

INSTRUMENTATION SOCIETY OF AMERICA TABLE

	FIRST LETTER	SUCCEEDING LETTERS (3)	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
	MEASURING OR INITIATING VARIABLE	MODIFIER			
A	ANALYSIS		ALARM		
B	BURNER FLAME		USER CHOICE	USER CHOICE	USER CHOICE
C	CONDUCTIVITY			CONTROL (13)	
D	DENSITY	DIFFERENTIAL			
E	VOLTAGE		SENSOR		
F	FLOW RATE	RATIO FRACTION	PRIMARY ELEMENT		
G	GAUGE		GLASS, VIEWING DEVICE		
H	HAND				HIGH
I	CURRENT		INDICATE		
J	POWER	SCAN			
K	TIME	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT		LOW
M	MOTION	MOMENTARY			MIDDLE
N	HUMIDITY		INTERMEDIATE		
O	USER CHOICE		USER DEFINED	USER DEFINED	USER DEFINED
P	PRESSURE, VACUUM		ORIFICE RESTRICTION		
Q	QUANTITY	INTEGRATE, TOTALIZE	POINT (TEST) CONNECTION		
R	RADIATION		RECORD		
S	SPEED, FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTI-VARIABLE		MULTI-FUNCTION	MULTI-FUNCTION	MULTI-FUNCTION
V	VIBRATION, MECHANICAL ANALYSIS			VALVE, DAMPER LOUVER	
W	WEIGHT, FORCE		WELL		
X	UNCLASSIFIED	X-AXIS	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y	EVENT, STATE OR PRESENCE	Y-AXIS		RELAY, COMPUTE CONVERT	
Z	POSITION DIMENSION	Z-AXIS		DRIVER, ACTUATOR UNCLASSIFIED	
		FINAL CONTROL ELEMENT			

