

# **Installation Operation Manual**

## **OS009 Series Switch Box**

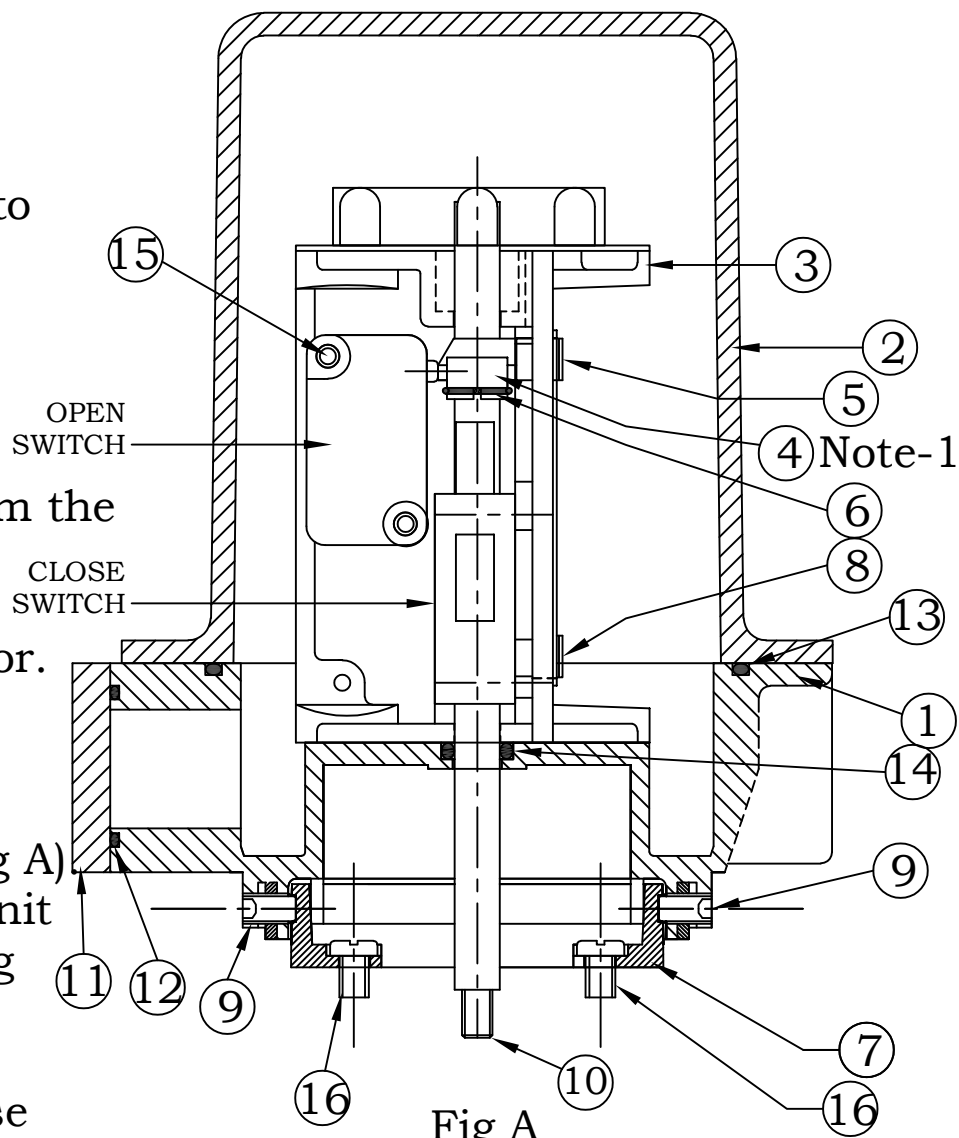
### **General**

OS009 Series Switch box is designed to mount on CRANE EC/SSC/S360 Actuators.

**WARNING: Disconnect electric supply before removing switch box cover!**

### **1.Installation**

- 1.1.OS009 series switch box to be mounted onto the actuator using a mounting ring (7) inbetween actuator and switch box.
- 1.2.Remove the thread protection buttons from the mounting holes and indicator on top of EC/SSC/S360 actuator.
- 1.3.Fasten the mounting ring(7) to the actuator with the two M4x8 screws(16)provided(Fig A)
- 1.4.Place the switch box unit over the mounting ring and rotate it to the desired position.
- 1.5.Tighten the four M4(use 2mm allen key) grub screw(9) on the side wall of switch box base.



