

FLANGED PRESSURE SWITCHES

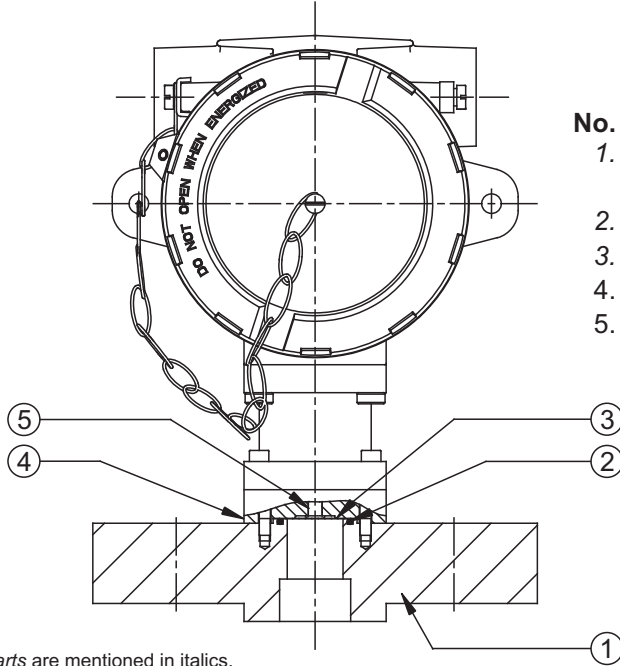
FC/FE



FE



PRESSURE CAPSULE DETAILS

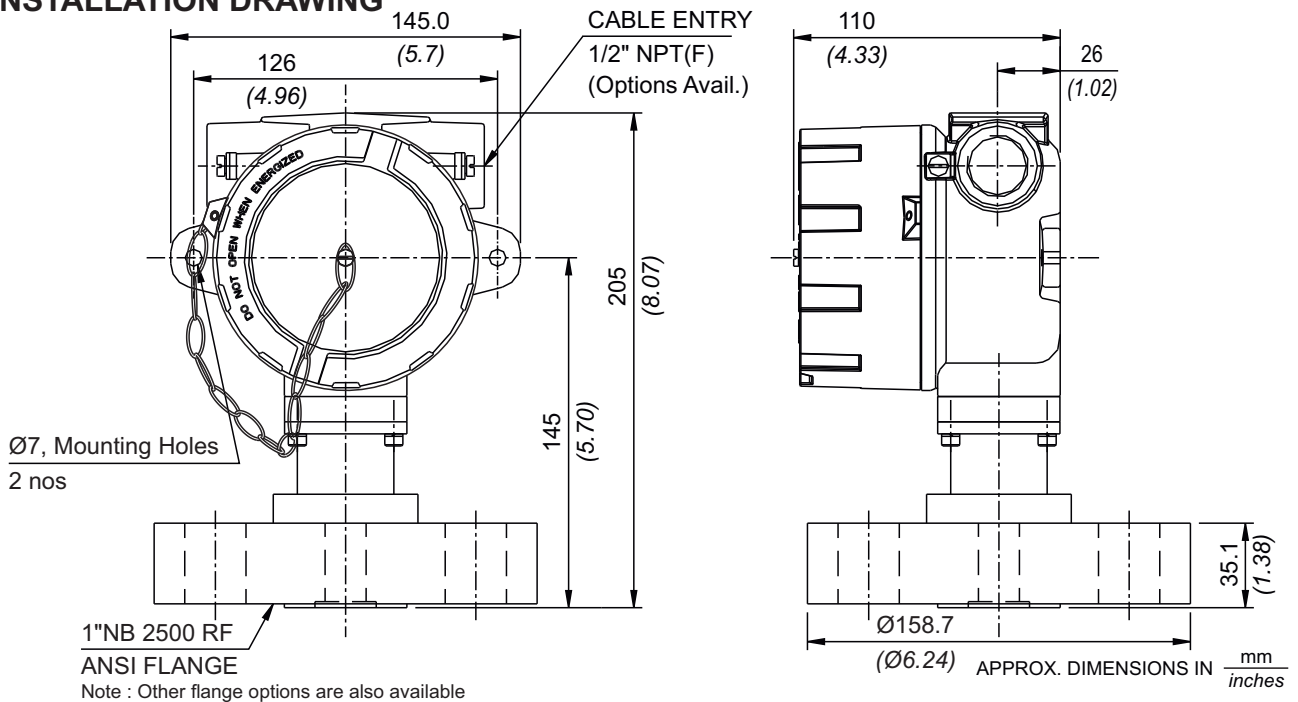


No. Description

1. ANSI FLANGE to your specifications
please refer table for possible combinations
2. Sealing Ring
3. Diaphragm
4. Disc
5. Plunger

