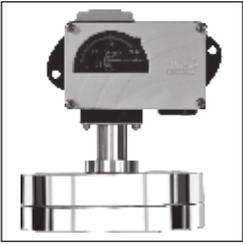


# MD/MT

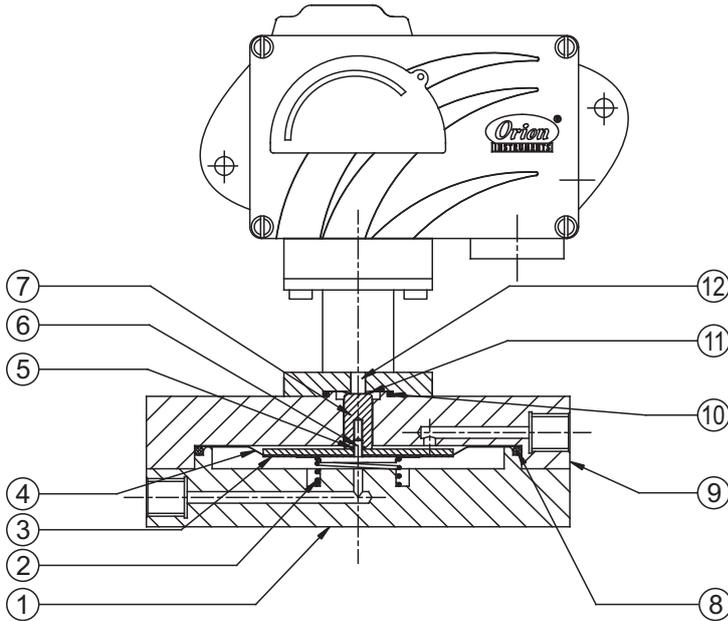
# LOW ΔP HIGH PROOF PRESSURE DIFFERENCE SWITCHES



MD



## PRESSURE CAPSULE DETAILS

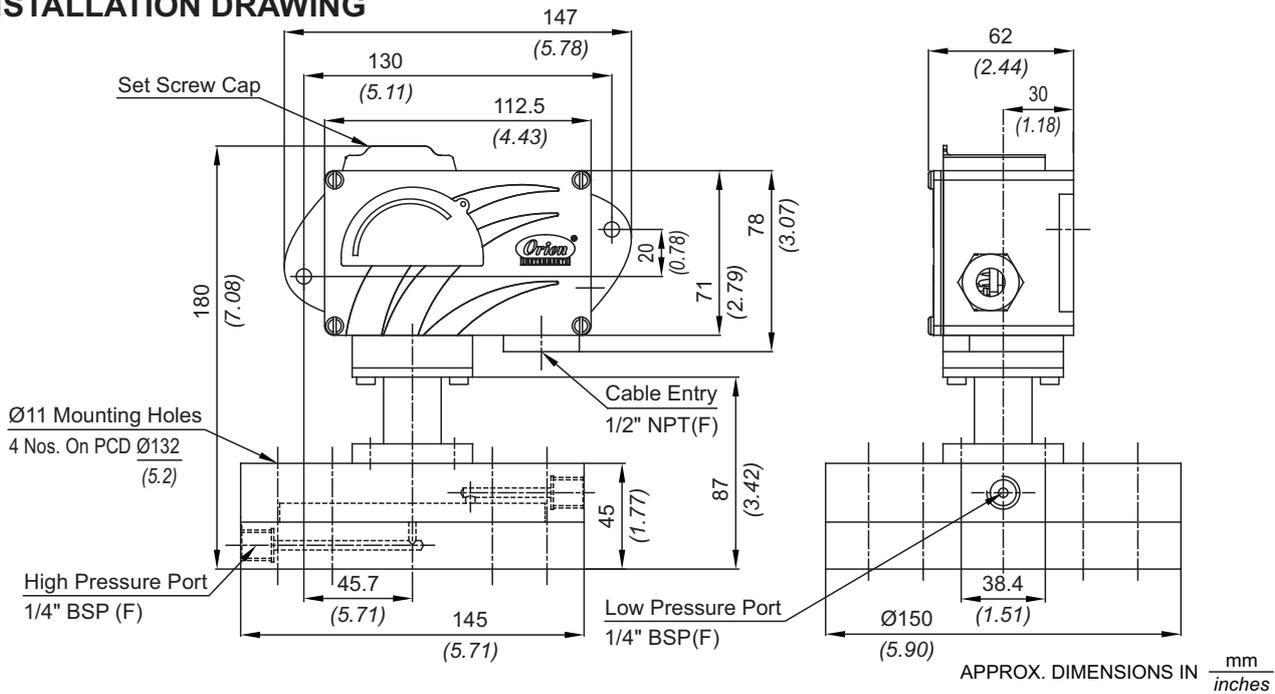


### No. Description

1. High Pressure Housing (SS)
2. Spring (SS)
3. HP Plunger (SS)
4. Diaphragm (PTFE<sup>®</sup>)
5. Plunger O-Ring (Viton)
6. Plunger Screw (SS)
7. LP Plunger (SS)
8. Main Sealing O-Ring (PTFE<sup>®</sup>)
9. Low Pressure Housing (SS)
10. Sealing O-Ring (PTFE<sup>®</sup>)
11. Diaphragm (PTFE<sup>®</sup>)
12. Small Plunger (SS)

Note : wetted parts are mentioned in italics.

