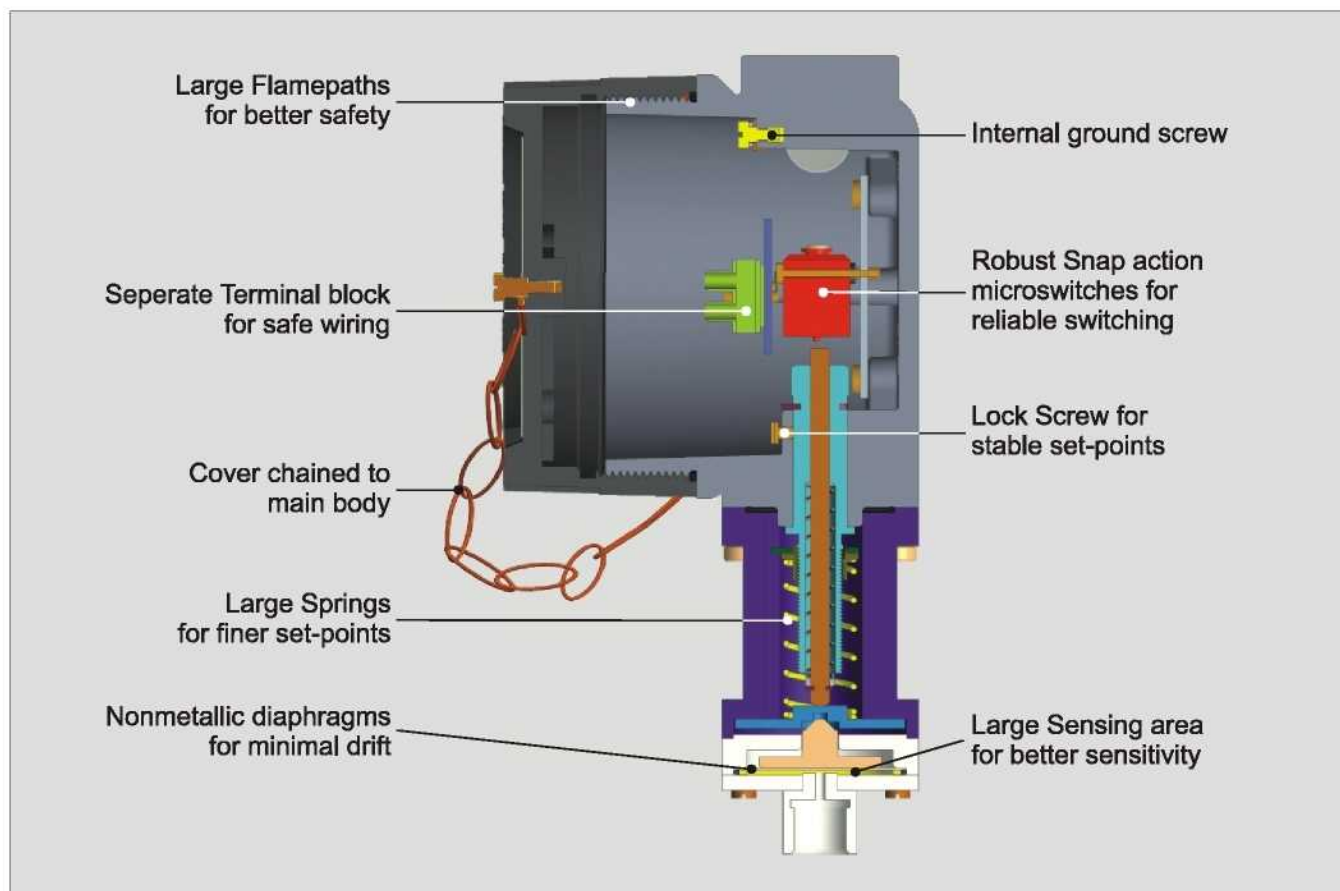


FA/FC/FM HIGH PRESSURE RANGES

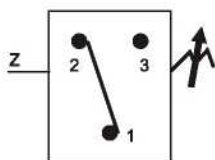


Approximate Weight :

Pressure switches with Aluminium enclosure : 1.87 Kg.

Pressure switches with Grey CI enclosure : 4.27 Kg.

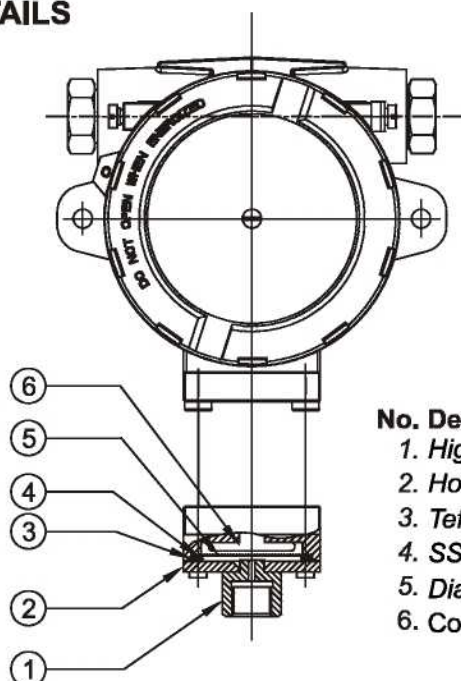
Electrical Connection :



HIGH PRESSURE RANGES FA/FC/FM



PRESSURE CAPSULE DETAILS

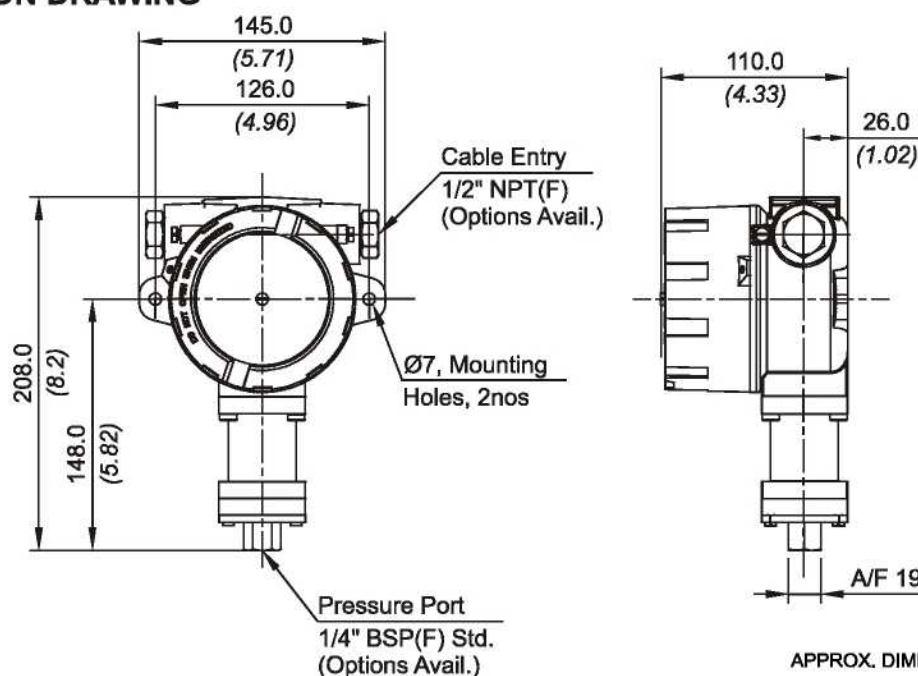


No. Description

1. *High Pressure Port (SS316)*
2. *Housing Plate (SS316)*
3. *Teflon® O-Ring*
4. *SS 316 Ring*
5. *Diaphragm (Teflon®)*
6. *Conical Plunger*