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



FC/FE FLANGED PRESSURE SWITCHES

RANGE SELECTION TABLE

Range Code	Range bar (psi) <i>(1.45 to 14.50)</i>	Differential* bar (psi)	Maximum Working Pressure bar (psi)
		Approximate Maximum for "A1" microswitch	
H01	0.1 to 1.0 <i>(1.45 to 14.50)</i>	0.10 <i>(1.45)</i>	As per the class of flange Please consult Sales Office in case you need clarification on availability of maximum working pressure for a particular range.
H02	0.1 to 1.5 <i>(1.45 to 21.76)</i>	0.12 <i>(1.74)</i>	
H03	0.2 to 2.6 <i>(2.90 to 37.71)</i>	0.15 <i>(2.17)</i>	
H04	0.2 to 3.6 <i>(2.90 to 52.21)</i>	0.20 <i>(2.90)</i>	
H07	0.5 to 7.0 <i>(7.25 to 101.53)</i>	0.40 <i>(5.80)</i>	
H10	0.5 to 10.0 <i>(7.25 to 145.04)</i>	0.60 <i>(8.70)</i>	
H15	1.0 to 15.0 <i>(14.50 to 217.56)</i>	1.00 <i>(14.50)</i>	
H30	5.0 to 25.0 <i>(72.52 to 362.59)</i>	1.50 <i>(21.75)</i>	
H4T	5.0 to 40.0 <i>(72.52 to 580.15)</i>	5.0 <i>(72.52)</i>	
H1H	10.0 to 100.0 <i>(145.04 to 1450.38)</i>	12.0 <i>(174.05)</i>	
H2H	7.0 to 200.0 <i>(101.53 to 2900.75)</i>	24.0 <i>(348.09)</i>	
H4H	40.0 to 400.0 <i>(580.151 to 5801.51)</i>	70.0 <i>(1015.26)</i>	

FLANGE CODE TABLE (Please refer page no. 120 & 121 for more options)

	SS316L		Hastelloy C276		Monel		Titanium		Tantalum	
	RF*	FF*	RF*	FF*	RF*	FF*	RF*	FF*	RF*	FF*
150 #										
1" NB	AC	BS	DI	EY	GO	IE	JU	LK	NA	OQ
2" NB	AF	BV	DL	FB	GR	IH	JX	LN	ND	OT
300#										
1" NB	AI	BY	DO	FE	GU	IK	KA	LQ	NG	OW
2" NB	AL	CB	DR	FH	GX	IN	KD	LT	NJ	OZ

Note:

*RF = Raised Face *FF = Flat Face

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 its coil.

RANGE AVAILABILITY AS PER BORE SIZES

	H01 to H04	H07	H10	H15	H30	H4T to H2H
1" NB	NA	Yes	Yes	Yes	Yes	Yes
2" NB	Yes	Yes	Yes	Yes	Yes	Yes

Note : When using 2SPDT switching arrangement, both microswitches may not actuate and/or deactuate at the same point. Please refer note no. 7 on page no. 122.

HOW TO ORDER FLAMEPROOF FLANGED PRESSURE SWITCHES

FLANGED PRESSURE SWITCHES

FC/FE

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	Flange Size and Material	Diaphragm
<p>□ 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>FC = IP66 Flameproof pressure switch, ATEX, IECEx & PESO approved</p> <p>FE = IP66 Flameproof pressure switch, PESO approved</p>	<p>1 = Al. head 1/2" NPT threads</p> <p>2 = Al. head 3/4" NPT threads</p> <p>3 = Al. head M20 x 1.5 threads</p> <p>*4 = Grey CI head 1/2" NPT threads</p> <p>*5 = Grey CI head 3/4" NPT threads</p> <p>*6 = Grey CI head M20 x 1.5 threads</p> <p>7 = SS head 1/2" NPT threads</p> <p>8 = SS head 3/4" NPT threads</p> <p>9 = SS head M20 x 1.5 threads</p> <p>*Not available in FE models</p>	<p>A1 = ANSI Flanged pressure switch, fixed differential without scale</p> <p>A2 = ANSI Flanged pressure switch, fixed differential with scale in bar</p> <p>A3 = ANSI Flanged pressure switch, fixed differential with scale in psi</p> <p>For adjustable differential please select microswitches A6 or C6 in group 6</p>	<p>H01 = 0.1 - 1.0</p> <p>H02 = 0.1 - 1.5</p> <p>H03 = 0.2 - 2.6</p> <p>H04 = 0.2 - 3.6</p> <p>H07 = 0.5 - 7.0</p> <p>H10 = 0.5 - 10.0</p> <p>H15 = 1.0 - 15.0</p> <p>H30 = 5.0 - 25.0</p> <p>H4T = 5 - 40</p> <p>H1H = 10 - 100</p> <p>H2H = 7 - 200</p> <p>H4H = 40 - 400</p>	<p>A1 = General purpose microswitch rated at 15 A, 250 VAC</p> <p>*A6 = elements with adjustable deadband</p> <p>*A7 = 2SPDT switching elements</p> <p>A8 = General purpose microswitch rated at 5 A, 250 VAC; 5 A, 28 VDC</p> <p>*B7 = 2SPDT Switching Elements</p> <p>C6 = 1SPDT Adjustable Differential</p> <p>Please refer to page nos. 120 & 121 for options and specifications of microswitches</p> <p>* Please contact sales office for additional information</p>	<p>Please refer to the flange code table on Page nos. 118 & 119 for selection of the flange</p>	<p>0 = Neoprene</p> <p>1 = PTFE</p> <p>2 = SS316L</p> <p>3 = Hastelloy C</p> <p>4 = Monel 400</p> <p>5 = Titanium</p> <p>6 = Tantalum</p> <p>Please contact sales office for additional information</p>
Approx. switch weight in Kgs							
Enclosure	FC	FE					
Aluminium	Switch weight varies with flange, please consult sales office						
Grey CI							
SS							

eg. A flameproof switch for gas group IIC, with 1/2" NPT cable entry in aluminium housing with an ANSI flange, having 0.5 bar to 7 bar pressure range, with 15 Amp. microswitch, 1" NB 150# RF SS316L flange & SS316L diaphragm shall be specified by

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8
□	FC	1	A1	H07	A1	AC	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.