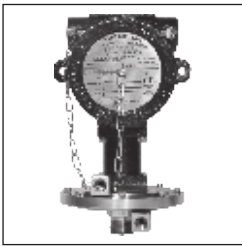


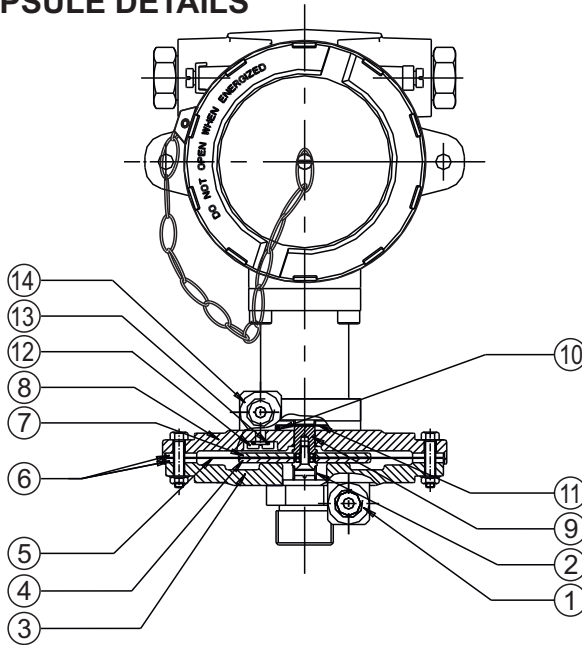
# FC/FE ULTRA LOW RANGE PRESSURE DIFFERENCE SWITCHES



## FC



### PRESSURE CAPSULE DETAILS



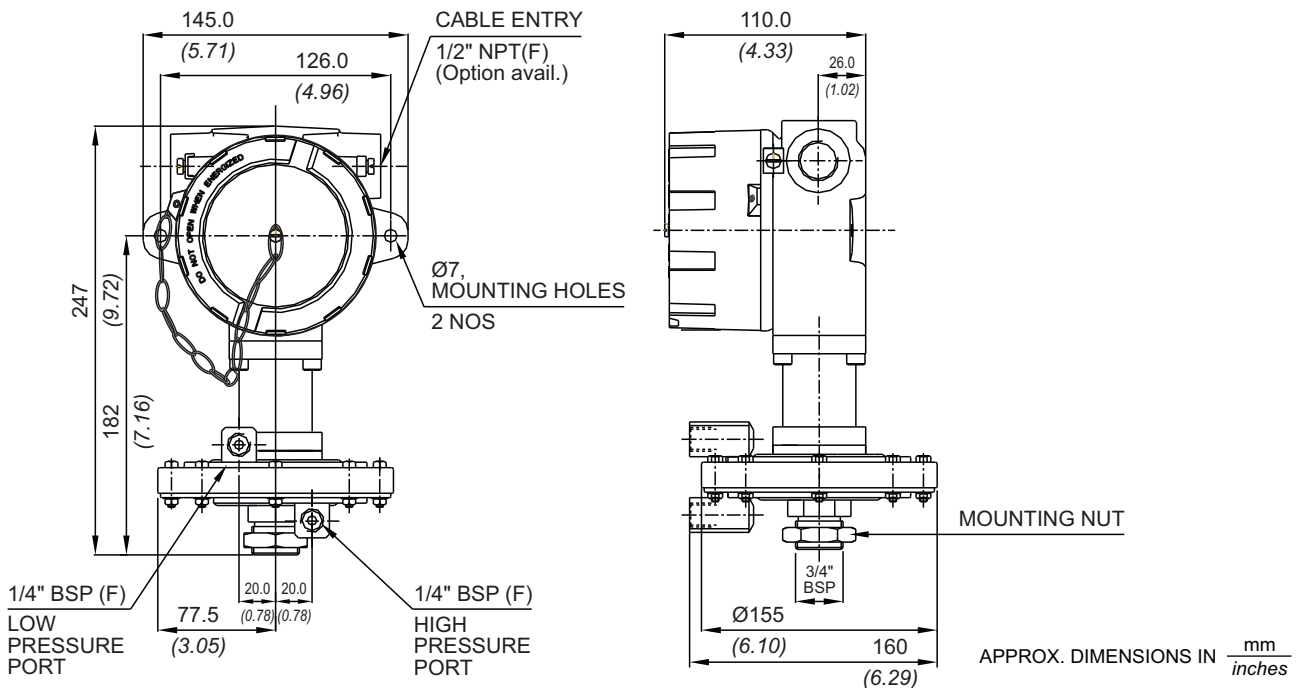
#### No. Description

1. High 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)
14. Low pressure port (S.S.)\*

Note : *wetted parts* are mentioned in italics.

