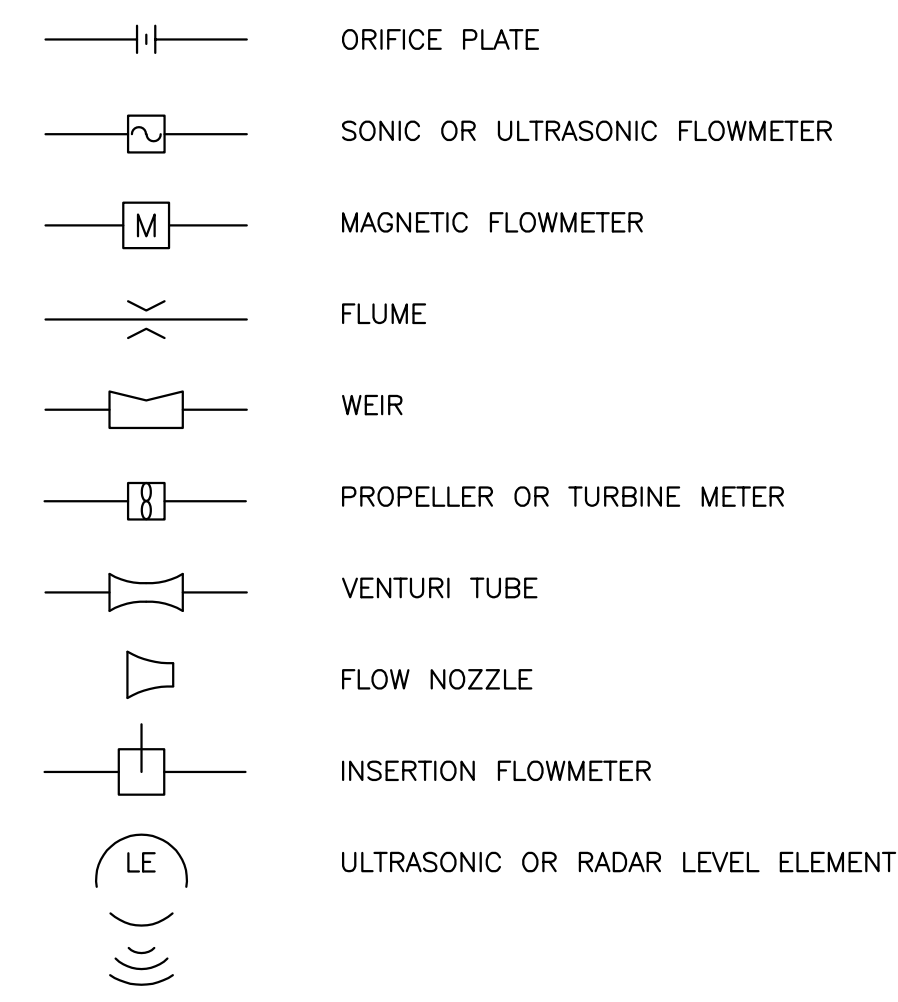