**Fig A**

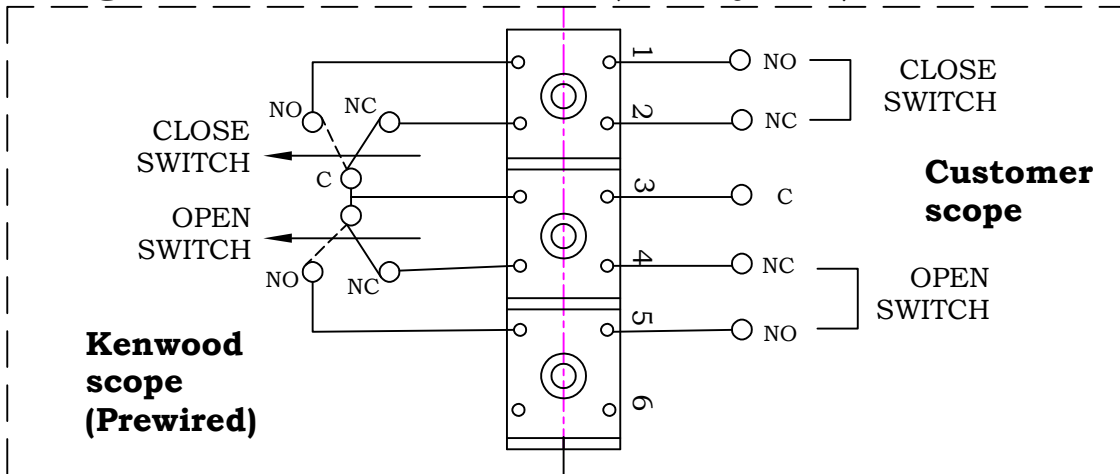
Note-1. Part No.4 is applicable for proximity sensors only

*USER INSTRUCTION*

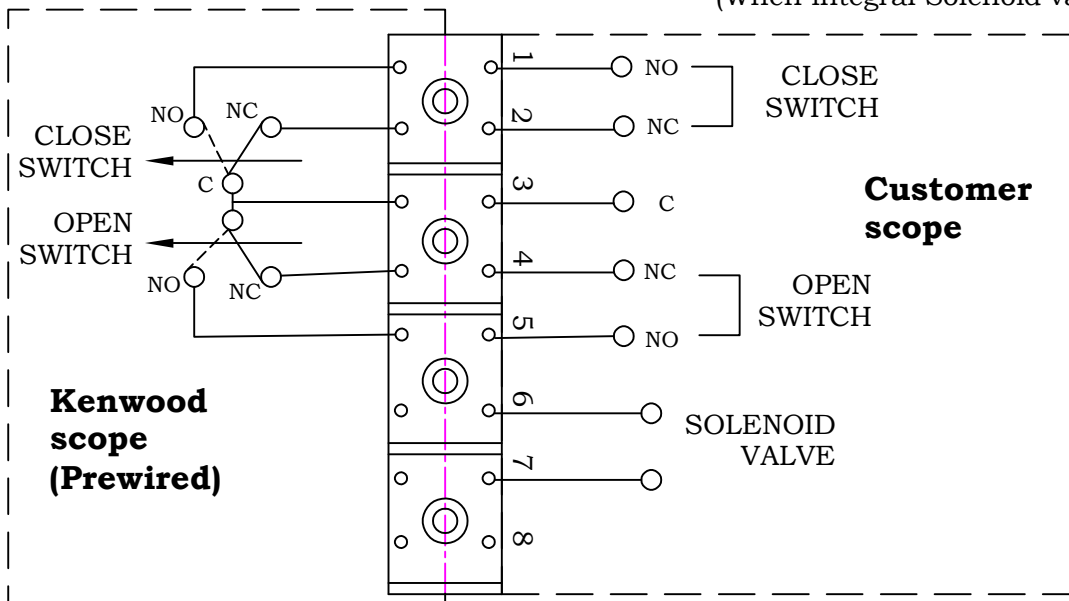
- 1.6.Remove the cover(2).
- 1.7.Press the spindle(10) down until it reaches the actuator indicator.  
Tighten the spindle onto the tip of actuator indicator by using screw driver.

