

GAS FILLED TEMPERATURE GAUGE

TGI51-1

APPLICATIONS

- Liquid & gaseous mediums
- Corrosive environments
- Oil & Gas applications
- Chemical & Petrochemical
- Food & Beverages
- Nuclear power plants

FEATURES

- All stainless steel welded construction
- Follows EN 13190 / ASME B40.200
- Accuracy as per Class 1
- Dry / Fillable / Liquid filled



GAS FILLED TEMPERATURE GAUGE, TGI51-1

DESCRIPTION

General

Design : EN 13190

Accuracy : $\pm 1.0\%$ of full scale

Ambient temperature : $-20 \dots +60^\circ\text{C}$

Storage temperature : $-50 \dots +70^\circ\text{C}$ without liquid dampening
 $-20 \dots +60^\circ\text{C}$ with liquid dampening

Over range limits : 110% full scale

Stem pressure rating : 25 bar (Without thermowell)

Weld joints : TIG argon arc welding

Material of construction

Sensing element : Inert Gas Filled sensor bulb

Case & Ring material : AISI 304 SS

Stem material : AISI 316 SS

Process connection material : AISI 316 SS

Dial : Aluminum, black graduation on white background

Pointer : Micro-zero adjustable, aluminum, black powder coated

Gaskets : Neoprene / NBR

Window : Sheet glass

Temperature effect

When temperature of the measuring system deviates from reference temperature ($+20$):

max $\pm 0.4\%$ / 10K of full scale value.

Standard version

Dial size : 100 mm / 150 mm / 250 mm

Range : -50 up to 800°C

Mounting pattern : Direct Bottom connection

Stem size : 6.0 mm / 8.0 mm / 9.5 mm / 12 mm

Ingress protection : IP 65

Stem length : 150 mm standard up to 3000 mm

Process connection type : Adjustable connection

Process connection : $\frac{1}{2}$ " NPT (M) / $\frac{1}{2}$ " BSP (M)

Filled versions

Glycerin

Window : Shatterproof safety glass

Dampening liquid : Glycerin 99.7% / 80% / 60%
[Max temperature range limit 100°C]

Silicon Oil

Window : Shatterproof safety glass

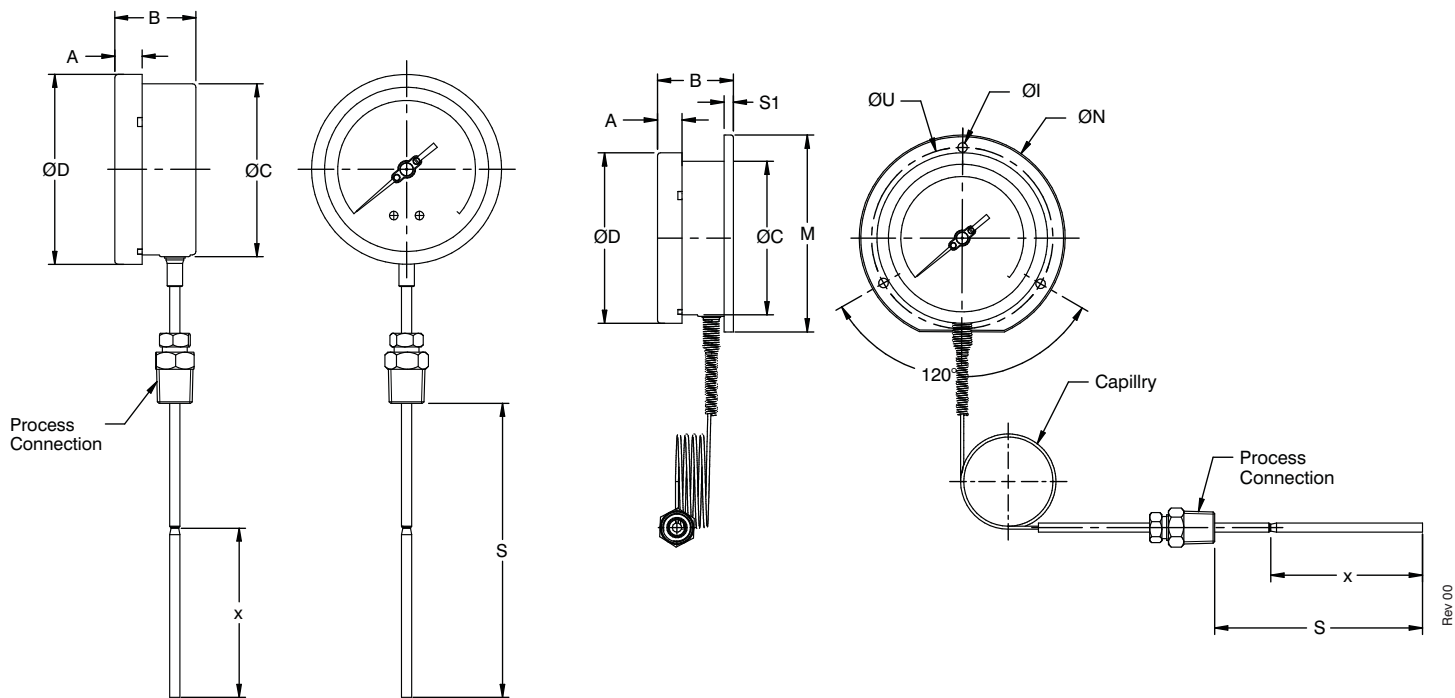
Gasket, Blow off disc & filling plug : NBR / Viton