INSTRUMENTATION TYPE ABBREVIATION LIST

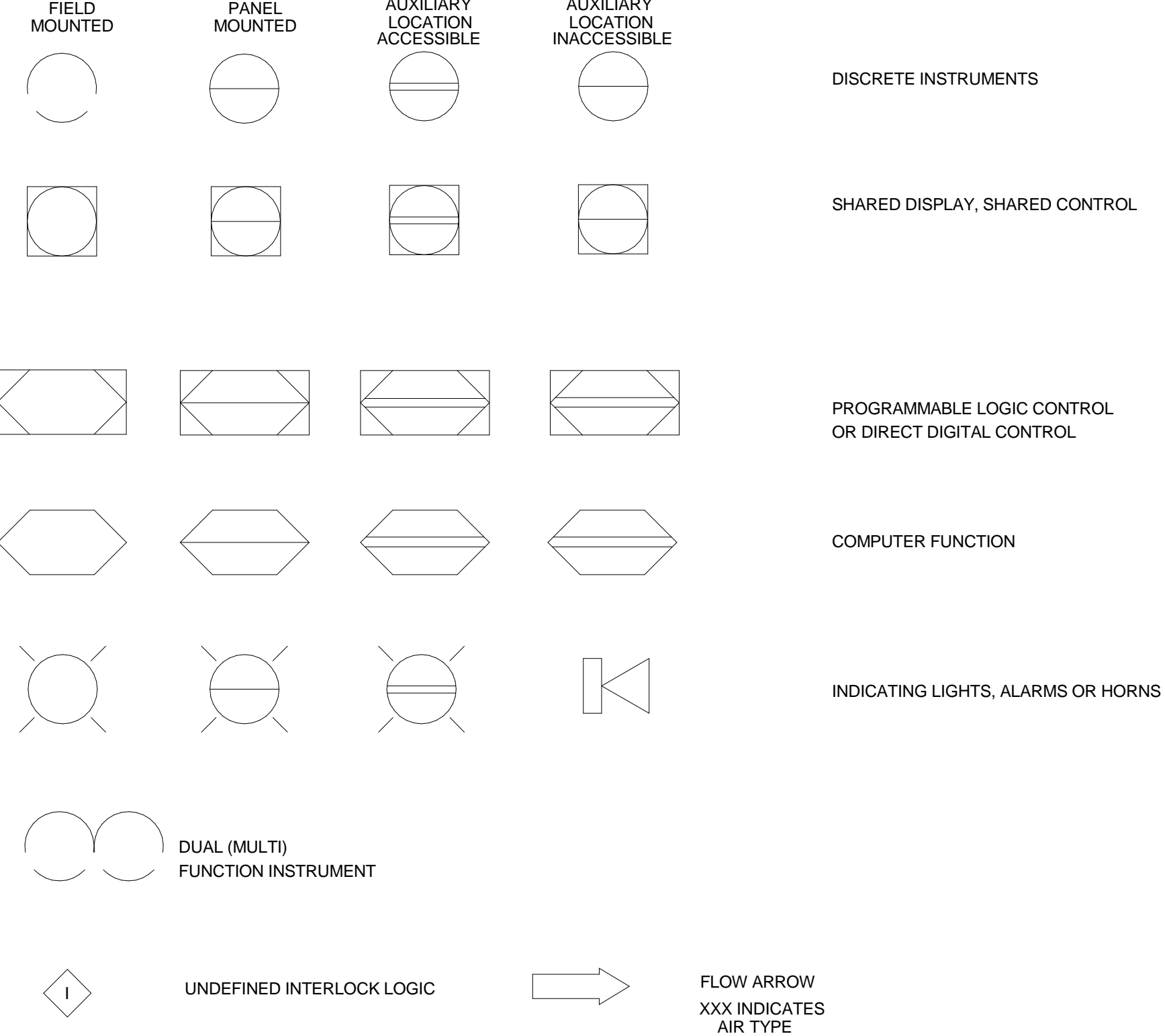
CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION
AA	ANALYTICAL ALARM	LA	LEVEL ALARM	VA	VIBRATION ALARM
AE	ANALYTICAL ELEMENT	LC	LEVEL CONTROLLER (STAND ALONE)	VS	VIBRATION SWITCH
AET	ANALYTICAL ELEMENT TRANSMITTER	LCV	LEVEL CONTROL VALVE	XV	SOLENOID VALVE
AI	ANALYTICAL INDICATOR	LE	LEVEL ELEMENT		
AC	ANALYTICAL CONTROLLER	LIC	LEVEL INDICATING CONTROLLER	YA	EQUIPMENT ALARM
AIC	ANALYTICAL INDICATING CONTROLLER	LIT	LEVEL INDICATING TRANSMITTER	YI	EQUIPMENT STATUS
AT	ANALYTICAL TRANSMITTER	LS	LEVEL SWITCH	YCD	SMOKE DAMPER
AIT	ANALYTICAL INDICATING CONTROLLER	LT	LEVEL TRANSMITTER	YS	SMOKE DETECTOR
ACV	ANALYTICAL CONTROL VALVE	LY	LEVEL SIGNAL CONVERTER		
AY	ANALYTICAL SIGNAL CONVERTER				
		MV	MANUAL HAND VALVE	ZC	POSITION CONTROL
EI	VOLTAGE INDICATOR	NT	HUMIDITY TRANSMITTER	ZI	POSITION INDICATOR
EA	VOLTAGE ALARM			ZS	POSITION SWITCH
ES	VOLTAGE SWITCH (CONTROL RELAY)	PA	PRESSURE ALARM		
ESL	VOLTAGE SWITCH LOW (24 VAC OR LESS)	PCV	PRESSURE CONTROL VALVE	VA	VIBRATION ALARM
ET	VOLTAGE TRANSMITTER	PDI	PRESSURE DIFFERENTIAL INDICATOR	VS	VIBRATION SWITCH
EY	VOLTAGE SIGNAL CONVERTER	PDS	PRESSURE DIFFERENTIAL SWITCH		
FA	FLOW ALARM	PDT	PRESSURE DIFFERENTIAL TRANSMITTER		
FCV	FLOW CONTROL VALVE	PI	PRESSURE INDICATOR		
FE	FLOW ELEMENT	PIS	PRESSURE INDICATING SWITCH		
FET	FLOW ELEMENT/TRANSMITTER	PIT	PRESSURE INDICATING TRANSMITTER		
FI	FLOW INDICATOR	PS	PRESSURE SWITCH		
FIT	FLOW INDICATING TRANSMITTER	PT	PRESSURE TRANSMITTER		
FS	FLOW SWITCH	PY	PRESSURE SIGNAL CONVERTER		
FT	FLOW TRANSMITTER				
FY	FLOW SIGNAL CONVERTER	SC	SPEED CONTROL		
		SCM	SPEED CONTROL MANUAL		
HK	MANUAL VARIABLE CONTROL				
HS	HAND SWITCH	TA	TEMPERATURE ALARM		
HSI	HAND SWITCH INDICATOR	TC	TEMPERATURE CONTROLLER		
		TCV	TEMPERATURE CONTROL VALVE		
II	CURRENT INDICATOR	TE	TEMPERATURE ELEMENT		
IA	CURRENT ALARM	TET	TEMPERATURE ELEMENT TRANSMITTER		
IS	CURRENT SWITCH	TI	TEMPERATURE INDICATOR		
IT	CURRENT TRANSMITTER	TIT	TEMPERATURE INDICATING TRANSMITTER		
IY	CURRENT SIGNAL CONVERTER	TIC	TEMPERATURE INDICATING CONTROLLER		
		TS	TEMPERATURE SWITCH		
JIT	POWER INDICATING TRANSMITTER	TSL	FREEZE STAT		
JY	POWER SIGNAL CONVERTER	TT	TEMPERATURE TRANSMITTER		
KC	TIME CLOCK				