**2.Electric wiring**

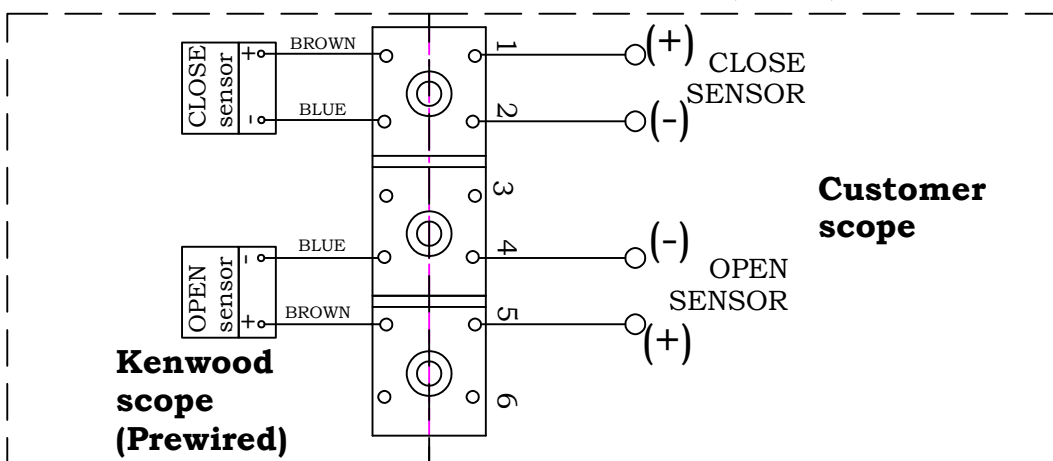
2.1.Wiring for Mechanical switch(Honeywell).



2.2.Wiring for Mechanical switch(Honeywell) and Solenoid valve.  
(When integral Solenoid valve is provided)