Dampening liquid : Silicon oil DC 200
[Max temperature range limit 200°C]

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DIMENSIONAL DRAWING



NOTES
1. Drawing not to scale. All dimensions are in mm.
2. For other mounting details, Panel cut-out dimensions, kindly contact factory.

NS	A	B	ØC	ØD	ØI	ØN	M	S1	ØU
100	12	48	100	111	6	134	128	6	118
150	15	48	149	161	6	186	172.4	6	168
250	18.5	52	250	263	7	290	286.5	1.5	276

ORDERING CODES

MODEL						TGI51-1			
TGI51-1 Gas filled temperature gauge									
DIAL SIZE									
D4	4" / 100 mm		D6	6" / 150 mm			D10	10" / 250 mm	
MOUNTING								M1	
Direct type (Rigid stem)									
M1	Direct bottom		M5	Direct center back		M12	Every angle center back entry		
M6	Direct lower back		M16	Bottom with Anti-vibration spring					
Remote type (Capillary extension)								P8	
M2	Direct bottom with Back flange		MF	Direct lower back with front flange					
M8	Direct lower back with panel mounting clamp								
CONNECTION								F1	
P4	1/4" NPT (M)		P6	3/8" NPT (M)		P8	1/2" NPT (M)		
P3	1/4" BSP (M)		P5	3/8" BSP (M)		P7	1/2" BSP (M)		
CASE FILLING								I6	
F1	Dry		F2	Dry but fillable		F3	Glycerin filled		
F4	Silicon oil filled								
INGRESS PROTECTION								I6	
I1	IP 65		I6	IP 68					

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ORDERING CODES					
EXECUTION					
R1	Direct	R2	Remote	R1	
STEM SIZE					
B6	6 mm	B8	8 mm	B10	10 mm
B12	12 mm	B9	9.5 mm	B7	6.35 mm (1/4")
STEM LENGTH					
XXXX	Please mention stem length in ‘mm’				
RANGE					
0-100°C	Please mention range required with the measurement unit [TGI offer in all types of National & International measurement units, e.g. °C, °F, etc. with single or dual scales]				
CAPILLARY					
S01	AISI 304 SS	S02	AISI 316 SS	XXX	
CAPILLARY					
S01	AISI 304 SS	S02	AISI 316 SS	S16	PVC [Ambient up to 65°C]
STEM LENGTH					
XXXX	Please mention stem length in ‘mm’				
OPTIONAL EXTRAS					
E33	AISI 316 SS case & ring	E01	Shatterproof safety glass	E31	Custom designed dial
E27	AISI 304 SS tag plate	E28	AISI 316 SS tag plate	E16/E27	
E32	Dial tag marking	E16	5 - point calibration certificate		

Ordering Example : TGI51-1-D4.M1.P8.F1.I1.R1.B6/100 mm/0-100°C/E16/E27