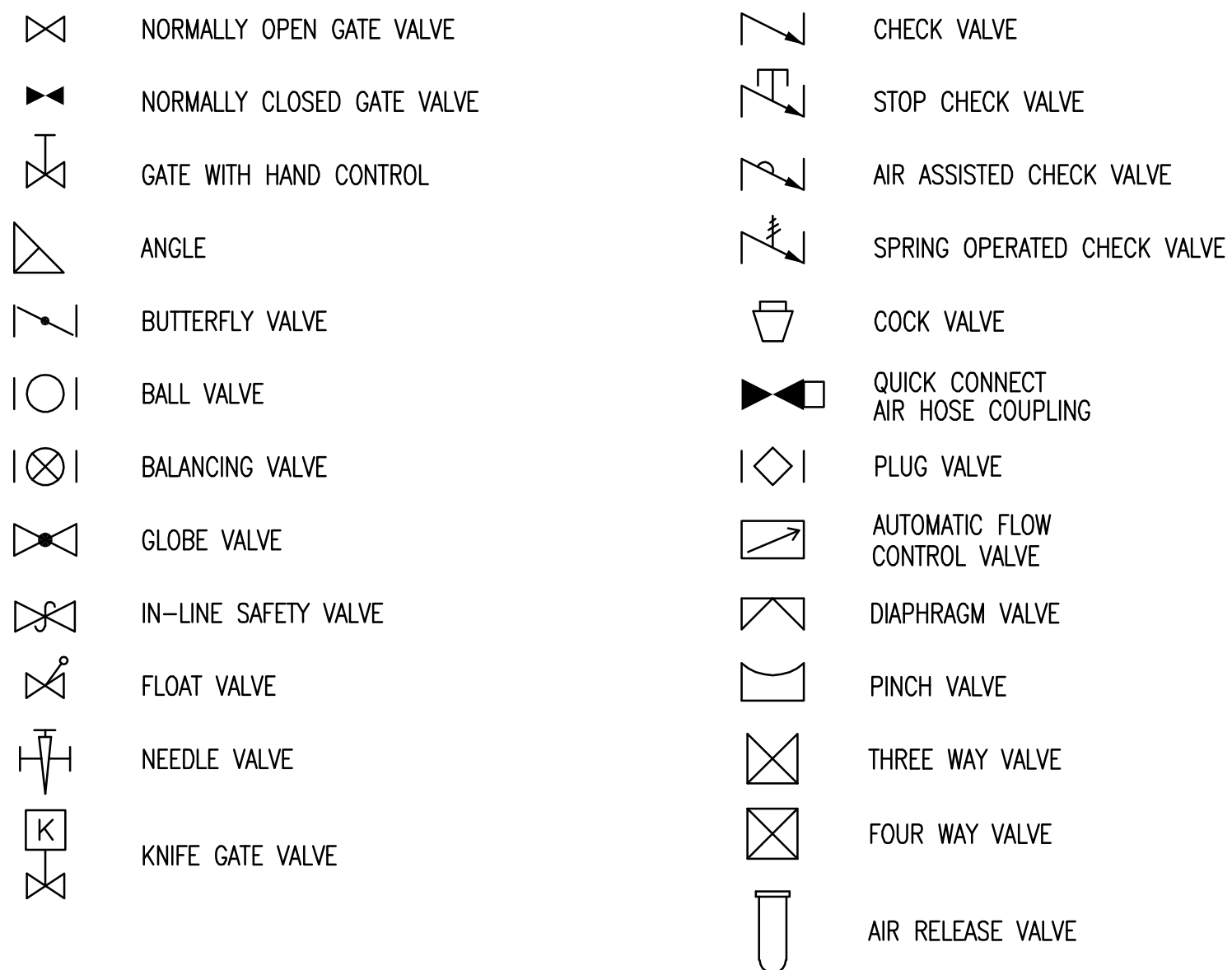
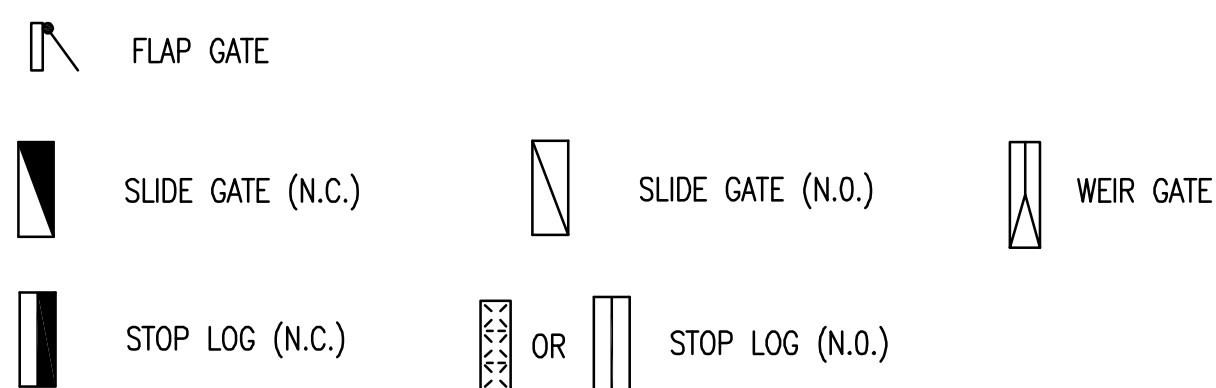


