	
DOC NUMBER: 569-DB7A-AIC-733-001		CLIENT NUMBER: PRD-AIC-DSH-074	
CLIENT: TAKEDA/BAXALTA			
PROJECT: BURITI EPCVM PROJECT			

DRUG PRODUCT - BMS - DATA SHEET MOTORIZED ON-OFF VALVE

0	27AUG2021	ISSUE FOR CONSTRUCTION	JHA	MAF	RSP
A	24MAR2021	60% DD ISSUE	JHA	MAF	RSP
REV	DATE	DESCRIPTION	EXEC	CHECK	APPROV

NUMBER: 569-DB7A-AIC-733-001

CLIENT NR: PRD-AIC-DSH-074

TITLE

MOTORIZED ON-OFF VALVE





SHEET:
2 de 14
REV.:
0

DOCUMENT REVIEW CONTROL

Revision	A	0	1	2	3	4	Revision	A	0	1	2	3	4	Revision	A	0	1	2	3	4
Page							Page							Page						
1	X	X					26							51						
2	X	X					27							52						
3	X	X					28							53						
4	X	X					29							54						
5	X	X					30							55						
6	X	X					31							56						
7	X	X					32							57						
8	X	X					33							58						
9	X	X					34							59						
10	X	X					35							60						
11	X	X					36							61						
12	X	X					37							62						
13	X	X					38							63						
14	X	X					39							64						
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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.

 		 	
NUMBER: 569-DB7A-AIC-733-001		CLIENT NR: PRD-AIC-DSH-074	
TITLE			SHEET:
MOTORIZED ON-OFF VALVE			3 de 14
			REV.: 0
REFERENCE DOCUMENTS			





7A-M-0-5-42	P&I DIAGRAM - DRUG PRODUCT - COOLING WATER SYSTEM
7A-M-0-5-43	P&I DIAGRAM - DRUG PRODUCT - CHILLED WATER GENERATION SYSTEM (HVAC)
7A-M-0-5-45	P&I DIAGRAM - DRUG PRODUCT - CHILLED GLYCOL GENERATION SYSTEM
PRD-AIC-LIS-014	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





- 1- The identification plates must be supplied in AISI 304 stainless steel, permanently attached to the valve body, with engraving of the respective "TAGs", model, body material, manufacturer, diameter, type, pressure class, Cv and serial number. The serial number of the instrument, when possible, can be recorded on the body itself.
- 2- For all valves must be presented type and degree of protection certificates, both proofs must be explained in the same certificate. Certificates must be issued by INMETRO or accredited body.
- 3- The shutter guides must be made of material of greater hardness than those of the shutters.
- 4- The maximum permissible noise level is 82 dM to 1 m from the valve and must comply with ISA 75.17 and IEC 60534-8-4.
- 5- The manufacturer must send the valve calculation memory.
- 6- The maximum and minimum flow rates to be controlled should be limited to 20% and 85%, respectively, of the available stroke of the control valve.

 				 			
NUMBER: 569-DB7A-AIC-733-001				CLIENT NR: PRD-AIC-DSH-074			
TITLE						SHEET: 4 de 14	
MOTORIZED ON-OFF VALVE						REV.: 0	
GENERAL	1	INSTRUMENT TAG NUMBER			PV-960059		
	2	SERVICE			BY PASS CHILLED WATER - CH-7A-1/2/3		
	3	P&ID			7A-M-0-5-43		
	4	PIPE LINE	EQUIPMENT NUMBER		7A-6"-CW1R-960059-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 2)		
	9						
BODY AND INTERVAL	10	BODY TYPE			BUTTERFLY		
	11	BODY / CAP MATERIAL			ASTM A-216 Gr. WCB		
	12	WEDGE, DISC OR GATE MATERIAL + COATING			ASTM A-216 Gr. WCB		
	13	SEAT / RINGS MATERIAL + COATING			EPDM		
	14	SHAFT MATERIAL			ASTM A-216 Gr. WCB		
	15	GASKET MATERIAL			PTFE		
	16	CONNECTION TO THE PROCESS			WAFFER - 6", 150#		
	17	FLANGE FACE FINISH			NOT REQUIRED		
	18	SEAL CLASS			IV		
ACTUATOR	20	TYPE OF ACTUATOR			SMART / ELETRIC MOTORIZED		
	21	OPENING /CLOSING			DIRECT ACTION		
	22	FAILURE ACTION			STATIONARY		
	23	POWER SUPPLY			3Ø 380Vac / 60Hz		
	24	HANDWHEEL			YES		
	25	ELECTRICAL CONNECTION	QUANTITY		1/2" NPT(F)	BY MANUFACTURER	
	26	SELF DIAGNOSIS			YES		
	27	CONFIGURATION			LOCAL E REMOTE		
	28						
	29						
SWITCH	31	TYPE INDICATION			OPEN / CLOSED		
	32	SENSOR TYPE			INDUCTIVE, WITH LOCAL INDICATION		
	33	CONTACT TYPE			REED SWITCH		
	34	QUANTITY	TYPE		2	SPDT	
	35	CAPACITY CONTACT			2A @ 250 Vca		
	36	ELECTRICAL CONNECTION			1/2" NPT(F)		
ACCESSOR.	37	IDENTIFICATION PLATE			YES (SEE GENERAL NOTES 1)		
	38	CONFIGURATION MANUAL (HANDHELD)			YES		
	39						
OPERATING CONDITIONS	40	FLUID	PHYSICAL STATE		CHILLED WATER		LIQUID
	41	MINIMUM FLOW	NORMAL	MAXIMUM	0,0	45,3	166,6 m³/h
	42	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	5,5	5,5	5,5 °C
	43	MINIMUM UPSTREAM PRESSURE	NORMAL	MAXIMUM	0,78	0,76	0,68 bar-g
	44	MINIMUM DOWNSTREAM PRESSURE	NORMAL	MAXIMUM	0,50	0,51	0,56 bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE		3,9 bar-g		42,5 °C
	46	VISCOSITY @ OPERATING CONDITION			1,50 Cp		
	47	DENSITY @ OPERATING CONDITION			999,99 kg/m³		
	48	SUSPENDED SOLIDS (%)			NO		
	49	SPECIAL FLUID CONDITIONS			NO		
	50	M.M. / Z / Cp/Cv			... / ... / ...		
	51	MANUFACTURER			ROTORK / AUMA		
	52	MODEL			IQ (ROTORK)		





