



DOC NUMBER:
569-DB7B-AIC-711-005

CLIENT NUMBER:
PRD-AIC-DSH-066

CLIENT:

TAKEDA/BAXALTA

PROJECT:

BURITI EPCVM PROJECT

DRUG SUBSTANCE - BMS – DATA SHEET TEMPERATURE TRANSMITTER

2	02MAY2022	ISSUE FOR CONSTRUCTION AS PER NOTE	ACC	MAF	RSP
1	27JAN2022	ISSUE FOR CONSTRUCTION CONSIDERING COMMENTS	MAV	MAF	RSP
0	13AUG2021	ISSUE FOR CONSTRUCTION	JHA	MAF	RSP
A	24MAR2021	60% DD ISSUE	JHA	MAF	RSP
REV	DATE	DESCRIPTION	EXEC	CHECK	APPROV

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DOCUMENT REVIEW CONTROL

Revision	A	0	1	2	3	4	Revision	A	0	1	2	3	4	Revision	A	0	1	2	3	4
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1	X	X	X	X			46	X	X	X	X			91	X	X	X	X		
2	X	X	X	X			47	X	X	X	X			92	X	X	X	X		
3	X	X	X	X			48	X	X	X	X			93	X	X	X	X		
4	X	X	X	X			49	X	X	X	X			94	X	X	X	X		
5	X	X	X	X			50	X	X	X	X			95	X	X	X	X		
6	X	X	X	X			51	X	X	X	X			96	X	X	X	X		
7	X	X	X	X			52	X	X	X	X			97	X	X	X	X		
8	X	X	X	X			53	X	X	X	X			98	X	X	X	X		
9	X	X	X	X			54	X	X	X	X			99	X	X	X	X		
10	X	X	X	X			55	X	X	X	X			100	X	X	X	X		
11	X	X	X	X			56	X	X	X	X			101	X	X	X	X		
12	X	X	X	X			57	X	X	X	X			102	X	X	X	X		
13	X	X	X	X			58	X	X	X	X			103	X	X	X	X		
14	X	X	X	X			59	X	X	X	X			104	X	X	X	X		
15	X	X	X	X			60	X	X	X	X			105	X	X	X	X		
16	X	X	X	X			61	X	X	X	X			106	X	X	X	X		
17	X	X	X	X			62	X	X	X	X			107	X	X	X	X		
18	X	X	X	X			63	X	X	X	X			108	X	X	X	X		
19	X	X	X	X			64	X	X	X	X			109	X	X	X	X		
20	X	X	X	X			65	X	X	X	X			110	X	X	X	X		
21	X	X	X	X			66	X	X	X	X			111	X	X	X	X		
22	X	X	X	X			67	X	X	X	X			112	X	X	X	X		
23	X	X	X	X			68	X	X	X	X			113	X	X	X	X		
24	X	X	X	X			69	X	X	X	X			114	X	X	X	X		
25	X	X	X	X			70	X	X	X	X			115	X	X	X	X		
26	X	X	X	X			71	X	X	X	X			116	X	X	X	X		
27	X	X	X	X			72	X	X	X	X			117	X	X	X	X		
28	X	X	X	X			73	X	X	X	X			118	X	X	X	X		
29	X	X	X	X			74	X	X	X	X			119	X	X	X	X		
30	X	X	X	X			75	X	X	X	X			120	X	X	X	X		
31	X	X	X	X			76	X	X	X	X			121	X	X	X	X		
32	X	X	X	X			77	X	X	X	X			122	X	X	X	X		
33	X	X	X	X			78	X	X	X	X			123	X	X	X	X		
34	X	X	X	X			79	X	X	X	X			124	X	X	X	X		
35	X	X	X	X			80	X	X	X	X			125	X	X	X	X		
36	X	X	X	X			81	X	X	X	X			126	X	X	X	X		
37	X	X	X	X			82	X	X	X	X			127	X	X	X	X		
38	X	X	X	X			83	X	X	X	X			128	X	X	X	X		
39	X	X	X	X			84	X	X	X	X			129	X	X	/	X		
40	X	X	X	X			85	X	X	X	X			130	X	X	X	X		
41	X	X	X	X			86	X	X	X	X			131	X	X	X	X		
42	X	X	X	X			87	X	X	X	X			132	X	X	X	X		
43	X	X	X	X			88	X	X	X	X			133	X	X	X	X		
44	X	X	X	X			89	X	X	X	X			134	X	X	X	X		
45	X	X	X	X			90	X	X	X	X			135	X	X	X	X		

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138	X	X					173							208						
139	X	X					174							209						
140	X	X					175							210						
141	X	X					176							211						
142	X	X					177							212						
143	/	X					178							213						
144	/	X					179							214						
145	/	X					180							215						
146	/	X					181							216						
147	/	X					182							217						
148	/	X					183							218						
149	/	X					184							219						
150	/	X					185							220						
151	/	X					186							221						
152	/	X					187							222						
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160	/	X					195							230						
161	/	X					196							231						
162	/	X					197							232						
163	/	X					198							233						
164	/	X					199							234						
165	/	X					200							235						
166	/	X					201							236						
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REVISION 0 NOTES:

1- UPDATE ACCORDING TO P&ID (HVAC AND PROCESS).

2- INSERTION OF PROCESS DATA.

3- INSERTION OF INSTRUMENT REFERENCE MODELS.



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2**REVISION 1 NOTES:**

1- CANCELLED TT-AHU-7B-1-001, TT-AHU-7B-1-002, TT-AHU-7B-2-001, TT-AHU-7B-2-002, TT-AHU-7B-3-001, TT-AHU-7B-3-002, TT-AHU-7B-4-001, TT-AHU-7B-4-002, TT-AHU-7B-5-001, TT-AHU-7B-5-002, TT-AHU-7B-6-001, TT-AHU-7B-6-002, TT-AHU-7B-7-001, TT-AHU-7B-7-002, TT-AHU-7B-8-001, TT-AHU-7B-8-002, TT-AHU-7B-9-001, TT-AHU-7B-9-002, TT-DOAS-7B-001, TT-FCU-B1043-001, TT-RH-B-1023-2, TT-RH-B-20XX-2, TT-RH-B-2001-2, TT-RH-B-2016-2, TT-RH-B-2028-2, TT-RH-B-2037-2, TT-RH-B-2039-2, TT-RH-B-2039-3, TT-RH-B-2039-4, TT-RH-B-2039-5, TT-RH-B-2039-6, TT-RH-B-2039-7, TT-RH-B-2039-8, TT-RH-B-2044-2, TT-RH-B-2048-2, TT-RH-B-2048-3, TT-RH-B-2048-4, TT-RH-B-2048-5, TT-RH-B-2048-6.

REVISION 2 NOTES AS PER N+1 UPDATE:

1- INDICATED FUTURE INSTRUMENTS: TIT-980016, TIT-980015, TIT-980030, TIT-980002.

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REFERENCE DOCUMENTS

7B-M-4-5-21	DRUG SUBSTANCE - AFD - AHU-7B-1
7B-M-0-5-22	DRUG SUBSTANCE - AFD - AHU-7B-2
7B-M-0-5-23	DRUG SUBSTANCE - AFD - AHU-7B-3
7B-M-0-5-24	DRUG SUBSTANCE - AFD - AHU-7B-4
7B-M-0-5-25	DRUG SUBSTANCE - AFD - AHU-7B-5
7B-M-0-5-26	DRUG SUBSTANCE - AFD - AHU-7B-6
7B-M-0-5-27	DRUG SUBSTANCE - AFD - AHU-7B-7
7B-M-0-5-28	DRUG SUBSTANCE - AFD - AHU-7B-8
7B-M-0-5-29	DRUG SUBSTANCE - AFD - AHU-7B-9
7B-M-0-5-31	DRUG SUBSTANCE - AFD - DOAS-7B-1
7B-M-0-5-32	DRUG SUBSTANCE - AFD - FCU
7B-M-0-5-42	P&I DIAGRAM - DRUG SUBSTANCE - COOLING WATER SYSTEM
7B-M-0-5-44	P&I DIAGRAM - DRUG SUBSTANCE - CHILLED GLYCOL GENERATION SYSTEM
7B-M-0-5-45	P&I DIAGRAM - DRUG SUBSTANCE - CHILLED GLYCOL DISTRIBUTION SYSTEM
7B-M-0-5-46	P&I DIAGRAM - DRUG SUBSTANCE - HEATING HOT WATER SYSTEM (HVAC)
7B-M-0-5-53	P&I DIAGRAM - DRUG SUBSTANCE - CHILLED WATER DISTRIBUTION SYSTEM LOOP 2 PROCESS
7B-M-0-5-61	P&I DIAGRAM - DRUG SUBSTANCE - PLANT STEAM DISTRIBUTION SYSTEM (PROCESS + HVAC)
PRD-AIC-LIS-015	DRUG SUBSTANCE - BMS - INSTRUMENT INDEX
PRD-PIP-TSP-501	PIPE CLASS AND SPECIFICATION - TECHNICAL SPECIFICATION
PRD-AIC-LIS-046	INTEGRATED PROJECT SERVICES - INSTRUMENT SUGGESTED SUPPLIER LIST

GENERAL NOTES

- 1- The transmitters must have the following characteristics:
 - a) They must be electronic, intelligent and programmable, with the transmission of the signal in the same physical medium as the power supply;
 - b) Support the respective maximum static design pressures;
 - c) They must be capable of identifying internal failures;
 - d) Be capable of setting the value of the output signal, programmable in 0% or 100% of the range, in case of sensor element failure;
- 2- All transmitters must have enclosures, whose parts exposed to the atmosphere are resistant to environmental conditions, including those generated by the process condition.
- 3- All electronic or electrical components that are subject to fungal and moisture attacks must be tropicalized, i.e., treated with polyurethane coating or equivalent to inhibit this attack.
- 4- 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.
- 5- All transmitters must have a calibration certificate with traceability according to ISO 9000.
- 6- 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.
- 7- All electronic instruments must be provided with software asset management feature, with zero adjustment function, span adjustment and other remote settings via digital data communication. The software must be supplied with the instruments and when necessary the connecting cables must also be provided.
- 8- The instrument display must be at least 2 lines with 5 characters on each line.

