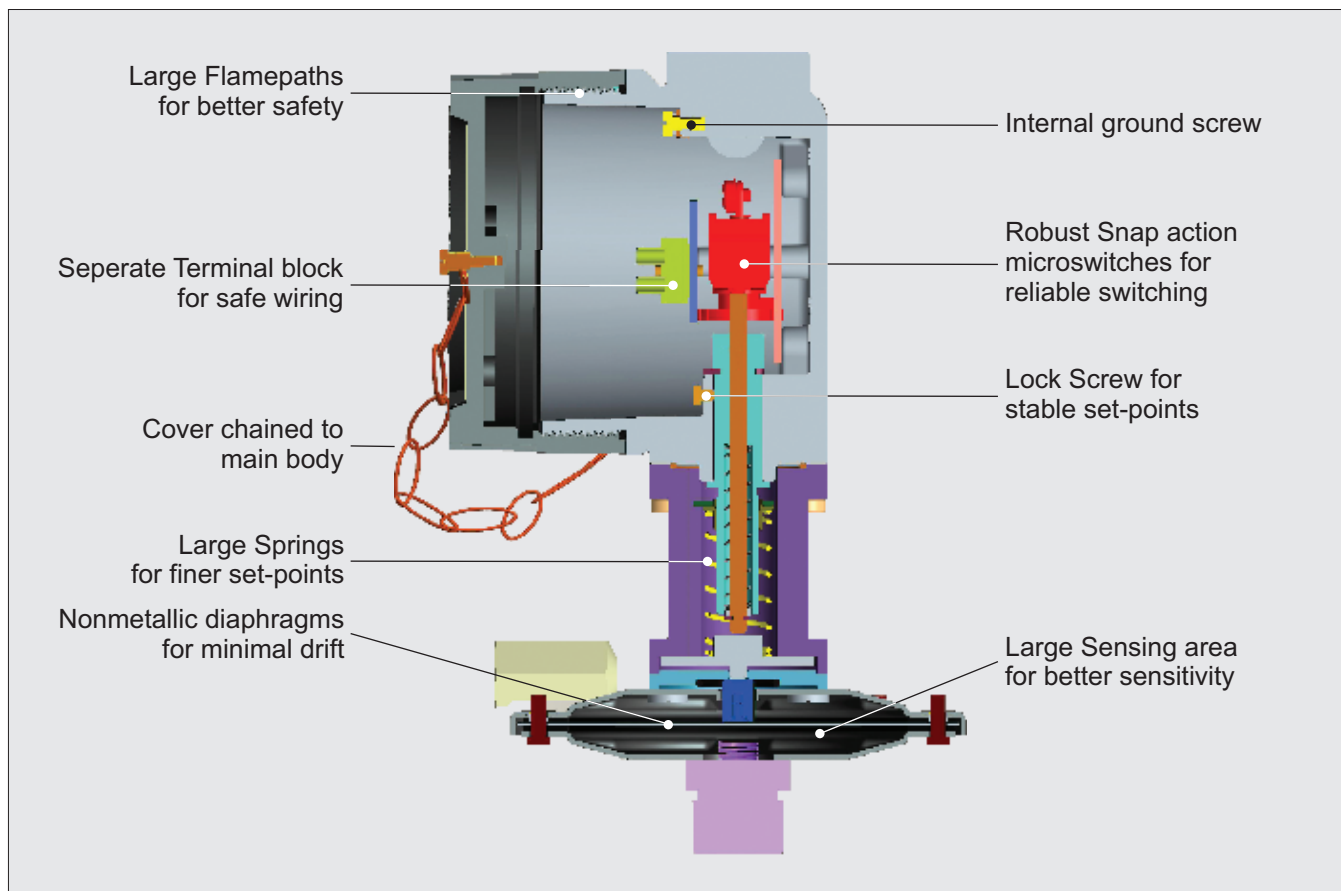


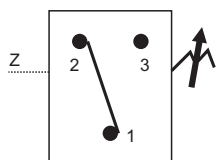
# FC LOW RANGE PRESSURE DIFFERENCE SWITCHES



## Approximate Weight :

Pressure difference switches with Aluminium enclosure : 2.25 Kg.  
 Pressure difference switches with Grey CI enclosure : 4.65 Kg.  
 Pressure difference switches with SS enclosure : 4.95 Kg.

