APPENDIX F

AUTOMATION LISTS

KGS GROUP	CENTREPORT SOUTH INSTRUMENTATION LIST	Document No. LST-J-001
		Revision 0

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

Engineer's Seal

CONSTRUCTION OF A NEW WASTEWATER LIFT STATION
CENTREPORT SOUTH REGIONAL WATER AND WASTEWATER
SERVICING PHASE 1 A (CONTRACT 1A)
INSTRUMENTATION LIST

City Document No.

KGS Project No. 23-0107-009

Notes / Comments

Revisions

Rev	Description	Date	By	Checked	Approved
0	ISSUED FOR TENDER	2024-06-20	AMS	CSR	DDW

Project Name: Centreport South Regional Water and Wastewater Servicing Phase 1A - Lift Station
Project Number: 23-0107-009
Client: City of Winnipeg
Document No: LST-J-001
Issue Date: 2024-06-20
Rev: 0

Instrumentation List

INSTRUMENT TAG NUMBER	DESCRIPTION	LOCATION	PLAN DRAWING	P & ID DRAWING	SCHEMATIC/LOOP DRAWING	MOUNTING METHOD	SUPPLIED UNDER FORM B ITEM	SPECIFICATION	NOTES
AE-L550-1	DRY WELL SUB-LEVEL 5 H2S GAS SENSOR	DRY WELL SUB LEVEL 5	1-0241L-A0002-001	1-0241L-P0002-001	1-0241L-A0039-001	WALL	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
AE-L550-2	DRY WELL SUB-LEVEL 1 METHANE GAS SENSOR	DRY WELL SUB LEVEL 1	1-0241L-A0002-001	1-0241L-P0002-001	1-0241L-A0039-001	WALL	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
AIT-L550	METHANE AND H2S GAS ANALYTICAL TRANSMITTER	MAIN FLOOR	1-0241L-A0001-001	1-0241L-P0002-001	1-0241L-A0039-001	WALL	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
FE-L012	LIFT PUMPS DISCHARGE HEADER FLOW ELEMENT	DRY WELL SUB LEVEL 2	1-0241L-A0002-001	1-0241L-P0001-002	1-0241L-A0034-001	PIPE	MECHANICAL WORKS	40 91 00	SUPPLIED BY F.R.P LIFT STATION VENDOR
FIT-L012	LIFT PUMP P-L01, LIFT PUMP P-L02 DISCHARGE HEADER FLOW TRANSMITTER	DRY WELL SUB LEVEL 2	1-0241L-A0002-001	1-0241L-P0001-002	1-0241L-A0034-001	PIPE	MECHANICAL WORKS	40 91 00	SUPPLIED BY F.R.P LIFT STATION VENDOR
FSL-L600	MAIN FLOOR SUPPLY AIR FLOW SWITCH	MAIN FLOOR	1-0241L-A0001-001	1-0241L-P0002-001	1-0241L-A0040-001	DUCT	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
FSL-L610	MAIN FLOOR EXHAUST FAN AIR FLOW SWITCH LOW	MAIN FLOOR	1-0241L-A0001-001	1-0241L-P0002-001	1-0241L-A0040-001	DUCT	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
XV-L60-1	MAIN FLOOR RELIEF AIR FLOW VALVE (DAMPER)	MAIN FLOOR	1-0241L-A0001-001	1-0241L-P0002-001	1-0241L-A0019-001	HVAC Damper	ELECTRICAL AND INSTRUMENTATION WORKS	40 92 00	
XV-L61-1	MAIN FLOOR EXHAUST AIR FLOW VALVE (DAMPER)	MAIN FLOOR	1-0241L-A0001-001	1-0241L-P0002-001	1-0241L-A0019-001	HVAC Damper	ELECTRICAL AND INSTRUMENTATION WORKS	40 92 00	
XV-V60-1	VALVE CHAMBER INTAKE AIR FLOW VALVE (DAMPER)	VALVE CHAMBER	1-0241L-A0001-001	1-0241L-P0002-001	1-0241L-A0019-001	HVAC Damper	ELECTRICAL AND INSTRUMENTATION WORKS	40 92 00	
XV-V61-1	VALVE CHAMBER EXHAUST AIR FLOW VALVE (DAMPER)	VALVE CHAMBER	1-0241L-A0001-001	1-0241L-P0002-001	1-0241L-A0019-001	HVAC Damper	ELECTRICAL AND INSTRUMENTATION WORKS	40 92 00	
HS-L010-1	LIFT PUMP P-L01 MANUAL/OFF/AUTO SWITCH	MAIN FLOOR	-	1-0241L-P0001-002	1-0241L-E0011-002	VFD ENCLOSURE	ELECTRICAL AND INSTRUMENTATION WORKS	26 29 03	INTEGRAL TO VFD ENCLOSURE
HS-L020-1	LIFT PUMP P-L02 MANUAL/OFF/AUTO SWITCH	MAIN FLOOR	-	1-0241L-P0001-002	1-0241L-E0013-002	VFD ENCLOSURE	ELECTRICAL AND INSTRUMENTATION WORKS	26 29 03	INTEGRAL TO VFD ENCLOSURE
HS-L601	LIC SELECTOR	MAIN FLOOR	1-0241L-A0001-001	1-0241L-P0002-001	1-0241L-A0018-002	PANEL	ELECTRICAL AND INSTRUMENTATION WORKS	40 95 13	INTEGRAL TO JBA-L83, SEE PANEL BOM
HS-V601	LIC SELECTOR	MAIN FLOOR	1-0241L-A0001-001	1-0241L-P0002-001	1-0241L-A0018-002	PANEL	ELECTRICAL AND INSTRUMENTATION WORKS	40 95 13	INTEGRAL TO JBA-L83, SEE PANEL BOM
HS-L100	LIC SELECTOR	MAIN FLOOR	-	1-0241L-P0001-001	1-0241L-A0006-001	PANEL	ELECTRICAL AND INSTRUMENTATION WORKS	40 95 13	INTEGRAL TO CP-L81, SEE PANEL BOM
HS-L508	LIFT PUMPS PLC/LOCAL SWITCH	MAIN FLOOR	-	1-0241L-P0001-001	1-0241L-A0016-001	PANEL	ELECTRICAL AND INSTRUMENTATION WORKS	40 95 13	
HSS-L010-5	LIFT PUMP P-L01 STOP PUSHBUTTON	MAIN FLOOR	-	1-0241L-P0001-002	1-0241L-E0011-001	VFD ENCLOSURE	ELECTRICAL AND INSTRUMENTATION WORKS	26 29 03	INTEGRAL TO VFD ENCLOSURE
HSS-L020-5	LIFT PUMP P-L02 STOP PUSHBUTTON	MAIN FLOOR	-	1-0241L-P0001-002	1-0241L-E0013-001	VFD ENCLOSURE	ELECTRICAL AND INSTRUMENTATION WORKS	26 29 03	INTEGRAL TO VFD ENCLOSURE
HSR-L010-6	LIFT PUMP P-L01 START PUSHBUTTON	MAIN FLOOR	-	1-0241L-P0001-002	1-0241L-E0011-001	VFD ENCLOSURE	ELECTRICAL AND INSTRUMENTATION WORKS	26 29 03	INTEGRAL TO VFD ENCLOSURE
HSR-L020-6	LIFT PUMP P-L02 START PUSHBUTTON	MAIN FLOOR	-	1-0241L-P0001-002	1-0241L-E0013-001	VFD ENCLOSURE	ELECTRICAL AND INSTRUMENTATION WORKS	26 29 03	INTEGRAL TO VFD ENCLOSURE
HSS-L010-2	LIFT PUMP P-L01 MOTOR E-STOP	DRY WELL SUB LEVEL 2	1-0241L-A0002-001	1-0241L-P0001-002	1-0241L-E0011-001	WALL	ELECTRICAL AND INSTRUMENTATION WORKS	40 90 01	
HSS-L010-3	LIFT PUMP P-L01 PUMP E-STOP	DRY WELL SUB LEVEL 5	1-0241L-A0002-001	1-0241L-P0001-002	1-0241L-E0011-001	WALL	ELECTRICAL AND INSTRUMENTATION WORKS	40 90 01	
HSS-L010-4	LIFT PUMP P-L01 VFD E-STOP	MAIN FLOOR	-	1-0241L-P0001-002	1-0241L-E0011-001	VFD ENCLOSURE	ELECTRICAL AND INSTRUMENTATION WORKS	26 27 16	INTEGRAL TO VFD ENCLOSURE
HSS-L020-2	LIFT PUMP P-L02 MOTOR E-STOP	DRY WELL SUB LEVEL 2	1-0241L-A0002-001	1-0241L-P0001-002	1-0241L-E0013-001	WALL	ELECTRICAL AND INSTRUMENTATION WORKS	40 90 01	
HSS-L020-3	LIFT PUMP P-L02 PUMP E-STOP	DRY WELL SUB LEVEL 5	1-0241L-A0002-001	1-0241L-P0001-002	1-0241L-E0013-001	WALL	ELECTRICAL AND INSTRUMENTATION WORKS	40 90 01	
HSS-L020-4	LIFT PUMP P-L02 VFD E-STOP	MAIN FLOOR	-	1-0241L-P0001-002	1-0241L-E0013-001	VFD ENCLOSURE	ELECTRICAL AND INSTRUMENTATION WORKS	26 27 16	INTEGRAL TO VFD ENCLOSURE
KQI-L010	LIFT PUMP P-L01 RUN TIME COUNTER	MAIN FLOOR	-	1-0241L-P0001-002	N/A	VFD ENCLOSURE	ELECTRICAL AND INSTRUMENTATION WORKS	26 29 23	INTEGRAL TO VFD ENCLOSURE
KQI-L020	LIFT PUMP P-L02 RUN TIME COUNTER	MAIN FLOOR	-	1-0241L-P0001-002	N/A	VFD ENCLOSURE	ELECTRICAL AND INSTRUMENTATION WORKS	26 29 23	INTEGRAL TO VFD ENCLOSURE
LIC-L100-1	WET WELL LEVEL CONTROLLER '1'	MAIN FLOOR	1-0241L-A0001-001	1-0241L-P0001-001	1-0241L-A0035-001	PANEL	ELECTRICAL AND INSTRUMENTATION WORKS	40 92 00	
LIC-L100-2	WET WELL LEVEL CONTROLLER '2'	MAIN FLOOR	1-0241L-A0001-001	1-0241L-P0001-001	1-0241L-A0036-001	PANEL	ELECTRICAL AND INSTRUMENTATION WORKS	40 92 00	
LIT-L100-1	WET WELL LEVEL TRANSMITTER '1'	DRY WELL SUB LEVEL 5	1-0241L-A0002-001	1-0241L-P0001-001	1-0241L-A0035-001	PIPE	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
LIT-L100-2	WET WELL LEVEL TRANSMITTER '2'	DRY WELL SUB LEVEL 5	1-0241L-A0002-001	1-0241L-P0001-001	1-0241L-A0036-001	PIPE	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
