

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



DESCRIPTION

General

Design : EN 13190

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

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

Storage temperature : $-50...+70^{\circ}\text{C}$ without liquid dampening

$-20...+60^{\circ}\text{C}$ 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

GAS FILLED TEMPERATURE GAUGE, TMC51-1

Standard version

Dial size : 63 mm / 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 version

Glycerin

Window : Shatterproof safety glass

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

Silicon Oil

Window : Shatterproof safety glass

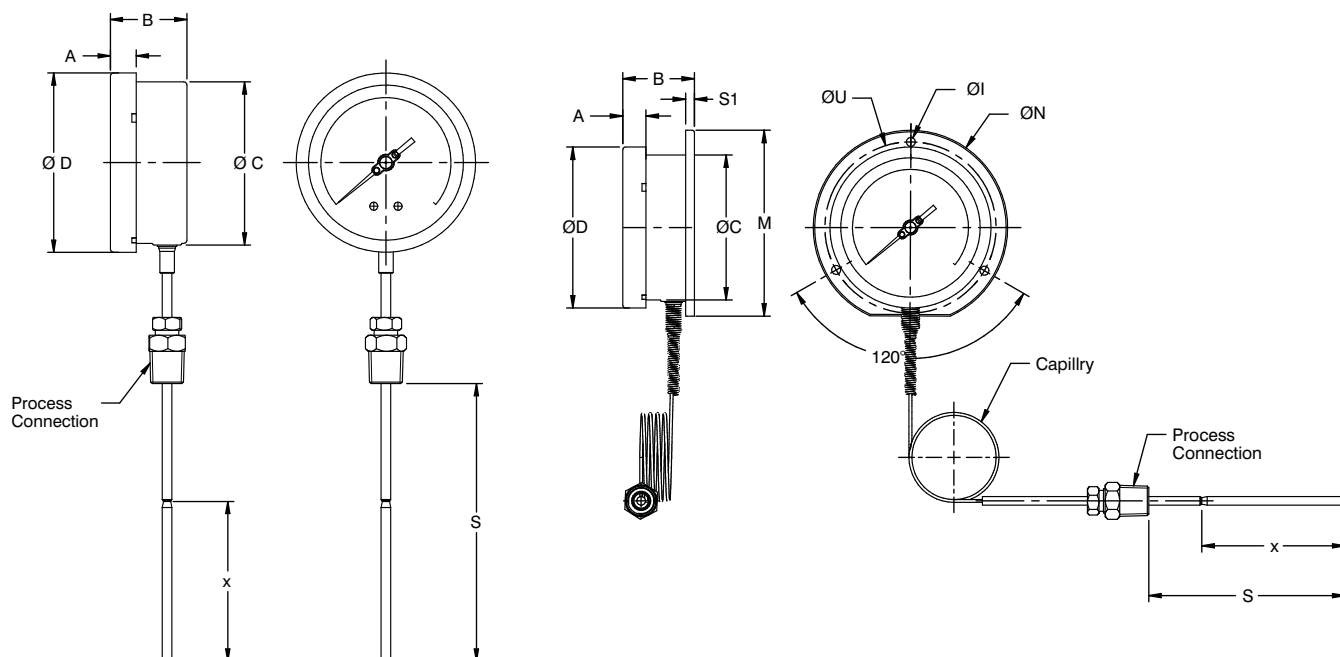
Gasket, Blow off disc & filling plug : NBR / Viton

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

Temperature Effect

When temperature of the measuring system deviates from reference temperature ($+20$):
max $\pm 0.4\%$ / 10K of full scale value.

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

TMC51-1 Gas filled temperature gauge

TMC51-1

DIAL SIZE

D2	2.5" / 63 mm	D4	4" / 100 mm
D6	6" / 150 mm	D10	10" / 250 mm

D4

MOUNTING

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		

M1

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	¼" NPT (M)	P6	3/8" NPT (M)	P8	½" NPT (M)
P3	¼" BSP (M)	P5	3/8" BSP (M)	P7	½" BSP (M)

P8

CASE FILLING

F1	Dry	F2	Dry but fillable	F3	Glycerin filled
F4	Silicon oil filled				

F1

INGRESS PROTECTION

I1	IP 65	I6	IP 68
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I6

Rev 00

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ORDERING CODES

EXECUTION

R1	Direct	R2	Remote
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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")

B6

STEM LENGTH

XXXX	Please mention stem length in 'mm'
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100 mm

RANGE

0-100°C	Please mention range required with the measurement unit [TMC offer in all types of National & International measurement units, e.g. °C, °F, etc. with single or dual scales]
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0-100°C

CAPILLARY

S01	AISI 304 SS	S02	AISI 316 SS
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XXX

CAPILLARY

S01	AISI 304 SS	S02	AISI 316 SS	S16	PVC [Ambient up to 65°C]
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XXX

STEM LENGTH

XXXX	Please mention stem length in 'mm'
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XXXX

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		
E32	Dial tag marking	E16	5 - point calibration certificate		

E16/E27

Ordering Example : TMC51-1-D4.M1.P8.F1.I1.R1.B6/100 mm/0-100°C/E16/E27