

INSTRUMENT AND DEVICE IDENTIFICATION TABLE				
FIRST-LETTER		SUCCEEDING-LETTERS		
MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A ANALYSIS OR SAMPLER		ALARM, TROUBLE		
B BURNER FLAME				CLOSE, DECREASE
C CONDUCTIVITY			CONTROL	
D DENSITY	DIFFERENTIAL			OPEN, INCREASE
E VOLTAGE (EMF)		SENSOR (PRIMARY ELEMENT)		
F FLOW RATE	RATIO (FRACTION)	FAILURE		
G GAS		GLASS, VIEWING DEVICE	GENERATOR (ULTRASONIC)	
H HAND (MANUAL)				HIGH
I CURRENT (ELECTRICAL)		INDICATE		
J POWER	SCAN			
K TIME	TIME RATE OF CHANGE		CONTROL STATION	
L LEVEL		LIGHT		LOW
M MOTOR	MOMENTARY	OPERATE, ON/OFF		MIDDLE, INTERMEDIATE
N MOISTURE			START	
O TORQUE		ORIFICE, RESTRICTION	STOP, OVERLOAD	
P PRESSURE, VACUUM		POINT (TEST CONNECTION)		
Q COMMON, QUANTITY	INTEGRATE, TOTALIZE			
R RADIOACTIVITY		RECORD		
S SPEED, FREQUENCY	SAFETY		SWITCH	
T TEMPERATURE		TRANSMITTER		
U MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V VIBRATION, MECHANICAL ANALYSIS, VALVE, DAMPER (2)			VALVE, DAMPER, LOUVER	
W WEIGHT, FORCE		WELL		
X UNCLASSIFIED (1)	X AXIS	UNCLASSIFIED (1)	UNCLASSIFIED (1)	UNCLASSIFIED (1)
Y EVENT, STATE, OR PRESENCE	Y AXIS		RELAY, COMPUTE, CONVERT	
Z POSITION	Z AXIS		DRIVER, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT	

NOTES FOR INSTRUMENT AND DEVICE IDENTIFICATION TABLE:

1. THE LETTER X IS TO BE DEFINED AT THE TIME OF USE, AND MAY BE USED FOR MULTIPLE DEFINITIONS WHERE NO OTHER LETTER IS APPLICABLE.
2. THE USE OF V AS AN INITIAL LETTER TO REPRESENT A VALVE OR A DAMPER DOES NOT MEET THE INTENT OF ISA STANDARD 5.1, AND ITS CURRENT USE SHOULD BE REVIEWED.