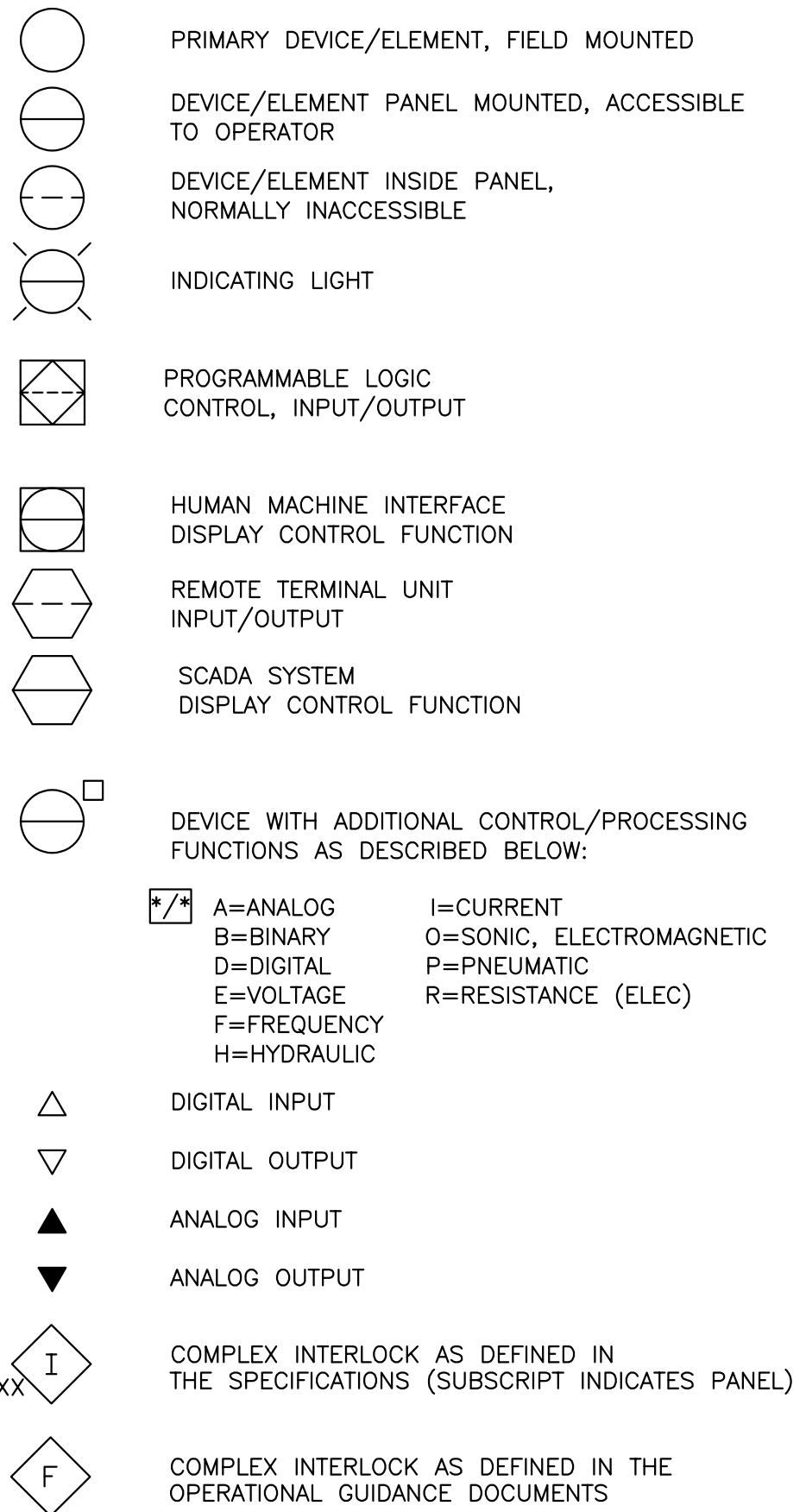