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GENERAL	1	INSTRUMENT TAG NUMBER		TIT-070001		
	2	SERVICE			CHILLED WATER - LOOP 1 - EXIT FROM HX-7B-2	
	3	P&ID			7B-M-0-5-53	
	4	PIPE LINE	EQUIPMENT NUMBER	6"-CW1S-0700001-CS1-CC	-	-
	5	EQUIPMENT MATERIAL / PIPE			CARBON STEEL ASTM-A106 Gr.B	
	6	AREA CLASSIFICATION			NOT CLASSIFIED	
	7	ENCLOSURE CLASSIFICATION			IP 65 (MIN.) CONF. NBR IEC 60529	
	8	CERTIFICATES			(SEE GENERAL NOTES 4)	
	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	
SENSOR	19	REPEATABILITY			BY MANUFACTURER	
	20	CALIBRATION RANGE			BY MANUFACTURER	
	21	CALIBRATED RANGE			0 @ 6 °C	
	22	ELECTRICAL CONNECTION			1/2" NPT (F)	
	23	DJUSTABLE RANGE / AJ. LOCAL ZERO AND SPAN			YES / YES	
	24	MOUNTING			FULL	
	25	ELEMENT TYPE	ELEMENT MATERIAL	PT100Ω (3 Wire)	PLATINUM	
	26	ROD LENGTH (L)	ROD DIAMETER	(NOTE 1)	6 mm	
	27	SENSOR CONNECTION TO WELL			1/2" NPT	
WELL	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	1/2" NPT (F)	
	29	MOUNTING			SUPPLIED WITH SENSOR	
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR	
	31	CONNECTION TO THE PROCESS			1.1/2", 150#, FR, ASME B16.5	
	32	FLANGE FACE FINISH			MSS SP-6	
	33	CONNECTION TO THERMOMETER			1/2" NPT(F)	
	34	INSERTION LENGTH "U"			212 mm	
	35	EXTENSION LENGTH "T"			35 mm	
	36					
OPERATING CONDITIONS	37					
	38					
	39					
	40					
	41					
	42	FLUID	PHYSICAL STATUS		INDUSTRIAL WATER	LIQUID
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM		°C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM		bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g	°C
	46	VISCOSITY @ OPERATING CONDITION			Cp	
	47	DENSITY @ OPERATING CONDITION			kg/m³	
	48	SUSPENDED SOLIDS (%)			NO	
	49	M.M. / Z / Cp/Cv			... / ... / ...	
	50					
	51	MANUFACTURER			Endress + Hauser (E+H) or Similar	
	52	MODEL				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL**

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GENERAL	1	INSTRUMENT TAG NUMBER		TIT-070002		
	2	SERVIÇE			CHILLED WATER FOR P-PCH-7B-5 AND 7B-6	
	3	P&ID			7B-M-0-5-53	
	4	PIPE LINE	EQUIPMENT NUMBER	8"-CW1R-070002-CS1-CC	-	-
	5	EQUIPMENT MATERIAL / PIPE			CARBON STEEL ASTM-A106 Gr.B	
	6	AREA CLASSIFICATION			NOT CLASSIFIED	
	7	ENCLOSURE CLASSIFICATION			IP 65 (MIN.) CONF. NBR IEC 60529	
	8	CERTIFICATES			(SEE GENERAL NOTES 4)	
	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	
SENSOR	19	REPEATABILITY			BY MANUFACTURER	
	20	CALIBRATION RANGE			BY MANUFACTURER	
	21	CALIBRATED RANGE			0 @ 6 °C	
	22	ELECTRICAL CONNECTION			1/2" NPT (F)	
	23	ADJUSTABLE RANGE / AJ. LOCAL ZERO AND SPAN			YES / YES	
	24	MOUNTING			FULL	
	25	ELEMENT TYPE	ELEMENT MATERIAL	PT100Ω (3 Wire)	PLATINUM	
	26	ROD LENGTH (L)	ROD DIAMETER	(NOTE 1)	6 mm	
	27	SENSOR CONNECTION TO WELL			1/2" NPT	
WELL	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	1/2" NPT (F)	
	29	MOUNTING			SUPPLIED WITH SENSOR	
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR	
	31	CONNECTION TO THE PROCESS			1.1/2", 150#, FR, ASME B16.5	
	32	FLANGE FACE FINISH			MSS SP-6	
	33	CONNECTION TO THERMOMETER			1/2" NPT(F)	
	34	INSERTION LENGTH "U"			212 mm	
	35	EXTENSION LENGTH "T"			35 mm	
	36					
OPERATING CONDITIONS	37					
	38					
	39					
	40					
	41					
	42	FLUID	PHYSICAL STATUS		INDUSTRIAL WATER	LIQUID
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM		°C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM		bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g	°C
	46	VISCOSITY @ OPERATING CONDITION			Cp	
	47	DENSITY @ OPERATING CONDITION			kg/m³	
	48	SUSPENDED SOLIDS (%)			NO	
	49	M.M. / Z / Cp/Cv			... / ... / ...	
	50					
	51	MANUFACTURER			Endress + Hauser (E+H) or Similar	
	52	MODEL				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL**

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GENERAL	1	INSTRUMENT TAG NUMBER	TIT-070003		
	2	SERVICE	INDUSTRIAL WATER DOWNSTREAM P-PCH-7B-5 / 6		
	3	P&ID	7B-M-0-5-53		
	4	PIPE LINE	EQUIPMENT NUMBER	8"-CW1R-070003-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 4)		
	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	0 @ 6 °C		
	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	1/2" NPT		
WELL	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	1/2" NPT (F)
	29	MOUNTING	SUPPLIED WITH SENSOR		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	1.1/2", 150#, FR, ASME B16.5		
	32	FLANGE FACE FINISH	MSS SP-6		
	33	CONNECTION TO THERMOMETER	1/2" NPT(F)		
	34	INSERTION LENGTH "U"	212 mm		
OPERATING CONDITIONS	35	EXTENSION LENGTH "T"	35 mm		
	36				
	37				
	38				
	39				
	40				
	41				
OPERATING CONDITIONS	42	FLUID	PHYSICAL STATUS	INDUSTRIAL WATER	LIQUID
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	°C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	bar-g	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	Endress + Hauser (E+H) or Similar		
	52	MODEL			

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GENERAL	1	INSTRUMENT TAG NUMBER		TIT-070065		
	2	SERVICE			CHILLED WATER - LOOP 1 - DISTRIBUTION FOR HX-7B-2	
	3	P&ID			7B-M-0-5-53	
	4	PIPE LINE	EQUIPMENT NUMBER	6"-GW0S-070065-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 4)	
	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	
SENSOR	19	REPEATABILITY			BY MANUFACTURER	
	20	CALIBRATION RANGE			BY MANUFACTURER	
	21	CALIBRATED RANGE			0 @ 6 °C	
	22	ELECTRICAL CONNECTION			1/2" NPT (F)	
	23	ADJUSTABLE RANGE / AJ. LOCAL ZERO AND SPAN			YES / YES	
	24	MOUNTING			FULL	
	25	ELEMENT TYPE	ELEMENT MATERIAL	PT100Ω (3 Wire)	PLATINUM	
	26	ROD LENGTH (L)	ROD DIAMETER	(NOTE 1)	6 mm	
	27	SENSOR CONNECTION TO WELL			1/2" NPT	
WELL	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	1/2" NPT (F)	
	29	MOUNTING			SUPPLIED WITH SENSOR	
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR	
	31	CONNECTION TO THE PROCESS			1.1/2", 150#, FR, ASME B16.5	
	32	FLANGE FACE FINISH			MSS SP-6	
	33	CONNECTION TO THERMOMETER			1/2" NPT(F)	
	34	INSERTION LENGTH "U"			212 mm	
	35	EXTENSION LENGTH "T"			35 mm	
	36					
OPERATING CONDITIONS	37					
	38					
	39					
	40					
	41					
	42	FLUID	PHYSICAL STATUS		PROPYLENE GLYCOL	LIQUID
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM		°C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM		bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE		barg	°C
	46	VISCOSITY @ OPERATING CONDITION			Cp	
	47	DENSITY @ OPERATING CONDITION			kg/m³	
	48	SUSPENDED SOLIDS (%)			NO	
	49	M.M. / Z / Cp/Cv			... / ... / ...	
	50					
	51	MANUFACTURER			Endress + Hauser (E+H) or Similar	
	52	MODEL				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL**

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR: PRD-AIC-DSH-066

TITLE

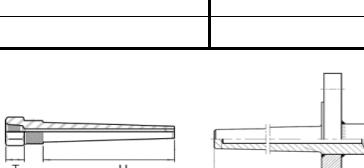
TEMPERATURE TRANSMITTER

PRD-AIC-DSH-066

SHEET:

10 de 128

2

GENERAL	1	INSTRUMENT TAG NUMBER		TIT-070066	
	2	SERVICE		CHILLED WATER - LOOP 1 - RETURN - EXIT FROM HX-7B-2	
	3	P&ID		7B-M-0-5-53	
	4	PIPE LINE	EQUIPMENT NUMBER	6"-GW0R-070066-CS1-NI	-
	5	EQUIPMENT MATERIAL / PIPE		CARBON STEEL ASTM-A106 Gr.B	
	6	AREA CLASSIFICATION		NOT CLASSIFIED	
	7	ENCLOSURE CLASSIFICATION		IP 65 (MIN.) CONF. NBR IEC 60529	
	8	CERTIFICATES		(SEE GENERAL NOTES 4)	
	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	
SENSOR	19	REPEATABILITY		BY MANUFACTURER	
	20	CALIBRATION RANGE		BY MANUFACTURER	
	21	CALIBRATED RANGE		0 @ 6 °C	
	22	ELECTRICAL CONNECTION		1/2" NPT (F)	
	23	ADJUSTABLE RANGE / AJ. LOCAL ZERO AND SPAN		YES / YES	
	24	MOUNTING		FULL	
	25	ELEMENT TYPE	ELEMENT MATERIAL	PT100Ω (3 Wire)	PLATINUM
	26	ROD LENGTH (L)	ROD DIAMETER	(NOTE 1)	6 mm
	27	SENSOR CONNECTION TO WELL		1/2" NPT	
WELL	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	1/2" NPT (F)
	29	MOUNTING		SUPPLIED WITH SENSOR	
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS		1.1/2", 150#, FR, ASME B16.5	
	32	FLANGE FACE FINISH		MSS SP-6	
	33	CONNECTION TO THERMOMETER		1/2" NPT(F)	
	34	INSERTION LENGTH "U"		212 mm	
	35	EXTENSION LENGTH "T"		35 mm	
	36				
OPERATING CONDITIONS	37				
	38				
	39				
	40				
	41				
	42	FLUID	PHYSICAL STATUS		PROPYLENE GLYCOL
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	°C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	bar-g	°C
	46	VISCOSITY @ OPERATING CONDITION		Cp	
	47	DENSITY @ OPERATING CONDITION		kg/m³	
	48	SUSPENDED SOLIDS (%)		NO	
	49	M.M. / Z / Cp/Cv		... / ... / ...	
	50				
	51	MANUFACTURER		Endress + Hauser (E+H) or Similar	
	52	MODEL			

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL**

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
11 de 128
 REV.:
2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-790319		
	2	SERVICE	PLANT STEAM DISTRIBUTION 7A		
	3	P&ID	7B-M-0-5-61		
	4	PIPE LINE	EQUIPMENT NUMBER	4"-IS8B-790319-CS2-HC	-
	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 4)		
	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	0 @ 6 °C		
	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	1/2" NPT		
WELL	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	1/2" NPT (F)
	29	MOUNTING	SUPPLIED WITH SENSOR		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	1.1/2", 300#, FR, ASME B16.5		
	32	FLANGE FACE FINISH	MSS SP-6		
	33	CONNECTION TO THERMOMETER	1/2" NPT(F)		
	34	INSERTION LENGTH "U"	240 mm		
OPERATING CONDITIONS	35	EXTENSION LENGTH "T"	35 mm		
	36				
	37				
	38				
	39				
	40				
	41				
OPERATING CONDITIONS	42	FLUID	PHYSICAL STATUS	STEAM	STEAM
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	°C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	bar-g	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	Endress + Hauser (E+H) or Similar		
	52	MODEL			

NOTES:

1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
12 de 128
 REV.:
2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-790321		
	2	SERVICE	PLANT STEAM RE-HEATED WATER FOR SKID		
	3	P&ID	7B-M-0-5-61		
	4	PIPE LINE	EQUIPMENT NUMBER	2"-IS8B-790321-CS2-HC	-
	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 4)		
	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	0 @ 6 °C		
	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	1/2" NPT		
WELL	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	1/2" NPT (F)
	29	MOUNTING	SUPPLIED WITH SENSOR		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	1.1/2", 300#, FR, ASME B16.5		
	32	FLANGE FACE FINISH	MSS SP-6		
	33	CONNECTION TO THERMOMETER	1/2" NPT(F)		
	34	INSERTION LENGTH "U"	210 mm		
	35	EXTENSION LENGTH "T"	35 mm		
	36				
	37				
OPERATING CONDITIONS	38				
	39				
	40				
	41				
	42	FLUID	PHYSICAL STATUS	STEAM	STEAM
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	°C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	bar-g	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	Endress + Hauser (E+H) or Similar		
	52	MODEL			

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-790327		
	2	SERVICE	PLANT STEAM RE-HEATED WATER-HX-7B-1		
	3	P&ID	7B-M-0-5-61		
	4	PIPE LINE	EQUIPMENT NUMBER	2"-IS8B-790319-CS2-HC	-
	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 4)		
	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	0 @ 6 °C		
	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	1/2" NPT		
WELL	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	1/2" NPT (F)
	29	MOUNTING	SUPPLIED WITH SENSOR		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	1.1/2", 300#, FR, ASME B16.5		
	32	FLANGE FACE FINISH	MSS SP-6		
	33	CONNECTION TO THERMOMETER	1/2" NPT(F)		
	34	INSERTION LENGTH "U"	212 mm		
OPERATING CONDITIONS	35	EXTENSION LENGTH "T"	35 mm		
	36				
	37				
	38		T	U	
	39				
	40				
	41				
	42	FLUID	PHYSICAL STATUS	STEAM	STEAM
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	°C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	bar-g	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	Endress + Hauser (E+H) or Similar		
	52	MODEL			

NOTES:

1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 14 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TIT-940009		
	2	SERVICE	COOLING WATER - GLYCOL GENERATION		
	3	P&ID	7B-M-0-5-42		
	4	PIPE LINE	EQUIPMENT NUMBER	8"-TWS-940009-CS1-NI	-
	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 4)		
	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	0 @ 6 °C		
	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	1/2" NPT		
WELL	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	1/2" NPT (F)
	29	MOUNTING	SUPPLIED WITH SENSOR		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	1.1/2", 150#, FR, ASME B16.5		
	32	FLANGE FACE FINISH	MSS SP-6		
	33	CONNECTION TO THERMOMETER	1/2" NPT(F)		
	34	INSERTION LENGTH "U"	265 mm		
	35	EXTENSION LENGTH "T"	35 mm		
	36				
	37				
OPERATING CONDITIONS	38		T	U	
	39				
	40				
	41				
	42	FLUID	PHYSICAL STATUS	INDUSTRIAL WATER	LIQUID
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	°C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	bar-g	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	Endress + Hauser (E+H) or Similar		
	52	MODEL			

NOTES:

1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR: PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

SHEET:
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REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER		TIT-940010		
	2	SERVICE			COOLING WATER - GLYCOL GENERATION FROM CH-7A-1	
	3	P&ID			7B-M-0-5-42	
	4	PIPE LINE	EQUIPMENT NUMBER	8"-TWR-940010-CS1-NI	-	-
	5	EQUIPMENT MATERIAL / PIPE			CARBON STEEL ASTM-A106 Gr.B	
	6	AREA CLASSIFICATION			NOT CLASSIFIED	
	7	ENCLOSURE CLASSIFICATION			IP 65 (MIN.) CONF. NBR IEC 60529	
	8	CERTIFICATES			(SEE GENERAL NOTES 4)	
	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	
SENSOR	19	REPEATABILITY			BY MANUFACTURER	
	20	CALIBRATION RANGE			BY MANUFACTURER	
	21	CALIBRATED RANGE			0 @ 6 °C	
	22	ELECTRICAL CONNECTION			1/2" NPT (F)	
	23	ADJUSTABLE RANGE / AJ. LOCAL ZERO AND SPAN			YES / YES	
	24	MOUNTING			FULL	
	25	ELEMENT TYPE	ELEMENT MATERIAL	PT100Ω (3 Wire)	PLATINUM	
	26	ROD LENGTH (L)	ROD DIAMETER	(NOTE 1)	6 mm	
	27	SENSOR CONNECTION TO WELL			1/2" NPT	
WELL	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	1/2" NPT (F)	
	29	MOUNTING			SUPPLIED WITH SENSOR	
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR	
	31	CONNECTION TO THE PROCESS			1.1/2", 150#, FR, ASME B16.5	
	32	FLANGE FACE FINISH			MSS SP-6	
	33	CONNECTION TO THERMOMETER			1/2" NPT(F)	
	34	INSERTION LENGTH "U"			265 mm	
	35	EXTENSION LENGTH "T"			35 mm	
	36					
OPERATING CONDITIONS	37					
	38					
	39					
	40					
	41					
	42	FLUID	PHYSICAL STATUS		INDUSTRIAL WATER	LIQUID
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM		°C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM		bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g	°C
	46	VISCOSITY @ OPERATING CONDITION			Cp	
	47	DENSITY @ OPERATING CONDITION			kg/m³	
	48	SUSPENDED SOLIDS (%)			NO	
	49	M.M. / Z / Cp/Cv			... / ... / ...	
	50					
	51	MANUFACTURER			Endress + Hauser (E+H) or Similar	
	52	MODEL				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL**

