

# MD/MT HIGH RANGE PRESSURE DIFFERENCE SWITCHES

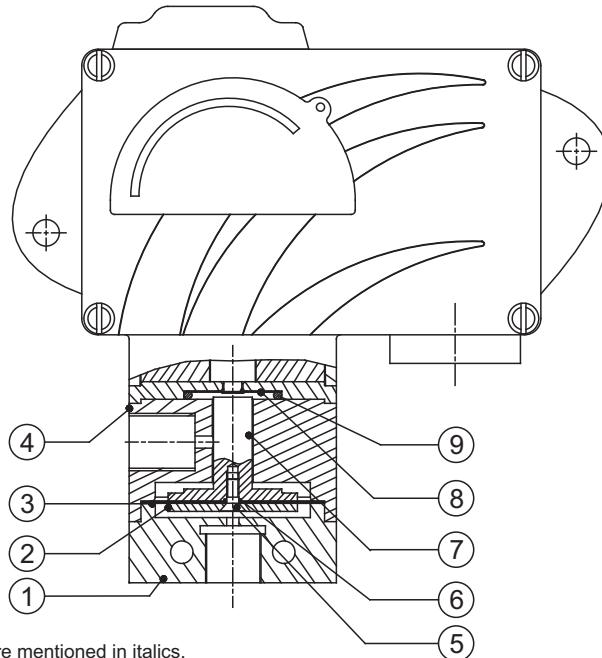


**MD**

**CE**

**Orion**  
INSTRUMENTS®

## PRESSURE CAPSULE DETAILS

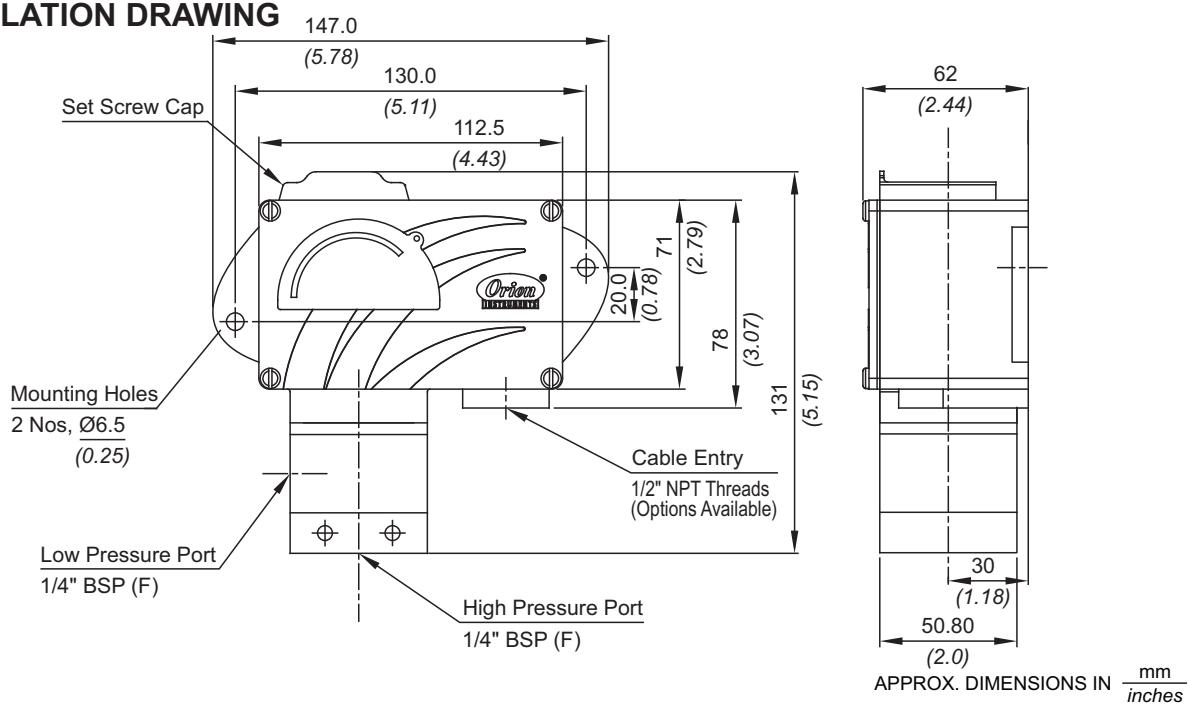


Note : wetted parts are mentioned in italics.

