

## 25 Series Pressure Switches




UNITED ELECTRIC  
CONTROLS


### Installation and Maintenance Instructions

Please read all instructional literature carefully and thoroughly before starting. Refer to the final page for the listing of Recommended Practices, Liabilities and Warranties.

#### GENERAL


 BEFORE INSTALLING, CHECK THE SENSOR MODEL SELECTED FOR COMPATIBILITY BETWEEN THE PROCESS MEDIA AND THE SENSOR AND WETTED PARTS.

The 25 Series offers external set point adjustment and internal deadband adjustment. As pressure changes, a diaphragm actuates a single snap acting switch at a pre-determined set point. Control set point may be adjusted by turning the external screw (see Part II - Adjustments).

 PROOF PRESSURE\* LIMITS STATED IN THE LITERATURE AND ON NAMEPLATES MUST NEVER BE EXCEEDED, EVEN BY SURGES IN THE SYSTEM. OCCASIONAL OPERATION OF UNIT UP TO PROOF PRESSURE IS ACCEPTABLE (E.G., START-UP, TESTING). CONTINUOUS OPERATION SHOULD NOT EXCEED THE DESIGNATED OVER RANGE PRESSURE.

#### \*Proof Pressure

The maximum pressure to which a pressure sensor may be occasionally subjected, which causes no permanent damage (e.g., start-up, testing). The unit may require adjusting.


 THESE PRODUCTS DO NOT HAVE ANY FIELD REPLACEABLE PARTS.

## Part I - Installation

#### **Tools Needed**

3/4" Wrench  
Flatblade Screwdriver  
Wire strippers

#### MOUNTING

 TO AVOID DAMAGE TO THE SWITCH, ALWAYS HOLD FROM THE PRESSURE WRENCH FLATS OF THE PRESSURE CONNECTION WHEN TIGHTENING.

The switch can be mounted in any position.

#### **Pipe Mounting**

Mount the switch directly to the line via the NPT pressure connection.

#### **Vertical Surface Mount**


Two mounting ears are provided in the bracket plate for #10 screws.


#### **Conduit Connection**

A 7/8" diameter hole has been provided in the bracket plate for mounting a conduit fitting.

#### WIRING

 DISCONNECT ALL SUPPLY CIRCUITS BEFORE WIRING UNIT.

 ELECTRICAL RATINGS STATED IN LITERATURE AND ON NAMEPLATES MUST NEVER BE EXCEEDED - OVERLOAD ON A SWITCH CAN CAUSE FAILURE ON THE FIRST CYCLE.

 WIRE UNITS ACCORDING TO NATIONAL AND LOCAL ELECTRICAL CODES. MAXIMUM RECOMMENDED WIRE SIZE IS 14 AWG..

## Part II - Adjustments

#### **Tools Needed**

Flatblade screwdriver  
Phillips Head Screwdriver

Mount switch onto a calibrated pressure source. Secure fitting to source tight enough to prevent leaks. Use pipe sealant or Teflon<sup>®</sup> tape to ensure tight seal.

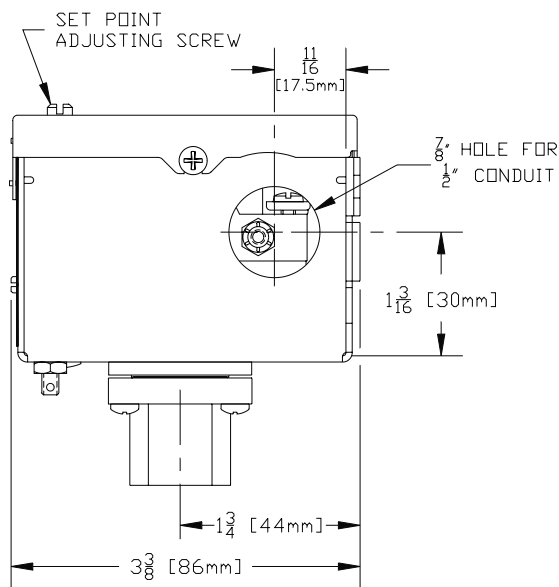
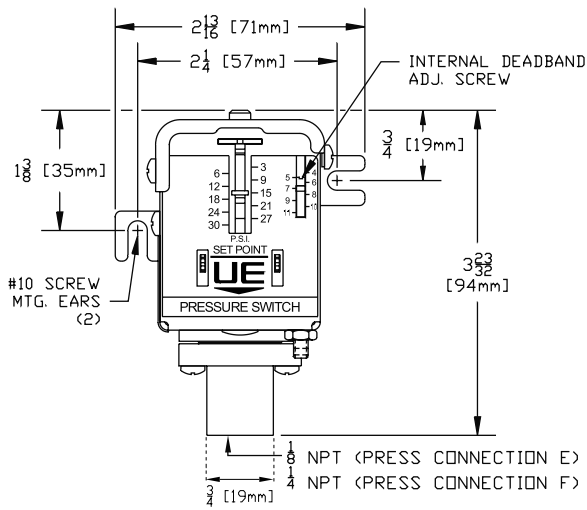
#### **Set Point**