\*Pressure ports are brazed with flange

### INSTALLATION DRAWING



# FC/FE **ULTRA LOW RANGE PRESSURE DIFFERENCE SWITCHES**

## RANGE SELECTION TABLE

Range Code	Range mbar ("Wc)	Differential* mbar ("Wc)	Maximum Working Pressure bar (psi)
		Approximate Maximum for "A1" microswitch	
U15	0.4 to 1.5 (0.16 to 0.60)	0.50 (0.20)	0.5 (7.25)
U25	0.5 to 2.5 (0.20 to 1.00)	0.80 (0.32)	0.5 (7.25)
U40	1.0 to 4.0 (0.40 to 1.60)	1.20 (0.48)	0.5 (7.25)

**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 ULTRA LOW RANGE PRESSURE DIFFERENCE SWITCHES

## ULTRA LOW RANGE PRESSURE DIFFERENCE 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 mbar)	Microswitch Type	Pressure Port Material / Size	Diaphragm												
<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><b>FC</b> = IP66 Flameproof pressure switch, ATEX, IECEx &amp; PESO approved</p> <p><b>FE</b> = IP66 Flameproof pressure switch, PESO approved</p>	<p><b>1</b> = Al. head 1/2" NPT threads</p> <p><b>2</b> = Al. head 3/4" NPT threads</p> <p><b>3</b> = Al. head M20 x 1.5 threads</p> <p><b>*4</b> = Grey CI head 1/2" NPT threads</p> <p><b>*5</b> = Grey CI head 3/4" NPT threads</p> <p><b>*6</b> = Grey CI head M20 x 1.5 threads</p> <p><b>7</b> = SS head 1/2" NPT threads</p> <p><b>8</b> = SS head 3/4" NPT threads</p> <p><b>9</b> = SS head M20 x 1.5 threads</p> <p>*Not available in FE models</p>	<p><b>D1</b> = pressure difference switch, fixed differential without scale</p> <p><b>D2</b> = pressure difference switch, fixed differential with scale in mbar</p> <p><b>D3</b> = pressure difference switch, fixed differential with scale in "Wc</p> <p>For adjustable differential please select microswitches A6 or C6 in group 6</p>	<p><b>U15</b> = (0.4 - 1.5)</p> <p><b>U25</b> = (0.5 - 2.5)</p> <p><b>U40</b> = (1.0 - 4.0)</p>	<p><b>A1</b> = General purpose microswitch rated at 15 A; 250 VAC</p> <p><b>*A6</b> = elements with adjustable deadband</p> <p><b>*A7</b> = 2SPDT switching elements</p> <p><b>A8</b> = General purpose microswitch rated at 5 A, 250 VAC; 5 A, 28 VDC</p> <p><b>*B7</b> = 2SPDT Switching Elements</p> <p><b>C6</b> = 1SPDT Adjustable Differential</p> <p>Please refer to page nos. 120 &amp; 121 for options and specifications of microswitches</p> <p>* Please contact sales office for additional information</p>	<p><b>S1</b> = SS316 / 1/4" BSP(F)</p> <p><b>S2</b> = SS316 / 1/4" NPT(F)</p> <p>More options available, please contact sales office</p>	<p><b>0</b> = Neoprene</p> <p><b>1</b> = PTFE</p>												
<p>Approx. switch weight in Kgs</p> <table border="1"> <thead> <tr> <th>Enclosure</th> <th>FC</th> <th>FE</th> </tr> </thead> <tbody> <tr> <td>Aluminium</td> <td>3.910</td> <td>3.410</td> </tr> <tr> <td>Grey CI</td> <td>6.320</td> <td>5.820</td> </tr> <tr> <td>SS</td> <td>6.410</td> <td>5.910</td> </tr> </tbody> </table>		Enclosure	FC	FE	Aluminium	3.910	3.410	Grey CI	6.320	5.820	SS	6.410	5.910						
Enclosure	FC	FE																	
Aluminium	3.910	3.410																	
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SS	6.410	5.910																	

eg. Flameproof switch for gas group, with 1/2" NPT cable entry in aluminium housing as 1SPDT pressure switch, fixed differential without scale, having 0.16 to 0.60 "Wc 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
<input type="checkbox"/>	FC	1	D1	U15	A1	S1	0

Please specify full model number to avoid ambiguity.