	
DOC NUMBER: <b>569-DB7B-AIC-711-003</b>		CLIENT NUMBER: <b>PRD-AIC-DSH-050</b>	
CLIENT: <b>TAKEDA/BAXALTA</b>			
PROJECT: <b>BURITI EPCVM PROJECT</b>			

## DRUG SUBSTANCE - PCS - DATA SHEET TEMPERATURE GAUGE

2	26JAN2022	ISSUED FOR CONSTRUCTION UPDATED AS PER NOTES	MAB	MAF	RSP
1	17NOV2021	ISSUED FOR CONSTRUCTION UPDATED AS PER NOTES	MAB	MAF	RSP
0	13SEP2021	ISSUED FOR CONSTRUCTION	MAB	MAF	RSP
A	31MAR2021	60% DD ISSUE	JHA	MAF	RSP
REV	DATE	DESCRIPTION	EXEC	CHECK	APPROV

NUMBER: **569-DB7B-AIC-711-003**

CLIENT NR: **PRD-AIC-DSH-050**

TITLE

**TEMPERATURE GAUGE**





SHEET:  
2 de 12

REV.:  
**2**

**DOCUMENT REVIEW CONTROL**

Revision	A	0	1	2	3	4	Revision	A	B	0	1	2	3	Revision	A	B	0	1	2	3
Page							Page							Page						
1	X	X	X	X			26							51						
2	X	X	X	X			27							52						
3	X	X	X	X			28							53						
4	X	X	X	X			29							54						
5	X	X	X	X			30							55						
6	X	X	X	X			31							56						
7	X	X	X	X			32							57						
8	X	X	X	X			33							58						
9	X	X	X	X			34							59						
10	X	X	X	X			35							60						
11				X			36							61						
12				X			37							62						
13							38							63						
14							39							64						
15							40							65						
16							41							66						
17							42							67						
18							43							68						
19							44							69						
20							45							70						
21							46							71						
22							47							72						
23							48							73						
24							49							74						
25							50							75						

The information contained in this document is the property of TESSLER Engenharia and is provided to the customer under the condition that they are not used for other purposes other than those contractually established.





 		 	
NUMBER: <b>569-DB7B-AIC-711-003</b>		CLIENT NR: <b>PRD-AIC-DSH-050</b>	
TITLE			SHEET:
<b>TEMPERATURE GAUGE</b>			3 de 12
			REV.: <b>2</b>
<b>REFERENCE DOCUMENTS</b>			

7B-Z-0-2-54	P&I DIAGRAM - DRUG SUBSTANCE - AUTOCLAVE AT-9001
7B-Z-0-2-59	P&I DIAGRAM - DRUG SUBSTANCE - WFI STILL - MÊS-6401
7B-Z-0-2-63	P&I DIAGRAM - DRUG SUBSTANCE - CLEAN STEAM GENERATOR - CSG-6501
7B-Z-0-2-73	P&I DIAGRAM - DRUG SUBSTANCE - BIOWASTE COLLECTION - HEADERS
PRD-AIC-LIS-010	DRUG SUBSTANCE - PCS - INSTRUMENT INDEX
PRD-PIP-TSP-501	PIPE CLASS AND SPECIFICATION - TECHNICAL SPECIFICATION
PRD-AIC-LIS-046	INTEGRATED PROJECT SERVICES - INSTRUMENT SUGGESTED SUPPLIER LIST

<b>GENERAL NOTES</b>
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- 1- Provide calibration certificate issued by INMETRO or by organ accredited by it.
- 2- The manufacturer shall provide "Calculation Memorial" of the resonance frequency according to "ASME PTC19.3 Part 3".
- 3- The identification plates must be made of AISI 304 stainless steel permanently attached to the instruments with a tag and serial number. The serial number of the instrument, when possible, can be recorded on the body itself.
- 4- A revision of this document should be provided upon receipt of certified documents from suppliers.

