

AVID

Installation and operating instructions for AVID CR position monitors with SDPT V3 microswitches or V3 inductive proximity sensors

1.0 Mounting instructions

Note: All AVID CR switchboxes are factory equipped with Pentair direct and Namur mounting.

- 1.1 Please refer to the figures 1 and 2 below to determine the type of mounting that is required. Figure 1 indicates the conventional Pentair direct mount and figure 2 details the Namur option.

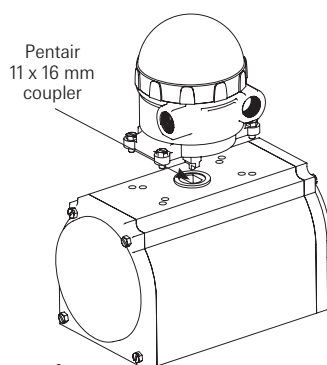


Figure 1

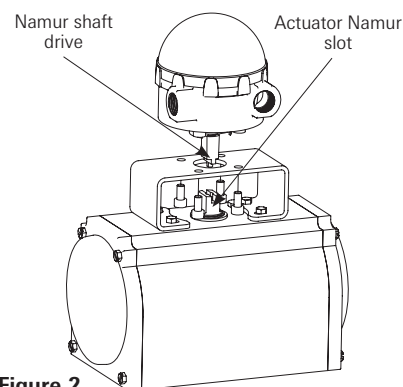


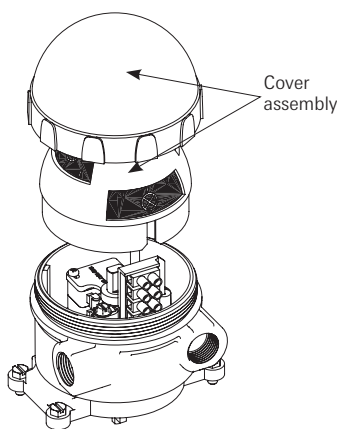
Figure 2

- 1.2 Operate the actuator to the fully closed position.
- 1.3 Direct mount – mount the CR switchbox to the actuator by aligning the 11 x 16 mm shaft adaptor to the actuator pinion coupler.
- 1.3a Secure the ModMount bracket using the 4 off supplied M5 x 16 mm socket head caps screws (S.H.C.S) using a 4 mm A/F Allen key.
- 1.4 Namur mount – secure the appropriately sized Namur bracket using the screws / washers supplied with the Namur kit. Mount the CR switchbox to the mounting bracket by engaging the Namur shaft drive into the actuator pinion slot.
- 1.4a Secure the CR switchbox using the 4 off M6 x 10 mm hex head screws using an 8 mm A/F spanner.

2.0 Cover removal

- 2.1 Remove the CR cover assembly by unscrewing in a counter clockwise direction. The cover assembly consists of the inner and outer visual indicators and the indicator to shaft coupler.

Note: Take care when storing the CR cover assembly as this will be required when reassembling. Any damage to the assembly may affect the ingress protection of the enclosure.



3.0 Field wiring

Attention

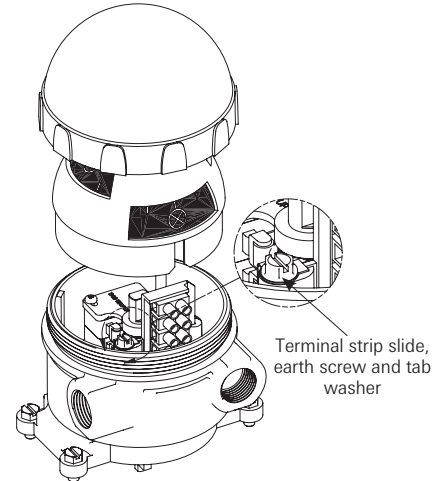
Before installing the conduit entry gland, please ensure that it is the correct size and thread form. The incorrect gland will affect the enclosure ingress protection.

- 3.1 To remove the terminal strip slide first release the green 8-32 UNC earth screw by approx one full turn. Then rotate the tab washer so that the small tab allows the terminal strip slide to move vertical.

Attention

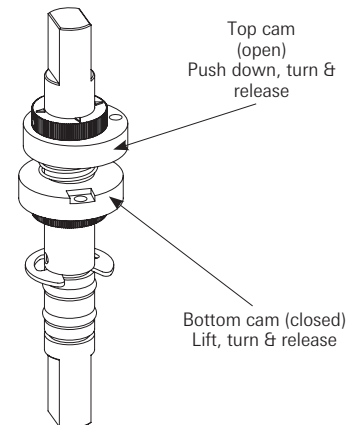
The wiring diagram for the model ordered will be on the reverse of the terminal strip slide.

- 3.2 Secure the field wiring by tightening the conductors in the left hand side of the terminal strip corresponding to the switch / sensor wires.
- 3.3 Insert the terminal strip slide into the enclosure by simply lining up runners into the guide slots. When fully home rotate the tab washer so that the small tab is over the terminal strip slide runner. Secure by hand tightening the earth screw using an appropriately sized screw driver or 1/4" A/F socket drive.
- 3.4 Before proceeding with the switch / sensor cam setting, ensure that the switch / sensor wires are neatly positioned between the wire barrier and enclosure wall.