Turn external, flathead screw clockwise to increase setting and counter clockwise to decrease setting.

#### **Deadband**

Turn internal, Phillips head screw clockwise to increase deadband and counterclockwise to decrease deadband.

## Dimensions



## RECOMMENDED PRACTICES AND WARNINGS

United Electric Controls Company recommends careful consideration of the following factors when specifying and installing UE pressure and temperature units. Before installing a unit, the Installation and Maintenance instructions provided with unit must be read and understood.

- To avoid damaging unit, proof pressure and maximum temperature limits stated in literature and on nameplates must never be exceeded, even by surges in the system. Operation of the unit up to maximum pressure or temperature is acceptable on a limited basis (e.g., start-up, testing) but continuous operation must be restricted to the designated adjustable range. Excessive cycling at maximum pressure or temperature limits could reduce sensor life.
- A back-up unit is necessary for applications where damage to a primary unit could endanger life, limb or property. A high or low limit switch is necessary for applications where a dangerous runaway condition could result.
- The adjustable range must be selected so that incorrect, inadvertent or malicious setting at any range point cannot result in an unsafe system condition.
- Install unit where shock, vibration and ambient temperature fluctuations will not damage unit or affect operation. When applicable, orient unit so that moisture does not enter the enclosure via the electrical connection. When appropriate, this entry point should be sealed to prevent moisture entry.
- Unit must not be altered or modified after shipment. Consult UE if modification is necessary.
- Monitor operation to observe warning signs of possible damage to unit, such as drift in set point or faulty display. Check unit immediately.
- Preventative maintenance and periodic testing is necessary for critical applications where damage could endanger property or personnel.
- Electrical ratings stated in literature and on nameplate must not be exceeded. Overload on a switch can cause damage, even on the first cycle. Wire unit according to local and national electrical codes, using wire size recommended in installation sheet.
- Do not mount unit in ambient temp. exceeding published limits.

## LIMITED WARRANTY

Seller warrants that the product hereby purchased is, upon delivery, free from defects in material and workmanship and that any such product which is found to be defective in such workmanship or material will be repaired or replaced by Seller (Ex-works, Factory, Watertown, Massachusetts, INCOTERMS); provided, however, that this warranty applies only to equipment found to be so defective within a period of 24 months from the date of manufacture by the Seller. Seller shall not be obligated under this warranty for alleged defects which examination discloses are due to tampering, misuse, neglect, improper storage, and in any case where products are disassembled by anyone other than authorized Seller's representatives. EXCEPT FOR THE LIMITED WARRANTY OF REPAIR AND REPLACEMENT STATED ABOVE, SELLER DISCLAIMS ALL WARRANTIES WHATSOEVER WITH RESPECT TO THE PRODUCT, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

## LIMITATION OF SELLER'S LIABILITY

Seller's liability to Buyer for any loss or claim, including liability incurred in connection with (i) breach of any warranty whatsoever, expressed or implied, (ii) a breach of contract, (iii) a negligent act or acts (or negligent failure to act) committed by Seller, or (iv) an act for which strict liability will be inputted to seller, is limited to the "limited warranty" of repair and/or replacement as so stated in our warranty of product. In no event shall the Seller be liable for any special, indirect, consequential or other damages of a like general nature, including, without limitation, loss of profits or production, or loss or expenses of any nature incurred by the buyer or any third party.

UE specifications subject to change without notice.



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