NOTES: 1- THE SELECTED CV AND THE OPENING PERCENTAGE MUST BE SUPPLIED BY THE VALVE MANUFACTURER.

 				 			
NUMBER: 569-DB7A-AIC-733-001				CLIENT NR: PRD-AIC-DSH-074			
TITLE						SHEET: 5 de 14	
MOTORIZED ON-OFF VALVE						REV.: 0	
GENERAL	1	INSTRUMENT TAG NUMBER			XV-960004		
	2	SERVICE			COOLING WATER - COOLING TOWERS - CH-7A-1		
	3	P&ID			7A-M-0-5-43		
	4	PIPE LINE	EQUIPMENT NUMBER		7A-12"-TWR-960062-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 2)		
	9						
BODY AND INTERVAL	10	BODY TYPE			BUTTERFLY		
	11	BODY / CAP MATERIAL			ASTM A-216 Gr. WCB		
	12	WEDGE, DISC OR GATE MATERIAL + COATING			ASTM A-216 Gr. WCB		
	13	SEAT / RINGS MATERIAL + COATING			EPDM		
	14	SHAFT MATERIAL			ASTM A-216 Gr. WCB		
	15	GASKET MATERIAL			PTFE		
	16	CONNECTION TO THE PROCESS			WAFER - 12", 150#		
	17	FLANGE FACE FINISH			NOT REQUIRED		
	18	SEAL CLASS			IV		
ACTUATOR	20	TYPE OF ACTUATOR			SMART / ELETRIC MOTORIZED		
	21	OPENING /CLOSING			DIRECT ACTION		
	22	FAILURE ACTION			STATIONARY		
	23	POWER SUPPLY			3Ø 380Vac / 60Hz		
	24	HANDWHEEL			YES		
	25	ELECTRICAL CONNECTION	QUANTITY		1/2" NPT(F)	BY MANUFACTURER	
	26	SELF DIAGNOSIS			YES		
	27	CONFIGURATION			LOCAL AND REMOTE		
	28	OPENING, CLOSING AND LOCAL STOP			LOCAL AND REMOTE		
	29						
SWITCH	31	TYPE INDICATION			OPEN / CLOSED		
	32	SENSOR TYPE			INDUCTIVE, WITH LOCAL INDICATION		
	33	CONTACT TYPE			REED SWITCH		
	34	QUANTITY	TYPE		2	SPDT	
	35	CAPACITY CONTACT			2A @ 250 Vca		
	36	ELECTRICAL CONNECTION			1/2" NPT(F)		
ACCESSOR.	37	IDENTIFICATION PLATE			YES (SEE GENERAL NOTES 1)		
	38	CONFIGURATION MANUAL (HANDHELD)			YES		
	39						
OPERATING CONDITIONS	40	FLUID	PHYSICAL STATE		CHILLED WATER		LIQUID
	41	MINIMUM FLOW	NORMAL	MAXIMUM	365,7	365,7	365,7 m³/h
	42	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	37	37	31,5 °C
	43	MINIMUM UPSTREAM PRESSURE	NORMAL	MAXIMUM	1,16	1,19	1,20 bar-g
	44	MINIMUM DOWNSTREAM PRESSURE	NORMAL	MAXIMUM	0,86	0,90	0,90 bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE		4,6 bar-g		67,0 °C
	46	VISCOSITY @ OPERATING CONDITION			0,69 Cp		
	47	DENSITY @ OPERATING CONDITION			993,0 kg/m³		
	48	SUSPENDED SOLIDS (%)			NO		
	49	SPECIAL FLUID CONDITIONS			NO		
	50	M.M. / Z / Cp/Cv			... / ... / ...		
	51	MANUFACTURER			ROTORK / AUMA		
	52	MODEL			IQ (ROTORK)		





NOTES: 1- THE SELECTED CV AND THE OPENING PERCENTAGE MUST BE SUPPLIED BY THE VALVE MANUFACTURER.

