

Limit Switch Installation & Operation Manual

CCAF, CCSF Series

⚠ WARNING

1. Only suitably trained personnel shall carry out installation in accordance with applicable code of practice.
2. To avoid serious or fatal personal injury or major property damage, read and follow all the instructions in this manual.
3. Hazardous voltage, disconnect all power before servicing equipment.
4. Do not exceed the electrical rating stated on label.
5. Conduit plugs supplied are for transit purpose only, remove them and install conduit or plugs suitable for protection required.
6. Save this instruction.
7. To maintain the NEMA 4 rating, the use of proper wiring methods per NEC and local codes is required.

Hazardous areas: Non-incendive Class I, Div 2, Groups A, B, C, D; Class II, Div 2 Groups F, G only with proximity switches Type 10, 13, 14, 15, 16, 17 or 18:
THE FOLLOWING STATEMENTS MUST BE RESPECTED FOR HAZARDOUS AREA APPLICATIONS

⚠ A. WARNING-EXPLOSION HAZARD - SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2.

⚠ B. WARNING-EXPLOSION HAZARD - DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NON-HAZARDOUS.

⚠ C. ALL WIRING OF THESE DEVICES MUST BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE ARTICLE 501.10(B) FOR CLASS I, DIVISION 2.

INSTALLATION

1. Attach proper mounting bracket (1) to the switch box housing (4) using four M6x8 socket head cap screws (2) provided.
2. Align switch box shaft (5) to top of actuator shaft and engage it.
3. Attach bracket to actuator using hardware provided (finger tight only).
4. By actuating package the switch and actuator will self align.
5. Tighten bracket to top of actuator.

SWITCH ADJUSTMENT

1. Loosen switch box cover screws (8) and remove cover (7).
2. Rotate actuator clockwise.
3. Push down top cam (5b) and turn until switch is activated and then release. Engage cam (5b) back onto the splined retainer. Spring will maintain cam engagement.
4. Rotate actuator counter-clockwise.
5. Lift up bottom cam (5a) and turn until switch is activated and then release. Engage cam (5a) back onto the splined retainer. Spring will maintain cam engagement.
6. Align cover box shaft (15) to switch box shaft (5) and engage it. (Take care to ensure that cover gasket seal (6) is properly located in seal groove).
7. Tighten screws (8) to fix box cover on switch box body.

3D INDICATOR SETTING

1. Remove four screws (13) and remove 3D indicator's cover (12).
2. Remove screw (10) and lift up 3D indicator from its splined retainer.
3. Set 3D indicator (9) on splined retainer according to valve position.
4. Fix 3D indicator (9) screwing the (10) screw.
5. Replace 3D Indicator cover (12). **⚠ WARNING:** check seal (11) is properly fitted in slot.
6. Place cover on switch box and tighten (see switch adjustment section 6, 7).

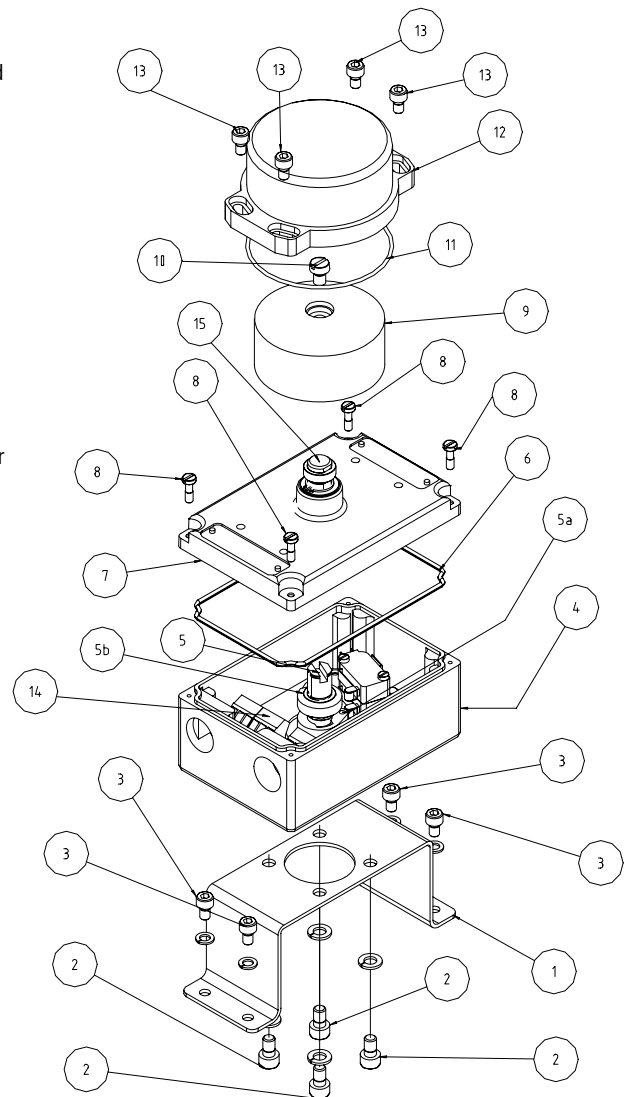
ELECTRICAL WIRING

1. Remove switch box cover (7) (see switch adjustment sections 1).
2. Remove protection plugs from conduit entries and install conduit or plugs suitable for type of protection required.
3. Engage wires in terminal strip (10) using a small screwdriver (1/8" blade).
4. Place cover on switch box and tighten (see switch adjustment section 6, 7).

FOR WIRING DIAGRAM REFERS TO LABEL INSIDE THE HOUSING.
 FOR SWITCHES ELECTRICAL RATING REFERS TO LABEL OUTSIDE THE HOUSING.

CRANE Customer Service

3671 New Town Blvd. • St. Charles, Missouri 63301
 Tel: +1-636-688-8750 • Fax: +1-636-688-8755 • www.craneenergy.com



CRANE[®]

Energy Flow Solutions

Limit Switch

Installation & Operation Manual

CRANE Energy Global Headquarters

19241 David Memorial Drive, Suite 150
Shenandoah, Texas 77385
Tel: +1-936-271-6500
Fax: +1-936-271-6510

CRANE Energy Customer Service

3671 New Town Blvd.
St. Charles, Missouri 63301
Tel: +1-636-688-8750
Fax: +1-636-688-8755

www.craneenergy.com

CRANE Energy Flow Solutions[®]

brands you know...technology you want...solutions you need



Ball, Check, Corrosion Resistant Gate and Globe Valves



Lined Check and Resilient Seated Butterfly Valves

CRANE[®]

Ball, Bronze, Butterfly, Cast Steel, and Iron Valves

DUO-CHEK[®] UNI-CHEK[®]

High Performance Wafer Check Valves



High Performance Butterfly and Metal Seated Valves



Ball, Bronze, Butterfly, Cast Steel, and Iron Valves



KROMBACH
ARMATUREN

Valve System Solutions, Highly Engineered Specialty Valves

NOZ-CHEK[®] COMPAC-NOZ[®]

Nozzle-Type, Severe Service Check Valves



High Pressure and Severe Service Valves

STOCKHAM[®]

Ball, Bronze, Butterfly, Cast Steel, and Iron Valves



Cast Steel Valves

VALVE SERVICES

Certified Valve Repair Services

Aloyco, Center Line, Compac-Noz, Crane, Duo-Chek, Flowseal, Jenkins, Krombach, Noz-Chek, Pacific, Stockham, Triangle, and Uni-Chek are all trademarks of Crane Co. ©2010

EG-CR-FE-EN-L99-36-1003 (CV-1005)