LSL-L560	WATER STORAGE TANK LOW LEVEL SWITCH	OUTSIDE - WATER STORAGE TANK	1-0241L-A0001-001	1-0241L-P0002-002	1-0241L-A0042-001	NONE	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
LSHH-L101	WET WELL HIGH HIGH LEVEL SWITCH	WET WELL	1-0241L-A0002-001	1-0241L-P0001-001	1-0241L-A0025-001	GUIDE RINGS	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
LSH-L501	DRY WELL FLOODING HIGH LEVEL SWITCH	DRY WELL SUB LEVEL 5	1-0241L-A0002-001	1-0241L-P0001-001	1-0241L-A0026-001	GUIDE RINGS	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
LSH-V502	VALVE CHAMBER HIGH LEVEL SWITCH	VALVE CHAMBER	1-0241L-A0001-001	1-0241L-P0001-003	1-0241L-A0027-001	GUIDE RINGS	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
PDSH-L660	INTAKE AIR PRESSURE DIFFERENTIAL SWITCH HIGH	MAIN FLOOR	1-0241L-A0001-001	1-0241L-P0002-001	1-0241L-A0040-001	DUCT	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
PSL-L526	PRESSURE SWITCH LOW FOR DOMESTIC WATER	MAIN FLOOR	1-0241L-A0001-001	1-0241L-P0002-002	N/A	SKID	MECHANICAL WORKS		INTEGRAL TO SKID
TC-L621	ACU-L62 TEMPERATURE CONTROL DEVICE	MAIN FLOOR	1-0241L-A0001-001	1-0241L-P0002-001	N/A	WALL	MECHANICAL WORKS		
TE-L010-1	LIFT PUMP P-L01 UPPER BEARING (MOTOR SIDE NON-DRIVE END) TEMPERATURE SENSOR	DRY WELL SUB LEVEL 2	1-0241L-A0002-001	1-0241L-P0001-002	1-0241L-A0032-001	MOTOR BEARING	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
TE-L010-2	LIFT PUMP P-L01 LOWER BEARING (PUMP SIDE DRIVE END) TEMPERATURE SENSOR	DRY WELL SUB LEVEL 5	1-0241L-A0002-001	1-0241L-P0001-002	1-0241L-A0032-001	PUMP BEARING	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
TE-L020-1	LIFT PUMP P-L02 UPPER BEARING (MOTOR SIDE NON-DRIVE END) TEMPERATURE SENSOR	DRY WELL SUB LEVEL 2	1-0241L-A0002-001	1-0241L-P0001-002	1-0241L-A0033-001	MOTOR BEARING	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
TE-L020-2	LIFT PUMP P-L02 LOWER BEARING (PUMP SIDE DRIVE END) TEMPERATURE SENSOR	DRY WELL SUB LEVEL 5	1-0241L-A0002-001	1-0241L-P0001-002	1-0241L-A0033-001	PUMP BEARING	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
TSH-L011	LIFT PUMP P-L01 MOTOR HIGH TEMPERATURE SWITCH	DRY WELL SUB LEVEL 2	1-0241L-A0002-001	1-0241L-P0001-002	1-0241L-A0022-001	MOTOR	MECHANICAL WORKS		INTEGRAL TO MOTOR
TSH-L021	LIFT PUMP P-L02 MOTOR HIGH TEMPERATURE SWITCH	DRY WELL SUB LEVEL 2	1-0241L-A0002-001	1-0241L-P0001-002	1-0241L-A0022-001	MOTOR	MECHANICAL WORKS		INTEGRAL TO MOTOR
TT-L671	DRY WELL SUB-LEVEL 2 TEMPERATURE TRANSMITTER	DRY WELL SUB LEVEL 2	1-0241L-A0002-001	1-0241L-P0002-001	1-0241L-A0024-001	WALL	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
TT-V672	VALVE CHAMGER TEMPERATURE TRANSMITTER	VALVE CHAMBER	1-0241L-A0001-001	1-0241L-P0002-001	1-0241L-A0041-001	WALL	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
TT-L691	MAIN FLOOR TEMPERATURE TRANSMITTER	MAIN FLOOR	1-0241L-A0001-001	1-0241L-P0002-001	1-0241L-A0023-001	WALL	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
TT-L692	OUTDOOR TEMPERATURE TRANSMITTER	OUTSIDE SUPERSTRUCTURE	1-0241L-A0001-001	1-0241L-P0002-001	1-0241L-A0023-001	WALL	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
TT-L010-1	LIFT PUMP P-L01 UPPER BEARING (MOTOR SIDE NON-DRIVE END) TEMPERATURE TRANSMITTER	MAIN FLOOR	1-0241L-A0002-001	1-0241L-P0001-002	1-0241L-A0032-001	WALL	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
TT-L010-2	LIFT PUMP P-L01 LOWER BEARING (PUMP SIDE DRIVE END) TEMPERATURE TRANSMITTER	MAIN FLOOR	1-0241L-A0002-001	1-0241L-P0001-002	1-0241L-A0032-001	WALL	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
TT-L020-1	LIFT PUMP P-L02 UPPER BEARING (MOTOR SIDE NON-DRIVE END) TEMPERATURE TRANSMITTER	MAIN FLOOR	1-0241L-A0002-001	1-0241L-P0001-002	1-0241L-A0033-001	WALL	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
TT-L020-2	LIFT PUMP P-L02 LOWER BEARING (PUMP SIDE DRIVE END) TEMPERATURE TRANSMITTER	MAIN FLOOR	1-0241L-A0002-001	1-0241L-P0001-002	1-0241L-A0033-001	WALL	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
TT-L681	DRY WELL SUB-LEVEL 5 TEMPERATURE TRANSMITTER	DRY WELL SUB LEVEL 5	1-0241L-A0002-001	1-0241L-P0002-001	1-0241L-A0024-001	WALL	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
TY-L641	INLINE DUCT TEMPERATURE RELAY FOR HCE-L64	MAIN FLOOR	1-0241L-A0001-001	1-0241L-P0002-001	N/A	DUCT	MECHANICAL WORKS		
TY-L651	INLINE DUCT TEMPERATURE RELAY FOR HCE-L65	MAIN FLOOR	1-0241L-A0001-001	1-0241L-P0002-001	N/A	DUCT	MECHANICAL WORKS		
VT-L010-1	LIFT PUMP P-L01 UPPER BEARING (MOTOR SIDE NON-DRIVE END) VIBRATION SENSOR	DRY WELL SUB LEVEL 2	1-0241L-A0002-001	1-0241L-P0001-002	1-0241L-A0028-001	MOTOR BEARING	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
VT-L010-2	LIFT PUMP P-L01 LOWER BEARING (PUMP SIDE DRIVE END) VIBRATION SENSOR	DRY WELL SUB LEVEL 5	1-0241L-A0002-001	1-0241L-P0001-002	1-0241L-A0029-001	PUMP BEARING	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
VT-L020-1	LIFT PUMP P-L02 UPPER BEARING (MOTOR SIDE NON-DRIVE END) VIBRATION SENSOR	DRY WELL SUB LEVEL 2	1-0241L-A0002-001	1-0241L-P0001-002	1-0241L-A0030-001	MOTOR BEARING	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
VT-L020-2	LIFT PUMP P-L02 LOWER BEARING (PUMP SIDE DRIVE END) VIBRATION SENSOR	DRY WELL SUB LEVEL 5	1-0241L-A0002-001	1-0241L-P0001-002	1-0241L-A0031-001	PUMP BEARING	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	
VIC-L010-1	LIFT PUMP P-L01 UPPER BEARING (MOTOR SIDE NON-DRIVE END) VIBRATION INDICATING CONTROLLER	MAIN FLOOR	1-0241L-A0001-001	1-0241L-P0001-002	1-0241L-A0028-001	VFD ENCLOSURE	ELECTRICAL AND INSTRUMENTATION WORKS	26 27 16	INTEGRAL TO VFD ENCLOSURE
VIC-L010-2	LIFT PUMP P-L01 LOWER BEARING (PUMP SIDE DRIVE END) VIBRATION INDICATING CONTROLLER	MAIN FLOOR	1-0241L-A0001-001	1-0241L-P0001-002	1-0241L-A0029-001	VFD ENCLOSURE	ELECTRICAL AND INSTRUMENTATION WORKS	26 27 16	INTEGRAL TO VFD ENCLOSURE
VIC-L020-1	LIFT PUMP P-L02 UPPER BEARING (MOTOR SIDE NON-DRIVE END) VIBRATION INDICATING CONTROLLER	MAIN FLOOR	1-0241L-A0001-001	1-0241L-P0001-002	1-0241L-A0030-001	VFD ENCLOSURE	ELECTRICAL AND INSTRUMENTATION WORKS	26 27 16	INTEGRAL TO VFD ENCLOSURE
VIC-L020-2	LIFT PUMP P-L02 LOWER BEARING (PUMP SIDE DRIVE END) VIBRATION INDICATING CONTROLLER	MAIN FLOOR	1-0241L-A0001-001	1-0241L-P0001-002	1-0241L-A0031-001	VFD ENCLOSURE	ELECTRICAL AND INSTRUMENTATION WORKS	26 27 16	INTEGRAL TO VFD ENCLOSURE
TSH-L600	OUTDOOR TEMPERATURE SWITCH	OUTSIDE SUPERSTRUCTURE	1-0241L-A0001-001	1-0241L-P0002-001	1-0241L-E0015-001	WALL	ELECTRICAL AND INSTRUMENTATION WORKS	40 91 00	

