

MD/MT

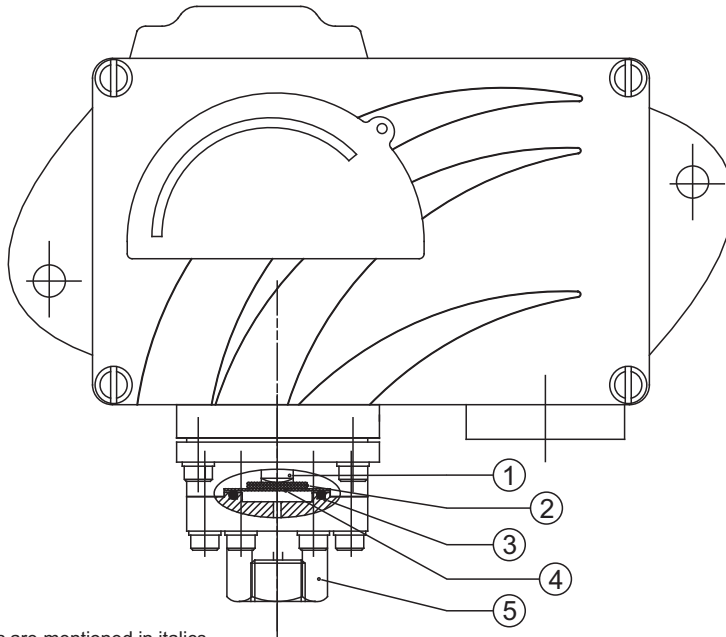
HYDRAULIC DIAPHRAGM SWITCH



MD



PRESSURE CAPSULE DETAILS

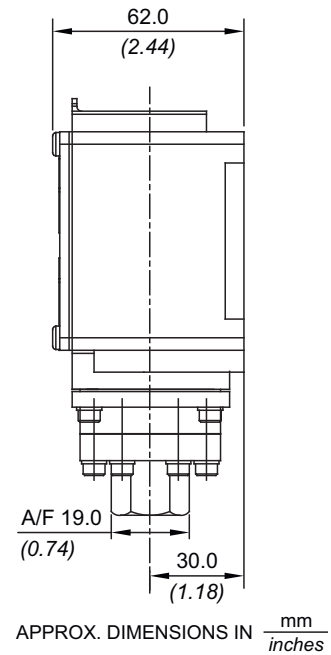
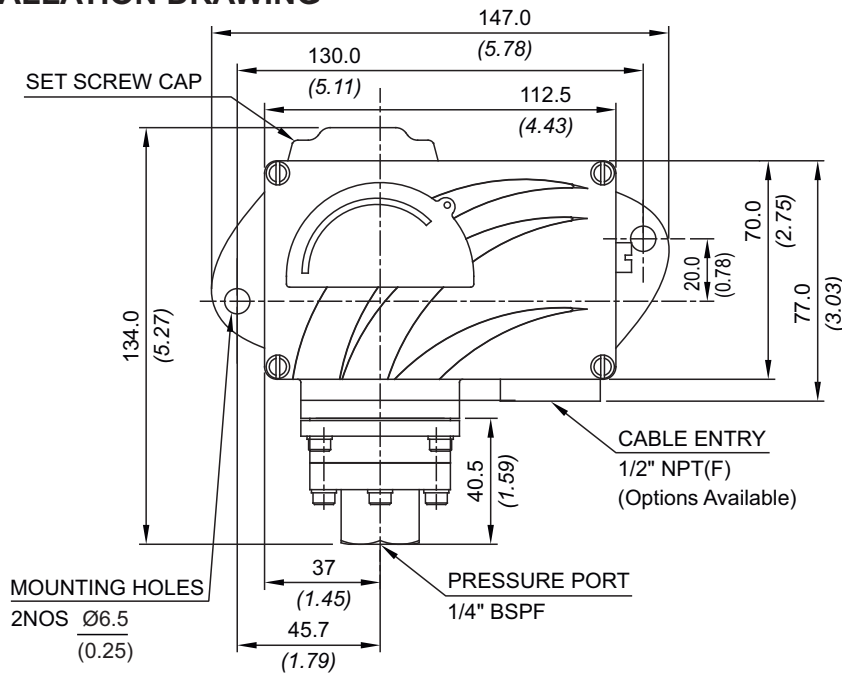


