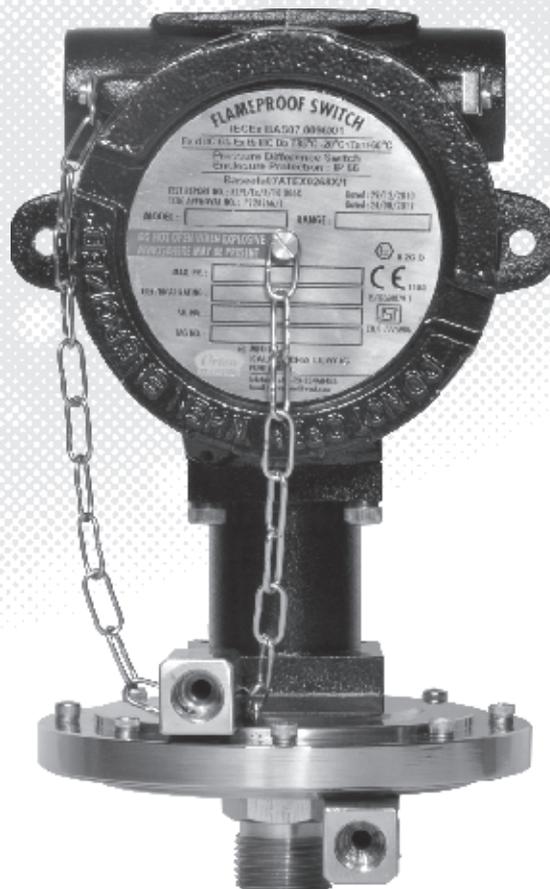




**PRESSURE SWITCHES  
PRESSURE DIFFERENCE SWITCHES  
VACUUM SWITCHES**  
From 1.5 mbar to 600 bar

# FC Low DP High Proof Pressure Difference Switches

## CATALOGUE



Certificate No.: FM72815



**Kaustubha Udyog** AN ISO9001:2008 COMPANY

S. No. 36/1/1, Sinhgad Road, Vadgaon Khurd,  
Near Lokmat Press, Pune 411 041 INDIA  
Tel. : +91-(0) 20-24393577 / 24393877  
Telefax: +91-(0) 20-24393577 / 25460486  
Email : pressure@vsnl.com

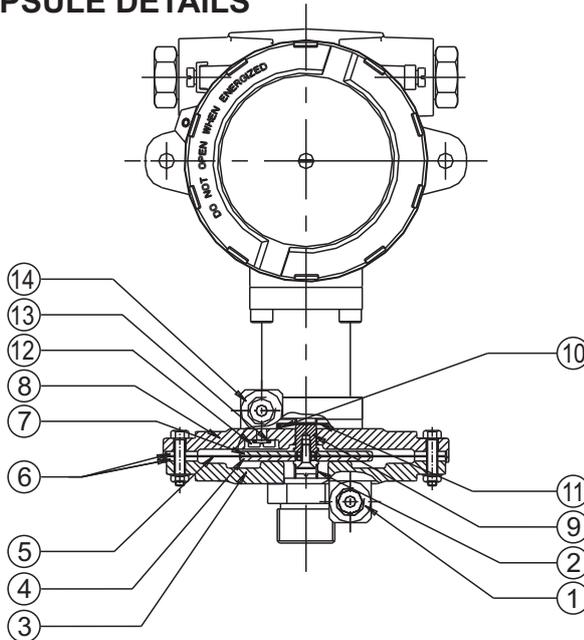
Website : <http://www.orion-instruments.com>