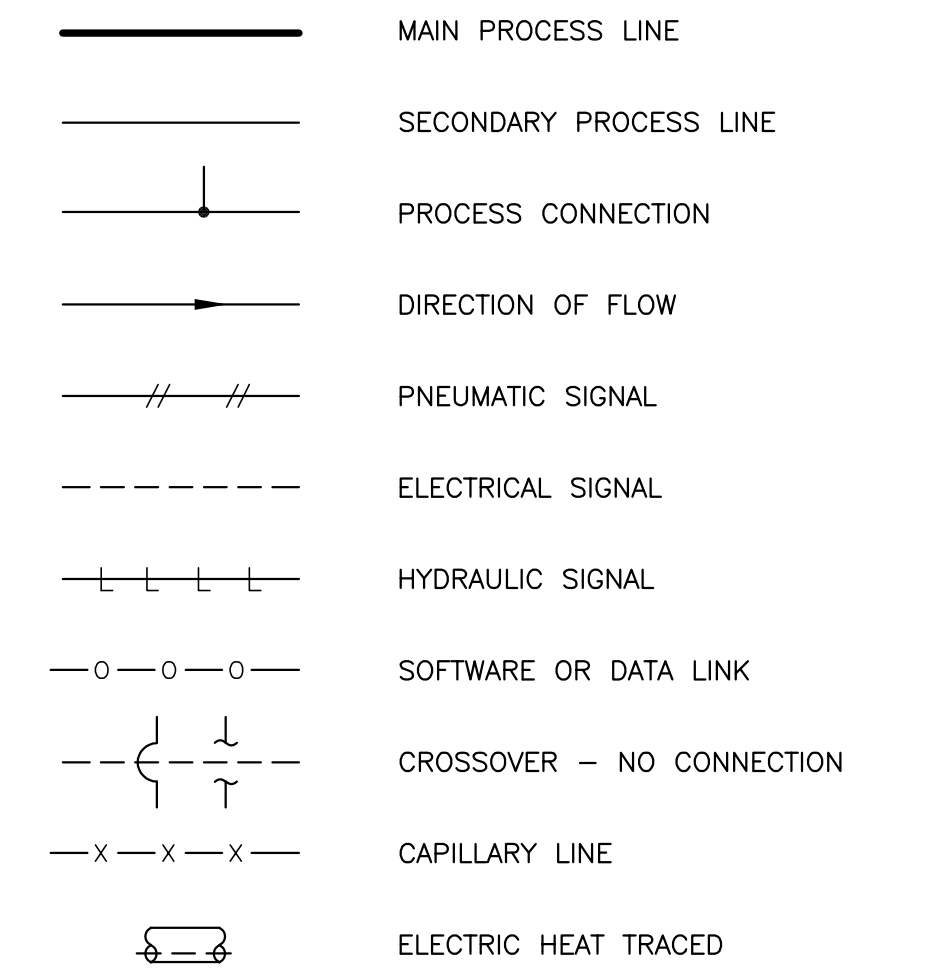
PRIMARY ELEMENT SYMBOLS



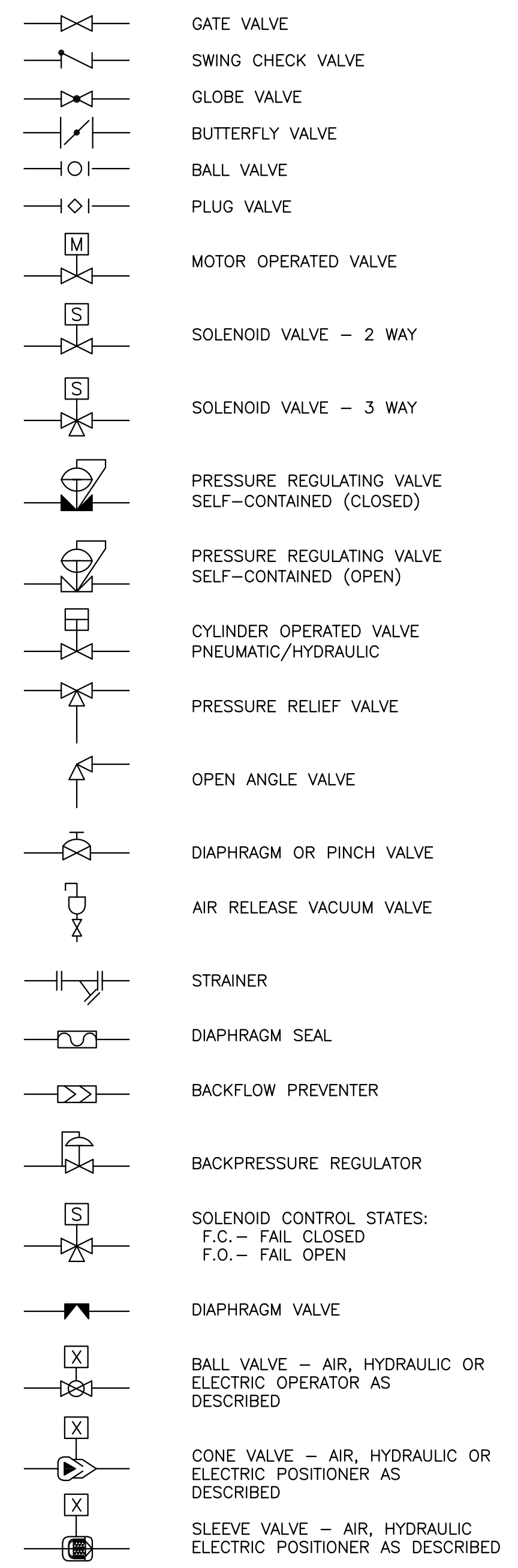
INST. AND FUNCTION SYMBOLS



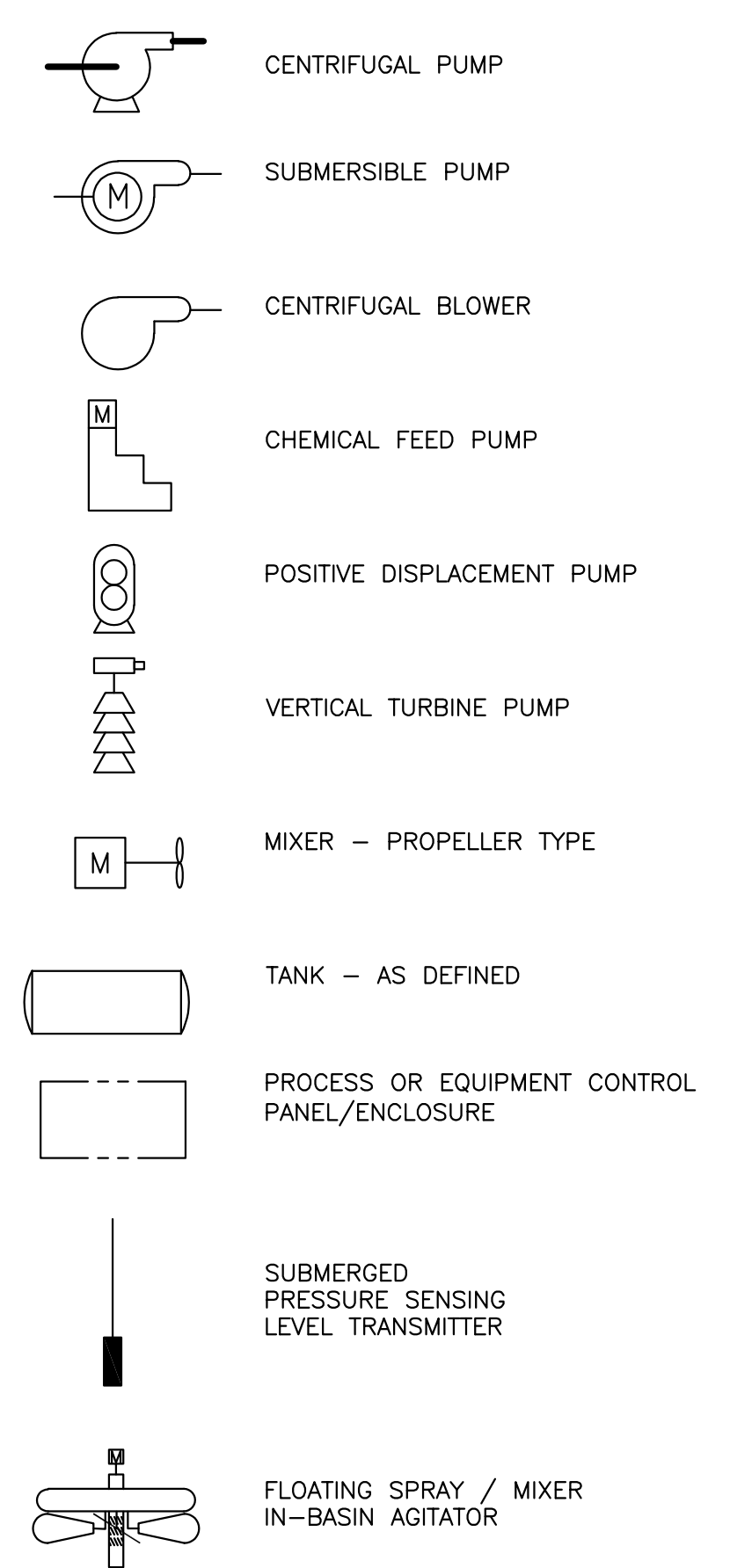
LINE TYPES



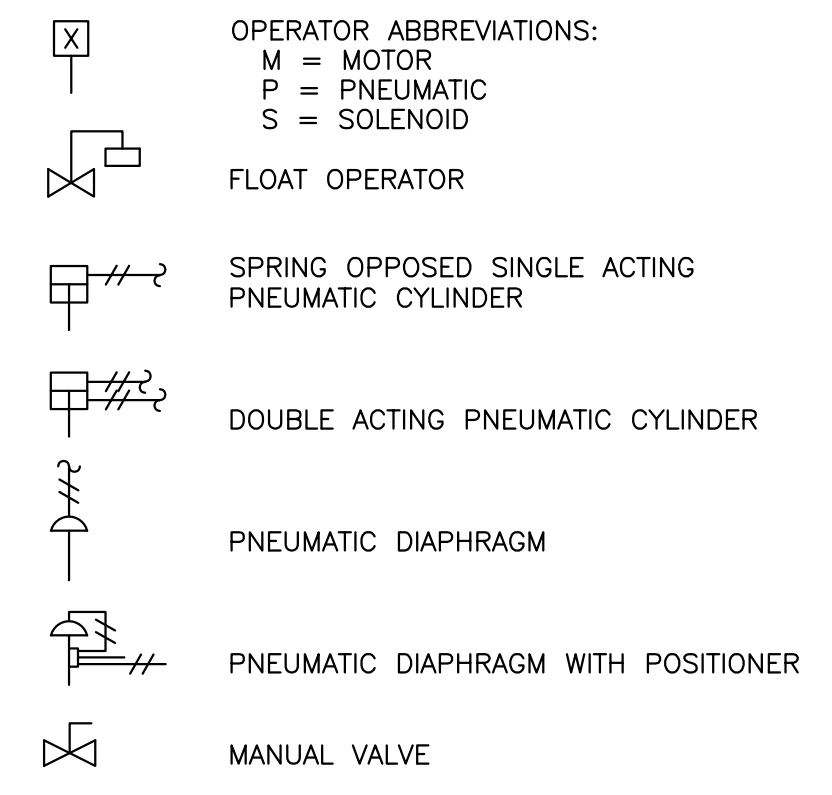
VALVE SYMBOLS



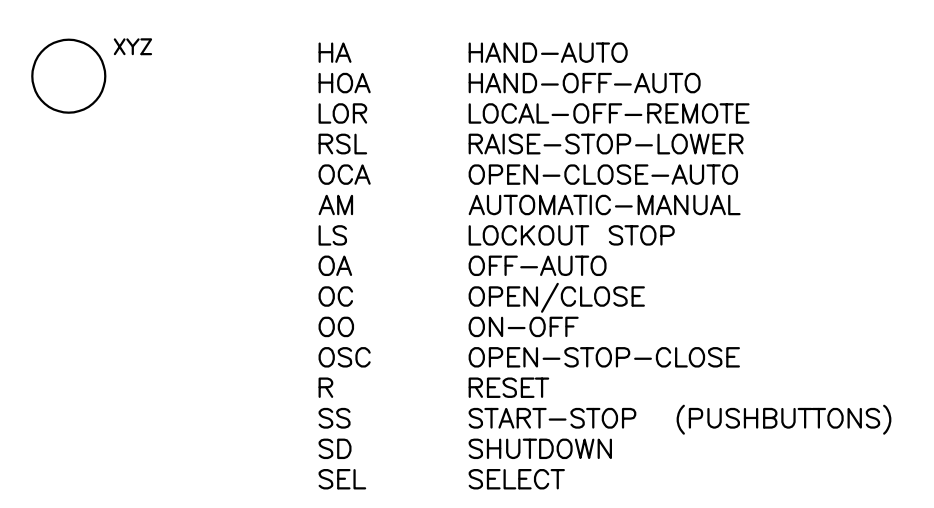
EQUIPMENT/DEVICE SYMBOLS



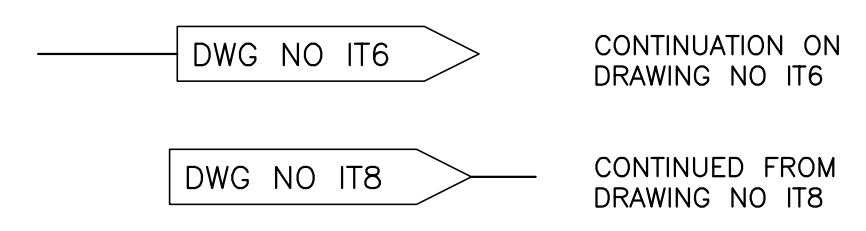
ACTUATOR SYMBOLS



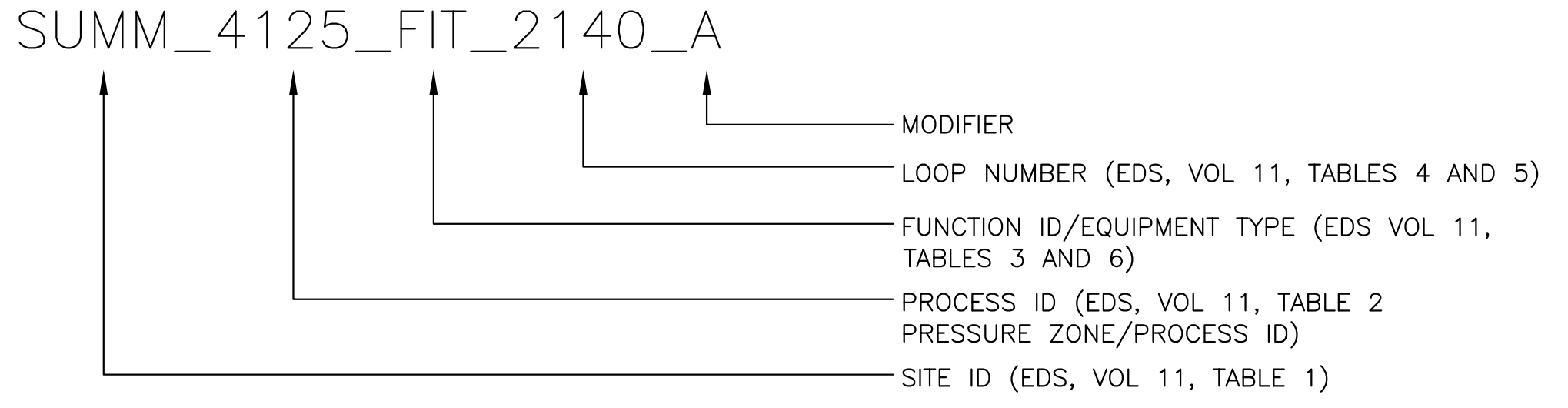
LOCAL SWITCH NOTATION ABBREVIATIONS



CROSS REFERENCE SYMBOLS



INSTRUMENT AND SCADA OBJECT NAMING CONVENTIONS



ANSI/ISA FUNCTION IDENTIFIERS

