



BrayLINE
CONTROLS

SERIES 64
FOR ECONOMICAL
VALVE POSITION CONTROL

POSITIONERS
FOR DOUBLE & SINGLE ACTING PNEUMATIC ACTUATORS

SERIES 64 PNEUMATIC POSITIONER

For proportional control of actuator and valve positions, the Brayline Series 64 automatically positions the output shaft to precise angles between 0° and 90° in response to a pneumatic input signal. The unit has an input range of 3–15 psi. The standard positioner is direct acting but can be easily reversed, with no additional parts, by simply turning the cam over and reversing the air connections to the actuator. The Series 64 is unaffected by the vibrations of most pipelines. This positioner is based on a force balanced feedback principle. It has split range capabilities and features independent span and zero adjustments.

For use with double or single acting actuators, Bray's Series 64 offers the best in reliable, economical valve position control.

The Series 64 features a supply air filter that eliminates dust and oil particles from contaminating the unit. A single sensitive annular Buna-N diaphragm permits greater sensitivity than positioners containing two or more diaphragms. The Stainless Steel spool valve is precisely machined and polished to reduce steady state air loss and therefore operating costs.

POSITION INDICATION & HOUSING

A highly visible yellow pointer locally indicates position of the final control element. The pointer is enclosed within a rugged, clear polycarbonate cover that fully protects the positioner from harsh environments. The housing body is anodized aluminum. All positioner components are fully enclosed – external springs are not required. Additionally, an air discharge creates a slight purging pressure inside the positioner housing. This pressure prevents dust, humidity or gas from entering the unit.

OPERATION

The positioner consists of a diaphragm (1) exposed to the signal pressure of a feedback spring (2) of a double acting spool valve (3) connected to the diaphragm through the rod (4). An increase of signal pressure on the diaphragm stretches the feedback spring thus causing the displacement of the spool valve and consequently of the piston in the actuator (6). The shaft rotation is transmitted to the feedback spring through the cam (7) and the lever (5), thus balancing the signal pressure on the diaphragm. The actuator position therefore will remain in a stable position only as long as the feedback spring's force is

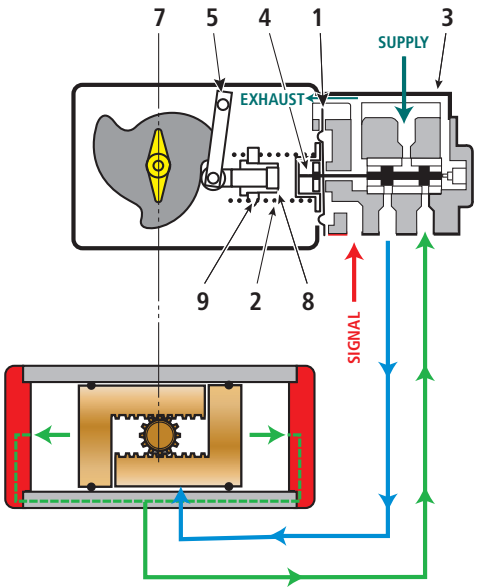
equal to the air signal force on the diaphragm. The spool valve is then in a neutral position. The position of the actuator is determined by the signal pressure and by the shape of the cam. A decrease in signal pressure reverses the above sequence.

CALIBRATION

Positioner Reversal can be obtained by simply turning the cam over and reversing the air connections to the pneumatic actuator.

Zero Adjustment is performed by setting the feedback spring nut (8), which determines the pre-loading of the feedback spring.

Range Adjustment is performed by setting the feedback screw (9) to alter the number of the spring's turns.



OPTIONS / ACCESSORIES

Special Cams

Special Cams for non-standard ranges may be modified by the factory or customer.

Gauge Manifold

An externally mounted gauge manifold is offered with up to three gauges to measure air supply and the actuator input and output pressures.



Series 64 Pneumatic Positioners are manufactured under ISO 9001 conditions.

SPECIFICATIONS

Supply Pressure [Max]	30-100psi [150psi] (2-7 Bar [10 Bar])
Air Consumption (80psi)	0.73 scfm
Input Signal	
Single Range	3-15psi (0.2-1.0 Bar)
Split Range	3-9psi (0.2-0.6 Bar) 9-15psi (0.6-1.0 Bar)
Connections	
Supply (1 port)	1/4" NPT or BSP
Output (2 ports)	1/8" NPT or BSP
Signal (2 ports)	1/8" NPT or BSP
Resolution	0.1%
Repeatability	1.0%
Hysteresis	1.5%
Temperature Range	-5°F (-20°C) to 160°F (70°C)
Weight	4.0 lbs.
Control Element Type	Spool and Sleeve

MATERIALS

Housing:
Anodized Aluminum
Cover:
Polycarbonate
Spool/Cam System:
Stainless Steel
Diaphragm:
Buna-N

MOUNTING

VDI/VDE 3845
(NAMUR)

DISTRIBUTOR

Bray CONTROLS

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