



J40 Series

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SKELETON PRESSURE AND VACUUM SWITCHES



FEATURES

- Sealed Metal Bellows Sensor
- Brass or Phosphor Bronze Wetted Materials
- Small Size
- 15 A SPDT Switch Output
- Screw Terminals
- Adjustable Ranges from 30" Hg Vac to 300 psi (-1 to 20,5 bar)
- Proven Reliability



UNITED ELECTRIC
CONTROLS



J40 Series

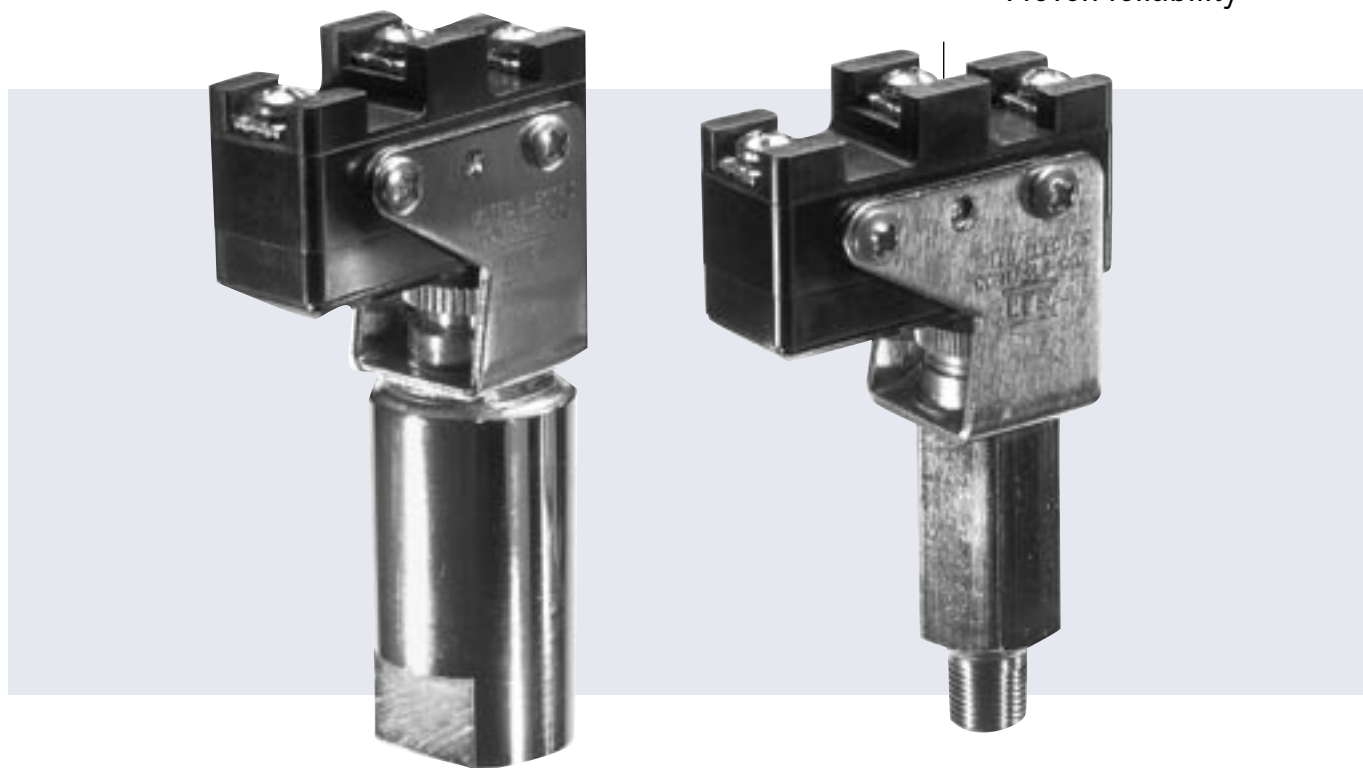
J40 Series

OVERVIEW

The classic J40 has been used for decades in OEM applications where compact size and performance are key. The sealed bellows provides a "leak-free" sensor for applications where elastomers are unacceptable.

