

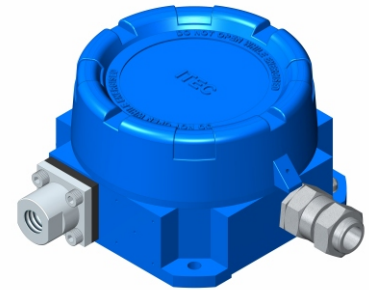
## FEATURES

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

## APPLICATION

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

### High Accuracy & Repeatability Type



### 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" NPT (F)
Maximum process temperature	:	150 °C
Ambient temperature	:	-10...60 °C
Cable entry	:	1/2" NPT Flameproof 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

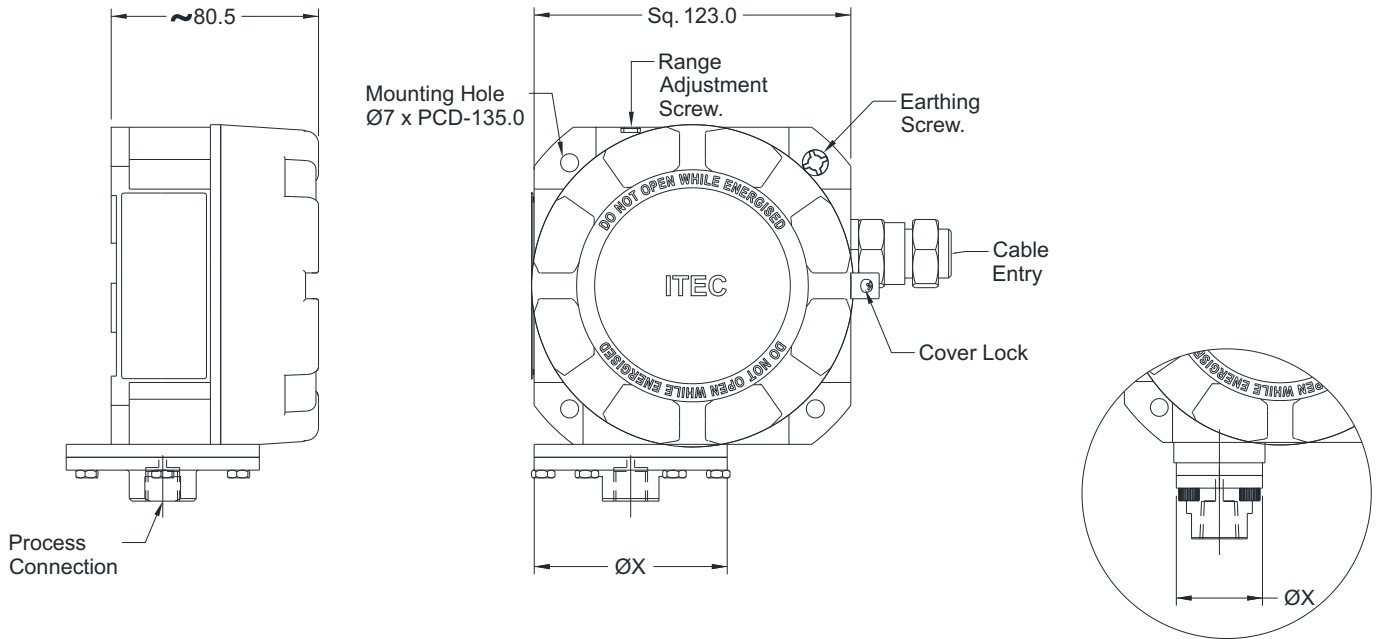
### RANGE TABLE

CODE	RANGE "mbar"	CODE	RANGE "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

## APPROVALS



## DIMENSIONAL DRAWING



All dimensions are in mm

Chamber Size	
Range	ØX
-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 0.2A/220V	15A/250V, 2A/24V 0.2A/220V	Fix	SPDT	M10	M20
High dead band / differential	15A/250V, 6A/24V 0.25A/220V	15A/250V, 5A/24V 0.03A/220V	Adjustable	SPDT	M11	-
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	-
Hermetically sealed gold contact	1A/125V	-	Fix	SPDT	M17	-
DPDT	10A/125V, 0.2A/250V	-	Fix	DPDT	M08	-

## ORDERING CODES

## 1. RANGE

Refer "Range Table"

