Cracking of the valve disk/plug
- > Valve position trend diagram
- > Stroke counter
- > Change in position counter
- > Operating hours
- > Ambient temperature measurement
- > Multiple years of maintenance data storage



Maintenance Alarm set to be signaled



Leak Test Initiated

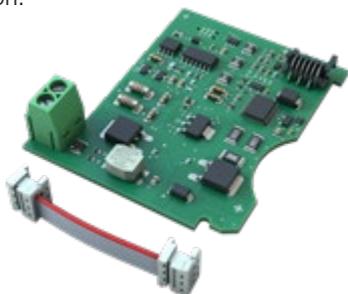


Live Signal Readout

## MODULAR ACCESSORIES

### 4-20 mA FEEDBACK MODULE

Provides 4-20mA DC output indicating valve position to the control station.



### INTERNAL NON-CONTACT SENSOR

Non-contact, solid-state position sensor for high vibration applications.



### PROGRAMMABLE ELECTRONIC SWITCHES (ALARM)

Easy to retrofit alarm module comes with two semiconductor switch outputs, one fault output, and one digital input.



### MECHANICAL/INDUCTIVE LIMIT SWITCHES

Provides a cam activated indication of actuator travel limits; two output formats are offered:

- > Mechanical switches
- > Intrinsically safe inductive proximity switches

Both modules also contain an integrated fault indicator.



### EXTERNAL NON-CONTACT SENSOR

Ideally suited for the following process conditions:

- > Strong vibration and shock loads
- > Rough environmental conditions
- > Limited space or inaccessible installation location
- > Harmful atmospheres (gases, vapors, liquids)



### VOLUME BOOSTERS

Integral volume booster paired with a S6A results in a lower profile than a traditional setup and comes with the following benefits:

- > Fast adjustment for large drives
- > Mounted directly on the positioner, reduces external tubing to a minimum
- > The unit reproduces pneumatic signals in a 1:1 ratio and has Cv of 2.0



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SINCE 1986, BRAY HAS PROVIDED FLOW CONTROL SOLUTIONS FOR A VARIETY OF INDUSTRIES AROUND THE WORLD.

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## **HEADQUARTERS**

**Bray International, Inc.**

13333 Westland East Blvd.

Houston, Texas 77041

Tel: +1.281.894.5454

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