KGS GROUP	CENTREPORT SOUTH DNP3 I/0 MAPPING LIST CP-L81 & CP-F81	Document No. LST-J-002 Revision 0

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

CONSTRUCTION OF A NEW WASTEWATER LIFT STATION
CENTREPORT SOUTH REGIONAL WATER AND WASTEWATER
SERVICING PHASE 1 A (CONTRACT 1A)
DNP3 I/O MAPPING LIST
CP-L81 & CP-F81

Engineer's Seal

City Document No.

KGS Project No. 23-0107-009

Notes / Comments

Input & Output signal addresses associated with Centreport Soth Lift Station CP-L81 and Offtake Structure 3 CP-F81.

Reference Drawings:

1-0241L-A0006-001 - PLC I/O Wiring Diagram - CP-L81 - Discrete Input Rack 0 Module 4
1-0241L-A0007-001 - PLC I/O Wiring Diagram - CP-L81 - Discrete Input Rack 0 Module 5
1-0241L-A0008-001 - PLC I/O Wiring Diagram - CP-L81 - Discrete Input Rack 0 Module 6
1-0241L-A0009-001 - PLC I/O Wiring Diagram - CP-L81 - Discrete Output Rack 0 Module 7
1-0241L-A0010-001 - PLC I/O Wiring Diagram - CP-L81 - Analog Input Rack 0 Module 8
1-0241L-A0011-001 - PLC I/O Wiring Diagram - CP-L81 - Analog Input Rack 0 Module 9
1-0241L-A0012-001 - PLC I/O Wiring Diagram - CP-L81 - Analog Input Rack 0 Module 10
1-0241L-A0013-001 - PLC I/O Wiring Diagram - CP-L81 - Analog Input Rack 0 Module 11
1-0241L-A0014-001 - PLC I/O Wiring Diagram - CP-L81 - Analog Input Rack 1 Module 0
1-0241L-A0015-001 - PLC I/O Wiring Diagram - CP-L81 - Analog Output Rack 1 Module 1
1-0241L-A0046-001 - PLC I/O Wiring Diagram - CP-F81, Discrete Input Rack 0 Module 3
1-0241L-A0047-001 - PLC I/O Wiring Diagram - CP-F81, Analog Input Rack 0 Module 4
1-0241L-A0048-001 - PLC I/O Wiring Diagram - CP-F81, Analog Output Rack 0 Module 5

Revisions

Rev	Description	Date	By	Checked	Approved
0	ISSUED FOR TENDER	2024 06 20	DG	CSR	DDW

Notes:
1. Zero (0) States and One (1) States are represented as positive logic not contact logic.

DI - DISCRETE INPUT

PLC Card	Fuse Number	Terminal Block	Terminal Number	Wire Tag	Rack	IO Module	Point	DNP3 Type	DNP3 Address	Equipment Tag	Description	Fail Safe (F/S)	0 State/ EU Minimum (Note 1)	1 State/ EU Maximum (Note 1)	I/O Type	Interface	Field Type	Notes	Wiring Drawing
Discrete Input (BMX DDI 3202K)	F204A	TB04	0	I0	0	4	0	BI	0	HS-L010-1M	PUMP P-L01 MANUAL MODE	-	Not Local	Local	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0011-002
	F204A	TB04	1	I1	0	4	1	BI	1	HS-L010-1A	PUMP P-L01 AUTO MODE	-	Not Auto	Auot	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0011-002
	F204A	TB04	2	I2	0	4	2	BI	2	YL-L010	PUMP P-L01 READY	-	Not Ready	Ready	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0011-002
	F204A	TB04	3	I3	0	4	3	BI	3	YLR-L010-1	PUMP P-L01 RUNNING FORWARD	-	Not Running Forward	Running Forward	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0011-002
	F204A	TB04	4	I4	0	4	4	BI	4	YLR-L010-2	PUMP P-L01 RUNNING REVERSE	-	Not Running Reverse	Running Reverse	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0011-002
	F204A	TB04	5	I5	0	4	5	BI	5	YAF-L010	PUMP P-L01 VFD FAULT	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0011-002
	F204A	TB04	6	I6	0	4	6	BI	6	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F204A	TB04	7	I7	0	4	7	BI	7	VSH-L010-1	PUMP P-L01 UPPER BEARING VIBRATION HIGH ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0028-001
	F204A	TB04	8	I8	0	4	8	BI	8	VSH-L010-2	PUMP P-L01 LOWER BEARING VIBRATION HIGH ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0029-001
	F204A	TB04	9	I9	0	4	9	BI	9	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F204A	TB04	10	I10	0	4	10	BI	10	TSH-L011	PUMP P-L01 MOTOR HIGH TEMPERATURE	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0022-001
	F204A	TB04	11	I11	0	4	11	BI	N/A	FIT-L012.FQI	STATION FLOW METER FIT-L010 TOTALIZER INPUT	-	-	-	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0034-001
	F204A	TB04	12	I12	0	4	12	BI	12	FIT-L012.FLT	STATION FLOW METER FIT-L010 FAULT	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0034-001
	F204A	TB04	13	I13	0	4	13	BI	13	HS-L100	LIC SELECTOR SWITCH STATUS	-	LIC-L100-2	LIC-L100-1	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0006-001
	F204A	TB04	14	I14	0	4	14	BI	14	LSH-L100-1	HIGH WET WELL LEVEL FROM LIC-L100-1	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0035-001
	F204A	TB04	15	I15	0	4	15	BI	15	LSH-L100-2	HIGH WET WELL LEVEL FROM LIC-L100-2	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0036-001
	F204B	TB04	16	I16	0	4	16	BI	16	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F204B	TB04	17	I17	0	4	17	BI	17	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F204B	TB04	18	I18	0	4	18	BI	18	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F204B	TB04	19	I19	0	4	19	BI	19	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F204B	TB04	20	I20	0	4	20	BI	20	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F204B	TB04	21	I21	0	4	21	BI	21	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F204B	TB04	22	I22	0	4	22	BI	22	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F204B	TB04	23	I23	0	4	23	BI	23	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F204B	TB04	24	I24	0	4	24	BI	24	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F204B	TB04	25	I25	0	4	25	BI	25	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F204B	TB04	26	I26	0	4	26	BI	26	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F204B	TB04	27	I27	0	4	27	BI	27	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F204B	TB04	28	I28	0	4	28	BI	28	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F204B	TB04	29	I29	0	4	29	BI	29	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F204B	TB04	30	I30	0	4	30	BI	30	FSL-L600	MAIN FLOOR SUPPLY AIR FLOW SWITCH	-	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0040-001
	F204B	TB04	31	I31	0	4	31	BI	31	FSL-L610	EXHAUST FAN AIR FLOW SWITCH	-	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0040-001