BULLETIN NO. : KA131025

# FC LOW DP HIGH PROOF PRESSURE DIFFERENCE SWITCHES



## PRESSURE CAPSULE DETAILS



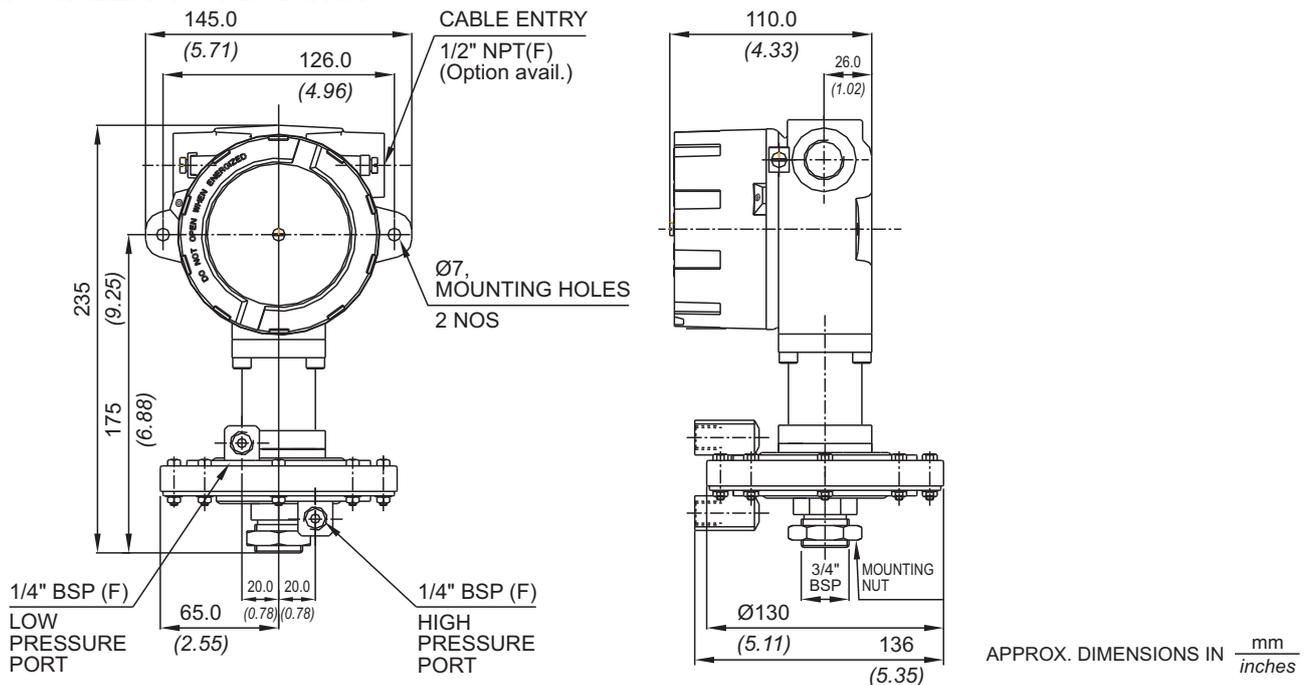
### No. Description

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



# LOW DP HIGH PROOF PRESSURE DIFFERENCE SWITCHES



## RANGE SELECTION TABLE

Range Code	Range mbar ("wc)	Differential* mbar (" wc)	Maximum Working Pressure bar (psi)
		Approximate Maximum for "A1" microswitch	
N02	1.5 - 15 (0.602 - 6.02)	3 (1.204)	20 (290.076)
N03	5 - 25 (2.007 - 10.037)	5 (2.007)	20 (290.076)
N05	10 - 50 (4.015 - 20.073)	5 (2.007)	20 (290.076)
N10	10 - 100 (4.015 - 40.146)	10 (4.015)	20 (290.076)
N15	10 - 150 (4.015 - 60.22)	10 (4.015)	20 (290.076)
N25	20 - 250 (8.03 - 100.36)	15 (4.015)	20 (290.076)
N35	50 - 350 (20.073 - 140.51)	35 (14.05)	20 (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 DP HIGH PROOF 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 mbar)	Microswitch Type	Pressure Port 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	1 = ½" NPT threads 2 = ¾" NPT threads 3 = M20 X 1.5 threads 4 = Grey CI head ½" NPT threads 5 = Grey CI head ¾" NPT threads 6 = Grey CI head M20x1.5 7 = SS ½" NPT threads 8 = SS ¾" NPT threads 9 = SS head M20x1.5 threads	<b>D1</b> = pressure difference switch, fixed differential without scale <b>D2</b> = pressure difference switch, fixed differential with scale in mbar <b>D3</b> = pressure difference switch, fixed differential with scale in "Wc	<b>N02</b> = (1.5 - 15) <b>N03</b> = (5 - 25) <b>N05</b> = (10 - 50) <b>N10</b> = (10 - 100) <b>N15</b> = (10 - 150) <b>N25</b> = (20 - 250) <b>N35</b> = (50 - 350)	<b>A1</b> = General