

TECHNICAL SPECIFICATIONS FOR TEMPERATURE GAUGE

Document No: GEL/TS/I&M/ TEMPERATURE-GAUGE/SPEC

01		- Thermowell details added for 100012090 - QAP added	28.07.2026
00		Issued for Tendering	17.12.2022
REV. NO	Clause no.	REVISION DESCRIPTION	DATE OF ISSUE

DATASHEET – TEMPERATURE GAUGE			
Sr. No.	1	2	3
Mat. Code	100012097	100012098	100012090
Short Text	GAUGE,TEMP,0-100,4",1/2"NPT,300#, W/OTHMW	GAUGE,TEMP,0-100,6",1/2"NPT,300#, W/OTHMW	GAUGE,TEMP,0-100,6",1/2"NPT,300#, W/THMWL
Long Text	Supply of Temp Gauge, 300# Pressure Class and Temperature range of 0-100 DEG with Dial size of 4" and end connection of 1/2"NPT Without Thermowell	Supply of Temp Gauge, 300# Pressure Class and Temperature range of 0-100 DEG with Dial size of 6" and end connection of 1/2"NPT Without Thermowell	Supply of Temp Gauge, 300# Pressure Class and Temperature range of 0-100 DEG with Dial size of 6" and end connection of 1/2"NPT With Thermowell
Make	Bidder to Specify	Bidder to Specify	Bidder to Specify
Model	Bidder to Specify	Bidder to Specify	Bidder to Specify
Standard	EN13190	EN13190	EN13190
Type	Bidder to Specify	Bidder to Specify	Bidder to Specify
Temperature Range	0 to 100 Deg C	0 to 100 Deg C	0 to 100 Deg C
Design Pressure	49 Barg	49 Barg	49 Barg
Overall Range Protection	130 % of the FSD	130 % of the FSD	130 % of the FSD
Dial Size	4"	6"	6"
Colour	White with Black Marking	White with Black Marking	White with Black Marking
Connection Location	Bottom	Bottom	Bottom
Accuracy	± 1% OF FSD	± 1% OF FSD	± 1% OF FSD
Enclosure	WEATHER PROOF	WEATHER PROOF	WEATHER PROOF
Ingress Protection	IP 65	IP 65	IP 65
Zero Adjustment Screw	Micro Pointer (Internal)/External Zero adjustment	Micro Pointer (Internal) /External Zero adjustment	Micro Pointer (Internal) /External Zero adjustment
MATERIAL			
Sensor	Bimetallic, Rigid	Bimetallic, Rigid	Bimetallic, Rigid
Case Material	Die cast Aluminium/Pressed AISI SS 304	Die cast Aluminium/Pressed AISI SS 304	Die cast Aluminium/Pressed AISI SS 304
Window Material	Shatterproof Glass	Shatterproof Glass	Shatterproof Glass
Wetter Parts	SS316	SS316	SS316
Stem	SS316 - ADJUSTABLE UNION	SS316 - ADJUSTABLE UNION	SS316 - ADJUSTABLE UNION
Stem Type	RIGID	RIGID	RIGID
Case	SS 304	SS 304	SS 304
Bezel	SS 304	SS 304	SS 304
Pointer	Black Aluminium	Black Aluminium	Black Aluminium
Bezel Ring	BAYONET LOCK TYPE	BAYONET LOCK TYPE	BAYONET LOCK TYPE
Stem length	317 mm	317 mm	317 mm
Stem Dia	6 mm	6 mm	6 mm
End Connection	1/2" NPT-M	1/2" NPT-M	1/2" NPT-M
THERMO WELL DETAILS			
Material	N/A	N/A	SS316
Type	N/A	N/A	BAR STOCK DRILLED
ID	N/A	N/A	Vendor to Furnish
OD	N/A	N/A	Vendor to Furnish
Flange Material	N/A	N/A	SS 304
Instrument Connections	N/A	N/A	1/2" NPT-F
Calibration	Required	Required	Required