REVISION 0 - NOTES
1- REVISED AS PER INSTRUMENT LIST NUMBER PRD-AIC-LIS-010_B_PCS_INSTRUMENT_INDEX AND BACKLOG NUMBER 99000-184.0 2021.03.30 - A&IC DOCUMENTS - COMMENTS_REV.01
REVISION 1 - NOTES
1 - ACCORDING NEW ARQUITECTURE UPDATED
REVISION 2 - NOTES
1 - ADDED INSTRUMENTS: TI-470106 / TI-470107

 				 				
NUMBER: 569-DB7B-AIC-711-003				CLIENT NR: PRD-AIC-DSH-050				
TITLE						SHEET: 4 de 12		
TEMPERATURE GAUGE						REV.: 2		
GENERAL	1	INSTRUMENT TAG NUMBER		TI-640101				
	2	SERVICE		CHILLED WATER - LOOP 2, RETURN BY WFI STILL MES-6401				
	3	P&ID		7B-M-0-2-59				
	4	PIPE LINE	EQUIPMENT NUMBER	7B-'1"-CW1R-640128-CS1-CC		-		
	5	EQUIPMENT MATERIAL / PIPE		CARBON STEEL ASTM-A106 Gr.B				
	6	AREA CLASSIFICATION		NOT CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION		IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES		(SEE GENERAL NOTES 1)				
	9							
INSTRUMENT	10	TYPE		BIMETALLIC				
	11	MOUNTING		LOCAL				
	12	DIAL DIAMETER		114 mm				
	13	SCALE COLOR	BACKGROUND COLOR	BLACK		WHITE		
	14	PRECISION		1% OF THE FINAL VALUE "RANGE"				
	15	MATERIAL CASE		304SS POLISHED				
	16	RING TYPE	RING MATERIAL	BAYONET		304SS		
	17	ROD MATERIAL	DIAMETER	316SS		6 mm		
	18	STEM CONNECTION TO WELL	CONNECTION POSITION	1/2" NPT (M)		BOTTOM		
	19	MINIMUM SCALE	MAXIMUM	0 °C		300 °C		
	20	MICROMETRIC ADJUSTMENT OF ZERO		YES				
	21	FRONT TYPE	WINDOWS	SOLID		GLASS SEG. TRANSP. MIN. 75%		
	22	ROD LENGTH "U"		BY MANUFACTURER				
	23	FILLING	FLUID	NOT REQUIRED		NOT REQUIRED		
	24							
WELL	25	SUPPLY		YES				
	26	MATERIAL		SS316				
	27	TYPE OF CONSTRUCTION		CONICAL MACHINED FROM A BAR				
	28	CONNECTION TO THE PROCESS		1.1/2", 150#, FR, ASME B16.5				
	29	CONNECTION TO THERMOMETER		1/2" NPT(F)				
	30	FLANGE FACE FINISH		MSS SP-6				
	31	INSERTION LENGTH "U"		212 mm				
	32	EXTENSION LENGTH "T"		35 mm				
	33							
	34							
	35							
	36							
37								
38								
39								
40								
OPERATING CONDITIONS	41	FLUID	PHYSICAL STATUS		INDUSTRIAL WATER		LIQUID	
	42	MINIMUM PRESSURE	NORMAL	MAXIMUM			bar-g	
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM			°C	
	44	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g		°C	
	45	VISCOSITY @ OPERATING CONDITION		cP				
	46	DENSITY @ OPERATING CONDITION		kg/m³				
	47	SUSPENDED SOLIDS (%)		NOT				
	48	SOLIDIFIES AT ROOM TEMPERATURE		NOT				
	49	MAXIMUM FLUID SPEED		m/s				
	50	MANUFACTURER		ASHCROFT OR SIMILAR				
51	MODEL							





NOTES:

- 1- PROVIDE REAR PROTECTION DISC IN NEOPRENE.

