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## FLAMEPROOF PRESSURE SWITCH S301

### STANDARD SPECIFICATIONS

|                             |   |                                                                                |
|-----------------------------|---|--------------------------------------------------------------------------------|
| Repeatability               | : | ± 0.5 % F.S                                                                    |
| Scale accuracy              | : | ± 1% F.S                                                                       |
| Measurement unit            | : | bar                                                                            |
| Range                       | : | Refer "Range Table"                                                            |
| Range adjustment            | : | External                                                                       |
| Differential                | : | Fixed (Standard), Adjustable (Optional)                                        |
| Mounting                    | : | Bottom / Panel                                                                 |
| Enclosure material          | : | Aluminum pressure die cast                                                     |
| Equipment rating            | : | Ex d IIC T6 Gb (-10°C ≤ Ta ≤ +60°C) Zone 0, 1 & 2 as per IS/IEC 60079-1 : 2007 |
| Ingress protection          | : | IP 67                                                                          |
| Sensing elements            | : | SS 316 Diaphragm                                                               |
| Switch                      | : | 1 SPDT Snap action micro switch                                                |
| Switch rating               | : | 15A,250 VAC / 0.2A,24 VDC (Standard)                                           |
| Process connection          | : | 1/4"BSP(F)                                                                     |
| Maximum process temperature | : | 150 °C                                                                         |
| Ambient temperature         | : | -10...60 °C                                                                    |
| Cable entry                 | : | 1/2" NPT Double compression, in brass                                          |
| Set point                   | : | Between 20 to 80 % F.S for better performance                                  |
| High voltage strength       | : | 0.5 to 0.6 KV between open contacts and 2 K V between contact and body         |

## FEATURES

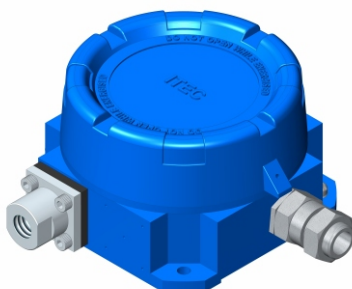
- Fix / adjustable differential
- Field adjustable set point
- Flameproof to Gas groups
- Internal set point lock
- Rigid construction
- Scale provided

### RANGE TABLE

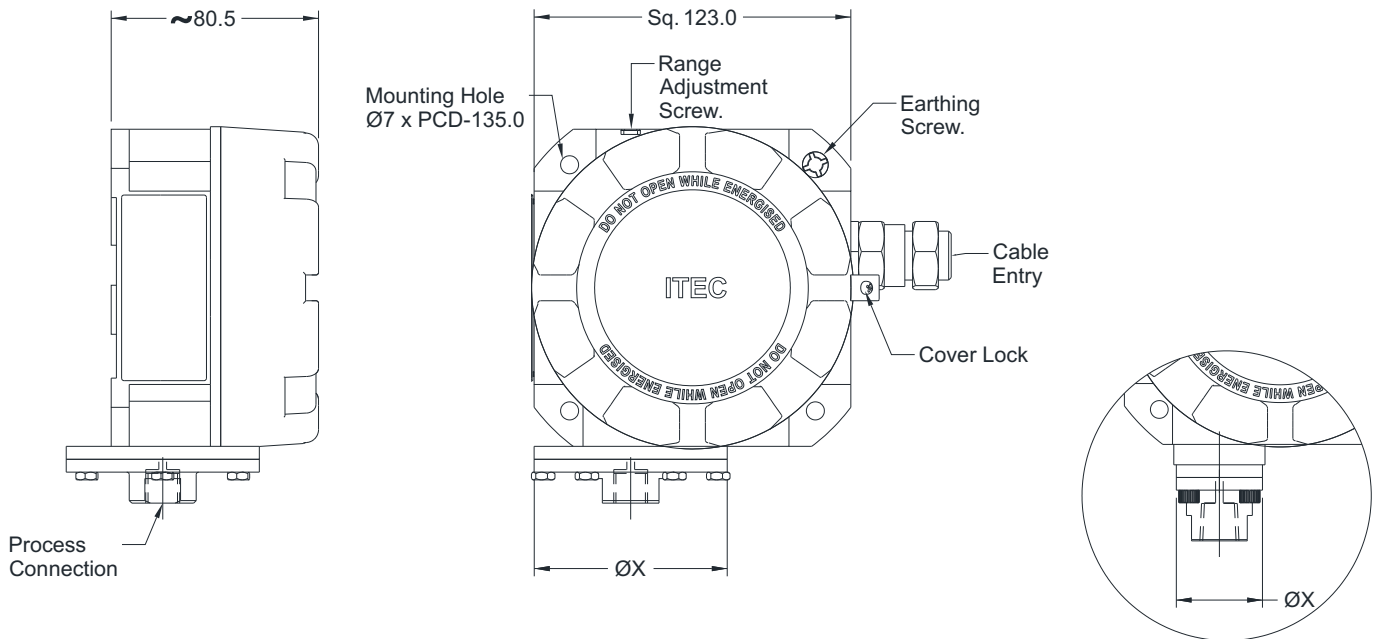
| CODE | RANGE     | CODE | RANGE   |
|------|-----------|------|---------|
|      | "mbar"    |      | "bar"   |
| D53  | -20...+20 | B55  | -1...0  |
| D54  | -40...+40 | B40  | -1...+2 |
| D12  | 3...20    | B42  | -1...+4 |
| D17  | 5...60    | B04  | 0.2...2 |
| D19  | 10...100  | B06  | 0...4   |
| D24  | 25...250  | B07  | 0.6...6 |
| D29  | 50...600  | B09  | 1...10  |
|      |           | B11  | 1...16  |
|      |           | B13  | 2...25  |
|      |           | B15  | 2...32  |
|      |           | B16  | 4...40  |
|      |           | B17  | 5...60  |