## Electrical Connection :

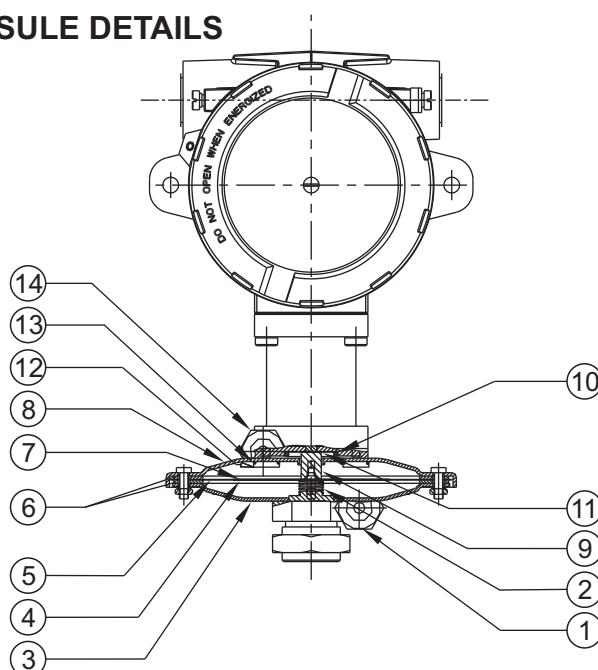


## Some Applications :

Used in ventilation systems, clean rooms, clogged filters, etc.



## PRESSURE CAPSULE DETAILS



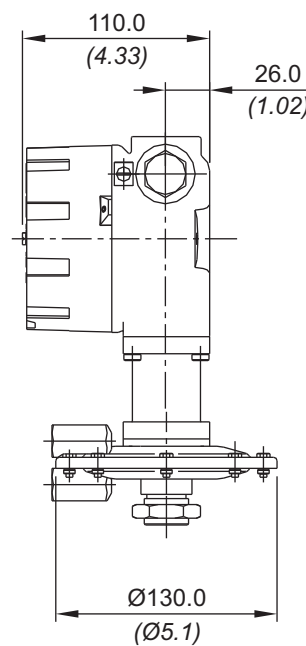
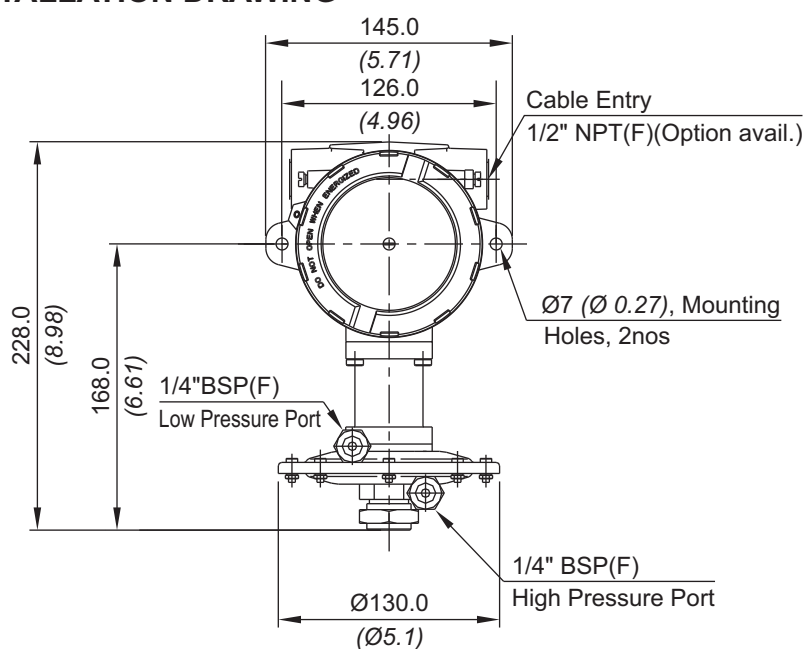
### No. Description

1. High pressure port (S.S.)\*
2. Support spring (S.S.)
3. Bottom flange (S.S.)
4. Support plate (Aluminium)
5. Diaphragm ( Neoprene)
6. Gasket (Nitrile)
7. Top plate (Aluminium)
8. Top flange (M.S.)\*
9. Transfer pin (Aluminium)
10. 'O' ring (Nitrile)
11. Sealing diaphragm (Nitrile)
12. Top flange screw (M.S.)
13. Sealing 'O' ring (Nitrile)
14. Low pressure port (M.S.)\*

\* Pressure ports are brazed with flange

Note : wetted parts are mentioned in italics.

## INSTALLATION DRAWING



APPROX. DIMENSIONS IN  $\frac{\text{mm}}{\text{inches}}$

# FC LOW RANGE PRESSURE DIFFERENCE SWITCHES

RANGE SELECTION TABLE

| Range Code | Range<br>mbar ("wc)           | Differential* mbar (" wc)                         | Maximum<br>Working Pressure<br>bar (psi) |
|------------|-------------------------------|---------------------------------------------------|------------------------------------------|
|            |                               | Approximate<br>Maximum<br>for "A1"<br>microswitch |                                          |
| L02        | 1.5 - 15<br>(0.60 - 6.02)     | 3<br>(1.204)                                      | 2<br>(29.00)                             |
| L03        | 5 - 25<br>(2.007 - 10.037)    | 5<br>(2.007)                                      | 2<br>(29.00)                             |
| L05        | 10 - 50<br>(4.015 - 20.073)   | 5<br>(2.007)                                      | 2<br>(29.00)                             |
| L10        | 10 - 100<br>(4.015 - 40.15)   | 5<br>(2.007)                                      | 2<br>(29.00)                             |
| L15        | 10 - 150<br>(4.015 - 60.22)   | 5<br>(2.007)                                      | 2<br>(29.00)                             |
| L25        | 20 - 250<br>(8.029 - 100.365) | 10<br>(4.015)                                     | 2<br>(29.00)                             |
| L35        | 50 - 350<br>(20.073 - 140.51) | 35<br>(14.05)                                     | 2<br>(29.00)                             |