 				 			
NUMBER: 569-DB7A-AIC-733-001				CLIENT NR: PRD-AIC-DSH-074			
TITLE						SHEET: 6 de 14	
MOTORIZED ON-OFF VALVE						REV.: 0	
GENERAL	1	INSTRUMENT TAG NUMBER			XV-960005		
	2	SERVICE			COOLING WATER - COOLING TOWERS - CH-7A-2		
	3	P&ID			7A-M-0-5-43		
	4	PIPE LINE	EQUIPMENT NUMBER		7A-12"-TWR-960064-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 2)		
	9						
BODY AND INTERVAL	10	BODY TYPE			BUTTERFLY		
	11	BODY / CAP MATERIAL			ASTM A-216 Gr. WCB		
	12	WEDGE, DISC OR GATE MATERIAL + COATING			ASTM A-216 Gr. WCB		
	13	SEAT / RINGS MATERIAL + COATING			EPDM		
	14	SHAFT MATERIAL			ASTM A-216 Gr. WCB		
	15	GASKET MATERIAL			PTFE		
	16	CONNECTION TO THE PROCESS			WAFER - 12", 150#		
	17	FLANGE FACE FINISH			NOT REQUIRED		
	18	SEAL CLASS			IV		
ACTUATOR	20	TYPE OF ACTUATOR			SMART / ELETRIC MOTORIZED		
	21	OPENING /CLOSING			DIRECT ACTION		
	22	FAILURE ACTION			STATIONARY		
	23	POWER SUPPLY			3Ø 380Vac / 60Hz		
	24	HANDWHEEL			YES		
	25	ELECTRICAL CONNECTION	QUANTITY		1/2" NPT(F)	BY MANUFACTURER	
	26	SELF DIAGNOSIS			YES		
	27	CONFIGURATION			LOCAL AND REMOTE		
	28	OPENING, CLOSING AND LOCAL STOP			LOCAL AND REMOTE		
	29						
SWITCH	31	TYPE INDICATION			OPEN / CLOSED		
	32	SENSOR TYPE			INDUCTIVE, WITH LOCAL INDICATION		
	33	CONTACT TYPE			REED SWITCH		
	34	QUANTITY	TYPE		2	SPDT	
	35	CAPACITY CONTACT			2A @ 250 Vca		
	36	ELECTRICAL CONNECTION			1/2" NPT(F)		
ACCESSOR.	37	IDENTIFICATION PLATE			YES (SEE GENERAL NOTES 1)		
	38	CONFIGURATION MANUAL (HANDHELD)			YES		
	39						
OPERATING CONDITIONS	40	FLUID	PHYSICAL STATE		CHILLED WATER		LIQUID
	41	MINIMUM FLOW	NORMAL	MAXIMUM	365,7	365,7	365,7 m³/h
	42	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	37	37	37 °C
	43	MINIMUM UPSTREAM PRESSURE	NORMAL	MAXIMUM	1,13	1,17	1,17 bar-g
	44	MINIMUM DOWNSTREAM PRESSURE	NORMAL	MAXIMUM	0,86	0,89	0,90 bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE		4,6 bar-g		67,0 °C
	46	VISCOSITY @ OPERATING CONDITION			0,77 Cp		
	47	DENSITY @ OPERATING CONDITION			993,0 kg/m³		
	48	SUSPENDED SOLIDS (%)			NO		
	49	SPECIAL FLUID CONDITIONS			NO		
	50	M.M. / Z / Cp/Cv			... / ... / ...		
	51	MANUFACTURER			ROTORK / AUMA		
	52	MODEL			IQ (ROTORK)		





NOTES: 1- THE SELECTED CV AND THE OPENING PERCENTAGE MUST BE SUPPLIED BY THE VALVE MANUFACTURER.

 				 			
NUMBER: 569-DB7A-AIC-733-001				CLIENT NR: PRD-AIC-DSH-074			
TITLE						SHEET: 7 de 14	
MOTORIZED ON-OFF VALVE						REV.: 0	
GENERAL	1	INSTRUMENT TAG NUMBER			XV-960006		
	2	SERVICE			COOLING WATER - COOLING TOWERS - CH-7A-3		
	3	P&ID			7A-M-0-5-43		
	4	PIPE LINE	EQUIPMENT NUMBER		7A-12"-TWR-960066-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 2)		
	9						
BODY AND INTERVAL	10	BODY TYPE			BUTTERFLY		
	11	BODY / CAP MATERIAL			ASTM A-216 Gr. WCB		
	12	WEDGE, DISC OR GATE MATERIAL + COATING			ASTM A-216 Gr. WCB		
	13	SEAT / RINGS MATERIAL + COATING			EPDM		
	14	SHAFT MATERIAL			ASTM A-216 Gr. WCB		
	15	GASKET MATERIAL			PTFE		
	16	CONNECTION TO THE PROCESS			WAFER - 12", 150#		
	17	FLANGE FACE FINISH			NOT REQUIRED		
	18	SEAL CLASS			IV		
ACTUATOR	20	TYPE OF ACTUATOR			SMART / ELETRIC MOTORIZED		
	21	OPENING /CLOSING			DIRECT ACTION		
	22	FAILURE ACTION			STATIONARY		
	23	POWER SUPPLY			3Ø 380Vac / 60Hz		
	24	HANDWHEEL			YES		
	25	ELECTRICAL CONNECTION	QUANTITY		1/2" NPT(F)	BY MANUFACTURER	
	26	SELF DIAGNOSIS			YES		
	27	CONFIGURATION			LOCAL AND REMOTE		
	28	OPENING, CLOSING AND LOCAL STOP			LOCAL AND REMOTE		
	29						
SWITCH	31	TYPE INDICATION			OPEN / CLOSED		
	32	SENSOR TYPE			INDUCTIVE, WITH LOCAL INDICATION		
	33	CONTACT TYPE			REED SWITCH		
	34	QUANTITY	TYPE		2	SPDT	
	35	CAPACITY CONTACT			2A @ 250 Vca		
	36	ELECTRICAL CONNECTION			1/2" NPT(F)		
ACCESSOR.	37	IDENTIFICATION PLATE			YES (SEE GENERAL NOTES 1)		
	38	CONFIGURATION MANUAL (HANDHELD)			YES		
	39						
OPERATING CONDITIONS	40	FLUID	PHYSICAL STATE		CHILLED WATER		LIQUID
	41	MINIMUM FLOW	NORMAL	MAXIMUM	365,7	365,7	365,7 m³/h
	42	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	37	37	37 °C
	43	MINIMUM UPSTREAM PRESSURE	NORMAL	MAXIMUM	1,13	1,17	1,17 bar-g
	44	MINIMUM DOWNSTREAM PRESSURE	NORMAL	MAXIMUM	0,86	0,89	0,90 bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE		4,6 bar-g		67,0 °C
	46	VISCOSITY @ OPERATING CONDITION			0,69 Cp		
	47	DENSITY @ OPERATING CONDITION			993,0 kg/m³		
	48	SUSPENDED SOLIDS (%)			NO		
	49	SPECIAL FLUID CONDITIONS			NO		
	50	M.M. / Z / Cp/Cv			... / ... / ...		
	51	MANUFACTURER			ROTORK / AUMA		
	52	MODEL			IQ (ROTORK)		