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TIT-980001		
	2	SERVICE	GLYCOL CHILLED PCH-7B-1		
	3	P&ID	7B-M-0-5-44		
	4	PIPE LINE	EQUIPMENT NUMBER	10"-GW0S-980001-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 4)		
	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	0 @ 6 °C		
	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	1/2" NPT		
WELL	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	1/2" NPT (F)
	29	MOUNTING	SUPPLIED WITH SENSOR		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	1.1/2", 150#, FR, ASME B16.5		
	32	FLANGE FACE FINISH	MSS SP-6		
	33	CONNECTION TO THERMOMETER	1/2" NPT(F)		
	34	INSERTION LENGTH "U"	240 mm		
OPERATING CONDITIONS	35	EXTENSION LENGTH "T"	35 mm		
	36				
	37				
	38		T	U	
	39				
	40				
	41				
				PROPYLENE GLYCOL	LIQUID
42		FLUID	PHYSICAL STATUS		
43		MINIMUM TEMPERATURE	NORMAL	MAXIMUM	
44		MINIMUM PRESSURE	NORMAL	MAXIMUM	
45		DESIGN PRESSURE	DESIGN TEMPERATURE	bar-g	°C
46		VISCOSITY @ OPERATING CONDITION	Cp		
47		DENSITY @ OPERATING CONDITION	kg/m³		
48		SUSPENDED SOLIDS (%)	NO		
49		M.M. / Z / Cp/Cv	... / ... / ...		
50					
51		MANUFACTURER	Endress + Hauser (E+H) or Similar		
52		MODEL			

NOTES:

1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 17 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TIT-980002		
	2	SERVICE	GLYCOL CHILLED PCH-7B-2		
	3	P&ID	7B-M-0-5-44		
	4	PIPE LINE	EQUIPMENT NUMBER	10"-GW0S-980002-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 4)		
	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	0 @ 6 °C		
	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	1/2" NPT		
WELL	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	1/2" NPT (F)
	29	MOUNTING	SUPPLIED WITH SENSOR		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	1.1/2", 150#, FR, ASME B16.5		
	32	FLANGE FACE FINISH	MSS SP-6		
	33	CONNECTION TO THERMOMETER	1/2" NPT(F)		
	34	INSERTION LENGTH "U"	240 mm		
OPERATING CONDITIONS	35	EXTENSION LENGTH "T"	35 mm		
	36				
	37				
	38				
	39				
	40				
	41				
OPERATING CONDITIONS	42	FLUID	PHYSICAL STATUS	PROPYLENE GLYCOL	LIQUID
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	bar-g	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	Endress + Hauser (E+H) or Similar		
	52	MODEL			

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

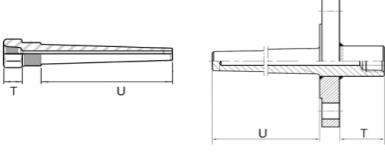
CLIENT NR: PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

PRD-AIC-DSH-066

SHEET:
18 de 128
REV.:
2

GENERAL	1	INSTRUMENT TAG NUMBER		TIT-980005			
	2	SERVICE		DISTRIBUTION SYSTEM - CHILLED GLYCOL FOR P-PCH-7B-3/4			
	3	P&ID		7B-M-0-5-45			
	4	PIPE LINE	EQUIPMENT NUMBER	10"-GW0S-980005-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 4)			
	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		0 @ 6 °C			
	22	ELECTRICAL CONNECTION		1/2" NPT (F)			
	23	ADJUSTABLE 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 1)	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	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS		1.1/2", 150#, FR, ASME B16.5			
	32	FLANGE FACE FINISH		MSS SP-6			
	33	CONNECTION TO THERMOMETER		1/2" NPT(F)			
	34	INSERTION LENGTH "U"		240 mm			
	35	EXTENSION LENGTH "T"		35 mm			
	36						
	37						
	38						
	39						
	40						
	41						
OPERATING CONDITIONS	42	FLUID	PHYSICAL STATUS		PROPYLENE GLYCOL		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	°C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	bar-g		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	bar-g	°C		
	46	VISCOSITY @ OPERATING CONDITION		Cp			
	47	DENSITY @ OPERATING CONDITION		kg/m³			
	48	SUSPENDED SOLIDS (%)		NO			
	49	M.M. / Z / Cp/Cv		... / ... / ...			
	50						
	51	MANUFACTURER		Endress + Hauser (E+H) or Similar			
	52	MODEL					

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL**

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 19 de 128
 REV.:
 2

TRANSMITTER	1	INSTRUMENT TAG NUMBER	TIT-980013		
	2	SERVICE	COOLING WATER - COOLING TOWERS PCH-7B-1		
	3	P&ID	7B-M-0-5-44		
	4	PIPE LINE	EQUIPMENT NUMBER	8"-TWS-980013-CS1-NI	-
	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 4)		
	9				
SENSOR	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	0 @ 6 °C		
	22	ELECTRICAL CONNECTION	1/2" NPT (F)		
	23	DJUSTABLE RANGE / AJ. LOCAL ZERO AND SPAN	YES / YES		
	24	MOUNTING	FULL		
	25	ELEMENT TYPE	ELEMENT MATERIAL	PT100Ω (3 Wire)	PLATINUM
	26	ROD LENGTH (L)	ROD DIAMETER	(NOTE 1)	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	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	1.1/2", 150#, FR, ASME B16.5		
	32	FLANGE FACE FINISH	MSS SP-6		
	33	CONNECTION TO THERMOMETER	1/2" NPT(F)		
	34	INSERTION LENGTH "U"	265 mm		
	35	EXTENSION LENGTH "T"	35 mm		
OPERATING CONDITIONS	36				
	37				
	38				
	39				
	40				
	41				
	42	FLUID	PHYSICAL STATUS	CHILLED WATER SUPPLY	LIQUID
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	°C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	bar-g	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	Endress + Hauser (E+H) or Similar		
	52	MODEL			

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 20 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TIT-980014				
	2	SERVICE	COOLING WATER - COOLING TOWERS PCH-7B-1				
	3	P&ID	7B-M-0-5-44				
	4	PIPE LINE	EQUIPMENT NUMBER	8"-TWR-980014-CS1-NI	-		
	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 4)				
	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	0 @ 6 °C				
	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	1/2" NPT				
WELL	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	1/2" NPT (F)		
	29	MOUNTING	SUPPLIED WITH SENSOR				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	1.1/2", 150#, FR, ASME B16.5				
	32	FLANGE FACE FINISH	MSS SP-6				
	33	CONNECTION TO THERMOMETER	1/2" NPT(F)				
	34	INSERTION LENGTH "U"	265 mm				
OPERATING CONDITIONS	35	EXTENSION LENGTH "T"	35 mm				
	36						
	37						
	38		T	U			
	39						
	40						
	41						
42 FLUID		PHYSICAL STATUS	CHILLED WATER RETURN		LIQUID		
43 MINIMUM TEMPERATURE		NORMAL	MAXIMUM		°C		
44 MINIMUM PRESSURE		NORMAL	MAXIMUM		bar-g		
45 DESIGN PRESSURE		DESIGN TEMPERATURE	bar-g		°C		
46 VISCOSITY @ OPERATING CONDITION		Cp					
47 DENSITY @ OPERATING CONDITION		kg/m³					
48 SUSPENDED SOLIDS (%)		NO					
49 M.M. / Z / Cp/Cv		... / ... / ...					
50							
51 MANUFACTURER		Endress + Hauser (E+H) or Similar					
52 MODEL							

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 21 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TIT-980015		
	2	SERVICE	COOLING WATER - COOLING TOWERS PCH-7B-2		
	3	P&ID	7B-M-0-5-44		
	4	PIPE LINE	EQUIPMENT NUMBER	8"-TWS-980015-CS1-NI	-
	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 4)		
	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	0 @ 6 °C		
	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	1/2" NPT		
WELL	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	1/2" NPT (F)
	29	MOUNTING	SUPPLIED WITH SENSOR		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	1.1/2", 150#, FR, ASME B16.5		
	32	FLANGE FACE FINISH	MSS SP-6		
	33	CONNECTION TO THERMOMETER	1/2" NPT(F)		
	34	INSERTION LENGTH "U"	265 mm		
OPERATING CONDITIONS	35	EXTENSION LENGTH "T"	35 mm		
	36				
	37				
	38				
	39				
	40				
	41				
OPERATING CONDITIONS	42	FLUID	PHYSICAL STATUS	CHILLED WATER SUPPLY	LIQUID
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	bar-g	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	Endress + Hauser (E+H) or Similar		
	52	MODEL			

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 22 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TIT-980016		
	2	SERVICE	COOLING WATER - COOLING TOWERS PCH-7B-2		
	3	P&ID	7B-M-0-5-44		
	4	PIPE LINE	EQUIPMENT NUMBER	8"-TWR-980016-CS1-NI	-
	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 4)		
	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	0 @ 6 °C		
	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	1/2" NPT		
WELL	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	1/2" NPT (F)
	29	MOUNTING	SUPPLIED WITH SENSOR		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	1.1/2", 150#, FR, ASME B16.5		
	32	FLANGE FACE FINISH	MSS SP-6		
	33	CONNECTION TO THERMOMETER	1/2" NPT(F)		
	34	INSERTION LENGTH "U"	265 mm		
OPERATING CONDITIONS	35	EXTENSION LENGTH "T"	35 mm		
	36				
	37				
	38				
	39				
	40				
	41				
OPERATING CONDITIONS	42	FLUID	PHYSICAL STATUS	CHILLED WATER RETURN	LIQUID
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	°C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	bar-g	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	Endress + Hauser (E+H) or Similar		
	52	MODEL			

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR: PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

