

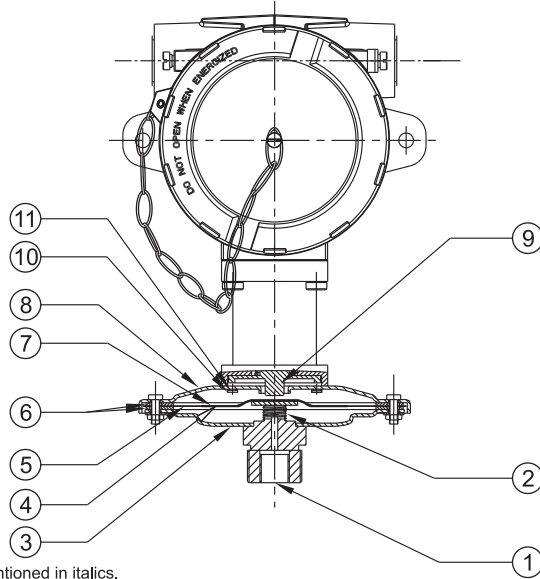
FC/FE LOW RANGE COMPOUND SWITCHES



FC



PRESSURE CAPSULE DETAILS



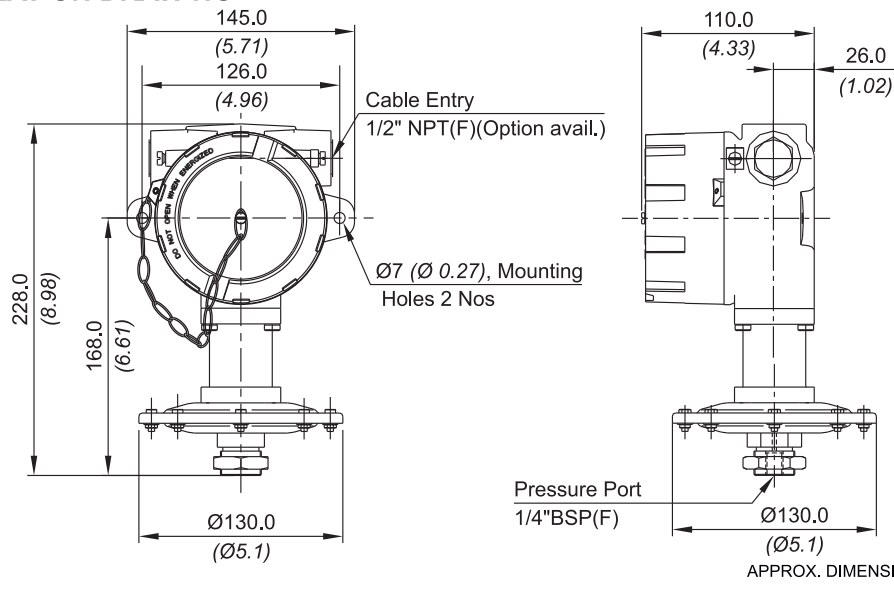
No. Description

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

Note : *wetted parts* are mentioned in italics.

*Pressure port is welded with flange

INSTALLATION DRAWING



FC/FE LOW RANGE COMPOUND SWITCHES

RANGE SELECTION TABLE

| Range Code | Range mbar ("Wc) | Differential* mm wc ("Wc) | Maximum Working Pressure bar (psi) |
|------------|------------------------------------|---|--|
| | | Approximate Maximum for "A1" microswitch | |
| CL2 | -15 to 15 (-6.030 to 6.030) | 40.0 (1.574) | 2.0 (29.00) |
| CL3 | -25 to 25 (-10.047 to 10.047) | 60.0 (2.362) | 2.0 (29.00) |
| CL5 | -50 to 50 (-20.093 to 20.093) | 100.0 (3.937) | 2.0 (29.00) |
| CLX | -100 to 100 (-40.186 to 40.186) | 150.0 (5.90) | 2.0 (29.00) |

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 LOW RANGE COMPOUND 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. | FC = IP66 Flameproof pressure switch, ATEX, IECEx & PESO approved FE = IP66 Flameproof pressure switch, PESO approved | 1 = Al. head 1/2" NPT threads 2 = Al. head 3/4" NPT threads 3 = Al. head M20 x 1.5 threads *4 = Grey CI head 1/2" NPT threads *5 = Grey CI head 3/4" NPT threads *6 = Grey CI head M20 x 1.5 threads 7 = SS head 1/2" NPT threads 8 = SS head 3/4" NPT threads 9 = SS head M20 x 1.5 threads *Not available in FE models | C1 = Compound switch, fixed differential without scale For adjustable differential please select microswitches A6 or C6 in group 6 | CL2 = (1.5 - 15) CL3 = (-25 - 25) CL5 = (-50 - 50) CLX = (-100 - 100) | A1 = General purpose microswitch rated at 15 A, 250 VAC *A6 = elements with adjustable deadband *A7 = 2SPDT switching elements A8 = General purpose microswitch rated at 5 A, 250 VAC; 5 A, 28 VDC *B7 = 2SPDT Switching Elements C6 = 1SPDT Adjustable Differential Please refer to page nos. 120 & 121 for options and specifications of microswitches * Please contact sales office for additional information | S1 = SS316 / 1/4" BSP(F) S2 = SS316 / 1/4" NPT(F) | 0 = Neoprene 1 = PTFE | | | | | | | | | | | | |
| The prefix is subject to change as per specific requirement. Approx. switch weight in Kgs | <table border="1"> <thead> <tr> <th>Enclosure</th> <th>FC</th> <th>FE</th> </tr> </thead> <tbody> <tr> <td>Aluminium</td> <td>2.450</td> <td>1.950</td> </tr> <tr> <td>Grey CI</td> <td>4.850</td> <td>4.350</td> </tr> <tr> <td>SS</td> <td>4.950</td> <td>4.450</td> </tr> </tbody> </table> | Enclosure | FC | FE | Aluminium | 2.450 | 1.950 | Grey CI | 4.850 | 4.350 | SS | 4.950 | 4.450 | | | | | | |
| Enclosure | FC | FE | | | | | | | | | | | | | | | | | |
| Aluminium | 2.450 | 1.950 | | | | | | | | | | | | | | | | | |
| Grey CI | 4.850 | 4.350 | | | | | | | | | | | | | | | | | |
| SS | 4.950 | 4.450 | | | | | | | | | | | | | | | | | |

eg. Flameproof switch for gas group IIC, with 1/2" NPT cable entry in aluminium housing as 1SPDT pressure switch, having -150 to 150 mm 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 | C1 | CL2 | A1 | S1 | 0 |

Please specify full model number to avoid ambiguity.

LOW RANGE COMPOUND SWITCHES

FC/FE