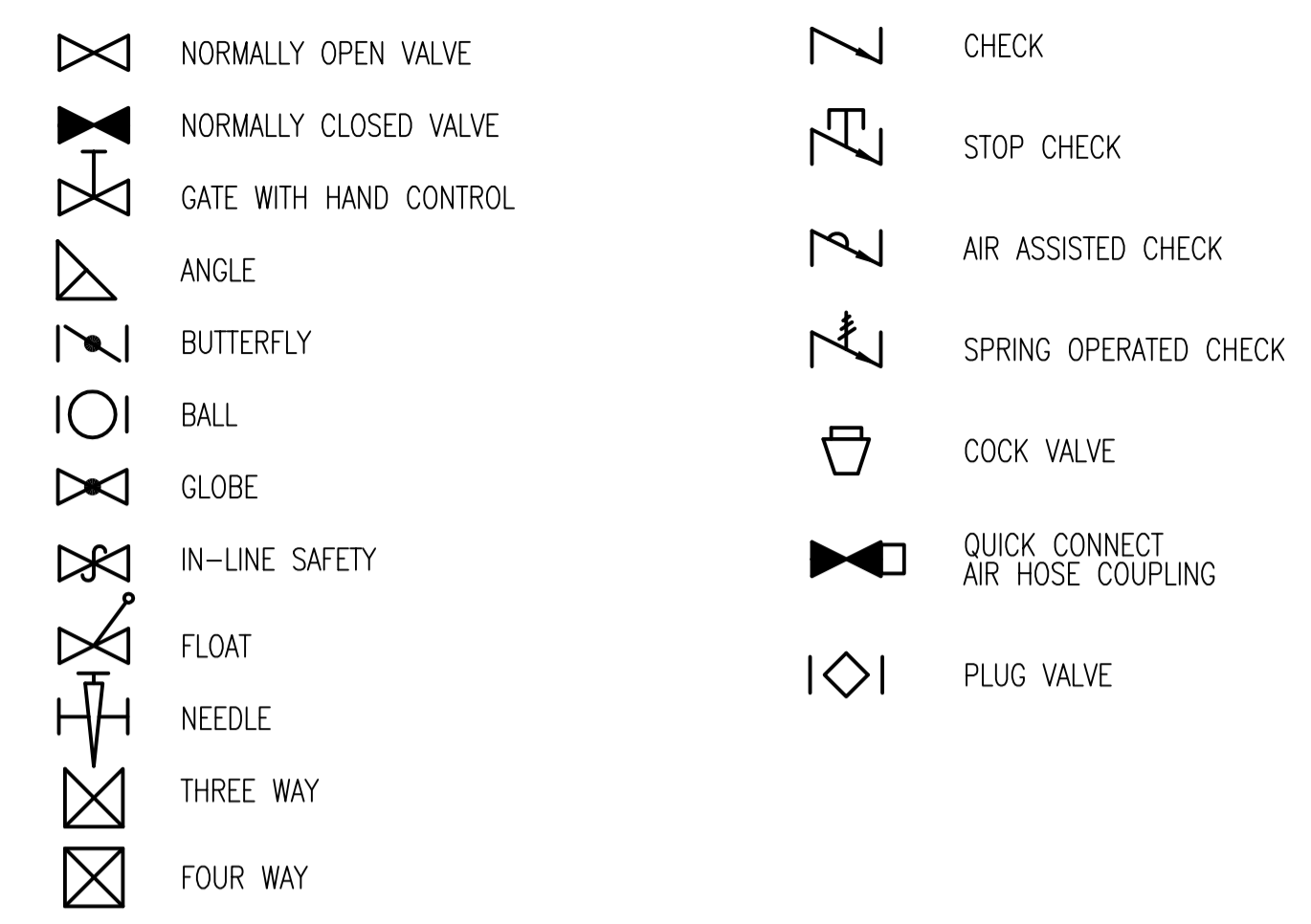
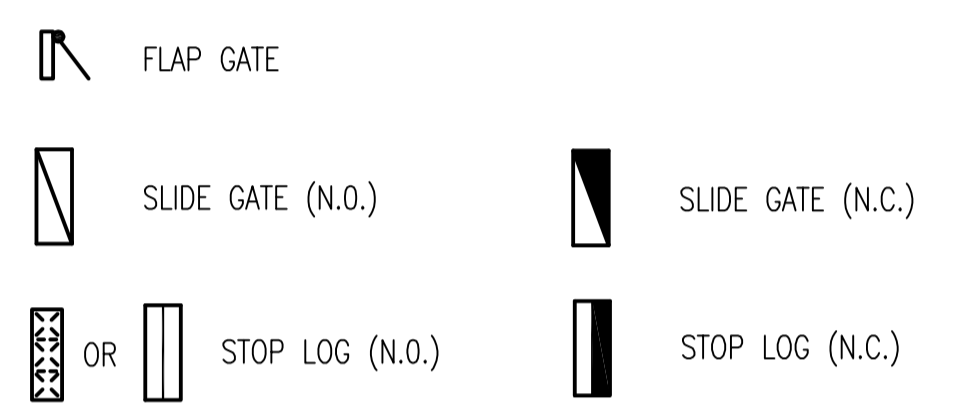


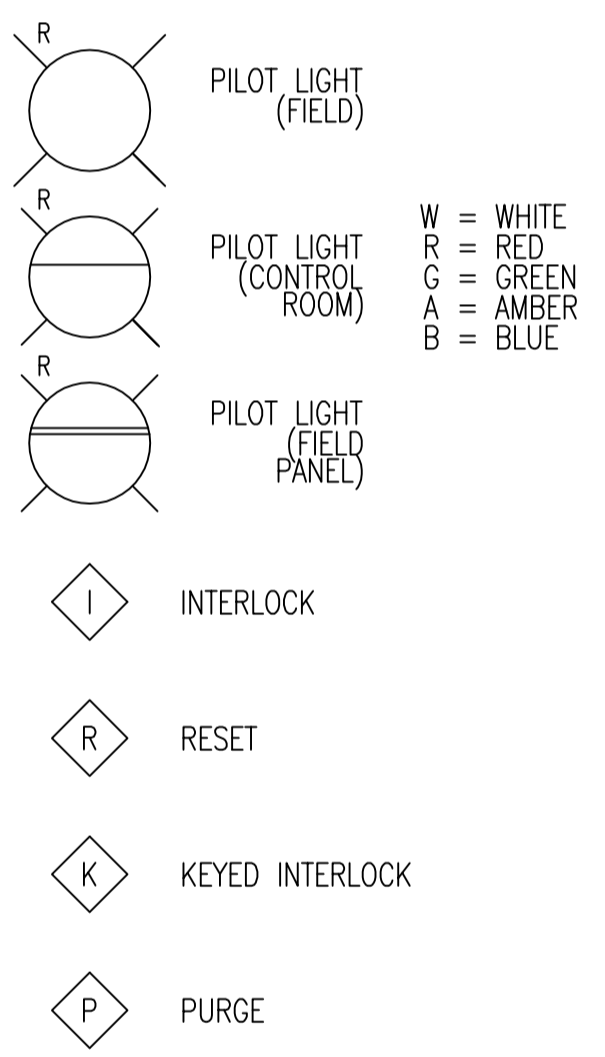
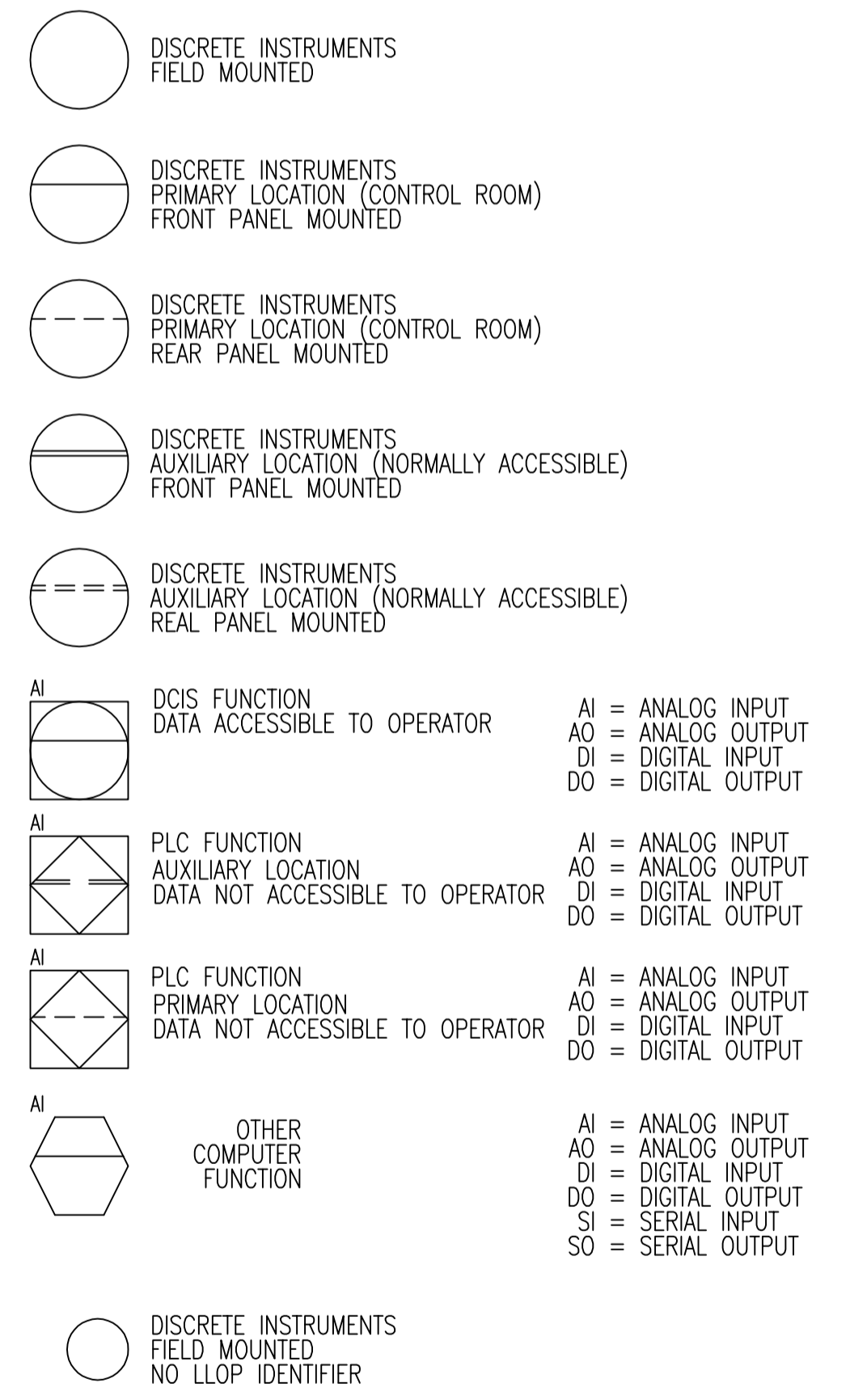
**VALVE SYMBOLS**



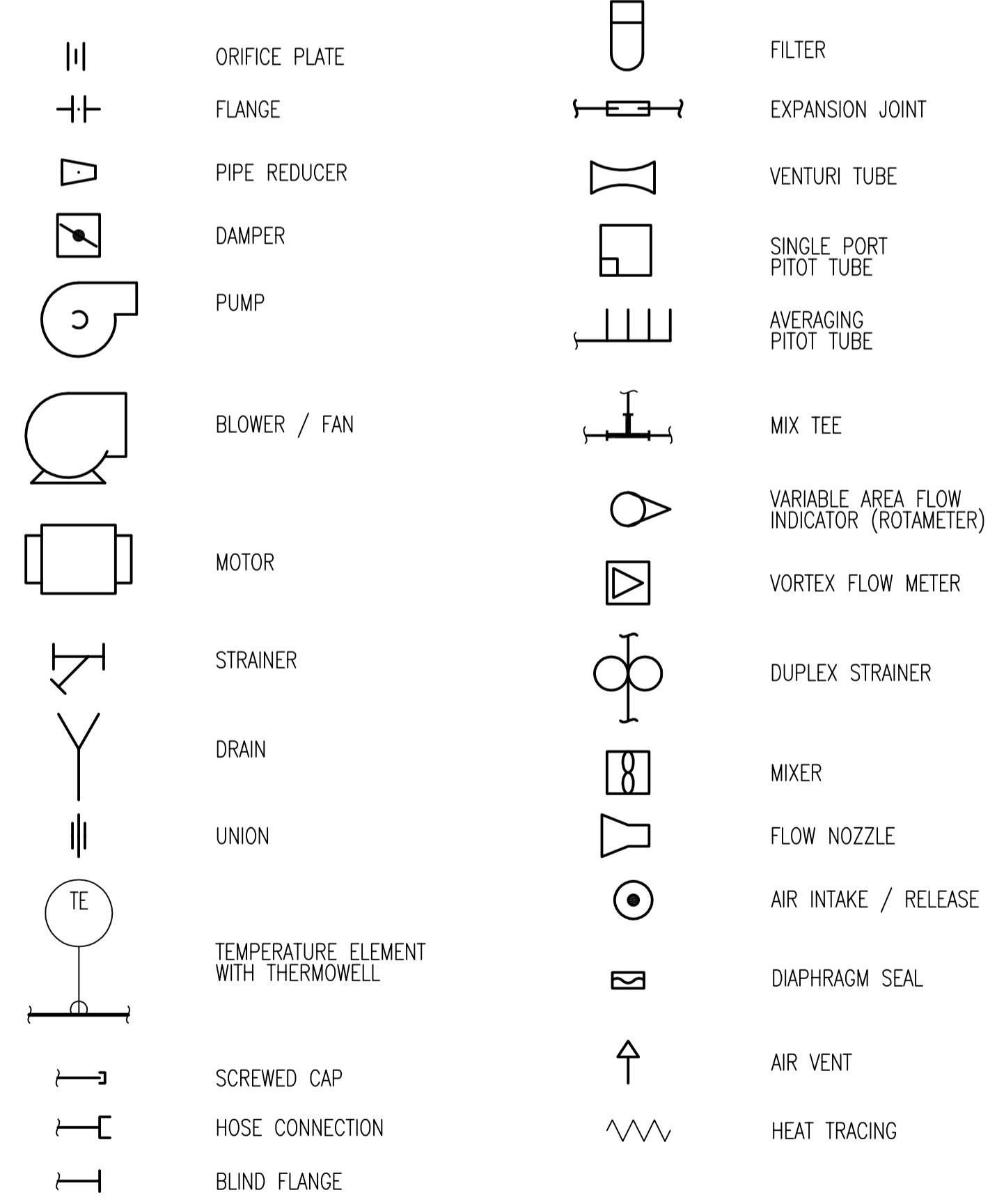