## No. Description

1. Pressure Housing
2. *HP Plunger (SS316)*
3. *Diaphragm*
4. *Disc*
5. CSK Screw (SS)
6. *O-Ring (PTFE®)*
7. *LP Plunger (SS316)*
8. *Sealing Diaphragm (PTFE®)*
9. *Sealing O-Ring (PTFE®)*

## INSTALLATION DRAWING



# MD/MT HIGH RANGE PRESSURE DIFFERENCE SWITCHES

## RANGE SELECTION TABLE

Range Code	Range bar (psi)	Differential* bar (psi)	Maximum Working Pressure bar (psi)
		Approximate Maximum for "A1" microswitch	
H01	0.1 - 1.0 (1.45 - 14.50)	0.12 (1.74)	12 (174.05)
H02	0.2 - 1.5 (2.90 - 21.76)	0.20 (2.90)	12 (174.05)
H03	0.2 - 2.6 (2.90 - 37.71)	0.20 (2.90)	12 (174.05)
H04	0.2 - 3.6 (2.90 - 52.21)	0.30 (4.35)	12 (174.05)

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 deactivate 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 HIGH RANGE PRESSURE DIFFERENCE SWITCHES

# HIGH RANGE PRESSURE DIFFERENCE SWITCHES

**MD/MT**

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 bar)	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.	<b>MD</b> = Industrial pressure switch with IP66 rated enclosure as per IS/IEC 60529 <b>MT</b> = Industrial pressure switch with IP66 rated enclosure as per IS/IEC 60529	<b>1</b> = Al. enclosure $\frac{1}{2}$ " NPT threads <b>2</b> = Al. enclosure $\frac{3}{4}$ " NPT threads <b>3</b> = Al. enclosure M20 X 1.5 threads <b>7</b> = SS enclosure, $\frac{1}{2}$ " NPT threads <b>8</b> = SS enclosure, $\frac{3}{4}$ " NPT threads <b>9</b> = SS enclosure, M20 X 1.5 threads	<b>DF1</b> = pressure difference switch, fixed differential without scale <b>DF2</b> = pressure difference switch, fixed differential with scale in bar <b>DF3</b> = pressure difference switch, fixed differential with scale in psi <b>DA1</b> = pressure difference switch, adjustable differential without scale <b>DA2</b> = pressure difference switch, adjustable differential with scale in bar <b>DA3</b> = pressure difference switch, adjustable differential with scale in psi	<b>H01</b> = (0.1 - 1.0) <b>H02</b> = (0.2 - 1.5) <b>H03</b> = (0.2 - 2.6) <b>H04</b> = (0.2 - 3.6)	<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 for adjustable differential <b>B9</b> = 2SPDT Switching Elements for adjustable differential	<b>S1</b> = SS316 / $\frac{1}{4}$ " BSP(F) <b>S2</b> = SS316 / $\frac{1}{4}$ " NPT(F)	<b>0</b> = Neoprene <b>1</b> = PTFE

Approx. switch weight in Kgs
<b>Enclosure</b> <b>MD</b> <b>MT</b>
Aluminium      1.500      1.910
SS      3.110      3.510

*Not available for MT model For dual cable entry contact Sales Office	*Available with A6, A7, A9 & B9 (in group 6) only
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\* Please refer to page nos.

290 & 291 for options and specifications of microswitches

Please contact sales office for additional information

More options available, please contact sales office

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8
<input type="checkbox"/>	MD	1	DF1	H01	A1	S1	0

e.g. A high range pressure difference weatherproof switch, with  $\frac{1}{2}$ " NPT cable entry in aluminium housing as 1SPDT pressure switch, fixed differential without scale, having 0.1 bar to 1 bar pressure range, with 15Amp. microswitch, SS316 pressure housing with  $\frac{1}{4}$ " BSP portsize & neoprene diaphragm shall be specified by

Please specify full model number to avoid ambiguity.