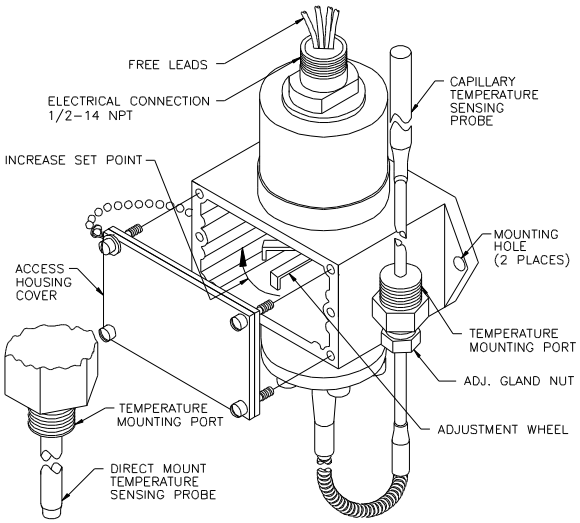
CUSTOM CONTROL SENSORS, INC.

646T INSTALLATION INSTRUCTION



General:

a. Observe all Warnings and Cautions contained on the attached Warning Sticker, the Warning Declaration and the CCS Catalog.

b. Follow all applicable Governmental or other Codes or Regulations such as, but not restricted to NEC, ASME, CSA and OSHA.

Mounting:

a. Units may be mounted in any position. On a flat surface using (2) mounting holes provided and 1/4" screws at least 1/4" long.

Warning: Cool all sensing areas to a safe temperature prior to installation or removal of this device. Do not exceed nameplate listed proof temperatures and pressures.

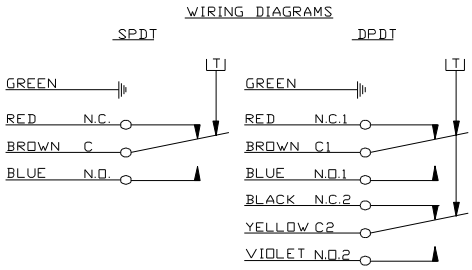
a. Units are supplied with male NPT temperature ports suitable for connection to NPT Thermowells or NPT taper threaded pipe. Capillary models are provided with an adjustable gland nut for positioning of the temperature sensing probe.

b. If a Thermowell is used pipe sealing compounds are usually not required. Pipe joint sealing compound is preferred over Teflon tape. However, either method of sealing is acceptable with proper care to avoid introducing sealing material into plumbing.

Electrical Connections:

WARNING: Do not make electrical connections while electrical power is ON.

a. Electrical conductors are provided within a 1/2" NPT male conduit connection. Flexible conduit is recommended.



b. When making wire connections disconnect electrical power. Check for multiple circuits.

c. Make electrical connections in accordance with the NEC and all other appropriate codes and regulations. Keep as much wire as possible for a service loop to facilitate service, see wiring diagrams.

Note: Circuitry coding is provided on wires for proper electrical connection - see wiring diagrams.

d. Grounding: Proper grounding must be accomplished by use of green ground wire provided.

Adjustment: (Not applicable if units are factory set) Temperature settings are externally adjustable.

a. Remove access cover. Adjust wheel as illustrated.

- Clockwise to increase settings.
- Counterclockwise to decrease setting:

b. If the electrical circuit cannot be used for testing disconnect electrical power and use a suitable circuit tester or light box.

c. Immerse **only** the temperature sensing probe of the switch in a suitably agitated fluid. In an approved temperature calibration bath. Consult the manufacturer of the bath for a suitable fluid for the temperatures to be encountered. Stabilize the bath at the desired set point temperature and adjust the adjustment wheel so that unit just actuates. Verify the set point by decreasing the temperature below the reset point and slowly increasing the temperature through the set point.

d. Re-install access cover.

e. Reconnect electrical circuit.

f. Return power to unit.

WARNING DECLARATION

If this switch is used to protect equipment or personnel from unsafe pressure or to guard against the hazardous release of contained substances it must be installed and operated in accordance with applicable codes, regulations and standards. This switch must be used in conjunction with system design(s) or procedure(s) necessary to mitigate any hazard resulting from its failure. Conform to installation instructions accompanying this switch. Individuals who ignore this warning may suffer serious or fatal injury and do so at their own risk. Custom Control Sensors is not liable for any misuse, abuse, suitability or adequacy of user's application of the switch. Service by qualified personnel only.