

DIGITAL SYSTEMS INTERFACE SYMBOLS

- COMPUTER OR DISTRIBUTED CONTROL SYSTEM FUNCTION BLOCK
LETTERS, TAG NUMBERS, ABBREVIATIONS
- DATA INTERFACE TO CONTROL SYSTEM FUNCTIONS.
DIRECTION OF ARROW DENOTES INPUT OR OUTPUT SIGNAL
NOTE: NO ARROW HEAD INDICATES INPUT/OUTPUT SIGNALS VIA COMMUNICATIONS LINKS
- ARROW DENOTES ANALOG/DIGITAL INPUT/OUTPUT (AI/AO/DI/DO) AT THE RESPECTIVE PLC
- FIELD MOUNTED OPERATOR DEVICE
- SHARED DISPLAY/CONTROL ACCESSIBLE TO OPERATOR ON MAIN CONTROL CONSOLE
- CONNECTION TO/FROM A PLC OR RTU IN AN AUXILIARY LOCATION NORMALLY ACCESSIBLE TO OPERATOR

CONTROL DEVICE DESIGNATIONS

- HAND SELECTOR SWITCH (OR PUSH BUTTON) - MAINTAINED CONTACTS (CONTROLLED DEVICE WILL RESTART ON RETURN OF POWER AFTER POWER FAILURE)
- SPRING RETURN SWITCH (OR PUSHBUTTON) - MOMENTARY CONTACTS (CONTROLLED DEVICE WILL NOT RESTART ON RETURN OR POWER AFTER POWER FAILURE)
- EXAMPLE**
- REPRESENTS A LOCAL/REMOTE SELECTOR SWITCH

ABBREVIATIONS AND LETTERS (XX)

L/R	LOCAL-REMOTE	POT	POTENTIOMETER
OL	OVERLOAD	KS	KEY SELECTOR SWITCH
RVSS	SOFT STARTER	CR	CONTROL RELAY
VFD	VARIABLE FREQUENCY DRIVE	C	CLOSE
VIB	VIBRATION	O	OPEN
TMP	TEMPERATURE	REV	REVERSE
LKG	LEAKAGE	FWD	FORWARD
ETM	ELAPSED TIME METER		
PLC	PROGRAMMABLE LOGIC CONTROLLER		
PSU	POWER SUPPLY UNIT		
UPS	UNINTERRUPTIBLE POWER SUPPLY		
ES	EMERGENCY STOP PUSH BUTTON		

GENERAL INSTRUMENT SYMBOLS

- FIELD MOUNTED INSTRUMENT
- INSTRUMENT MOUNTED BEHIND OR INSIDE OF PANEL (IN CONTROL ROOM)
- INSTRUMENT MOUNTED ON FACE OF LOCAL PANEL/MCC
- INSTRUMENT MOUNTED BEHIND OR INSIDE OF LOCAL PANEL/MCC
- SINGLE INSTRUMENT HOUSING CONTAINING TWO (OR MORE) INSTRUMENTATION FUNCTIONS
- PILOT LIGHT MOUNTED ON FACE OF PANEL IN CONTROL ROOM
NOTE COLOUR X: R = RED
G = GREEN
A = AMBER+
W = WHITE
- PILOT LIGHT MOUNTED ON FACE OF LOCAL PANEL/MCC
NOTE COLOUR X: R = RED
G = GREEN
A = AMBER
W = WHITE

CONTROL INTERLOCK FUNCTION, SEE SCHEMATICS AND SYSTEM SPECIFICATIONS FOR SPECIFIC FUNCTION

LOCAL CONTROL PANEL SEE CONTROL WIRING AND/OR EQUIPMENT PACKAGE SPECIFICATIONS

X: INDICATES PANEL DESIGNATION AS REQUIRED ON THE RESPECTIVE DRAWING

P&ID PIPE AND INSTRUMENT SYMBOLS

- MANUAL ISOLATION VALVE
- MANUAL ISOLATION VALVE (NORMALLY CLOSED)
- AUTOMATIC ISOLATION VALVE (NORMALLY OPEN)
- AUTOMATIC ISOLATION VALVE (NORMALLY CLOSED)
- CHECK VALVE
- SURGE RELIEF VALVE
- AIR VALVE
- SLUICE GATE VALVE
- SLUICE GATE VALVE WITH CHANNEL
- CAMLOCK HOSE CONNECTION
- BLIND FLANGE
- FLOAT SWITCH
- FLOW METER
- ULTRASONIC/RADAR LEVEL TRANSMITTER

P&ID PIPE AND INSTRUMENT SYMBOLS

- HYDROSTATIC LEVEL TRANSMITTER
- PRESSURE MONITORING ASSEMBLY
- PRESSURE MONITORING ASSEMBLY
- SUBMERSIBLE SEWAGE PUMP
- SUMP PUMP
- MIXER
- GRINDER
- EYE WASH STATION
- FAN
- GENERATOR

LINE SYMBOLS

- ELECTRIC SIGNAL (ANALOG/DISCRETE) (ONE OR MULTIPLE)
- INTERNAL SYSTEM SIGNAL LINK (SOFTWARE OR DATA LINK)
- DATA LINK FOR FIELDBUS FUNCTION
- INSTRUMENT LINE OR CONNECTION TO PROCESS



PUBLIC WORKS
STANDARD DRAWING

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SEWAGE PUMPING STATION
P&ID LEGEND

STD. DWG. NUMBER
SPS-301

SCALE
Not to Scale