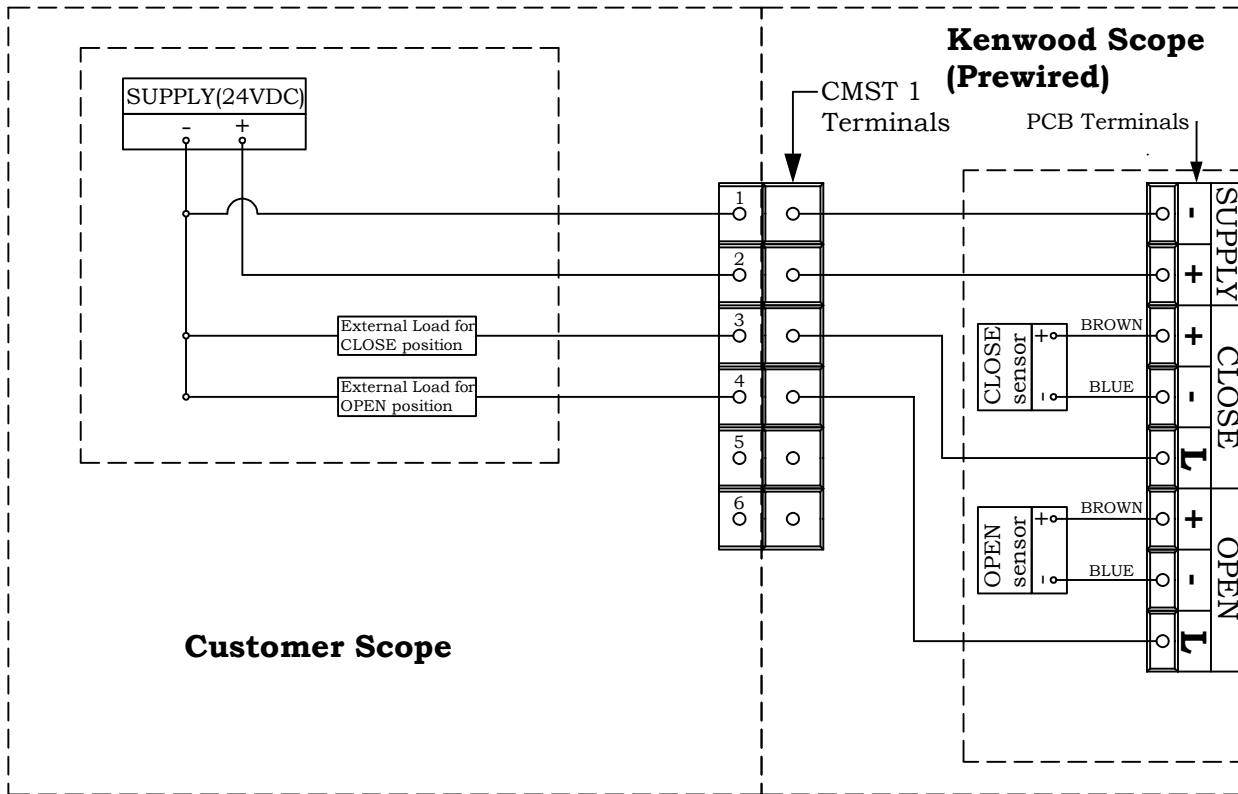


2.3.Wiring for 2 Wire Proximity sensor(P&F) 5 to 60VDC.

