

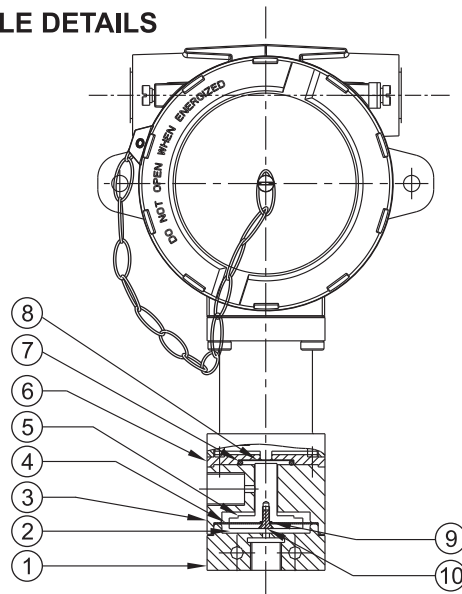
# FC/FE HIGH RANGE PRESSURE DIFFERENCE SWITCHES



## FC



### PRESSURE CAPSULE DETAILS

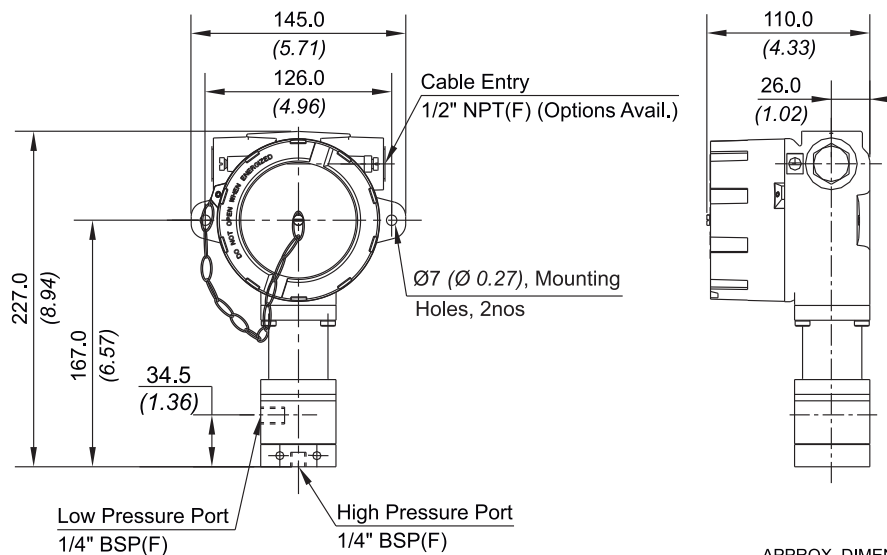


#### No. Description

1. Pressure Housing
2. HP Plunger (SS316)
3. Disc
4. Diaphragm
5. LP Plunger (SS316)
6. Junction Plate
7. Sealing 'O' Ring (PTFE)
8. Sealing diaphragms (PTFE)
9. 'O' ring (PTFE)
10. CSK screw (SS)

Note : wetted parts are mentioned in italics.

### INSTALLATION DRAWING



APPROX. DIMENSIONS IN  $\frac{\text{mm}}{\text{inches}}$

# FC/FE 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 to 1.0 (1.45 to 14.50)	0.12 (1.74)	12.0 (174.05)
H02	0.1 to 1.5 (1.45 to 21.76)	0.20 (2.90)	12.0 (174.05)
H03	0.2 to 2.6 (2.90 to 37.71)	0.20 (2.90)	12.0 (174.05)
H04	0.2 to 3.6 (2.90 to 52.21)	0.30 (4.35)	12.0 (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 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.

# HIGH RANGE PRESSURE DIFFERENCE SWITCHES

# FC/FE

## HOW TO ORDER FLAMEPROOF HIGH RANGE PRESSURE DIFFERENCE 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 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>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 CI head 1/2" NPT threads <b>*5</b> = Grey CI head 3/4" NPT threads <b>*6</b> = Grey CI 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>D1</b> = pressure difference switch, fixed differential without scale <b>D2</b> = pressure difference switch, fixed differential with scale in bar <b>D3</b> = pressure difference switch, fixed differential with scale in psi	<b>H01</b> = (0.1 - 1.0) <b>H02</b> = (0.1 - 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> = 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												
The prefix is subject to change as per specific requirement.  Approx. switch weight in Kgs		*Not available in FE models	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	For additional wetted part materials please contact Sales Office												
<table border="1"> <thead> <tr> <th>Enclosure</th> <th>FC</th> <th>FE</th> </tr> </thead> <tbody> <tr> <td>Aluminium</td> <td>2.030</td> <td>1.530</td> </tr> <tr> <td>Grey CI</td> <td>4.430</td> <td>3.930</td> </tr> <tr> <td>SS</td> <td>4.560</td> <td>4.060</td> </tr> </tbody> </table>	Enclosure	FC	FE	Aluminium	2.030	1.530	Grey CI	4.430	3.930	SS	4.560	4.060							
Enclosure	FC	FE																	
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eg. A flameproof switch for gas group IIC, with 1/2" NPT cable entry in aluminium housing as 1SPDT pressure difference switch, having 0.1 bar to 1 bar 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	D1	H01	A1	S1	0

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.