



General Purpose Pressure Switches

Types J40, J41 and J51



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 Warrantees.


Part I - Installation

Tools Needed

Adjustable wrench
Strap wrench (Models 252-274)


MOUNTING


 ALWAYS HOLD A WRENCH ON THE HEX, OR WRENCH FLATS ON THE PRESSURE CONNECTION. TIGHTENING BY TURNING THE HEAD COULD DISTORT THE SENSOR OR WEAKEN SOLDERED OR WELDED JOINTS. INSTALL UNIT WHERE SHOCK, VIBRATION AND TEMPERATURE FLUCTUATIONS ARE MINIMAL.

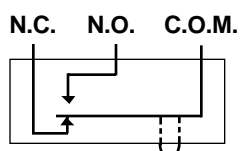
 MODELS 252 TO 274 REQUIRE A STRAP WRENCH ON THE ROUNDED BELLOWS HOUSING WHEN INSTALLING.

Mount in any position via NPT pressure connection. Never turn the unit by grasping switch bracket.

WIRING

 DISCONNECT ALL SUPPLY CIRCUITS BEFORE WIRING UNIT. ELECTRICAL RATINGS STATED IN LITERATURE AND ON NAMEPLATES MUST NOT 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

Small screwdriver or probe

Types J40

With a pointed tool or screwdriver as a lever, turn adjustment screw clockwise (in) to raise pressure setting. For vacuum range units the adjustment is turned counterclockwise (out) to

raise vacuum setting. When the control is pre-set in the vacuum range, the switch is in the actuated position at atmospheric pressure.

Type J41

Turn slotted hexagonal nut counterclockwise (out) to raise pressure settings. For vacuum range units the nut is turned clockwise (in) to raise the vacuum setting. When the control is pre-set in the vacuum range the switch is in the actuated position at atmospheric pressure.


Type J51

Loosen range adjustment lock screw and turn screw clockwise (in) to raise setting.

Part III - Replacements

Tools Needed

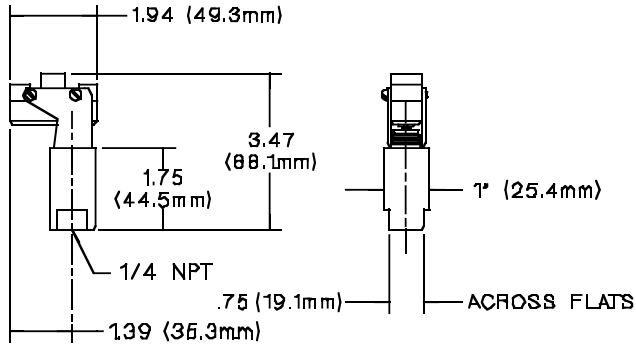
Flathead screwdriver
Torque screwdriver

 USE ONLY FACTORY AUTHORIZED REPLACEMENT PARTS AND PROCEDURES. ALWAYS DISCONNECT SUPPLY CIRCUITS BEFORE ATTEMPTING TO REMOVE WIRES FROM SWITCH TERMINALS.

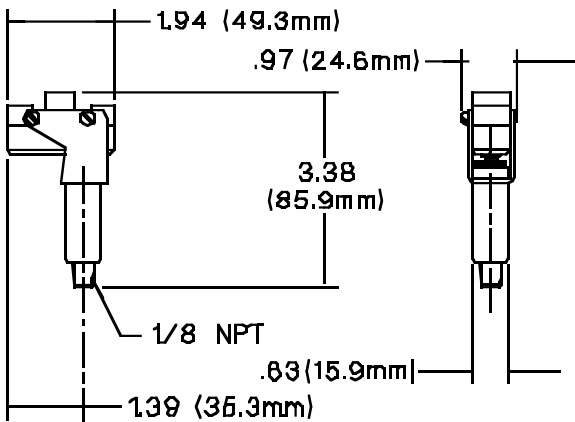
The only replacement part available is the snap-action switch. Consult factory for more information or to obtain replacement switches.

1. Remove wires from switch terminals.
2. Remove switch mounting screws and insulators (if any).
3. Install new switch and insulators and torque screws to 12-14 inch-pounds. **Note:** Low torque may result in loss of calibration; high torque may damage switch case.
4. Re-calibrate according to Adjustment instructions (Part II).

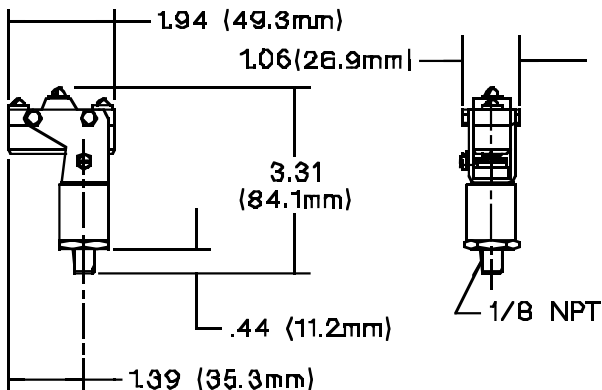
Dimensions



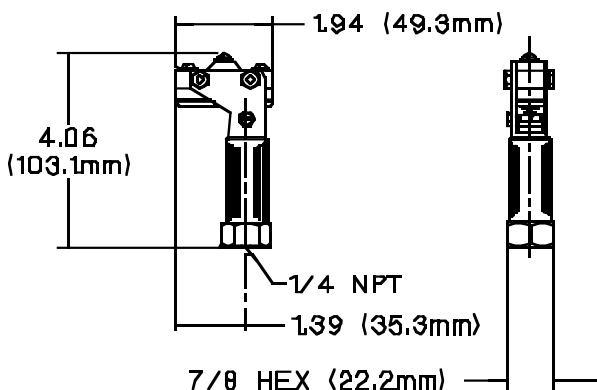
Type J40, Models 218-230



Type J40, Models 252-274



Type J51, Models 354-363



Type J51, Models 670-680

RECOMMENDED PRACTICES

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 max temperature limits stated in literature and on nameplates must never be exceeded, even by surges in the system. Operation of the unit up to proof pressure or max temperature is acceptable on a limited basis (i.e.start-up, testing) but continuous operation must be restricted to the designated adjustable range. Excessive cycling at proof pressure or maximum 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 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. Orient unit so that moisture does not enter the enclosure via the electrical connection.
- 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. Check unit immediately.
- Preventative maintenance/periodic testing is necessary for critical applications where damage could endanger property/ personnel.
- For all applications, a factory set unit should be tested before use. Electrical ratings stated in literature and on nameplate must not be exceeded. Overload on a switch can cause damage, possible on the first cycle. Wire unit according to local and national electrical codes, using wire size recommended in installation sheet.
- Use only factory authorized replacement parts and procedures.
- Do not mount unit in ambient temp. exceeding published limits.
- For remote mounted temperature units, capillary lengths beyond 10 feet can increase chance of error, and may require re-calibration of set point and indication.

LIMIT WARRANTY

UE warrants that the product thereby 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 UE (F.O.B. UE); provided, however, that this warranty applies only to equipment found to be so defective within a period of 12 months after installation by buyer but not to exceed 18 months after delivery by the seller. Except for the limited warranty of repair and replacement stated above, UE disclaims all warranties whatsoever with respect to the product, including all implied warranties of merchantability or fitness for any particular purpose.

LIABILITY LIMITATION

The sole and exclusive remedy of buyer for any liability or seller for any claim, including 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 imputed to seller, is limited to the limited warranty or repair and replacement stated herein. In no event shall the seller be liable for any special, indirect, consequential or other damages or 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.



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