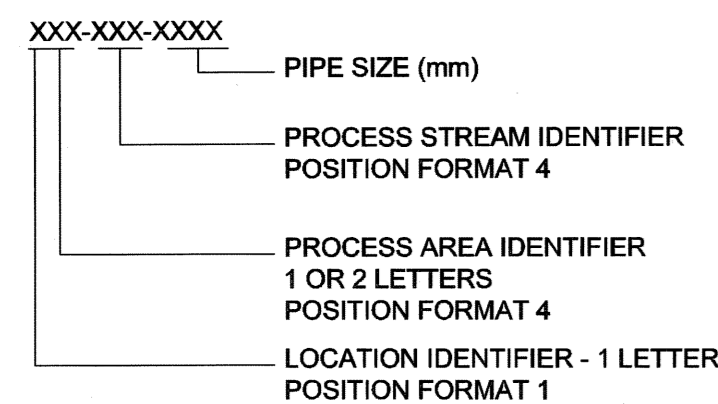
POSITION FORMATS

1. LOCATION IDENTIFIER - 1 LETTER
 - I INTAKE
 - D DEACON
 - T TACHE
 - C CENTRAL CONTROL - MCPHILLIPS
 - H HURST
 - L MACLEAN
 - P MCPHILLIPS
 - Q DISTRIBUTION SYSTEM
 - W WATER TREATMENT PLANT (FUTURE)
 - A AQUEDUCT
 - R RIVER
2. PLC OR RTU IDENTIFIER - 1 LETTER
 - ASCENDING FROM A TO Z
 - USE "M" FOR STATION MASTER
 - USE A - G FOR STATION PUMPS 1 TO 7
3. PROCESS AREA - UP TO 2 LETTERS
 - C CHLORINE
 - S SUCTION
 - D DISCHARGE
 - R RESERVOIR
 - T TELEMETERING
 - E ELECTRIC DRIVE
 - G GAS DRIVE
 - H HVAC
 - Z GENERAL STATION FUNCTIONS (UTILITIES)
 - SA SARGENT AVENUE AND ST. JAMES STREET
 - RR ROUGE ROAD AND ASSINIBOINE AVENUE
 - JB JOHN BLACK AVENUE AND MAIN STREET
 - IB INKSTER BOULEVARD AND BROOKSIDE BOULEVARD
 - GR GATEWAY ROAD AND SPRINGFIELD ROAD
 - PR PLESSIS ROAD AND DEVONSHIRE DRIVE
 - LB LAGIMODIERE BOULEVARD AT OFFTAKE TO SMUGGLER'S COVE
 - PC PADDINGTON ROAD AND CHARING CROSS CRESCENT
 - PH PEMBINA HIGHWAY AND CHANCELLOR MATHESON ROAD
 - RS REDONDA STREET AND KILDARE AVENUE
 - RV RUE DES TRAPPISTES AND VILLENEUVE BOULEVARD
 - FG FORT GARRY BRIDGE
 - JA JAMES AVENUE
 - KB KILDONAN BRIDGE
4. PROCESS STREAM IDENTIFIER - 3 DIGITS
 - 001 TO 039 AQUEDUCT AND RESERVOIR PIPING
 - 040 SUCTION HEADER
 - 041 TO 049 PIPING AND EQUIPMENT BETWEEN SUCTION AND DISCHARGE HEADER
 - 050 DISCHARGE HEADER
 - 051 TO 059 BRANCHES OFF DISCHARGE
 - 100 TO 599 EXTERIOR PIPING AND DISTRIBUTION SYSTEM
 - 599 REMOTE PRESSURE POINTS
 - 600 TO 699 HVAC
 - 800 TO 899 CHEMICAL SYSTEMS
 - 800 TO 829 CHLORINE
 - 830 TO 839 AMMONIA
 - 840 TO 849 FLOURIDE
 - 850 TO 899 MISC.
 - 900 TO 999 GENERAL UTILITIES
 - 900 TO 909 AIR PRESSURE
 - 910 TO 919 ELECTRICAL DISTRIBUTION
 - 920 TO 929 BUILDING SAFETY AND SECURITY
 - 930 TO 939 SUMPS
 - 940 TO 949 FLOOD
 - 950 TO 959 FLUSH WATER
 - 960 TO 969 GAS (NATURAL)
 - 970 TO 999 MISC.
 - 999 RIVER MONITORING
5. INSTRUMENT OR DEVICE IDENTIFICATION - 2-4 LETTERS
 - REFER TO TABLE AT LEFT
6. EQUIPMENT DESIGNATION - 2-4 LETTERS
 - REFER TO EQUIPMENT LIST AT RIGHT
7. PLC IDENTIFIER - 1 LETTER
 - FROM A TO Z IF APPLICABLE, IE. CONTROLLER, SETPOINT, OUTPUT, ETC.
 - 0 IF THE INFORMATION IS NOT EXPLICITLY ASSOCIATED WITH A PARTICULAR PLC
8. INTERNAL VALUE - 1 LETTER
 - A - CONTROL VALUE
 - C - CALCULATION
 - E - OPERATOR ENTRY
 - M - MANUAL DATA
9. SERIES NUMBER - UP TO 3 DIGITS OR LETTERS
 - ANY COMBINATION OF THREE LETTERS AND/OR NUMBERS