FMS SYSTEM OPERATING CONSTRAINTS

THE FMS CONTROL SYSTEM SHALL OPERATE WITHIN THE FOLLOWING SYSTEM CONSTRAINTS FOR CONTROL:

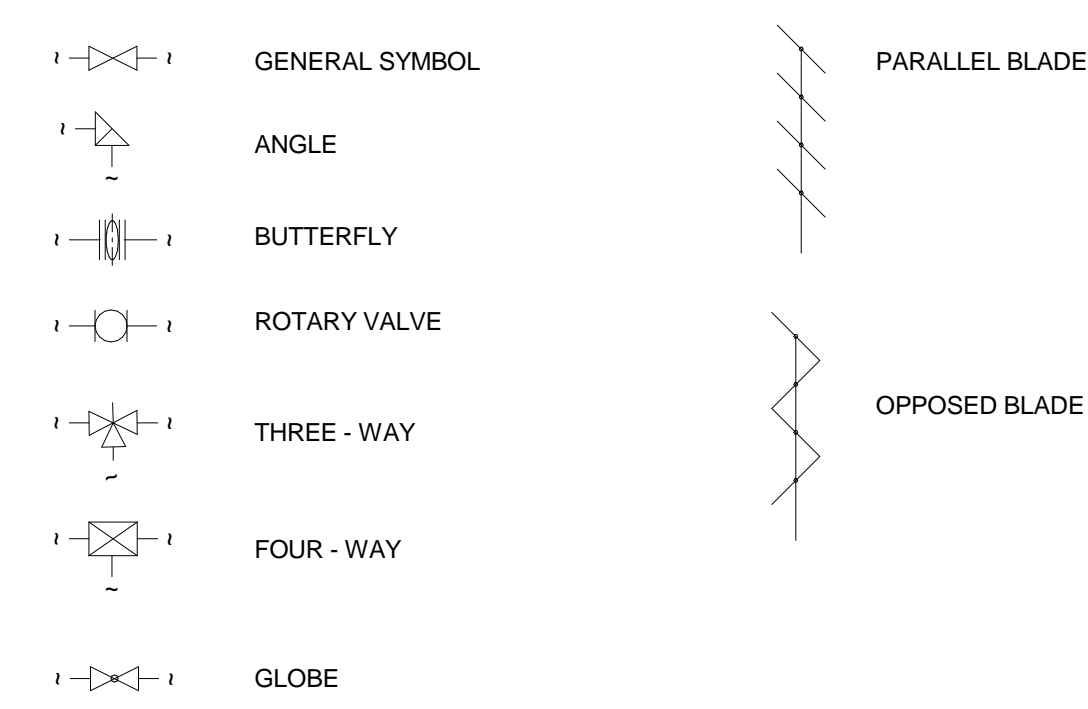
SUPPLY AIR DRYBULB TEMPERATURE	+/- 0.5°F OF SETPOINT WITH HUNTING OF < 5% OF THE C CONTROL SIGNAL
MIXED AIR DRYBULB TEMPERATURE	+/- 0.5°F OF SETPOINT WITH HUNTING OF < 5% OF THE C CONTROL SIGNAL
WATER TEMPERATURE	+/- 0.5°F OF SETPOINT WITH HUNTING OF < 5% OF THE C CONTROL SIGNAL
DUCT STATIC PRESSURE	+/- 0.1" W.C. OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
SUPPLY/RETURN AIR VOLUME	+/- 2.5% OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
OUTSIDE AIR/RELIEF AIR VOLUME	+/- 2.5% OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
BUILDING PRESSURE	+/- 0.01" W.C. OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
ROOM TEMPERATURE	+/- 1.0°F OF SETPOINT WITH HUNTING OF < 5% OF THE C CONTROL SIGNAL
ROOM AIR VOLUME	+/- 2.5% OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
HUMIDITY LEVEL	+/- 2.5% R.H. OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
WATER TEMPERATURE	+/- 1.0°F OF SETPOINT WITH HUNTING OF < 5% OF THE C CONTROL SIGNAL
WATER DIFFERENTIAL PRESSURE	+/- 1.0 PSI OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL

GENERAL INSTRUMENT OR FUNCTION SYMBOLS

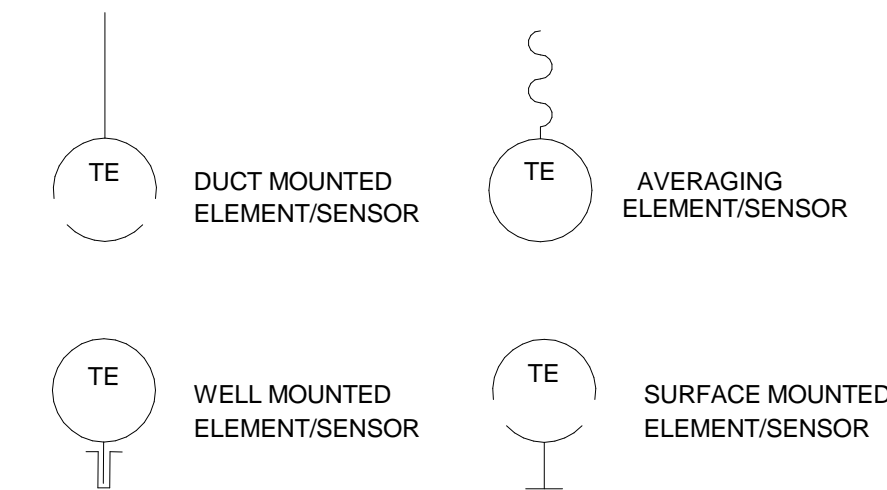


INSTRUMENT NAMING CONVENTION
XXX - FUNCTION ID
ZZZ - USER CHOICE
AAA - UNIT ASSOCIATION OR PROCESS CODE
NNN - DEVICE NUMBER

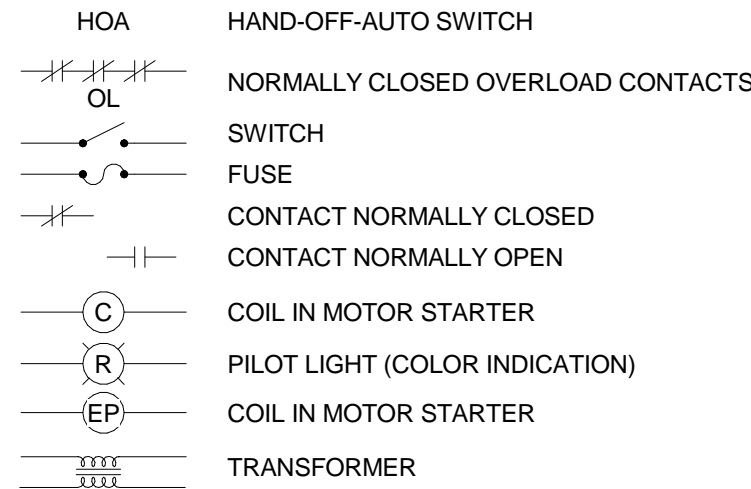
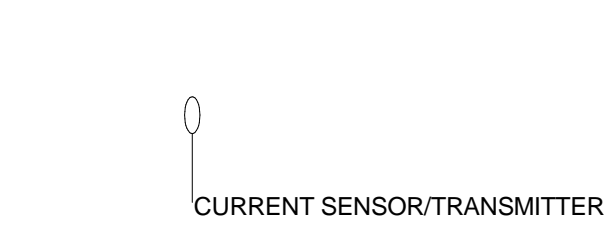
CONTROL VALVE BODY/ DAMPER SYMBOLS



