Easytork Positioner Plate IOM

General

This installation document is to be read in conjunction with the Easytork Vane Actuator IOM.

Description

Easytork's patented positioner plate ("ERPP") in conjunction with any double-acting positioners allows the EVA to achieve fail-safe functionality. For double-acting functionality, ERPP is not required

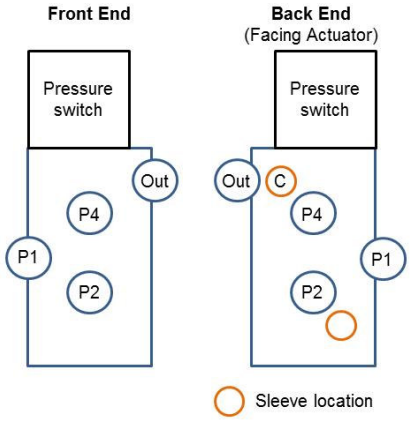
The equipment can be mounted on the destined actuator with the enclosed material.

Intended Use

Note: This manual is to be used along with the manual of the pressure switch manufacturer. This manual refers only to the mechanical part. Pressure switch manufacturer manual refers to the electrical part of the equipment.

Easytork warrants and represents only the ERPP body, and not the pressure switch. Consult with pressure switch manufacturer for additional information.

Application and Design



P1 is for the main air supply. **Out** port is to be connected to the main air inlet on the positioner. **P2** and **P4** on the front end are for interface between the positioner's *Out 1* and *Out 2*.

There is one open hole (**C**) for interface with air reservoir. The two provided sleeves should fit in the actuator's nest hole, as identified in the illustration.

Air Supply

Refer to the manual of the EVA, Pressure Switch, and the Positioner.

In fail-safe, environment air never enters ERPP through vacuum associated with spring-return actuators.

ERPP Temperatures Limitations

Refer to the manual of the EVA, Pressure Switch, and the Positioner.

It is essential to use an air dryer for the air supply to avoid any moisture for use in sub-zero Celsius temperatures.

Operation

A pressure switch connects the ERPP to the positioner. When the main air supply drops below the set point, the pressure switch will de-energize the positioner, and the ERPP will allow the actuator to go to its fail-safe position.

Ensure the set point of the pressure switch accounts for the dead band and set point repeatability.

Installation

Consult with pressure switch manufacturer and positioner manufacturer for electrical wire installation and programming between the positioner and pressure switch. This document will only cover the porting between the ERPP, EVA, and the positioner.

Piping

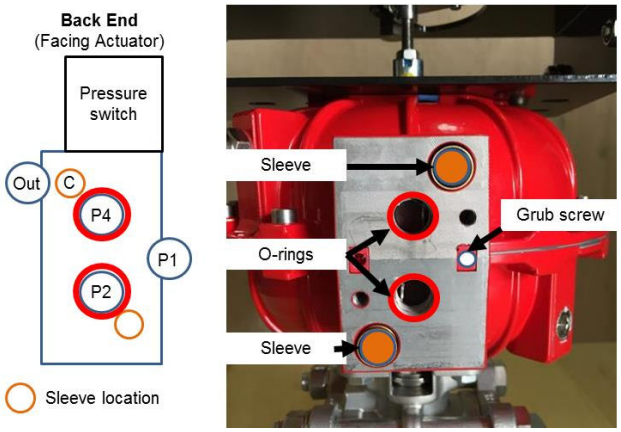
Apply pipe compound sparingly to male pipe threads only. If applied to female valve threads, the compound may enter the valve and may cause operational difficulty.

Caution: To avoid damage to the valve body, do not over-tighten pipe connections. If Teflon tape, paste, spray or similar lubricant is used, use extra care when tightening due to reduced friction.

