## FC HIGH PRESSURE RANGES



## Approximate Weight :

Pressure switches with Aluminium enclosure : 1.87 Kg .
Pressure switches with Grey Cl enclosure $: 4.27 \mathrm{Kg}$.
Pressure switches with SS enclosure $\quad: 4.42 \mathrm{Kg}$.

## Electrical Connection :



## Some Applications :

Used in hazardous areas for applications like fire fighting systems, LPG bottling plants, etc. For any type of corrosive and non-corrosive gases and fluids.


## 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 ilalica.
(1)

## INSTALLATION DRAWING




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

## FC 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 | $\begin{gathered} 0.067-0.213 \\ (0.97-3.09) \end{gathered}$ | $\begin{gathered} 0.02 \\ (0.29) \end{gathered}$ | $\begin{gathered} 5 \\ (72.52) \end{gathered}$ |
| LP5 | $\begin{gathered} 0.1-0.5 \\ (1.45-7.25) \end{gathered}$ | $\begin{gathered} 0.08 \\ (1.16) \end{gathered}$ | $\begin{gathered} 5 \\ (72.52) \end{gathered}$ |
| H01 | $\begin{gathered} 0.1-1.0 \\ (1.45-14.50) \end{gathered}$ | $\begin{gathered} 0.10 \\ (1.45) \end{gathered}$ | $\begin{gathered} 12 \\ (174.05) \end{gathered}$ |
| H02 | $\begin{gathered} 0.1-1.5 \\ (1.45-21.76) \end{gathered}$ | $\begin{gathered} 0.12 \\ (1.74) \end{gathered}$ | $\begin{gathered} 12 \\ (174.05) \end{gathered}$ |
| H03 | $\begin{gathered} 0.2-2.6 \\ (2.90-37.71) \end{gathered}$ | $\begin{gathered} 0.15 \\ (2.17) \end{gathered}$ | $\begin{gathered} 12 \\ (174.05) \end{gathered}$ |
| H04 | $\begin{gathered} 0.2-3.6 \\ (2.90-52.21) \end{gathered}$ | $\begin{gathered} 0.20 \\ (2.90) \end{gathered}$ | $\begin{gathered} 12 \\ (174.05) \end{gathered}$ |
| H07 | $\begin{gathered} 0.5-7.0 \\ (7.25-101.50) \end{gathered}$ | $\begin{gathered} 0.20 \\ (2.90) \end{gathered}$ | $\begin{gathered} 12 \\ (174.05) \end{gathered}$ |
| H10 | $\begin{gathered} 0.5-10.0 \\ (7.25-145.037) \end{gathered}$ | $\begin{aligned} & \hline 0.40 \\ & (5.80) \end{aligned}$ | $\begin{gathered} 25 \\ (362.6) \end{gathered}$ |
| H15 | $\begin{gathered} 1.0-15.0 \\ (14.5-217.56) \end{gathered}$ | $\begin{gathered} 0.50 \\ (7.25) \end{gathered}$ | $\begin{gathered} 25 \\ (362.6) \end{gathered}$ |
| H30 | $\begin{gathered} 5.0-25.0 \\ (72.52-362.6) \end{gathered}$ | $\begin{gathered} 1.0 \\ (14.5) \end{gathered}$ | $\begin{gathered} 35 \\ (507.63) \end{gathered}$ |

*Minimum differential increases with setpoint, values with neoprene diaphragm (Graphs available on request)

[^0]HOW TO ORDER FLAMEPROOF HIGH RANGE 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 | Switch Type | Range Code (values in bar) | Microswitch Type | Pressure Port Material / Size | Diaphragm |
| $\square$ Reserved for non-standard options not covered in catalogue. Will be given by manufacturer, only after agreement of supply details with customer. | FC = <br> Flameproof pressure switch, ATEx \& IECEx approved, with Aluminium head as per IS/IEC 60079-1 for Gas Gr. IIC | 1 = AI. head <br> $1 / 2$ NPT threads <br> 2 = AI. head <br> $3 / 4$ NPT threads <br> 3 = AI. head <br> M20 x 1.5 <br> threads <br> 4 = Grey CI <br> head ½" NPT <br> threads <br> 5 = Grey Cl <br> head $3 / 4$ " NPT <br> threads <br> $6=$ Grey CI <br> head M20 x 1.5 <br> threads <br> 7 = SS head $1 / 22^{\prime \prime}$ <br> NPT threads <br> 8 = SS head <br> 3/4" NPT <br> threads <br> $9=$ SS head <br> M20 x 1.5 <br> threads | P $1=$ <br> pressure switch, fixed differential without scale <br> P2 = <br> pressure switch, fixed differential with scale in bar P3 = <br> pressure switch, fixed differential with scale in psi | $\begin{array}{\|l} \hline \text { LP }= \\ (0.067-0.213) \\ \text { LP5 }= \\ (0.1-0.5) \\ \text { H01 }= \\ (0.1-1.0) \\ \text { H02 } \\ (0.1-1.5) \\ \text { H03 }) \\ (0.2-2.6) \\ \text { H04 = } \\ (0.2-3.6) \\ \text { H07 = } \\ (0.5-7.0) \\ \text { H10 }= \\ (0.5-10.0) \\ \text { H15 = } \\ (1.0-15.0) \\ \text { H30 }= \\ (5.0-25.0) \end{array}$ | $\begin{array}{\|l\|} \hline \text { A1 = General } \\ \text { purpose microswitch } \\ \text { rated at 15 A; } 250 \text { VAC } \\ \text { *A2 = Hermetically } \\ \text { sealed for corrosive } \\ \text { environments } \\ \text { *A3 = gold plated } \\ \text { contacts for low voltage } \\ \text { applications } \\ \text { *A4 = DPDT } \\ \text { configuration } \\ \text { *A5 = for high DC } \\ \text { ratings } \\ \text { *A6 = elements with } \\ \text { adjustable deadband } \\ \text { *A7 = 2SPDT } \\ \text { switching elements } \\ \text { *A9 = General } \\ \text { purpose microswitch } \\ \text { rated at } 5 \text { A; } 250 \text { VAC } \\ \text { Please refer page on. } 230 \\ \text { for more microswitch } \\ \text { options } \\ \text { *Please refer note under } \\ \text { Range Selection Table } \\ \hline \end{array}$ | S1 = <br> SS316 / 1⁄4" BSP(F) <br> S2 = <br> SS316 / 1/4"NPT(F) <br> H1 = <br> Hastelloy C / <br> $1 /{ }^{\prime \prime}$ BSP(F) <br> H2 = <br> Hastelloy C / <br> 1/4" NPT(F) <br> N1 = <br> Monel / $1 / 4$ " BSP(F) <br> N2 = <br> Monel / $1 / 4 "$ NPT(F) <br> Please refer page no. 226 \& 227 for more pressure port options | $0=$ <br> Neoprene <br> $1=$ <br> Teflon <br> 2 = <br> SS 316L <br> 3 = <br> Hastelloy C <br> 4 = <br> Monel <br> $5=$ <br> Titanium <br> $6=$ <br> Tantalum <br> 7 = <br> Inconel |

eg. A flameproof switch for gas group IIC, with $1 / 2$ " NPT cable entry in aluminium housing as 1SPDT pressure switch, having 0.1 bar to 1 bar pressure range, with 15 Amp. Micro switch, SS316 pressure housing with $1 / 4$ " 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\square$ | 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, un-calibrated switches with standard wetted parts and enclosures will be supplied.

Continuous efforts for product development may necessitate changes in these details without notice


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[^0]:    * Differentials of miroswitches 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.

