



## 54 Series Sprinkler Switches

### Types J54 and J54A



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

The J54 is a compact sprinkler switch designed to actuate alarms in either wet or dry pipe sprinkler systems. The J54A is a dual switch version of the J54.

The pressure switches are intended for either alarm or supervisory service. Each consists of a diaphragm pressure capsule connected to a plunger which moves in response to pressure changes, operating a snap switch for signal initiation.

## Part I - Installation

### Tools Needed

Flat blade screwdriver  
1/4" Open end wrench  
Adjustable wrench to 3/4"

## MOUNTING

 NEVER TURN UNIT BY GRASPING HOUSING. USE HEX CONNECTION WHEN MOUNTING UNITS.

 INSTALL UNIT WHERE SHOCK VIBRATION AND TEMPERATURE FLUCTUATIONS ARE MINIMAL.

Mount in any position via pressure connection. As an alternative, unit may be surface mounted using #10 screws and mounting ears.

## WIRING

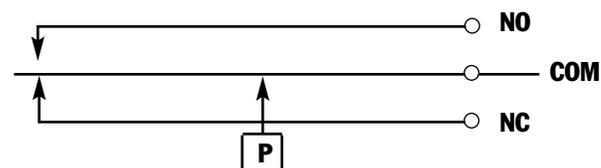
 ALL LIVE SUPPLY CIRCUITS MUST BE DISCONNECTED BEFORE WIRING THE CONTROL. WIRE IN ACCORDANCE WITH NATIONAL AND LOCAL WIRING CODES. MAXIMUM RECOMMENDED WIRE SIZE IS #14 AWG.



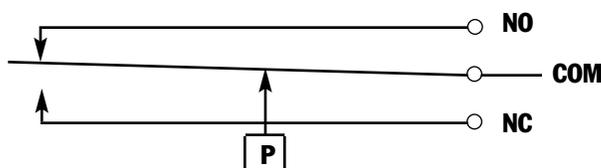
ELECTRICAL RATINGS STATED IN LITERATURE AND ON NAMEPLATE SHOULD NEVER BE EXCEEDED. OVERLOAD ON A SWITCH CAN CAUSE FAILURE ON THE FIRST CYCLE

Remove cover. Bring wires up to the terminals from the rear, so that wires lay along insulator. When alarm switches are wired in parallel there must be duplicate leads for each incoming and each outgoing alarm-initiating circuit connection as a means of providing electrical supervision.

## SCHEMATIC



Switch shown at 0 PSI



Switch shown at pressure above set point

## Part II - Adjustments

### Tools Needed

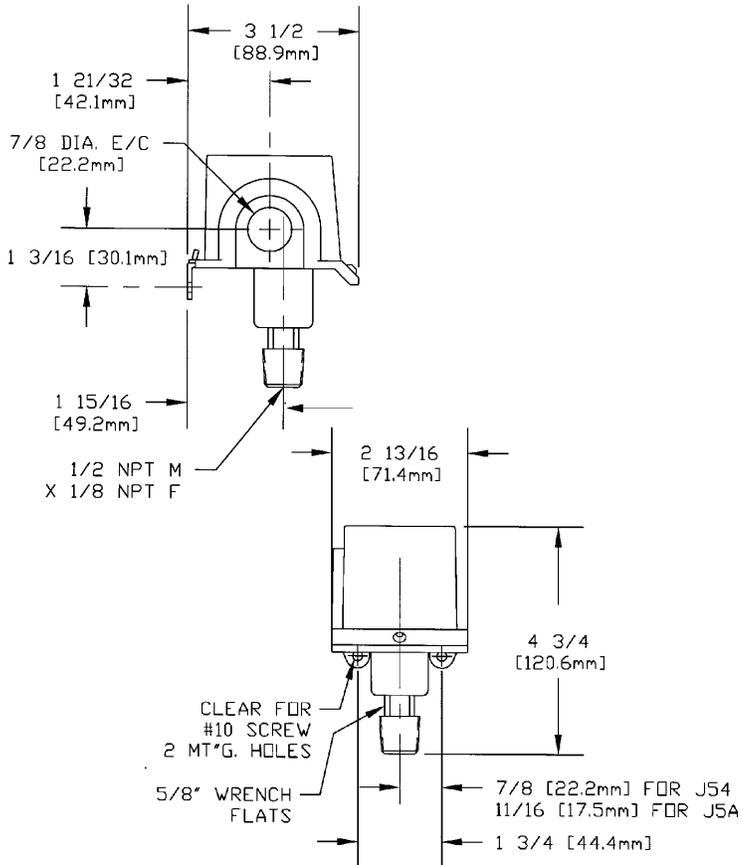
Flat blade screwdriver  
1/4" Open end wrench

Alarm Switches (Types J54-8295 and J54A-8295) are factory set at  $5 \pm 0.75$  PSI on rise and reset on fall between 3 to 5 PSI. These products are not field adjustable.

Supervisory Switches (Types J54-8300, J54A-8300, J54A-8305 and J54A-8305) and Sensitive Low-Air Switches (J54-14460 and J54A-14447-1 are field adjustable. To adjust, remove cover and turn hex adjustment under switch plunger counterclock wise to DECREASE set point, and clockwise to INCREASE set point.

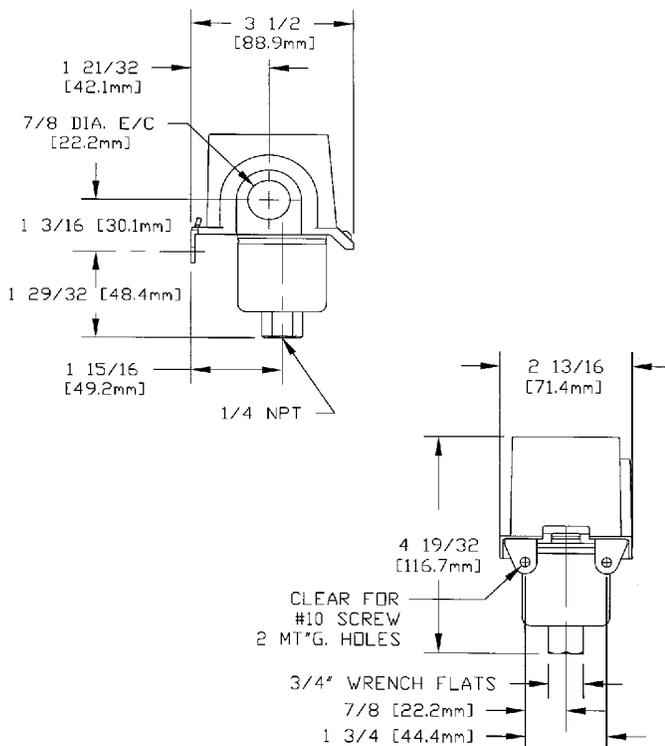
## Dimensions

Types J54, J54A - Models 8295, 8300, 8305



## Dimensions

Types J54, J54A - Models 14460, 14447-1



## 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 can not 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.

## LIMITED 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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P.O. Box 9143, Watertown, MA 02272-9143 USA  
617 926-1000 Fax 617 926-2568