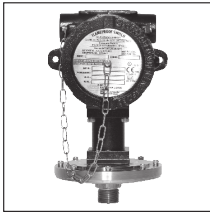


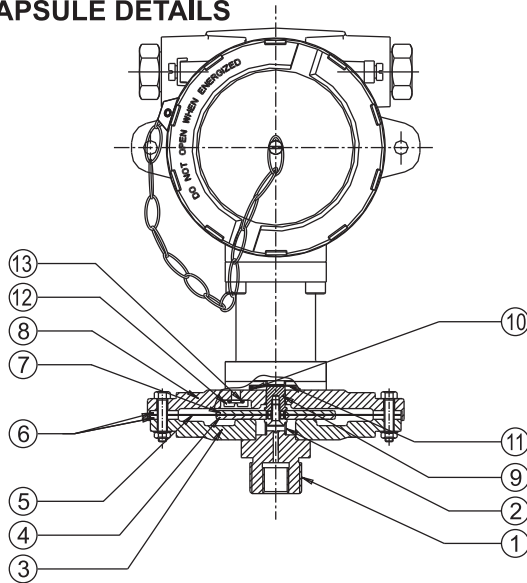
# FC/FE LOW RANGE HIGH PROOF PRESSURE SWITCHES



## FC



### PRESSURE CAPSULE DETAILS



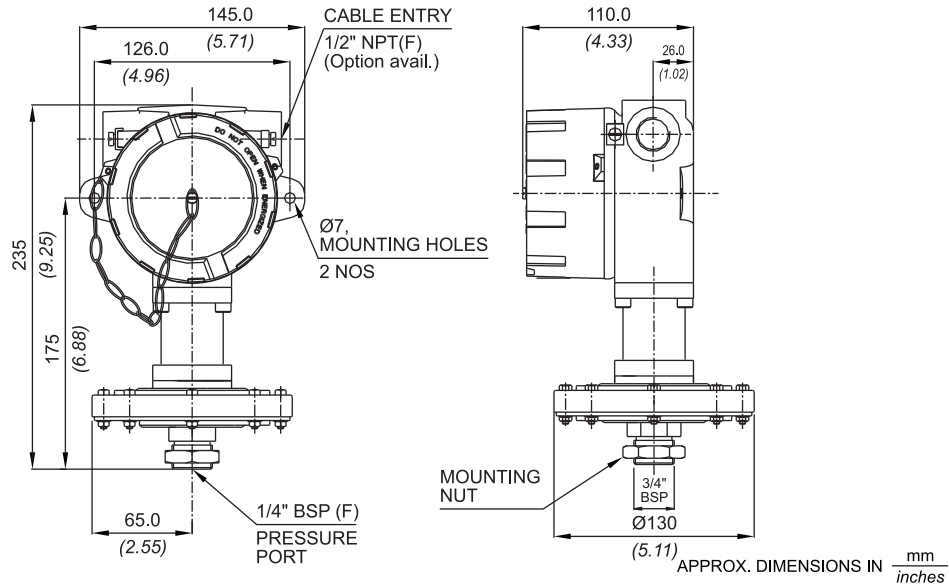
#### No. Description

1. Pressure port (S.S.)\*
2. Support spring (S.S.)
3. Bottom flange (S.S.)\*
4. Support plate (S.S.)
5. Diaphragm (Neoprene)
6. Gasket (Nitrile)
7. Top plate (S.S.)
8. Top flange (S.S.)\*
9. Transfer pin (S.S.)
10. 'O' ring (Nitrile)
11. Sealing diaphragm (Nitrile)
12. Top flange screw (S.S.)
13. Sealing 'O' ring (Nitrile)

\*Pressure ports are welded with flange

Note : wetted parts are mentioned in italics.

