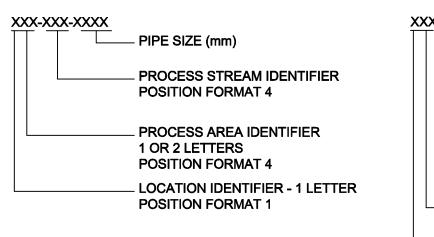
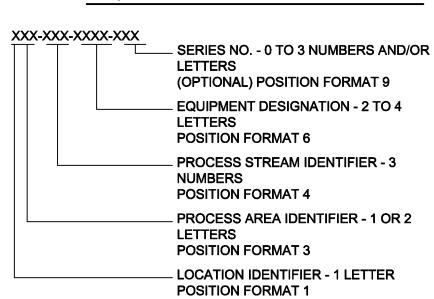
	INSTRUM	IENT AND DI	VICE IDENTIFICATION TABLE		
	FIRST-LETTER		SUCCEEDING-LETTERS		
	MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
Α	ANALYSIS OR SAMPLER		ALARM, TROUBLE		
В	BURNER FLAME				CLOSE, DECREASE
С	CONDUCTIVITY			CONTROL	
D	DENSITY	DIFFERENTIAL			OPEN, INCREASE
Ε	VOLTAGE (EMF)		SENSOR (PRIMARY ELEMENT)		
F	FLOW RATE	RATIO (FRACTION)	FAILURE		
G	GAS		GLASS, VIEWING DEVICE	GENERATOR (ULTRASONIC)	
Н	HAND (MANUAL)				HIGH
T	CURRENT (ELECTRICAL)		INDICATE		
J	POWER	SCAN			
K	TIME	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT		LOW
М	MOTOR	MOMENTARY	OPERATE, ON/OFF		MIDDLE, INTERMEDIATE
N	MOISTURE			START	
0	TORQUE		ORIFICE, RESTRICTION	STOP, OVERLOAD	
Р	PRESSURE, VACUUM		POINT (TEST CONNECTION)		
Q	COMMON, QUANTITY	INTEGRATE, TOTALIZE			
R	RADIOACTIVITY		RECORD		
s	SPEED, FREQUENCY	SAFETY		SWITCH	
Т	TEMPERATURE		TRANSMITTER		
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
٧	VIBRATION, MECHANICAL ANALYSIS, VALVE, DAMPER (2)			VALVE, DAMPER, LOUVER	
w	WEIGHT, FORCE		WELL		
Х	UNCLASSIFIED (1)	X AXIS	UNCLASSIFIED (1)	UNCLASSIFIED (1)	UNCLASSIFIED (1)
Υ	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:

- 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.
- 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.

### PROCESS LINE IDENTIFIERS **EQUIPMENT IDENTIFICATION**





### **POSITION FORMATS** 1. LOCATION IDENTIFIER - 1 LETTER | INTAKE DEACON 040 TACHE CENTRAL CONTROL - MCPHILLIPS HURST 050 MACLEAN PERIMETER ROAD PUMPING STATION MCPHILLIPS DISTRIBUTION SYSTEM WATER TREATMENT PLANT (FUTURE) AQUEDUCT RIVER 2. PLC OR RTU IDENTIFIER - 1 LETTER - ASCENDING FROM A TO Z - USE "M" FOR STATION MASTER 3. PROCESS AREA - UP TO 2 LETTERS C CHLORINE 920 TO 929 S SUCTION DISCHARGE RESERVOIR TELEMETERING ELECTRIC DRIVE GAS DRIVE HVAC GENERAL STATION FUNCTIONS (UTILITIES) SARGENT AVENUE AND ST. JAMES STREET ROUGE ROAD AND ASSINIBOINE AVENUE JOHN BLACK AVENUE AND MAIN STREET INKSTER BOULEVARD AND BROOKSIDE BOULEVARD GATEWAY ROAD AND SPRINGFIELD ROAD PLESSIS ROAD AND DEVONSHIRE DRIVE LAGIMODIERE BOULEVARD AT OFFTAKE TO SMUGGLER'S COVE PC PADDINGTON ROAD AND CHARING CROSS CRESCENT PEMBINA HIGHWAY AND CHANCELLOR MATHESON ROAD RS REDONDA STREET AND KILDARE AVENUE RUE DES TRAPPISTES AND VILLENEUVE BOULEVARD FG FORT GARRY BRIDGE JAMES AVENUE KB KILDONAN BRIDGE

**EQUIPMENT IDENTIFIERS** 4. PROCESS STREAM IDENTIFIER - 3 DIGITS AQUEDUCT AND RESERVOIR PIPING **AXIAL EXHAUST FAN** SUCTION HEADER AIR HANDLING UNIT

EXHAUST FAN

SUPPLY FAN

SUMP PUMP

MAKE-UP AIR UNIT

VARIABLE FREQUENCY DRIVE

FAN

F OR FN

PIPING AND EQUIPMENT BETWEEN 041 TO 049 SUCTION AND DISCHARGE HEADER DISCHARGE HEADER **BRANCHES OFF DISCHARGE** 051 TO 059 **EXTERIOR PIPING AND DISTRIBUTION** 100 TO 599