**GATE SYMBOLS**



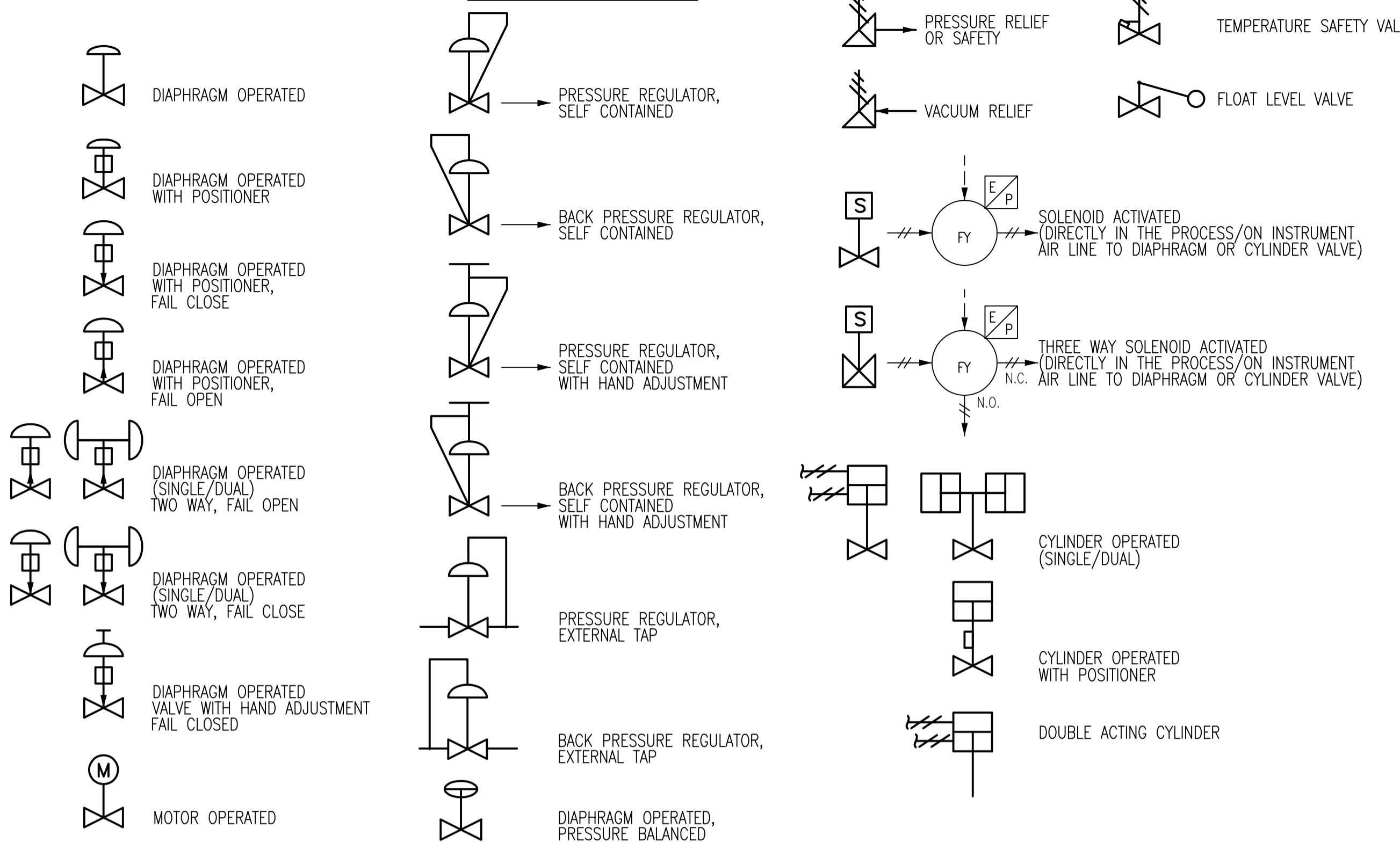
**INSTRUMENT SYMBOLS**



**ACCESSORY DEVICE SYMBOLS**



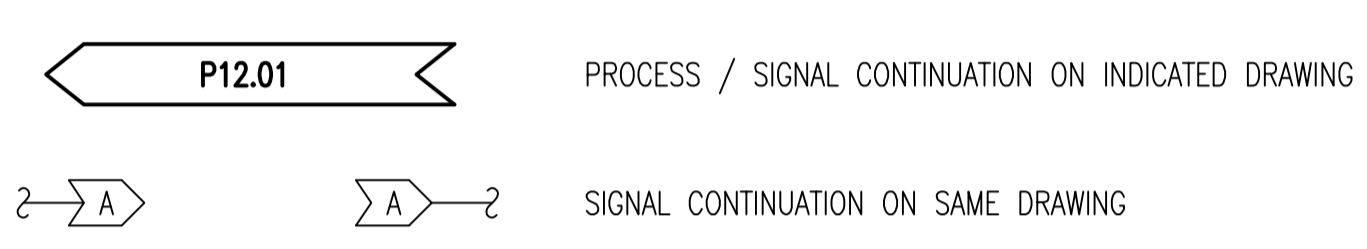
**ACTUATOR SYMBOLS**



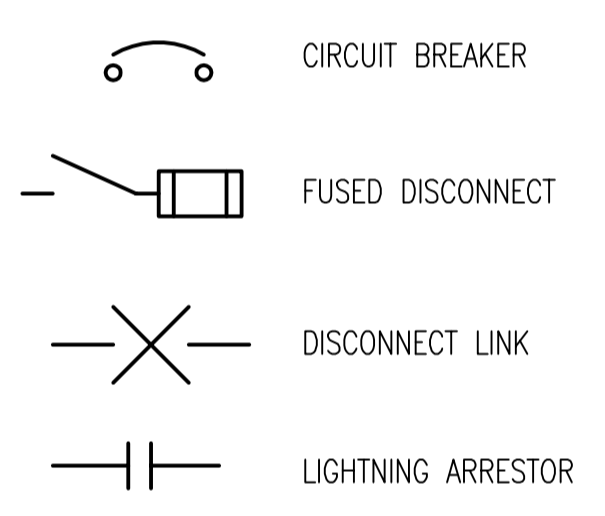
**PID STANDARDS**

- DRAWINGS UTILIZE CITY OF WINNIPEG STANDARDS