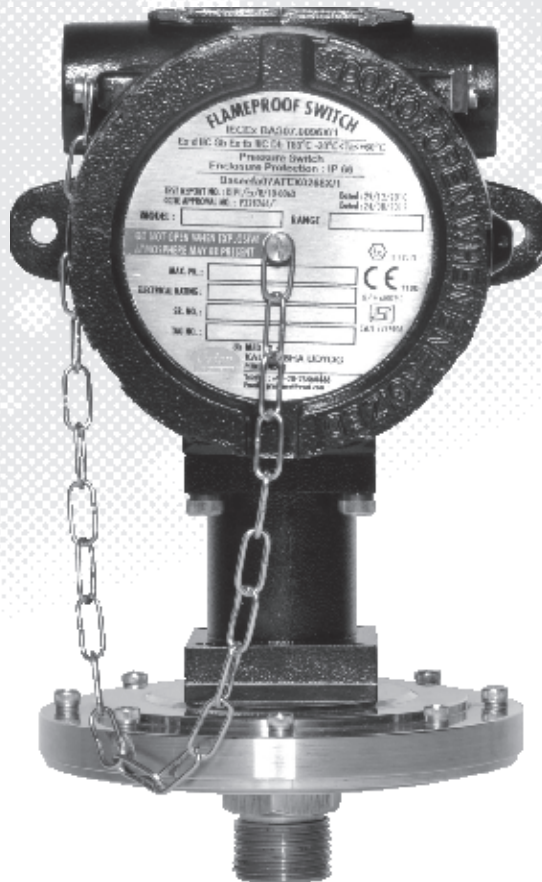




**PRESSURE SWITCHES  
PRESSURE DIFFERENCE SWITCHES  
VACUUM SWITCHES**  
From 1.5 mbar to 600 bar

# FC Low Range High Proof Pressure Switches

## CATALOGUE



Certificate No.: FM72815



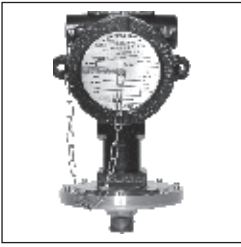
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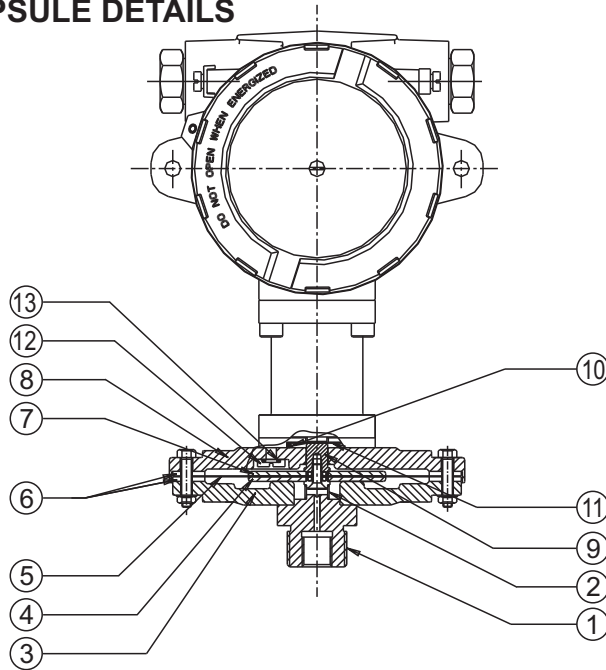
Website : <http://www.orion-instruments.com>