 				 				
NUMBER: 569-DB7B-AIC-711-003				CLIENT NR: PRD-AIC-DSH-050				
TITLE						SHEET: 5 de 12		
TEMPERATURE GAUGE						REV.: 2		
GENERAL	1	INSTRUMENT TAG NUMBER		TI-640102				
	2	SERVICE		CHILLED WATER - LOOP 2, SUPPLY FROM WFI STILL MES-6401				
	3	P&ID		7B-M-0-2-59				
	4	PIPE LINE	EQUIPMENT NUMBER	7B-1"-CW1S-640127-CS1-CC	-			
	5	EQUIPMENT MATERIAL / PIPE		CARBON STEEL ASTM-A106 Gr.B				
	6	AREA CLASSIFICATION		NOT CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION		IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES		(SEE GENERAL NOTES 1)				
	9							
INSTRUMENT	10	TYPE		BIMETALLIC				
	11	MOUNTING		LOCAL				
	12	DIAL DIAMETER		114 mm				
	13	SCALE COLOR	BACKGROUND COLOR	BLACK	WHITE			
	14	PRECISION		1% OF THE FINAL VALUE "RANGE"				
	15	MATERIAL CASE		304SS POLISHED				
	16	RING TYPE	RING MATERIAL	BAYONET	304SS			
	17	ROD MATERIAL	DIAMETER	316SS	6 mm			
	18	STEM CONNECTION TO WELL	CONNECTION POSITION	1/2" NPT (M)	BOTTOM			
	19	MINIMUM SCALE	MAXIMUM	0 °C	300 °C			
	20	MICROMETRIC ADJUSTMENT OF ZERO		YES				
	21	FRONT TYPE	WINDOWS	SOLID	GLASS SEG. TRANSP. MIN. 75%			
	22	ROD LENGTH "U"		BY MANUFACTURER				
	23	FILLING	FLUID	NOT REQUIRED	NOT REQUIRED			
	24							
WELL	25	SUPPLY		YES				
	26	MATERIAL		SS316				
	27	TYPE OF CONSTRUCTION		CONICAL MACHINED FROM A BAR				
	28	CONNECTION TO THE PROCESS		1.1/2", 150#, FR, ASME B16.5				
	29	CONNECTION TO THERMOMETER		1/2" NPT(F)				
	30	FLANGE FACE FINISH		MSS SP-6				
	31	INSERTION LENGTH "U"		212 mm				
	32	EXTENSION LENGTH "T"		35 mm				
	33							
	34							
	35							
	36							
37								
38								
39								
40								
OPERATING CONDITIONS	41	FLUID	PHYSICAL STATUS		INDUSTRIAL WATER		LIQUID	
	42	MINIMUM PRESSURE	NORMAL	MAXIMUM			bar-g	
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM			°C	
	44	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g		°C	
	45	VISCOSITY @ OPERATING CONDITION		cP				
	46	DENSITY @ OPERATING CONDITION		kg/m³				
	47	SUSPENDED SOLIDS (%)		NOT				
	48	SOLIDIFIES AT ROOM TEMPERATURE		NOT				
	49	MAXIMUM FLUID SPEED		m/s				
	50	MANUFACTURER		ASHCROFT OR SIMILAR				
51	MODEL							





NOTES:

1- PROVIDE REAR PROTECTION DISC IN NEOPRENE.

 				 				
NUMBER: 569-DB7B-AIC-711-003				CLIENT NR: PRD-AIC-DSH-050				
TITLE						SHEET: 6 de 12		
TEMPERATURE GAUGE						REV.: 2		
GENERAL	1	INSTRUMENT TAG NUMBER		TI-650102				
	2	SERVICE		CHILLED WATER - LOOP 2, SUPPLY FROM CLEAN STEAM 7B-CSG-6501				
	3	P&ID		7B-M-0-2-63				
	4	PIPE LINE	EQUIPMENT NUMBER	7B-1 1/2"-CW1S-650157-CS1-CC	-			
	5	EQUIPMENT MATERIAL / PIPE		CARBON STEEL ASTM-A106 Gr.B				
	6	AREA CLASSIFICATION		NOT CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION		IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES		(SEE GENERAL NOTES 1)				
	9							
INSTRUMENT	10	TYPE		BIMETALLIC				
	11	MOUNTING		LOCAL				
	12	DIAL DIAMETER		114 mm				
	13	SCALE COLOR	BACKGROUND COLOR	BLACK	WHITE			
	14	PRECISION		1% OF THE FINAL VALUE "RANGE"				
	15	MATERIAL CASE		304SS POLISHED				
	16	RING TYPE	RING MATERIAL	BAYONET	304SS			
	17	ROD MATERIAL	DIAMETER	316SS	6 mm			
	18	STEM CONNECTION TO WELL	CONNECTION POSITION	1/2" NPT (M)	BOTTOM			
	19	MINIMUM SCALE	MAXIMUM	0 °C	300 °C			
	20	MICROMETRIC ADJUSTMENT OF ZERO		YES				
	21	FRONT TYPE	WINDOWS	SOLID	GLASS SEG. TRANSP. MIN. 75%			
	22	ROD LENGTH "U"		BY MANUFACTURER				
	23	FILLING	FLUID	NOT REQUIRED	NOT REQUIRED			
	24							
WELL	25	SUPPLY		YES				
	26	MATERIAL		SS316				
	27	TYPE OF CONSTRUCTION		CONICAL MACHINED FROM A BAR				
	28	CONNECTION TO THE PROCESS		1.1/2", 150#, FR, ASME B16.5				
	29	CONNECTION TO THERMOMETER		1/2" NPT(F)				
	30	FLANGE FACE FINISH		MSS SP-6				
	31	INSERTION LENGTH "U"		212 mm				
	32	EXTENSION LENGTH "T"		35 mm				
	33							
	34							
	35							
	36							
37								
38								
39								
40								
OPERATING CONDITIONS	41	FLUID	PHYSICAL STATUS		INDUSTRIAL WATER		LIQUID	
	42	MINIMUM PRESSURE	NORMAL	MAXIMUM			bar-g	
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM			°C	
	44	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g		°C	
	45	VISCOSITY @ OPERATING CONDITION		cP				
	46	DENSITY @ OPERATING CONDITION		kg/m³				
	47	SUSPENDED SOLIDS (%)		NOT				
	48	SOLIDIFIES AT ROOM TEMPERATURE		NOT				
	49	MAXIMUM FLUID SPEED		m/s				
	50	MANUFACTURER		ASHCROFT OR SIMILAR				
51	MODEL							





