

INSTRUMENT FUNCTIONAL DESIGNATIONS				
FIRST LETTER		SUCCEEDING LETTERS		
MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A ANALYSIS		ALARM		
B BURNER, COMBUSTION				
C CONDUCTIVITY			CONTROL	CLOSE
D DENSITY	DIFFERENCE, DIFFERENTIAL			DEVIATION
E VOLTAGE		SENSOR, PRIMARY ELEMENT		
F FLOW, FLOW RATE	RATIO			FAILURE/FAULT
G		GLASS, GAUGE VIEWING DEVICE		
H HAND (MANUAL)				HIGH
I CURRENT		INDICATE		
J POWER		SCAN		
K TIME, SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L LEVEL		LIGHT		LOW
M MOISTURE, HUMIDITY				MIDDLE, INTERMEDIATE
N				
O TORQUE		ORIFICE, RESTRICTION		OPEN
P PRESSURE		POINT (TEST CONNECTION)		
Q QUANTITY	INTEGRATE, TOTALIZE	INTEGRATE, TOTALIZE		
R RADIATION		RECORD		RUN
S SPEED, FREQUENCY	SAFETY		SWITCH	STOP
T TEMPERATURE			TRANSMITTER	
U MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	
V UNCLASSIFIED			VALVE, DAMPER, LOUVER	
W WEIGHT, FORCE		WELL, PROBE		
X UNCLASSIFIED	X AXIS	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y EVENT, STATE, OR PRESENCE	Y AXIS		AUXILIARY DEVICE	
Z POSITION, DIMENSION	Z AXIS, SAFETY INSTRUMENTED SYSTEM		DRIVER, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT	

NOTES FOR INSTRUMENT AND DEVICE IDENTIFICATION TABLE:

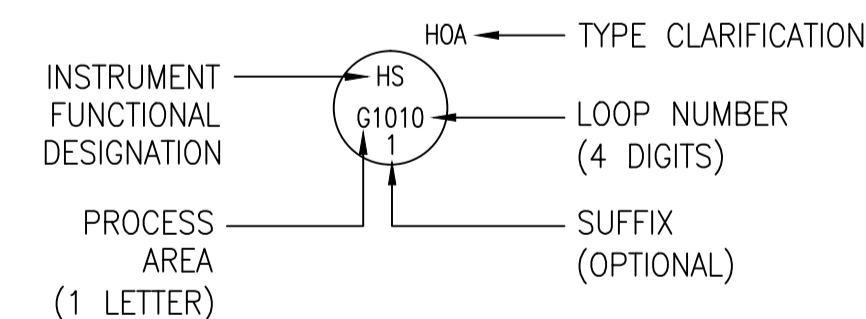
1. THE LETTER X IS TO BE DEFINED AT THE TIME OF USE, AND MAY BE USED FOR MULTIPLE DEFINITIONS WHERE NO OTHER LETTER IS APPLICABLE.

COMMON INSTRUMENT FIELD DEVICE IDENTIFIERS			
IDENTIFIER	DEFINITION	IDENTIFIER	DEFINITION
AA	ANALYSIS ALARM	PG	PRESSURE GAUGE
AAH	ANALYSIS ALARM - HIGH	PI	PRESSURE INDICATOR
AAHH	ANALYSIS ALARM - HIGH-HIGH	PIC	PRESSURE INDICATING CONTROLLER
AE	ANALYSIS ELEMENT	PIT	PRESSURE INDICATING TRANSMITTER
AIT	ANALYSIS INDICATING TRANSMITTER (ANALYTIC INST.)	PR	PRESSURE RECORDER
AK	ANALYSIS (AMPLER) CONTROL STATION	PS	PRESSURE SWITCH
ASH	ANALYSIS SWITCH - HIGH	PSH	PRESSURE SWITCH HIGH
ASHH	ANALYSIS SWITCH - HIGH-HIGH	PSHH	PRESSURE SWITCH HIGH (2ND STAGE)
AT	ANALYSIS TRANSMITTER (ANALYTIC INST.)	PSL	PRESSURE SWITCH LOW
BK	BURNER CONTROL STATION	PSV	PRESSURE SAFETY VALVE (RELIEF)
BCS	BURNER FLAME SWITCH	PT	PRESSURE TRANSMITTER
DE	DENSITY ELEMENT	PY	PRESSURE RELAY (I/I CONVERTER)
DR	DENSITY RECORDER	SI	SPEED INDICATOR
DT	DENSITY TRANSMITTER	SK	SPEED CONTROL STATION
DX	DENSITY SOURCE (X = SOURCE)	ST	SPEED/VELOCITY TRANSMITTER
EE	VOLTAGE ELEMENT/TRANSFORMER	TE	TEMPERATURE ELEMENT
EG	VOLTAGE VIEWING DEVICE (CAPACITOR VOLTAGE INDICATOR)	TG	TEMPERATURE GAUGE
EI	VOLTAGE INDICATOR	TI	TEMPERATURE INDICATOR
EL	VOLTAGE LIGHT	TIC	TEMPERATURE INDICATING CONTROLLER
ET	VOLTAGE TRANSMITTER	TIT	TEMPERATURE INDICATING TRANSMITTER
FAL	FLOW ALARM LOW	TR	TEMPERATURE RECORDER
FE	FLOW ELEMENT	TS	TEMPERATURE SWITCH
FI	FLOW INDICATOR	TSH	TEMPERATURE SWITCH HIGH
FIC	FLOW INDICATING CONTROLLER	TSL	TEMPERATURE SWITCH LOW
FIT	FLOW INDICATING TRANSMITTER	TT	TEMPERATURE TRANSMITTER
FQI	FLOW TOTALIZING INDICATOR	TV	TEMPERATURE VALVE
FQY	FLOW TOTALIZING/INTEGRATING RELAY	TW	TEMPERATURE THERMOWELL
FR	FLOW RECORDER	TY	TEMPERATURE RELAY (SOLENOID VALVE OR M/P)
FSL	FLOW SWITCH LOW	VE	VIBRATION ELEMENT
FT	FLOW TRANSMITTER	VI	VIBRATION INDICATOR
FV	FLOW VALVE	VIT	VIBRATION INDICATING TRANSMITTER
FZ	FLOW METER ULTRASONIC GENERATOR	VT	VIBRATION TRANSMITTER
GE	GAS ELEMENT	XV	ON/OFF VALVE (TYPICAL)
GS	GAS SWITCH MODULE	YL	STATE INDICATOR
HK	HAND CONTROL STATION	ZI	POSITION INDICATOR
HS	HAND SWITCH	ZS	POSITION SWITCH
HSR	HAND SWITCH - START/RUN	ZSC	POSITION SWITCH CLOSED (LIMIT SWITCH)
HSS	HAND SWITCH - STOP	ZSO	POSITION SWITCH OPEN (LIMIT SWITCH)
HV	HAND VALVE	ZT	POSITION TRANSMITTER
IS	CURRENT SWITCH		
IE	CURRENT ELEMENT/TRANSFORMER		
II	CURRENT INDICATOR		
IY	CURRENT RELAY		
JIT	POWER INDICATING TRANSMITTER		
KY	TIMER RELAY		
LCV	LEVEL CONTROL VALVE		
LE	LEVEL ELEMENT		
LI	LEVEL INDICATOR		
LIC	LEVEL INDICATING CONTROLLER		
LIT	LEVEL INDICATING TRANSMITTER		
LR	LEVEL RECORDER		
LSL	LEVEL SWITCH LOW		
LSH	LEVEL SWITCH HIGH		
LSHL	LEVEL SWITCH HIGH/LOW		
LT	LEVEL TRANSMITTER		
LV	LEVEL VALVE		
LY	LEVEL RELAY (I/I CONVERTER)		
ME	MOISTURE SENSOR		
MT	MOISTURE TRANSMITTER		
OSH	TORQUE SWITCH HIGH		
PCV	PRESSURE CONTROL VALVE		
PE	PRESSURE ELEMENT		