Notes:
1. Zero (0) States and One (1) States are represented as positive logic not contact logic.

DI - DISCRETE INPUT

PLC Card	Fuse Number	Terminal Block	Terminal Number	Wire Tag	Rack	IO Module	Point	DNP3 Type	DNP3 Address	Equipment Tag	Description	Fail Safe (F/S)	0 State/ EU Minimum (Note 1)	1 State/ EU Maximum (Note 1)	I/O Type	Interface	Field Type	Notes	Wiring Drawing
Discrete Input (BMX DDI 3202K)	F205A	TB05	32	I32	0	5	0	BI	32	HS-L020-1M	PUMP P-L02 LOCAL MODE	-	Not Local	Local	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0013-002
	F205A	TB05	33	I33	0	5	1	BI	33	HS-L020-1A	PUMP P-L02 AUTO MODE	-	Not Auto	Auto	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0013-002
	F205A	TB05	34	I34	0	5	2	BI	34	YL-L020	PUMP P-L02 READY	-	Not Ready	Ready	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0013-002
	F205A	TB05	35	I35	0	5	3	BI	35	YLR-L020-1	PUMP P-L02 RUNNING FORWARD	-	Not Running Forward	Running Forward	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0013-002
	F205A	TB05	36	I36	0	5	4	BI	36	YLR-L020-2	PUMP P-L02 RUNNING REVERSE	-	Not Running Reverse	Running Reverse	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0013-002
	F205A	TB05	37	I37	0	5	5	BI	37	YAF-L020	PUMP P-L02 VFD FAULT	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0013-002
	F205A	TB05	38	I38	0	5	6	BI	38	VSH-L020-1	PUMP P-L02 UPPER BEARING VIBRATION HIGH ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0030-001
	F205A	TB05	39	I39	0	5	7	BI	39	VSH-L020-2	PUMP P-L02 LOWER BEARING VIBRATION HIGH ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0031-001
	F205A	TB05	40	I40	0	5	8	BI	40	TSH-L021	PUMP P-L02 MOTOR HIGH TEMPERATURE	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0022-001
	F205A	TB05	41	I41	0	5	9	BI	41	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F205A	TB05	42	I42	0	5	10	BI	42	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F205A	TB05	43	I43	0	5	11	BI	43	LSH-V502	VALVE CHAMBER FLOOD ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0027-001
	F205A	TB05	44	I44	0	5	12	BI	44	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F205A	TB05	45	I45	0	5	13	BI	45	YS-L508-1	PLC MODE	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0007-001
	F205A	TB05	46	I46	0	5	14	BI	46	YA-L541-1	PS01 24VDC POWER FAIL ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0007-001
	F205A	TB05	47	I47	0	5	15	BI	47	YA-L541-2	PS02 24VDC POWER FAIL ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0007-001
	F205B	TB05	48	I48	0	5	16	BI	48	HS-L522	ALARM MODE TEST SWITCH	-	Normal	Alarm Test	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0007-001
	F205B	TB05	49	I49	0	5	17	BI	49	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F205B	TB05	50	I50	0	5	18	BI	50	XS-L741	MCC-L74 TVSS STATUS	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0007-001
	F205B	TB05	51	I51	0	5	19	BI	51	ESL-L742	MCC-L74 600V AC POWER FAIL ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0007-001
	F205B	TB05	52	I52	0	5	20	BI	52	ESL-L528	120VAC POWER FAIL ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0007-001
	F205B	TB05	53	I53	0	5	21	BI	53	YA-L543	UPS ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0007-001
	F205B	TB05	54	I54	0	5	22	BI	54	YS-L543-1	UPS ON BATTERY	-	Normal	On Battery	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0007-001
	F205B	TB05	55	I55	0	5	23	BI	55	YS-L543-2	UPS BATTERY CHARGING	-	Normal	Charging	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0007-001
	F205B	TB05	56	I56	0	5	24	BI	56	LSHH-L101	HIGH HIGH WET WELL LEVEL ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0025-001
	F205B	TB05	57	I57	0	5	25	BI	57	LSH-L501	DRY WELL STATION FLOOD ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0026-001
	F205B	TB05	58	I58	0	5	26	BI	58	LSL-L560	WATER STORAGE TANK LOW LEVEL ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0042-001
	F205B	TB05	59	I59	0	5	27	BI	59	PDSH-L660	MAIN FLOOR SUPPLY AIR FILTER PLUGGED	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0040-001
	F205A	TB05	60	I41	0	5	9	BI	60	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F205A	TB05	61	I41	0	5	9	BI	61	YLR-L600	SUPERSTRUCTURE SUPPLY FAN RUNNING STATUS	F/S	OFF	Running	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0015-001
	F205A	TB05	62	I41	0	5	9	BI	62	YAF-L600	SUPERSTRUCTURE SUPPLY FAN OVERLOAD ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0015-001
	F205B	TB05	63	I63	0	5	31	BI	63	HS-L524	PLC MODE RESET (MOUNTED ON PANEL DOOR)	-	Not Reset	Reset	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0007-001

Notes:
1. Zero (0) States and One (1) States are represented as positive logic not contact logic.