NOTES:

1- PROVIDE REAR PROTECTION DISC IN NEOPRENE.

 				 				
NUMBER: 569-DB7B-AIC-711-003				CLIENT NR: PRD-AIC-DSH-050				
TITLE						SHEET: 7 de 12		
TEMPERATURE GAUGE						REV.: 2		
GENERAL	1	INSTRUMENT TAG NUMBER		TI-650103				
	2	SERVICE		CHILLED WATER - LOOP 2, RETURN BY CLEAN STEAM 7B-CSG-6501				
	3	P&ID		7B-M-0-2-63				
	4	PIPE LINE	EQUIPMENT NUMBER	7B-1 1/2"-CW1R-650158-CS1-CC	-			
	5	EQUIPMENT MATERIAL / PIPE		CARBON STEEL ASTM-A106 Gr.B				
	6	AREA CLASSIFICATION		NOT CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION		IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES		(SEE GENERAL NOTES 1)				
	9							
INSTRUMENT	10	TYPE		BIMETALLIC				
	11	MOUNTING		LOCAL				
	12	DIAL DIAMETER		114 mm				
	13	SCALE COLOR	BACKGROUND COLOR	BLACK	WHITE			
	14	PRECISION		1% OF THE FINAL VALUE "RANGE"				
	15	MATERIAL CASE		304SS POLISHED				
	16	RING TYPE	RING MATERIAL	BAYONET	304SS			
	17	ROD MATERIAL	DIAMETER	316SS	6 mm			
	18	STEM CONNECTION TO WELL	CONNECTION POSITION	1/2" NPT (M)	BOTTOM			
	19	MINIMUM SCALE	MAXIMUM	0 °C	300 °C			
	20	MICROMETRIC ADJUSTMENT OF ZERO		YES				
	21	FRONT TYPE	WINDOWS	SOLID	GLASS SEG. TRANSP. MIN. 75%			
	22	ROD LENGTH "U"		BY MANUFACTURER				
	23	FILLING	FLUID	NOT REQUIRED	NOT REQUIRED			
	24							
WELL	25	SUPPLY		YES				
	26	MATERIAL		SS316				
	27	TYPE OF CONSTRUCTION		CONICAL MACHINED FROM A BAR				
	28	CONNECTION TO THE PROCESS		1.1/2", 150#, FR, ASME B16.5				
	29	CONNECTION TO THERMOMETER		1/2" NPT(F)				
	30	FLANGE FACE FINISH		MSS SP-6				
	31	INSERTION LENGTH "U"		212 mm				
	32	EXTENSION LENGTH "T"		35 mm				
	33							
	34							
	35							
	36							
37								
38								
39								
40								
OPERATING CONDITIONS	41	FLUID	PHYSICAL STATUS		INDUSTRIAL WATER		LIQUID	
	42	MINIMUM PRESSURE	NORMAL	MAXIMUM			bar-g	
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM			°C	
	44	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g		°C	
	45	VISCOSITY @ OPERATING CONDITION		cP				
	46	DENSITY @ OPERATING CONDITION		kg/m³				
	47	SUSPENDED SOLIDS (%)		NOT				
	48	SOLIDIFIES AT ROOM TEMPERATURE		NOT				
	49	MAXIMUM FLUID SPEED		m/s				
	50	MANUFACTURER		ASHCROFT OR SIMILAR				
51	MODEL							