NOTES FOR INSTRUMENT FIELD DEVICE IDENTIFIERS:

1. THE LAST IDENTIFIER LETTER IS IN SOME CASES OPTIONAL (EG. FSL)
2. THIS TABLE IS DERIVED FROM THE INSTRUMENT & DEVICE IDENTIFICATION TABLE, AND IS NOT EXHAUSTIVE.

INSTRUMENT IDENTIFICATION



INSTRUMENT TYPE CLARIFICATION	
IDENTIFIER	DEFINITION
(N)	N MULTIPLE INSTRUMENTS
AA	AUDIBLE ALARM
ACC	ACCELERATION
A/M	AUTO/MANUAL
C/H	COMPUTER/HAND
C/L	COMPUTER/LOCAL
CLS	CLOSE
C/O	COMPUTER/OFF
COB	COMPUTER/OFF/BYPASS
COH	COMPUTER/OFF/HAND
COT	COMPUTER/OFF/TIME
DCS	DISTRIBUTED CONTROL SYSTEM
DP	DIFFERENTIAL PRESSURE
DS	DECREASE SPEED
E/R	EXTEND/RETRACT
E/S	EMERGENCY STOP
FOR	FORWARD/OFF/REVERSE
H/A	HAND/AUTO
HOA	HAND/OFF/AUTO
HOR	HAND/OFF/REMOTE
I/D	INCREASE/DECREASE
INT/EXT	INTERNAL/EXTERNAL
IS	INCREASE SPEED
LCP	LOCAL CONTROL PANEL
LD	LOCKABLE DISCONNECT
LJB	LOCAL JUNCTION BOX
L/O	LOCAL/OFF
LOR	LOCAL/OFF/REMOTE
LOS	LOCK OFF STOP
L/R	LOCAL/REMOTE
LSR	LASER
MAG	MAGNETIC
O/A	OFF/AUTO
O/C	OPEN/CLOSE
O/M	OFF/MAINTENANCE
O/O	OFF/ON
OPN	OPEN
PROX	PROXIMITY
RAD	RADAR
RST	RESET
RTD	RESISTIVE TEMPERATURE DEVICE
SEL	SELECTOR
S/F	SLOW/FAST
SOF	SLOW/OFF/FAST
SOL	SOLENOID
S/S	START/STOP
S/W	SUMMER/WINTER
TC	THERMOCOUPLE
US	ULTRASONIC
VEL	VELOCITY
ΔT	THERMAL DISPERSION



NO.	REVISIONS	DATE	DESIGN	CHECK
00	ISSUED FOR TENDER	2013/10/30	CJR	BJC

		SNC-LAVALIN INC. 148 Nature Park Way Winnipeg, MB, Canada R3P 0X7 204-786-8080
DESIGNED BY: C. REIMER	CHECKED BY: B. CLEVEN	ENGINEER'S SEAL
DRAWN BY: M.J. PERSSON	APPROVED BY: C. REIMER	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION
SCALE: NTS	RELEASED FOR CONSTRUCTION BY: DATE:	
DATE: 2013/08/07	DATE:	
CONSULTANT NO.:		

THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT	
DEMONSTRATION SYSTEM PROCESS AND INSTRUMENTATION DIAGRAM LEGEND AND DETAILS	
CITY DRAWING NUMBER SK-P0001	SHEET REV. SIZE 002 00 A1