B09

## 2. CHAMBER MATERIAL

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

NF

## 3. SENSING ELEMENT MATERIAL

DF AISI 316 SS  
 DN Monel K-500<sup>5</sup>  
 DO Hastelloy C-276<sup>5</sup>  
 D2 PTFE (Teflon)

DF

## 4. SWITCHING DIFFERENTIAL

S4 Fixed  
 S5 Adjustable

S4

## 5. SET POINT

S8 On Raising  
 S9 On Falling

S8

## 6. MICROSWITCH TYPE

Refer "Microswitch Specification"

M10

## 7. CABLE ENTRY

C1 1/2" NPT (F)

C1

8. PROCESS CONNECTION<sup>1</sup>

02B 1/4" BSP (F)  
 12B 1/4" BSP (M)  
 13B 3/8" BSP (M)  
 14B 1/2" BSP (M)  
 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#

02N

## 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

KK

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

## COMPATIBLE ACCESSORIES

Diaphragm seal	Gauge cock	Needle Valves
Cooling tower	Snubber	Manifolds
Siphon		

## NOTES:

- Connections are through adaptors.
- The option "TC" covers only wetted parts.
- Cable gland is available in other materials, contact factory.
- Double Compression cable gland is a necessary option. Must to be chosen while ordering.
- Supplied with diaphragm seal.

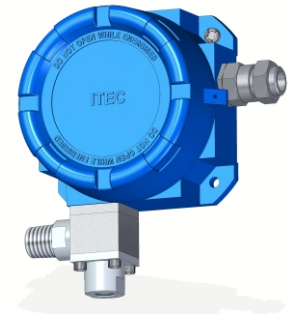
## FEATURES

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

## APPLICATION

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

### HP / LP port



### 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	:	¼" NPT (F) x 2 Nos.
Maximum process temperature	:	150 °C
Ambient temperature	:	-10...60 °C
Cable entry	:	½" NPT Flameproof 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

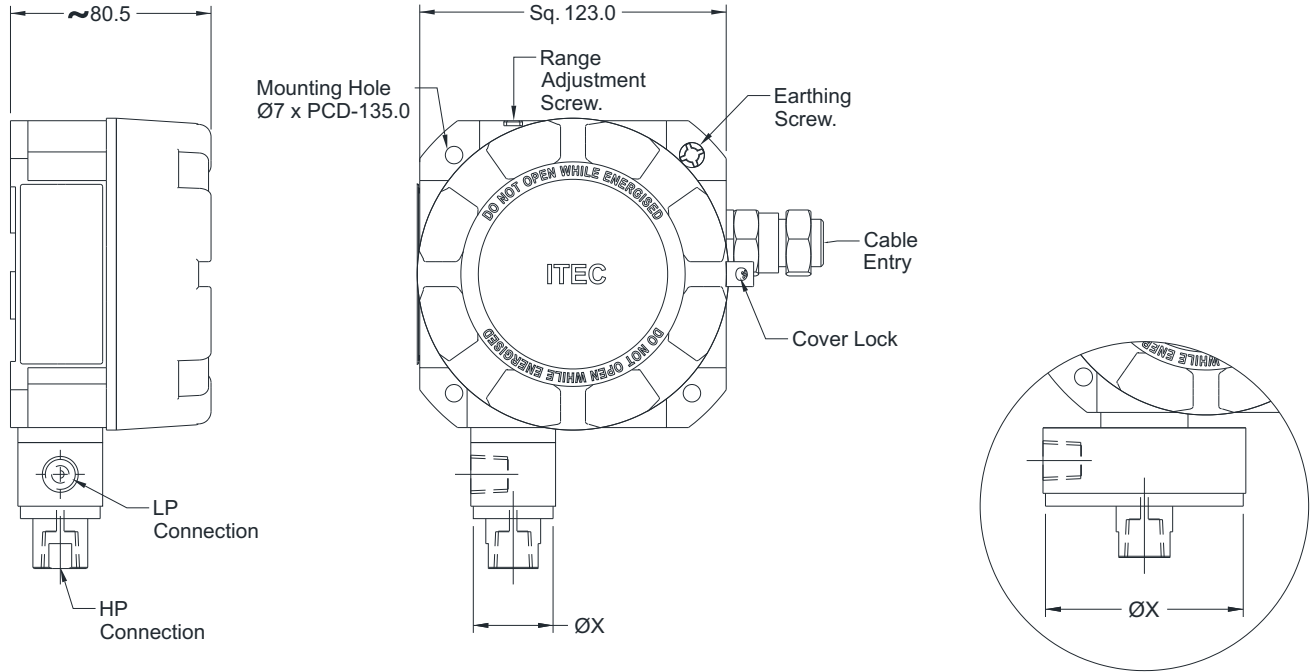
### RANGE TABLE

CODE	RANGE "mbar"	CODE	RANGE "bar"
D17	5...60	B02	0.1...1
D19	10...100	B04	0.2...2
D24	25...250	B06	0...4
D29	50...600	B07	0.6...6
		B09	1...10
		B11	1...16
		B13	2...25