NOTES:





1- PROVIDE REAR PROTECTION DISC IN NEOPRENE.

 				 			
NUMBER: 569-DB7B-AIC-711-003				CLIENT NR: PRD-AIC-DSH-050			
TITLE						SHEET: 8 de 12	
TEMPERATURE GAUGE						REV.: 2	
GENERAL	1	INSTRUMENT TAG NUMBER		TI-750001			
	2	SERVICE		CLEAN STEAM CONDENSATE TO COLLECTION HEADER			
	3	P&ID		7B-Z-0-2-73			
	4	PIPE LINE	EQUIPMENT NUMBER	3/4"-SFIC-750006-SS5-PP	-		
	5	EQUIPMENT MATERIAL / PIPE		ASTM A312 Gr. TP304L			
	6	AREA CLASSIFICATION		NOT CLASSIFIED			
	7	ENCLOSURE CLASSIFICATION		IP 65 (MÍN.) CONF. NBR IEC 60529			
	8	CERTIFICATES		(SEE GENERAL NOTES 1)			
	9						
INSTRUMENT	10	TYPE		BIMETALLIC			
	11	MOUNTING		LOCAL			
	12	DIAL DIAMETER		114 mm			
	13	SCALE COLOR	BACKGROUND COLOR	BLACK	WHITE		
	14	PRECISION		1% OF THE FINAL VALUE "RANGE"			
	15	MATERIAL CASE		304SS POLISHED			
	16	RING TYPE	RING MATERIAL	BAYONET	304SS		
	17	ROD MATERIAL	DIAMETER	316SS	6 mm		
	18	STEM CONNECTION TO WELL	CONNECTION POSITION	BY MANUFACTURER	BOTTOM		
	19	MINIMUM SCALE	MAXIMUM	0 °C	300 °C		
	20	MICROMETRIC ADJUSTMENT OF ZERO		YES			
	21	FRONT TYPE	WINDOWS	SOLID	GLASS SEG. TRANSP. MIN. 75%		
	22	ROD LENGTH "U"		BY MANUFACTURER			
	23	FILLING	FLUID	NOT REQUIRED	NOT REQUIRED		
	24						
WELL	25	SUPPLY		YES			
	26	MATERIAL		SS316			
	27	TYPE OF CONSTRUCTION		CONICAL MACHINED FROM A BAR			
	28	CONNECTION TO THE PROCESS		1.1/2", 150#, FR, ASME B16.5 - HIGIENIC SEAL TRI CLAMP			
	29	CONNECTION TO THERMOMETER		1/2" NPT(F)			
	30	FLANGE FACE FINISH		MSS SP-6			
	31	INSERTION LENGTH "U"		212 mm			
	32	EXTENSION LENGTH "N"		35 mm			
	33						
	34						
	35						
	36						
37							
38							
39							
40							
OPERATING CONDITIONS	41	FLUID	PHYSICAL STATUS		CLEAN STEAM CONDENSATE		LIQUID
	42	MINIMUM PRESSURE	NORMAL	MAXIMUM			bar-g
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM			°C
	44	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g		°C
	45	VISCOSITY @ OPERATING CONDITION		cP			
	46	DENSITY @ OPERATING CONDITION		kg/m³			
	47	SUSPENDED SOLIDS (%)		NOT			
	48	SOLIDIFIES AT ROOM TEMPERATURE		NOT			
	49	MAXIMUM FLUID SPEED		m/s			
	50	MANUFACTURER		ASHCROFT OR SIMILAR			
51	MODEL						

NOTES:





1- PROVIDE REAR PROTECTION DISC IN NEOPRENE.



