	
DOC NUMBER: 569-DB7A-AIC-711-001		CLIENT NUMBER: PRD-AIC-DSH-008	
CLIENT: TAKEDA/BAXALTA			
PROJECT: BURITI EPCVM PROJECT			

DATA SHEET

TEMPERATURE INDICATING TRANSMITTER-SANITARY

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	MAB	MAF	RSP
REV	DATE	DESCRIPTION	EXEC	CHECK	APPROV

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TEMPERATURE INDICATING TRANSMITTER-SANITARY

REV.: **2**

DOCUMENT REVIEW CONTROL

Revision	A	0	1	2	3	4	Revision	A	0	1	2	3	4	Revision	A	0	1	2	3	4
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	X	X	X			36							61						
12	X	X	X	X			37							62						
13	X	X	X	X			38							63						
14	X	X	X	X			39							64						
15	X	X	X	X			40							65						
16	X	X	X	X			41							66						
17	X	X	X	X			42							67						
18	X	X	X	X			43							68						
19	X	X	X	X			44							69						
20	X	X	X	X			45							70						
21	X	X	X	X			46							71						
22	X	X	X	X			47							72						
23	X	X	X	X			48							73						
24	X	X	X	X			49							74						
25	X	X	X	X			50							75						

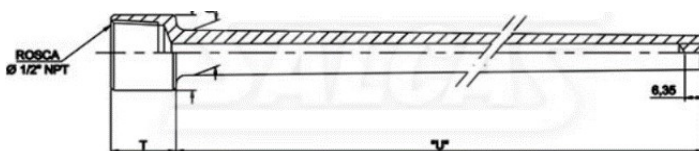
 		 	
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TEMPERATURE INDICATING TRANSMITTER-SANITARY			REV.: 2
REFERENCE DOCUMENTS			

7A-Z-0-2-01	DRUG PRODUCT - BUFFER PREP
7A-Z-0-2-02	DRUG PRODUCT - FORMULATION
7A-Z-0-2-22	DRUG PRODUCT - PORTABLE VESSEL CIP/SIP STATION - STA-4701
7A-Z-0-2-25	DRUG PRODUCT - HOT WFI STORAGE TANK - TQ-6401
PRD-AIC-LIS-046	INTEGRATED PROJECT SERVICES - INSTRUMENT SUGGESTED SUPPLIER LIST

GENERAL NOTES

- 1 - Transmitters must have the following characteristics:
- a) They must be electronic, intelligent and programmable, with signal transmission from 4 to 20mA to two galvanically isolated wires from the power supply;
 - b) Withstand the respective maximum static design pressures;
 - c) They must be able to identify internal failures;
 - d) Be able to define the output signal value, programmable in 0% or 100% of the range, in case of failure of the sensor element;
- 2 - All transmitters must have enclosures, whose parts exposed to the atmosphere are resistant to environmental conditions, including those generated by the condition of the process, enabling light external cleaning.
- 3 - The identification plates must be manufactured in stainless steel AISI 304, permanently attached to the instruments with tag and serial number. The serial number of the instrument, when possible, can be engraved on the body itself.
- 4 - The identification plates must be manufactured in stainless steel AISI 304, permanently attached to the instruments with tag and serial number. The serial number of the instrument, when possible, can be engraved on the body itself.
- 5 - The manufacturer must inform in the catalog of the transmitter the dimensions of the same for installation in the place indicated in the project.
- 6 - The liquid crystal instrument display with internal illumination for all the information that is necessary for its calibration and indication of necessary variables.
- 7 - All transmitters must be provided with protection type certificates compatible with the respective area classification. If the enclosure requires certificates regarding type and degree of protection, both proofs must be explicit in the same certificate. The certificates must be issued by INMETRO or an accredited body.
- 8 - Grounding rings must be provided in compatible material, with the instrument box and easy access for assembly, being at least AISI 316.
- 9 - According to the internal length of the thermowell