\*Minimum differential increases with setpoint, values with neoprene diaphragm (Graphs available on request)

\* Differentials of microswitches A2 through A9 will vary. Differentials for A7 are typically twice that for A1 microswitch. Please indicate specifically the differential value in enquiry/order, when it is critical in your application.

## HOW TO ORDER FLAMEPROOF LOW RANGE PRESSURE DIFFERENCE SWITCHES

| Group 1                                                                                                                                                                   | Group 2                                                                                                                  | Group 3                                                                                                                                                                                                                                                                                                                                                                          | Group 4                                                                                                                                                                                                                                   | Group 5                                                                                                                                                                                | Group 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Group 7                                                                                                                                  | Group 8                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Non standard allocation                                                                                                                                                   | Gas Group Classification                                                                                                 | Cable Entry Size                                                                                                                                                                                                                                                                                                                                                                 | Switch Type                                                                                                                                                                                                                               | Range Code (values in mbar)                                                                                                                                                            | Microswitch Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Pressure Port Material / Size                                                                                                            | Diaphragm                                                                                                                    |
| <input type="checkbox"/> Reserved for non-standard options not covered in catalogue. Will be given by manufacturer, only after agreement of supply details with customer. | <b>FC</b> = Flameproof pressure switch, ATEX & IECEx approved, with Aluminium head as per IS/IEC 60079-1 for Gas Gr. IIC | <b>1</b> = Al. head 1/2" NPT threads<br><b>2</b> = Al. head 3/4" NPT threads<br><b>3</b> = Al. head M20 x 1.5 threads<br><b>4</b> = Grey CI head 1/2" NPT threads<br><b>5</b> = Grey CI head 3/4" NPT threads<br><b>6</b> = Grey CI head M20 x 1.5 threads<br><b>7</b> = SS head 1/2" NPT threads<br><b>8</b> = SS head 3/4" NPT threads<br><b>9</b> = SS head M20 x 1.5 threads | <b>D1</b> = pressure difference switch, fixed differential without scale<br><b>D2</b> = pressure difference switch, fixed differential with scale in mbar<br><b>D3</b> = pressure difference switch, fixed differential with scale in "wc | <b>L02</b> = (1.5 - 15)<br><b>L03</b> = (5 - 25)<br><b>L05</b> = (10 - 50)<br><b>L10</b> = (10 - 100)<br><b>L15</b> = (10 - 150)<br><b>L25</b> = (20 - 250)<br><b>L35</b> = (50 - 350) | <b>A1</b> = General purpose microswitch rated at 15A; 250 VAC<br><b>A2</b> = Hermetically sealed for corrosive environments<br><b>A3</b> = gold plated contacts for low voltage applications<br><b>A4</b> = DPDT configuration<br><b>A5</b> = for high DC ratings<br><b>A6</b> = elements with adjustable deadband<br><b>A7</b> = 2SPDT switching elements<br><b>A9</b> = General purpose microswitch rated at 5 A; 250 VAC<br><br>* Some microswitches may not be available for particular ranges. Please check with sales office. Please refer page no. 230 for more microswitch options | <b>S1</b> = SS316 / 1/4" BSP(F)<br><b>S2</b> = SS316 / 1/4" NPT(F)<br><br>Please refer page no. 226 & 227 for more pressure port options | <b>0</b> = Neoprene<br><b>1</b> = Teflon<br><br>For additional wetted parts please refer Pressure Capsule Details on Page 59 |

eg. A flameproof switch for gas group IIC, with 1/2" NPT cable entry in aluminium housing as 1SPDT pressure switch, having 0.1 bar to 1 bar pressure range, with 15Amp. microswitch, SS316 pressure housing with 1/4" BSP port size & neoprene diaphragm shall be specified by

| Group 1                  | Group 2 | Group 3 | Group 4 | Group 5 | Group 6 | Group 7 | Group 8 |
|--------------------------|---------|---------|---------|---------|---------|---------|---------|
| <input type="checkbox"/> | FC      | 1       | D1      | L03     | A1      | S1      | 0       |

Please specify full model number to avoid ambiguity. If only the first two groups are specified while ordering, uncalibrated switches with standard wetted parts and enclosures will be supplied.

## LOW RANGE PRESSURE DIFFERENCE SWITCHES

FC