The Series CVA combines a pneumatic actuator and a fast on-off control valve into one body. This design eliminates packing glands, actuators, and mounting kits, giving the CVA Series a highly compact body, at a competitive price. The body is made of Nickel Plated Brass, while the seals can be Fluoroelastomer, EPDM, or Buna-N. The various seal types allow for the CVA Series to be suitable for many applications. Fluoroelastomer seals are suitable for most liquids. The EPDM seal can be used with steam and hot water. For air, gas, and oil at low temperatures, the BUNA-N seals should be used. NAMUR mounting pads allow direct mounting of solenoid valves.

INSTALLATION
Before installing the CVA valve, make sure that all tubes are free from dirt or welding residues to prevent damaging the seat seals. The valve must not be affected by tube expansions. Standard sealing means (such as PTFE, hemp, etc.) must be used on threads.

IMPORTANT: Only use a wrench on the hexagon flats! Using a wrench on any other part may damage the valve, and cause it to function improperly.

Arrangements for Accessories:
The CVA valve has been designed to be connected to a pneumatic control network through 1/8˝ connections for NAMUR solenoid valves. Magnetic limit switches may be mounted on the valve. They are supplied with their mounting kit for quick and easy installation.

The Series CVA Compact Valve and Actuator
Specifications - Installation & Operating Instructions

SPECIFICATIONS
Body: 1-piece.
Line Size: 3/8˝ to 2˝.
End Connections: NPT female (3/8˝ to 2˝).
Pressure Limit: 150 psig (10.3 bar).
Seals: Buna-N, Fluoroelastomer or EPDM.
Temperature Limit: Buna-N (NBR) seals: -4 to 176°F (-20 to 80°C); Fluoroelastomer seals: -4 to 302°F (-20 to 150°C); EPDM seals: -4 to 302°F (-20 to 150°C).

ACTUATORS
Pneumatic
Type: DA is double acting and SR is spring return.
Normal Supply Pressure: 43.5 psig (3 bar) for double acting; 61 psig (4.2 bar) for spring return.
Maximum Supply Pressure: 116 psig (8 bar) for double acting; 116 psig (8 bar) for spring return.
Air Connections: 1/8˝ NPT.
Air Consumption: 3/8˝: 0.73 cu. in.; 1/2˝: 1.05 cu. in.; 3/4˝: 1.90 cu. in.; 1˝: 2.45 cu. in.; 1-1/4˝: 4.58 cu. in.; 1-1/2˝: 6.70 cu. in.; 2˝: 12.75 cu. in.
Stroke Time: DA01 & DA02: .01 sec; DA03 & DA04: .02 sec; DA05: .03 sec; DA06: .06 sec; DA07: .07 sec (spring stroke) NC01 & NC02: .02 sec; NC03: .03 sec; NC04: .04 sec; NC05: .07 sec; NC06: .11 sec; NC07: .13 sec (air stroke) NC01 & NC02: .01 sec; NC03 & NC04: .02 sec; NC05: .04 sec; NC06: .06 sec; NC07: .07 sec. NO same as NC.
Accessory Mounting: NAMUR.

Note: For optimal operation, CVA valves should be run with dry, filtered compressed air, not necessarily lubricated.
Double Acting
Air to port B (the right hand port) causes the piston to open the valve. Air to port A (the left hand port) causes the piston to close the valve.

Spring Return Actuators
Normally Open: Air to port A (the left hand port) causes the piston to close the valve. Loss of air to port A causes the air to exhaust and the piston returns to the open position.

Normally Closed: Air to port B (the right hand port) causes the piston to open the valve. Loss of air to port B causes the air to exhaust and the piston returns to the closed position.

IMPORTANT
1. Check the nature of the fluid flowing into the CVA valve since it might be corrosive, toxic, inflammable, polluting, or dangerous.
2. Before disassembling the CVA valve, make sure that the air, and the electrical supplies are completely disconnected, both up and down the valve. All taps next to the CVA valve should be kept closed during maintenance procedures.
3. Before handling the CVA valve, take the following safety precautions:
   • Put on a pair of protective glasses or a safety visor
   • Put on a pair of gloves, an overall, and safety helmet
   • Make sure that running water is at hand
   • Make sure that a fire extinguisher is at hand. If the fluid is inflammable, the extinguisher will have to be suitable for it.

Disassembling The CVA Valve
1. Unscrew the sleeve (part 7). With Normally Open, or Normally Closed executions, pay attention to the pressure of the springs (part 5).
2. Remove the piston (part 2) and all of the seals; clean everything carefully, and replace the parts. If you want to replace the seat seal (part 6) unscrew the nut (part 10) counter clockwise, replace the seal and reassemble the parts putting glue “Nm045” on the thread.

MAINTENANCE
If you use a CVA valve properly, and in accordance with the instructions listed, it will be maintenance free. However, should it be necessary to replace any part, that will be easily done, by any member of your staff without any special training or equipment.

Upon final installation of the Series CVA Compact Valve and Actuator, no routine maintenance is required. A periodic check of the system calibration is recommended. The Series CVA is field serviceable but should be returned if repair is needed (field repair may void warranty). Be sure to include a brief description of the problem plus any relevant application notes. Contact customer service to receive a return goods authorization number before shipping.