### INSTALLATION DRAWING



# FC/FE LOW RANGE HIGH PROOF PRESSURE SWITCHES

**RANGE SELECTION TABLE**

Range Code	Range mbar ("wc)	Differential* mbar (" wc)	Maximum Working Pressure bar (psi)
		Approximate Maximum for "A1" microswitch	
N02	1.5 to 15 (0.602 to 6.02)	3.0 (1.205)	20.0 (290.075)
N03	5 to 25 (2.009 to 10.046)	5.0 (2.009)	20.0 (290.075)
N05	10 to 50 (4.018 to 20.093)	5.0 (2.009)	20.0 (290.075)
N10	10 to 100 (4.018 to 40.186)	10.0 (4.018)	20.0 (290.075)
N15	10 to 150 (4.018 to 60.270)	10.0 (4.018)	20.0 (290.075)
N25	20 to 250 (8.03 to 100.460)	15.0 (6.027)	20.0 (290.075)
N35	50 to 350 (20.093 to 140.653)	35.0 (14.060)	20.0 (290.075)

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 FLAMEPROOF LOW RANGE HIGH PROOF PRESSURE SWITCHES

LOW RANGE HIGH PROOF PRESSURE 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.	<b>FC =</b> IP66 Flameproof pressure switch, ATEX, IECEx & PESO approved  <b>FE =</b> IP66 Flameproof pressure switch, PESO approved	<b>1</b> = Al. head 1/2" NPT threads <b>2</b> = Al. head 3/4" NPT threads <b>3</b> = Al. head M20 x 1.5 threads <b>*4</b> = Grey Cl head 1/2" NPT threads <b>*5</b> = Grey Cl head 3/4" NPT threads <b>*6</b> = Grey Cl head M20 x 1.5 threads <b>7</b> = SS head 1/2" NPT threads <b>8</b> = SS head 3/4" NPT threads <b>9</b> = SS head M20 x 1.5 threads	<b>P1</b> = pressure switch, fixed differential without scale <b>P2</b> = pressure switch, fixed differential with scale in mbar <b>P3</b> = pressure switch, fixed differential with scale in "WC	<b>N02</b> = (1.5 - 15) <b>N03</b> = (5 - 25) <b>N05</b> = (10 - 50) <b>N10</b> = (10 - 100) <b>N15</b> = (10 - 150) <b>N25</b> = (20 - 250) <b>N35</b> = (50 - 350)	<b>A1</b> = General purpose microswitch rated at 15 A, 250 VAC <b>*A6</b> = elements with adjustable deadband <b>*A7</b> = 2SPDT switching elements <b>A8</b> = General purpose microswitch rated at 5 A, 250 VAC; 5 A, 28 VDC <b>*B7</b> = 2SPDT Switching Elements <b>C6</b> = 1SPDT Adjustable Differential	<b>S1</b> = SS316 / 1/4" BSP(F) <b>S2</b> = SS316 / 1/4" NPT(F)	<b>0</b> = Neoprene <b>1</b> = PTFE <b>2</b> = SS316L														
The prefix is subject to change as per specific requirement.  Approx. switch weight in Kgs		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Enclosure</th> <th style="width: 10%;">FC</th> <th style="width: 10%;">FE</th> </tr> </thead> <tbody> <tr> <td>Aluminium</td> <td style="text-align: center;">3.950</td> <td style="text-align: center;">3.450</td> </tr> <tr> <td>Grey Cl</td> <td style="text-align: center;">6.350</td> <td style="text-align: center;">5.850</td> </tr> <tr> <td>SS</td> <td style="text-align: center;">6.450</td> <td style="text-align: center;">5.950</td> </tr> </tbody> </table>		Enclosure	FC	FE	Aluminium	3.950	3.450	Grey Cl	6.350	5.850	SS	6.450	5.950	For adjustable differential please select microswitches A6 or C6 in group 6		Please refer to page nos. 120 & 121 for options and specifications of microswitches * Please contact sales office for additional information			More options available, please contact sales office
Enclosure	FC	FE																			
Aluminium	3.950	3.450																			
Grey Cl	6.350	5.850																			
SS	6.450	5.950																			

eg. Flameproof switch for gas group, 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
□	FC	1	P1	N03	A1	S1	0

Please specify full model number to avoid ambiguity.