

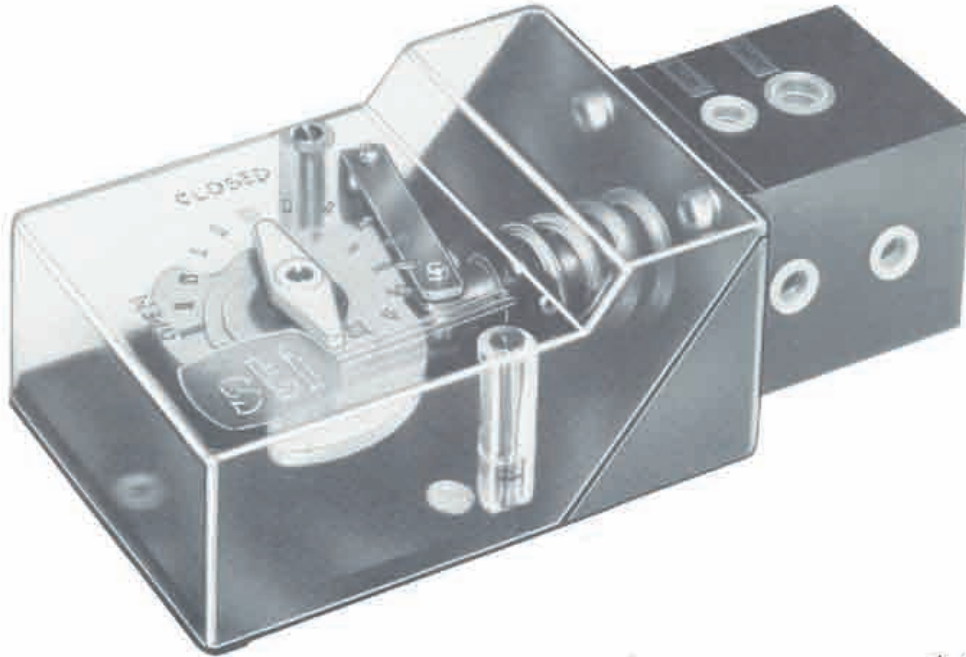
PNEUMATIC POSITIONER SR/CCK TYPE*

For rotary actuators



GENERAL

The SR/CCK positioner is designed for the proportional operation of quarter turn rotary cylinders. It is generally coupled axially to the shaft of the cylinder. The transparent cover and a pointer allow to remark the position of the final control element.



* STI PATENT

| FEATURES | TECHNICAL SPECIFICATIONS | |
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| <ul style="list-style-type: none"> ● Linear feed back cam, 3-shapes, with split-range ● Compact design - directly and axially coupled to the actuator stem ● Direct or reverse action from positioner with no additional parts ● No external springs, all operating parts completely enclosed ● Convoyed discharge creates a slight purging pressure in the positioner box and protects it from dust, humidity and corroding gases ● Stable positioning characteristics are provided for full range of actuators ● Good vibration-resistant characteristics ● Usable for double-acting or single-acting service ● Unaffected by supply pressure fluctuations | <p>MATERIALS Body: Anodized Aluminium Diaphragm: Nitrile Rubber Valve spool: Stainless Steel Cover: Polycarbonate</p> <p>CONNECTIONS Supply - 1/4" NPTF Cylinder Ports 'E' and 'F' - 1/8" NPTF Instrument Signal - 1/8" NPTF</p> <p>AIR SUPPLY 30 to 100 Psi (max. 150 Psi)</p> <p>STANDARD CAM WITH THREE PRESSURE RANGES (LINEAR CHARACTERISTICS) Direct Action and Reverse Action 3-15 Psi 0-90° 3-15 Psi 0-65° 3-9 or 9-15 Psi 0-65°</p> <p>STAR POINT SELECTION 0-9 Psi</p> <p>RANGE ADJUSTMENT ± 1 Psi</p> <p>AIR CONSUMPTION 0.6 SCFM in Balanced Condition with 60 Psi Supply pressure</p> | <p>AMBIENT TEMPERATURE LIMITS -5°F. to 160°F. (moisture Free Air)</p> <p>CONTROL ACTIONS (Direct or Reserve) The direction of operation can be changed without any additional parts, by turning the cam over and reversing air connections to the actuator</p> <p>MOUNTING POSITION Can be mounted in any position</p> <p>PRINCIPLE OF OPERATION Positioning is based on a force balanced principle</p> <p>SENSITIVITY Output is sensitive to change in control air pressure as small as 0,2% of full range</p> <p>POWER AMPLIFICATION Less than 2% deviation in signal or stroke, produces full output pressure</p> <p>ACCURACY WITH LINEAR CAM 1% of full range</p> <p>WEIGHT - 2 lbs. - 0,9 kg. (approx.)</p> <p>ACCESSORIES Gauges Supply air filter</p> |

OPERATION (fig. 1)

The SR/CCK positioner consists of a diaphragm (1) exposed to the signal pressure, of a feedback spring (2), of a double action spool valve (3) connected to the diaphragm through the rod (4). An increase of signal pressure on the diaphragm (1) causes the displacement of the spool valve (3) and consequently of the pistons in the cylinder.

The shaft rotation is transmitted to the feedback spring (2) through the cam (7) and the lever (5), thus balancing the signal pressure on the diaphragm.

The cylinder shaft therefore will remain in 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 neutral position.