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



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

FA/FC/FM HIGH PRESSURE RANGES

RANGE SELECTION TABLE

Range Code	Range bar (psi)	Differential* bar (psi)	Maximum Working Pressure bar (psi)
		Approximate Maximum for "A1" microswitch	
LP	0.067 - 0.213 (0.97 - 3.09)	0.02 (0.29)	5 (71.43)
LP5	0.1 - 0.5 (1.45 - 7.25)	0.08 (1.16)	5 (71.43)
H01	0.1 - 1.0 (1.45 - 14.50)	0.10 (1.43)	12 (171.43)
H02	0.1 - 1.5 (1.45 - 21.76)	0.12 (1.74)	12 (171.43)
H03	0.2 - 2.6 (2.90 - 37.71)	0.17 (2.46)	12 (171.43)
H04	0.2 - 3.6 (2.90 - 52.21)	0.10 (1.43)	12 (171.43)
H07	0.5 - 7.0 (7.25 - 101.50)	0.20 (2.86)	12 (171.43)
H10	0.5 - 10.0 (7.14 - 142.86)	0.20 (2.86)	25 (357.14)
H15	1.0 - 15.0 (14.29 - 214.29)	0.50 (7.14)	25 (357.14)
H30	5.0 - 25.0 (71.43 - 357.14)	0.50 (7.14)	35 (500.00)

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

*Please indicate specifically the differential value in enquiry/order, when it is critical in your application.

HOW TO ORDER HIGH RANGE FLAMEPROOF PRESSURE SWITCHES

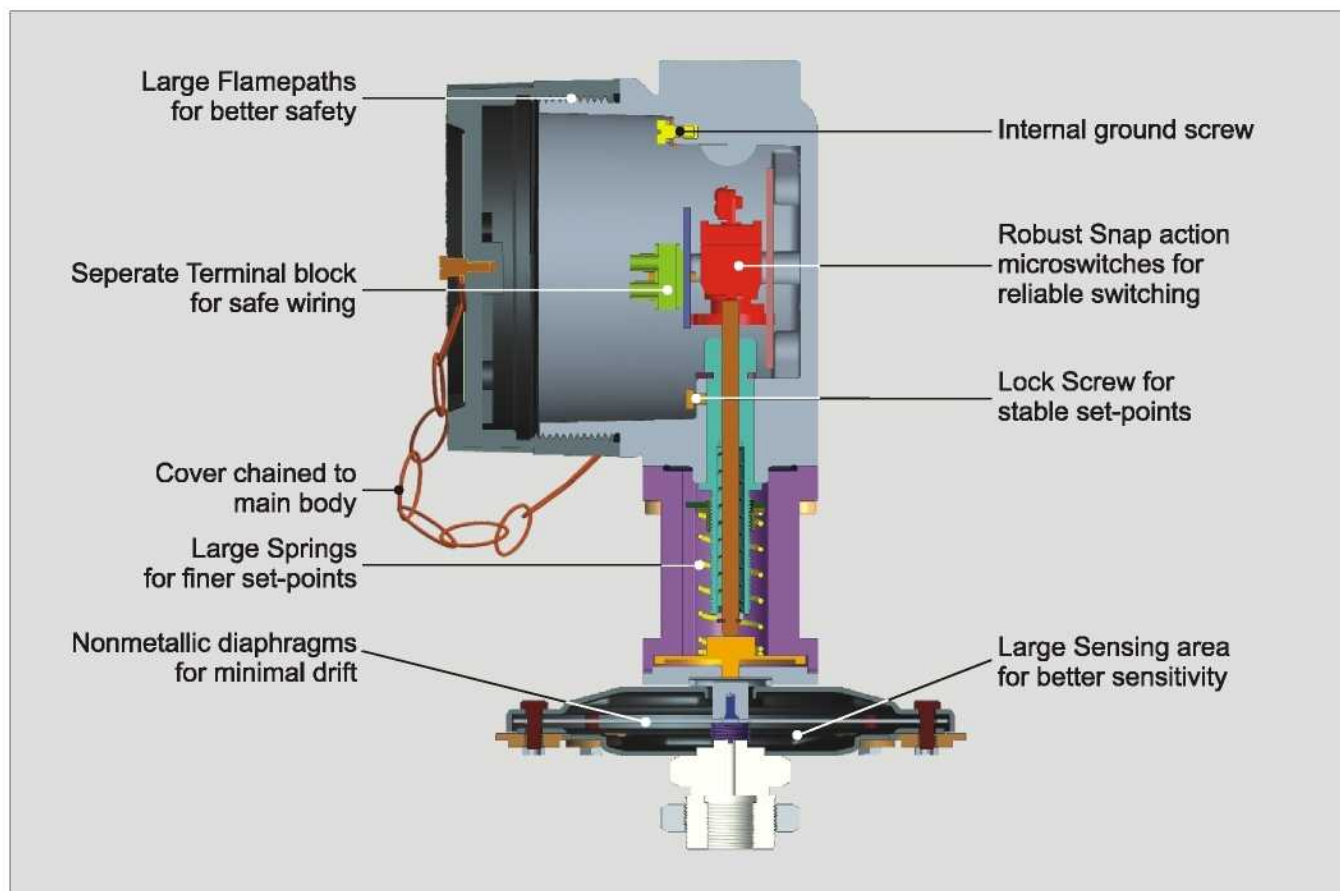
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8
Non standard allocation	Gas Group Classification	Cable Entry Size and Material of Enclosure	Switch Type	Range Code (values in bar)	Microswitch Type	Pressure Port Size	Diaphragm
☐ Reserved for non-standard options not covered in catalogue. Will be given by manufacturer, only after agreement of supply details with customer.	FA = Flameproof pressure switch with Aluminium head as per IS2148 for Gas Gr. IIA / II B 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	P 1 = pressure switch P 2 = pressure switch with range scale	LP = (0.067 - 0.213) LP5 = (0.1 - 0.5) H01 = (0.1 - 1.0) H02 (0.1 - 1.5) H03 = (0.2 - 2.6) H04 = (0.2 - 3.6) H07 = (0.5 - 7.0) H10 = (0.5 - 10.0) H15 = (1.0 - 15.0) H30 = (5.0 - 25.0)	A1 = General purpose microswitch rated at 15 A; 250 VAC	S1 = SS316 pr. Housing with ¼" BSPF pressure port S2 = SS316 pressure housing with ½" NPT(F) pressure port.	0 = Neoprene 1 = Teflon
For additional wetted parts please refer Pressure Capsule Details on Page 11							

eg. A flameproof switch for gas group IIC, with ½" NPT cable entry in aluminium housing as 1SPDT pressure switch, having 0.1 bar to 1 bar 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	H01	A1	S1	0

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.

FA/FC/FM LOW PRESSURE RANGES

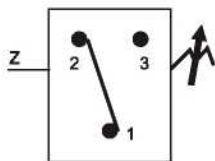


Approximate Weight :

Pressure switches with Aluminium enclosure : 2.2 Kg.