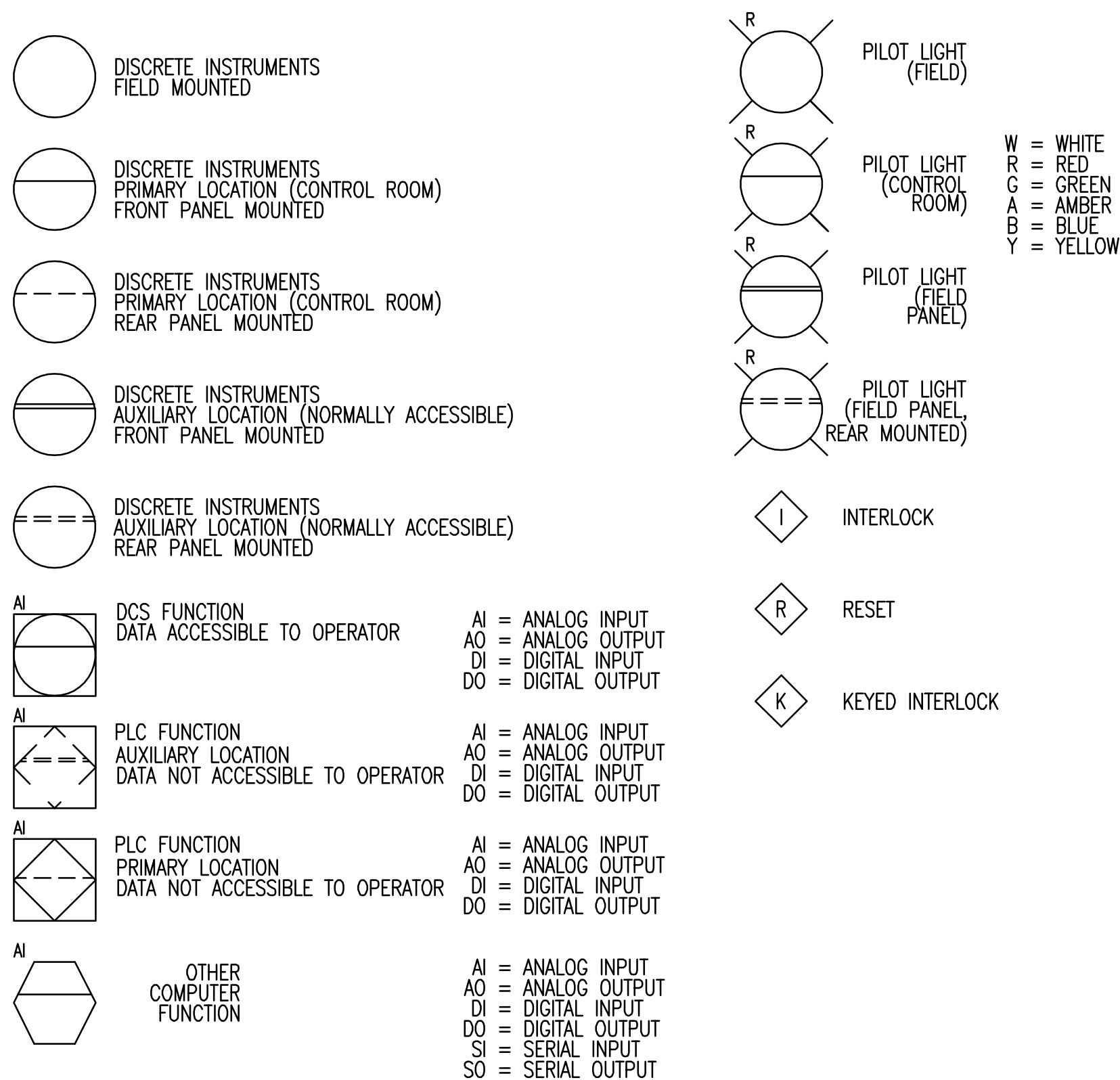
VALVE SYMBOLS



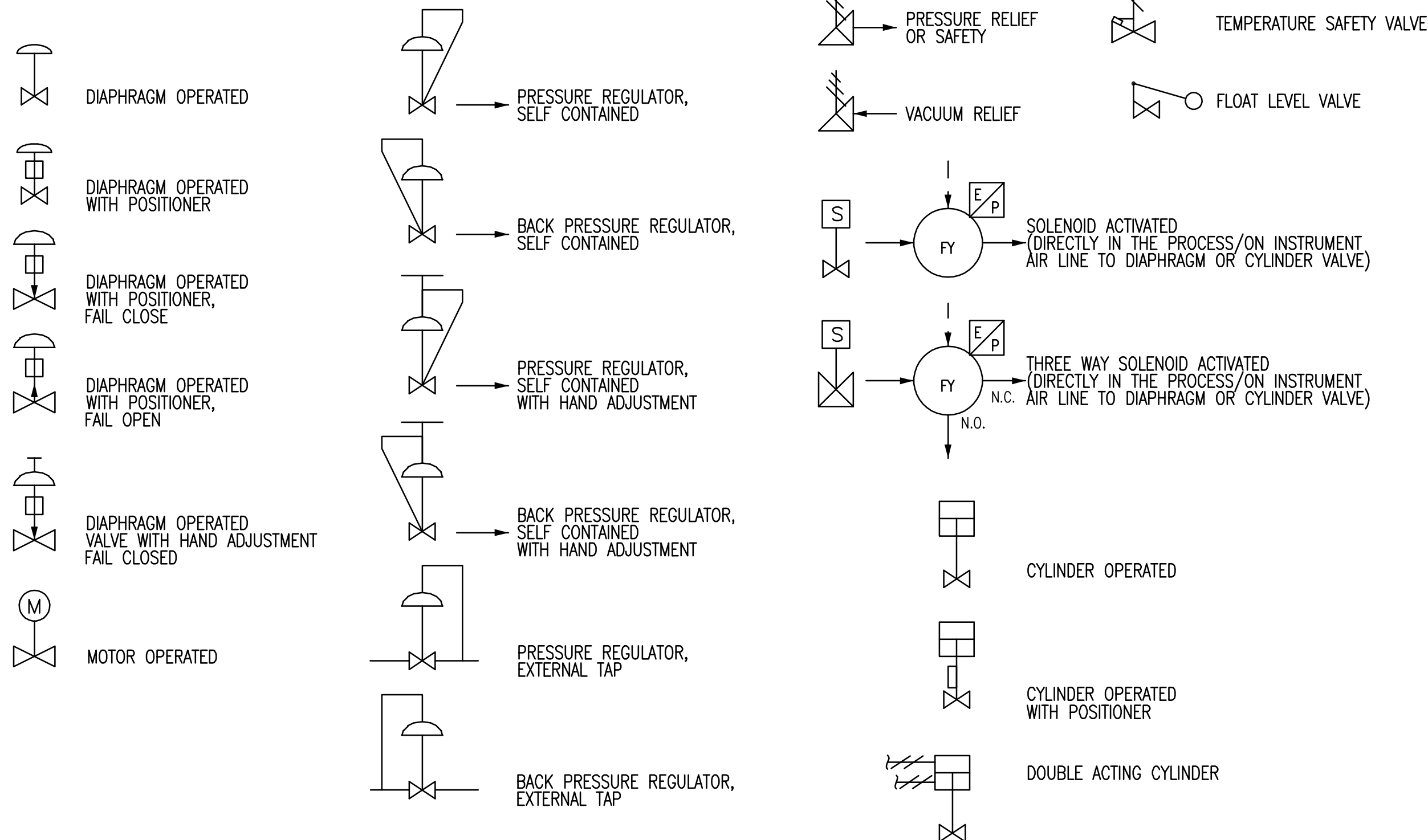
GATE SYMBOLS