NOTES: 1- THE SELECTED CV AND THE OPENING PERCENTAGE MUST BE SUPPLIED BY THE VALVE MANUFACTURER.

 				 			
NUMBER: 569-DB7A-AIC-733-001				CLIENT NR: PRD-AIC-DSH-074			
TITLE						SHEET: 8 de 14	
MOTORIZED ON-OFF VALVE						REV.: 0	
GENERAL	1	INSTRUMENT TAG NUMBER			XV-9600120		
	2	SERVICE			CHILLED WATER - SUPPLY BUILDING - CH-7A-1		
	3	P&ID			7A-M-0-5-43		
	4	PIPE LINE	EQUIPMENT NUMBER		7A-10"-CW1S-9600120-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 2)		
	9						
BODY AND INTERVAL	10	BODY TYPE			BUTTERFLY		
	11	BODY / CAP MATERIAL			ASTM A-216 Gr. WCB		
	12	WEDGE, DISC OR GATE MATERIAL + COATING			ASTM A-216 Gr. WCB		
	13	SEAT / RINGS MATERIAL + COATING			EPDM		
	14	SHAFT MATERIAL			ASTM A-216 Gr. WCB		
	15	GASKET MATERIAL			PTFE		
	16	CONNECTION TO THE PROCESS			WAFER - 10", 150#		
	17	FLANGE FACE FINISH			NOT REQUIRED		
	18	SEAL CLASS			IV		
ACTUATOR	20	TYPE OF ACTUATOR			SMART / ELETRIC MOTORIZED		
	21	OPENING /CLOSING			DIRECT ACTION		
	22	FAILURE ACTION			STATIONARY		
	23	POWER SUPPLY			3Ø 380Vac / 60Hz		
	24	HANDWHEEL			YES		
	25	ELECTRICAL CONNECTION	QUANTITY		1/2" NPT(F)	BY MANUFACTURER	
	26	SELF DIAGNOSIS			YES		
	27	CONFIGURATION			LOCAL AND REMOTE		
	28	OPENING, CLOSING AND LOCAL STOP			LOCAL AND REMOTE		
	29						
SWITCH	31	TYPE INDICATION			OPEN / CLOSED		
	32	SENSOR TYPE			INDUCTIVE, WITH LOCAL INDICATION		
	33	CONTACT TYPE			REED SWITCH		
	34	QUANTITY	TYPE		2	SPDT	
	35	CAPACITY CONTACT			2A @ 250 Vca		
	36	ELECTRICAL CONNECTION			1/2" NPT(F)		
ACCESSOR.	37	IDENTIFICATION PLATE			YES (SEE GENERAL NOTES 1)		
	38	CONFIGURATION MANUAL (HANDHELD)			YES		
	39						
OPERATING CONDITIONS	40	FLUID	PHYSICAL STATE		CHILLED WATER		LIQUID
	41	MINIMUM FLOW	NORMAL	MAXIMUM	242	242	241 m³/h
	42	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	5,5	5,5	5,5 °C
	43	MINIMUM UPSTREAM PRESSURE	NORMAL	MAXIMUM	0,73	0,72	0,72 bar-g
	44	MINIMUM DOWNSTREAM PRESSURE	NORMAL	MAXIMUM	0,49	0,49	0,49 bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE		2,7 bar-g		42,5 °C
	46	VISCOSITY @ OPERATING CONDITION			1,50 Cp		
	47	DENSITY @ OPERATING CONDITION			999,99 kg/m³		
	48	SUSPENDED SOLIDS (%)			NO		
	49	SPECIAL FLUID CONDITIONS			NO		
	50	M.M. / Z / Cp/Cv			... / ... / ...		
	51	MANUFACTURER			ROTORK / AUMA		
	52	MODEL			IQ (ROTORK)		





NOTES: 1- THE SELECTED CV AND THE OPENING PERCENTAGE MUST BE SUPPLIED BY THE VALVE MANUFACTURER.