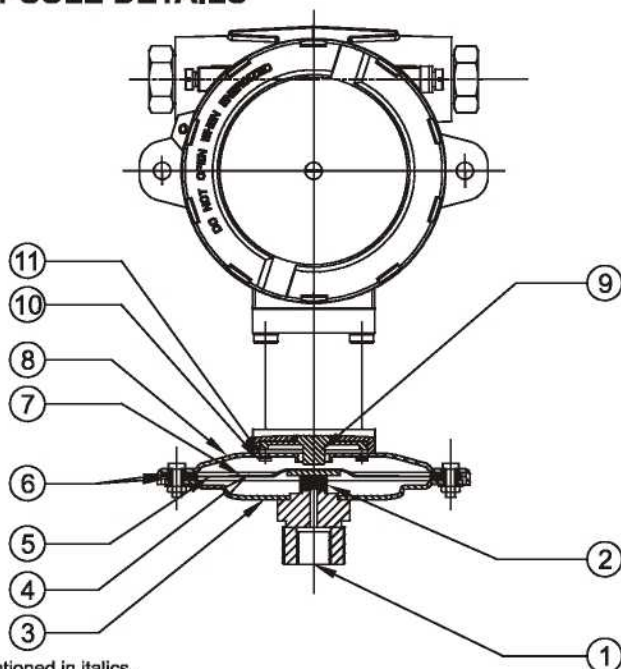
Pressure switches with Grey CI enclosure : 4.6 Kg.

Electrical Connection :





PRESSURE CAPSULE DETAILS



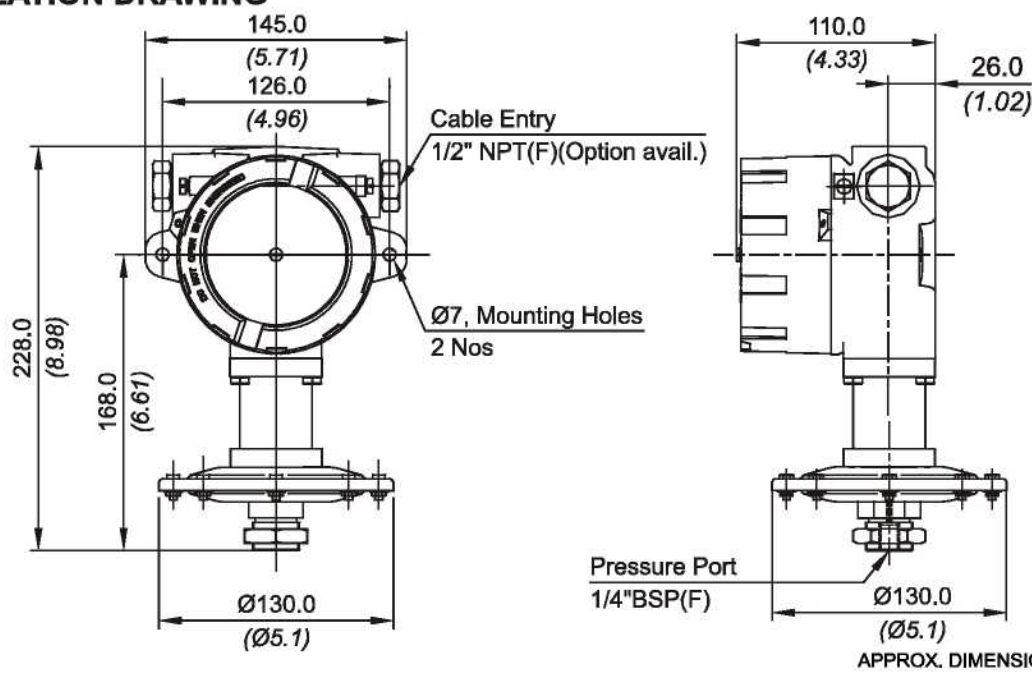
No. Description

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 brazed with flange

INSTALLATION DRAWING



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

FA/FC/FM LOW PRESSURE RANGES

RANGE SELECTION TABLE

Range Code	Range mbar ("wc)	Differential* mbar ("wc)	Maximum Working Pressure bar (psi)
		Approximate Maximum for "A1" microswitch	
L02	1.5 - 15 (0.590 - 5.905)	3 (1.181)	2 (28.57)
L03	5 - 25 (1.969 - 9.843)	5 (1.969)	2 (28.57)
L05	10 - 50 (3.937 - 19.685)	5 (1.969)	2 (28.57)
L10	10 - 100 (3.937 - 39.370)	5 (1.969)	2 (28.57)
L15	10 - 150 (3.937 - 59.055)	5 (1.969)	2 (28.57)
L25	20 - 250 (7.874 - 98.425)	10 (5.906)	2 (28.57)

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

*Please indicate specifically the differential value in enquiry/order, when it is critical in your application.

HOW TO ORDER LOW 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 mbar)	Microswitch Type	Pressure Port Size	Diaphragm
☐ Reserved for non-standard options not covered in catalogue. Will be given by manufacturer, only after agreement of supply details with customer.	FA = Flameproof pressure switch with Aluminium head as per IS2148 for Gas Gr. IIA / II B 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	P 1 = pressure switch P 2 = pressure switch with range scale	L02 = (1.5 - 15) L03 = (5 - 25) L05 = (10 - 50) L10 = (10 - 100) L15 = (10 - 150) L25 = (20 - 250)	A1 = General purpose microswitch rated at 15 A; 250 VAC	S1 = SS316 pr. Housing with ¼" BSPF pressure port S2 = SS316 pressure housing with ¼" NPT(F) pressure port.	0 = Neoprene 1 = Teflon
For additional wetted parts please refer Pressure Capsule Details on Page 15							

eg. A flameproof switch for gas group IIC, with ½" NPT cable entry in aluminium housing as 1SPDT pressure switch, 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

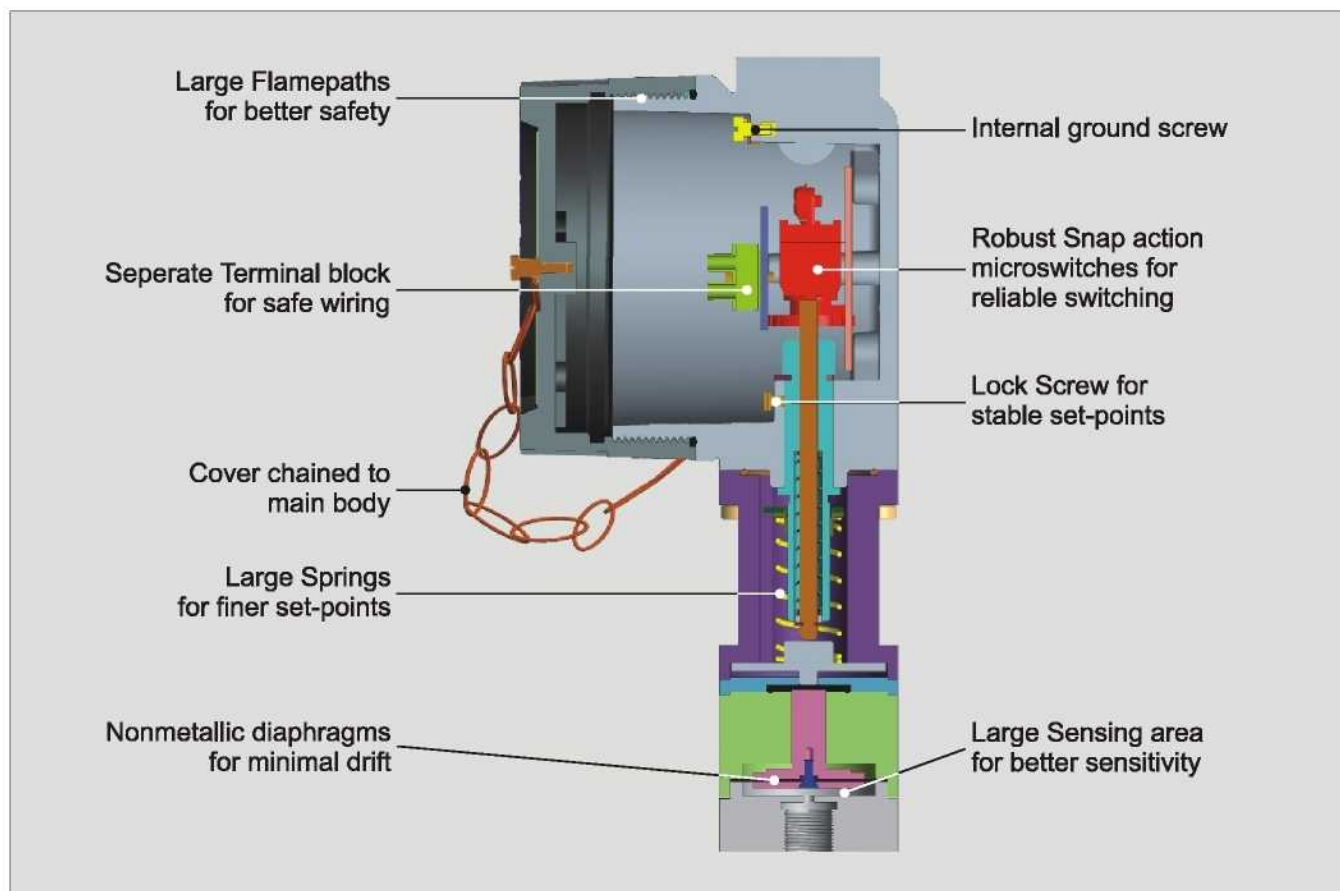
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8
☐	FC	1	P1	L03	A1	S1	0