The position of the cylinder is determined by the signal pressure and by the shape of the cam.

For single action cylinders, the operation is identical to the above, except than one connection 'E' or 'F', is plugged.

Reversal of action is accomplished by turning the cam (7) over and reversing the air connections to the cylinder.

Zero adjustment is carried out by setting of the nut (8), which determines the pre-loading of the feedback spring.

Range adjustment is carried out by setting of the scew (9) in order to variate the number of the spring's turns.

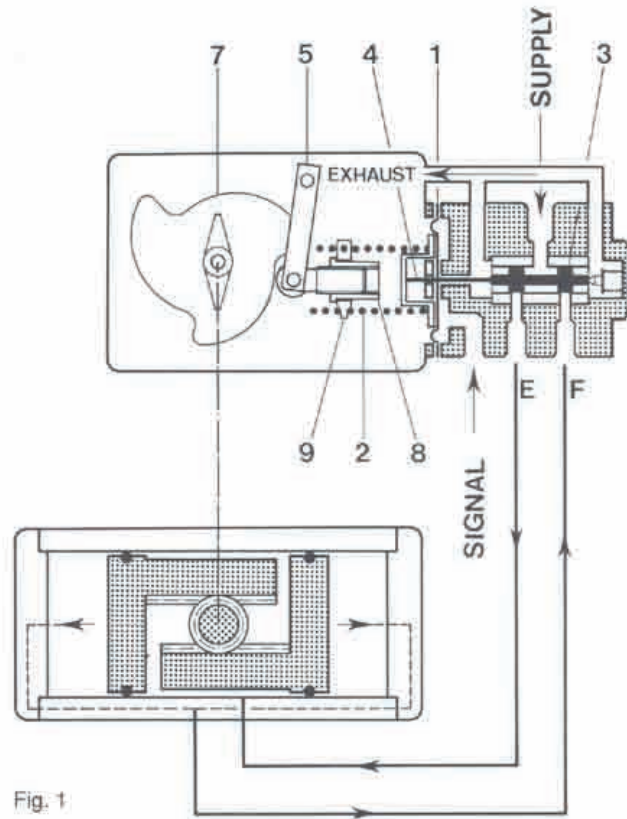
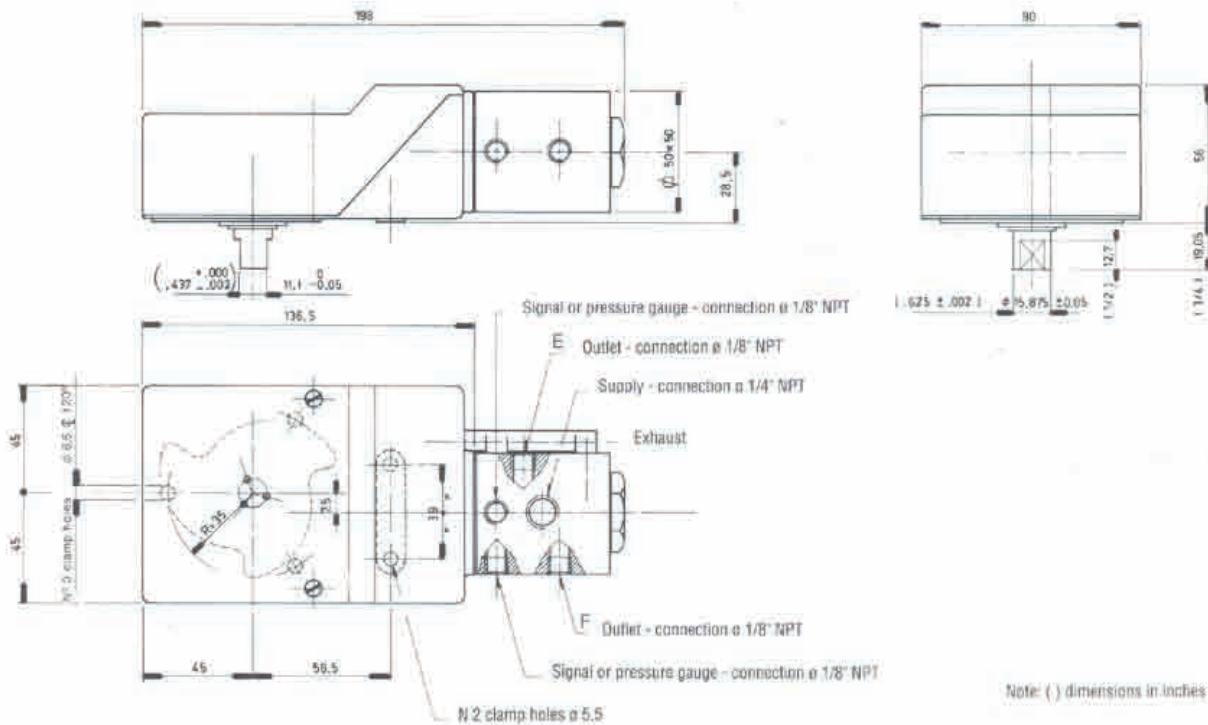


Fig. 1



Note: () dimensions in inches

TECHNICAL ALTERATIONS RESERVED



STI STRUMENTAZIONE INDUSTRIALE S.p.A.
 Seat and Factory: Via M. Buonarroti, 12
 24020 GORLE - Bergamo - Italy
 Tel. 035/296840 - Fax 035/291110
 Telex 301114 STIAUT I