SYSTEM REMOTE PRESSURE POINTS 599

HVAC 600 TO 699 **CHEMICAL SYSTEMS** 800 TO 899

CHLORINE 800 TO 829 AMMONIA 830 TO 839 **FLOURIDE** 840 TO 849 MISC. 850 TO 899

**GENERAL UTILITIES** 900 TO 999 AIR PRESSURE 900 TO 909 **ELECTRICAL DISTRIBUTION** 910 TO 919

**BUILDING SAFETY AND SECURITY** 

SUMPS 930 TO 939 FLOOD 940 TO 949 **FLUSH WATER** 950 TO 959 GAS (NATURAL) 960 TO 969

> 970 TO 999 RIVER MONITORING 999

5. INSTRUMENT OR DEVICE IDENTIFICATION - 2-4 LETTERS

- REFER TO TABLE AT LEFT

6. <u>EQUIPMENT DESIGNATION</u> - 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. <u>INTERNAL VALUE</u> - 1 LETTER

A - CONTROL VALUE

C - CALCULATION

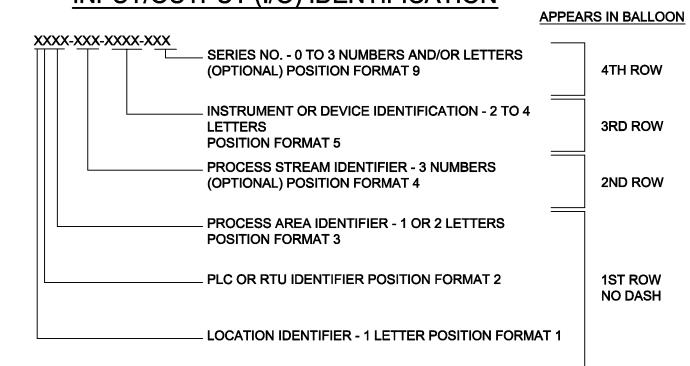
**E - OPERATOR ENTRY** 

M - MANUAL DATA

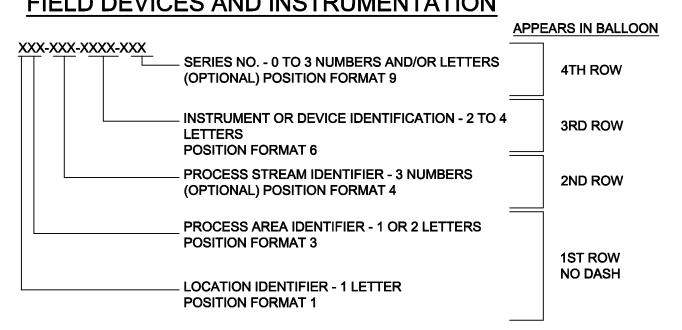
9. SERIES NUMBER - UP TO 3 DIGITS OR LETTERS - ANY COMBINATION OF THREE

LETTERS AND/OR NUMBERS

## INPUT/OUTPUT (I/O) IDENTIFICATION



# FIELD DEVICES AND INSTRUMENTATION



**INSTRUMENT FIELD** 

**DEVICE IDENTIFIERS** 

FLOW SWITCH

HAND SWITCH

MOTOR RUN

FLOW TRANSMITTER

HAND CONTROL STATION

PRESSURE INDICATOR

PRESSURE TRANSMITTER

PRESSURE SWITCH

SELECTOR SWITCH

**COMPUTER SWITCH** 

**POSITION SWITCH** 

POSITION INDICATOR

POSITION SWITCH CLOSED

POSITION SWITCH OPEN

TEMPERATURE SWITCH

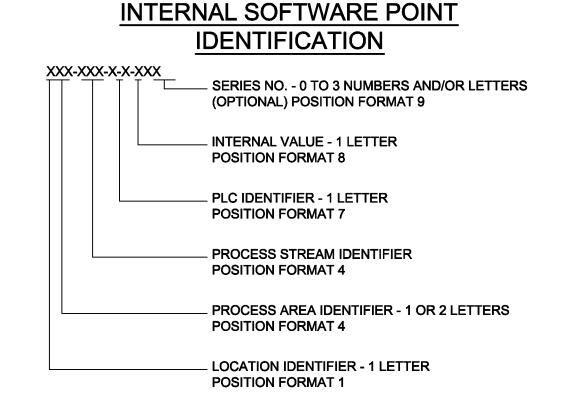
TEMPERATURE TRANSMITTER

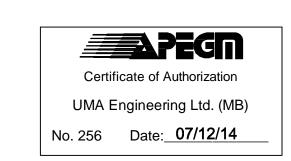
PRESSURE DIFFERENTIAL TRANSMITTER

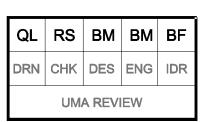
PRESSURE INDICATING TRANSMITTER

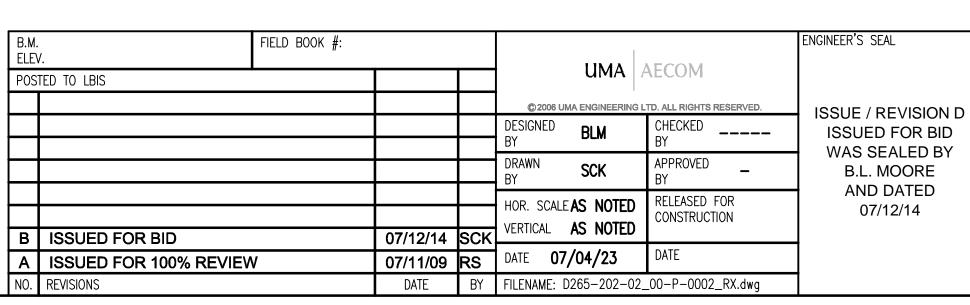
FS

ZS









THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT

PERIMETER ROAD PUMPING STATION UPGRADES Contract B - Building Upgrades

> Process and Instrumentation SYMBOLS LEGEND

CITY DRAWING NUMBER 001 B D 1-0111L-P0002