

CVS

Controls Ltd.

Instruction Manual

CVS 500 Limit Switch

Introduction

The CVS 500 Limit Switch is designed for valves and actuators in hazardous locations. The limit switch is CSA approved and is rated EXdIIBT6 explosion proof, zone 1, class 1, division 1.

Equipped with standard NAMUR shaft and bracket, for easy mounting to NAMUR actuators. Secure waterproof case with multi angle top and side visual indicator.

Red to indicate fully closed position, and yellow to indicate fully open position.

Available switch configurations are 2 single pole single throw, through 4 single pole double throw. Optional proximity sensors also available.



Features

- Die cast, powder coated aluminum housings
- Multi angle visual valve position from both sides and top view
- Spring loaded splined "Quick Set" cam. Eliminates the need to re-adjust after initial setting.
- Dual cable entries: 2x3/4 g
- NAMUR Standard shaft and bracket
- Explosion proof, ExdIIBT6, weather proof.
- Multi point terminal strip
- Low Temperature rating to -40°C

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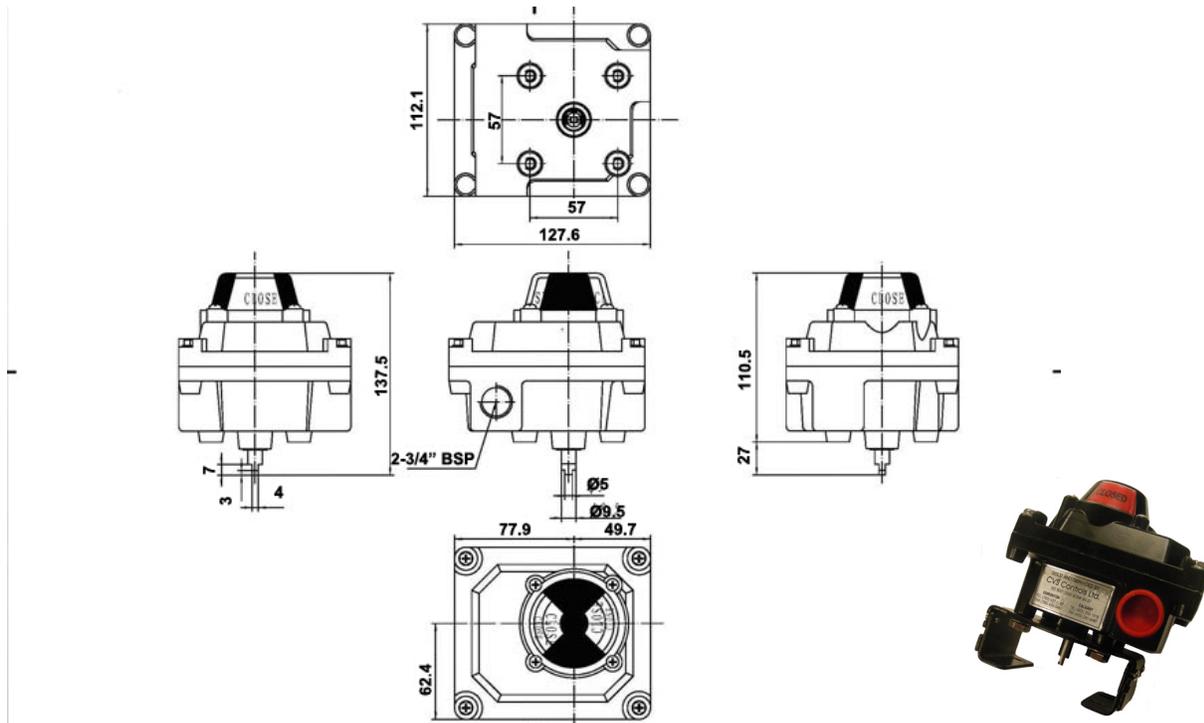
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SPECIFICATIONS

Dimensions-(mm)



Installation

The CVS Limit Switch uses NAMUR standard shaft and mounting bracket. Suitable for various applications, without the need for further modification.

Ensure all supply pressure to the valve, actuator, and other related devices is off prior to installation.

Install NAMUR mounting bracket using supplied fasteners. Determine correct application height and install side mounting brackets accordingly.

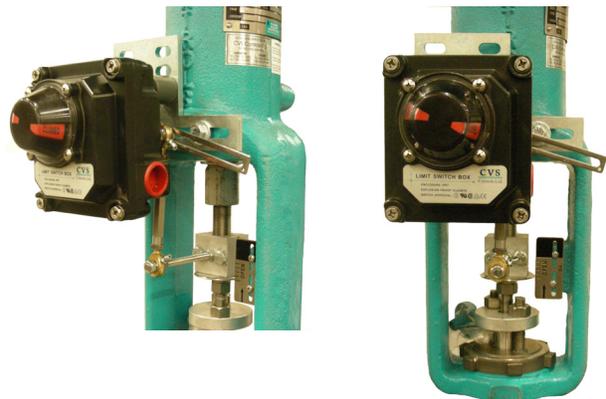
Install assembled CVS 500 Limit Switch and Bracket to valve or actuator accordingly.

