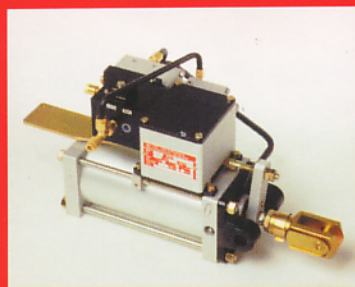
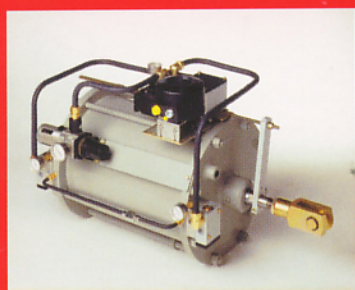


ELECTROPNEUMATIC LINEAR POSITIONERS

SA/CL SERIES



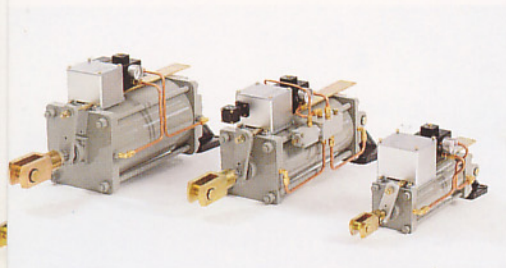
micro
MICROTEC S.A.



ACCESSORIES

- SA/CL-1 SERIES -

SA/CL- 1 is another series of linear positioners designed and manufactured by STI and suitable for application on SC actuators. These positioners are normally used for strokes over 100 mm. SA/CL-1 positioners offer a wide range of options and are therefore usable for the most various applications. Two different sizes are available, respectively with 1/4" and 1/2" connections, which may be supplied either with a pneumatic or an electro-pneumatic inlet signal. The standard positioner is provided with a linear cam, which allows the action reversal at site without using additional parts. STI is also in position to supply quadratic or special shaped cams to meet any possible specification requirement. SA/CL-1 may be provided with a directly mounted air-lock device for the actuator lock-up in the case of emergency. A position transmitter directly fitted to the positioner is also available on option.



Materials of Construction

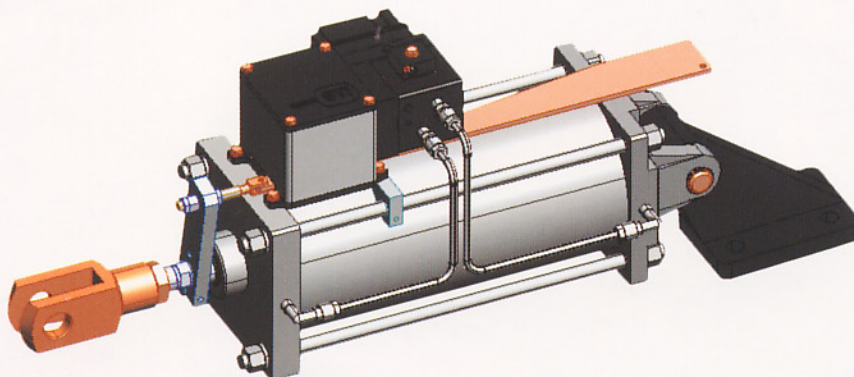
housing (including I/P converter if used)	aluminium
cover	cast aluminium
cam	carbon steel, zinc or cadmium plated
spool valve	brass or stainless steel
diaphragm	nitrilic rubber
manifold	aluminium
air-lock body	aluminium

TECHNICAL DATA

	Positioner size	
	1/4"	1/2"
INLET/OUTLET CONNECTIONS	1/4" NPT F	1/2" NPT F
SIGNAL CONNECTION	1/4" NPT F (1/2" NPT F for electric signal)	1/4" NPT F (1/2" NPT F for electric signal)
FLOW CAPACITY	26 Nm ³ /h (500 kPa supply/full signal deviation)	62 Nm ³ /h (500 kPa supply/full signal deviation)
AIR CONSUMPTION	1 Nm ³ /h (at balance with 400 kPa supply)	1,3 Nm ³ /h (at balance with 400 kPa supply)
INPUT SIGNAL	20 to 100 kPa/3 to 15 Psi or 4 to 20 mA	
AIR SUPPLY	max 700 kPa	
OPERATING TEMPERATURE	-20 to +70°C (lower or higher temp. on request)	
STORAGE TEMPERATURE	-40 to +80°C (lower or higher temp. on request)	
SENSITIVITY	0,15% of full range	
MAX. DEVIATION	1,5% (linearity + hysteresis)	
AIR LOCK TRIP RANGE	150 to 500 kPa (special ranges available on request)	

OPTIONS

- Pressure gauges
- Integrated air-lock
- Quadratic or special shaped cams
- Directly mounted position transmitter



OPERATING PRINCIPLE

Also the operation of the SA/CL-1 positioners is based on the force-balance principle but, in this case, the mechanical feedback is obtained by a compression spring. As shown on fig.3, the force generated by the signal pressure produced by the Electro-Pneumatic converter (1) on the diaphragm (2) opposes the feedback spring (3) and displaces the double acting spool valve (4) enabling the actuator shaft to move. The shaft motion is transferred to the feedback spring (3) through the cam (5) and the square lever (6). The actuator shaft reaches a stable position only when the spool valve (4) is in equilibrium; that means when the force produced by the signal pressure on the diaphragm (2) equals the force produced by the feedback spring (3).

The action of the SA/CL-1 positioners is reversible. The action reversal can be made at site by turning the cam (5) of 180° and rotating the change-over plate (7) of 90° .

Positioners size 1/2" are not provided with change-over plate. In this case, therefore, it is necessary to reverse the inlet connections.

ACCESSORIES

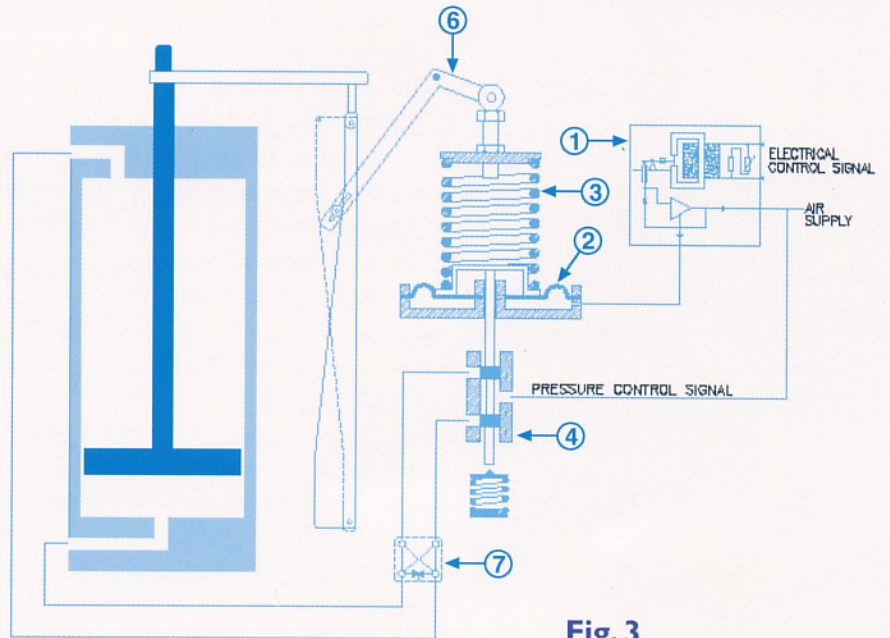


Fig. 3