CODE	FIRST LETTER (1)		SUCCEEDING LETTERS (15)		
	COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5
	MEASURED OR INITIATING VARIABLE	VARIABLE MODIFIER (10)	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS (2)(3)(4)		ALARM		
B	BURNER, COMBUSTION (2)		USER'S CHOICE (5)	USER'S CHOICE (5)	USER'S CHOICE (5)
C	USER'S CHOICE (3A)(5)			CONTROL (23A)(23E)	CLOSE (27B)
D	USER'S CHOICE (3A)(5)	DIFFERENCE, DIFFERENTIAL (11A)(12A)			DEVIATION (28)
E	VOLTAGE (2)		SENSOR, PRIMARY ELEMENT		
F	FLOW, FLOW RATE (2)	RATIO (12B)			
G	USER'S CHOICE		GLASS, GAUGE, VIEWING DEVICE (16)		
H	HAND (2)				HIGH (27A)(28A)(29)
I	CURRENT (2)		INDICATE (17)		
J	POWER (2)	SCAN	SCAN (18)		
K	TIME, SCHEDULE (2)	TIME RATE OF CHANGE (12C)(13)		CONTROL STATION (24)	
L	LEVEL (2)		LIGHT (19)		LOW (27B)(28)(29)
M	USER'S CHOICE (3A)(5)	MOMENTARY			MIDDLE, INTERMEDIATE (27C)(28)(29)
N	USER'S CHOICE (5)		USER'S CHOICE (5)	USER'S CHOICE (5)	USER'S CHOICE (5)
O	USER'S CHOICE (5)		ORIFICE, RESTRICTION		OPEN (27A)
P	PRESSURE (2)		POINT (TEST CONNECTION)		
Q	QUANTITY (2)	INTEGRATE, TOTALIZE (11B)	INTEGRATE, TOTALIZE		
R	RADIATION (2)		RECORD (20)		RUN
S	SPEED, FREQUENCY	SAFETY (14)		SWITCH (23B)	STOP
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE (2)(6)		MULTIFUNCTION (21)	MULTIFUNCTION (21)	MULTIFUNCTION
V	VIBRATION, MECHANICAL ANALYSIS (2)(3)(4)			VALVE, DAMPER, LOUVER (23C)(23E)	
W	WEIGHT, FORCE (2)FK		WELL, PROBE		
X	UNCLASSIFIED (8)	X-AXIS (11C)	ACCESSORY DEVICES (22), UNCLASSIFIED (8)	UNCLASSIFIED (8)	UNCLASSIFIED (8)
Y	EVENT, STATE OR PRESENCE (2)(9)	Y-AXIS (11C)		AUXILIARY DEVICES (23D)(25)(26)	
Z	POSITION, DIMENSION (2)	Z-AXIS (11C), SAFETY INSTRUMENTED SYSTEM (30)		DRIVER, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT	

