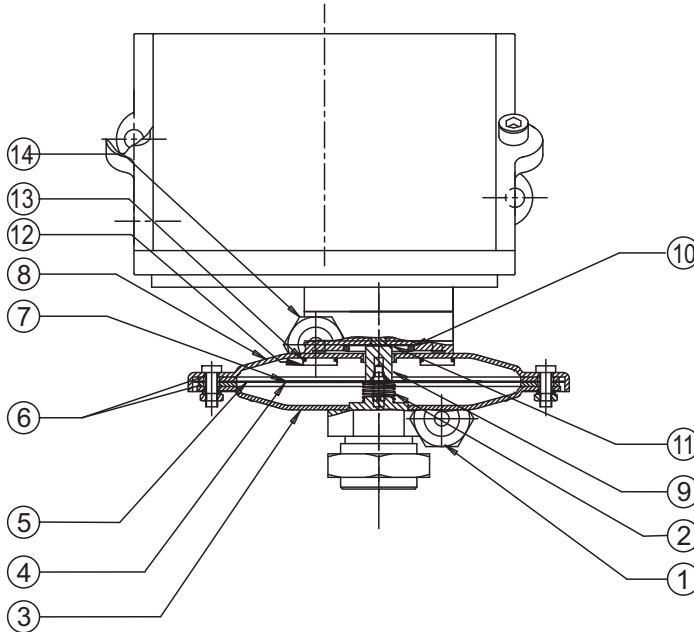




**MT**



## PRESSURE CAPSULE DETAILS



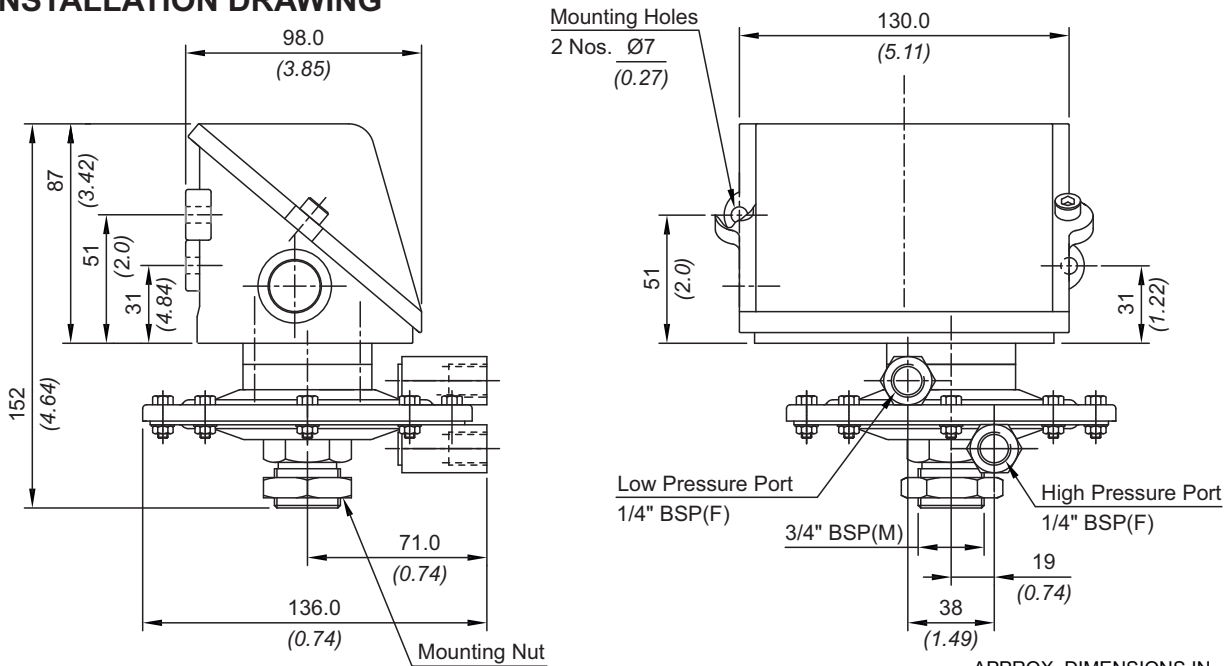
### No. Description

1. High Pressure Port (SS)\*
2. Support Spring (SS)
3. Bottom Flange (SS)
4. Support Plate (Aluminium)
5. Diaphragm (Neoprene)
6. Gasket (Nitrile)
7. Top Plate (Aluminium)
8. Top Flange (SS)\*
9. Transfer Pin (Aluminium)
10. O-Ring (Nitrile)
11. Sealing Diaphragm (Nitrile)
12. Top Flange Screw (SS)
13. Sealing O-Ring (Nitrile)
14. Low Pressure Port (SS)\*

Note : *wetted parts* are mentioned in italics.