DI - DISCRETE INPUT

PLC Card	Fuse Number	Terminal Block	Terminal Number	Wire Tag	Rack	IO Module	Point	DNP3 Type	DNP3 Address	Equipment Tag	Description	Fail Safe (F/S)	0 State/ EU Minimum (Note 1)	1 State/ EU Maximum (Note 1)	I/O Type	Interface	Field Type	Notes	Wiring Drawing
Discrete Input (BMX DDI 3202K)	F205A	TB05	64	I41	0	5	9	BI	64	YLR-L610	SUPERSTRUCTURE EXHAUST FAN RUNNING STATUS	F/S	OFF	Running	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0015-001
	F205A	TB05	65	I41	0	5	9	BI	65	YAF-L610	SUPERSTRUCTURE EXHAUST FAN OVERLOAD ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0015-001
	F205A	TB05	66	I41	0	5	9	BI	66	YAF-L601	SUPERSTRUCTURE EXHAUST AND SUPPLY FANS TROUBLE ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0015-001
	F206A	TB06	67	I67	0	6	3	BI	67	AIT-L550.Flt	AIT-L550 H_2S & CH_4 GAS DETECTOR TRANSMITTER FAULT ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0039-001
	F206A	TB06	68	I68	0	6	4	BI	68	ATS-L73.OnUTILITY	TRANSFER SWTICH ON UTILITY POWER	-	OFF	On Utility	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0037-001
	F206A	TB06	69	I69	0	6	5	BI	69	ATS-L73.OnGEN	TRANSFER SWTICH ON GENERATOR POWER	-	OFF	On Generator	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0037-001
	F206A	TB06	70	I70	0	6	6	BI	70	ATS-L73.Alm	TRANSFER SWTICH ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0037-001
	F206A	TB06	71	I71	0	6	7	BI	71	YLR-V600	AHU-V60 AIR HANDLING UNIT RUNNING	F/S	OFF	Running	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0017-001
	F206A	TB06	72	I72	0	6	8	BI	72	YAF-V600-1	AHU-V60 AIR HANDLING UNIT OVERLOAD ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0017-001
	F206A	TB06	73	I73	0	6	9	BI	73	YAF-V600-2	AHU-V60 AIR HANDLING UNIT NO AIR FLOW ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0017-001
	F206A	TB06	74	I74	0	6	10	BI	74	YAF-V600-3	AHU-V60 AIR HANDLING UNIT OVERHEAT ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0017-001
	F206A	TB06	75	I75	0	6	11	BI	75	YAF-V600-4	AHU-V60 AIR HANDLING UNIT LOW TEMPERATURE ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0017-001
	F206A	TB06	76	I76	0	6	12	BI	76	YLR-V610	VALVE CHAMBER EXHAUST FAN RUNNING	F/S	OFF	Running	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0019-001
	F206A	TB06	77	I77	0	6	13	BI	77	YAF-V610	VALVE CHAMBER EXHAUST FAN OVERLOAD ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-E0019-001
	F206A	TB06	78	I78	0	6	14	BI	78	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F206A	TB06	79	I79	0	6	15	BI	79	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F206B	TB06	80	I80	0	6	16	BI	80	HS-L600	SUPERSTRUCTURE/DRY WELL OCCUPIED	-	Not Occupied	Occupied	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0019-001
	F206B	TB06	81	I81	0	6	17	BI	81	XV-L60-1.ZSO	SUPPLY DAMPER OPEN	F/S	Not Open	Open	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0019-001
	F206B	TB06	82	I82	0	6	18	BI	82	XV-L60-1.ZSC	SUPPLY DAMPER CLOSED	F/S	Not Closed	Closed	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0019-001
	F206B	TB06	83	I83	0	6	19	BI	83	XV-L61-1.ZSO	EXHAUST DAMPER OPEN	F/S	Not Open	Open	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0019-001
	F206B	TB06	84	I84	0	6	20	BI	84	XV-L61-1.ZSC	EXHUAST DAMPER CLOSED	F/S	Not Closed	Closed	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0019-001
	F206B	TB06	85	I85	0	6	21	BI	85	HS-V600	VALVE CHAMBER OCCUPIED	-	Not Occupied	Occupied	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0019-001
	F206B	TB06	86	I86	0	6	22	BI	86	XV-V60-1.ZSO	AHU DAMPER OPEN	F/S	Not Open	Open	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0019-001
	F206B	TB06	87	I87	0	6	23	BI	87	XV-V60-1.ZSC	AHU DAMPER CLOSED	F/S	Not Closed	Closed	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0019-001
	F206B	TB06	88	I88	0	6	24	BI	88	XV-V61-1.ZSO	EXHAUST DAMPER OPEN	F/S	Not Open	Open	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0019-001
	F206B	TB06	89	I89	0	6	25	BI	89	XV-V61-1.ZSC	EXHUAST DAMPER CLOSED	F/S	Not Closed	Closed	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0019-001
	F206B	TB06	90	I90	0	6	26	BI	90	YS-L720-1	GENERATOR RUN STATUS	-	Off	Running	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0038-001
	F206B	TB06	91	I91	0	6	27	BI	91	YAF-L720	GENERATOR FAULT	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0038-001
	F206B	TB06	92	I92	0	6	28	BI	92	YS-L720-2	GENERATOR BREAKER STATUS	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0038-001
	F206B	TB06	93	I93	0	6	29	BI	93	YS-L721	DP-L72 BREAKER STATUS	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0038-001
	F206B	TB06	94	I94	0	6	30	BI	94	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		
	F206B	TB06	95	I95	0	6	31	BI	95	-	SPARE	-	-	-	DI (24Vdc - Wet, Non-Isolated)	-	-		

KGS GROUP	CENTREPORT SOUTH REGIONAL WATER AND WASTEWATER SERVICING PHASE 1 A (CONTRACT 1A) DNP3 I/O MAPPING LIST CP-L81	Document No. LST-J-002 Revision 0

Notes:

1. Zero (0) States and One (1) States are represented as positive logic not contact logic.

DO - DISCREET OUTPUT

PLC Card	Fuse Number	Terminal Block	Terminal Number	Wire Tag	Rack	IO Module	Point	DNP3 Type	DNP3 Address	Equipment Tag	Description	Fail Safe (F/S)	0 State/ EU Minimum (Note 1)	1 State/ EU Maximum (Note 1)	I/O Type	Interface	Field Type	Notes	Wiring Drawing
Discrete Output (BMX DDO 1602)	F207	TB07	1	Q0	0	7	0	BI	96	YC-L010-1	P-L01 - RUN FORWARD COMMAND	-	Do Not Run Forward	Run Forward	DO (24Vdc - Wet, Non-Isolated)	24VDC/24VDC RELAY	24VDC Dry		1-0241L-A0016-001
	F207	TB07	2	Q1	0	7	1	BI	97	YC-L010-2	P-L01 - RUN REVERSE COMMAND	-	Do Not Run Reverse	Run Reverse	DO (24Vdc - Wet, Non-Isolated)	24VDC/24VDC RELAY	24VDC Dry		1-0241L-A0016-001
	F207	TB07	3	Q2	0	7	2	BI	98	YC-L020-1	P-L02 - RUN FORWARD COMMAND	-	Do Not Run Forward	Run Forward	DO (24Vdc - Wet, Non-Isolated)	24VDC/24VDC RELAY	24VDC Dry		1-0241L-A0016-001
	F207	TB07	4	Q3	0	7	3	BI	99	YC-L020-2	P-L02 - RUN REVERSE COMMAND	-	Do Not Run Reverse	Run Reverse	DO (24Vdc - Wet, Non-Isolated)	24VDC/24VDC RELAY	24VDC Dry		1-0241L-A0016-001
	F207	TB07	5	Q4	0	7	4	BI	100	-	SPARE	-	-	-	DO (24Vdc - Wet, Non-Isolated)	-	-		
	F207	TB07	6	Q5	0	7	5	BI	101	-	SPARE	-	-	-	DO (24Vdc - Wet, Non-Isolated)	-	-		
	F207	TB07	7	Q6	0	7	6	BI	102	-	SPARE	-	-	-	DO (24Vdc - Wet, Non-Isolated)	-	-		
	F207	TB07	8	Q7	0	7	7	BI	103	-	SPARE	-	-	-	DO (24Vdc - Wet, Non-Isolated)	-	-		
	F207	TB07	9	Q8	0	7	8	BI	104	YC-L508	PLC MODE OKAY	-	PLC Mode Not Okay	PLC Mode Okay	DO (24Vdc - Wet, Non-Isolated)	24VDC/24VDC RELAY	24VDC Dry		1-0241L-A0016-001
	F207	TB07	10	Q9	0	7	9	BI	105	YS-V600	VALVE CHAMBER LOAD SHED COIL	-	Load Shed Active	Load Shed Not Active	DO (24Vdc - Wet, Non-Isolated)	24VDC/24VDC RELAY	24VDC Dry		1-0241L-E0017-001
	F207	TB07	11	Q10	0	7	10	BI	106	-	SPARE	-	-	-	DO (24Vdc - Wet, Non-Isolated)	-	-		
	F207	TB07	12	Q11	0	7	11	BI	107	-	SPARE	-	-	-	DO (24Vdc - Wet, Non-Isolated)	-	-		
	F207	TB07	13	Q12	0	7	12	BI	108	-	SPARE	-	-	-	DO (24Vdc - Wet, Non-Isolated)	-	-		
	F207	TB07	14	Q13	0	7	13	BI	109	-	SPARE	-	-	-	DO (24Vdc - Wet, Non-Isolated)	-	-		
	F207	TB07	15	Q14	0	7	14	BI	110	-	SPARE	-	-	-	DO (24Vdc - Wet, Non-Isolated)	-	-		
	F207	TB07	16	Q15	0	7	15	BI	111	-	SPARE	-	-	-	DO (24Vdc - Wet, Non-Isolated)	-	-		

Notes:
1. Zero (0) States and One (1) States are represented as positive logic not contact logic.