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.

LOW PRESSURE RANGES

FA/FC/FM

FA/FC/FM HIGH RANGE PRESSURE DIFFERENCE SWITCHES

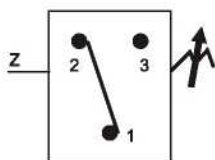


Approximate Weight :

Pressure difference switches with Aluminium enclosure : 2.03 Kg.

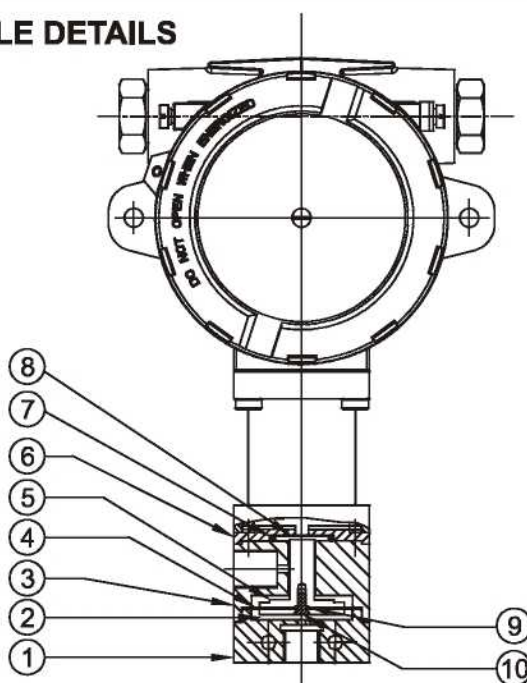
Pressure difference switches with Grey CI enclosure : 4.43 Kg.

Electrical Connection :





PRESSURE CAPSULE DETAILS

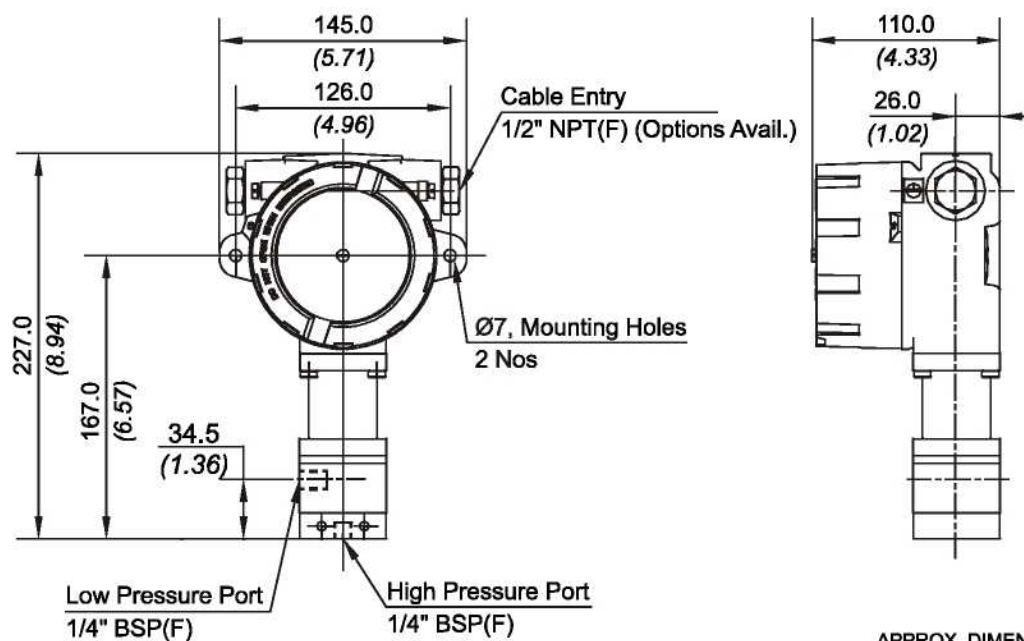


No. Description

1. Pressure Housing
2. HP Plunger (SS316)
3. Disc
4. Diaphragm
5. LP Plunger (SS316)
6. Junction Plate
7. Sealing 'O' Ring (Teflon)
8. Sealing diaphragms (Teflon)
9. 'O' ring (Teflon)
10. CSK screw (SS)

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



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

FA/FC/FM HIGH RANGE PRESSURE DIFFERENCE SWITCHES

RANGE SELECTION TABLE

Range Code	Range bar (psi)	Differential* bar (psi)	Maximum Working Pressure bar (psi)
		Approximate Maximum for "A1" microswitch	
H01	0.1 - 1.0 (1.43 - 14.29)	0.12 (1.71)	12 (171.43)
H02	0.1 - 1.5 (1.43 - 21.43)	0.20 (2.85)	12 (171.43)
H03	0.2 - 2.6 (2.86 - 37.14)	0.20 (2.85)	12 (171.43)
H04	0.2 - 3.6 (2.86 - 51.43)	0.30 (4.29)	12 (171.43)

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

*Please indicate specifically the differential value in enquiry/order, when it is critical in your application.

HOW TO ORDER FLAMEPROOF HIGH RANGE PRESSURE DIFFERENCE 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
☐ Reserved for non-standard options not covered in catalogue. Will be given by manufacturer, only after agreement of supply details with customer.	FA = Flameproof pressure switch with Aluminium head as per IS2148 for Gas Gr. IIA / II B FC = Flameproof pressure switch with Aluminium head as per IS2148 for Gas Gr. IIC FM = Flameproof pressure switch as per IS2148 : 1981 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	D1 = pressure difference switch D2 = pressure difference switch with range scale	H01 = (0.1 - 1.0) H02 = (0.1 - 1.5) H03 = (0.2 - 2.6) H04 = (0.2 - 3.6)	A1 = General purpose microswitch rated at 15 A; 250 VAC	S1 = SS316 pr. Housing with ¼" BSPF pressure port S2 = SS316 pressure housing with ¼" NPT(F) pressure port.	0 = Neoprene 1 = Teflon
For additional wetted parts please refer Pressure Capsule Details on Page 19							

eg. A flameproof switch for gas group IIC, with ½" NPT cable entry in aluminium housing as 1SPDT pressure difference switch, having 0.1 bar to 1 bar pressure range, with 15Amp. microswitch, SS316 pressure housing with ¼" BSP port size & neoprene diaphragm shall be specified by