PRD-AIC-DSH-066

SHEET:
23 de 128
REV.:
2

GENERAL	1	INSTRUMENT TAG NUMBER		TIT-980021		
	2	SERVICE			DISTRIBUTION SYSTEM - CHILLED GLYCOL FOR BT-7B-1	
	3	P&ID			7B-M-0-5-44	
	4	PIPE LINE	EQUIPMENT NUMBER	10"-GW0R-980021-CS1-CC	-	-
	5	EQUIPMENT MATERIAL / PIPE			CARBON STEEL ASTM-A106 Gr.B	
	6	AREA CLASSIFICATION			NOT CLASSIFIED	
	7	ENCLOSURE CLASSIFICATION			IP 65 (MIN.) CONF. NBR IEC 60529	
	8	CERTIFICATES			(SEE GENERAL NOTES 4)	
	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	
SENSOR	19	REPEATABILITY			BY MANUFACTURER	
	20	CALIBRATION RANGE			BY MANUFACTURER	
	21	CALIBRATED RANGE			0 @ 6 °C	
	22	ELECTRICAL CONNECTION			1/2" NPT (F)	
	23	DJUSTABLE RANGE / AJ. LOCAL ZERO AND SPAN			YES / YES	
	24	MOUNTING			FULL	
	25	ELEMENT TYPE	ELEMENT MATERIAL	PT100Ω (3 Wire)	PLATINUM	
	26	ROD LENGTH (L)	ROD DIAMETER	(NOTE 1)	6 mm	
	27	SENSOR CONNECTION TO WELL			1/2" NPT	
WELL	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	1/2" NPT (F)	
	29	MOUNTING			SUPPLIED WITH SENSOR	
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR	
	31	CONNECTION TO THE PROCESS			1.1/2", 150#, FR, ASME B16.5	
	32	FLANGE FACE FINISH			MSS SP-6	
	33	CONNECTION TO THERMOMETER			1/2" NPT(F)	
	34	INSERTION LENGTH "U"			240 mm	
	35	EXTENSION LENGTH "T"			35 mm	
	36					
OPERATING CONDITIONS	37					
	38					
	39					
	40					
	41					
	42	FLUID	PHYSICAL STATUS		PROPYLENE GLYCOL	LIQUID
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM		°C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM		bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE		barg	°C
	46	VISCOSITY @ OPERATING CONDITION			Cp	
	47	DENSITY @ OPERATING CONDITION			kg/m³	
	48	SUSPENDED SOLIDS (%)			NO	
	49	M.M. / Z / Cp/Cv			... / ... / ...	
	50					
	51	MANUFACTURER			Endress + Hauser (E+H) or Similar	
	52	MODEL				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL**

NUMBER: 569-DB7B-AIC-711-005

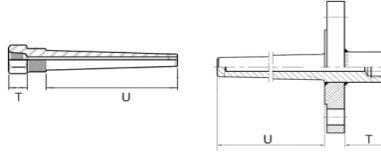
CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 24 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TIT-980022		
	2	SERVICE	DISTRIBUTION SYSTEM - CHILLED GLYCOL BT-7B-1		
	3	P&ID	7B-M-0-5-44		
	4	PIPE LINE	EQUIPMENT NUMBER	10"-GW0R-980022-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 4)		
	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	0 @ 6 °C		
	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	1/2" NPT		
WELL	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	1/2" NPT (F)
	29	MOUNTING	SUPPLIED WITH SENSOR		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	1.1/2", 150#, FR, ASME B16.5		
	32	FLANGE FACE FINISH	MSS SP-6		
	33	CONNECTION TO THERMOMETER	1/2" NPT(F)		
	34	INSERTION LENGTH "U"	240 mm		
OPERATING CONDITIONS	35	EXTENSION LENGTH "T"	35 mm		
	36				
	37				
	38				
	39				
	40				
	41				
OPERATING CONDITIONS	42	FLUID	PHYSICAL STATUS	PROPYLENE GLYCOL	LIQUID
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	°C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	bar-g	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	Endress + Hauser (E+H) or Similar		
	52	MODEL			

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 25 de 128
 REV.:
2

GENERAL	1	INSTRUMENT TAG NUMBER	TIT-980029		
	2	SERVICE	GLYCOL FOR PCH-7B-1		
	3	P&ID	7B-M-0-5-44		
	4	PIPE LINE	EQUIPMENT NUMBER	10"-GW0R-980029-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 4)		
	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	0 @ 6 °C		
	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	1/2" NPT		
WELL	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	1/2" NPT (F)
	29	MOUNTING	SUPPLIED WITH SENSOR		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	1.1/2", 150#, FR, ASME B16.5		
	32	FLANGE FACE FINISH	MSS SP-6		
	33	CONNECTION TO THERMOMETER	1/2" NPT(F)		
	34	INSERTION LENGTH "U"	240 mm		
OPERATING CONDITIONS	35	EXTENSION LENGTH "T"	35 mm		
	36				
	37				
	38				
	39				
	40				
	41				
OPERATING CONDITIONS	42	FLUID	PHYSICAL STATUS	PROPYLENE GLYCOL	LIQUID
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	°C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	bar-g	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	Endress + Hauser (E+H) or Similar		
	52	MODEL			

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 26 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TIT-980030		
	2	SERVICE	GLYCOL FOR PCH-7B-2		
	3	P&ID	7B-M-0-5-44		
	4	PIPE LINE	EQUIPMENT NUMBER	10"-GW0R-980030-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 4)		
	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	0 @ 6 °C		
	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	1/2" NPT		
WELL	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	1/2" NPT (F)
	29	MOUNTING	SUPPLIED WITH SENSOR		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	1.1/2", 150#, FR, ASME B16.5		
	32	FLANGE FACE FINISH	MSS SP-6		
	33	CONNECTION TO THERMOMETER	1/2" NPT(F)		
	34	INSERTION LENGTH "U"	265 mm		
OPERATING CONDITIONS	35	EXTENSION LENGTH "T"	35 mm		
	36				
	37				
	38				
	39				
	40				
	41				
OPERATING CONDITIONS	42	FLUID	PHYSICAL STATUS	PROPYLENE GLYCOL	LIQUID
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	bar-g	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	Endress + Hauser (E+H) or Similar		
	52	MODEL			