AI - ANALOG INPUT

PLC Card	Fuse Number	Terminal Block	Terminal Number	Wire Tag	Rack	IO Module	Point	DNP3 Type	DNP3 Address	Equipment Tag	Description	Fail Safe (F/S)	0 State/ EU Minimum (Note 1)	1 State/ EU Maximum (Note 1)	I/O Type	Interface	Field Type	Notes	Wiring Drawing
Analog Input (BMX AMI 0810)	F208	TB08	0	AI0	0	8	0	AI	0	VIC-L010-1	LIFT PUMP P-L01 UPPER BEARING (MOTOR SIDE NON-DRIVE END) VIBRATION INDICATING CONTROLLER	-	0 mm/s	25.4 mm/s	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-A0028-001
	F208	TB08	1	AI1	0	8	1	AI	1	VIC-L010-2	LIFT PUMP P-L01 LOWER BEARING (PUMP SIDE DRIVE END) VIBRATION INDICATING CONTROLLER	-	0 mm/s	25.4 mm/s	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-A0029-001
	F208	TB08	2	AI2	0	8	2	AI	2	TT-L010-1	LIFT PUMP P-L01 UPPER BEARING (MOTOR SIDE NON-DRIVE END) TEMPERATURE SENSOR	-	0°C	125°C	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-A0032-001
	F208	TB08	3	AI3	0	8	3	AI	3	TT-L010-2	LIFT PUMP P-L01 LOWER BEARING (PUMP SIDE DRIVE END) TEMPERATURE SENSOR	-	0°C	125°C	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-A0032-001
	F208	TB08	4	AI4	0	8	4	AI	4	SI-L010	PUMP P-L01 MOTOR SPEED	-	0 RPM	1200 RPM	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-E0011-002
	F208	TB08	5	AI5	0	8	5	AI	5	IT-L010	PUMP P-L01 MOTOR CURRENT	-	0 A	40 A	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-E0011-002
	F208	TB08	6	AI6	0	8	6	AI	6	FIT-L012	STATION FLOW METER	-	0 l/s	250 L/s	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-A0034-001
	F208	TB08	7	AI7	0	8	7	AI	7	-	SPARE	-	-	-	AI (Isolated, 4..20mA)	-	-		
Analog Input (BMX AMI 0810)	F209	TB09	8	AI8	0	9	0	AI	8	VIC-L020-1	LIFT PUMP P-L02 UPPER BEARING (MOTOR SIDE NON-DRIVE END) VIBRATION INDICATING CONTROLLER	-	0 mm/s	25.4 mm/s	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-A0030-001
	F209	TB09	9	AI9	0	9	1	AI	9	VIC-L020-2	LIFT PUMP P-L02 LOWER BEARING (PUMP SIDE DRIVE END) VIBRATION INDICATING CONTROLLER	-	0 mm/s	25.4 mm/s	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-A0031-001
	F209	TB09	10	AI10	0	9	2	AI	10	TT-L020-1	LIFT PUMP P-L02 UPPER BEARING (MOTOR SIDE NON-DRIVE END) TEMPERATURE SENSOR	-	0°C	125°C	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-A0033-001
	F209	TB09	11	AI11	0	9	3	AI	11	TT-L020-2	LIFT PUMP P-L02 LOWER BEARING (PUMP SIDE DRIVE END) TEMPERATURE SENSOR	-	0°C	125°C	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-A0033-001
	F209	TB09	12	AI12	0	9	4	AI	12	SI-L020	PUMP P-L02 MOTOR SPEED	-	0 RPM	1180 RPM	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-E0013-002
	F209	TB09	13	AI13	0	9	5	AI	13	IT-L020	PUMP P-L02 MOTOR CURRENT	-	0 A	200 A	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-E0013-002
	F209	TB09	14	AI14	0	9	6	AI	14	-	SPARE	-	-	-	AI (Isolated, 4..20mA)				
	F209	TB09	15	AI15	0	9	7	AI	15	-	SPARE	-	-	-	AI (Isolated, 4..20mA)				
Analog Input (BMX AMI 0810)	F210	TB10	16	AI16	0	10	0	AI	16	-	SPARE	-	-	-	AI (Isolated, 4..20mA)				
	F210	TB10	17	AI17	0	10	1	AI	17	-	SPARE	-	-	-	AI (Isolated, 4..20mA)				
	F210	TB10	18	AI18	0	10	2	AI	18	-	SPARE	-	-	-	AI (Isolated, 4..20mA)				
	F210	TB10	19	AI19	0	10	3	AI	19	-	SPARE	-	-	-	AI (Isolated, 4..20mA)				
	F210	TB10	20	AI20	0	10	4	AI	20	-	SPARE	-	-	-	AI (Isolated, 4..20mA)				
	F210	TB10	21	AI21	0	10	5	AI	21	-	SPARE	-	-	-	AI (Isolated, 4..20mA)				
	F210	TB10	22	AI22	0	10	6	AI	22	-	SPARE	-	-	-	AI (Isolated, 4..20mA)				
	F210	TB10	23	AI23	0	10	7	AI	23	-	SPARE	-	-	-	AI (Isolated, 4..20mA)				
Analog Input (BMX AMI 0810)	F211	TB11	24	AI24	0	11	0	AI	24	LIT-L100-1	WET WELL LEVEL TRANSMITTER '1'	-	0 m	10 m (Water Column)	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-A0035-001
	F211	TB11	25	AI25	0	11	1	AI	25	-	SPARE	-	-	-	AI (Isolated, 4..20mA)	-	-		
	F211	TB11	26	AI26	0	11	2	AI	26	-	SPARE	-	-	-	AI (Isolated, 4..20mA)	-	-		
	F211	TB11	27	AI27	0	11	3	AI	27	-	SPARE	-	-	-	AI(Isolated, 0..10V)	-	-		
	F211	TB11	28	AI28	0	11	4	AI	28	-	SPARE	-	-	-	AI(Isolated, 0..10V)	-	-		
	F211	TB11	29	AI29	0	11	5	AI	29	-	SPARE	-	-	-	AI(Isolated, 0..10V)	-	-		
	F211	TB11	30	AI30	0	11	6	AI	30	-	SPARE	-	-	-	AI(Isolated, 0..10V)	-	-		
	F211	TB11	31	AI31	0	11	7	AI	31	-	SPARE	-	-	-	AI(Isolated, 0..10V)	-	-		
Analog Input (BMX AMI 0810)	F212	TB12	24	AI24	1	0	0	AI	32	TT-L671	MOTOR ROOM TEMPERATURE	-	0°C	50°C	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-A0024-001
	F212	TB12	25	AI25	1	0	1	AI	33	TT-L681	PUMP ROOM TEMPERATURE TRANSMITTER	-	0°C	50°C	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-A0024-001
	F212	TB12	26	AI26	1	0	2	AI	34	TT-L691	MAIN FLOOR ROOM TEMPERATURE	-	0°C	50°C	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-A0023-001
	F212	TB12	27	AI27	1	0	3	AI	35	TT-L692	MAIN FLOOR OUTSIDE TEMPERATURE	-	-50°C	50°C	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-A0023-001
	F212	TB12	28	AI28	1	0	4	AI	36	LIT-L100-2	WET WELL LEVEL TRANSMITTER '2'	-	0 m	10 m (Water Column)	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-A0036-001
	F212	TB12	29	AI29	1	0	5	AI	37	AIT-L550-1	AIT-L550 GAS DETECTOR H_2S LEVEL	-	0 PPM	10 PPM	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-A0039-001
	F212	TB12	30	AI30	1	0	6	AI	38	AIT-L550-2	AIT-L550 METHANE DETECTOR CH_4 LEVEL	-	0% LEL	20% LEL	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-A0039-001
	F212	TB12	31	AI31	1	0	7	AI	39	TT-V672	TT-V672 VALVE CHAMBER TEMPERATURE TRANSMITTER	-	5°C	25°C	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-A0041-001

KGS GROUP	CENTREPORT SOUTH REGIONAL WATER AND WASTEWATER SERVICING PHASE 1 A (CONTRACT 1A) DNP3 I/O MAPPING LIST CP-L81	Document No. LST-J-002 Revision 0

Notes:

1. Zero (0) States and One (1) States are represented as positive logic not contact logic.

AO - ANALOG OUTPUT

PLC Card	Fuse Number	Terminal Block	Terminal Number	Wire Tag	Rack	IO Module	Point	DNP3 Type	DNP3 Address	Equipment Tag	Description	Fail Safe (F/S)	0 State/ EU Minimum (Note 1)	1 State/ EU Maximum (Note 1)	I/O Type	Interface	Field Type	Notes	Wiring Drawing
Analog Output (BMX AMO 0410)	N/A	TB13	1	AO1	1	1	1	AI	40	SC-L010	PUMP P-L01 VFD SPEED COMMAND	-	0 HZ	60 HZ	AO (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-E0011-002
	N/A	TB13	2	AO2	1	1	2	AI	41	SC-L020	PUMP P-L02 VFD SPEED COMMAND	-	0 HZ	60 HZ	AO (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-E0013-002
	N/A	TB13	3	AO3	1	1	3	AI	42	-	SPARE	-	-	-	AO (Isolated, 4..20mA)				
	N/A	TB13	4	AO4	1	1	4	AI	43	-	SPARE	-	-	-	AO (Isolated, 4..20mA)				