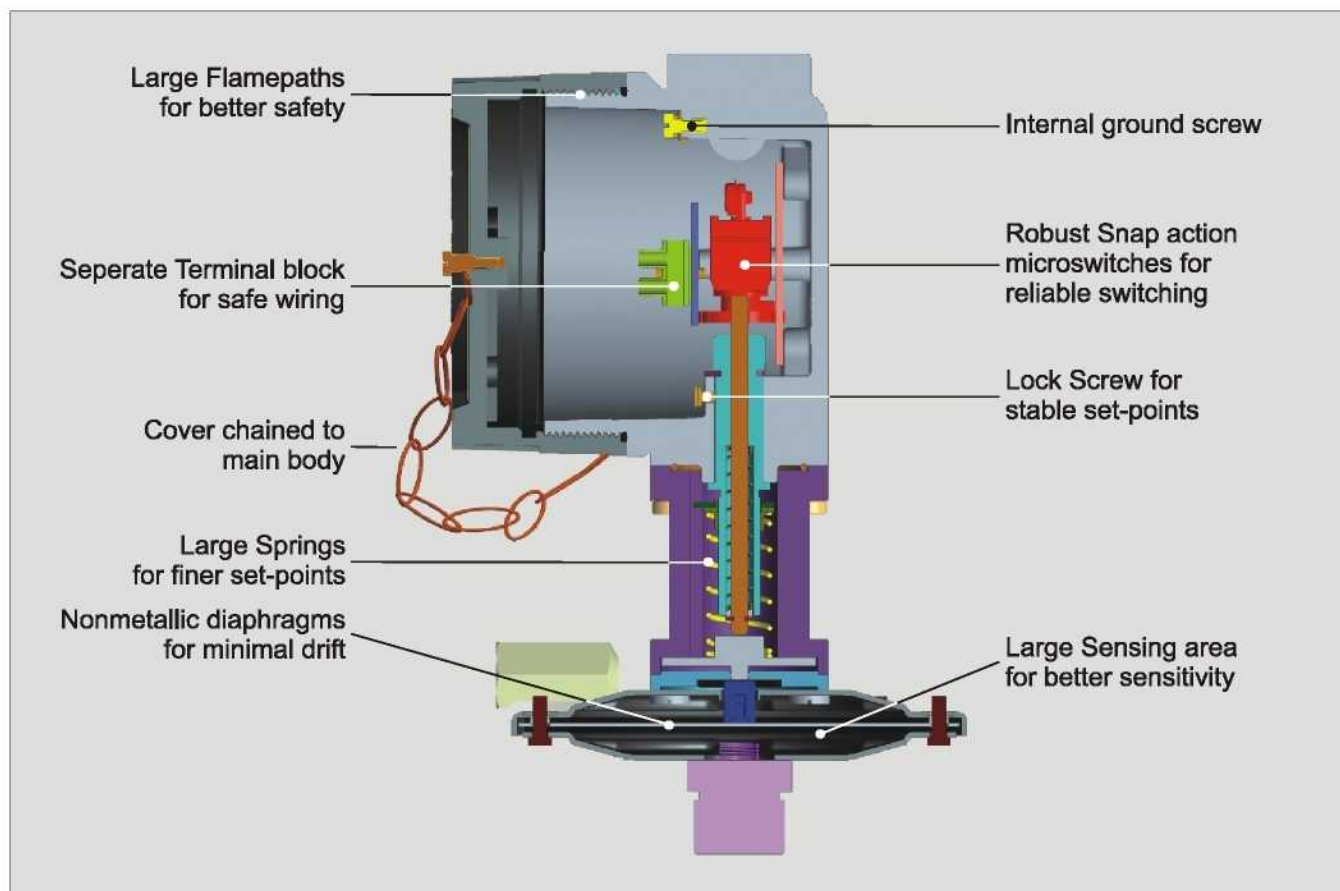
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8
☐	FC	1	D1	H01	A1	S1	0

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.

HIGH RANGE PRESSURE DIFFERENCE SWITCHES

FA/FC/FM

FA/FC/FM LOW RANGE PRESSURE DIFFERENCE SWITCHES

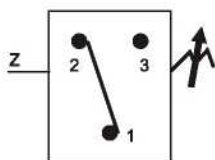


Approximate Weight :

Pressure difference switches with Aluminium enclosure : 2.25 Kg.

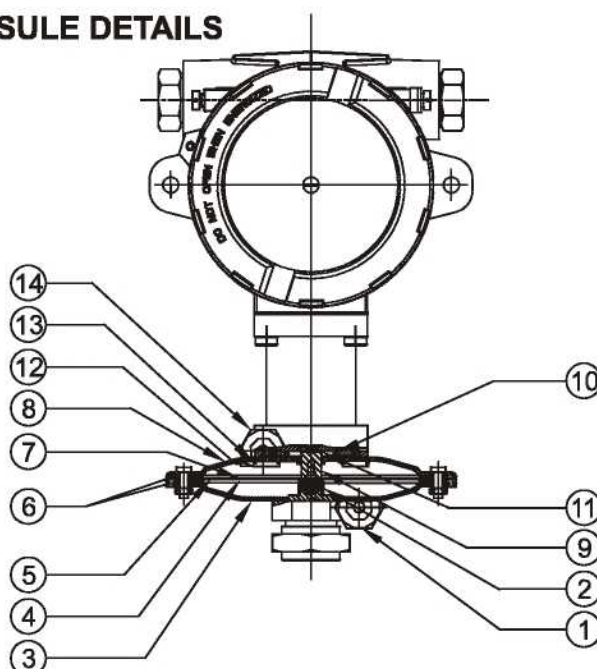
Pressure difference switches with Grey CI enclosure : 4.65 Kg.

Electrical Connection :





PRESSURE CAPSULE DETAILS



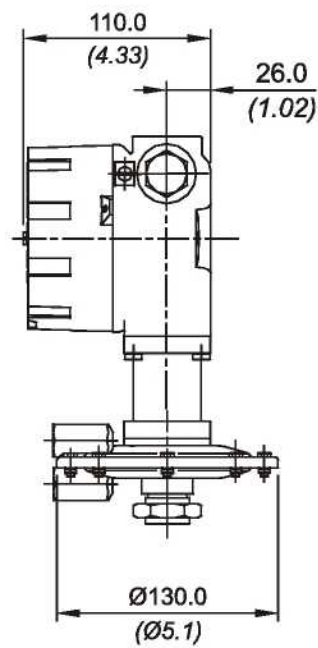
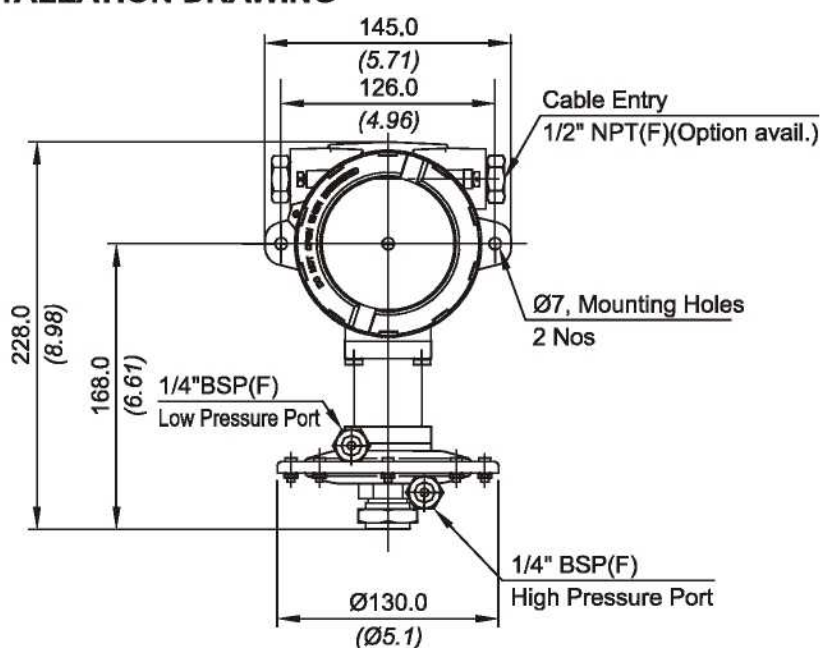
No. Description