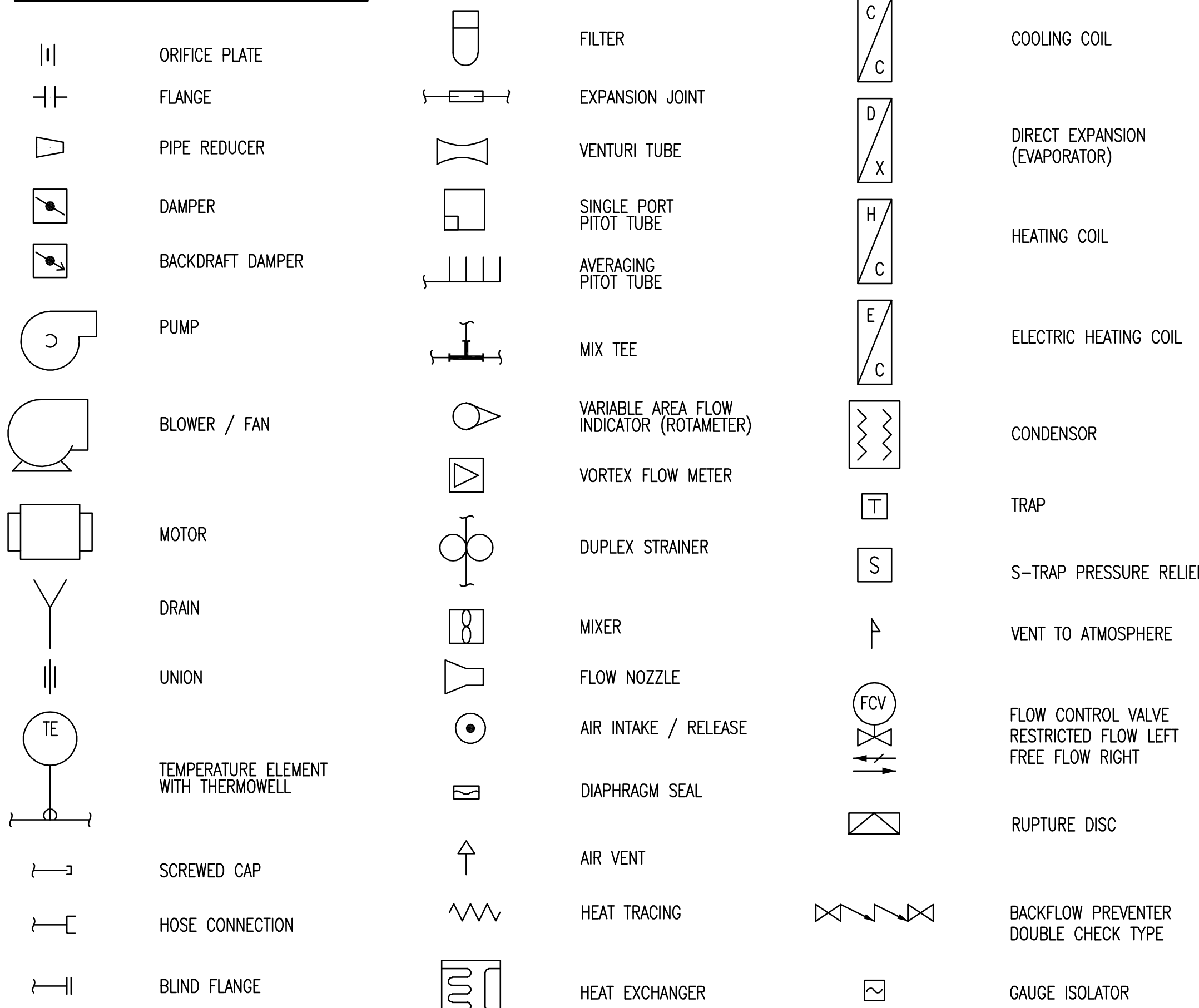
INSTRUMENT SYMBOLS



ACTUATOR SYMBOLS



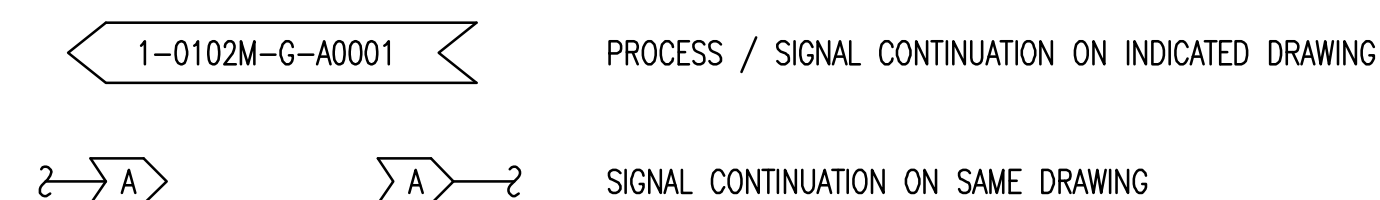
ACCESSORY DEVICE SYMBOLS