KGS GROUP	CENTREPORT SOUTH REGIONAL WATER AND WASTEWATER SERVICING PHASE 1 A (CONTRACT 1A) DNP3 I/O MAPPING LIST CP-L81	Document No. LST-J-002 Revision 0

Notes:

1. Zero (0) States and One (1) States are represented as positive logic not contact logic.

INTERNAL VARIABLE TAGS

PLC Card	Fuse Number	Terminal Block	Terminal Number	Wire Tag	Rack	IO Module	Point	DNP3 Type	DNP3 Address	Equipment Tag	Description	Fail Safe (F/S)	0 State/ EU Minimum (Note 1)	1 State/ EU Maximum (Note 1)	I/O Type	Interface	Field Type	Notes	Wiring Drawing
	-	-	-	-	-	-	-	AI	44	FIT_L012.Out	Scaled station flow	-	0 L/s	250 L/s	-	-	-		
	-	-	-	-	-	-	-	AI	45	FQI_L001_30Min	Station 30 minute totalized flow	-	0 m^3	# m^3	-	-	-		
	-	-	-	-	-	-	-	AI	46	FQI_L001_5Hr	Station 5 hour totalized flow	-	0 m^3	# m^3	-	-	-		
	-	-	-	-	-	-	-	AI	47	FQI_L001_5hr_Previous	Station previous 5 hour totalized flow	-	0 m^3	# m^3	-	-	-		
	-	-	-	-	-	-	-	AI	48	PLC_L81_HB	Lift Station PLC Heartbeat to SCADA	-	0	32767	-	-	-		
	-	-	-	-	-	-	-	AI	50	FQI_L001_DayC	Station current day totalized flow.	-	0 m^3	# m^3	-	-	-		
	-	-	-	-	-	-	-	AI	51	FQI_L002_DayP	Station previous day totalized flow	-	0 m^3	# m^3	-	-	-		
	-	-	-	-	-	-	-	AI	52	LI_L100	Level utilized for control	-	0 m	10 m (Water Column)	-	-	-		
	-	-	-	-	-	-	-	AI	53	LI_L100_Mode	LI-L100 selected mode: 0=Average, 1=LI_L100-1, 2=LI_L100-2	-	0	2	-	-	-		
	-	-	-	-	-	-	-	AI	54	LC_L100_Duty_Start_SP	Duty Pump Start	-	0 m	1.713 m	-	-	-		
	-	-	-	-	-	-	-	AI	55	LC_L100_Duty_Stop_SP	Duty Pump Stop	-	0 m	0.313 m	-	-	-		
	-	-	-	-	-	-	-	BI	112	FAF_L012	FLOW ALARM FAULT FROM FIT-L012	-	Normal	Alarm	-	-	-		
	-	-	-	-	-	-	-	BI	113	P_L01_InService_Cmd	In Service Command (DNP3 Binary Output sent by SCADA)	-	Out of Service	In Service,	-	-	-		
	-	-	-	-	-	-	-	BI	114	P_L01_OutService_Cmd	Out of Service Command (DNP3 Binary Output sent by SCADA)	-	In Service	Out of Service	-	-	-		
	-	-	-	-	-	-	-	BI	115	P_L01_InService_Fbk	In Service Command Feedback (DNP3 Binary Input sent to SCADA)	-	Out of Service	In Service,	-	-	-		
	-	-	-	-	-	-	-	BI	116	P_L01_OutService_Fbk	Out of Service Command Feedback (DNP3 Binary Input sent to SCADA)	-	In Service	Out of Service	-	-	-		
	-	-	-	-	-	-	-	BI	117	P_L01_OutService_Sts	Out of Service Status (DNP3 Binary Input sent to SCADA)	-	Not out of Service	Out of Service	-	-	-		
	-	-	-	-	-	-	-	BI	118	P_L01_RunFwd_Cmd	Run Forward Command (DNP3 Binary Output sent by SCADA)	-	Do Not Run Forward	Run Forward	-	-	-		
	-	-	-	-	-	-	-	BI	119	P_L01_Stop_Cmd	Stop Command (DNP3 Binary Output sent by SCADA)	-	Okay	Stop	-	-	-		
	-	-	-	-	-	-	-	BI	120	P_L01_RunRev_Cmd	Run Reverse Command (DNP3 Binary Output sent by SCADA)	-	Do Not Run Reverse	Run Reverse	-	-	-		
	-	-	-	-	-	-	-	BI	121	P_L01_RunFwd_Fbk	Run Forward Command Feedback (DNP3 Binary Input sent to SCADA)	-	Do Not Run Forward	Run Forward	-	-	-		
	-	-	-	-	-	-	-	BI	122	P_L01_Stop_Fbk	Stop Command Feedback (DNP3 Binary Input sent to SCADA)	-	Okay	Stop	-	-	-		
	-	-	-	-	-	-	-	BI	123	P_L01_RunRev_Fbk	Run Reverse Command Feedback (DNP3 Binary Input sent to SCADA)	-	Do Not Run Reverse	Run Reverse	-	-	-		
	-	-	-	-	-	-	-	BI	124	P-L01_RunFltRst_Cmd	Run Fault Reset Command (DNP3 Binary Output sent by SCADA)	-	Do Not Reset	Run Fault Reset	-	-	-		
	-	-	-	-	-	-	-	BI	125	P-L01_RunFltRst_Fbk	Run Fault Reset Command Feedback (DNP3 Binary Input sent to SCADA)	-	Do Not Reset	Reset	-	-	-		
	-	-	-	-	-	-	-	BI	126	P_L02_InService_Cmd	In Service Command (DNP3 Binary Output sent by SCADA)	-	Out of Service	In Service,	-	-	-		
	-	-	-	-	-	-	-	BI	127	P_L02_OutService_Cmd	Out of Service Command (DNP3 Binary Output sent by SCADA)	-	In Service	Out of Service	-	-	-		
	-	-	-	-	-	-	-	BI	128	P_L02_InService_Fbk	In Service Command Feedback (DNP3 Binary Input sent to SCADA)	-	Out of Service	In Service,	-	-	-		
	-	-	-	-	-	-	-	BI	129	P_L02_OutService_Fbk	Out of Service Command Feedback (DNP3 Binary Input sent to SCADA)	-	In Service	Out of Service	-	-	-		
	-	-	-	-	-	-	-	BI	130	P_L02_OutService_Sts	Out of Service Status (DNP3 Binary Input sent to SCADA)	-	Not out of Service	Out of Service	-	-	-		
	-	-	-	-	-	-	-	BI	131	P_L02_RunFwd_Cmd	Run Forward Command (DNP3 Binary Output sent by SCADA)	-	Do Not Run Forward	Run Forward	-	-	-		
	-	-	-	-	-	-	-	BI	132	P_L02_Stop_Cmd	Stop Command (DNP3 Binary Output sent by SCADA)	-	Okay	Stop	-	-	-		
	-	-	-	-	-	-	-	BI	133	P_L02_RunRev_Cmd	Run Reverse Command (DNP3 Binary Output sent by SCADA)	-	Do Not Run Reverse	Run Reverse	-	-	-		
	-	-	-	-	-	-	-	BI	134	P_L02_RunFwd_Fbk	Run Forward Command Feedback (DNP3 Binary Input sent to SCADA)	-	Do Not Run Forward	Run Forward	-	-	-		
	-	-	-	-	-	-	-	BI	135	P_L02_Stop_Fbk	Stop Command Feedback (DNP3 Binary Input sent to SCADA)	-	Okay	Stop	-	-	-		
	-	-	-	-	-	-	-	BI	136	P_L02_RunRev_Fbk	Run Reverse Command Feedback (DNP3 Binary Input sent to SCADA)	-	Do Not Run Reverse	Run Reverse	-	-	-		
	-	-	-	-	-	-	-	BI	137	P-L02_RunFltRst_Cmd	Run Fault Reset Command (DNP3 Binary Output sent by SCADA)	-	Do Not Reset	Run Fault Reset	-	-	-		
	-	-	-	-	-	-	-	BI	138	P-L02_RunFltRst_Fbk	Run Fault Reset Command Feedback (DNP3 Binary Input sent to SCADA)	-	Do Not Reset	Reset	-	-	-		
	-	-	-	-	-	-	-	BI	139	PLC_Auto_Cmd	PLC Auto Command (DNP3 Binary Output sent by SCADA)	-	Not Auto	Auto	-	-	-		
	-	-	-	-	-	-	-	BI	140	PLC_Manual_Cmd	PLC Manual Command (DNP3 Binary Output sent by SCADA)	-	Not Manual	Manual	-	-	-		
	-	-	-	-	-	-	-	BI	141	PLC_Auto_Fbk	In Service Command Feedback (DNP3 Binary Input sent to SCADA):	-	Not Auto	Auto	-	-	-		
	-	-	-	-	-	-	-	BI	142	PLC_Manual_Fbk	PLC Manual Feedback (DNP3 Binary Input sent to SCADA)	-	Not Manual	Manual	-	-	-		
	-	-	-	-	-	-	-	BI	143	PLC_AutoMan_Sts	PLC Auto/Manual Status (DNP3 Binary Input sent to SCADA)	-	Manual	Auto	-	-	-		
	-	-	-	-	-	-	-	BI	144	PLC_ResetOn_Cmd	Reset ON Cmd (DNP3 Binary Output sent by SCADA)	-	Do Not Reset Alarms	Reset Alarms	-	-	-		
	-	-	-	-	-	-	-	BI	145	PLC_ResetOn_Fbk	Reset ON Cmd Feedback (DNP3 Binary Input sent to SCADA)	-	Alarms Not Reset	Alarms Reset	-	-	-		
	-	-	-	-	-	-	-	BI	146	PLC_ResetOn_Sts	Reset ON Status (DNP3 Binary Input sent to SCADA)	-	Not Reset	Reset	-	-	-		

