

Introduction

The Actuator Position Sensor (APS-1) supplies electrical feedback from an actuator to an inlet position control. The control needs this feedback to know the position of the inlet and how far to move it.

Mounting Instructions

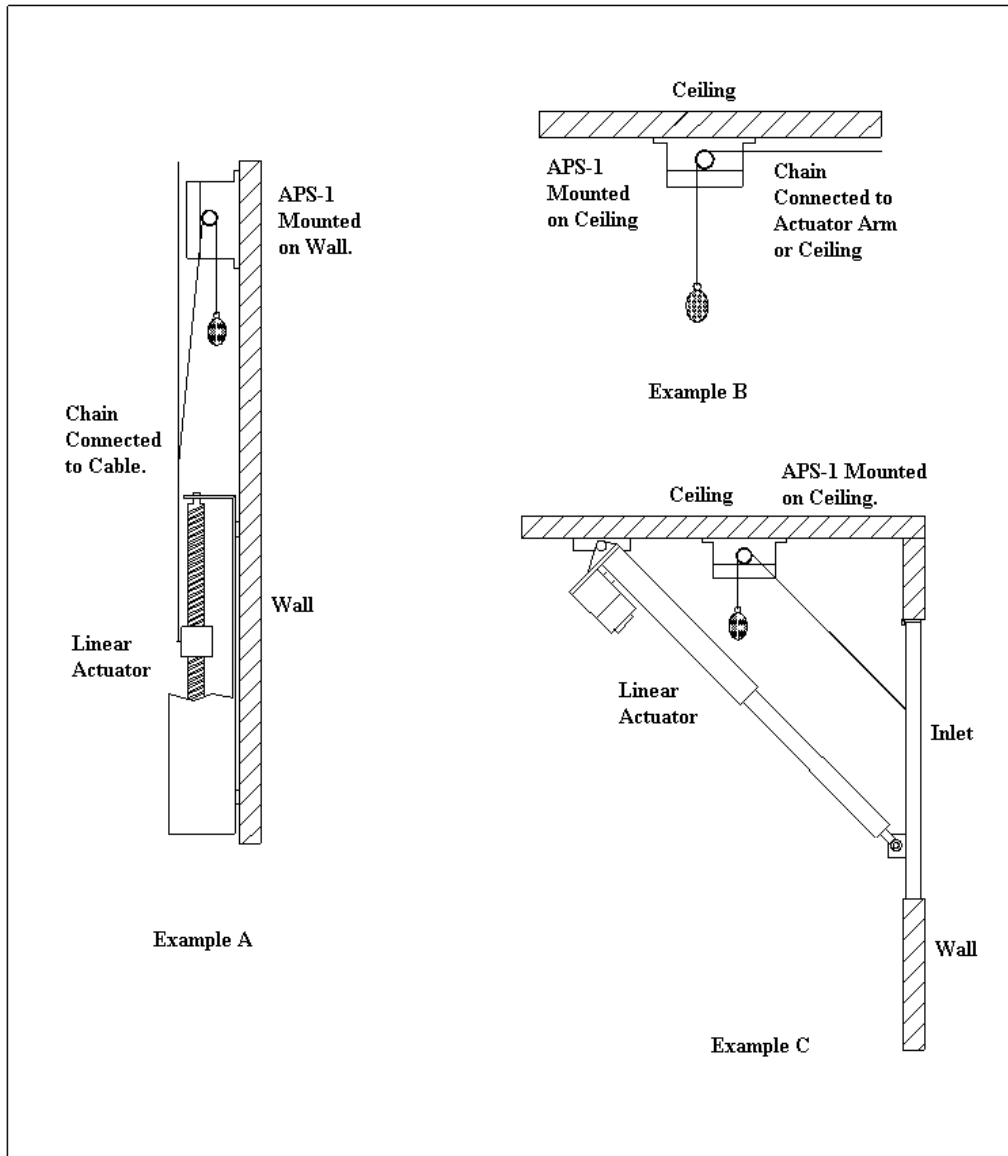


Figure 1: Sample Mounting Diagrams

Figure 1 shows three different methods of mounting the APS-1. If these methods do not suit your particular needs, connect the APS-1 to the inlet in the most suitable way to securely mount the unit.

1. Fasten the chain to the inlet system.
 - The chain can be clamped to either a cable or actuator arm.
 - If the chain is connected to a cable, the chain must be fastened so the cable does not cause the chain to twist and slip off the gear. An anti-rotation bracket may have to be mounted on the cable to prevent it from twisting.

Mounting Instructions (continued)

- Determine the length of travel for the chain and weight.
 - The chain and weight must have a straight, obstruction-free path to travel.
 - For proper operation of the APS-1, you must have a travel length of 3 to 24 inches.
 - Longer strokes provide the control with more precise feedback, resulting in smoother operation of the inlet.
- Position the gear by placing the inlet at one of its limits (fully open or fully closed).
- Determine the direction the chain will travel when the inlet moves to its other limit.
- Turn the gear all the way in the opposite direction.
- Turn the gear back about a half turn and place the chain on the gear.

Warning: The sensor will be damaged if the gear is forced to turn past its limits.

Wiring Instructions

CAUTION: Turn off the power to the control before connecting the sensor.

Warning: The APS-1 should be installed by a qualified electrician.

- Turn off the power to the control.
- Connect the center terminal of the sensor to the feedback terminal of the control using three-wire, 18 or 20 AWG cable.
- Connect the two remaining terminals of the sensor to the **+** and **-** terminals of the control.
- Turn the power on to the control and verify the sensor is connected properly.
 - The reading on the control should increase as the inlet opens. If the reading decreases, the feedback wires are connected wrong.
 - To correct this problem, turn off the power to the control and reverse the wires on the **+** and **-** terminals. This will reverse the direction of the feedback.
- Refer to your control's user manual for instructions on calibrating the inlet and preparing the control for use.

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