 				 			
NUMBER: 569-DB7A-AIC-733-001				CLIENT NR: PRD-AIC-DSH-074			
TITLE						SHEET: 9 de 14	
MOTORIZED ON-OFF VALVE						REV.: 0	
GENERAL	1	INSTRUMENT TAG NUMBER			XV-9600135		
	2	SERVICE			CHILLED WATER - SUPPLY BUILDING - CH-7A-2		
	3	P&ID			7A-M-0-5-43		
	4	PIPE LINE	EQUIPMENT NUMBER		7A-10"-CW1S-960002-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 2)		
	9						
BODY AND INTERVAL	10	BODY TYPE			BUTTERFLY		
	11	BODY / CAP MATERIAL			ASTM A-216 Gr. WCB		
	12	WEDGE, DISC OR GATE MATERIAL + COATING			ASTM A-216 Gr. WCB		
	13	SEAT / RINGS MATERIAL + COATING			EPDM		
	14	SHAFT MATERIAL			ASTM A-216 Gr. WCB		
	15	GASKET MATERIAL			PTFE		
	16	CONNECTION TO THE PROCESS			WAFER - 10", 150#		
	17	FLANGE FACE FINISH			NOT REQUIRED		
	18	SEAL CLASS			IV		
ACTUATOR	20	TYPE OF ACTUATOR			SMART / ELETRIC MOTORIZED		
	21	OPENING /CLOSING			DIRECT ACTION		
	22	FAILURE ACTION			STATIONARY		
	23	POWER SUPPLY			3Ø 380Vac / 60Hz		
	24	HANDWHEEL			YES		
	25	ELECTRICAL CONNECTION	QUANTITY		1/2" NPT(F)	BY MANUFACTURER	
	26	SELF DIAGNOSIS			YES		
	27	CONFIGURATION			LOCAL AND REMOTE		
	28	OPENING, CLOSING AND LOCAL STOP			LOCAL AND REMOTE		
	29						
SWITCH	31	TYPE INDICATION			OPEN / CLOSED		
	32	SENSOR TYPE			INDUCTIVE, WITH LOCAL INDICATION		
	33	CONTACT TYPE			REED SWITCH		
	34	QUANTITY	TYPE		2	SPDT	
	35	CAPACITY CONTACT			2A @ 250 Vca		
	36	ELECTRICAL CONNECTION			1/2" NPT(F)		
ACCESSOR.	37	IDENTIFICATION PLATE			YES (SEE GENERAL NOTES 1)		
	38	CONFIGURATION MANUAL (HANDHELD)			YES		
	39						
OPERATING CONDITIONS	40	FLUID	PHYSICAL STATE		CHILLED WATER		LIQUID
	41	MINIMUM FLOW	NORMAL	MAXIMUM	242	240	240 m³/h
	42	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	5,5	5,5	5,5 °C
	43	MINIMUM UPSTREAM PRESSURE	NORMAL	MAXIMUM	0,73	0,74	0,74 bar-g
	44	MINIMUM DOWNSTREAM PRESSURE	NORMAL	MAXIMUM	0,54	0,54	0,55 bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE		2,7 bar-g		42,5 °C
	46	VISCOSITY @ OPERATING CONDITION			1,50 Cp		
	47	DENSITY @ OPERATING CONDITION			999,99 kg/m³		
	48	SUSPENDED SOLIDS (%)			NO		
	49	SPECIAL FLUID CONDITIONS			NO		
	50	M.M. / Z / Cp/Cv			... / ... / ...		
	51	MANUFACTURER			ROTORK / AUMA		
	52	MODEL			IQ (ROTORK)		





NOTES: 1- THE SELECTED CV AND THE OPENING PERCENTAGE MUST BE SUPPLIED BY THE VALVE MANUFACTURER.

 				 			
NUMBER: 569-DB7A-AIC-733-001				CLIENT NR: PRD-AIC-DSH-074			
TITLE						SHEET: 10 de 14	
MOTORIZED ON-OFF VALVE						REV.: 0	
GENERAL	1	INSTRUMENT TAG NUMBER			XV-9600150		
	2	SERVICE			CHILLED WATER - SUPPLY BUILDING - CH-7A-2		
	3	P&ID			7A-M-0-5-43		
	4	PIPE LINE	EQUIPMENT NUMBER		7A-'10"-CW1S-960003-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 2)		
	9						
BODY AND INTERVAL	10	BODY TYPE			BUTTERFLY		
	11	BODY / CAP MATERIAL			ASTM A-216 Gr. WCB		
	12	WEDGE, DISC OR GATE MATERIAL + COATING			ASTM A-216 Gr. WCB		
	13	SEAT / RINGS MATERIAL + COATING			EPDM		
	14	SHAFT MATERIAL			ASTM A-216 Gr. WCB		
	15	GASKET MATERIAL			PTFE		
	16	CONNECTION TO THE PROCESS			WAFER - 10", 150#		
	17	FLANGE FACE FINISH			NOT REQUIRED		
	18	SEAL CLASS			IV		
ACTUATOR	20	TYPE OF ACTUATOR			SMART / ELETRIC MOTORIZED		
	21	OPENING /CLOSING			DIRECT ACTION		
	22	FAILURE ACTION			STATIONARY		
	23	POWER SUPPLY			3Ø 380Vac / 60Hz		
	24	HANDWHEEL			YES		
	25	ELECTRICAL CONNECTION	QUANTITY		1/2" NPT(F)	BY MANUFACTURER	
	26	SELF DIAGNOSIS			YES		
	27	CONFIGURATION			LOCAL AND REMOTE		
	28	OPENING, CLOSING AND LOCAL STOP			LOCAL AND REMOTE		
	29						
SWITCH	31	TYPE INDICATION			OPEN / CLOSED		
	32	SENSOR TYPE			INDUCTIVE, WITH LOCAL INDICATION		
	33	CONTACT TYPE			REED SWITCH		
	34	QUANTITY	TYPE		2	SPDT	
	35	CAPACITY CONTACT			2A @ 250 Vca		
	36	ELECTRICAL CONNECTION			1/2" NPT(F)		
ACCESSOR.	37	IDENTIFICATION PLATE			YES (SEE GENERAL NOTES 1)		
	38	CONFIGURATION MANUAL (HANDHELD)			YES		
	39						
OPERATING CONDITIONS	40	FLUID	PHYSICAL STATE		CHILLED WATER		LIQUID
	41	MINIMUM FLOW	NORMAL	MAXIMUM	242	240	240 m³/h
	42	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	5,5	5,5	5,5 °C
	43	MINIMUM UPSTREAM PRESSURE	NORMAL	MAXIMUM	0,73	0,74	0,74 bar-g
	44	MINIMUM DOWNSTREAM PRESSURE	NORMAL	MAXIMUM	0,54	0,54	0,55 bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE		2,7 bar-g		42,5 °C
	46	VISCOSITY @ OPERATING CONDITION			1,50 Cp		
	47	DENSITY @ OPERATING CONDITION			999,99 kg/m³		
	48	SUSPENDED SOLIDS (%)			NO		
	49	SPECIAL FLUID CONDITIONS			NO		
	50	M.M. / Z / Cp/Cv			... / ... / ...		
	51	MANUFACTURER			ROTORK / AUMA		
	52	MODEL			IQ (ROTORK)		





