



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

Hydraulic Flameproof Switch

CATALOGUE



Certificate No.: FM 72815

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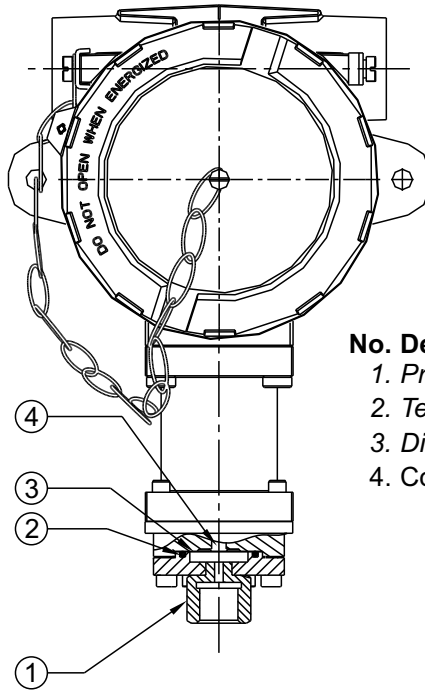
Website : <http://www.orion-instruments.com>

BULLETIN NO. : KA090121

FC/FM HYDRAULIC RANGES



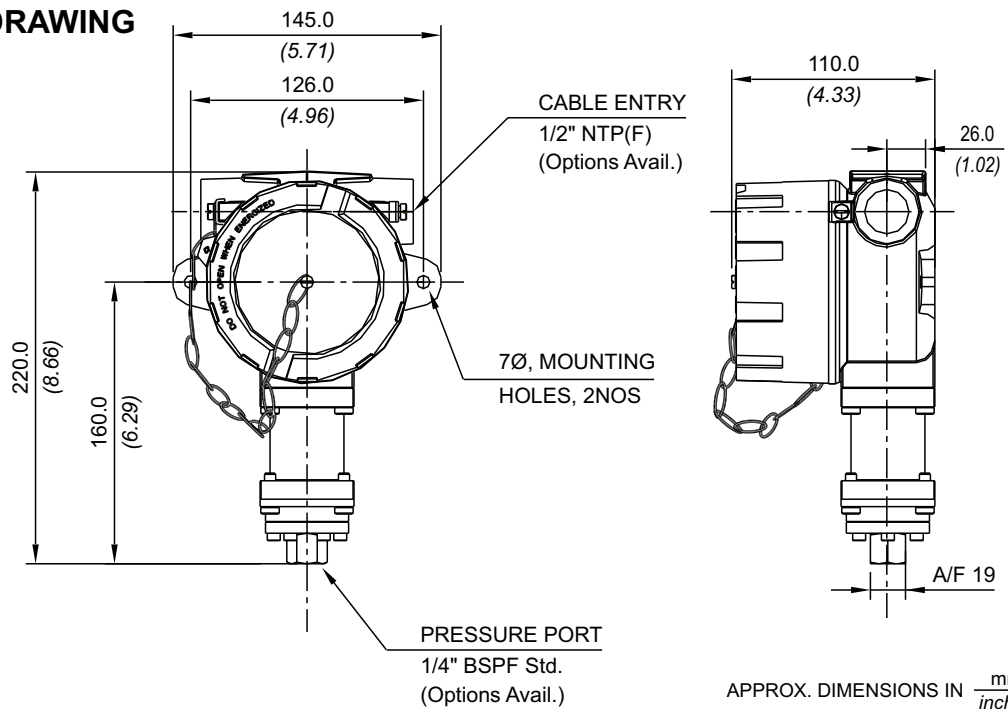
PRESSURE CAPSULE DETAILS



- No. Description**
1. Pressure Port
 2. Teflon® O-Ring
 3. Diaphragm
 4. Conical Plunger

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



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HYDRAULIC RANGES **FC/FM**

RANGE SELECTION TABLE

Range Code	Range bar (psi)	Differential* bar (psi)	Maximum Working Pressure bar (psi)
		Approximate Maximum for "A1" microswitch	
H2T	2 - 20 (28.57 - 285.71)	2 (28.57)	200 (2857.14)
H4T	5 - 40 (71.43 - 571.43)	5 (71.43)	200 (2857.14)
H1H	10 - 100 (142.86 - 1428.57)	12 (171.42)	200 (2857.14)
H2H	7 - 200 (100.00 - 2857.14)	24 (342.86)	400 (5714.29)
H4H	40 - 400 (571.43 - 5714.29)	80 (1142.86)	500 (7142.86)

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

* Differentials of microswitches A2 through A9 will vary. Differentials for A7 are typically twice that for A1 microswitch. Please indicate specifically the differential value in enquiry/order, when it is critical in your application.

HOW TO ORDER HYDRAULIC RANGE FLAMEPROOF PRESSURE SWITCHES

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8
Non standard allocation	Gas Group Classification	Cable Entry Size and Material of Enclosure	Switch Type	Range Code (values in bar)	Microswitch Type	Pressure Port 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.	FC = Flameproof pressure switch with Aluminium head as per IS2148 for Gas Gr. IIC FM = Flameproof pressure switch as per IS2148 : for Gas Gr. I	1 = ½" NPT threads for aluminium housing 2 = ¾" NPT threads for aluminium housing 3 = M20 X 1.5 threads for aluminium housing 4 = ½" NPT threads for CI housing 5 = ¾" NPT threads for CI housing 6 = M20 X 1.5 threads for CI housing	P1 = pressure switch P2 = pressure switch with range scale in bar P3 = pressure switch with scale in psi	H2T = (2 - 20) H4T = (5 - 40) H1H = (10 - 100) H2H = (7 - 200) H4H = (40 - 400)	A1 = General purpose microswitch rated at 15 A; 250 VAC A2 = Hermetically sealed for corrosive environments A3 = gold plated contacts for low voltage applications A4 = DPDT configuration A5 = for high DC ratings A6 = elements with adjustable deadband A7 = 2SPDT switching elements A9 = General purpose microswitch rated at 5 A; 250 VAC * Please refer note under Range Selection Table	S1 = SS316 pr. Housing with ¼" BSPF pressure port S2 = SS316 pressure housing with ¼" NPT pressure port.	2 = SS316L

eg. A flameproof switch for gas group IIC, with ½" NPT cable entry in aluminium housing as 1SPDT pressure switch, having 5 bar to 40 bar pressure range, with 15Amp. microswitch, SS316 pressure housing with ¼" 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	H4T	A1	S1	2

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.

HYDRAULIC RANGES

FC/FM