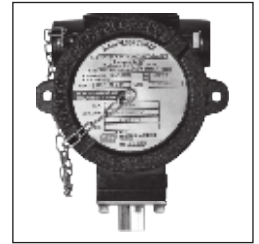


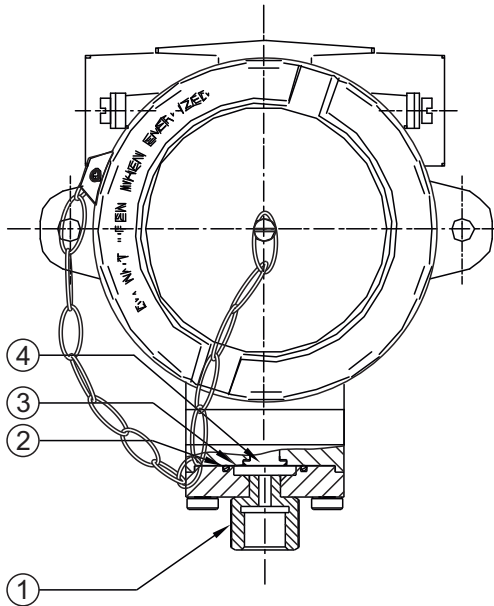
HIGH PROOF HIGH RANGE SWITCHES **FC/FE**



FE



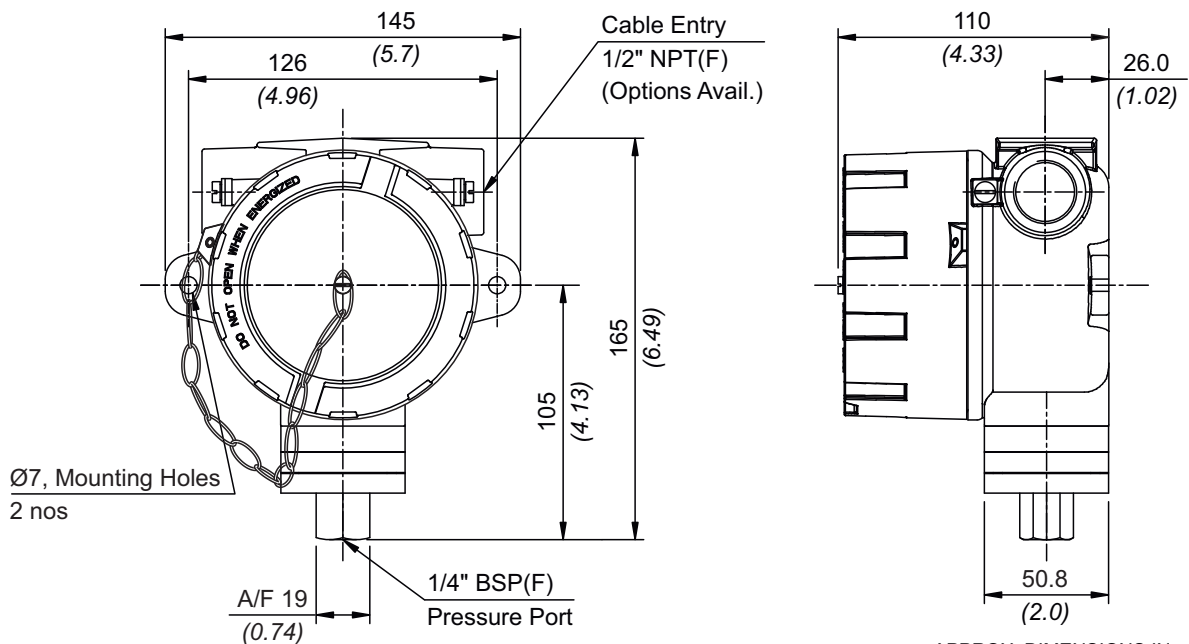
PRESSURE CAPSULE DETAILS



- No. Description**
1. Pressure Housing
 2. PTFE O-Ring
 3. Diaphragm
 4. Plunger