1. High 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 (M.S.)*
9. Transfer pin (Aluminium)
10. 'O' ring (Nitrile)
11. Sealing diaphragm (Nitrile)
12. Top flange screw (M.S.)
13. Sealing 'O' ring (Nitrile)
14. Low pressure port (M.S.)*

* Pressure ports are brazed with flange

Note : wetted parts are mentioned in italics.

INSTALLATION DRAWING



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

FA/FC/FM LOW RANGE PRESSURE DIFFERENCE SWITCHES

RANGE SELECTION TABLE

Range Code	Range mbar ("wc)	Differential* mbar ("wc)	Maximum Working Pressure bar (psi)
		Approximate Maximum for "A1" microswitch	
L02	1.5 - 15 (0.590 - 5.905)	3 (1.181)	2 (28.57)
L03	5 - 25 (1.969 - 9.843)	5 (1.969)	2 (28.57)
L05	10 - 50 (3.937 - 19.685)	5 (1.969)	2 (28.57)
L10	10 - 100 (3.937 - 39.370)	5 (1.969)	2 (28.57)
L15	10 - 150 (3.937 - 59.055)	5 (1.969)	2 (28.57)
L25	20 - 250 (7.874 - 98.425)	10 (5.906)	2 (28.57)

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

*Please indicate specifically the differential value in enquiry/order, when it is critical in your application.

HOW TO ORDER LOW RANGE FLAMEPROOF PRESSURE DIFFERENCE 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 mbar)	Microswitch Type	Pressure Port Size	Diaphragm
☐ Reserved for non-standard options not covered in catalogue. Will be given by manufacturer, only after agreement of supply details with customer.	FA = Flameproof pressure switch with Aluminium head as per IS2148 for Gas Gr. IIA / II B FC = Flameproof pressure switch with Aluminium head as per IS2148 for Gas Gr. IIC FM = Flameproof pressure switch as per IS2148 : 1981 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	D1 = pressure difference switch D2 = pressure difference switch with range scale	L02 = (1.5 - 15) L03 = (5 - 25) L05 = (10 - 50) L10 = (10 - 100) L15 = (10 - 150) L25 = (20 - 250)	A1 = General purpose microswitch rated at 15 A; 250 VAC	S1 = SS316 pr. Housing with ¼" BSPF pressure port S2 = SS316 pressure housing with ¼" NPT(F) pressure port.	0 = Neoprene 1 = Teflon
For additional wetted parts please refer Pressure Capsule Details on Page 23							

eg. A flameproof switch for gas group IIC, with ½" NPT cable entry in aluminium housing as 1SPDT pressure switch, having 0.1 bar to 1 bar pressure range, with 15Amp. microswitch, SS316 pressure housing with ¼" BSP port size & neoprene diaphragm shall be specified by

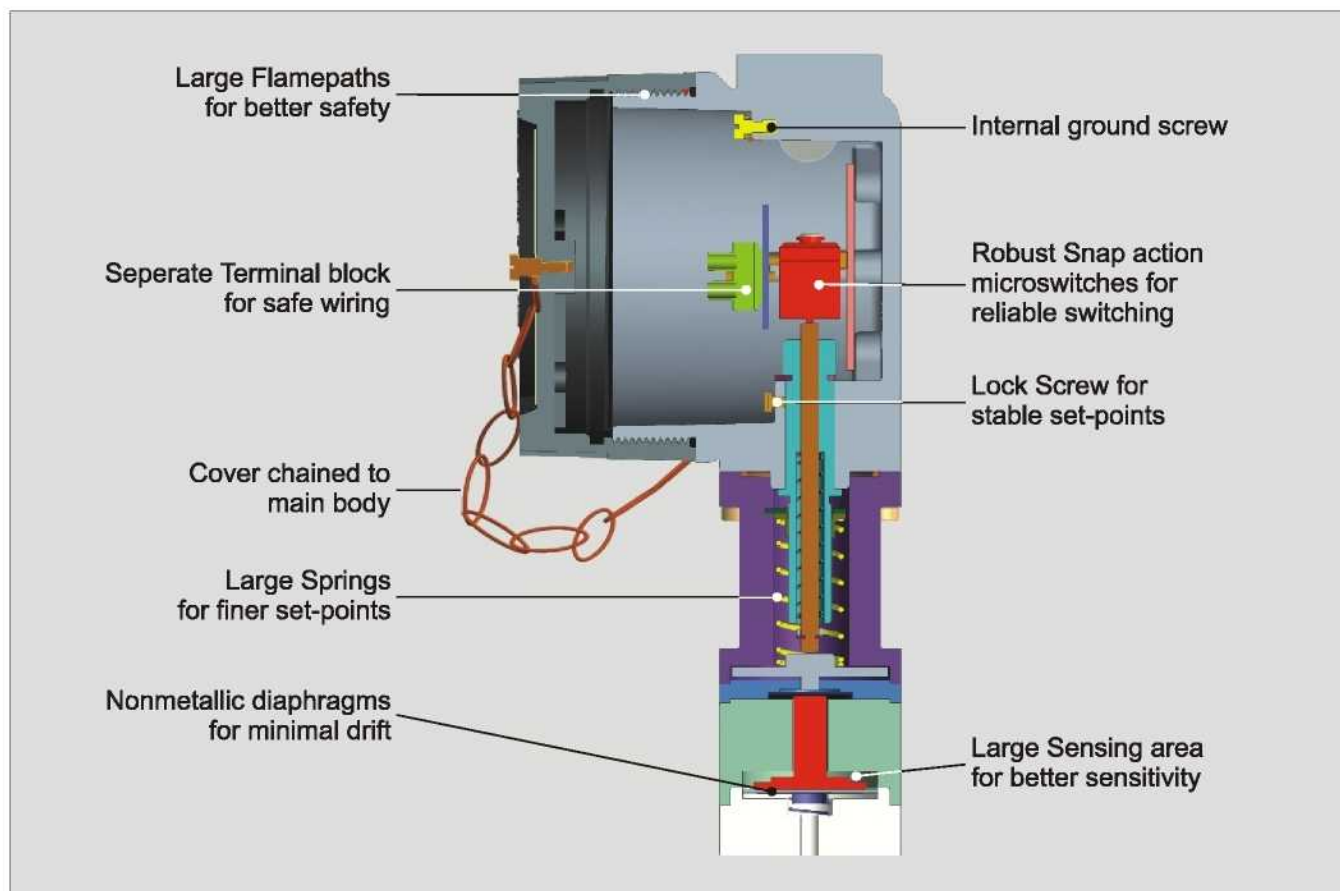
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8
☐	FC	1	D1	L03	A1	S1	0

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.