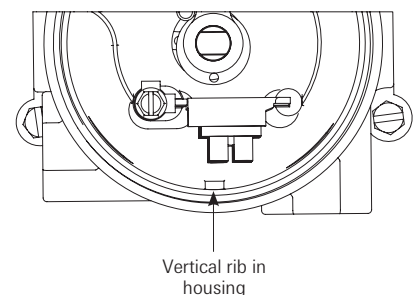
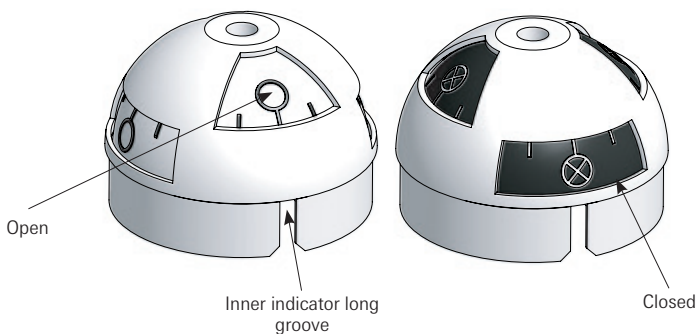
4.0 EasiFix cam setting

- 4.1 To set the switch or sensor cam, lift the bottom cam and turn until switch / sensor is activated and then release. The spring will push the cam back onto the splined shaft.
- 4.2 Operate the actuator to the opposite extreme, push down on the top cam and turn until the upper switch / sensor is activated.
- 4.3 Operate the actuator from one extreme to the other several times to ensure that the switches / sensors activate correctly.



5.0 Cover assembly

- 5.1 To aid the assembly of the cover orientate the cover assembly coupler so that the flats are in line with the long vertical groove in the inner indicator.
- 5.2 Align the vertical groove of the inner indicator with the vertical rib in the housing positioned behind the terminal strip.
- 5.3 Rotate the cover in a clockwise direction whilst pushing the cover assembly towards the housing. This action will engage the cover assembly coupler onto the shaft.
- 5.4 Tighten the cover to the housing to a hand tight feel.



6.0 Ready for use

- 6.1 The CR switchbox is now ready for use.
- 6.2 If there are any un-used conduit entries, please ensure that they are plugged using correctly rated IP blanking plugs.

7.0 Technical data

Area classification - non hazardous
 Ingress protection - IP66

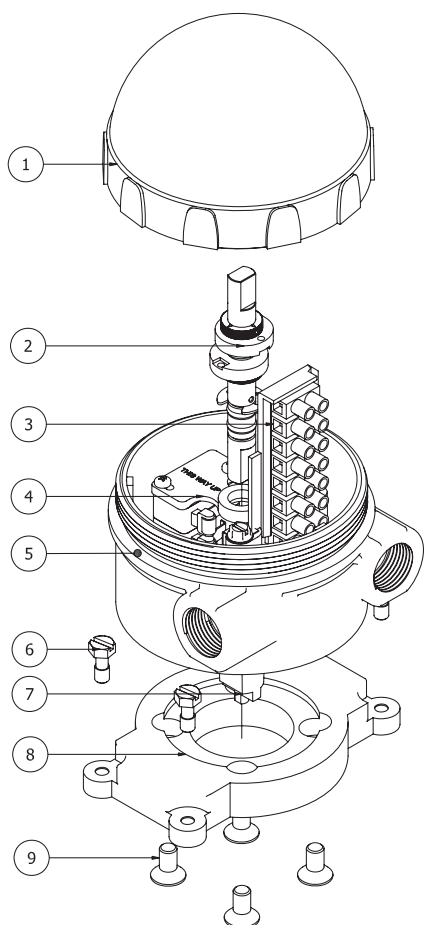
Switch / sensor options

Mechanical switch - SPDT form C,
 Electrical rating - 24, 48, 110 & 240 VAC / 15 Amps,
 24 VDC / 15 Amps
 48 VDC / 2.5 Amps

Alternative inductive proximity sensors; P&F - NJ2-V3-N, NBB3-V3-Z4, NBB2-V3-E2
 IFM - IS5026, IS5001, IS0003, IS5003, NS5002
 Turck - Bi2-Q10S-AP6X, Bi2-Q10S-YOX
 Telemecanique - XS7-H10PA340

Terminal strip – Weco 302 HDS, 6 or 8 points
 Conduit options – up to 2 x M20 x 1.5p or 1/2"-14 NPT
 Ambient temperature range – minus 20°C to +80°C

Note: For CR switchbox wiring diagrams, please visit www.pentair.com/valves



Item #	Qty	Description
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1	1	Cover assembly with HiVue indicator
2	1	Shaft assembly with NBR 'O' rings
3	1	Terminal strip & switch assembly
4	1	Switch to shaft support plate
5	1	Housing with EPDM 'O' ring
6	4	Actuator mounting screws
7	4	Namur & 11 x 16 mm shaft coupler
8	1	ModMount bracket
9	4	Bracket to housing screws

Note: Pentair do not offer replacement assemblies for the CR switchbox.

Overall dimensions (mm)