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 INSTRUMENT : TIT-390124



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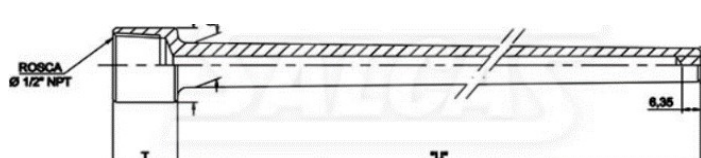
TEMPERATURE INDICATING TRANSMITTER-SANITARY

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REV.:

2

GENERAL	1	INSTRUMENT TAG NUMBER		TIT-470106				
	2	SERVICE		TEMP PRESSURIZED PROCESS WASTE TO HEADER				
	3	P&ID		7A-Z-0-2-22				
	4	PIPE LINE	EQUIPMENT NUMBER	3/4"-SFIC-470109-SS5-PP	-			
	5	EQUIPMENT MATERIAL / PIPE		ASTM A312 GrTP304L				
	6	AREA CLASSIFICATION		NOT CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION		IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES		(SEE GENERAL NOTES 7 - PAGE 3)				
	9							
TRANSMITTER	10	TYPE		MICROPROCESSED				
	11	MOUNTING		FULL				
	12	BODY MATERIAL		ALUMINUM				
	13	BODY PRESSURE CLASS		BY MANUFACTURER				
	14	METER CASING		ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY		24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL		4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL		HART				
	18	PRECISION		±0,25% F.E				
	19	REPEATABILITY		BY MANUFACTURER				
	20	CALIBRATION RANGE		BY MANUFACTURER				
	21	CALIBRATED RANGE		-				
	22	ELECTRICAL CONNECTION		1/2" NPT (F)				
	23	DJUSTABLE RANGE / AJ. LOCAL ZERO AND SPAN		YES / YES				
SENSOR	24	MOUNTING		FULL				
	25	ELEMENT TYPE	ELEMENT MATERIAL	PT100Ω (3 Wire)	PLATINUM			
	26	ROD LENGTH (L)	ROD DIAMETER	(NOTE 9, PAGE 3)	6 mm			
	27	SENSOR CONNECTION TO WELL		1/2" NPT				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	1/2" NPT (F)			
WELL	29	MOUNTING		SUPPLIED WITH SENSOR				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS1016	BY MANUFACTURER			
	31	CONNECTION TO THE PROCESS		11/2"-TRI-CLAMP-ASME BPE (NOTE 1)				
	32	FLANGE FACE FINISH		-				
	33	CONNECTION TO THERMOMETER		BY MANUFACTURER				
	34	INSERTION LENGTH "U"		175 mm				
	35	EXTENSION LENGTH "T"		21 mm				
	36							
	37							
	38							
39								
40								
41								
OPERATING CONDITIONS	42	FLUID	PHYSICAL STATE		Process Waste		Liquid	
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	120	-	-	°C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	1	-	-	bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g		°C	
	46	VISCOSITY @ OPERATING CONDITION			-		Cp	
	47	DENSITY @ OPERATING CONDITION			-		kg/m³	
	48	SUSPENDE SOLIDS (%)					NO	
	49	M.M. / Z / Cp/Cv					-	
	50							
		51	MANUFACTURER			Endress + Hauser (E+H) or Similar		
52		MODEL						

NOTAS:

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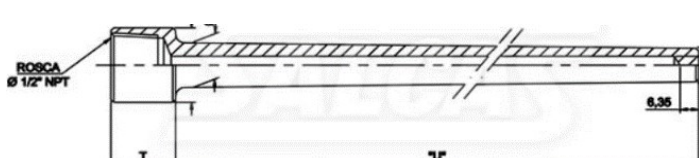
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TEMPERATURE INDICATING TRANSMITTER-SANITARY

REV.:

2

GENERAL	1	INSTRUMENT TAG NUMBER		TIT-470107				
	2	SERVICE		CIP SYSTEM RETURN				
	3	P&ID		7A-Z-0-2-22				
	4	PIPE LINE	EQUIPMENT NUMBER	3/4"-SFIC-470110-SS5-PP	-			
	5	EQUIPMENT MATERIAL / PIPE		ASTM A312 GrTP304L				
	6	AREA CLASSIFICATION		NOT CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION		IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES		(SEE GENERAL NOTES 7 - PAGE 3)				
	9							
TRANSMITTER	10	TYPE		MICROPROCESSED				
	11	MOUNTING		FULL				
	12	BODY MATERIAL		ALUMINUM				
	13	BODY PRESSURE CLASS		BY MANUFACTURER				
	14	METER CASING		ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY		24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL		4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL		HART				
	18	PRECISION		±0,25% F.E				
	19	REPEATABILITY		BY MANUFACTURER				
	20	CALIBRATION RANGE		BY MANUFACTURER				
	21	CALIBRATED RANGE		-				
	22	ELECTRICAL CONNECTION		1/2" NPT (F)				
	23	DJJUSTABLE RANGE / AJ. LOCAL ZERO AND SPAN		YES / YES				
SENSOR	24	MOUNTING		FULL				
	25	ELEMENT TYPE	ELEMENT MATERIAL	PT100Ω (3 Wire)	PLATINUM			
	26	ROD LENGTH (L)	ROD DIAMETER	(NOTE 9, PAGE 3)	6 mm			
	27	SENSOR CONNECTION TO WELL		1/2" NPT				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	1/2" NPT (F)			
WELL	29	MOUNTING		SUPPLIED WITH SENSOR				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS1016	BY MANUFACTURER			
	31	CONNECTION TO THE PROCESS		11/2"-TRI-CLAMP-ASME BPE (NOTE 1)				
	32	FLANGE FACE FINISH		-				
	33	CONNECTION TO THERMOMETER		BY MANUFACTURER				
	34	INSERTION LENGTH "U"		175 mm				
	35	EXTENSION LENGTH "T"		21 mm				
	36							
	37							
	38							
39								
40								
41								
OPERATING CONDITIONS	42	FLUID	PHYSICAL STATE		Process Waste		Liquid	
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	120	-	-	°C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	1	-	-	bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g		°C	
	46	VISCOSITY @ OPERATING CONDITION			-		Cp	
	47	DENSITY @ OPERATING CONDITION			-		kg/m³	
	48	SUSPENDE SOLIDS (%)			NO			
	49	M.M. / Z / Cp/Cv			-			
	50							
		51	MANUFACTURER			Endress + Hauser (E+H) or Similar		
52		MODEL						

