

# GAS FILLED TEMPERATURE GAUGE WITH ELECTRIC CONTACT

## ZIPL53-1

### 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 ELECTRIC CONTACT TYPE TEMPERATURE GAUGE, ZIPL53-1

## 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  $800^{\circ}\text{C}$

**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 ( $+20$ ):

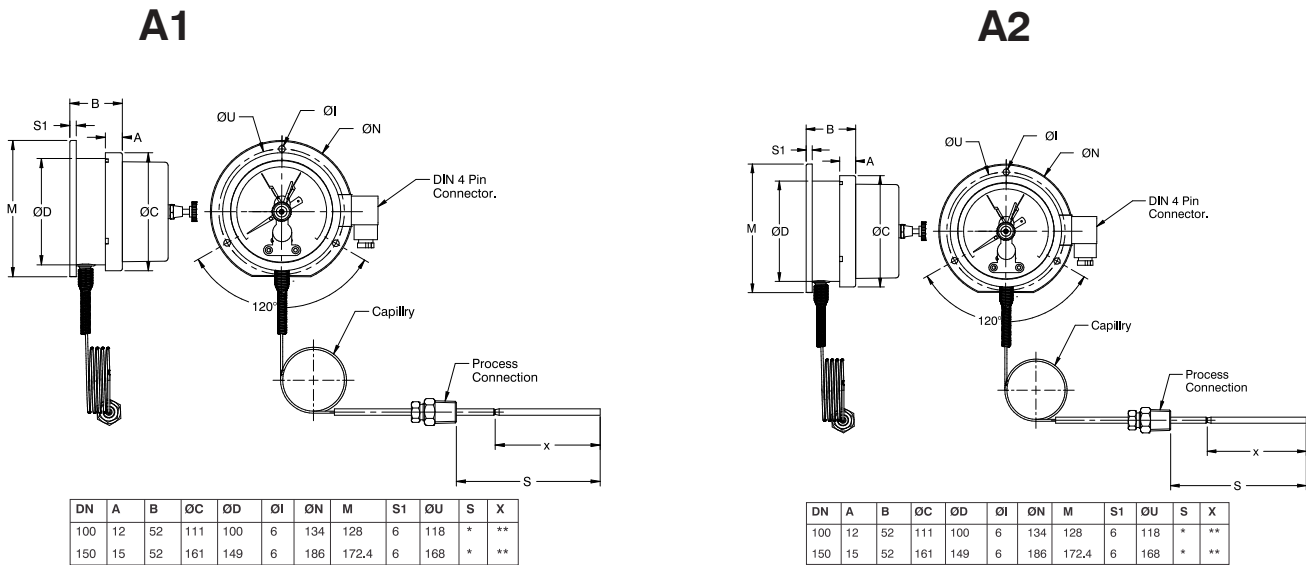
max  $\pm 0.4\%$  / 10K of full scale value.

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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						ZIPL53-1	
ZIPL53-1 Gas filled temperature gauge with Electric Contact							
Electric Contact Type							
A1	Electric Contact with Safety Glass			A2	Electric Contact with Polycarbonate Glass (DoomGlass)		
DIAL SIZE							
D4	4" / 100 mm		D6	6" / 150 mm			
MOUNTING							
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							
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							
F1	Dry		F2	Dry but fillable	F9		Die Electric Oil filled
INGRESS PROTECTION							
I1	IP 65		I6	IP 68			



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### ORDERING CODES

#### EXECUTION

<b>R1</b>	Direct	<b>R2</b>	Remote	<b>R1</b>
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#### STEM SIZE

<b>B6</b>	6 mm	<b>B8</b>	8 mm	<b>B10</b>	10 mm	<b>B6</b>
<b>B12</b>	12 mm	<b>B9</b>	9.5 mm	<b>B7</b>	6.35 mm (1/4")	

#### STEM LENGTH

<b>XXXX</b>	Please mention stem length in 'mm'	<b>100 mm</b>
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#### RANGE

<b>0-100°C</b>	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]	<b>0-100°C</b>
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#### CAPILLARY

<b>S01</b>	AISI 304 SS	<b>S02</b>	AISI 316 SS	<b>XXX</b>
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#### CAPILLARY

<b>S01</b>	AISI 304 SS	<b>S02</b>	AISI 316 SS	<b>S16</b>	PVC [Ambient up to 65°C]	<b>XXX</b>
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#### STEM LENGTH

<b>XXXX</b>	Please mention stem length in 'mm'	<b>XXXX</b>
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#### ELECTRIC CONTACT TYPE [RATING - MAGNETIC CONTACTS : 45mA@230VAC, INDUCTIVE CONTACT : 8VAC]

<b>N1</b>	Magnetic Contact - 1NC	<b>N2</b>	Magnetic Contact - 1NO	<b>N3</b>	Magnetic Contact - 1NC & 1NO	<b>N3</b>
<b>N4</b>	Magnetic Contact - 2NC	<b>N5</b>	Magnetic Contact - 2NO			
<b>N6</b>	Inductive Contact - 1NC	<b>N7</b>	Inductive Contact - 1NO	<b>N8</b>	Inductive Contact - 1NC & 1NO	
<b>N9</b>	Inductive Contact - 2NC	<b>N10</b>	Inductive Contact - 2NO			
<b>N11</b>	1 SPDT	<b>N12</b>	1 DPDT			

#### OPTIONAL EXTRAS

<b>E33</b>	AISI 316 SS case & ring	<b>E01</b>	Shatterproof safety glass	<b>E46</b>	External zero adjustment	<b>E16/E27</b>
<b>E27</b>	AISI 304 SS tag plate	<b>E28</b>	AISI 316 SS tag plate	<b>E31</b>	Custom designed dial	
<b>E32</b>	Dial tag marking	<b>E16</b>	5 - point calibration certificate	<b>E14</b>	Rubber parts, Viton	

**Ordering Example**    **ZIPL53-1-D4.M1.P8.F9.I1.R1.B6/100 mm/0-100°C/E16/E27/N3**