LOW RANGE PRESSURE DIFFERENCE SWITCHES

FA/FC/FM

FA/FC/FM VACUUM SWITCHES

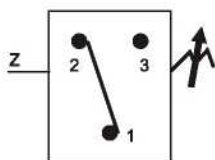


Approximate Weight :

Vacuum switches with Aluminium enclosure : 2.03 Kg.

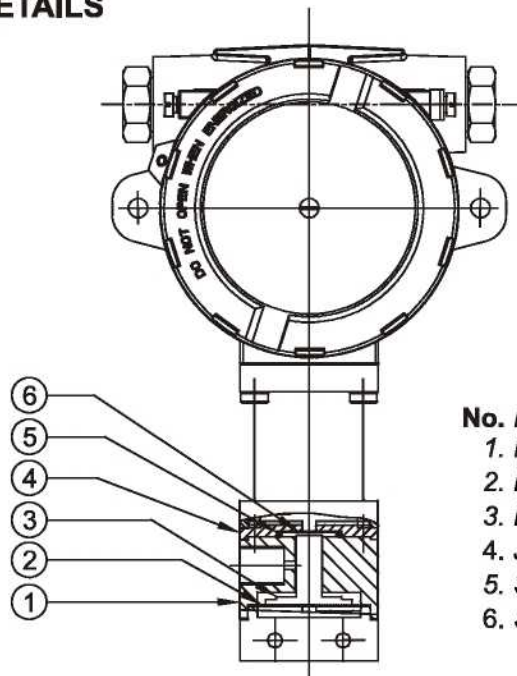
Vacuum switches with Grey CI enclosure : 4.43 Kg.

Electrical Connection :





PRESSURE CAPSULE DETAILS

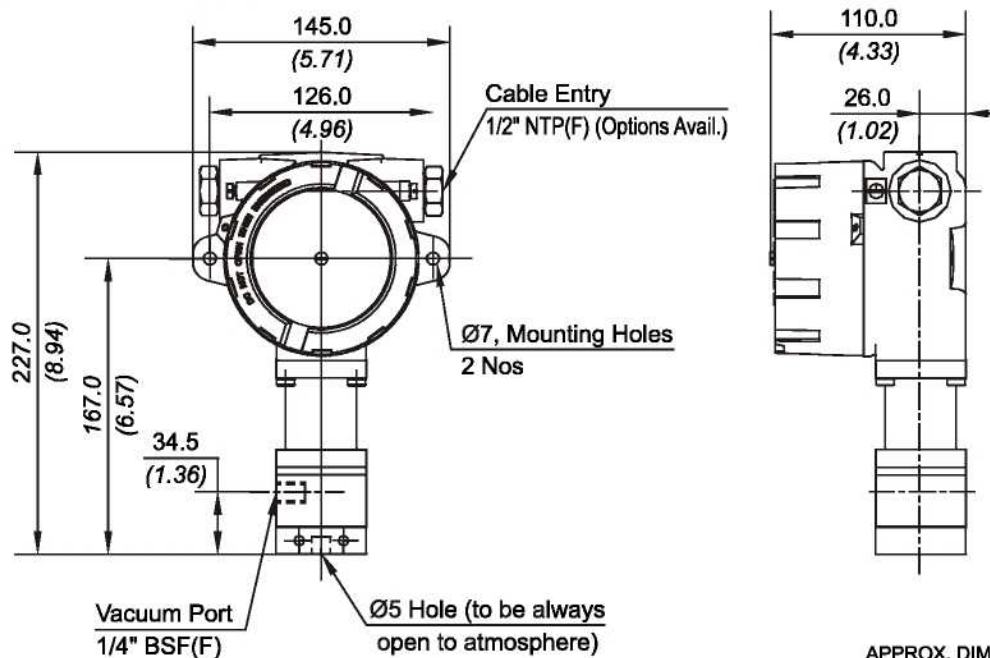


No. Description

1. Disc
2. Diaphragm
3. Plunger (SS316)
4. Junction Plate
5. Sealing O-Ring (Teflon®)
6. Sealing diaphragms (Teflon®)

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



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

FA/FC/FM VACUUM SWITCHES

RANGE SELECTION TABLE

Range Code	Range mm Hg ("Hg)	Differential* mm Hg ("Hg)	Maximum Working Pressure bar (psi)
		Approximate Maximum for "A1" microswitch	
V00	† 760 - 100 (29.92 - 3.94)	10 (0.39)	12 (171.43)

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

† Typical values achieved at sea level, total vacuum that can be achieved varies mainly with altitude.

*Please indicate specifically the differential value in enquiry/order, when it is critical in your application.

HOW TO ORDER VACUUM 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
☐ Reserved for non-standard options not covered in catalogue. Will be given by manufacturer, only after agreement of supply details with customer.	FA = Flameproof pressure switch with Aluminium head as per IS2148 for Gas Gr. IIA / II B FC = Flameproof pressure switch with Aluminium head as per IS2148 for Gas Gr. IIC FM = Flameproof pressure switch as per IS2148 : 1981 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	V1 = vacuum switch V2 = vacuum switch with range scale	V00 = († 760 - 100)	A1 = 15 Amp microswitch	S1 = SS316 pr. Housing with ¼" BSPF pressure port S2 = SS316 pressure housing with ¼" NPT pressure port.	0 = Neoprene 1 = Teflon
For additional wetted parts please refer Pressure Capsule Details on Page 27							

eg. A flameproof switch for gas group IIC, with ½" NPT cable entry in aluminium housing as 1SPDT vacuum switch, having 760 mm Hg to 100 mm Hg vacuum range, with 15Amp. microswitch, SS316 pressure housing with ¼" BSP port size & neoprene diaphragm shall be specified by

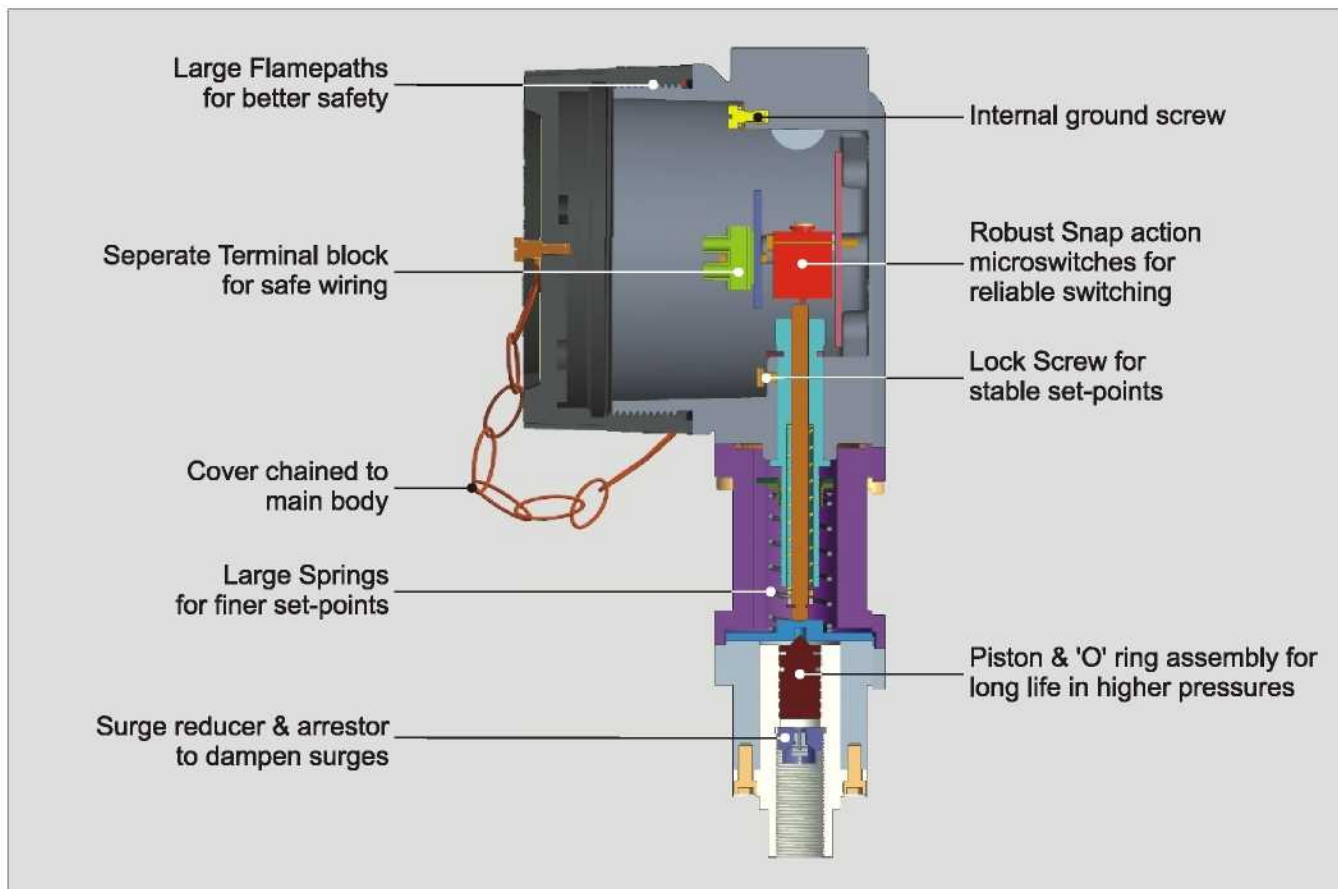
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8
☐	FC	1	V1	V00	A1	S1	0