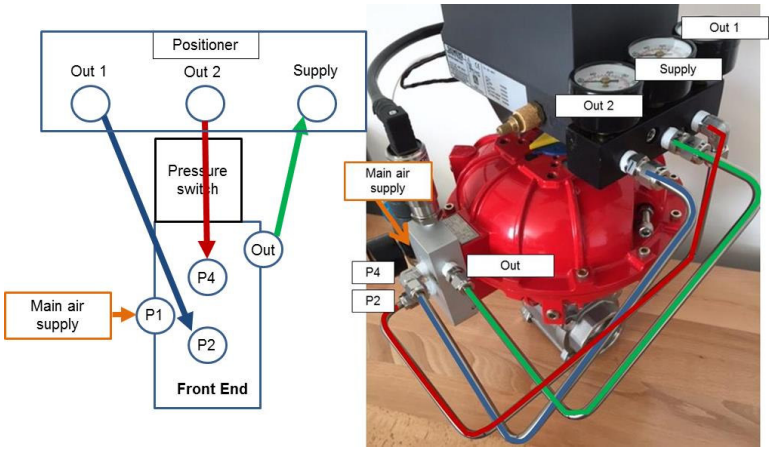
When Teflon tape, paste, spray or similar lubricant is used, make sure debris does not enter into valve body as it may system.

Note: To protect the ERPP, install a strainer or filter, suitable for the service involved, on the inlet side as close to the valve as possible. Clean periodically depending on service conditions.

1. The following illustration demonstrates the correct setup between the ERPP with the actuator. Reorient the grub screw as necessary so that the grub screw does not interfere with the orientation of the ERPP.



2. The following illustration demonstrates the correct air piping necessary to connect the ERPP with the positioner. The relative connection between P2 and P4 to the positioner's Out 1 and Out 2 are subject to user preference. Pressure entering ERPP's port 2 rotates vane clock wise, pressure entering ERPP's port 4 rotates vane counter-clockwise.



Maintenance

Provisions should be made for performing seal leakage, external leakage, and operational tests on the valve.

Caution: To prevent the possibility of a serious injury or property damage, turn off electrical power, depressurize valve, and discard vent fluid in safe area before inspecting or servicing the valve.

Preventive Maintenance

Prepare and follow a routine inspection schedule based on the media, environment and frequency of use.

The medium flowing through the ERPP should be free from dirt and foreign material. Clean the valve strainer or filter as required to keep the valve free of contamination. In extreme cases, contamination will cause faulty valve operation and the valve may fail to shift.

While in service, the valve should be operated at least once a month to ensure proper operation.

Note: Easytork's warranty and liability of the ERPP are voided if improper protection results in dirt inside the ERPP.

High Performance Butterfly Valve

The ERPP can only be used to fail-safe to close position a high performance butterfly valve when the high performance butterfly valve seat retainer is downstream. The ERPP can only be used to fail-safe to open position a high performance butterfly valve when the high performance butterfly valve seat retainer is upstream. All other setup cannot be used and will void Easytork's warranty.

TWO YEAR OR TWO MILLION CYCLE WARRANTY

Note: Easytork's warranty and liability of the ERPP are voided if there are damages caused by negligence, misuse, improper application, service or operation or lack of service of product.

EASYTORK offers a limited repair or replacement warranty on the ERPP. Simply stated, if any of Goods fails within two years or two million cycles, whichever comes first, of delivery by Distributor, despite being properly installed, operated in accordance with industry standard operating procedures, and properly serviced and maintained, EASYTORK will repair the product, or at our option replace the unit with another of equivalent material and design in exchange for the defective unit. This warranty only applies to failures due to defective materials, workmanship, or premature wear in the Goods.

Under no circumstances will EASYTORK accept responsibility or be liable for any costs other than to repair or provide a replacement of the defective Goods. EASYTORK shall not have any liability to any customer for the loss of product, loss of profit, loss of use, or any other indirect, incidental, special or consequential damages as a result of this express limited warranty.

Actuator is designed to continuously operate within 15% of specified air pressure in either DA or FS design.

EASYTORK DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER IMPLIED WARRANTY IN CONNECTION WITH THE CUSTOMER'S PURCHASE OF ANY PRODUCT UNDER THIS AGREEMENT.