## INSTALLATION DRAWING



# MD/MT **LOW ΔP HIGH PROOF PRESSURE DIFFERENCE SWITCHES**

## RANGE SELECTION TABLE

Range Code	Range mbar ("wc)	Differential* mbar ("wc)	Maximum Working Pressure bar (psi)
		Approximate Maximum for "A1" microswitch	
M03	5 - 25 (2.007 - 10.037)	5 (2.007)	100 (1450.38)
M05	10 - 50 (4.015 - 20.073)	5 (2.007)	100 (1450.38)
M10	10 - 100 (4.015 - 40.146)	10 (4.015)	100 (1450.38)
M15	10 - 150 (4.015 - 60.22)	10 (4.015)	100 (1450.38)
M25	20 - 250 (8.03 - 100.36)	15 (6.022)	100 (1450.38)
M35	50 - 350 (20.073 - 140.51)	35 (14.05)	100 (1450.38)

**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.

## HOW TO ORDER INDUSTRIAL LOW ΔP HIGH PROOF PRESSURE DIFFERENCE SWITCHES

# LOW ΔP HIGH PROOF PRESSURE DIFFERENCE SWITCHES

# MD/MT

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8									
<p>Non standard allocation</p> <p><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.</p> <p>The prefix is subject to change as per specific requirement.</p>	<p>Gas Group Classification</p> <p><b>MD</b> = Industrial pressure switch with IP66 rated enclosure as per IS/IEC 60529</p> <p><b>MT</b> = Industrial pressure switch with IP66 rated enclosure as per IS/IEC 60529</p>	<p>Cable Entry Size</p> <p><b>1</b> = Al. enclosure 1/2" NPT threads  <b>*2</b> = Al. enclosure 3/4" NPT threads  <b>3</b> = Al. enclosure M20 X 1.5 threads  <b>7</b> = SS enclosure, 1/2" NPT threads  <b>*8</b> = SS enclosure, 3/4" NPT threads  <b>9</b> = SS enclosure, M20 X 1.5 threads</p>	<p>Switch Type</p> <p><b>DF1</b> = pressure difference switch, fixed differential without scale  <b>DF2</b> = pressure difference switch, fixed differential with scale in mbar  <b>DF3</b> = pressure difference switch, fixed differential with scale in "Wc  <b>*DA1</b> = pressure difference switch, adjustable differential without scale  <b>*DA2</b> = pressure difference switch, adjustable differential with scale in mbar  <b>*DA3</b> = pressure difference switch, adjustable differential with scale in "Wc</p> <p>*Available with A6, A7, A9 &amp; B9 (in group 6) only</p>	<p>Range Code (values in mbar)</p> <p><b>M03</b> = (5 - 25)  <b>M05</b> = (10 - 50)  <b>M10</b> = (10 - 100)  <b>M15</b> = (10 - 150)  <b>M25</b> = (20 - 250)  <b>M35</b> = (50 - 350)</p>	<p>Microswitch Type</p> <p><b>A1</b> = General purpose microswitch, rated at 15 A; 250 VAC  <b>*A6</b> = Adjustable deadband  <b>*A7</b> = 2SPDT switching elements  <b>*A8</b> = General purpose microswitch  <b>*A9</b> = General purpose microswitch  <b>*B7</b> = 2SPDT Switching Elements  <b>*B9</b> = 2SPDT Switching Elements for adjustable differential</p> <p>* Please refer to page nos. 290 &amp; 291 for options and specifications of microswitches                      More options available, please contact sales office for additional information</p>	<p>Pressure Port Material / Size</p> <p><b>S1</b> = SS316 / 1/4" BSP(F)  <b>S2</b> = SS316 / 1/4" NPT(F)</p>	<p>Diaphragm</p> <p><b>0</b> = Neoprene  <b>1</b> = PTFE</p>									
<p>Approx. switch weight in Kgs</p> <table border="1"> <thead> <tr> <th>Enclosure</th> <th>MD</th> <th>MT</th> </tr> </thead> <tbody> <tr> <td>Aluminium</td> <td>6.700</td> <td>7.110</td> </tr> <tr> <td>SS</td> <td>8.220</td> <td>8.720</td> </tr> </tbody> </table>		Enclosure	MD	MT	Aluminium	6.700	7.110	SS	8.220	8.720	<p>*Not available for MT model For dual cable entry contact Sales Office</p>	<p>eg. A hydraulic diaphragm pressure switch, with 1/2" NPT cable entry in aluminium housing as 1SPDT pressure switch, fixed differential without scale, having 20 mbar to 250 mbar pressure range, with 15 Amp. microswitch, SS316 pressure housing with 1/4" BSP port size shall be specified by</p>				
Enclosure	MD	MT														
Aluminium	6.700	7.110														
SS	8.220	8.720														
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8									
<input type="checkbox"/>	MD	1	PF1	M25	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.