Level Sensing

Thread switch until it bottoms in well

2S

Mounting well

>3S

Well thread

Hopper (metal or plastic)

Switches must be installed as far as possible into the medium for reliable detection

Minimize airgap as much as possible for good contrast

Use sightglass no more than 5mm thick (0.20")

Sightglass (plastic or glass)

S = nominal sensing range

Position Sensing

8xS

maximum threaded length do not exceed
b = 18mm – 8mm
30mm – 16mm

b

3xS

2xS

3D

2xD

background material

2S

metal mount

S = nominal sensing range

D = switch diameter

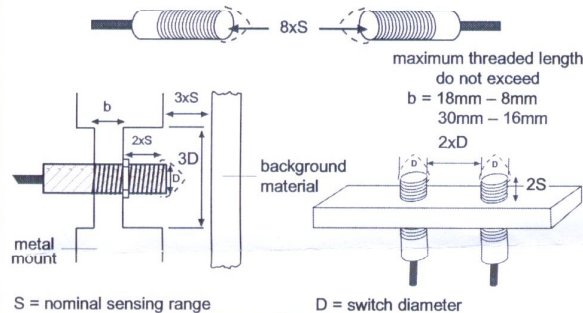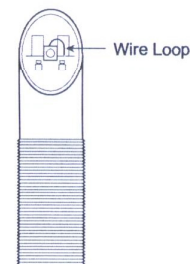## Normally Open Sensor Adjustment

All capacitive switches have a potentiometer which allows switch sensitivity to be adjusted for the best results. To establish the proper sensitivity for a particular set of target conditions, follow these procedures.

1) Mount the switch in the application. Set up the worst case conditions which can cause a false "ON" signal. As an example, assume the switch is being used to sense the level of a liquid through a sight glass. The worst case condition exists when moisture is present on the inside surface of the glass. Turn the potentiometer clockwise (CW) until the LED is ON, then turn the potentiometer counterclockwise (CCW) until it just turns OFF.

2) Bring the target into position. In the example, bring the water above the level of the switch. The LED should be ON. Turn the potentiometer CCW and count the number of turns until the LED turns OFF.

3) Turn the potentiometer CW for 1/2 the number of turns counted in step 2. For example, if it took 4 turns CCW to have the LED go OFF, now turn the potentiometer to 2 turns CW. The switch will now be set.

Normally Closed Sensor Adjustment

All capacitive switches have a potentiometer which allows switch sensitivity to be adjusted for the best results. To establish the proper sensitivity for a particular set of target conditions, follow these procedures.

1) Mount the switch in the applicaton. Set up the worst case condition which can cause a false "OFF" signal. As an example assume the switch is being used to sense the level of a liquid through a sight glass. The worst case condition exists when moisture is present on the inside surface of the glass. Turn the potentiometer clockwise (CW) until the LED is OFF, then turn the potentiometer counterclockwise (CCW) until it just turns ON.

2) Bring the target into position. In the example, bring the water above the level of the switch. The LED should be OFF. Turn the potentiometer CCW and count the number of turns until the LED turns ON.

3) Turn the potentiometer CW for 1/2 the number of turns counted in step 2. For example, if it took 4 turns to have the LED go ON, now turn the potentiometer 2 turns CW. The switch will now be set.

90° Mounting

1) Loosen screw with a screwdriver.
2) Separate the black rear of the switch from the orange front of the switch.
3) Reattach the black rear of the switch to the orange front of the switch as shown for 90° mounting.
4) Tighten the screw with the screwdriver.

Screwdriver

Screw

Screwdriver

Screw

Normally Open / Normally Closed Programming

1) Loosen screw with a screwdriver.
2) Separate the black rear of the switch from the orange front of the switch.
3) This product is manufactured normally open. To convert the switch to normally closed operation, cut the wire loop
4) To return to normally open operation, solder the wire loop together.
5) Reattach the black rear of the switch to the orange front of the switch and tighten screw.

Wire Loop

Electrical

DO NOT operate an incandescent light bulb as a load. The current inrush when the bulb is cold can cause a current overload.

DO NOT operate a proximity sensor directly from a voltage supply without a load. This is considered a short circuit and can cause damage.