

GAS FILLED TEMPERATURE GAUGE WITH ELECTRIC CONTACT

TGI53-1

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, TGI53-1

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

Electric Contact : Double; Break contact + Make contact

Electrical Termination: 4 Pin Din connector

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

Window : Shatterproof safety glass /Polycarbonate Glass (Doom Glass)

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

Dampening liquid : Dielectric Oil

Temperature effect

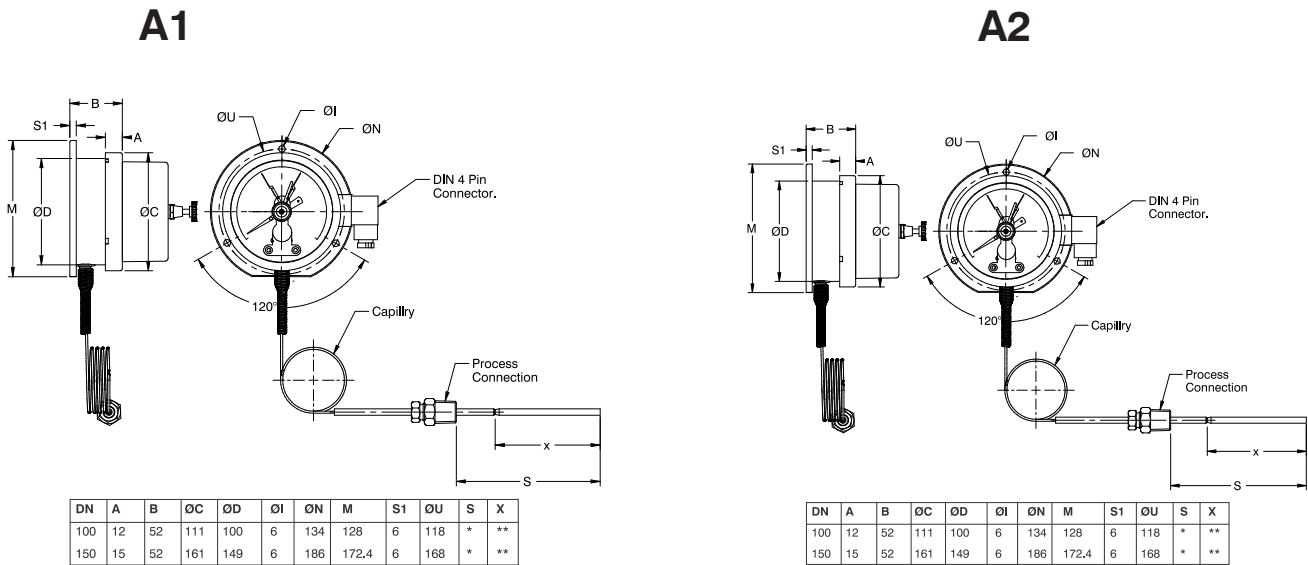
When temperature of the measuring system deviates from reference temperature ($+20$):

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

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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.

ORDERING CODES

MODEL						TGI53-1
TGI53-1 Gas filled temperature gauge with Electric Contact						
Electric Contact Type						A2
A1	Electric Contact with Safety Glass			A2	Electric Contact with Polycarbonate Glass (DoomGlass)	
DIAL SIZE						D4
D4	4" / 100 mm		D6	6" / 150 mm		
MOUNTING						M1
Direct type (Rigid stem)						
M1	Direct bottom		M5	Direct center back	M12	
M6	Direct lower back		M16	Bottom with Anti-vibration spring		
Remote type (Capillary extension)						
M2	Direct bottom with Back flange		MF	Direct lower back with front flange		
M8	Direct lower back with panel mounting clamp					
CONNECTION						P8
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						F9
F1	Dry		F2	Dry but fillable	F9 Die Electric Oil filled	
INGRESS PROTECTION						I1
I1	IP 65		I6	IP 68		

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ORDERING CODES					
EXECUTION					
R1	Direct	R2	Remote		
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		
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'				
ELECTRIC CONTACT TYPE [RATING - MAGNETIC CONTACTS : 45mA@230VAC, INDUCTIVE CONTACT : 8VAC]					
N1	Magnetic Contact - 1NC	N2	Magnetic Contact - 1NO	N3	Magnetic Contact - 1NC & 1NO
N4	Magnetic Contact - 2NC	N5	Magnetic Contact - 2NO		
N6	Inductive Contact - 1NC	N7	Inductive Contact - 1NO	N8	Inductive Contact - 1NC & 1NO
N9	Inductive Contact - 2NC	N10	Inductive Contact - 2NO		
N11	1 SPDT	N12	1 DPDT		
OPTIONAL EXTRAS					
E33	AISI 316 SS case & ring	E01	Shatterproof safety glass	E46	External zero adjustment
E27	AISI 304 SS tag plate	E28	AISI 316 SS tag plate	E31	Custom designed dial
E32	Dial tag marking	E16	5 - point calibration certificate	E14	Rubber parts, Viton

Ordering Example : TGI53-1-D4.M1.P8.F9.I1.R1.B6/100 mm/0-100°C/E16/E27/N3