NOTES: 1- THE SELECTED CV AND THE OPENING PERCENTAGE MUST BE SUPPLIED BY THE VALVE MANUFACTURER.

 				 			
NUMBER: 569-DB7A-AIC-733-001				CLIENT NR: PRD-AIC-DSH-074			
TITLE						SHEET: 11 de 14	
MOTORIZED ON-OFF VALVE						REV.: 0	
GENERAL	1	INSTRUMENT TAG NUMBER			XV-980056		
	2	SERVICE			COOLING WATER - COOLING TOWERS PCH-7A-1		
	3	P&ID			7A-M-0-5-45		
	4	PIPE LINE	EQUIPMENT NUMBER		7A-6"-TWR-980056-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 2)		
	9						
BODY AND INTERVAL	10	BODY TYPE			BUTTERFLY		
	11	BODY / CAP MATERIAL			ASTM A-216 Gr. WCB		
	12	WEDGE, DISC OR GATE MATERIAL + COATING			ASTM A-216 Gr. WCB		
	13	SEAT / RINGS MATERIAL + COATING			EPDM		
	14	SHAFT MATERIAL			ASTM A-216 Gr. WCB		
	15	GASKET MATERIAL			PTFE		
	16	CONNECTION TO THE PROCESS			WAFFER - 6", 150#		
	17	FLANGE FACE FINISH			NOT REQUIRED		
	18	SEAL CLASS			IV		
ACTUATOR	20	TYPE OF ACTUATOR			SMART / ELETRIC MOTORIZED		
	21	OPENING /CLOSING			DIRECT ACTION		
	22	FAILURE ACTION			STATIONARY		
	23	POWER SUPPLY			3Ø - 380Vac / 60Hz		
	24	HANDWHEEL			YES		
	25	ELECTRICAL CONNECTION	QUANTITY		1/2" NPT(F)	BY MANUFACTURER	
	26	SELF DIAGNOSIS			YES		
	27	CONFIGURATION			LOCAL AND REMOTE		
	28	OPENING, CLOSING AND LOCAL STOP			LOCAL AND REMOTE		
	29						
SWITCH	31	TYPE INDICATION			OPEN / CLOSED		
	32	SENSOR TYPE			INDUCTIVE, WITH LOCAL INDICATION		
	33	CONTACT TYPE			REED SWITCH		
	34	QUANTITY	TYPE		2	SPDT	
	35	CAPACITY CONTACT			2A @ 250 Vca		
	36	ELECTRICAL CONNECTION			1/2" NPT(F)		
ACCESSOR.	37	IDENTIFICATION PLATE			YES (SEE GENERAL NOTES 1)		
	38	CONFIGURATION MANUAL (HANDHELD)			YES		
	39						
OPERATING CONDITIONS	40	FLUID	PHYSICAL STATE		CHILLED WATER		LIQUID
	41	MINIMUM FLOW	NORMAL	MAXIMUM	104,2	104,2	104,2 m³/h
	42	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	37	37	37 °C
	43	MINIMUM UPSTREAM PRESSURE	NORMAL	MAXIMUM	1,05	1,08	1,09 bar-g
	44	MINIMUM DOWNSTREAM PRESSURE	NORMAL	MAXIMUM	0,78	0,82	0,82 bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE		4,6 bar-g		67,0 °C
	46	VISCOSITY @ OPERATING CONDITION			0,69 Cp		
	47	DENSITY @ OPERATING CONDITION			993,0 kg/m³		
	48	SUSPENDED SOLIDS (%)			NO		
	49	SPECIAL FLUID CONDITIONS			NO		
	50	M.M. / Z / Cp/Cv			... / ... / ...		
	51	MANUFACTURER			ROTORK / AUMA		
	52	MODEL			IQ (ROTORK)		





NOTES: 1- THE SELECTED CV AND THE OPENING PERCENTAGE MUST BE SUPPLIED BY THE VALVE MANUFACTURER.

