	
DOC NUMBER: 569-DB7B-AIC-713-006		CLIENT NUMBER: PRD-AIC-DSH-062	
CLIENT: TAKEDA/BAXALTA			
PROJECT: BURITI EPCVM PROJECT			

DRUG SUBSTANCE - BMS – DATA SHEET

VORTEX TYPE FLOW TRANSMITTER

0	30AUG2021	ISSUE FOR CONSTRUCTION	JHA	MAF	RSP
A	24MAR2021	60% DD ISSUE	JHA	MAF	RSP
REV	DATE	DESCRIPTION	EXEC	CHECK	APPROV

NUMBER: 569-DB7B-AIC-700-0006

CLIENT NR: PRD-AIC-DSH-0062

TITLE

VORTEX FLOW TRANSMITTER

SHEET:
2 de 4
REV.:
0





DOCUMENT REVIEW CONTROL

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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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NUMBER: 569-DB7B-AIC-700-0006		CLIENT NR: PRD-AIC-DSH-0062	
TITLE			SHEET:
VORTEX FLOW TRANSMITTER			3 de 4
			REV.: 0
REFERENCE DOCUMENTS			
7B-M-0-5-61		P&I DIAGRAM - DRUG SUBSTANCE - PLANT STEAM DISTRIBUTION SYSTEM (PROCESS + HVAC)	
PRD-AIC-LIS-015		DRUG PRODUCT - 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
<p>1- The transmitters must have the following characteristics:</p> <ul style="list-style-type: none"> 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; <p>2- All transmitters must have enclosures, whose parts exposed to the atmosphere are resistant to environmental conditions, including those generated by the process condition.</p> <p>3- The identification plates must be manufactured in stainless steel AISI 304, permanently attached to the instruments with tag and serial number. The serial number of the instrument, when possible, can be engraved on the body itself.</p> <p>4- The manufacturer must confirm the nominal diameter of the meter.</p> <p>5- The instrument display must have at least 2 lines with 16 characters on each line.</p> <p>6- 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.</p>

   								
NUMBER: 569-DB7B-AIC-700-0006				CLIENT NR: PRD-AIC-DSH-0062				
TITLE							SHEET:	
VORTEX FLOW TRANSMITTER							4 de 4	
							REV.: 0	
GENERAL	1	INSTRUMENT TAG NUMBER			FIT-790319			
	2	SERVICE			PLANT STEAM DISTRIBUTION 7A			
	3	P&ID			7B-M-0-5-61			
	4	PIPE LINE	EQUIPMENT NUMBER		6"-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 6)			
	9							
METER	10	PRINCIPLE			VORTEX			
	11	NOMINAL DIAMETER			6" (SEE GENERAL NOTES 4)			
	12	PROCESS CONNECTION			FLANGED			
	13	CLASS AND FACE			300# FR, ASME B16.5			
	14	FLANGE FACE FINISH			MSS SP-6			
	15	INTERNAL ELEMENTS MATERIAL			316SS			
	16	CASING MATERIAL			STAINLESS STEEL			
	17	LOAD LOSS			SEE LINE 44			
	18	ELECTRICAL CONNECTION			NOT APPLICABLE			
	19	COMPENSATION TEMP./PRES.			YES			
	20							
CONVERTER / TRANSMITTER	21	MOUNTING			INTEGRAL TO SENSOR			
	22	POWER SUPPLY			24 Vcc - 2 WIRES			
	23	OUTPUT SIGNAL			4 - 20 mA (500 ohms @ 24 Vcc)			
	24	COMMUNICATION PROTOCOL			HART			
	25	PRECISION			± 0.15% F.E.			
	26	REPEATABILITY			± 0.1% F.E.			
	27	ELECTRICAL CONNECTION			1/2" NPT (F)			
	28	LOCAL INDICATION			YES, LCD TYPE (SEE GENERAL NOTES 11)			
	29	CALIBRATION RANGE			BY MANUFACTURER			
	30	CALIBRATED RANGE			0 @ 4200 Kg/h			
	31	KEYBOARD FOR LOCAL CONFIGURATION			YES			
	32	METER CASING			ALUMINIO (COPPER FREE)			
	33	PULSE OUTPUT			NOT			
ACCES.	31	TAGGING			YES (SEE GENERAL NOTES 3)			
	32	SURGE PROTECTOR			YES			
	35							
OPERATING CONDITIONS	36	FLUID	PHYSICAL STATUS		STEAM HIGH PRESSURE		STEAM	
	37	MINIMUM FLOW	NORMAL	MAXIMUM	4163	4163	Kg/h	
	38	MINIMUM PRESSURE	NORMAL	MAXIMUM	8,9	8,9	bar-g	
	39	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	180	180	°C	
	40	PROJECT FLOW			4163 Kg/h			
	41	DESIGN PRESSURE	DESIGN TEMPERATURE		11,7 bar-g	200 °C		
	42	DENSITY @ OPERATING CONDITION			5,09 kg/m³			
	43	VISCOSITY @ OPERATING CONDITION			0,015 Cp			
	44	FLUID CONDUCTIVITY			µS/cm²			
	45	INCRUSTATION			NO			
	46	SUSPENDED SOLIDS (%)			NO			
	47	MAXIMUM LOSS OF LOAD ALLOWED			bar			
	48							
		49	MANUFACTURER			Endress + Hauser (E+H) or Similar		
		50	MODEL			Proline Prowirl (E+H)		

NOTES:

1- THE MANUFACTURER MUST CONFIRM THE NOMINAL DIAMETER OF THE METER.