Notes:

1. The Vendor shall submit QAP and data sheet within 10 working days after getting contract/order (whichever is earlier) to GEL for their review and approval. Queries raised by GEL during review of QAP and Data Sheet, if any, shall be resolved by the vendor to the complete satisfaction of GEL within 7 working days from date of receipt of all queries. No extension in delivery schedule shall be provided in case of delay in completing the QAP, datasheet approval process as stated above for reasons directly attributable to the vendor. Decision taken by GEL in the regard shall be final and binding on the Vendor.
2. Manufacturer shall perform all tests as specified in GEL approved QAP and compliance report for the same shall be produced at the time of TPI inspection.
3. TPI in the scope of Bidder. Bidder shall perform inspection at their works and calibration certificates shall be furnished to Gujarat Energy Limited.
4. Technical clearance shall be provided by GEL based on TPI report based on which Vendor shall dispatch the materials.

Annexure-1 QAP (Vendor shall furnish compliance to below QAP)

#	Parameters	Characteristics	Acceptance Standard	Manufacturer’s Testing		TPIA Scope of Testing – Witness/Review		Inspection Scope	
				Extent of Check	Records	Extent of Check	Records	Manufacturer	TPI
1	Visual	Dial Size	GEL Approved Data Sheet	100%	Compliance certificate by Manufacturer	As Per Annexure-A	Witness report	P	W
		Colour							
		End Connection							
		Connection Location							
		Range							
		Zero Adjustment screw							
		Stem type							
		Stem Length							
		Stem dia							
2	Functional	Accuracy	GEL Approved Data Sheet	100%	Compliance certificate by Manufacturer	As Per Annexure-A	Witness report	P	W
		Over-range protection							
3	Material Test Certificate	Case Material	GEL Approved Data Sheet	100%	Compliance certificate by Manufacturer	As Per Annexure-A	Summary report	P	R
		Bezel Ring							
		Window Material							
		Sensor							
		Stem							
		Wetted parts							
		Movement							
4	Documents	Enclosure	Test Certificate	100%	Compliance certificate by Manufacturer	As Per Annexure-A	Summary report	P	R
		Calibration							
		Ingress Protection (Enclosure)	Ingress Protection Certificate			100%		-	R
		Manufacturer’s records for internal inspection as per test requirements above	GEL Approved Data Sheet						

P: Perform
W: Witness
R: Review

Annexure A (reference standard: IS 2500)

SAMPLING PLAN (Single Sampling Plan with 1% AQL, Normal Inspection-Level 1 (As per IS 2500))

Sl. No.	Batch Size	Sample Size	Acceptance Number	Rejection Number
1	2 to 8	2	0	1
2	9 to 15	2	0	1
3	16 to 25	3	0	1
4	26 to 50	5	0	1
5	51 to 90	5	0	1
6	91 to 150	8	0	1
7	151 to 280	13	0	1
8	281 to 500	20	0	1

Number of samples inspected will be equal to the sample size given by the plan. If the number of non-conforming product(s) is equal to acceptance number, the lot shall be considered acceptable. If the number of non-conforming product(s) is equal to or greater than the rejection number, then the whole lot will be retested for that particular parameter and rejected products will be replaced by conforming products.

Notes for TPIA:

1. TPI Signed and stamped Document set shall include:

1.1) IRN, Inspection report/Joint inspection report

1.2) Summary sheet to include TPI observations and remarks (Accepted/Not accepted) for each line item in QAP

1.3) Witness report providing details of Witness performed on the sample Quantity.

1.4) Compliance certificate by Manufacturer and Compliance certificate by TPI
1. All test certificates

2. TPI to Specify Total Offered Qty. in the lot and corresponding sample size Qty. (and serial nos.) in Summary Sheet.

3. TPIA shall issue Release Note on the basis of witness/review of all stages as per approved QAP.