BULLETIN NO. : KA131124

# FC LOW RANGE HIGH PROOF PRESSURE SWITCHES



## PRESSURE CAPSULE DETAILS



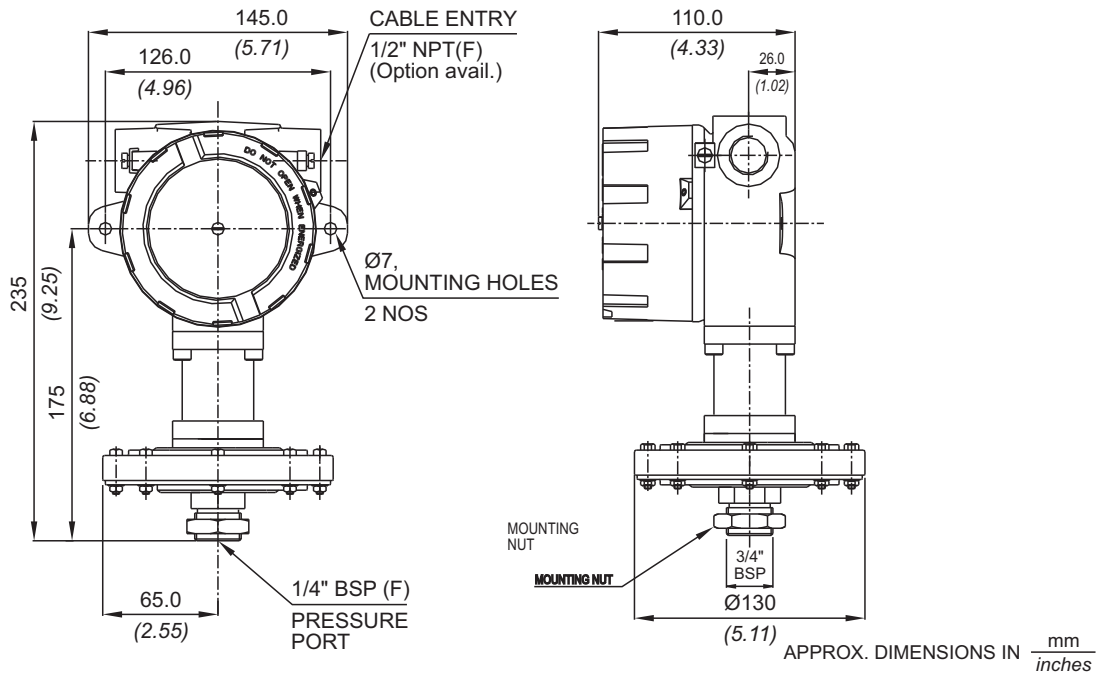
### No. Description

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 brazed with flange

Note : wetted parts are mentioned in italics.

## INSTALLATION DRAWING



## RANGE SELECTION TABLE

| Range Code | Range<br>mbar ("wc)           | Differential* mbar (" wc)                         | Maximum<br>Working Pressure<br>bar (psi) |
|------------|-------------------------------|---|--|
|            |                               | Approximate<br>Maximum<br>for "A1"<br>microswitch |  |
| N02        | 1.5 - 15<br>(0.602 - 6.02)    | 3<br>(1.204)                                      | 20<br>(290.076)                          |
| N03        | 5 - 25<br>(2.007 - 10.037)    | 5<br>(2.007)                                      | 20<br>(290.076)                          |
| N05        | 10 - 50<br>(4.015 - 20.073)   | 5<br>(2.007)                                      | 20<br>(290.076)                          |
| N10        | 10 - 100<br>(4.015 - 40.146)  | 10<br>(4.015)                                     | 20<br>(290.076)                          |
| N15        | 10 - 150<br>(4.015 - 60.22)   | 10<br>(4.015)                                     | 20<br>(290.076)                          |
| N25        | 20 - 250<br>(8.03 - 100.36)   | 15<br>(4.015)                                     | 20<br>(290.076)                          |
| N35        | 50 - 350<br>(20.073 - 140.51) | 35<br>(14.05)                                     | 20<br>(290.076)                          |

\*Minimum differential increases with setpoint (Graphs available on request)

**\* Note :**

Microswitches A2 through A9 can be supplied in some ranges and differentials will vary with microswitch used. Please contact sales office for details. Please check availability of adjustable differential with sales office.