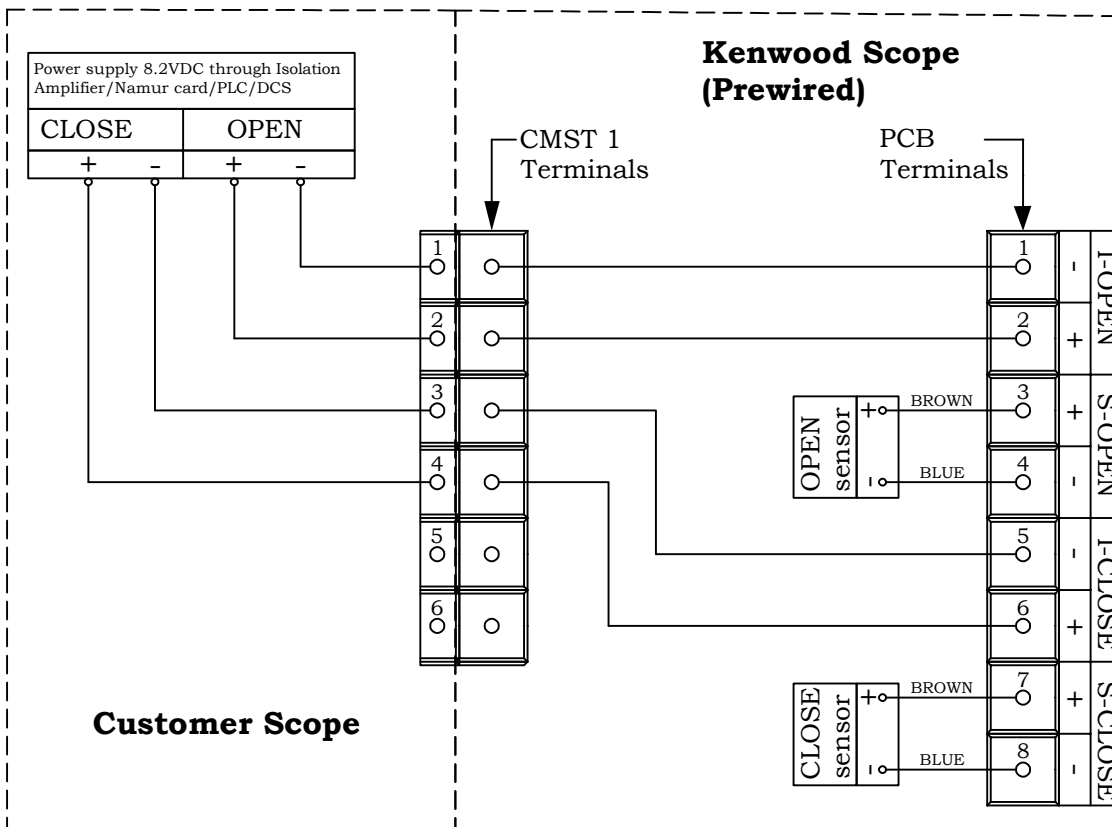


## USER INSTRUCTION

### 2.4. Wiring for 2 Wire Proximity sensor(P&F) with LED indication 24VDC

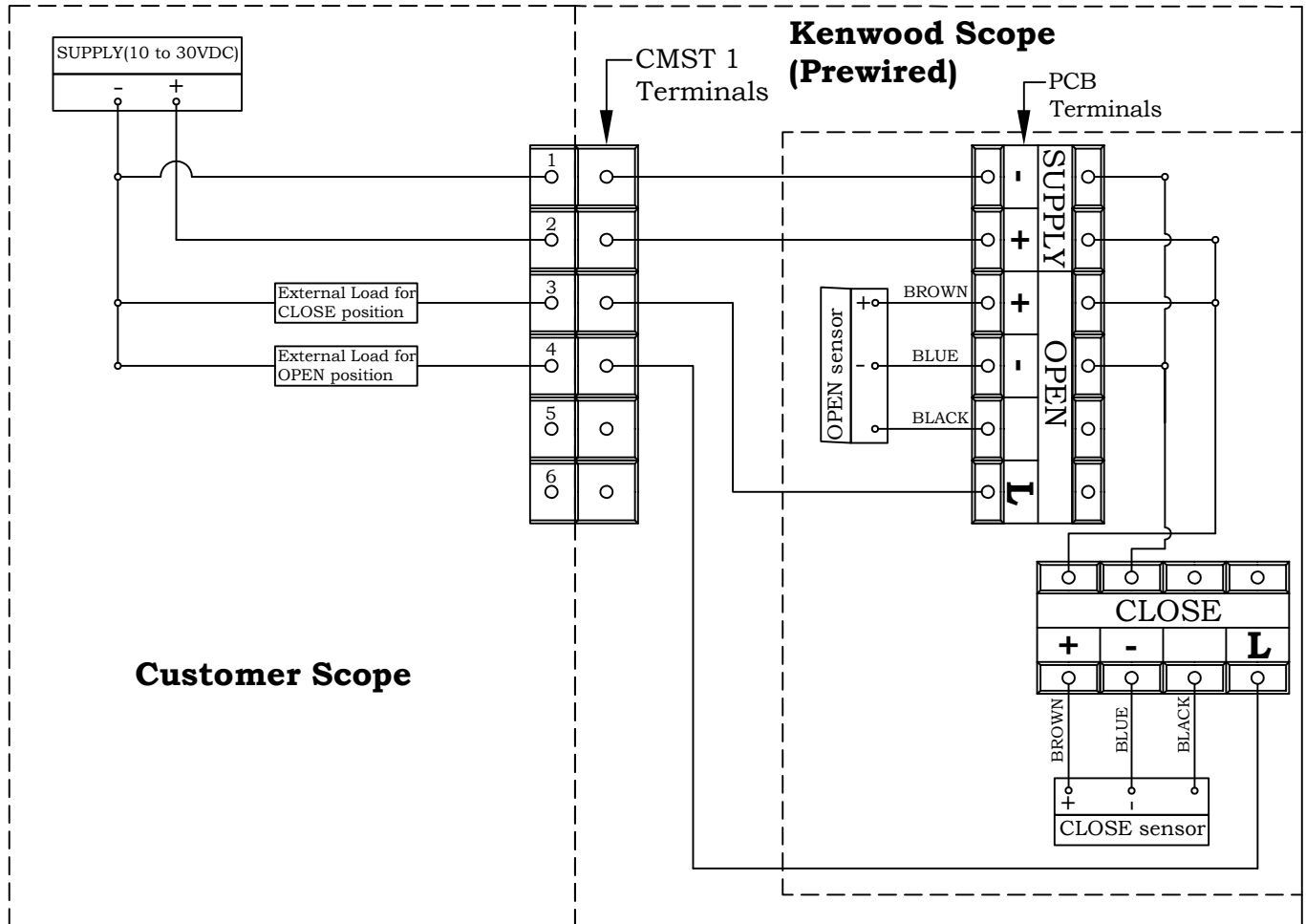


### 2.5. Wiring for 2 Wire NAMUR/Intrinsically safe, 8.2VDC Proximity sensor(P&F) with LED indication



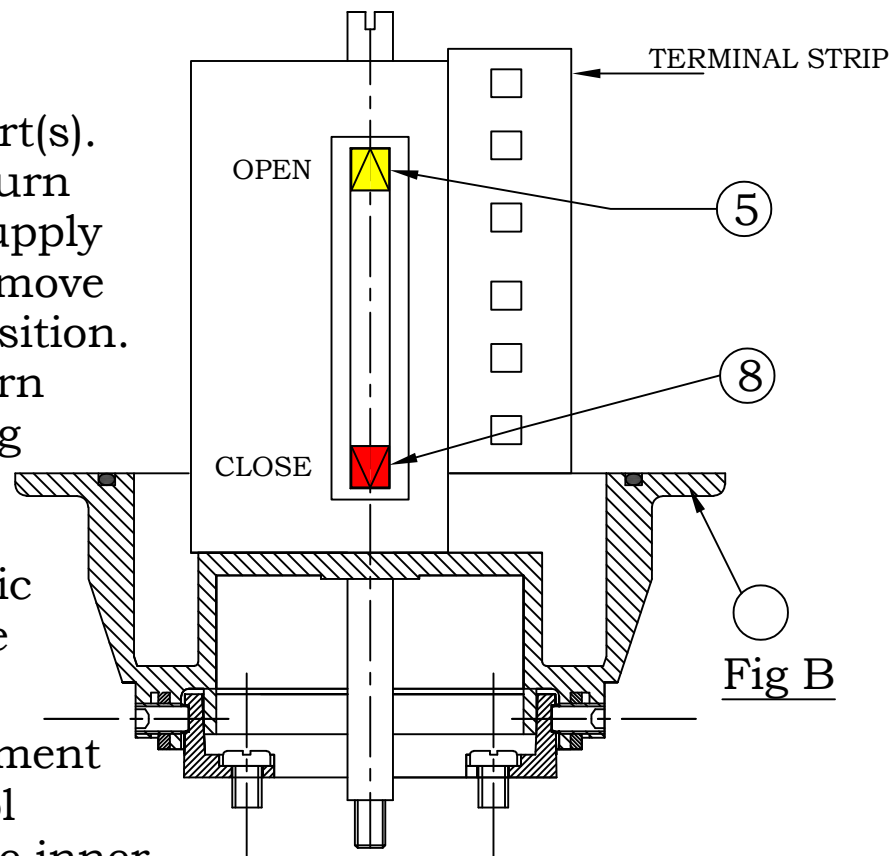
*USER INSTRUCTION*

2.6. Wiring for 3 Wire Proximity sensor(P&F) with LED indication



**USER INSTRUCTION****3. Switch setting**

- 3.1. Connect the pneumatic supply to the actuator port(s).
- 3.2. For 'fail closed' spring return actuator isolate the air supply allowing the actuator to move the valve to the closed position. For 'fail open' spring return actuators or double acting actuators, pressurize the upper chamber of the actuator (upper pneumatic connection) to moving the valve to closed position.



- 3.3. With the use of an instrument screwdriver or similar tool apply light pressure to the inner face of the RED switch striker(8) shown (Fig-B) and move it until it butts up against the end of slot in the bracket adjacent to the "CLOSE" text and move YELLOW switch striker(5) against the opposite end of slot adjacent to the "OPEN" text.
- 3.4. Operate the actuator through one full stroke. The unit is now set.
- 3.5. Check whether the striker(8) presses the microswitch when the valve is Close and striker(5) presses the microswitch when the valve is Open. If not, adjust the striker, such a way that the microswitches are pressed at respective positions. Even the switches can be moved toward the strikers by loosening the switch screws(15) and pushing the switches towards strikers.

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