purpose microswitch rated at 15 A; 250 VAC <b>*A2</b> = Hermetically sealed for corrosive environments <b>*A3</b> = gold plated contacts for low voltage applications <b>*A4</b> = DPDT configuration <b>*A5</b> = for high DC ratings <b>*A7</b> = 2SPDT switching elements <b>*A9</b> = General purpose microswitch rated at 5 A; 250 VAC <small>* Please refer note under Range Selection Table</small>	<b>S1</b> = SS316 / ¼" BSP(F) <b>S2</b> = SS316 / ¼" NPT(F) <b>N1</b> = Monel / ¼" BSP(F) <b>N2</b> = Monel / ¼" NPT(F)	<b>0</b> = Neoprene <b>1</b> = Teflon <b>*4</b> = Monel  <small>* Please contact Sales Office</small>

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
<input type="checkbox"/>	FC	1	D1	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.

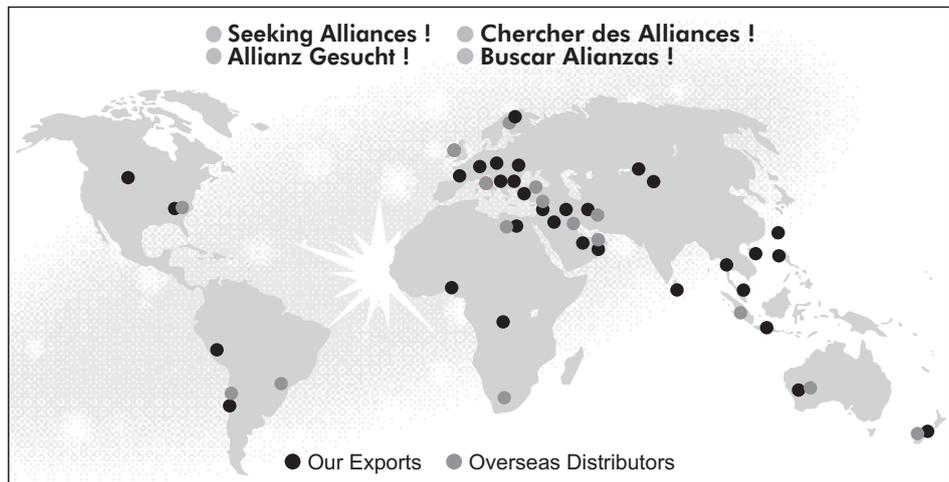
The company's liability is limited to making good the part or parts which are defective and excludes any and every other obligation for loss or damage, direct or consequential.

**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

**Kaustubha Udyog (Orion Instruments)**

**Registered Office :**

7, Parichaya Society, 1000/6D, Navi Peth, Pune 411 030 INDIA  
Tel.: + 91-(0) 20-24532124 / 24531053  
Telefax : + 91-(0) 20-25460486 / 24532124

**Marketing Office :**

S. No. 36/1/1, Sinhgad Road, Vadgaon Khurd, Pune 411 041 INDIA  
Tel.: + 91-(0) 20-24393877  
Telefax : + 91-(0) 20-24393577 / 25460486

Certificate No.: FM72815



Email : [pressure@vsnl.com](mailto:pressure@vsnl.com) / [info@orion-instruments.com](mailto:info@orion-instruments.com) Website : [www.orion-instruments.com](http://www.orion-instruments.com)