

FLAMEPROOF PRESSURE SWITCH-DIAPHRAGM

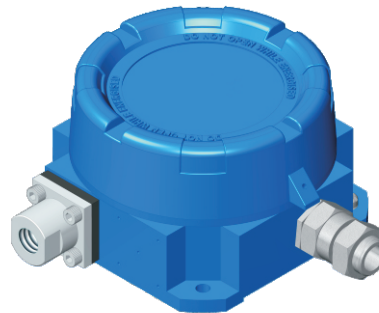
TGI46-1

APPLICATIONS

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

FEATURES

- Fix / adjustable differential
- Field adjustable set point
- Flameproof to Gas groups
- Ingress Protection IP 67
- Internal set point lock
- Rigid construction
- Scale provided



FLAMEPROOF PRESSURE SWITCH DIAPHRAGM, TGI46-1

DESCRIPTION

General

Design : BS 6134

Sensing element : Diaphragm

Repeatability : $\pm 0.5\%$ Full Scale

Scale accuracy : $\pm 1\%$ Full Scale

Mounting : Bottom / Panel

Equipment rating : Ex d IIC T6 Gb as per IS/IEC 60079-1 : 2007
($-10^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$) Zone 0, 1 & 2

Ingress protection : IP 65

Maximum process temperature : 150°C

Ambient temperature : $-10 \dots 60^{\circ}\text{C}$

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 KV between contact and body

Material of construction

Enclosure : Die-cast aluminum

Top chamber : ASTM A105 - Ni plated, AISI 304 SS

Sensing element : AISI 316 SS / Monel / Hastelloy - C276

Bottom chamber : AISI 316 SS / AISI 316L SS / Monel /
Hastelloy C-276

Wall mounting bracket : ASTM A105 / AISI 304 SS

2" pipe / Yoke mounting bracket : ASTM A105 / AISI 304 SS

Tag plate : AISI 304 SS

Standard version :

Range : As per the selection table

Set point adjustment : External (Field adjustable)

Differential : Fixed (Standard - 2...5%),

Adjustable (For code N11B - 5...12.5%)

For double contacts, Differential shall be 1.5 times

Switch : 1 SPDT Snap action micro switch

Switch rating : 15A,250 VAC / 2A,24 VDC (Standard)

Process connection : $\frac{1}{4}$ " BSP (F) / $\frac{1}{4}$ " NPT (F)

Cable entry : PG 13.5, single compression

Range table :

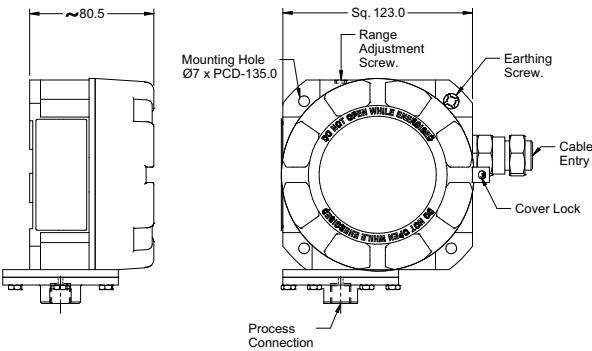
CODE	RANGE	CODE	RANGE
	"mbar"		"bar"
200	-20...+20	001	-1...0
400	-40...+40	102	-1...+2
320	3...20	104	-1...+4
560	5...60	202	0.2...2
101	10...100	404	0.4...4
252	25...250	606	0.6...6
506	50...600	110	1...10
		116	1...16
		225	2...25

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DIMENSIONAL DRAWING

Diaphragm



NOTES
1. Drawing not to scale. All dimensions are in mm.

ORDERING CODES

MODEL						TGI46-1	
TGI46-1 Flameproof Pressure Switch, Diaphragm							
RANGE						110	
XXX	As per range table						
DIAPHRAGM						S02	
S02	AISI 316 SS		S05	MONEL 400	S10		Hastelloy C-276
BOTTOM CHAMBER						S02	
S02	AISI 316 SS		S03	AISI 316L SS	S05		MONEL 400
S10	Hastelloy C-276						
SET-POINT ADJUSTMENT						E64	
E63	Internal		E64	External			
CALIBRATION						E80	
E70	Falling pressure		E80	Rising pressure			
MICROSWITCH TYPE						N11A	
N11A	Low Deadband Contact (15A/250VAC, 2A/24VDC)			N11E	Hermetically Sealed Silver Contact (2A/24VDC)		
N11B	Adjustable Deadband Contact(15A/250VAC, 5A/24VDC)			N11F	Hermetically Sealed Gold Contact (1A/125VAC)		
N11C	Gold Plated Contact (1A/250VAC, 0.5A/28VDC)			N12A	DPDT Contact (10A/125VAC)		
N11D	Environmentally Sealed Silver Contact (5A/28VAC)						
NO. OF SWITCHES						1	
1	One		2	Two [Except for code N12A]			
CABLE ENTRY						Q1	
Q1	PG 13.5		Q2	½" NPT (F)	Q3		½" BSP (F)
Q4	DIN Connector		Q5	¾" ET (F)			
PROCESS CONNECTION						P24	
P23	¼" BSP (F)		P3	¼" BSP (M)	P5		3/8" BSP (M)
P7	½" BSP (M)		P24	¼" NPT (F)	P4		¼" NPT (M)
P8	½" NPT (M)		P28	½" 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#			
OTHER OPTIONS						E16/E27	
E16	Calibration Certificate		E27	AISI 304 SS tag plate			
E66	2" Pipe mounting bracket & clamp			E65	Wall mounting bracket		
Q54	Ni-plated brass double compression cable gland			E17	Material test certificate 3.1		

Ordering Example : TGI46-1.110.S02.S02.E64.E80.N11A.1.Q1.P24/E16/E27