\*Pressure ports are brazed with flange

## INSTALLATION DRAWING



# MD/MT 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        | 3 - 15<br>(1.205 - 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 - 40.146)  | 10<br>(4.015)                                     | 2<br>(29.00)                             |
| L15        | 10 - 150<br>(4.015 - 60.22)   | 15<br>(6.027)                                     | 2<br>(29.00)                             |
| L25        | 20 - 250<br>(8.03 - 100.36)   | 20<br>(8.037)                                     | 2<br>(29.00)                             |
| L35        | 50 - 350<br>(20.073 - 140.51) | 35<br>(14.05)                                     | 2<br>(29.00)                             |

Note:

1. The minimum differential increases with the setpoint. The differential values mentioned in the above table are approximate maximum for FSR. The differential value will vary according to the pressure range selected and microswitch type. For actual values of differential please contact sales office.

2. When using 2SPDT switching arrangement, both microswitches may not actuate and/or deactuate at the same point. A small stage gap, normally upto +/- 5% FSR (depending on range code) may be observed. The On-Off differential (hysteresis) typically tends to be atleast double of those published for 1SPDT pressure switches.

If actuation and/or deactuation at same point is critical part of operation, then it can be achieved by using a separate DPDT relay. This relay will need a separate power supply for it's coil.

# LOW RANGE PRESSURE DIFFERENCE SWITCHES

# MD/MT

## HOW TO ORDER INDUSTRIAL LOW RANGE PRESSURE DIFFERENCE SWITCHES

| Group 1   | Group 2  | Group 3  | Group 4   | Group 5  | Group 6   | Group 7   | Group 8                                |    |       |       |   |  |  |  |  |  |
|---|--|--|---|--|---|---|--|----|-------|-------|---|--|--|--|--|--|
| Non standard allocation   | Model  | Cable Entry Size   | Switch Type   | Range Code (values in mbar)  | Microswitch Type  | Pressure Port Material / Size   | Diaphragm                              |    |       |       |   |  |  |  |  |  |
| <input type="checkbox"/> A prefix "N" is used in the model code in case of any non standard options / accessories that are provided with the switches. Will be given by manufacturer, only after agreement of supply details with customer.<br><br>The prefix is subject to change as per specific requirement. | <b>MD</b> = Industrial pressure switch with IP66 rated enclosure as per IS/IEC 60529<br><b>MT</b> = Industrial pressure switch with IP66 rated enclosure as per IS/IEC 60529 | <b>1</b> = Al. enclosure 1/2" NPT threads<br><b>*2</b> = Al. enclosure 3/4" NPT threads<br><b>3</b> = Al. enclosure M20 X 1.5 threads<br><b>7</b> = SS enclosure, 1/2" NPT threads<br><b>*8</b> = SS enclosure, 3/4" NPT threads<br><b>9</b> = SS enclosure, M20 X 1.5 threads | <b>DF1</b> = pressure difference switch, fixed differential without scale<br><b>DF2</b> = pressure difference switch, fixed differential with scale in mbar<br><b>DF3</b> = pressure difference switch, fixed differential with scale in "Wc<br><b>*DA1</b> = pressure difference switch, adjustable differential without scale<br><b>*DA2</b> = pressure difference switch, adjustable differential with scale in mbar<br><b>*DA3</b> = pressure difference switch, adjustable differential with scale in "Wc<br><br>*Available with A6, A7, A9 & B9 (in group 6) only | <b>L02</b> = (3 - 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 15 A; 250 VAC<br><b>*A6</b> = Adjustable deadband<br><b>*A7</b> = 2SPDT switching elements<br><b>*A8</b> = General purpose microswitch<br><b>*A9</b> = General purpose microswitch<br><b>*B7</b> = 2SPDT Switching Elements<br><b>*B9</b> = 2SPDT Switching Elements for adjustable differential<br><br>* Please refer to page nos. 290 & 291 for options and specifications of microswitches<br>Please contact sales office for additional information | <b>S1</b> = SS316 / 1/4" BSP(F)<br><b>S2</b> = SS316 / 1/4" NPT(F)<br><br>More options available, please contact sales office | <b>0</b> = Neoprene<br><b>1</b> = PTFE |    |       |       |   |  |  |  |  |  |
| Approx. switch weight in Kgs <table border="1"> <thead> <tr> <th>Enclosure</th> <th>MD</th> <th>MT</th> </tr> </thead> <tbody> <tr> <td>Aluminium</td> <td>2.000</td> <td>2.420</td> </tr> <tr> <td>SS</td> <td>3.520</td> <td>4.030</td> </tr> </tbody> </table>   |  | Enclosure  | MD  | MT   | Aluminium   | 2.000   | 2.420                                  | SS | 3.520 | 4.030 | *Not available for MT model For dual cable entry contact Sales Office |  |  |  |  |  |
| Enclosure   | MD   | MT   |   |  |   |   |  |    |       |       |   |  |  |  |  |  |
| Aluminium   | 2.000  | 2.420  |   |  |   |   |  |    |       |       |   |  |  |  |  |  |
| SS  | 3.520  | 4.030  |   |  |   |   |  |    |       |       |   |  |  |  |  |  |

eg. A low range pressure difference industrial switch, with 1/2" NPT cable entry in aluminium housing as 1SPDT pressure switch, fixed differential without scale, having 5 mbar to 25 mbar 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"/> | MD      | 1       | DF1     | L03     | A1      | S1      | 0       |

Please specify full model number to avoid ambiguity.