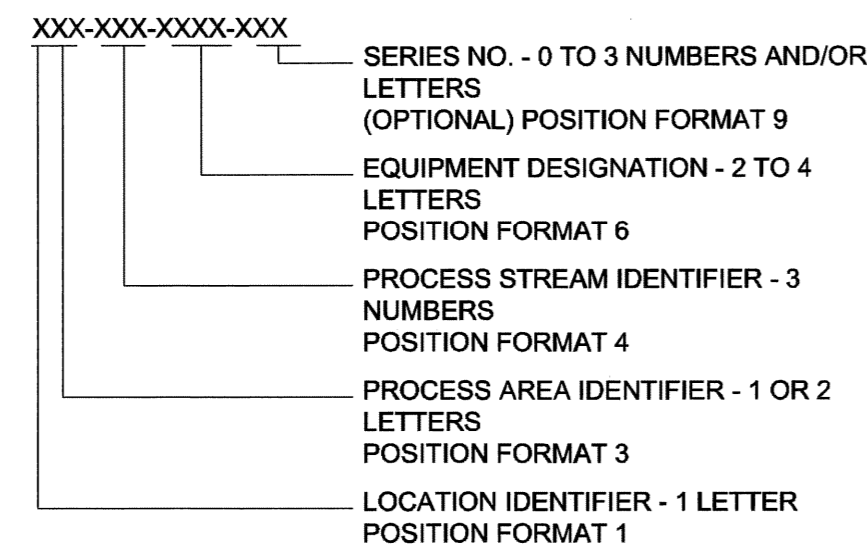
EQUIPMENT DESIGNATIONS

- AC AIR COMPRESSOR
- AV AQUEDUCT VALVE
- CAR COMPRESSED AIR RECEIVER
- CL (CL2) CHLORINE VALVE
- CLR CHLORINATOR
- DHV DISCHARGE HEADER VALVE
- DV DISCHARGE VALVE
- GN ELECTRIC GENERATOR
- INJ INJECTOR
- PP PUMP
- RV RESERVOIR VALVE
- SHV SUCTION HEADER VALVE
- SV SUCTION VALVE
- VLV VALVE (GENERAL)