 				 				
NUMBER: 569-DB7B-AIC-711-003				CLIENT NR: PRD-AIC-DSH-050				
TITLE						SHEET: 9 de 12		
TEMPERATURE GAUGE						REV.: 2		
GENERAL	1	INSTRUMENT TAG NUMBER		TI-900104				
	2	SERVICE		CHILLED WATER - LOOP 2, SUPPLY FROM STEAM STERILIZER AT-9001				
	3	P&ID		7B-M-0-2-54				
	4	PIPE LINE	EQUIPMENT NUMBER	1 1/2"-CW1S-900104-CS1-CC		-		
	5	EQUIPMENT MATERIAL / PIPE		CARBON STEEL ASTM-A106 Gr.B				
	6	AREA CLASSIFICATION		NOT CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION		IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES		(SEE GENERAL NOTES 1)				
	9							
INSTRUMENT	10	TYPE		BIMETALLIC				
	11	MOUNTING		LOCAL				
	12	DIAL DIAMETER		114 mm				
	13	SCALE COLOR	BACKGROUND COLOR	BLACK		WHITE		
	14	PRECISION		1% OF THE FINAL VALUE "RANGE"				
	15	MATERIAL CASE		304SS POLISHED				
	16	RING TYPE	RING MATERIAL	BAYONET		304SS		
	17	ROD MATERIAL	DIAMETER	316SS		6 mm		
	18	STEM CONNECTION TO WELL	CONNECTION POSITION	1/2" NPT (M)		BOTTOM		
	19	MINIMUM SCALE	MAXIMUM	0 °C		300 °C		
	20	MICROMETRIC ADJUSTMENT OF ZERO		YES				
	21	FRONT TYPE	WINDOWS	SOLID		GLASS SEG. TRANSP. MIN. 75%		
	22	ROD LENGTH "U"		BY MANUFACTURER				
	23	FILLING	FLUID	NOT REQUIRED		NOT REQUIRED		
	24							
WELL	25	SUPPLY		YES				
	26	MATERIAL		SS316				
	27	TYPE OF CONSTRUCTION		CONICAL MACHINED FROM A BAR				
	28	CONNECTION TO THE PROCESS		1.1/2", 150#, FR, ASME B16.5				
	29	CONNECTION TO THERMOMETER		1/2" NPT(F)				
	30	FLANGE FACE FINISH		MSS SP-6				
	31	INSERTION LENGTH "U"		212 mm				
	32	EXTENSION LENGTH "T"		35 mm				
	33							
	34							
	35							
	36							
37								
38								
39								
40								
OPERATING CONDITIONS	41	FLUID	PHYSICAL STATUS		INDUSTRIAL WATER		LIQUID	
	42	MINIMUM PRESSURE	NORMAL	MAXIMUM			bar-g	
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM			°C	
	44	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g		°C	
	45	VISCOSITY @ OPERATING CONDITION		cP				
	46	DENSITY @ OPERATING CONDITION		kg/m³				
	47	SUSPENDED SOLIDS (%)		NOT				
	48	SOLIDIFIES AT ROOM TEMPERATURE		NOT				
	49	MAXIMUM FLUID SPEED		m/s				
	50	MANUFACTURER		ASHCROFT OR SIMILAR				
51	MODEL							





NOTES:

1- PROVIDE REAR PROTECTION DISC IN NEOPRENE.