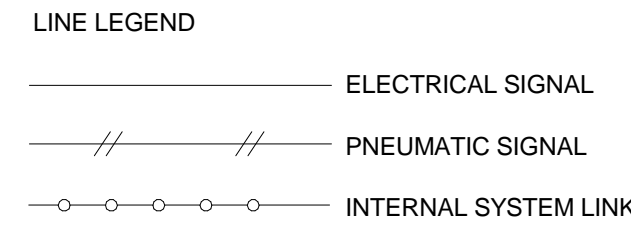
TEMPERATURE



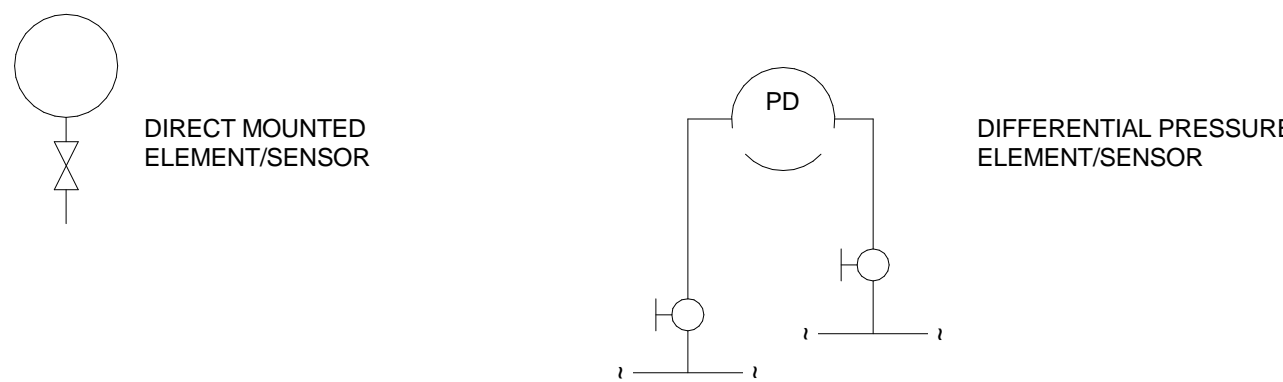
CURRENT



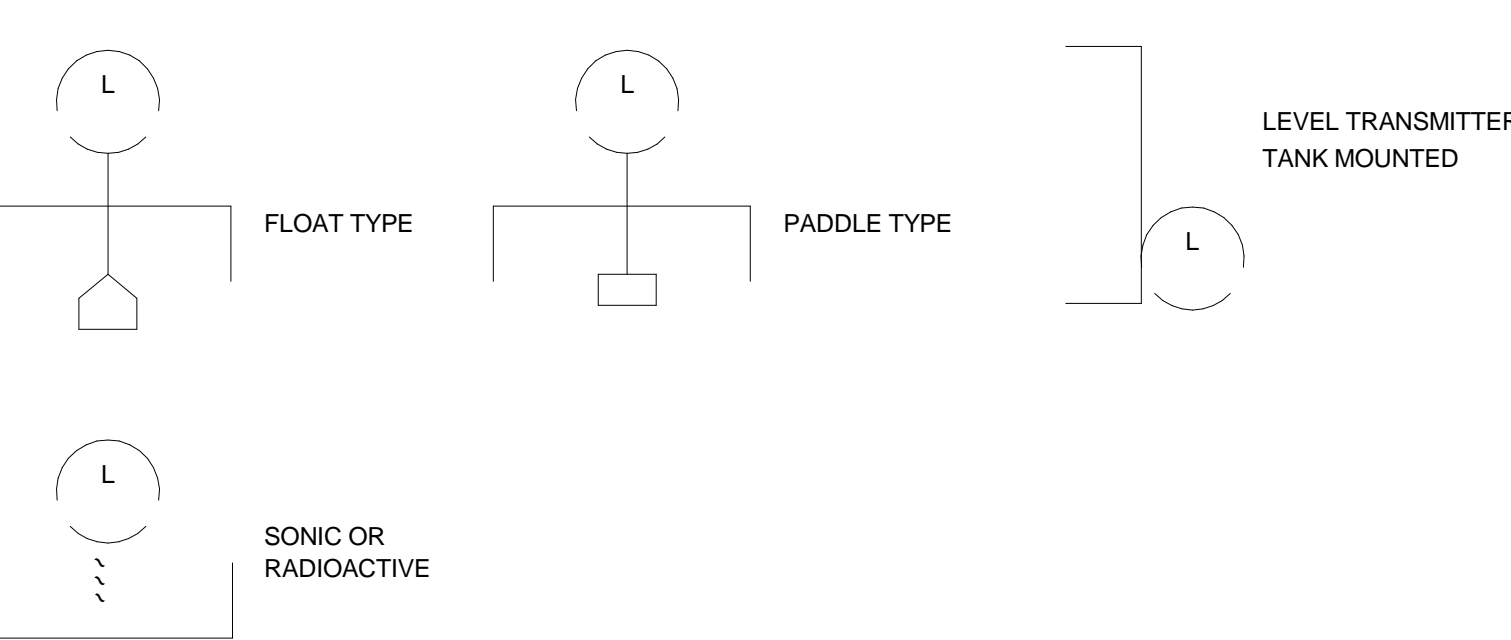
ABBREVIATIONS
IA INSTRUMENTATION AIR
DDC DIRECT DIGITAL CONTROL
C COMMON VALVE PORT
F.O FAIL OPEN
F.C FAIL CLOSED
SR SPRING RANGE
TR THROTTLING RANGE
PH PREHEAT
HR HEAT RECOVERY
CPA CONTROL POINT ADJUSTMENT
SPDT SINGLE POLE DOUBLE THROW
DPDT DOUBLE THROW DOUBLE POLE
DA DIRECT ACTING
RA REVERSE ACTING
PROCESS CODES
TW COOLING TOWER OR CONDENSER WATER
CHW CHILLED WATER
SCHW SECONDARY CHILLED WATER
HW HOT WATER
SHW SECONDARY HOT WATER
STM STEAM