No. Description

1. Pressure Housing (SS316)
2. O-Ring (PTFE®)
3. Diaphragm (PTFE®)
4. Plunger
5. Cushioning Pad (Options Available)

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



MD/MT HYDRAULIC DIAPHRAGM SWITCH

RANGE SELECTION TABLE

Range Code	Range bar (psi)	Differential* bar (psi)	Maximum Working Pressure bar (psi)
		Approximate Maximum for "A8" microswitch	
H1T	0.5 - 10 (7.25 - 145.04)	1 (14.50)	150 (2175.51)
H2T	2 - 20 (29.00 - 290.07)	2 (29.00)	200 (2900.76)
H4T	5 - 40 (72.52 - 580.15)	5 (72.52)	200 (2900.76)
H1H	10 - 100 (146.04 - 1450.38)	12 (174.05)	200 (2900.76)
H2H	7 - 200 (101.52 - 2900.76)	24 (348.09)	400 (5801.52)
H4H	40 - 400 (580.15 - 5801.52)	50 (725)	500 (7251.88)
H7H	70 - 700 (1015.26 - 10152.64)	70 (1015.26)	800 (11603)
H1K	100 - 1000 (1450.37 - 14503.77)	100 (1450.37)	1100 (15954.15)

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.



Note: Welded diaphragm also available as shown

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 HYDRAULIC DIAPHRAGM RANGE PRESSURE 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 bar)	Microswitch Type	Pressure Port Material / Size	Diaphragm								
☐ 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. The prefix is subject to change as per specific requirement.	MD = Industrial pressure switch with IP66 rated enclosure as per IS/IEC 60529 MT = Industrial pressure switch with IP66 rated enclosure as per IS/IEC 60529	1 = Al. enclosure ½" NPT threads *2 = Al. enclosure ¾" NPT threads 3 = Al. enclosure M20 X 1.5 threads 7 = SS enclosure, ½" NPT threads *8 = SS enclosure, ¾" NPT threads 9 = SS enclosure, M20 X 1.5 threads	PF1 = pressure switch, fixed differential without scale PF2 = pressure switch, fixed differential with scale in bar PF3 = pressure switch, fixed differential with scale in psi *PA1 = pressure switch, adjustable differential without scale *PA2 = pressure switch, adjustable differential with scale in bar *PA3 = pressure switch, adjustable differential with scale in psi	H1T = (0.5 - 10) H2T = (2 - 20) H4T = (5 - 40) H1H = (10 - 100) H2H = (7 - 200) H4H = (40 - 400) H7H = (70 - 700) H1K = (100 - 1000)	A1 = General purpose microswitch, rated at 15A; 250 VAC *A6 = Adjustable deadband *A7 = 2SPDT switching elements *A8 = General purpose microswitch *A9 = General purpose microswitch *B7 = 2SPDT Switching Elements *B9 = 2SPDT Switching Elements for adjustable differential	S1 = SS316 / ¼" BSP(F) S2 = SS316 / ¼" NPT(F) S3 = (welded diaphragm) SS316 / 1" BSP(M) S4 = SS316 / ½" NPT(F) S5 = SS316 / ½" NPT(M) H1 = Hastelloy C / ¼" BSP(F) H2 = Hastelloy C / ¼" NPT(F) N1 = Monel / ¼" BSP(F) N2 = Monel / ¼" NPT(F)	0 = Neoprene 1 = PTFE 2 = SS 316L 3 = Hastelloy C 4 = Monel								
	Approx. switch weight in Kgs <table><tr><td>Enclosure</td><td>MD</td><td>MT</td></tr><tr><td>Aluminium</td><td>1.200</td><td>1.640</td></tr><tr><td>SS</td><td>2.710</td><td>3.230</td></tr></table>		Enclosure	MD	MT	Aluminium	1.200	1.640	SS	2.710	3.230	* 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			
Enclosure	MD	MT													
Aluminium	1.200	1.640													
SS	2.710	3.230													

eg. A hydraulic diaphragm pressure switch, with 1/2" NPT cable entry in aluminium housing as 1SPDT pressure switch, fixed differential without scale, having 5 bar to 40 bar pressure range, with 15Amp. microswitch, SS316 pressure housing with 1/4" BSP port size shall be specified by

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8
☐	MD	1	PF1	H4T	A1	S1	2

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.

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