

Works with

- | | |
|------------------|----------|
| * ATI | * Sauter |
| * Barber coleman | * Staefa |
| * Honeywell | * T/A |
| * Johnson | * TEG |
| * Landis & Gyr | * Others |
| * Satchwell | |

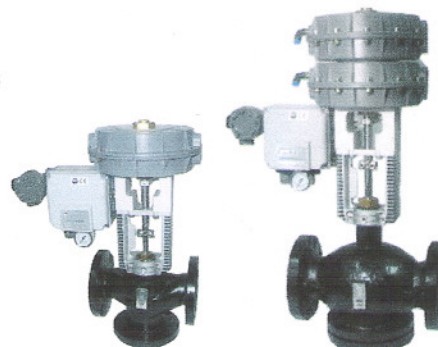
Pneumatic Actuators

Diaphragm with linear travel shaft

APC21.140...

APC21.140651000

- Aux. output: P0=None, 1=ASP.35, 2=ASP.36, 4=ASP.38 6=ASP.40
- 7= 140Ω ,8= 1000Ω
- Positioner input signals: 0=None, 02=0~3Bar, 51=4~20mA, 61=0~10Vdc, 9=Options
- OUTPUT FORCE: 1=300N 2=600N 3=900N 4=1200N 5=2400N
- 6=4800N 7=6000N 9=Options
- STROKE: 1=10mm 2=20mm 3=30mm 4=40mm 5=50mm 9=Options
- Action : 1= Direct, 2=Reverse
- Extension block:
- 0=No block 1: block type 1,2: Type 2, Type 3
- Type of Chamber: A,B,C
- Type of power drives
- I= Induction, Q= Synchronous , **P= Pneumatic** , Z= Stepper
- PRODUCT GROUP: A= Actuator V=Valve


Description

Pneumatic actuators for the actuation of two and three port seat valves having stroke from 20 to 40mm linear action.

- APA2... effective area of 125 cm²
- APB2... effective area of 250 cm²
- APC2... effective area of 500 cm²
- all types with or without
 - positioner
 - position indicator
 - position switches
 - manual handle

Application

In heating, ventilating, air conditioning and other industrial installations for control of standard 2-port and 3-port control valves with On-Off or proportional controls. For valves made by others are also available.

Positioner

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Position Indicator

In heating, ventilating, air conditioning and other industrial installations for control of standard 2-port and 3-port control valves with On-Off or proportional controls. For valves made by others are also available.

Position switch

In heating, ventilating, air conditioning and other industrial installations for control of standard 2-port and 3-port control valves with On-Off or proportional controls. For valves made by others are also available.

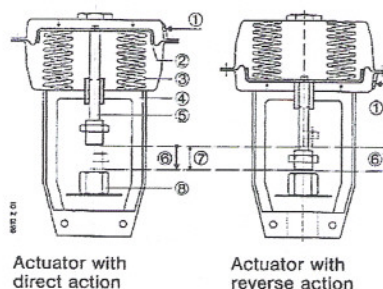
Manual handle

In heating, ventilating, air conditioning and other industrial installations for control of standard 2-port and 3-port control valves with On-Off or proportional controls. For valves made by others are also available.

Operation
Actuators

The piston, which is connected to the actuator spindle, is in an equilibrium position when the operating pressure on one side of the piston and the force of the springs on the other are identical. An increase of the operating pressure causes the spindle to move. The piston is reset by means of the springs after the operating pressure has been reduced.

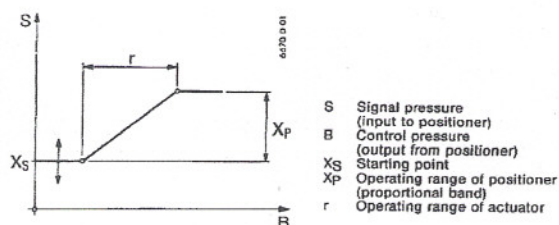
Visual differentiation between direct and reverse acting actuators is possible by the location of the air chamber and the reset springs as shown below.



1. Operating pressure (compressed air)
2. Piston and diaphragm
3. Spring
4. Console
5. Actuator spindle
6. Direction of travel when operating pressure is increased
7. Stroke (Max. travel of actuator spindle)
8. Coupling piece between actuator and valve spindle
(This part may be different according to the type number)

Positioner

The positioner is a pneumatic, direct acting P-controller with a large, variable proportional band. The true position of the actuator spindle is fed back to the positioner by means of a spring. The feedback force is a measure for the correction of the spindle position if it does not correspond with the signal pressure.