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



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

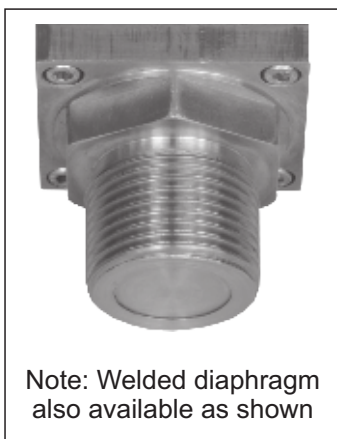
FC/FE HIGH PROOF HIGH RANGE SWITCHES

RANGE SELECTION TABLE

| Range Code | Range bar (psi) | Differential* bar (psi) | Maximum Working Pressure bar (psi) |
|------------|----------------------------------|--|------------------------------------|
| | | Approximate Maximum for "A1" microswitch | |
| P01 | 0.1 to 1.0 (1.45 to 14.50) | 0.20 (2.9) | 70.0 (1015.26) |
| P02 | 0.1 to 1.5 (1.45 to 21.76) | 0.20 (2.9) | 70.0 (1015.26) |
| P03 | 0.2 to 2.6 (2.90 to 37.71) | 0.30 (4.35) | 70.0 (1015.26) |
| P04 | 0.2 to 3.6 (2.90 to 52.21) | 0.40 (5.80) | 70.0 (1015.26) |
| P07 | 0.5 to 7.0 (7.25 to 101.53) | 0.50 (7.25) | 70.0 (1015.26) |
| P10 | 0.5 to 10.0 (7.25 to 145.04) | 0.80 (11.6) | 70.0 (1015.26) |
| P15 | 1.0 to 15.0 (14.50 to 217.56) | 1.50 (21.76) | 70.0 (1015.26) |
| P30 | 5.0 to 25.0 (72.52 to 362.60) | 1.50 (21.76) | 70.0 (1015.26) |

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 HIGH PROOF HIGH RANGE PRESSURE SWITCHES

HIGH PROOF HIGH RANGE 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 | 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>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 Cl head 1/2" NPT threads</p> <p>*5 = Grey Cl head 3/4" NPT threads</p> <p>*6 = Grey Cl 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>P 1 = pressure switch, fixed differential without scale</p> <p>P 2 = pressure switch, fixed differential with scale in bar</p> <p>P 3 = pressure switch, fixed differential with scale in psi</p> <p>For adjustable differential please select microswitches A6 or C6 in group 6</p> | <p>P01 = (0.1 - 1.0)</p> <p>P02 = (0.1 - 1.5)</p> <p>P03 = (0.2 - 2.6)</p> <p>P04 = (0.2 - 3.6)</p> <p>P07 = (0.5 - 7.0)</p> <p>P10 = (0.5 - 10.0)</p> <p>P15 = (1.0 - 15.0)</p> <p>P30 = (5.0 - 25.0)</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>S1 = SS316 / 1/4" BSP(F)</p> <p>S2 = SS316 / 1/4" NPT(F)</p> <p>S3 = (welded diaphragm) SS316 / 1" BSP(M)</p> <p>S4 = SS316 / 1/2" NPT(F)</p> <p>S5 = SS316 / 1/2" NPT(M)</p> <p>H1 = Hastelloy C / 1/4" BSP(F)</p> <p>H2 = Hastelloy C / 1/4" NPT(F)</p> <p>N1 = Monel / 1/4" BSP(F)</p> <p>N2 = Monel / 1/4" NPT(F)</p> <p>More options available, please contact sales office</p> | <p>0 = Neoprene</p> <p>1 = PTFE</p> <p>2 = SS 316L</p> <p>3 = Hastelloy C</p> <p>4 = Monel</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>1.870</td> <td>1.370</td> </tr> <tr> <td>Grey Cl</td> <td>4.270</td> <td>3.770</td> </tr> <tr> <td>SS</td> <td>4.420</td> <td>3.920</td> </tr> </tbody> </table> | | Enclosure | FC | FE | Aluminium | 1.870 | 1.370 | Grey Cl | 4.270 | 3.770 | SS | 4.420 | 3.920 | | | | | | |
| Enclosure | FC | FE | | | | | | | | | | | | | | | | | |
| Aluminium | 1.870 | 1.370 | | | | | | | | | | | | | | | | | |
| Grey Cl | 4.270 | 3.770 | | | | | | | | | | | | | | | | | |
| SS | 4.420 | 3.920 | | | | | | | | | | | | | | | | | |

eg. A high proof high range flameproof switch with 1/2" NPT cable entry in aluminium housing as 1SPDT pressure switch, fixed differential without scale, having 0.1 bar to 1 bar pressure range, with 15 Amp. microswitch, SS316 pressure housing with 1/4" BSP port size & SS316L 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 | P1 | P01 | A1 | S1 | 2 |

Please specify full model number to avoid ambiguity.