## APPLICATION

- Marine applications
- Textile machineries
- Power & steel plants
- Furnace applications
- Oil & Gas, Refineries
- Petrochemicals & Fertilizers
- Cement & Glass industries
- Railway engines & Turbines



## DIMENSIONAL DRAWING



All dimensions are in mm

Chamber Size

| Range                | $\varnothing X$ |
|----------------------|-----------------|
| -10 mmWC to 100 mbar | 165 mm          |
| 10 mbar to 400 mbar  | 75 mm           |
| 0.4 bar to 60 bar    | 45 mm           |

## MICROSWITCH SPECIFICATION

| DESCRIPTION                           | RATING                         | RATING                         | DIFFERENTIAL     | TYPE | SWITCH CODE |        |
|---------------------------------------|--------------------------------|--------------------------------|------------------|------|-------------|--------|
|                                       | AC                             | DC                             |                  |      | 1 No.       | 2 Nos. |
| Low deadband / differential           | 15A/250V, 2A/24V<br>0.2A/220V  | 15A/250V, 2A/24V<br>0.2A/220V  | Fix              | SPDT | M10         | M20    |
| High dead band / differential         | 15A/250V, 6A/24V<br>0.25A/220V | 15A/250V, 5A/24V<br>0.03A/220V | Fix / Adjustable | SPDT | M11         | M21    |
| Gold plated switch                    | 1A/250V                        | 0.5A/28V                       | Fix              | SPDT | M13         | M23    |
| Environmentally sealed silver contact | 5A/28V                         | -                              | Fix              | SPDT | M14         | M24    |
| Hermetically sealed silver contact    | 3A/28V                         | 2A/24V                         | Fix              | SPDT | M16         | M26    |
| Hermetically sealed gold contact      | 1A/125V                        | -                              | Fix              | SPDT | M17         | M27    |
| High DC rating                        | 10A/125V                       | 6A/125V                        | Fix / Adjustable | SPDT | M18         | M28    |
| DPDT                                  | 10A/125V, 0.2A/250V            | -                              | Fix / Adjustable | DPDT | M08         | -      |

## ORDERING CODES

## 1. RANGE

Refer "Range Table"

## 2. CHAMBER MATERIAL

NF AISI 316 SS  
 NN Monel K-500  
 NO Hastelloy C-276

## 3. SENSING ELEMENT MATERIAL

DF AISI 316 SS  
 DN Monel K-500  
 DO Hastelloy C-276  
 D2 PTFE (Teflon)

## 4. SWITCHING DIFFERENTIAL

S4 Fixed, 2...5%  
 S5 Adjustable, 5...12.5%

## 5. SET POINT

S8 On Raising  
 S9 On Falling

## 6. MICROSWITCH TYPE

Refer "Microswitch Specification"

## 7. CABLE ENTRY

C0 3/4" ET (F)  
 C1 1/2" NPT (F)

## 8. PROCESS CONNECTION

02B 1/4" BSP (F) Standard  
 12B 1/4" BSP (M)  
 13B 3/8" BSP (M)  
 14B 1/2" BSP (M)  
 02N 1/4" NPT (F)  
 12N 1/4" NPT (M)  
 14N 1/2" NPT (M)  
 04N 1/2" NPT (F)  
 A25 1.5" RF 150#  
 A26 1.5" RF 300#  
 A27 1.5" RF 600#  
 A31 2" RF 150#  
 A32 2" RF 300#  
 A33 2" RF 600#

## 9. OTHER OPTIONS

TB Calibration Certificate  
 XF AISI 304 SS tag plate  
 XV Wall mounting bracket  
 XS Mounting bracket with 2" U-clamp  
 TC Material test certificate 3.1  
 KK Cable gland, double compression  
 flameproof, Ni-plated brass  
 KL Cable gland, double compression  
 flameproof, AISI 304 SS

Ordering Example : S301-B09-NF-DF-S4-S8-M10-C1-02B-KK

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