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TEMPERATURE INDICATING TRANSMITTER-SANITARY

SHEET: 7 de 9
REV.: 2

GENERAL	1	INSTRUMENT TAG NUMBER		TIT-640102				
	2	SERVICE		WFI WASTE DIVERT TO PROCESS WASTE SUMP - SK-8001				
	3	P&ID		7A-Z-0-2-25				
	4	PIPE LINE	EQUIPMENT NUMBER	1"-WFI-640127-SS5-PP-		-		
	5	EQUIPMENT MATERIAL / PIPE		ASTM A312 GrTP304L				
	6	AREA CLASSIFICATION		NOT CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION		IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES		(SEE GENERAL NOTES 7 - PAGE 3)				
	9							
TRANSMITTER	10	TYPE		MICROPROCESSED				
	11	MOUNTING		FULL				
	12	BODY MATERIAL		ALUMINUM				
	13	BODY PRESSURE CLASS		BY MANUFACTURER				
	14	METER CASING		ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY		24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL		4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL		HART				
	18	PRECISION		±0,25% F.E				
	19	REPEATABILITY		BY MANUFACTURER				
	20	CALIBRATION RANGE		BY MANUFACTURER				
	21	CALIBRATED RANGE		-				
	22	ELECTRICAL CONNECTION		1/2" NPT (F)				
	23	DJUSTABLE RANGE / AJ. LOCAL ZERO AND SPAN		YES / YES				
SENSOR	24	MOUNTING		FULL				
	25	ELEMENT TYPE	ELEMENT MATERIAL	PT100Ω (3 Wire)		PLATINUM		
	26	ROD LENGTH (L)	ROD DIAMETER	(NOTE 9, PAGE 3)		6 mm		
	27	SENSOR CONNECTION TO WELL		1/2" NPT				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM		1/2" NPT (F)		
WELL	29	MOUNTING		SUPPLIED WITH SENSOR				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS1016		BY MANUFACTURER		
	31	CONNECTION TO THE PROCESS		11/2"-TRI-CLAMP-ASME BPE (NOTE 1)				
	32	FLANGE FACE FINISH		-				
	33	CONNECTION TO THERMOMETER		BY MANUFACTURER				
	34	INSERTION LENGTH "U"		220 mm				
	35	EXTENSION LENGTH "T"		62 mm				
	36							
	37							
	38							
	39							
40								
41								
OPERATING CONDITIONS	42	FLUID	PHYSICAL STATE		Process Waste		Liquid	
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	120	-	-	°C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	1	-	-	bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g		°C	
	46	VISCOSITY @ OPERATING CONDITION			-		Cp	
	47	DENSITY @ OPERATING CONDITION			-		kg/m³	
	48	SUSPENDE SOLIDS (%)			NO			
	49	M.M. / Z / Cp/Cv			-			
	50							
		51	MANUFACTURER		Endress + Hauser (E+H) or Similar			
	52	MODEL						

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TEMPERATURE INDICATING TRANSMITTER-SANITARY

REV.: 2

GENERAL	1	INSTRUMENT TAG NUMBER		TIT-640103			
	2	SERVICE		HOT WFI STORAGE TANK TQ-6401, BOTTOM			
	3	P&ID		7A-Z-0-2-25			
	4	PIPE LINE	EQUIPMENT NUMBER	1 1/2"-HWFI-640109-SS10-HC		-	
	5	EQUIPMENT MATERIAL / PIPE		ASTM A312 GrTP304L			
	6	AREA CLASSIFICATION		NOT CLASSIFIED			
	7	ENCLOSURE CLASSIFICATION		IP 65 (MÍN.) CONF. NBR IEC 60529			
	8	CERTIFICATES		(SEE GENERAL NOTES 7 - PAGE 3)			
	9						
TRANSMITTER	10	TYPE		MICROPROCESSED			
	11	MOUNTING		FULL			
	12	BODY MATERIAL		ALUMINUM			
	13	BODY PRESSURE CLASS		BY MANUFACTURER			
	14	METER CASING		ALUMINIO (COPPER FREE)			
	15	POWER SUPPLY		24 Vcc - 2 WIRE			
	16	OUTPUT SIGNAL		4 - 20 mA (500 ohms @ 24 Vcc)			
	17	COMMUNICATION PROTOCOL		HART			
	18	PRECISION		±0,25% F.E			
	19	REPEATABILITY		BY MANUFACTURER			
	20	CALIBRATION RANGE		BY MANUFACTURER			
	21	CALIBRATED RANGE		-			
	22	ELECTRICAL CONNECTION		1/2" NPT (F)			
	23	DJUSTABLE RANGE / AJ. LOCAL ZERO AND SPAN		YES / YES			
SENSOR	24	MOUNTING		FULL			
	25	ELEMENT TYPE	ELEMENT MATERIAL	PT100Ω (3 Wire)		PLATINUM	
	26	ROD LENGTH (L)	ROD DIAMETER	(NOTE 9, PAGE 3)		6 mm	
	27	SENSOR CONNECTION TO WELL		1/2" NPT			
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM		1/2" NPT (F)	
WELL	29	MOUNTING		SUPPLIED WITH SENSOR			
	30	MATERIAL	TYPE OF CONSTRUCTION	SS1016		BY MANUFACTURER	
	31	CONNECTION TO THE PROCESS		11/2"-TRI-CLAMP-ASME BPE (NOTE 1)			
	32	FLANGE FACE FINISH		-			
	33	CONNECTION TO THERMOMETER		BY MANUFACTURER			
	34	INSERTION LENGTH "U"		220 mm			
	35	EXTENSION LENGTH "T"		62 mm			
	36						
	37						
	38						
OPERATING CONDITIONS	39						
	40						
	41						
	42	FLUID	PHYSICAL STATE	Process Waste		Liquid	
	43	MINIMUM TEMPERATURE	NORMAL MAXIMUM	80	-	-	°C
	44	MINIMUM PRESSURE	NORMAL MAXIMUM	2	-	-	bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	bar-g		°C	
	46	VISCOSITY @ OPERATING CONDITION		- Cp			
	47	DENSITY @ OPERATING CONDITION		- kg/m³			
	48	SUSPENDE SOLIDS (%)		NO			
	49	M.M. / Z / Cp/Cv		-			
	50						
	51	MANUFACTURER		Endress + Hauser (E+H) or Similar			
	52	MODEL					