FOR BORDER AND TITLE BLOCK. ALL DRAWINGS ARE PRODUCED ON AUTOCAD (LATEST REV., R2000 OR LATER).
- ALL UNITS ARE IN METRIC, EXCEPT AS NOTED OTHERWISE. ALL DIMENSIONS SHOWN ARE IN MILLIMETERS (mm).
- DRAWING CONTENT GENERALLY CONFORMS WITH TO ISA-5.1 STANDARD. AN EXCEPTION REGARDING EQUIPMENT TAGGING HAS BEEN MADE TO ALLOW BETTER CONFORMITY IN NAMING.
- PID'S INDICATE MAJOR PROCESS PIPING AND EQUIPMENT AND ASSOCIATED LOCAL INSTRUMENTATION, DCS AND OTHER PROCESS I/O.
- EQUIPMENT INCLUDING VESSELS, DRUMS, EXCHANGERS, HEATERS, PUMPS, COMPRESSORS, ETC. ARE ARRANGED IN SEQUENCE WITH PRINCIPLE FUNCTIONS AND FLOWS.
- ALL MAJOR EQUIPMENT INCLUDING PUMPS, COMPRESSORS, TANKS, ETC. ARE LABELED AS TO FUNCTION WITH DESIGN SIZES AND RATINGS.
- ALL PROCESS LINES ARE LABELED ACCORDING TO FUNCTION AND SIZE UTILIZING SYSTEM CODES DEFINED HEREIN.
- EACH SYSTEM INTERCONNECTION POINT BETWEEN DRAWINGS IS LABELED WITH A SOURCE DRAWING NUMBER OR DESTINATION DRAWING NUMBER. ARROWS ON PROCESS PIPING INDICATE DIRECTION OF FLOW BETWEEN DRAWINGS.