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 27 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-960011				
	2	SERVICE	TEMPERATURE CONTROL COLD WATER COIL				
	3	P&ID	7B-M-0-5-21				
	4	PIPE LINE	EQUIPMENT NUMBER	AHU-7B-1			
	5	EQUIPMENT MATERIAL / PIPE					
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATE	AIR			
	43	MINIMUM TEMPERATURE	NORMAL	10	15		
	44	MINIMUM PRESSURE	NORMAL	101058	Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 28 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-960012				
	2	SERVICE	TEMPERATURE CONTROL COLD WATER COIL				
	3	P&ID	7B-M-0-5-22				
	4	PIPE LINE	EQUIPMENT NUMBER	AHU-7B-2			
	5	EQUIPMENT MATERIAL / PIPE					
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR			
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	10 22 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	101058 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 29 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-960013				
	2	SERVICE	TEMPERATURE CONTROL COLD WATER COIL				
	3	P&ID	7B-M-0-5-23				
	4	PIPE LINE	EQUIPMENT NUMBER	AHU-7B-3			
	5	EQUIPMENT MATERIAL / PIPE					
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR			
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	10 22 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	101058 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 30 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-960014				
	2	SERVICE	TEMPERATURE CONTROL COLD WATER COIL				
	3	P&ID	7B-M-0-5-24				
	4	PIPE LINE	EQUIPMENT NUMBER	AHU-7B-4			
	5	EQUIPMENT MATERIAL / PIPE					
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR			
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	10 22 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	101058 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 31 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-960015		
	2	SERVICE	TEMPERATURE CONTROL COLD WATER COIL		
	3	P&ID	7B-M-0-5-25		
	4	PIPE LINE	EQUIPMENT NUMBER	-	AHU-7B-5
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	10 21 °C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	101058 Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 32 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-960016				
	2	SERVICE	TEMPERATURE CONTROL COLD WATER COIL				
	3	P&ID	7B-M-0-5-26				
	4	PIPE LINE	EQUIPMENT NUMBER	AHU-7B-6			
	5	EQUIPMENT MATERIAL / PIPE					
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR			
	43	MINIMUM TEMPERATURE	NORMAL	10	20 °C		
	44	MINIMUM PRESSURE	NORMAL	101058	Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 33 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-960017				
	2	SERVICE	TEMPERATURE CONTROL COLD WATER COIL				
	3	P&ID	7B-M-0-5-27				
	4	PIPE LINE	EQUIPMENT NUMBER	AHU-7B-7			
	5	EQUIPMENT MATERIAL / PIPE					
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR			
	43	MINIMUM TEMPERATURE	NORMAL	10	20 °C		
	44	MINIMUM PRESSURE	NORMAL	101058	Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 34 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-960018				
	2	SERVICE	TEMPERATURE CONTROL COLD WATER COIL				
	3	P&ID	7B-M-0-5-28				
	4	PIPE LINE	EQUIPMENT NUMBER	AHU-7B-8			
	5	EQUIPMENT MATERIAL / PIPE					
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR			
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	10 22 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	101058 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 35 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-960019				
	2	SERVICE	TEMPERATURE CONTROL COLD WATER COIL				
	3	P&ID	7B-M-0-5-29				
	4	PIPE LINE	EQUIPMENT NUMBER	AHU-7B-9			
	5	EQUIPMENT MATERIAL / PIPE					
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR			
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	10 21 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	101058 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 36 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-960028				
	2	SERVICE	TEMPERATURE CONTROL COLD WATER COIL				
	3	P&ID	7B-M-0-5-31				
	4	PIPE LINE	EQUIPMENT NUMBER	DOAS-7B-1			
	5	EQUIPMENT MATERIAL / PIPE					
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR			
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	10 35 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	101058 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 37 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-B-1004-001		
	2	SERVICE	RETURN TEMPERATURE AIR IN THE DUCT		
	3	P&ID	7B-M-0-5-29		
	4	PIPE LINE	EQUIPMENT NUMBER	-	B-1004-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	0	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 38 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-B-1009-001		
	2	SERVICE	RETURN TEMPERATURE AIR IN THE DUCT		
	3	P&ID	7B-M-0-5-29		
	4	PIPE LINE	EQUIPMENT NUMBER	-	B-1009-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	0	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 39 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-B-1012-001		
	2	SERVICE	RETURN TEMPERATURE AIR IN THE DUCT		
	3	P&ID	7B-M-0-5-29a		
	4	PIPE LINE	EQUIPMENT NUMBER	-	B-1012-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	0	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 40 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-B-1013-001		
	2	SERVICE	RETURN TEMPERATURE AIR IN THE DUCT		
	3	P&ID	7B-M-0-5-29		
	4	PIPE LINE	EQUIPMENT NUMBER	-	B-1013-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	0	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 41 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-B-1016-001		
	2	SERVICE	RETURN TEMPERATURE AIR IN THE DUCT		
	3	P&ID	7B-M-0-5-29a		
	4	PIPE LINE	EQUIPMENT NUMBER	-	B-1016-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	0	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 42 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-B-1030-001		
	2	SERVICE	RETURN TEMPERATURE AIR IN THE DUCT		
	3	P&ID	7B-M-0-5-29		
	4	PIPE LINE	EQUIPMENT NUMBER	-	B-1030-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	0	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 43 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-B-1035-001		
	2	SERVICE	RETURN TEMPERATURE AIR IN THE DUCT		
	3	P&ID	7B-M-0-5-29a		
	4	PIPE LINE	EQUIPMENT NUMBER	-	B-1035-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	0	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 44 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-B-1036-001		
	2	SERVICE	RETURN TEMPERATURE AIR IN THE DUCT		
	3	P&ID	7B-M-0-5-29a		
	4	PIPE LINE	EQUIPMENT NUMBER	-	B-1036-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	0	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-B-1038-001		
	2	SERVICE	RETURN TEMPERATURE AIR IN THE DUCT		
	3	P&ID	7B-M-0-5-29a		
	4	PIPE LINE	EQUIPMENT NUMBER	-	B-1038-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	0	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-B-1044-001		
	2	SERVICE	RETURN TEMPERATURE AIR IN THE DUCT		
	3	P&ID	7B-M-0-5-29		
	4	PIPE LINE	EQUIPMENT NUMBER	-	B-1044-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	0	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 47 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-B-1045-001		
	2	SERVICE	RETURN TEMPERATURE AIR IN THE DUCT		
	3	P&ID	7B-M-0-5-29		
	4	PIPE LINE	EQUIPMENT NUMBER	-	B-1045-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	0	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 48 de 128
 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-B-1048-001		
	2	SERVICE	RETURN TEMPERATURE AIR IN THE DUCT		
	3	P&ID	7B-M-0-5-29a		
	4	PIPE LINE	EQUIPMENT NUMBER	-	B-1048-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	0	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 49 de 128
 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-B-1049-001		
	2	SERVICE	RETURN TEMPERATURE AIR IN THE DUCT		
	3	P&ID	7B-M-0-5-29a		
	4	PIPE LINE	EQUIPMENT NUMBER	-	B-1049-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	0	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B1014-001				
	2	SERVICE	TEMPERATURE AIR SUPPLY				
	3	P&ID	7B-M-0-5-32				
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-B1014-1			
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL				
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR	AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B1014-002				
	2	SERVICE	TEMPERATURE AIR SUPPLY				
	3	P&ID	7B-M-0-5-32				
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-B1014-2			
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL				
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR	AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 52 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B1014-003				
	2	SERVICE	TEMPERATURE AIR SUPPLY				
	3	P&ID	7B-M-0-5-32				
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-B1014-3			
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL				
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR	AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B1014-004				
	2	SERVICE	TEMPERATURE AIR SUPPLY				
	3	P&ID	7B-M-0-5-32				
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-B1014-4			
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL				
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR	AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 54 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B1015-001				
	2	SERVICE	TEMPERATURE AIR SUPPLY				
	3	P&ID	7B-M-0-5-32				
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-B1015-1			
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL				
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR	AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 55 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B1015-002				
	2	SERVICE	TEMPERATURE AIR SUPPLY				
	3	P&ID	7B-M-0-5-32				
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-B1015-2			
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL				
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR	AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 56 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B1015-003				
	2	SERVICE	TEMPERATURE AIR SUPPLY				
	3	P&ID	7B-M-0-5-32				
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-B1015-3			
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL				
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR	AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 57 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B1029-001				
	2	SERVICE	TEMPERATURE AIR SUPPLY				
	3	P&ID	7B-M-0-5-32				
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-B1029-1			
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL				
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR	AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 58 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B1031-001				
	2	SERVICE	TEMPERATURE AIR SUPPLY				
	3	P&ID	7B-M-0-5-32				
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-B1031-1			
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL				
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR	AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 59 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B1031-002				
	2	SERVICE	TEMPERATURE AIR SUPPLY				
	3	P&ID	7B-M-0-5-32				
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-B1031-2			
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL				
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR	AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 60 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B1031-003				
	2	SERVICE	TEMPERATURE AIR SUPPLY				
	3	P&ID	7B-M-0-5-32				
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-B1031-3			
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL				
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR	AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 61 de 128
 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B1031-004				
	2	SERVICE	TEMPERATURE AIR SUPPLY				
	3	P&ID	7B-M-0-5-32				
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-B1031-4			
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL				
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR	AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B1031-005				
	2	SERVICE	TEMPERATURE AIR SUPPLY				
	3	P&ID	7B-M-0-5-32				
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-B1031-5			
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL				
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR	AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 63 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B1032-001				
	2	SERVICE	TEMPERATURE AIR SUPPLY				
	3	P&ID	7B-M-0-5-32				
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-B1032-1			
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL				
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR	AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 64 de 128
 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B1032-002						
	2	SERVICE	TEMPERATURE AIR SUPPLY						
	3	P&ID	7B-M-0-5-32						
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-B1032-2					
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL						
	6	AREA CLASSIFICATION	NO CLASSIFIED						
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529						
	8	CERTIFICATES	(SEE GENERAL NOTES 4)						
	9								
TRANSMITTER	10	TYPE	MICROPROCESSED						
	11	MOUNTING	INTEGRAL ELEMENT						
	12	BODY MATERIAL	ALUMINUM						
	13	BODY PRESSURE CLASS	BY MANUFACTURER						
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)						
	15	POWER SUPPLY	24 Vcc - 2 WIRE						
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)						
	17	COMMUNICATION PROTOCOL	PRECISION	HART	$\pm 0,25\%$ F.E				
	18	DISPLAY	NO						
	19	PRECISION	$\pm 0,25\%$ F.E						
	20	REPEATABILITY	BY MANUFACTURER						
	21	CALIBRATION RANGE	BY MANUFACTURER						
	22	CALIBRATED RANGE	0 @ 60 °C						
	23	ELECTRICAL CONNECTION	BY MANUFACTURER						
	24	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 1)	6 mm				
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER						
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER				
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)						
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR				
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT						
	32	FLANGE FACE FINISH	-						
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER						
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm				
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)						
ACCESSORY	36								
	37	ASSEMBLY KIT	YES						
	38	DISPLAY	NO						
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT						
	40	CABLE GLAND	YES						
OPERATING CONDITIONS	41								
	42	FLUID	PHYSICAL STATUS	AIR		AIR			
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11	24 °C			
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8	Pa			
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C				
	46	VISCOSITY @ OPERATING CONDITION	Cp						
	47	DENSITY @ OPERATING CONDITION	kg/m³						
	48	SUSPENDED SOLIDS (%)	NO						
	49	M.M. / Z / Cp/Cv	... / ... / ...						
	50								
	51	MANUFACTURER	VECTUS						
	52	MODEL	VTIT-P						

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B1032-003				
	2	SERVICE	TEMPERATURE AIR SUPPLY				
	3	P&ID	7B-M-0-5-32				
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-B1032-3			
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL				
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR	AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B1033-001				
	2	SERVICE	TEMPERATURE AIR SUPPLY				
	3	P&ID	7B-M-0-5-32				
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-B1033-1			
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL				
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR	AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B1033-002				
	2	SERVICE	TEMPERATURE AIR SUPPLY				
	3	P&ID	7B-M-0-5-32				
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-B1033-2			
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL				
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR	AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B1034-001				
	2	SERVICE	TEMPERATURE AIR SUPPLY				
	3	P&ID	7B-M-0-5-32				
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-B1034			
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL				
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR	AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B3010-001				
	2	SERVICE	TEMPERATURE AIR SUPPLY				
	3	P&ID	7B-M-0-5-32				
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-3010-1			
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL				
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR			
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B3010-002				
	2	SERVICE	TEMPERATURE AIR SUPPLY				
	3	P&ID	7B-M-0-5-32				
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-3010-2			
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL				
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR	AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