 				 				
NUMBER: 569-DB7B-AIC-711-003				CLIENT NR: PRD-AIC-DSH-050				
TITLE						SHEET: 10 de 12		
TEMPERATURE GAUGE						REV.: 2		
GENERAL	1	INSTRUMENT TAG NUMBER		TI-900106				
	2	SERVICE		CHILLED WATER - LOOP 2, SUPPLY BY STEAM STERILIZER AT-9001				
	3	P&ID		7B-M-0-2-54				
	4	PIPE LINE	EQUIPMENT NUMBER	1 1/2"-CW1R-900105-CS1-CC		-		
	5	EQUIPMENT MATERIAL / PIPE		CARBON STEEL ASTM-A106 Gr.B				
	6	AREA CLASSIFICATION		NOT CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION		IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES		(SEE GENERAL NOTES 1)				
	9							
INSTRUMENT	10	TYPE		BIMETALLIC				
	11	MOUNTING		LOCAL				
	12	DIAL DIAMETER		114 mm				
	13	SCALE COLOR	BACKGROUND COLOR	BLACK		WHITE		
	14	PRECISION		1% OF THE FINAL VALUE "RANGE"				
	15	MATERIAL CASE		304SS POLISHED				
	16	RING TYPE	RING MATERIAL	BAYONET		304SS		
	17	ROD MATERIAL	DIAMETER	316SS		6 mm		
	18	STEM CONNECTION TO WELL	CONNECTION POSITION	1/2" NPT (M)		BOTTOM		
	19	MINIMUM SCALE	MAXIMUM	0 °C		300 °C		
	20	MICROMETRIC ADJUSTMENT OF ZERO		YES				
	21	FRONT TYPE	WINDOWS	SOLID		GLASS SEG. TRANSP. MIN. 75%		
	22	ROD LENGTH "U"		BY MANUFACTURER				
	23	FILLING	FLUID	NOT REQUIRED		NOT REQUIRED		
	24							
WELL	25	SUPPLY		YES				
	26	MATERIAL		SS316				
	27	TYPE OF CONSTRUCTION		CONICAL MACHINED FROM A BAR				
	28	CONNECTION TO THE PROCESS		1.1/2", 150#, FR, ASME B16.5				
	29	CONNECTION TO THERMOMETER		1/2" NPT(F)				
	30	FLANGE FACE FINISH		MSS SP-6				
	31	INSERTION LENGTH "U"		212 mm				
	32	EXTENSION LENGTH "T"		35 mm				
	33							
	34							
	35							
	36							
37								
38								
39								
40								
OPERATING CONDITIONS	41	FLUID	PHYSICAL STATUS		INDUSTRIAL WATER		LIQUID	
	42	MINIMUM PRESSURE	NORMAL	MAXIMUM			bar-g	
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM			°C	
	44	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g		°C	
	45	VISCOSITY @ OPERATING CONDITION		cP				
	46	DENSITY @ OPERATING CONDITION		kg/m³				
	47	SUSPENDED SOLIDS (%)		NOT				
	48	SOLIDIFIES AT ROOM TEMPERATURE		NOT				
	49	MAXIMUM FLUID SPEED		m/s				
	50	MANUFACTURER		ASHCROFT OR SIMILAR				
51	MODEL							





NOTES:

1- PROVIDE REAR PROTECTION DISC IN NEOPRENE.

 				 			
NUMBER: 569-DB7B-AIC-711-003				CLIENT NR: PRD-AIC-DSH-050			
TITLE						SHEET: 11 de 12	
TEMPERATURE GAUGE						REV.: 2	
GENERAL	1	INSTRUMENT TAG NUMBER		TI-470106			
	2	SERVICE		TO COLLECTION HEADER CLEAN STEAM CONDENSATE			
	3	P&ID		7B-M-0-2-55			
	4	PIPE LINE	EQUIPMENT NUMBER	3/4"-SFIC-470110-SS5-PP	-		
	5	EQUIPMENT MATERIAL / PIPE		CARBON STEEL ASTM-A106 Gr.B			
	6	AREA CLASSIFICATION		NOT CLASSIFIED			
	7	ENCLOSURE CLASSIFICATION		IP 65 (MÍN.) CONF. NBR IEC 60529			
	8	CERTIFICATES		(SEE GENERAL NOTES 1)			
	9						
INSTRUMENT	10	TYPE		BIMETALLIC			
	11	MOUNTING		LOCAL			
	12	DIAL DIAMETER		114 mm			
	13	SCALE COLOR	BACKGROUND COLOR	BLACK	WHITE		
	14	PRECISION		1% OF THE FINAL VALUE "RANGE"			
	15	MATERIAL CASE		304SS POLISHED			
	16	RING TYPE	RING MATERIAL	BAYONET	304SS		
	17	ROD MATERIAL	DIAMETER	316SS	6 mm		
	18	STEM CONNECTION TO WELL	CONNECTION POSITION	1/2" NPT (M)	BOTTOM		
	19	MINIMUM SCALE	MAXIMUM	0 °C	300 °C		
	20	MICROMETRIC ADJUSTMENT OF ZERO		YES			
	21	FRONT TYPE	WINDOWS	SOLID	GLASS SEG. TRANSP. MIN. 75%		
	22	ROD LENGTH "U"		BY MANUFACTURER			
	23	FILLING	FLUID	NOT REQUIRED	NOT REQUIRED		
	24						
WELL	25	SUPPLY		YES			
	26	MATERIAL		SS316			
	27	TYPE OF CONSTRUCTION		CONICAL MACHINED FROM A BAR			
	28	CONNECTION TO THE PROCESS		1.1/2", 150#, FR, ASME B16.5			
	29	CONNECTION TO THERMOMETER		1/2" NPT(F)			
	30	FLANGE FACE FINISH		MSS SP-6			
	31	INSERTION LENGTH "U"		212 mm			
	32	EXTENSION LENGTH "T"		35 mm			
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37							
38							
39							
40							
OPERATING CONDITIONS	41	FLUID	PHYSICAL STATUS	INDUSTRIAL WATER		LIQUID	
	42	MINIMUM PRESSURE	NORMAL	MAXIMUM			bar-g
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM			°C
	44	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g	°C	
	45	VISCOSITY @ OPERATING CONDITION		cP			
	46	DENSITY @ OPERATING CONDITION		kg/m³			
	47	SUSPENDED SOLIDS (%)		NOT			
	48	SOLIDIFIES AT ROOM TEMPERATURE		NOT			
	49	MAXIMUM FLUID SPEED		m/s			
	50	MANUFACTURER		ASHCROFT OR SIMILAR			
51	MODEL						

