



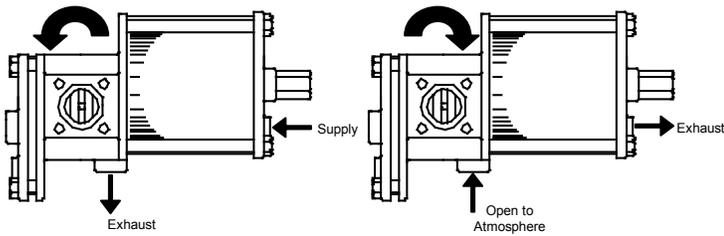
# QTRPAQ Type 'R' Stainless Steel, 1/4-turn Actuator Models R04SR30 through SR100 Installation Instructions

Rev. 090899



## Principle of Operation

The R04SR is a single acting, 1/4-turn actuator. Supply pressure is required on only one side of the piston to operate the actuator while the spring provides the necessary force for the return stroke. The supply medium enters the top of the piston through the port in the end cap. This causes a counter-clockwise motion of the actuator shaft (as viewed from the top of the actuator). When this port is exhausted, the springs generate a clockwise rotation of the shaft. Typically, when the piston is fully extended to the end cap, the valve is in the fail closed position. If fail open operation is desired, simply turn the actuator over and mount the valve to the top side of the actuator.



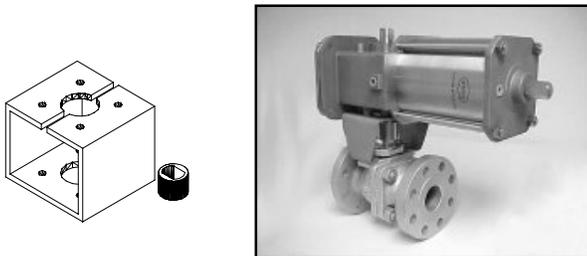
## Installation

### Out of the box

All QTRPAQ actuators from QTRCO are factory lubricated and their closed-end travel stops are pre-set to 0°. No additional modifications or settings are normally required.

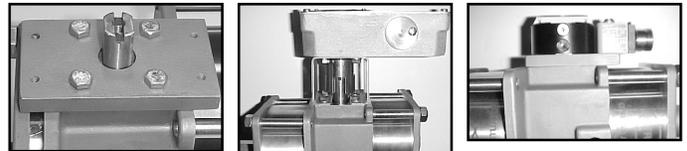
### Valve Mounting

All Type 'R' actuators with male shafts require bracket and coupler hardware to mount the actuator to the valve. Although there are many different valve mounting methods, a typical bracket and coupler arrangement is shown.



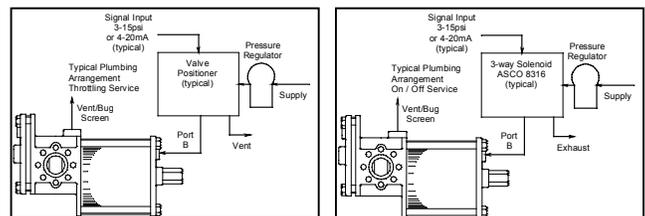
## Instrument Mounting

The R04SR utilizes a standard ISO5211 F05 bolt pattern on the top of the actuator. Most limit switch and positioner manufacturers utilize a standard NAMUR mounting pad. All QTRPAQ Type 'R' actuators have a NAMUR compliant shaft. With the use of a simple conversion plate, the top of the actuator can be made fully NAMUR compliant for direct mounting of other NAMUR accessories. For accessories that do not have a standard NAMUR footprint, a simple bracket and coupler may also be used to mount directly to the ISO5211 bolt pattern.



## Plumbing

The R04SR requires a 3-way solenoid valve for on/off service and a positioning device for throttling service. Typical plumbing arrangements are shown. For assistance on specific mounting and plumbing instructions, please contact the factory.



## Specifications

- Operating Temperature Range: -20°F to 250°F.
- Operating Fluid: air, water, gas, (oil optional).
- Max. Stroke Range: CW: 0°; CCW: 95°.
- Standard Supply Ports: 1/4" NPT.
- Spring Ranges Available: 30, 40, 60, 80, 100 psi.
- Maximum Torque Out: 328 pound inches @ 80psi.
- Mounting: ISO5211 F05 top and bottom.
- NAMUR: 80-30-20 (with NAMUR kit); 4mm slot and 6mm tapped hole provided on top shaft.