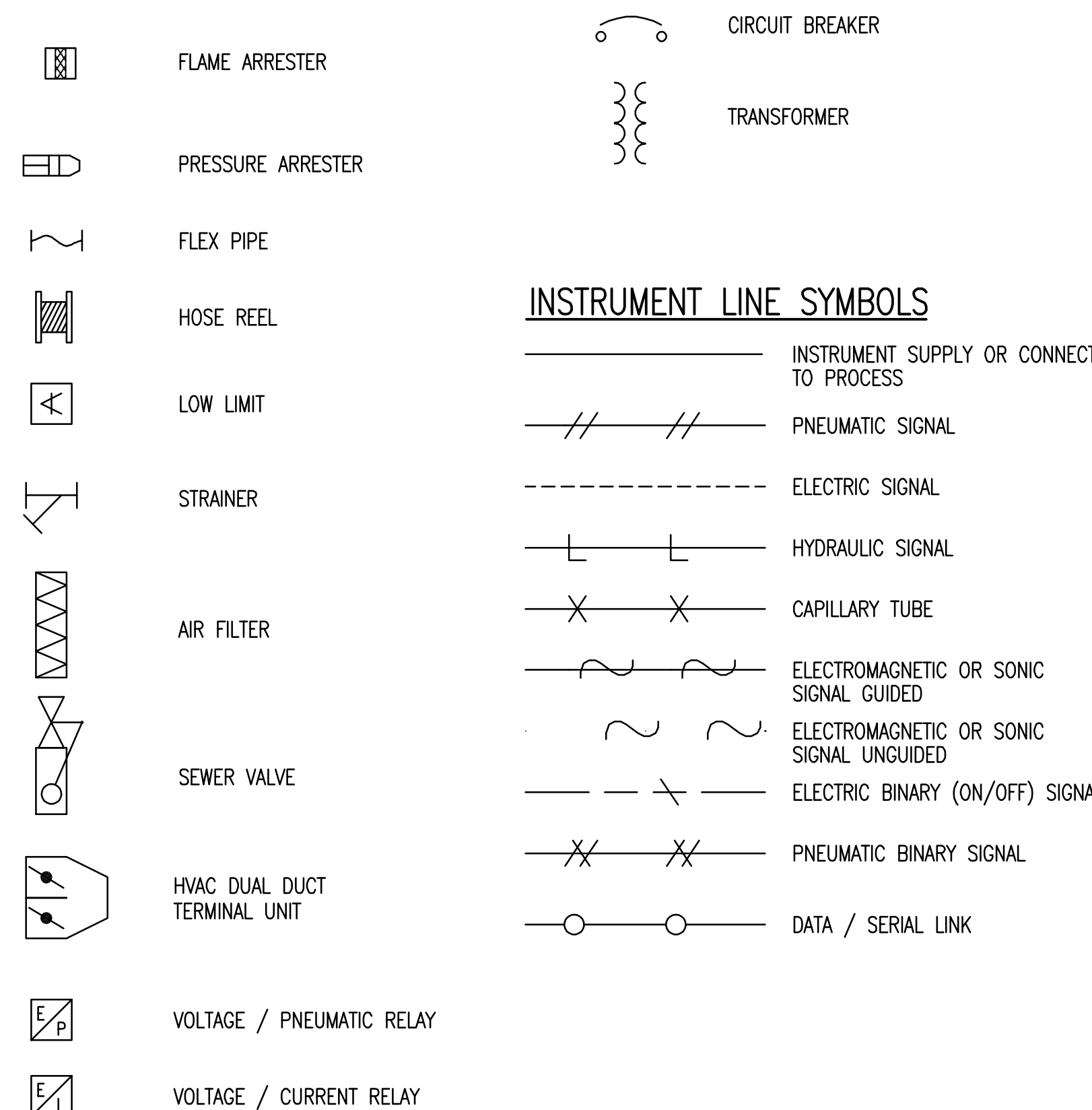
PID STANDARDS

- DRAWINGS UTILIZE CITY OF WINNIPEG STANDARDS FOR BORDER AND TITLE BLOCK. ALL DRAWINGS ARE PRODUCED ON AUTOCAD (LATEST REV. R2006 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.