 				 			
NUMBER: 569-DB7A-AIC-733-001				CLIENT NR: PRD-AIC-DSH-074			
TITLE						SHEET: 12 de 14	
MOTORIZED ON-OFF VALVE						REV.: 0	
GENERAL	1	INSTRUMENT TAG NUMBER			XV-980057		
	2	SERVICE			COOLING WATER - COOLING TOWERS PCH-7A-2		
	3	P&ID			7A-M-0-5-45		
	4	PIPE LINE	EQUIPMENT NUMBER		7A-6"-TWR-980057-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 2)		
	9						
BODY AND INTERVAL	10	BODY TYPE			BUTTERFLY		
	11	BODY / CAP MATERIAL			ASTM A-216 Gr. WCB		
	12	WEDGE, DISC OR GATE MATERIAL + COATING			ASTM A-216 Gr. WCB		
	13	SEAT / RINGS MATERIAL + COATING			EPDM		
	14	SHAFT MATERIAL			ASTM A-216 Gr. WCB		
	15	GASKET MATERIAL			PTFE		
	16	CONNECTION TO THE PROCESS			WAFFER - 6", 150#		
	17	FLANGE FACE FINISH			NOT REQUIRED		
	18	SEAL CLASS			IV		
ACTUATOR	20	TYPE OF ACTUATOR			SMART / ELETRIC MOTORIZED		
	21	OPENING /CLOSING			DIRECT ACTION		
	22	FAILURE ACTION			STATIONARY		
	23	POWER SUPPLY			3Ø - 380Vac / 60Hz		
	24	HANDWHEEL			YES		
	25	ELECTRICAL CONNECTION	QUANTITY		1/2" NPT(F)	BY MANUFACTURER	
	26	SELF DIAGNOSIS			YES		
	27	CONFIGURATION			LOCAL AND REMOTE		
	28	OPENING, CLOSING AND LOCAL STOP			LOCAL AND REMOTE		
	29						
SWITCH	31	TYPE INDICATION			OPEN / CLOSED		
	32	SENSOR TYPE			INDUCTIVE, WITH LOCAL INDICATION		
	33	CONTACT TYPE			REED SWITCH		
	34	QUANTITY	TYPE		2	SPDT	
	35	CAPACITY CONTACT			2A @ 250 Vca		
	36	ELECTRICAL CONNECTION			1/2" NPT(F)		
ACCESSOR.	37	IDENTIFICATION PLATE			YES (SEE GENERAL NOTES 1)		
	38	CONFIGURATION MANUAL (HANDHELD)			YES		
	39						
OPERATING CONDITIONS	40	FLUID	PHYSICAL STATE		CHILLED WATER		LIQUID
	41	MINIMUM FLOW	NORMAL	MAXIMUM	104,2	104,2	m³/h
	42	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	37	37	°C
	43	MINIMUM UPSTREAM PRESSURE	NORMAL	MAXIMUM	1,05	1,08	bar-g
	44	MINIMUM DOWNSTREAM PRESSURE	NORMAL	MAXIMUM	0,78	0,82	bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE		4,6 bar-g		67,0 °C
	46	VISCOSITY @ OPERATING CONDITION			0,69 Cp		
	47	DENSITY @ OPERATING CONDITION			993,0 kg/m³		
	48	SUSPENDED SOLIDS (%)			NO		
	49	SPECIAL FLUID CONDITIONS			NO		
	50	M.M. / Z / Cp/Cv			... / ... / ...		
	51	MANUFACTURER			ROTORK / AUMA		
	52	MODEL			IQ (ROTORK)		

NOTES: 1- THE SELECTED CV AND THE OPENING PERCENTAGE MUST BE SUPPLIED BY THE VALVE MANUFACTURER.

 				 			
NUMBER: 569-DB7A-AIC-733-001				CLIENT NR: PRD-AIC-DSH-074			
TITLE						SHEET: 13 de 14	
MOTORIZED ON-OFF VALVE						REV.: 0	
GENERAL	1	INSTRUMENT TAG NUMBER			XV-980080		
	2	SERVICE			GLYCOL DO PCH-7A-1 FOR BT-7A-1		
	3	P&ID			7A-M-0-5-45		
	4	PIPE LINE	EQUIPMENT NUMBER		7A-6"-GW0S-980080-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 2)		
	9						
BODY AND INTERVAL	10	BODY TYPE			BUTTERFLY		
	11	BODY / CAP MATERIAL			ASTM A-216 Gr. WCB		
	12	WEDGE, DISC OR GATE MATERIAL + COATING			ASTM A-216 Gr. WCB		
	13	SEAT / RINGS MATERIAL + COATING			EPDM		
	14	SHAFT MATERIAL			ASTM A-216 Gr. WCB		
	15	GASKET MATERIAL			PTFE		
	16	CONNECTION TO THE PROCESS			WAFFER - 6", 150#		
	17	FLANGE FACE FINISH			NOT REQUIRED		
	18	SEAL CLASS			IV		
ACTUATOR	20	TYPE OF ACTUATOR			SMART / ELETRIC MOTORIZED		
	21	OPENING /CLOSING			DIRECT ACTION		
	22	FAILURE ACTION			STATIONARY		
	23	POWER SUPPLY			3Ø - 380Vac / 60Hz		
	24	HANDWHEEL			YES		
	25	ELECTRICAL CONNECTION	QUANTITY		1/2" NPT(F)	BY MANUFACTURER	
	26	SELF DIAGNOSIS			YES		
	27	CONFIGURATION			LOCAL AND REMOTE		
	28	OPENING, CLOSING AND LOCAL STOP			LOCAL AND REMOTE		
	29						
SWITCH	31	TYPE INDICATION			OPEN / CLOSED		
	32	SENSOR TYPE			INDUCTIVE, WITH LOCAL INDICATION		
	33	CONTACT TYPE			REED SWITCH		
	34	QUANTITY	TYPE		2	SPDT	
	35	CAPACITY CONTACT			2A @ 250 Vca		
	36	ELECTRICAL CONNECTION			1/2" NPT(F)		
ACCESSOR.	37	IDENTIFICATION PLATE			YES (SEE GENERAL NOTES 1)		
	38	CONFIGURATION MANUAL (HANDHELD)			YES		
	39						
OPERATING CONDITIONS	40	FLUID	PHYSICAL STATE		CHILLED WATER		LIQUID
	41	MINIMUM FLOW	NORMAL	MAXIMUM	93,0	93,0	114,0 m³/h
	42	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	5,0	5,0	5,0 °C
	43	MINIMUM UPSTREAM PRESSURE	NORMAL	MAXIMUM	0,04	0,04	0,05 bar-g
	44	MINIMUM DOWNSTREAM PRESSURE	NORMAL	MAXIMUM	0,03	0,03	0,04 bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE		2,0 bar-g		35,0 °C
	46	VISCOSITY @ OPERATING CONDITION			1,52 Cp		
	47	DENSITY @ OPERATING CONDITION			1000,0 kg/m³		
	48	SUSPENDED SOLIDS (%)			NO		
	49	SPECIAL FLUID CONDITIONS			NO		
	50	M.M. / Z / Cp/Cv			... / ... / ...		
	51	MANUFACTURER			ROTORK / AUMA		
	52	MODEL			IQ (ROTORK)		