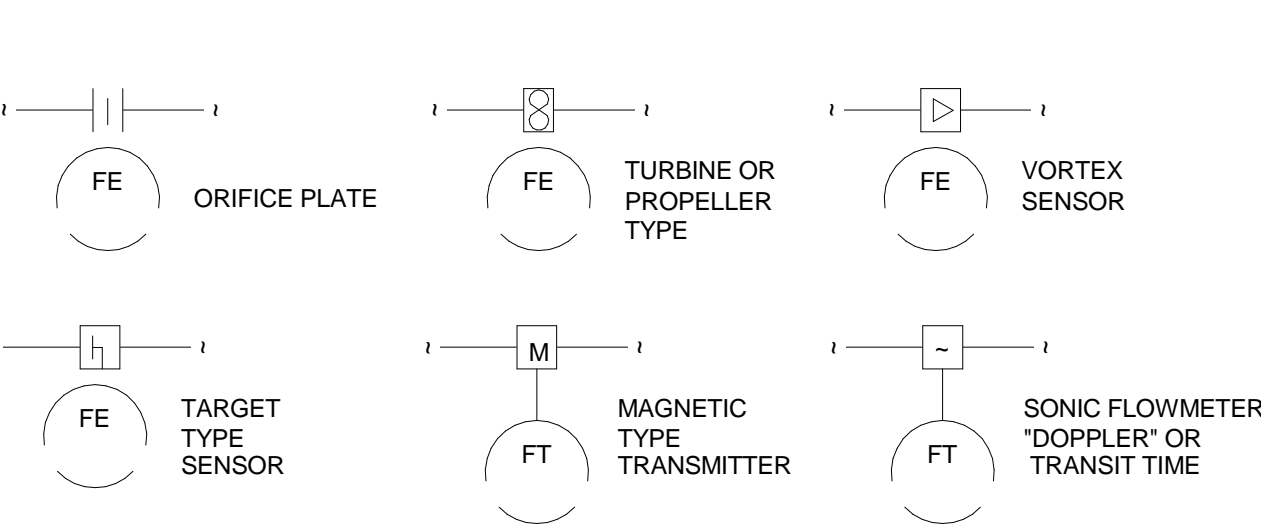
PRESSURE



LEVEL



FLOW



COMPLETION ITEM NO. _____
FULLY SPRINKLERED

CONSULTANTS:

ARCHITECT/ENGINEERS

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Drawing Title

HVAC INSTUMENTATION SYMBOL LEGEND

Approved: Project Director

Project Title

MICU-SICU CONSOLIDATION & PACU
BUILDING 41

Location

NMVAHCS RAYMOND G. MURPHY VAMC

Date

SEPTEMBER 26, 2014

Checked

SDB

Drawn

SDB

Project Number

501-324

Building Number

BUILDING 41

Drawing Number

MI601

Dwg. Of

Office of
Construction
and Facilities
Management