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TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B3011-001				
	2	SERVICE	TEMPERATURE AIR SUPPLY				
	3	P&ID	7B-M-0-5-32				
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-3011-1			
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL				
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR			
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-FCU-B3011-002				
	2	SERVICE	TEMPERATURE AIR SUPPLY				
	3	P&ID	7B-M-0-5-32				
	4	PIPE LINE	EQUIPMENT NUMBER	FCU-3011-2			
	5	EQUIPMENT MATERIAL / PIPE	CARBON STEEL				
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
	22	CALIBRATED RANGE	0 @ 60 °C				
	23	ELECTRICAL CONNECTION	BY MANUFACTURER				
	24	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 1)	6 mm		
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER				
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER		
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)				
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR		
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT				
	32	FLANGE FACE FINISH	-				
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER				
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm		
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)				
ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR	AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	99991,8 Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

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TITLE

TEMPERATURE TRANSMITTER

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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-1019-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-29a		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-1019-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	0	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

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TEMPERATURE TRANSMITTER

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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-1021-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-29a		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-1021-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	0	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

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TITLE

TEMPERATURE TRANSMITTER

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 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-1023-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-22		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-1023-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	25	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 76 de 128
 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-1024-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-22		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-1024-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	20	22
	44	MINIMUM PRESSURE	NORMAL	12,5	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 77 de 128
 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-1025-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-22		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-1025-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	20	22
	44	MINIMUM PRESSURE	NORMAL	12,5	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-1026-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-29a		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-1026-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	0	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 79 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2001-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-28		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2001-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	62,5	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2002-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-28		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2002-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	50	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2003-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-27		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2003
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	20	22
	44	MINIMUM PRESSURE	NORMAL	25	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	bar-g	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2004-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-27		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2004-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	15	18
	44	MINIMUM PRESSURE	NORMAL	62,5	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 83 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2008-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-26		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2008-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	16	18
	44	MINIMUM PRESSURE	NORMAL	62,5	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 84 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2010-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-26		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2010-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	16	18
	44	MINIMUM PRESSURE	NORMAL	0	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 85 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2011-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-26		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2011-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	16	18
	44	MINIMUM PRESSURE	NORMAL	50	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 86 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2012-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-26		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2012-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	16	18
	44	MINIMUM PRESSURE	NORMAL	50	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 87 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2013-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-26		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2013-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	16	18
	44	MINIMUM PRESSURE	NORMAL	50	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 88 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2014-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-26		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2014-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	16	18
	44	MINIMUM PRESSURE	NORMAL	50	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2015-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-22		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2015-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
	36				
ACCESSORY	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
	41				
OPERATING CONDITIONS	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	25	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	bar-g	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 90 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2016-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-28		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2016-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	75	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 91 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2017-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-28		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2017-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	50	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 92 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2018-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-28		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2018-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	50	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 93 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2019-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-28		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2019-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	50	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 94 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2020-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-28		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2020-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	50	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 95 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2021-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-22		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2021-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	37,5	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	bar-g	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 96 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2023-1					
	2	SERVICE	CONTROL VALVE HEATING COIL					
	3	P&ID	7B-M-0-5-27					
	4	PIPE LINE	EQUIPMENT NUMBER	-		RH-B-2023-1		
	5	EQUIPMENT MATERIAL / PIPE						
	6	AREA CLASSIFICATION	NO CLASSIFIED					
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529					
	8	CERTIFICATES	(SEE GENERAL NOTES 4)					
	9							
TRANSMITTER	10	TYPE	MICROPROCESSED					
	11	MOUNTING	INTEGRAL ELEMENT					
	12	BODY MATERIAL	ALUMINUM					
	13	BODY PRESSURE CLASS	BY MANUFACTURER					
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)					
	15	POWER SUPPLY	24 Vcc - 2 WIRE					
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)					
	17	COMMUNICATION PROTOCOL	PRECISION	HART	$\pm 0,25\%$ F.E			
	18	DISPLAY	NO					
	19	PRECISION	$\pm 0,25\%$ F.E					
	20	REPEATABILITY	BY MANUFACTURER					
	21	CALIBRATION RANGE	BY MANUFACTURER					
	22	CALIBRATED RANGE	0 @ 60 °C					
	23	ELECTRICAL CONNECTION	BY MANUFACTURER					
	24	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 1)	6 mm			
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER					
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER			
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)					
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR			
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT					
	32	FLANGE FACE FINISH	-					
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER					
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm			
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)					
ACCESSORY	36							
	37	ASSEMBLY KIT	YES					
	38	DISPLAY	NO					
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT					
	40	CABLE GLAND	YES					
OPERATING CONDITIONS	41							
	42	FLUID	PHYSICAL STATUS	AIR		AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	15	18		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	50	Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C			
	46	VISCOSITY @ OPERATING CONDITION	Cp					
	47	DENSITY @ OPERATING CONDITION	kg/m³					
	48	SUSPENDED SOLIDS (%)	NO					
	49	M.M. / Z / Cp/Cv	... / ... / ...					
	50							
	51	MANUFACTURER	VECTUS					
	52	MODEL	VTIT-P					

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 97 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2024-1					
	2	SERVICE	CONTROL VALVE HEATING COIL					
	3	P&ID	7B-M-0-5-27					
	4	PIPE LINE	EQUIPMENT NUMBER	-		RH-B-2024-1		
	5	EQUIPMENT MATERIAL / PIPE						
	6	AREA CLASSIFICATION	NO CLASSIFIED					
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529					
	8	CERTIFICATES	(SEE GENERAL NOTES 4)					
	9							
TRANSMITTER	10	TYPE	MICROPROCESSED					
	11	MOUNTING	INTEGRAL ELEMENT					
	12	BODY MATERIAL	ALUMINUM					
	13	BODY PRESSURE CLASS	BY MANUFACTURER					
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)					
	15	POWER SUPPLY	24 Vcc - 2 WIRE					
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)					
	17	COMMUNICATION PROTOCOL	PRECISION	HART	$\pm 0,25\%$ F.E			
	18	DISPLAY	NO					
	19	PRECISION	$\pm 0,25\%$ F.E					
	20	REPEATABILITY	BY MANUFACTURER					
	21	CALIBRATION RANGE	BY MANUFACTURER					
	22	CALIBRATED RANGE	0 @ 60 °C					
	23	ELECTRICAL CONNECTION	BY MANUFACTURER					
	24	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 1)	6 mm			
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER					
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER			
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)					
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR			
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT					
	32	FLANGE FACE FINISH	-					
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER					
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm			
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)					
ACCESSORY	36							
	37	ASSEMBLY KIT	YES					
	38	DISPLAY	NO					
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT					
	40	CABLE GLAND	YES					
OPERATING CONDITIONS	41							
	42	FLUID	PHYSICAL STATUS	AIR		AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	15	18		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	50	Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C			
	46	VISCOSITY @ OPERATING CONDITION	Cp					
	47	DENSITY @ OPERATING CONDITION	kg/m³					
	48	SUSPENDED SOLIDS (%)	NO					
	49	M.M. / Z / Cp/Cv	... / ... / ...					
	50							
	51	MANUFACTURER	VECTUS					
	52	MODEL	VTIT-P					

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2025-1					
	2	SERVICE	CONTROL VALVE HEATING COIL					
	3	P&ID	7B-M-0-5-27					
	4	PIPE LINE	EQUIPMENT NUMBER	-		RH-B-2025-1		
	5	EQUIPMENT MATERIAL / PIPE						
	6	AREA CLASSIFICATION	NO CLASSIFIED					
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529					
	8	CERTIFICATES	(SEE GENERAL NOTES 4)					
	9							
TRANSMITTER	10	TYPE	MICROPROCESSED					
	11	MOUNTING	INTEGRAL ELEMENT					
	12	BODY MATERIAL	ALUMINUM					
	13	BODY PRESSURE CLASS	BY MANUFACTURER					
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)					
	15	POWER SUPPLY	24 Vcc - 2 WIRE					
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)					
	17	COMMUNICATION PROTOCOL	PRECISION	HART	$\pm 0,25\%$ F.E			
	18	DISPLAY	NO					
	19	PRECISION	$\pm 0,25\%$ F.E					
	20	REPEATABILITY	BY MANUFACTURER					
	21	CALIBRATION RANGE	BY MANUFACTURER					
	22	CALIBRATED RANGE	0 @ 60 °C					
	23	ELECTRICAL CONNECTION	BY MANUFACTURER					
	24	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 1)	6 mm			
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER					
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER			
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)					
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR			
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT					
	32	FLANGE FACE FINISH	-					
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER					
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm			
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)					
ACCESSORY	36							
	37	ASSEMBLY KIT	YES					
	38	DISPLAY	NO					
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT					
	40	CABLE GLAND	YES					
OPERATING CONDITIONS	41							
	42	FLUID	PHYSICAL STATUS	AIR		AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	15	18		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	50	Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C			
	46	VISCOSITY @ OPERATING CONDITION	Cp					
	47	DENSITY @ OPERATING CONDITION	kg/m³					
	48	SUSPENDED SOLIDS (%)	NO					
	49	M.M. / Z / Cp/Cv	... / ... / ...					
	50							
	51	MANUFACTURER	VECTUS					
	52	MODEL	VTIT-P					