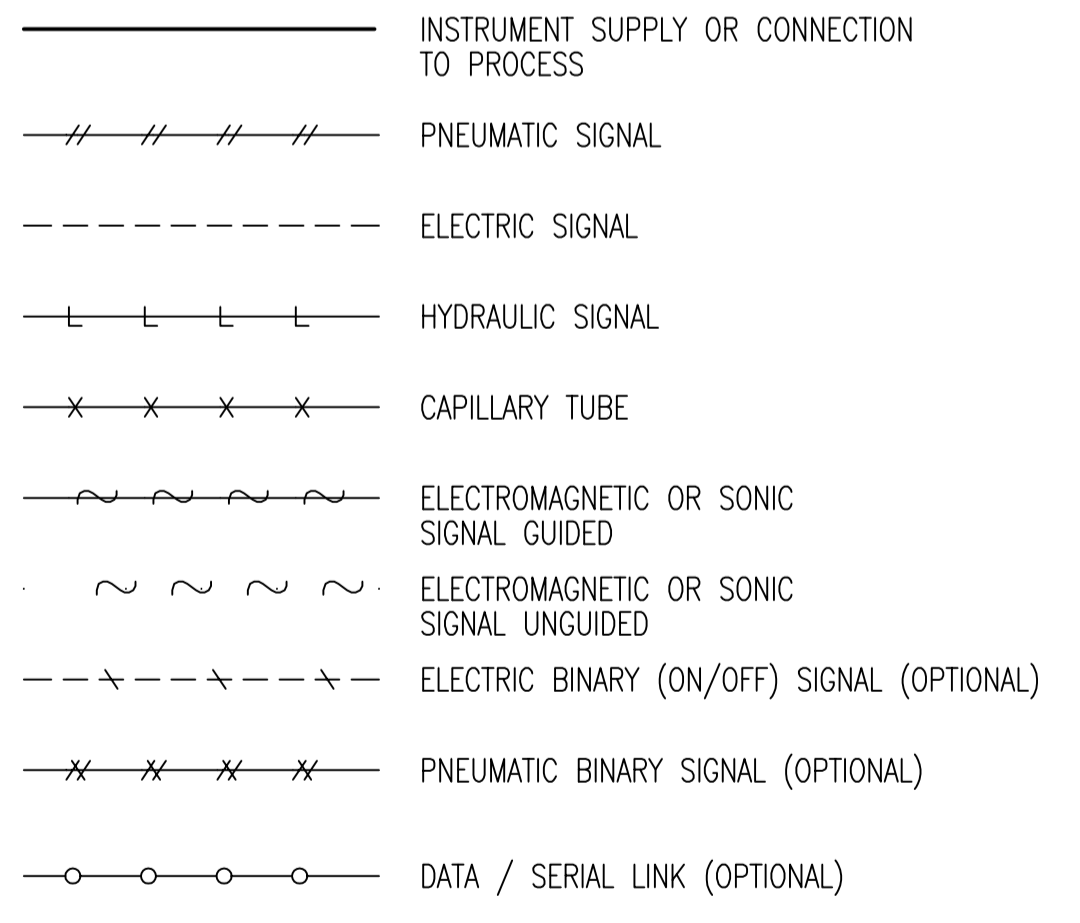
**CONNECTING ARROWS**



**ELECTRICAL SYMBOLS**



**INSTRUMENT LINE SYMBOLS**



THIS DRAWING IS BASED ON CITY OF WINNIPEG DRAWING NUMBER 1-0101A-D-A0001-001-06D

<p><b>Certificate of Authorization</b> Earth Tech Canada Inc. No. 730 Expiry: April 30, 2007</p>	B.M. ELEV.	<p>A Tyco International Ltd. Company</p>	ENGINEER'S SEAL	<p><b>THE CITY OF WINNIPEG</b> WATER AND WASTE DEPARTMENT ENGINEERING DIVISION</p>			
	DESIGNED BY: LAE		CHECKED BY: SB		ORIGINAL SIGNED BY: J.E. HUTCHISON		
	DRAWN BY: LAE		APPROVED BY: JEH		2006/05/15		
	SCALE: NONE		RELEASED FOR CONSTRUCTION BY: K. MARTENS		CONSULTANT DRAWING NO. P4.01		
NO. 00	ISSUED FOR TENDER	06/05/15	GLG	DATE: 2006/01/16	DATE: 2006/05/15	NEWPCC CENTRATE NUTRIENT TREATMENT NITROGEN REMOVAL FACILITY	CITY FILE NUMBER
REVISIONS						PROCESS AND INSTRUMENTATION DIAGRAMS LEGEND AND DETAILS	SHEET 1 OF 3
							CITY DRAWING NUMBER