NOTES: 1- THE SELECTED CV AND THE OPENING PERCENTAGE MUST BE SUPPLIED BY THE VALVE MANUFACTURER.
2- THE INSTRUMENT SHALL BE PREPARED TO OPERATE WITH PROPYLENE GLICOL 10% IF REQUIRED.

 				 			
NUMBER: 569-DB7A-AIC-733-001				CLIENT NR: PRD-AIC-DSH-074			
TITLE						SHEET: 14 de 14	
MOTORIZED ON-OFF VALVE						REV.: 0	
GENERAL	1	INSTRUMENT TAG NUMBER			XV-980083		
	2	SERVICE			GLYCOL DO PCH-7A-2 FOR BT-7A-1		
	3	P&ID			7A-M-0-5-45		
	4	PIPE LINE	EQUIPMENT NUMBER		7A-6"-GW0S-980083-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 2)		
	9						
BODY AND INTERVAL	10	BODY TYPE			BUTTERFLY		
	11	BODY / CAP MATERIAL			ASTM A-216 Gr. WCB		
	12	WEDGE, DISC OR GATE MATERIAL + COATING			ASTM A-216 Gr. WCB		
	13	SEAT / RINGS MATERIAL + COATING			EPDM		
	14	SHAFT MATERIAL			ASTM A-216 Gr. WCB		
	15	GASKET MATERIAL			PTFE		
	16	CONNECTION TO THE PROCESS			WAFER - 6", 150#		
	17	FLANGE FACE FINISH			NOT REQUIRED		
	18	SEAL CLASS			IV		
ACTUATOR	20	TYPE OF ACTUATOR			SMART / ELETRIC MOTORIZED		
	21	OPENING /CLOSING			DIRECT ACTION		
	22	FAILURE ACTION			STATIONARY		
	23	POWER SUPPLY			3Ø - 380Vac / 60Hz		
	24	HANDWHEEL			YES		
	25	ELECTRICAL CONNECTION	QUANTITY		1/2" NPT(F)	BY MANUFACTURER	
	26	SELF DIAGNOSIS			YES		
	27	CONFIGURATION			LOCAL AND REMOTE		
	28	OPENING, CLOSING AND LOCAL STOP			LOCAL AND REMOTE		
	29						
SWITCH	31	TYPE INDICATION			OPEN / CLOSED		
	32	SENSOR TYPE			INDUCTIVE, WITH LOCAL INDICATION		
	33	CONTACT TYPE			REED SWITCH		
	34	QUANTITY	TYPE		2	SPDT	
	35	CAPACITY CONTACT			2A @ 250 Vca		
	36	ELECTRICAL CONNECTION			1/2" NPT(F)		
ACCESSOR.	37	IDENTIFICATION PLATE			YES (SEE GENERAL NOTES 1)		
	38	CONFIGURATION MANUAL (HANDHELD)			YES		
	39						
OPERATING CONDITIONS	40	FLUID	PHYSICAL STATE		CHILLED WATER		LIQUID
	41	MINIMUM FLOW	NORMAL	MAXIMUM	93,0	93,0	114,0 m³/h
	42	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	5,0	5,0	5,0 °C
	43	MINIMUM UPSTREAM PRESSURE	NORMAL	MAXIMUM	0,04	0,04	0,05 bar-g
	44	MINIMUM DOWNSTREAM PRESSURE	NORMAL	MAXIMUM	0,03	0,03	0,04 bar-g
	45	DESIGN PRESSURE	DESIGN TEMPERATURE		2,0 bar-g		35,0 °C
	46	VISCOSITY @ OPERATING CONDITION			1,52 Cp		
	47	DENSITY @ OPERATING CONDITION			1000,0 kg/m³		
	48	SUSPENDED SOLIDS (%)			NO		
	49	SPECIAL FLUID CONDITIONS			NO		
	50	M.M. / Z / Cp/Cv			... / ... / ...		
	51	MANUFACTURER			ROTORK / AUMA		
	52	MODEL			IQ (ROTORK)		

NOTES: 1- THE SELECTED CV AND THE OPENING PERCENTAGE MUST BE SUPPLIED BY THE VALVE MANUFACTURER.
2- THE INSTRUMENT SHALL BE PREPARED TO OPERATE WITH PROPYLENE GLICOL 10% IF REQUIRED.