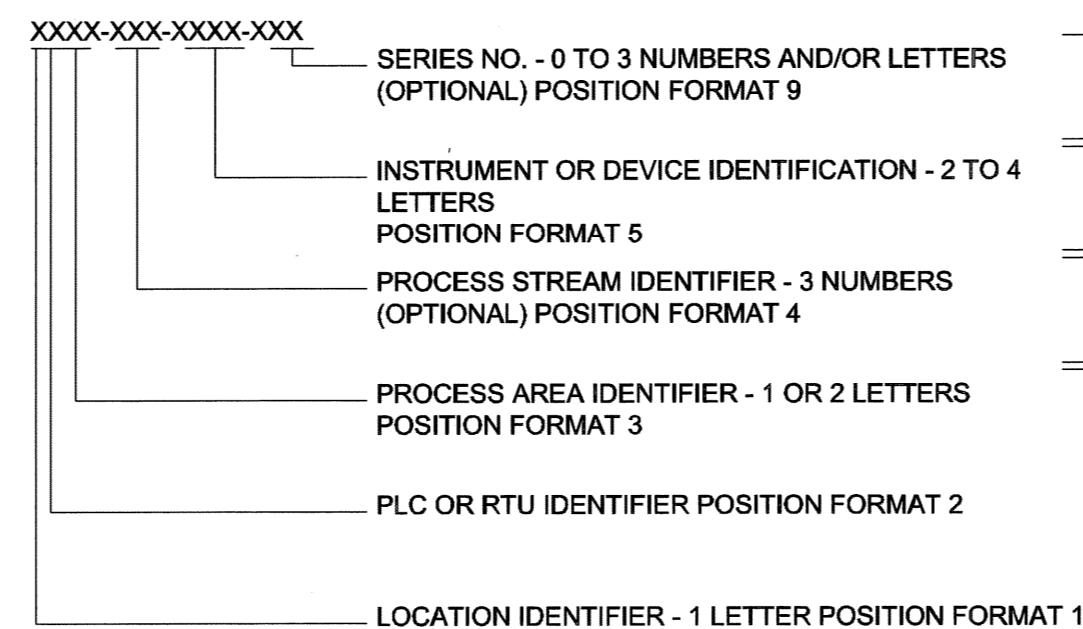
PROCESS LINE IDENTIFIERS



EQUIPMENT IDENTIFICATION

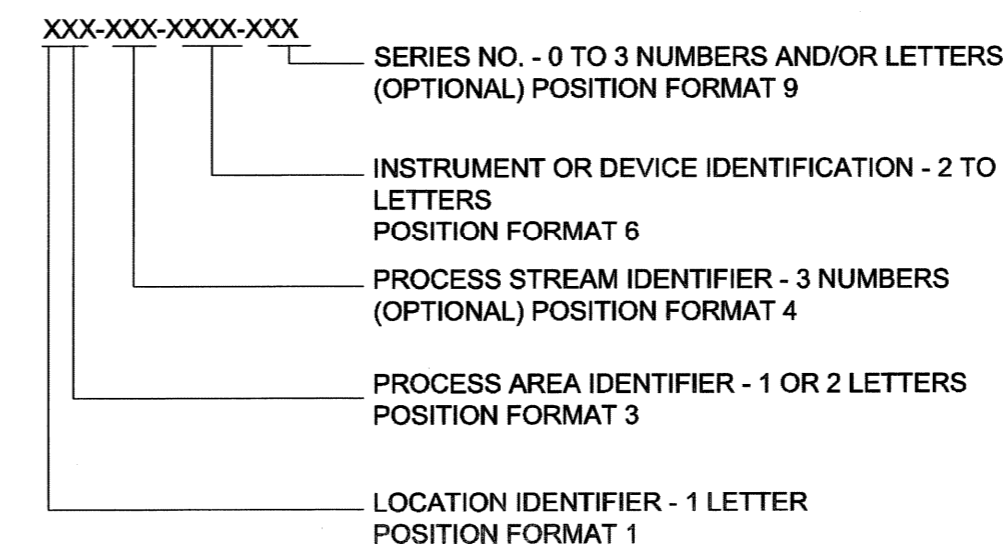


INPUT/OUTPUT (I/O) IDENTIFICATION



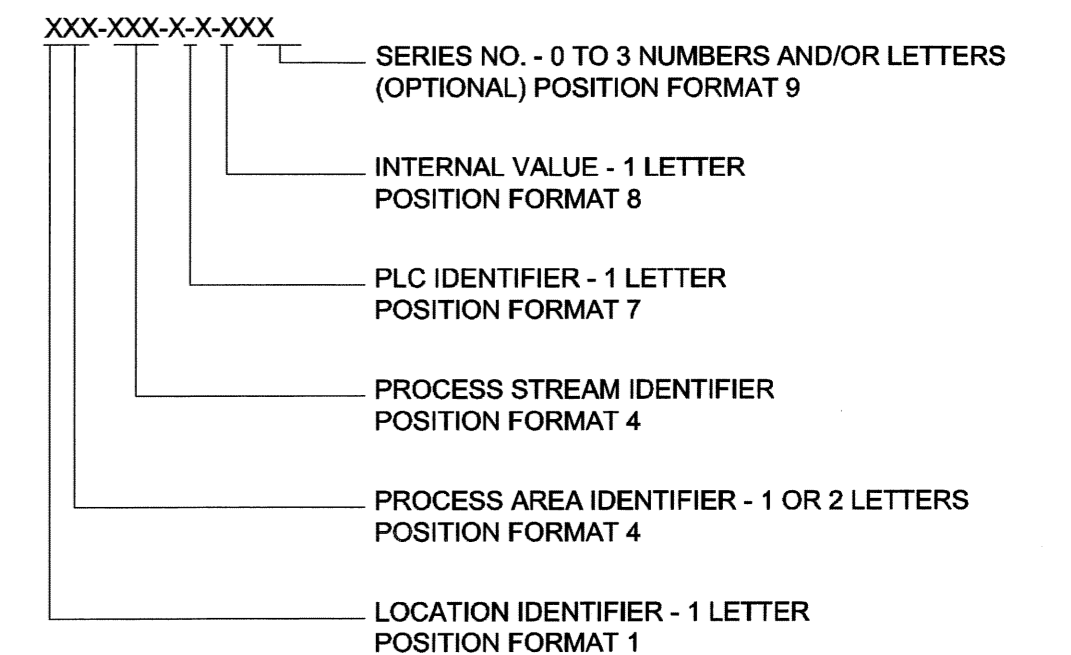
APPEARS IN BALLOON

FIELD DEVICES AND INSTRUMENTATION



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INTERNAL SOFTWARE POINT IDENTIFICATION



DRN	CHK	DES	ENG	IDR

UMA REVIEW

APEGN
Certificate of Authorization
UMA Engineering Ltd. (MB)
No. 256 Date: Nov 24/08

NO.	REVISIONS	DATE	BY
B	ISSUED FOR BID	08/11/21	QL
A	ISSUED FOR REVIEW	08/10/28	QL

DESIGNED BY	KM	CHECKED BY	
DRAWN BY	QL	APPROVED BY	
HOR. SCALE	NTS	RELEASED FOR CONSTRUCTION	
VERT. SCALE	NTS	DATE	

PROFESSIONAL'S SEAL
PROVINCE OF MANITOBA
Nov 24/08
B. L. MOORE
REGISTERED PROFESSIONAL ENGINEER
CONSULTANT DRAWING NO.
D265-199-00_02-L0002_RX.dwg

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
G. C. MACLEAN PUMPING STATION
P-26 ENGINE REPLACEMENT
PROCESS AND INSTRUMENTATION DIAGRAMS
SYMBOLS LEGEND
SHEET 2 OF 3
CITY DRAWING NUMBER
1-0630M-A0028-002
REV B