FEATURES

- Sealed metal bellows sensor
- Brass or phosphor bronze wetted materials
- Small size
- Screw terminals
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- Proven reliability



SPECIFICATIONS

STORAGE TEMPERATURE	-65 to 160°F (-54 to 71°C)
AMBIENT TEMPERATURE LIMITS	-40 to 160°F (-40 to 71°C)
SHOCK	Set point repeats after 15 G, 10 millisecond duration
VIBRATION	Set point repeats after 2.5 G, 5-500 CPS
ENCLOSURE CLASSIFICATION	Not applicable
SET POINT REPEATABILITY	± 1% of adjustable range
SWITCH OUTPUT	One SPDT; switch may be wired "normally open" or "normally closed"
ELECTRICAL RATING	15 A 125/250 VAC resistive
ENCLOSURE	Skeleton construction
WEIGHT	Approx. 4 oz.
ELECTRICAL CONNECTION	Direct to switch terminals
PRESSURE CONNECTION	Models 218-230: 1/4" NPT female; Models 256-274: 1/8" NPT male
MOUNTING	via NPT pressure connection

APPROVALS



UL 508 recognized, File # E42272



CSA certified C22.2 no. 14 File # LR39690



CE Compliance with Low Voltage Directive (LVD)



MODEL CHART

Model	Stock Number	Adjustable Set Point Range		Deadband		Proof Pressure	
		psi	bar	psi	bar	psi	bar
Phosphor bronze bellows and 1/8" NPT male brass pressure connection							
256	–	0 to 30	0 to 2	1.5 to 2.5	0,10 to 0,17	45	3
260	9613	0 to 60	0 to 4	1.5 to 4	0,10 to 0,28	90	6
262	9620	0 to 90	0 to 6	1.5 to 4	0,10 to 0,20	135	9
266	–	0 to 100	0 to 6,9	2 to 5	0,14 to 0,34	150	10
271	9627	0 to 240	0 to 16,5	2 to 5	0,14 to 0,34	330	22
274	–	0 to 300	0 to 20,5	4 to 6	0,28 to 0,41	350	24
Phosphor bronze bellows and 1/4" NPT female brass pressure connection							
218	9634	30" Hg Vac to 0	-1 to 0	1 to 2.5" Hg Vac	0,07 to 0,17	30" Hg Vac	-1
222	9591	0 to 20	0 to 1,3	0.2 to 1.3	0,01 to 0,09	30	2
224	9606	0 to 30	0 to 2	0.2 to 1.3	0,01 to 0,09	45	3
226	9608	0 to 50	0 to 3,4	0.2 to 1.3	0,01 to 0,09	75	5
230	9624	0 to 100	0 to 6,9	1 to 2.3	0,07 to 0,16	110	7

HOW TO ORDER

BUILDING A PART NUMBER

Select a Type

Refer to the "Type" section below. Determine type number based on switch output, enclosure, adjustment and reference.

Fill in the type portion of your part number with the corresponding number.

Select a Model

Refer to the "Model Charts" Determine model or stock number based on adjustable range, deadband and proof pressure.

Fill in the model portion of your part number with the corresponding number.

FOR FASTER DELIVERY:

If no options are required, use the stock number to order.

Select an Option

Refer to the "Options" section Determine option number based on switch output, optional materials or other product enhancements.

Fill in the option portion of your part number with the corresponding number. Leave "option" portion a blank if no options are needed.

FOR MULTIPLE OPTIONS: Call United Electric Controls.

TYPE

DESCRIPTION

J40 One SPDT output; skeleton open frame construction; external adjustment with no reference dial

SWITCH OPTIONS

0140 Gold flashed contacts, 1 A 125 VAC resistive (low energy circuits)
 0500 Close deadband, 5 A 125/250 VAC resistive
 1070 10 A 125 VDC resistive; deadband and minimum set point will increase; consult factory for information
 1520 Adjustable deadband, 15 A 125/250/277 VAC resistive. Adjustable wheel changes rise setting only. If adjustment of fall setting is required, use primary adjustment
 1535 High ambient, 15 A 125/250 VAC resistive; temperatures up to 250° F (121° C)