## APPROVALS



DIMENSIONAL DRAWING



All dimensions are in mm

Chamber Size	
Range	ØX
5 mbar to 600 mbar	80 mm
1 bar to 25 bar	45 mm

MICROSWITCH SPECIFICATION

DESCRIPTION	RATING		DIFFERENTIAL	TYPE	SWITCH CODE	
	AC	DC			1 No.	2 Nos.
Low deadband / differential	15A/250V, 2A/24V 0.2A/220V	15A/250V, 2A/24V 0.2A/220V	Fix	SPDT	M10	M20
High dead band / differential	15A/250V, 6A/24V 0.25A/220V	15A/250V, 5A/24V 0.03A/220V	Adjustable	SPDT	M11	-
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	-
Hermetically sealed gold contact	1A/125V	-	Fix	SPDT	M17	-
DPDT	10A/125V, 0.2A/250V	-	Fix	DPDT	M08	-

## ORDERING CODES

### 1. RANGE

Refer "Range Table"

**B02**

### 2. CHAMBER MATERIAL

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

**NF**

### 3. SENSING ELEMENT MATERIAL

**DF** AISI 316 SS  
**DN** Monel K-500<sup>4</sup>  
**DO** Hastelloy C-276<sup>4</sup>  
**D2** PTFE (Teflon)

**DF**

### 4. SWITCHING DIFFERENTIAL

**S4** Fixed  
**S5** Adjustable

**S4**

### 5. SET POINT

**S8** On Raising  
**S9** On Falling

**S8**

### 6. MICROSWITCH TYPE

Refer table "Microswitch Specification"

**M10**

### 7. CABLE ENTRY

**C1** 1/2" NPT (F)

**C1**

### 8. PROCESS CONNECTION

**02B** 1/4" BSP (F)  
**12B** 1/4" BSP (M)  
**13B** 3/8" BSP (M)  
**14B** 1/2" BSP (M)  
**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#

HP & LP connections are through adaptors.

HP side through adaptors & LP side through capillary adaptors.

**02N**

### 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

**KK**

**Ordering Example : S302-B02-NF-DF-S4-S8-M10-C1-02B-KK**

## COMPATIBLE ACCESSORIES

Diaphragm seal	Gauge cock	Needle Valves
Cooling tower	Snubber	Manifolds
Siphon		

### NOTES:

- The option "TC" covers only wetted parts.
- Cable gland is available in other materials, contact factory.
- Double Compression cable gland is a necessary option. Must to be chosen while ordering.
- Supplied with diaphragm seal.