KGS GROUP	CENTREPORT SOUTH REGIONAL WATER AND WASTEWATER SERVICING PHASE 1 A (CONTRACT 1A) OFFTAKE STRUCTURE 3 DNP3 I/O MAPPING LIST CP-F81	Document No. LST-J-002 Revision 0

Notes:

1. Zero (0) States and One (1) States are represented as positive logic not contact logic.

DI - DISCRETE INPUT

PLC Card	Fuse Number	Terminal Block	Terminal Number	Wire Tag	Rack	IO Module	Point	DNP3 Type	DNP3 Address	Equipment Tag	Description	Fail Safe (F/S)	0 State/ EU Minimum (Note 1)	1 State/ EU Maximum (Note 1)	I/O Type	Interface	Field Type	Notes	Wiring Drawing
Discrete Input (BMX DDI 3202K)	F204A	TB04	0	I0	0	4	0	BI	0	-	-	-	-	-	-	-	-		
	F204A	TB04	1	I1	0	4	1	BI	1	EA-F814	EA-F814 UPS ALARM	F/S	Normal	On Battery	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0045-001
	F204A	TB04	2	I2	0	4	2	BI	2	YA-814	YA-814 UPS ON BATTERY	F/S	Normal	Charging	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0045-001
	F204A	TB04	3	I3	0	4	3	BI	3	XA-F814	XA-F814 UPS BATTERY CHARGING	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0045-001
	F204A	TB04	4	I4	0	4	4	BI	4	YS-F813	PS01 24VDC POWER FAIL ALARM	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0045-001
	F204A	TB04	5	I5	0	4	5	BI	5	ESL-F812	120V POWER FAIL RELAY STAUS	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0045-001
	F204A	TB04	6	I6	0	4	6	BI	6	ZS-F600	ELECTRICAL PANEL OPEN	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0045-001
	F204A	TB04	7	I7	0	4	7	BI	7	FV-B80.Flt	VALVE FV-B80 FAULT SIGNAL	F/S	Normal	Alarm	DI (24Vdc - Wet, Non-Isolated)	N/A	24VDC Dry		1-0241L-A0046-001
	F204A	TB04	8	I8	0	4	8	BI	8	-	SPARE	-	-	-	-	-	-		
	F204A	TB04	9	I9	0	4	9	BI	9	-	SPARE	-	-	-	-	-	-		
	F204A	TB04	10	I10	0	4	10	BI	10	-	SPARE	-	-	-	-	-	-		
	F204A	TB04	11	I11	0	4	11	BI	11	-	SPARE	-	-	-	-	-	-		
	F204A	TB04	12	I12	0	4	12	BI	12	-	SPARE	-	-	-	-	-	-		
	F204A	TB04	13	I13	0	4	13	BI	13	-	SPARE	-	-	-	-	-	-		
	F204A	TB04	14	I14	0	4	14	BI	14	-	SPARE	-	-	-	-	-	-		
	F204A	TB04	15	I15	0	4	15	BI	15	-	SPARE	-	-	-	-	-	-		

KGS GROUP	CENTREPORT SOUTH REGIONAL WATER AND WASTEWATER SERVICING PHASE 1 A (CONTRACT 1A) OFFTAKE STRUCTURE 3 DNP3 I/O MAPPING LIST CP-F81	Document No. LST-J-002 Revision 0

Notes:

1. Zero (0) States and One (1) States are represented as positive logic not contact logic.

AI - ANALOG INPUT

PLC Card	Fuse Number	Terminal Block	Terminal Number	Wire Tag	Rack	IO Module	Point	DNP3 Type	DNP3 Address	Equipment Tag	Description	Fail Safe (F/S)	0 State/ EU Minimum (Note 1)	1 State/ EU Maximum (Note 1)	I/O Type	Interface	Field Type	Notes	Wiring Drawing
Analog Input (BMX AMI 0810)	F208	TB08	0	AI0	0	8	0	AI	0	FV-B80.Fbk	VALVE FV-B80 POSITION FEEDBACK SIGNAL	-	0%	100%	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-A0049-001
	F208	TB08	1	AI1	0	8	1	AI	1	TT-F601	PLC CABINET TEMPERATURE TRANSMITTER	-	4 deg C	40 degree C	AI (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-A0047-001
	F208	TB08	2	AI2	0	8	2	AI	2	-	SPARE	-	-	-	-	-	-		
	F208	TB08	3	AI3	0	8	3	AI	3	-	SPARE	-	-	-	-	-	-		
	F208	TB08	4	AI4	0	8	4	AI	4	-	SPARE	-	-	-	-	-	-		
	F208	TB08	5	AI5	0	8	5	AI	5	-	SPARE	-	-	-	-	-	-		
	F208	TB08	6	AI6	0	8	6	AI	6	-	SPARE	-	-	-	-	-	-		
	F208	TB08	7	AI7	0	8	7	AI	7	-	SPARE	-	-	-	-	-	-		

Notes:

1. Zero (0) States and One (1) States are represented as positive logic not contact logic.

AO - ANALOG OUTPUT

PLC Card	Fuse Number	Terminal Block	Terminal Number	Wire Tag	Rack	IO Module	Point	DNP3 Type	DNP3 Address	Equipment Tag	Description	Fail Safe (F/S)	0 State/ EU Minimum (Note 1)	1 State/ EU Maximum (Note 1)	I/O Type	Interface	Field Type	Notes	Wiring Drawing
Analog Output (BMX AMO 0410)	N/A	TB13	1	AO1	1	1	1	AI	40	FV-B80.CmdZ	VALVE FV-B80 POSITION COMMAND	-	-	-	AO (Isolated, 4..20mA)	2-Wire	4-20mA - 2 Wire Isol		1-0241L-A0049-001
	N/A	TB13	2	AO2	1	1	2	AI	41	-	SPARE	-	-	-	-	-	-		
	N/A	TB13	3	AO3	1	1	3	AI	42	-	SPARE	-	-	-	-	-	-		
	N/A	TB13	4	AO4	1	1	4	AI	43	-	SPARE	-	-	-	-	-	-		

KGS GROUP	CENTREPORT SOUTH REGIONAL WATER AND WASTEWATER SERVICING PHASE 1 A (CONTRACT 1A) OFFTAKE STRUCTURE 3 DNP3 I/O MAPPING LIST CP-F81	Document No. LST-J-002 Revision 0

Notes:

1. Zero (0) States and One (1) States are represented as positive logic not contact logic.

INTERNAL VARIABLE TAGS

PLC Card	Fuse Number	Terminal Block	Terminal Number	Wire Tag	Rack	IO Module	Point	DNP3 Type	DNP3 Address	Equipment Tag	Description	Fail Safe (F/S)	0 State/ EU Minimum (Note 1)	1 State/ EU Maximum (Note 1)	I/O Type	Interface	Field Type	Notes	Wiring Drawing
	-	-	-	-	-	-	-	AI	44	PLC_F81_HB	Offtake Structure 3 PLC Heartbeat to SCADA		0	32767	-	-	-		
	-	-	-	-	-	-	-	BI	17	TAL-F601_Alm	Panel Temperature Low Alarm		Normal	Alarm	-	-	-		
	-	-	-	-	-	-	-	BI	18	TAH-F601_Alm	Panel Temperature High Alarm		Normal	Alarm	-	-	-		