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.

VACUUM SWITCHES

FA/FC/FM

FA/FC/FM HYDRAULIC RANGES

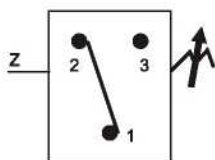


Approximate Weight :

Pressure switches with Aluminium enclosure : 1.95 Kg.

Pressure switches with Grey CI enclosure : 4.35 Kg.

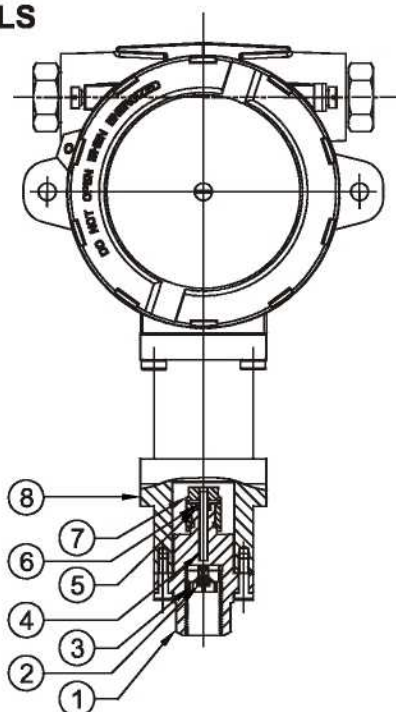
Electrical Connection :



HYDRAULIC RANGES FA/FC/FM



PRESSURE CAPSULE DETAILS

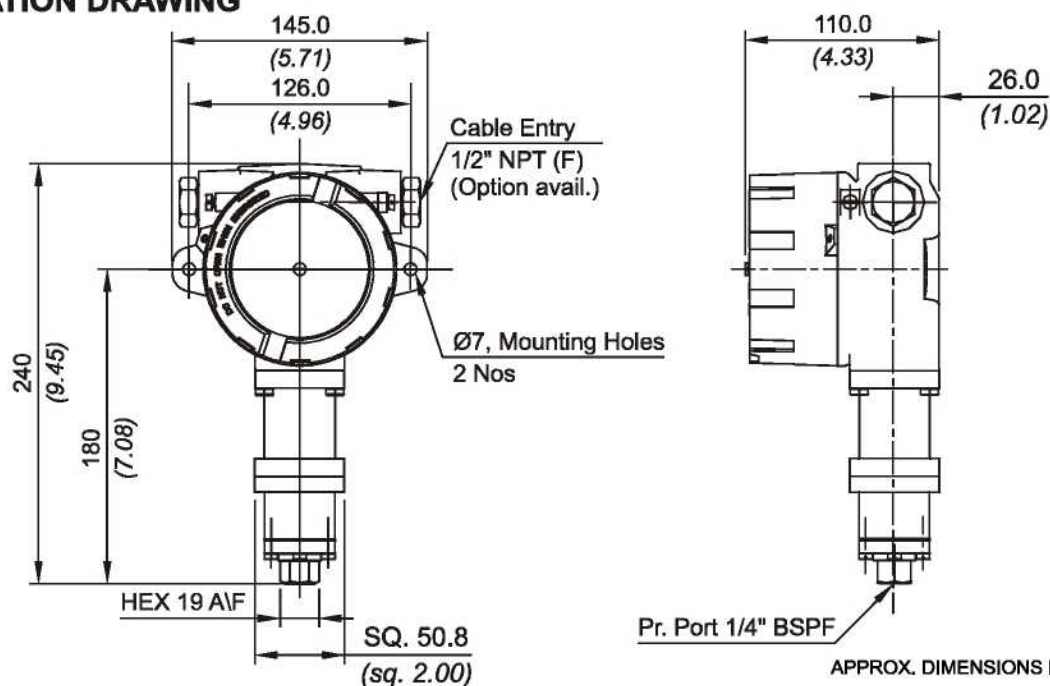


No. Description

1. *Pressure Housing (SS)*
2. *Surge Reducer (SS)*
3. *Surge Arrestor (SS)*
4. *Piston (SS)*
5. *O-Ring (Vitol®)*
6. Backup Ring
7. Cap
8. Casing

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



FA/FC/FM **HYDRAULIC RANGES**

RANGE SELECTION TABLE

Range Code	Range bar (psi)	Differential* bar (psi)	Maximum Working Pressure bar (psi)
		Approximate Maximum for "A1" microswitch	
040	5 - 40 (71.43 - 571.43)	5 (71.43)	80 (1142.85)
100	10 - 100 (142.86 - 1428.57)	12 (171.42)	120 (1714.29)
200	7 - 200 (100.00 - 2857.14)	24 (342.86)	200 (2857.14)
350	35 - 350 (500 - 5000)	24 (342.86)	500 (2857.14)
400	100 - 400 (1428.57 - 5714.29)	30 (428.57)	400 (5714.29)

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

*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
☐ Reserved for non-standard options not covered in catalogue. Will be given by manufacturer, only after agreement of supply details with customer.	FA = Flameproof pressure switch with Aluminium head as per IS2148 for Gas Gr. IIA / II B 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	P 1 = pressure switch P 2 = pressure switch with range scale	040 = (5 - 40) 100 = (10 - 100) 200 = (7 - 200) 350 = (35 - 350) 400 = (100 - 400)	A1 = General purpose microswitch rated at 15 A; 250 VAC	S1 = SS316 pr. Housing with ¼" BSPF pressure port S2 = SS316 pressure housing with ¼" NPT pressure port.	For additional wetted parts please refer Pressure Capsule Details on Page 31

eg. A flameproof switch for gas group IIC, with ½" NPT cable entry in aluminium housing as 1 SPDT pressure switch, having 5 bar to 40 bar 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	040	A1	S1	0

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

FA/FC/FM