Linear connections are made via a linear feedback arm. According to the stroke of the linear feedback arm, the open and close position of the CVS 500 is easily set.

Adjustments can be made accordingly through the quick set cams.



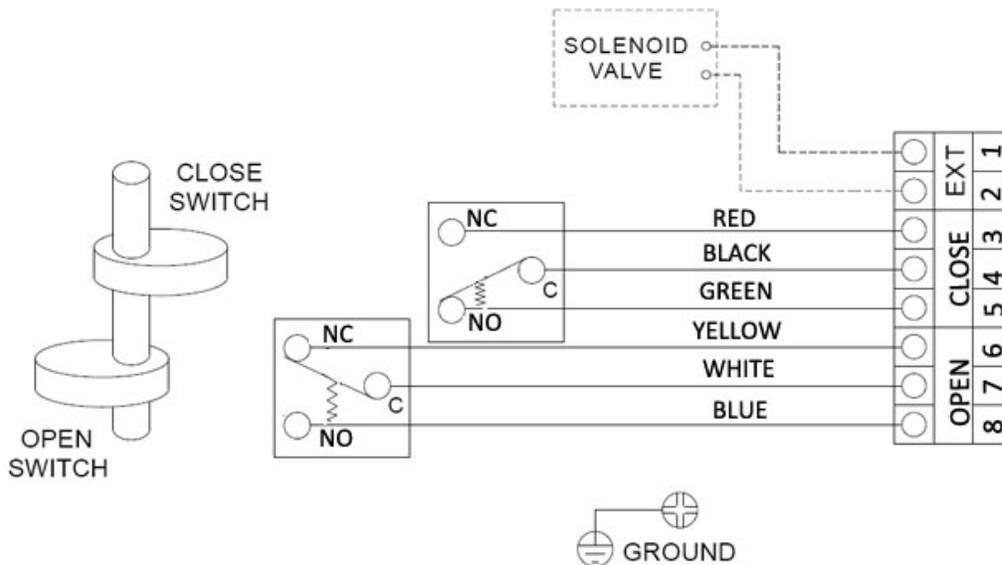
CVS 140SR Rack and Pinion Actuator with CVS 500 Limit Switch



CVS Linear Actuator with CVS 500 Limit Switch

Wiring

(2 SPDT) WIRING DIAGRAM



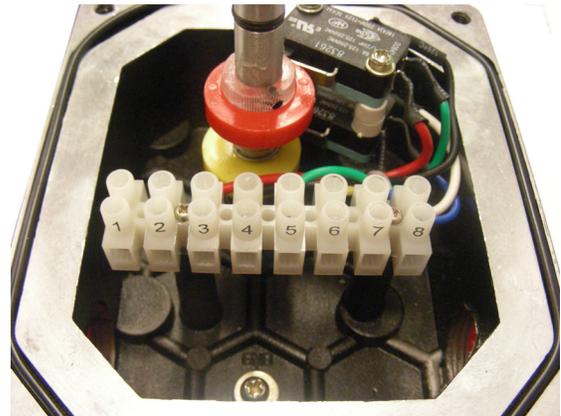
Standard CVS 500 Limit Switch is 2 Single Pole Double Throw(0.6A 125Vdc, 0.3A 250VDC, 16A 125/250VAC) and optional proximity sensors (P16AM-D3N: 8~30VDC, <=150mA or P&F sensors NJ2-V3-N: 8VDC, detected<=1mA, not detected>=3mA)

Additional configurations through to 4 Single Pole Double Throw available. Contact a CVS controls representative for more information.

Prior to wiring the CVS 500 Limit Switch, ensure no explosive gas or material is present.

Ensure all power has been turned off.

For power connections that are unused, use blind plugs which are explosion proof certified.

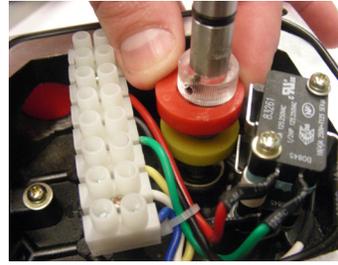


“Quick Set” Cam Adjustment

Additional adjustments should not be required after initial setting. However, should there be a need to make further adjustments to the CVS 500 Limit Switch, this is easily done at the field level with only a Phillips screwdriver to remove the cover.

Once open, adjustment to fully closed (red cam) may be made by depressing the cam and turning in either direction to obtain necessary adjustment.

The same may also be done for fully open (yellow cam) by lifting the cam and rotating. Cams are on a spring loaded splined shaft and will re seat when let go.



NOTES:

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