### HOW TO ORDER FLAMEPROOF 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<br>(values in mbar)   | Microswitch<br>Type   | Pressure Port<br>Material / Size                               | Diaphragm   |
| <input type="checkbox"/> Reserved for non-standard options not covered in catalogue. Will be given by manufacturer, only after agreement of supply details with customer. | <b>FC</b> = Flameproof pressure switch, ATEX and IECEx approved, with Aluminium head as per IS/IEC 60079-1 for Gas Gr. IIC | <b>1</b> = ½" NPT threads<br><b>2</b> = ¾" NPT threads<br><b>3</b> = M20 X 1.5 threads<br><b>4</b> = Grey CI head ½" NPT threads<br><b>5</b> = Grey CI head ¾" NPT threads<br><b>6</b> = Grey CI head M20x1.5<br><b>7</b> = SS ½" NPT threads<br><b>8</b> = SS ¾" NPT threads<br><b>9</b> = SS head M20x1.5 threads | <b>P1</b> = pressure switch, fixed differential without scale<br><b>P2</b> = pressure switch, fixed differential with scale in mbar<br><b>P3</b> = pressure switch, fixed differential with scale in "Wc | <b>N02</b> = (1.5 - 15)<br><b>N03</b> = (5 - 25)<br><b>N05</b> = (10 - 50)<br><b>N10</b> = (10 - 100)<br><b>N15</b> = (10 - 150)<br><b>N25</b> = (20 - 250)<br><b>N35</b> = (50 - 350) | <b>A1</b> = General purpose microswitch rated at 15 A; 250 VAC<br><b>*A2</b> = Hermetically sealed for corrosive environments<br><b>*A3</b> = gold plated contacts for low voltage applications<br><b>*A4</b> = DPDT configuration<br><b>*A5</b> = for high DC ratings<br><b>*A7</b> = 2SPDT switching elements<br><b>*A9</b> = General purpose microswitch rated at 5 A; 250 VAC<br><small>* Please refer note under Range Selection Table</small> | <b>S1</b> = SS316 / ¼" BSP(F)<br><b>S2</b> = SS316 / ¼" NPT(F) | <b>0</b> = Neoprene<br><b>1</b> = Teflon<br><b>2</b> = SS316L |

eg. Flameproof switch for gas group, with ½" 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 ¼" 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.

**WARRANTY :**

Our products are warranted against defect in specified material and workmanship under specified normal service conditions for 12 months after being placed in service but not more than 18 months from the date of shipment, provided such items are returned free to our works at PUNE.

Company's liability in respect of defective parts is limited to making good by replacement, or repair defects, to be determined by the company. This is, provided the purchaser has given immediate written notice upon discovery of such defects, but within the time specified above. The replaced / repaired parts will be supplied exworks.

The company will be relieved of its obligation if any arbitrary attempt to rectify has been undertaken by purchaser/user. This warranty does not cover normal wear and tear and damage due to corrosion or erosion.

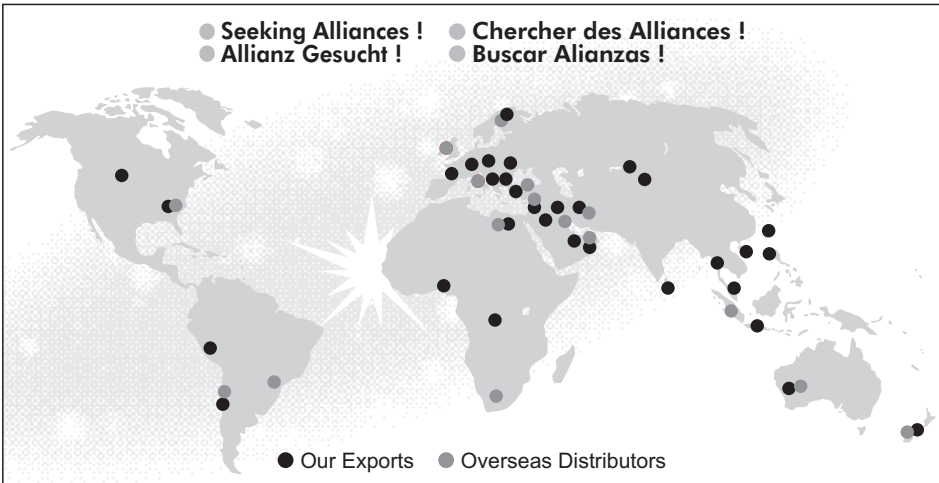
The company's liability is limited to making good the part or parts which are defective and excludes any and every other obligation for loss or damage, direct or consequential.

**The foregoing is in lieu of all other expressed and implied warranties(except of title), including those of merchantability and fitness for a particular purpose.**

Although we provide application assistance, either through our literature or personally, it is the responsibility of the customer to determine the suitability of the product in the application. Customer's interpretation and implementation of application suggestions and recommendation by Kaustubha Udyog, general or specific, transmitted verbally or in writing, published or unpublished, is strictly at the buyer's own risk.

Your Local Representative

**REPRESENTATIVES**



**Note :** As efforts are made constantly to improve both design and method of manufacture, the apparatus supplied may differ in detail from illustration and data printed. Please check the specifications while ordering

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