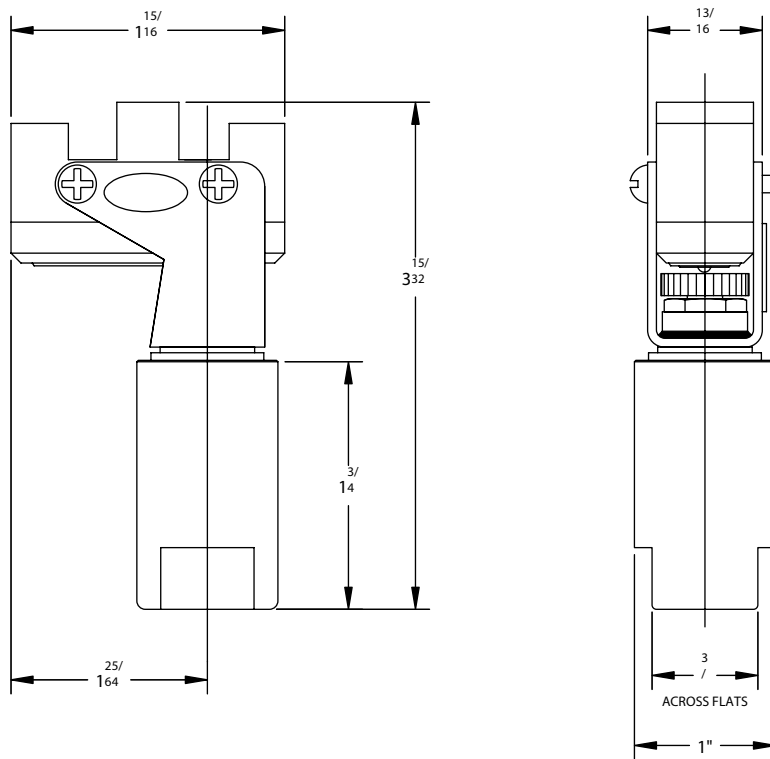
GENERAL

M201 Factory set one switch; specify increasing or decreasing pressure and set point
 M444 Paper ID tag
 M446 Stainless steel ID tag and wire attachment
 M550 Oxygen service cleaning; internal construction may change

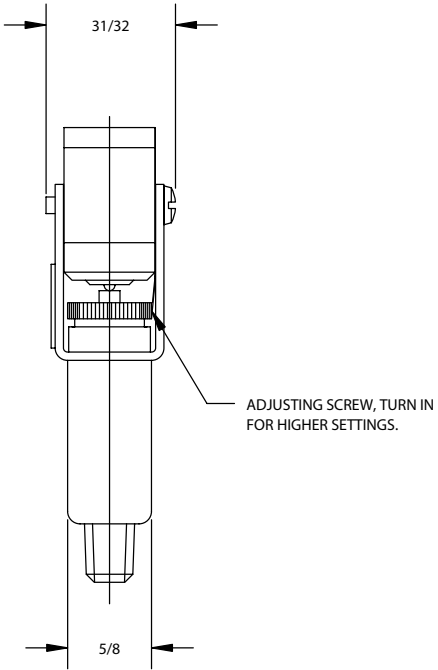
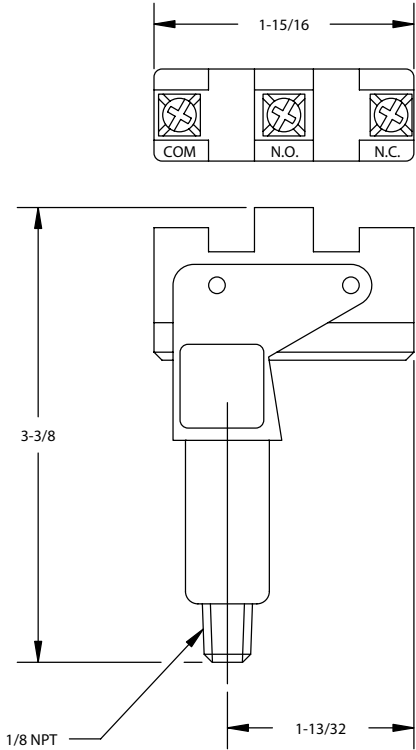


DIMENSIONAL DRAWINGS

Type J40, Models 218-230



Type J40, Models 256-274



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 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 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 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. 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.
- 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, even 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.

LIMITED WARRANTY OF REPAIR AND REPLACEMENT

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 (F.O.B. UE Watertown); provided, however, that this warranty applies only to equipment found to be so defective within a period of 18 months from the date of manufacture by the Seller (36 months for the Spectra T2 and One Series products). 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.

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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 IMPUTED TO SELLER, IS LIMITED TO THE LIMITED WARRANTY OF REPAIR AND REPLACEMENT STATED HEREIN. 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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