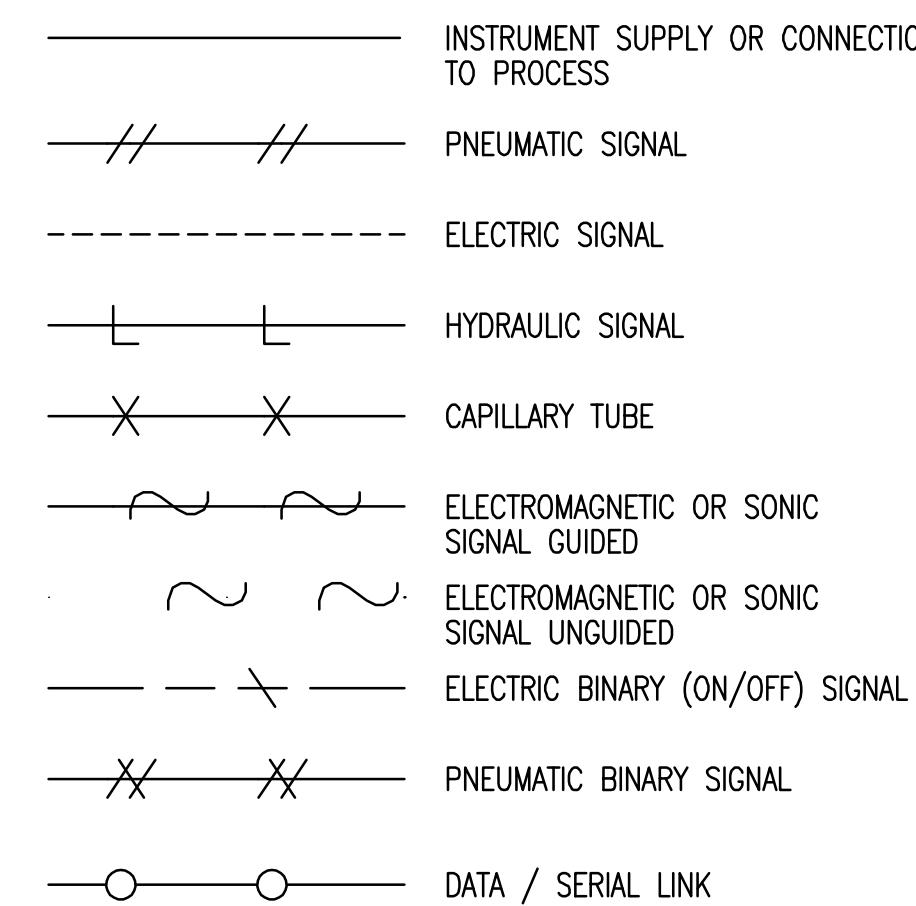
CONNECTING ARROWS



ELECTRICAL SYMBOLS



INSTRUMENT LINE SYMBOLS



METRIC
 WHOLE NUMBERS INDICATE MILLIMETRES
 DECIMALIZED NUMBERS INDICATE METRES



LOCATION APPROVED UNDERGROUND STRUCTURES		B.M. ELEV.
SUPV. U/G STRUCTURES COMMITTEE	DATE	
NOTE: LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.		
2. ISSUED FOR TENDER	12.11.01	D.K.G.
1. ISSUED FOR 60% REVIEW	12.07.25	D.K.G.
NO. REVISIONS	DATE	BY

Stantec Consulting Ltd.	
905 Waverley Street, Winnipeg, Manitoba Tel 204-489-5900 Fax 204-453-9012	
DESIGNED BY B.S.J.	CHECKED BY S.T.
DRAWN BY D.K.G.	APPROVED BY S.K.B.
HOR. SCALE: -	
VERTICAL: -	
DATE 2012.01.23	DATE

ENGINEER'S SEAL
 ORIGINAL SEALED BY
 B.S. JANZ
 P. ENG.
 12/10/31

THE CITY OF WINNIPEG
 WATER AND WASTE DEPARTMENT
 Winnipeg
 NORTH END WATER POLLUTION CONTROL CENTRE
 REHABILITATION OF DIGESTER NO. II, SLUDGE HOLDING TANKS
 No. 5 AND No. 7
 PROCESS & INSTRUMENTATION DIAGRAM LEGEND AND DETAILS-1
 BID OPPORTUNITY NO. CITY DRAWING NUMBER I-0101D-A0081-001 SHEET OF 18 29