NOTES:

1- PROVIDE REAR PROTECTION DISC IN NEOPRENE.

 				 				
NUMBER: 569-DB7B-AIC-711-003				CLIENT NR: PRD-AIC-DSH-050				
TITLE						SHEET: 12 de 12		
TEMPERATURE GAUGE						REV.: 2		
GENERAL	1	INSTRUMENT TAG NUMBER		TI-470107				
	2	SERVICE		TO COLLECTION HEADER CLEAN STEAM CONDENSATE				
	3	P&ID		7B-M-0-2-55				
	4	PIPE LINE	EQUIPMENT NUMBER	3/4"-SFIC-470110-SS5-PP	-			
	5	EQUIPMENT MATERIAL / PIPE		CARBON STEEL ASTM-A106 Gr.B				
	6	AREA CLASSIFICATION		NOT CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION		IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES		(SEE GENERAL NOTES 1)				
	9							
INSTRUMENT	10	TYPE		BIMETALLIC				
	11	MOUNTING		LOCAL				
	12	DIAL DIAMETER		114 mm				
	13	SCALE COLOR	BACKGROUND COLOR	BLACK	WHITE			
	14	PRECISION		1% OF THE FINAL VALUE "RANGE"				
	15	MATERIAL CASE		304SS POLISHED				
	16	RING TYPE	RING MATERIAL	BAYONET	304SS			
	17	ROD MATERIAL	DIAMETER	316SS	6 mm			
	18	STEM CONNECTION TO WELL	CONNECTION POSITION	1/2" NPT (M)	BOTTOM			
	19	MINIMUM SCALE	MAXIMUM	0 °C	300 °C			
	20	MICROMETRIC ADJUSTMENT OF ZERO		YES				
	21	FRONT TYPE	WINDOWS	SOLID	GLASS SEG. TRANSP. MIN. 75%			
	22	ROD LENGTH "U"		BY MANUFACTURER				
	23	FILLING	FLUID	NOT REQUIRED	NOT REQUIRED			
	24							
WELL	25	SUPPLY		YES				
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	28	CONNECTION TO THE PROCESS		1.1/2", 150#, FR, ASME B16.5				
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	44	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g		°C	
	45	VISCOSITY @ OPERATING CONDITION		cP				
	46	DENSITY @ OPERATING CONDITION		kg/m³				
	47	SUSPENDED SOLIDS (%)		NOT				
	48	SOLIDIFIES AT ROOM TEMPERATURE		NOT				
	49	MAXIMUM FLUID SPEED		m/s				
	50	MANUFACTURER		ASHCROFT OR SIMILAR				
51	MODEL							

NOTES:

1- PROVIDE REAR PROTECTION DISC IN NEOPRENE.