## FEATURES

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

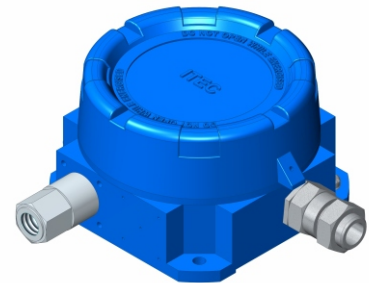
## APPLICATION

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

## APPROVALS



### High Pressure



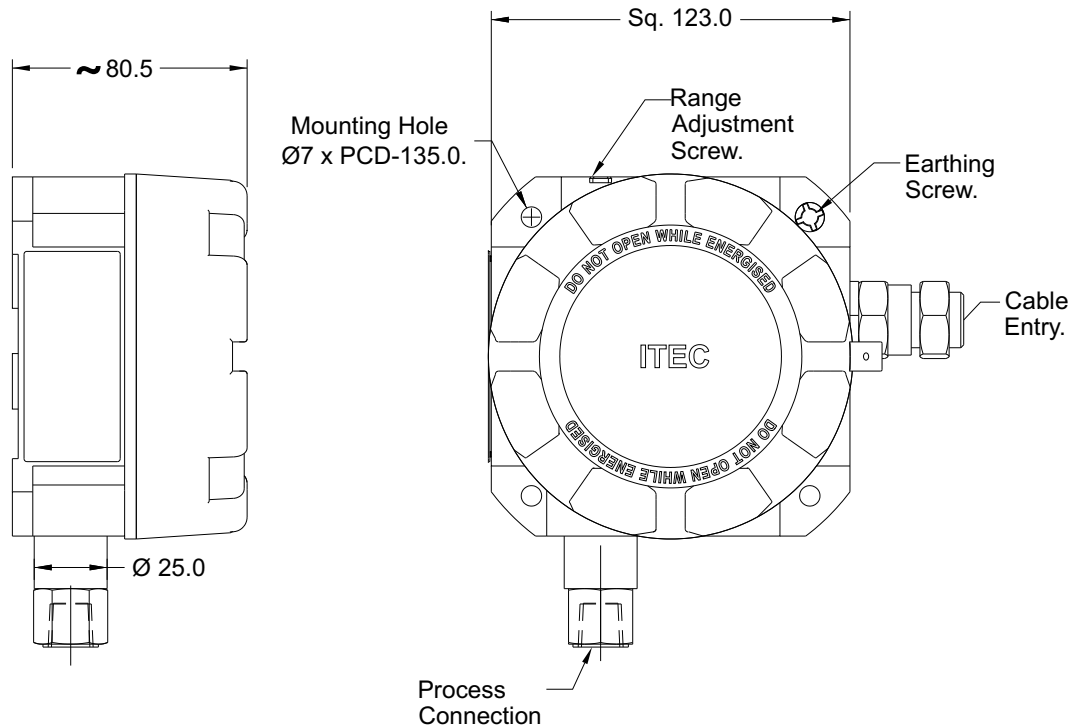
### STANDARD SPECIFICATIONS

Repeatability	:	± 1 % F.S
Scale accuracy	:	± 3 % 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 Piston
Switch	:	1 SPDT Snap action micro switch
Switch rating	:	15A,250 VAC / 0.2A,24 VDC (Standard)
Process connection	:	1/4" NPT (F)
Maximum process temperature	:	150 °C
Ambient temperature	:	-10...60 °C
Cable entry	:	1/2" NPT Flameproof 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

### RANGE TABLE

CODE	RANGE
	<b>"bar"</b>
B17	5...60
B19	10...100
B21	20...160
B24	25...250
B27	40...400

## DIMENSIONAL DRAWING



All dimensions are in mm

## MICROSWITCH SPECIFICATION

DESCRIPTION	RATING		DIFFERENTIAL	TYPE	SWITCH CODE	
	AC	DC			1 No.	2 Nos.
Low deadband / differential	15A/250V, 2A/24V 0.2A/220V	15A/250V, 2A/24V 0.2A/220V	Fix	SPDT	M10	M20
High dead band / differential	15A/250V, 6A/24V 0.25A/220V	15A/250V, 5A/24V 0.03A/220V	Adjustable	SPDT	M11	-
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	-
Hermetically sealed gold contact	1A/125V	-	Fix	SPDT	M17	-
DPDT	10A/125V, 0.2A/250V	-	Fix	DPDT	M08	-



## ORDERING CODES

### 1. RANGE

Refer "Range Table"

**B19**

### 2. CHAMBER MATERIAL

**NF** AISI 316 SS

**NF**

### 3. SENSING ELEMENT MATERIAL

**MF** AISI 316 SS

**MF**

### 4. SWITCHING DIFFERENTIAL

**S4** Fixed  
**S5** Adjustable

**S4**

### 5. SET POINT

**S8** On Raising  
**S9** On Falling

**S8**

### 6. MICROSWITCH TYPE

Refer table "Microswitch Specification"

**M10**

### 7. CABLE ENTRY

**C1** 1/2" NPT (F)

**C1**

### 8. PROCESS CONNECTION<sup>1</sup>

**02B** 1/4" BSP (F)  
**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#

**02N**

### 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

**TB**

**Ordering Example : S303-B19-NF-MF-S4-S8-M10-C1-02B-KK**

## COMPATIBLE ACCESSORIES

Diaphragm seal	Gauge cock	Needle Valves
Cooling tower	Snubber	Manifolds
Siphon		

### NOTES:

- Connections are through adaptors.
- The option "TC" covers only wetted parts.
- Cable gland is available in other materials, contact factory.
- Double Compression cable gland is a necessary option. Must to be chosen while ordering.