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TEMPERATURE INDICATING TRANSMITTER-SANITARY

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REV.: 2

GENERAL	1	INSTRUMENT TAG NUMBER		TIT-390124				
	2	SERVICE		PRESSURIZED HEADER PROCESS WASTE				
	3	P&ID		7A-Z-0-2-04				
	4	PIPE LINE	EQUIPMENT NUMBER	3/4"-WW2-800015-SS5-PP	-			
	5	EQUIPMENT MATERIAL / PIPE		ASTM A312 GrTP304L				
	6	AREA CLASSIFICATION		NOT CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION		IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES		(SEE GENERAL NOTES 7 - PAGE 3)				
	9							
TRANSMITTER	10	TYPE		MICROPROCESSED				
	11	MOUNTING		FULL				
	12	BODY MATERIAL		ALUMINUM				
	13	BODY PRESSURE CLASS		BY MANUFACTURER				
	14	METER CASING		ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY		24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL		4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL		HART				
	18	PRECISION		±0,25% F.E				
	19	REPEATABILITY		BY MANUFACTURER				
	20	CALIBRATION RANGE		BY MANUFACTURER				
	21	CALIBRATED RANGE		-				
	22	ELECTRICAL CONNECTION		1/2" NPT (F)				
	23	DJUSTABLE RANGE / AJ. LOCAL ZERO AND SPAN		YES / YES				
SENSOR	24	MOUNTING		FULL				
	25	ELEMENT TYPE	ELEMENT MATERIAL	PT100Ω (3 Wire)	PLATINUM			
	26	ROD LENGTH (L)	ROD DIAMETER	(NOTE 9, PAGE 3)	6 mm			
	27	SENSOR CONNECTION TO WELL		1/2" NPT				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	1/2" NPT (F)			
WELL	29	MOUNTING		SUPPLIED WITH SENSOR				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS1016	BY MANUFACTURER			
	31	CONNECTION TO THE PROCESS		11/2"-TRI-CLAMP-ASME BPE (NOTE 1)				
	32	FLANGE FACE FINISH		-				
	33	CONNECTION TO THERMOMETER		BY MANUFACTURER				
	34	INSERTION LENGTH "U"		220 mm				
	35	EXTENSION LENGTH "T"		62 mm				
	36							
	37							
	38							
	39							
OPERATING CONDITIONS	42	FLUID	PHYSICAL STATE	Process Waste	Liquid			
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	80	-	-	°C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	2	-	-	bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	bar-g	°C			
	46	VISCOSITY @ OPERATING CONDITION		-	Cp			
	47	DENSITY @ OPERATING CONDITION		-	kg/m³			
	48	SUSPENDE SOLIDS (%)		NO				
	49	M.M. / Z / Cp/Cv		-				
	50							
		51	MANUFACTURER		Endress + Hauser (E+H) or Similar			
52		MODEL						

NOTAS: