Operating Ranges

Range	Maximum Pressure	Adjustable Range Pressure Falling	Reset Differentials (Maximum)	
				Adjustable
				Add to Set Pressure
				Model H
0	1.6 bar	0.016 to 0.16 bar		0.016 to 0.1 bar
1	7.5 bar	0.06 to 0.6 bar		0.06 to 0.24 bar
2	7.5 bar	0.1 to 1.0 bar		0.1 to 0.4 bar
4	7.5 bar	0.25 to 2.5 bar		0.25 to 1.0 bar
6	7.5 bar	0.6 to 6.0 bar		0.6 to 2.4 bar
8	60.0 bar	1.6 to 16.0 bar		1.6 to 6.4 bar
10	60.0 bar	4.0 to 40.0 bar		4.0 to16.0 bar

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LONDEX

Univar 2 Pressure Switches

Installation Instructions

Description

Univar 2 is a diaphragm operated pressure switch which actuates single or double pole change-over contacts at a preset pressure. Type G models have an adjustable set point over the ranges shown and a fixed reset differential. Type H models are similar to type G but with adjustable reset differential.

Application

Univar 2 pressure switches are suitable for use with most non-corrosive non-hazardous liquids and gases.

The components in contact with the operating media are:—

Diaphragm Nylon Reinforced Nitrile Rubber

Diaphragm Housing and pressure entry: Range '0' Aluminium
Ranges 1 to 6 Zinc Plated Mild Steel
Ranges 8 to 10 Brass

In the event that the operating medium is not compatible with the above materials or where high viscosity liquids, and those containing solids are to be sensed, please refer to Londex.

Mounting

The unit is designed for wall mounting by means of two M6 (1/4") screws. The normal mounting position is with the pressure entry at bottom but there is no objection to the unit being mounted in any other position, though a slight change in the set point may be noted.

Pressure Connection

A 1/4 BSP female pressure entry is provided. This will accept a 1/4" male parallel or taper pipe connection. Where parallel thread connection is made it is necessary to provide a suitable pressure seal.

Where specified an adaptor for 6mm OD copper or nylon tube is provided. Part No. 135.070.

Other pressure connection adapters are available to order.

Electrical Connection

Warning: ensure that the supply to the switch is isolated before working on the unit or installing the wiring.

Cable entry: A 20 mm dia. cable entry is provided on the RH side of the switch. This is fitted with a grommet or cable gland as ordered or can be provided with a 20 mm screwed female conduit entry.

To facilitate wiring the plate can be removed during installation. Ensure that this is replaced before switching on the electrical supply to the unit.

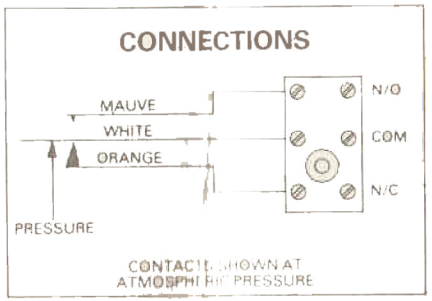
Remove transparent cover by unscrewing the 4 retaining screws.

Fold back the terminal insulation cover to reveal 3-way terminal block and earth stud. Wiring connections are shown on the insulator and diagram below. Note: contacts are shown with no pressure applied to the unit (atmospheric pressure)

Important: ensure that a good electrical earth connection is made to the earth stud.

After connecting replace insulation over the terminals and replace cover.

The yellow hazard triangle sign may be removed if the controlled voltage is less than 25V ac or 36V dc.



SPDT

Adjustment

MODEL G

The set point is adjusted by a large diameter knurled control knob at the top of the unit. Clockwise rotation will increase the set point (contacts operate at a higher pressure). The reset differential is fixed and cannot be adjusted.

MODEL H

Is provided with 2 knobs. The right hand knob adjusts the set point on pressure falling and the left hand knob adjusts the reset differential, on pressure rising.
On both models G & H a knob cover is provided which incorporates a friction pad to inhibit casual interference with the control knobs or movement of the knob due to vibration. Both setting spindles are sealed against the ingress of moisture (with or without the cover).

Do not attempt to set the switch below the stated minimum setting.

Setting Scales

These are provided for reference purposes only. Figures are marked on the primary scale to within an accuracy of ± 5% of upper range limit.

Temperature

The unit may be operated in ambient temperatures of −5°C to +70°C.

Care must be exercised where the process medium has a freezing point within the range (eg water).

Steam pressures can be monitored provided a siphon is employed.

Vibration

With the applied pressure differing from the set point by at least 10% of the upper range limit, no spurious operation is caused when the switch is subjected to the vibration conditions specified by Lloyds Register of Shipping.

It is recommended that where excessive vibration is present the switch should be isolated where possible from the vibration by:

(a) Mounting the switch away from the source of vibration

or (b) Fitting a flexible process connection.

or (c) The use of anti-vibration mounting pads.

Maintenance

Providing the above instructions are observed little or no maintenance is usually required.

Technical Specification

Enclosure:	Zinc alloy die casting to BS 1004A with polycarbonate front cover and steel side cover.
Pressure Sensitive Element:	Diaphragm of nylon reinforced nitrile rubber.
Diaphragm Housing:	Range 0 aluminium. Ranges 1–6 zinc plated mild steel. Ranges 8–10 brass.
Contacts:	Types G & H single pole change over. Type G.G. double pole change over.
Contact Rating:	3A 440V.ac. 5A 250V.ac. 2A 30V.dc. 0.4A 125V.dc.
Terminals:	Non pinch terminal block accepting conductors up to 2.5mm^2. Chassis connection M4 stud (internal).
Cable Entry:	21mm dia. hole with grommet or alternatively M20 x 1.5 female bush (other entries to order).
Pressure Entry:	¼" B.S.P. parallel female (Rp ¼). The entry is machined to take compression fittings for ¼" or 6mm O.D. copper or nylon tube for which adaptors are available from Londex. Adaptors for other pipe sizes can also be supplied.
Ambient Temperature Range:	−5°C to 70°C. Steam pressures can be monitored provided a syphon is fitted. Care must be exercised where the process medium has a freezing point within the operating temperature range.
Weight:	1.15 kg.
Insulation Test:	2.5kV. for 1 minute.

Note
Drawing shows types G, H, & GG Ranges 1 to 10
Range 0 employs same body with larger diaphragm housing.