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2026-1					
	2	SERVICE	CONTROL VALVE HEATING COIL					
	3	P&ID	7B-M-0-5-27					
	4	PIPE LINE	EQUIPMENT NUMBER	-		RH-B-2026-1		
	5	EQUIPMENT MATERIAL / PIPE						
	6	AREA CLASSIFICATION	NO CLASSIFIED					
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529					
	8	CERTIFICATES	(SEE GENERAL NOTES 4)					
	9							
TRANSMITTER	10	TYPE	MICROPROCESSED					
	11	MOUNTING	INTEGRAL ELEMENT					
	12	BODY MATERIAL	ALUMINUM					
	13	BODY PRESSURE CLASS	BY MANUFACTURER					
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)					
	15	POWER SUPPLY	24 Vcc - 2 WIRE					
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)					
	17	COMMUNICATION PROTOCOL	PRECISION	HART	$\pm 0,25\%$ F.E			
	18	DISPLAY	NO					
	19	PRECISION	$\pm 0,25\%$ F.E					
	20	REPEATABILITY	BY MANUFACTURER					
	21	CALIBRATION RANGE	BY MANUFACTURER					
	22	CALIBRATED RANGE	0 @ 60 °C					
	23	ELECTRICAL CONNECTION	BY MANUFACTURER					
	24	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 1)	6 mm			
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER					
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER			
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)					
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR			
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT					
	32	FLANGE FACE FINISH	-					
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER					
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm			
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)					
ACCESSORY	36							
	37	ASSEMBLY KIT	YES					
	38	DISPLAY	NO					
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT					
	40	CABLE GLAND	YES					
OPERATING CONDITIONS	41							
	42	FLUID	PHYSICAL STATUS	AIR		AIR		
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	15	18		
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	50	Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C			
	46	VISCOSITY @ OPERATING CONDITION	Cp					
	47	DENSITY @ OPERATING CONDITION	kg/m³					
	48	SUSPENDED SOLIDS (%)	NO					
	49	M.M. / Z / Cp/Cv	... / ... / ...					
	50							
	51	MANUFACTURER	VECTUS					
	52	MODEL	VTIT-P					

NOTES:

1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2027-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-22		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2027-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	25	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2028-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-22		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2028-1.2
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	37,5	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2029-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-21		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2029-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	20	22
	44	MINIMUM PRESSURE	NORMAL	0	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
103 de 128
 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2030-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-22		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2030-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	25	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2031-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-22		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2031-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	37,5	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 105 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2032-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-23		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2032-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	37,5	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
106 de 128
 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2033-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-23		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2033-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	50	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
107 de 128
 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2034-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-23		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2034-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	50	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2035-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-23		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2035-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	50	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2036-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-23		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2036-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	50	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2037-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-22		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2037-1.2
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	50	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2038-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-24		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2038-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	50	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
112 de 128
 REV.:
2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2039-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-24		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2039-1~4
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	50	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
113 de 128
 REV.:
2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2040-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-25		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2040-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	50	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
114 de 128
 REV.:
2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2041-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-25		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2041-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	50	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
115 de 128
 REV.:
2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2042-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-25		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2042-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	50	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 116 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2043-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-25		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2043-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	50	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
 117 de 128
 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2044-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-25		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2044-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	62,5	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
118 de 128
 REV.:
2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2045-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-24		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2045-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	50	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2046-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-25		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2046
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	50	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2047-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-25		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2047-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	62,5	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

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TEMPERATURE TRANSMITTER

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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2048-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-23		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2048-1~5
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	37,5	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

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TEMPERATURE TRANSMITTER

 SHEET:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2050-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-22		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2050-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	25	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

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TEMPERATURE TRANSMITTER

 SHEET:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2051-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-21		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2051-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	0 Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2052-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-21		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2052-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	0 Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

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TEMPERATURE TRANSMITTER

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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2053-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-22		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2053-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	37,5	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

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TITLE

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 SHEET:
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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2054-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-23		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2054-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
ACCESSORY	36				
	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
OPERATING CONDITIONS	41				
	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	18	20
	44	MINIMUM PRESSURE	NORMAL	37,5	Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

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GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2056-1		
	2	SERVICE	CONTROL VALVE HEATING COIL		
	3	P&ID	7B-M-0-5-21		
	4	PIPE LINE	EQUIPMENT NUMBER	-	RH-B-2056-1
	5	EQUIPMENT MATERIAL / PIPE			
	6	AREA CLASSIFICATION	NO CLASSIFIED		
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529		
	8	CERTIFICATES	(SEE GENERAL NOTES 4)		
	9				
TRANSMITTER	10	TYPE	MICROPROCESSED		
	11	MOUNTING	INTEGRAL ELEMENT		
	12	BODY MATERIAL	ALUMINUM		
	13	BODY PRESSURE CLASS	BY MANUFACTURER		
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)		
	15	POWER SUPPLY	24 Vcc - 2 WIRE		
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)		
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E
	18	DISPLAY	NO		
	19	PRECISION	±0,25% F.E		
	20	REPEATABILITY	BY MANUFACTURER		
	21	CALIBRATION RANGE	BY MANUFACTURER		
	22	CALIBRATED RANGE	0 @ 60 °C		
	23	ELECTRICAL CONNECTION	BY MANUFACTURER		
	24	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 1)	6 mm
	27	SENSOR CONNECTION TO WELL	BY MANUFACTURER		
	28	HEAD MATERIAL	ELECTRICAL CONNECTION	ALUMINUM	BY MANUFACTURER
WELL	29	MOUNTING	SUPPLIED WITH SENSOR (SEE GENERAL NOTES 9)		
	30	MATERIAL	TYPE OF CONSTRUCTION	SS316	CONICAL MACHINED FROM A BAR
	31	CONNECTION TO THE PROCESS	ASSEMBLY KIT		
	32	FLANGE FACE FINISH	-		
	33	CONNECTION TO THERMOMETER	BY MANUFACTURER		
	34	INSERTION LENGTH "U"	EXTENSION LENGTH "T"	300 mm	mm
	35	CALCULATION MEMORY	YES (ASME PTC-19.3 TW)		
	36				
ACCESSORY	37	ASSEMBLY KIT	YES		
	38	DISPLAY	NO		
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT		
	40	CABLE GLAND	YES		
	41				
OPERATING CONDITIONS	42	FLUID	PHYSICAL STATUS	AIR	AIR
	43	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	11 24 °C
	44	MINIMUM PRESSURE	NORMAL	MAXIMUM	12,5 Pa
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C
	46	VISCOSITY @ OPERATING CONDITION	Cp		
	47	DENSITY @ OPERATING CONDITION	kg/m³		
	48	SUSPENDED SOLIDS (%)	NO		
	49	M.M. / Z / Cp/Cv	... / ... / ...		
	50				
	51	MANUFACTURER	VECTUS		
	52	MODEL	VTIT-P		

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL

NUMBER: 569-DB7B-AIC-711-005

CLIENT NR:

PRD-AIC-DSH-066

TITLE

TEMPERATURE TRANSMITTER

 SHEET:
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 REV.:
 2

GENERAL	1	INSTRUMENT TAG NUMBER	TT-RH-B-2057-1				
	2	SERVICE	CONTROL VALVE HEATING COIL				
	3	P&ID	7B-M-0-5-22				
	4	PIPE LINE	EQUIPMENT NUMBER	RH-B-2057			
	5	EQUIPMENT MATERIAL / PIPE					
	6	AREA CLASSIFICATION	NO CLASSIFIED				
	7	ENCLOSURE CLASSIFICATION	IP 65 (MÍN.) CONF. NBR IEC 60529				
	8	CERTIFICATES	(SEE GENERAL NOTES 4)				
	9						
TRANSMITTER	10	TYPE	MICROPROCESSED				
	11	MOUNTING	INTEGRAL ELEMENT				
	12	BODY MATERIAL	ALUMINUM				
	13	BODY PRESSURE CLASS	BY MANUFACTURER				
	14	HOUSING MATERIAL	ALUMINIO (COPPER FREE)				
	15	POWER SUPPLY	24 Vcc - 2 WIRE				
	16	OUTPUT SIGNAL	4 - 20 mA (500 ohms @ 24 Vcc)				
	17	COMMUNICATION PROTOCOL	PRECISION	HART	±0,25% F.E		
	18	DISPLAY	NO				
	19	PRECISION	±0,25% F.E				
	20	REPEATABILITY	BY MANUFACTURER				
	21	CALIBRATION RANGE	BY MANUFACTURER				
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	24	DJUSTABLE RANGE / AJ. LOCAL ZERO AND SPAN	YES / YES				
SENSOR	24	MOUNTING	FULL				
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ACCESSORY	36						
	37	ASSEMBLY KIT	YES				
	38	DISPLAY	NO				
	39	FIXING FLANGE IN DUCT	YES - EQUIPMENT				
	40	CABLE GLAND	YES				
OPERATING CONDITIONS	41						
	42	FLUID	PHYSICAL STATUS	AIR			
	43	MINIMUM TEMPERATURE	NORMAL	18	20		
	44	MINIMUM PRESSURE	NORMAL	25	Pa		
	45	DESIGN PRESSURE	DESIGN TEMPERATURE	Pa	°C		
	46	VISCOSITY @ OPERATING CONDITION	Cp				
	47	DENSITY @ OPERATING CONDITION	kg/m³				
	48	SUSPENDED SOLIDS (%)	NO				
	49	M.M. / Z / Cp/Cv	... / ... / ...				
	50						
	51	MANUFACTURER	VECTUS				
	52	MODEL	VTIT-P				

NOTES:

- 1- THE SENSOR MUST BE MOUNTED IN CONJUNCTION WITH THE WELL, THE SAME MUST MEET THE MEASUREMENTS OF THE WELL