Function diagram


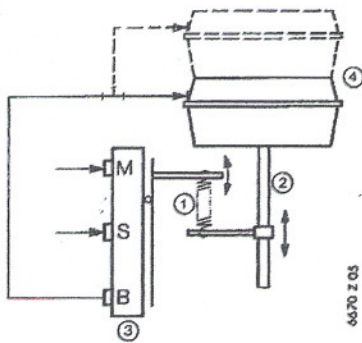
Internal diagram

Internal diagrams are different according to the type of positioner and the control characteristics.

See positioner manuals provided with the actuators.

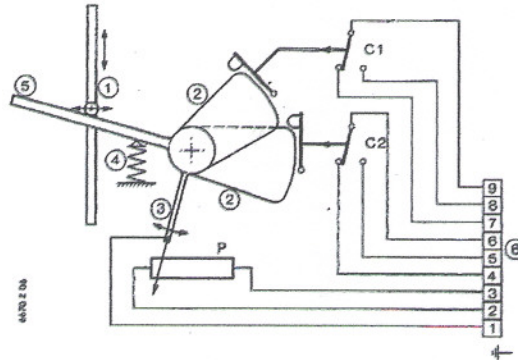
Internal Diagram and Wiring Diagram

Positioner



- M Operating pressure 140 kPa (1,4 bar)
- S Signal pressure
- B Control pressure
- 1 Feedback spring
- 2 Actuator spindle
- 3 Positioner
- 4 Actuator

Position indicator

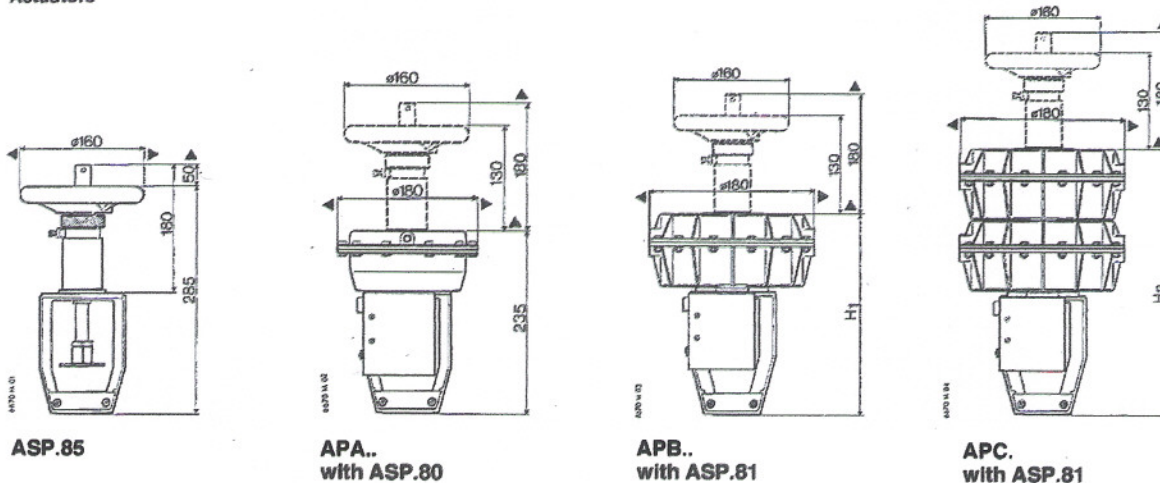


- P Potentiometer 148Ω or 2800Ω
- C1 Upper changeover switch
- C2 Lower changeover switch
- 1 Actuator spindle with adjustable cam which actuates lever 5
- 2 Cams (positions adjustable)
- 3 Potentiometer wiper arm
- 4 Reset spring
- 5 Lever (actuates potentiometer wiper arm 3 and cams 2)
- 6 Wiring terminals

Dimension

For actuator-valve-assemblies refer to the Data Sheets of the corresponding valves.

Actuators



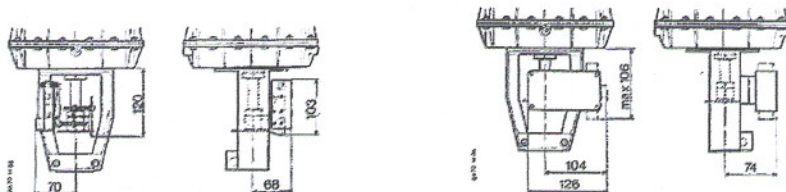
ASP.85

APA..
with ASP.80

APB..
with ASP.81

APC.
with ASP.81

Accessories



ASP.11 positioner
(without cover, actuator
with reverse action)

ASP.35/ASP.36
position indicator

Actuator Stroke	H1	H2
20 mm	260	340
40 mm	280	380

We reserve the right to make changes and improvements in our products which may affect the accuracy of the information contained in this leaflet.