NUMBERS IN PARENTHESES REFER TO EXPLANATORY NOTES IN CLAUSE 4.2 OF ANSI/ISA-5.1-2009

DISTRICT STANDARD LOOP NUMBERING CONVENTION

LOOP NO.	MAJOR PROCESS SYSTEM	LOOP NO.	PROCESS TYPE, LOCATION, UNIT NO.
1000	WATER STORAGE	1000	SPARE
		1100	FIRST BASIN (TANK, ETC.)
		1200	SECOND BASIN (TANK, ETC.)
		1300	THIRD BASIN (TANK, ETC.)
		1400	SPARE
		1500	SPARE
		1600	SPARE
		1700	SPARE
		1800	SPARE
		1900	SPARE
2000	PUMPS	2000	STATION FLOW & PRESSURE
		2100	PUMP GROUP 1
		2200	PUMP GROUP 2
		2300	PUMP GROUP 3
		2400	PUMP GROUP 4
		2500	PUMP GROUP 5
		2600	PUMP GROUP 6
		2700	SURGE TANKS
		2800	SPARE
		2900	WELL EQUIPMENT
3000	FACILITY	3000	SECURITY
		3100	FIRE
		3200	SAFETY
		3300	SUMPS
		3400	SPARE
		3500	SPARE
		3600	POWER
		3700	ENVIRONMENTAL
		3800	AIR SYSTEMS
		3900	SPARE
4000	DISINFECTION	4000	SODIUM HYPOCHLORITE (SHC)
		4100	SPARE
		4200	SPARE
		4300	WASHDOWN
		4400	SPARE
		4500	SPARE
		4600	SPARE
		4700	THM SPRAY PUMPS
		4800	THM SUPPLY FANS
		4900	SPARE
5000	COMMUNICATIONS	5000	COMM FAILS/BATTERY CHARGER
		5100	RADIO
		5200	SPARE
		5300	SPARE
		5400	SPARE
		5500	SPARE
		5600	SPARE
		5700	SPARE
		5800	SPARE
		5900	SPARE
6000	CONTROLLER	6000	GENERAL
		6100	SPARE
		6200	SPARE
		6300	SPARE
		6400	SPARE
		6500	SPARE
		6600	SPARE
		6700	SPARE
		6800	SPARE
		6900	SPARE
7000	DISTRIBUTION	7000	PRVs
		7100	PRESSURE STATIONS
		7200	RATE OF FLOWS
		7300	VALVES
		7400	SPARE
		7500	SPARE
		7600	SPARE
		7700	SPARE
		7800	SPARE
		7900	SPARE
8000	SPARE	8000	SPARE
		8100	SPARE
		8200	SPARE
		8300	SPARE
		8400	SPARE
		8500	SPARE
		8600	SPARE
		8700	SPARE
		8800	SPARE
		8900	SPARE
9000	SPARE	9000	SPARE
		9100	SPARE
		9200	SPARE
		9300	SPARE
		9400	SPARE
		9500	SPARE
		9600	SPARE
		9700	SPARE
		9800	SPARE
		9900	SPARE

- NOTES:
- FOR DETAILED INFORMATION REGARDING EQUIPMENT, DEVICE, AND SCADA TAGGING AND NUMBERING, REFER TO ENGINEERING DESIGN STANDARD, VOLUME 11, AND TO THE APPENDICES.
 - ADDITIONAL EXAMPLES OF TAGGING AND NUMBERING MAY BE FOUND WITHIN THE AUTOCAD STANDARD DRAWINGS.
 - IN THOSE INSTANCES WHERE SYMBOLS ARE NOT DEFINED BY ISA THEY ARE CREATED FOR THIS LEGEND.

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FOR REFERENCE ONLY