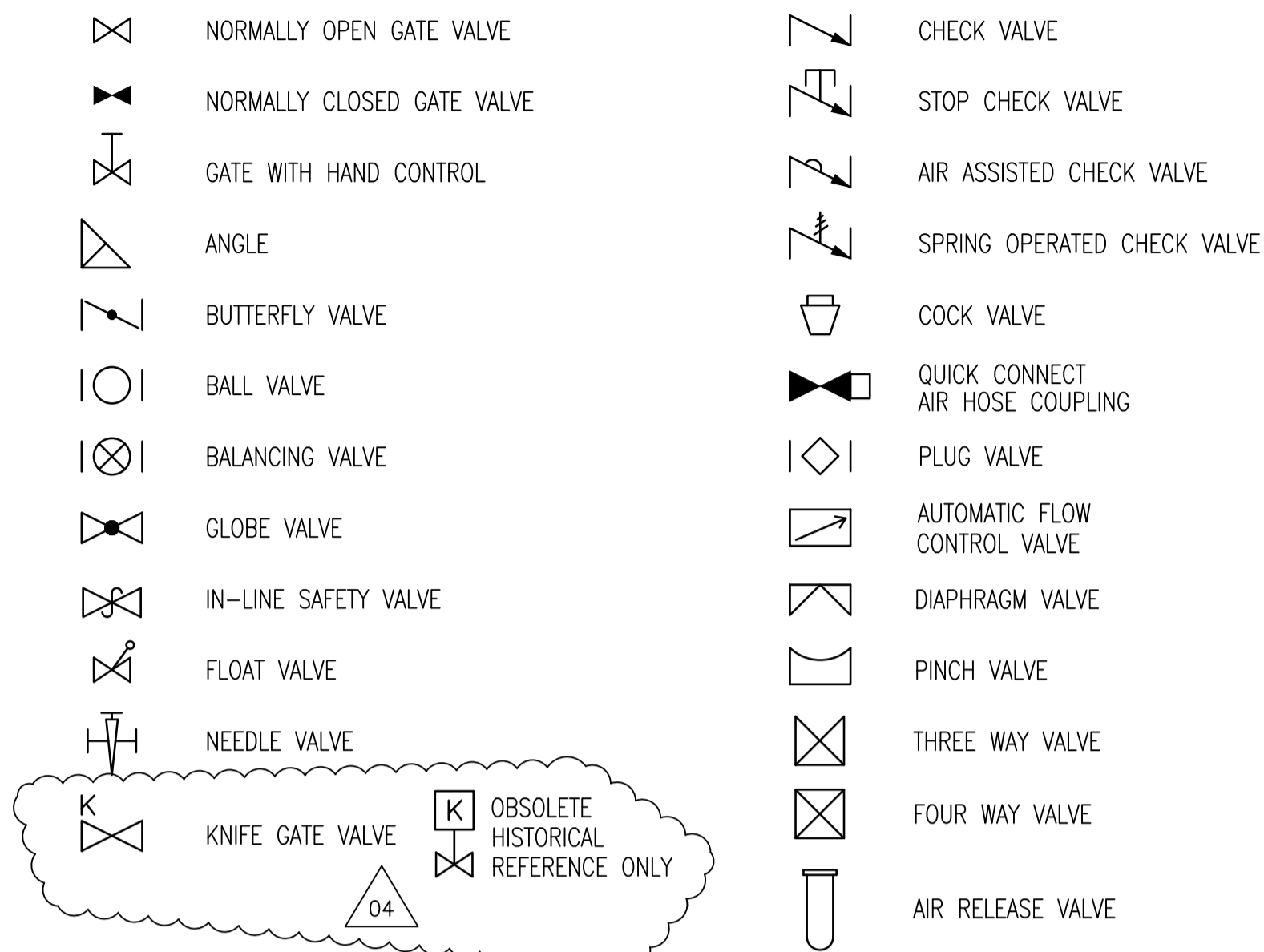
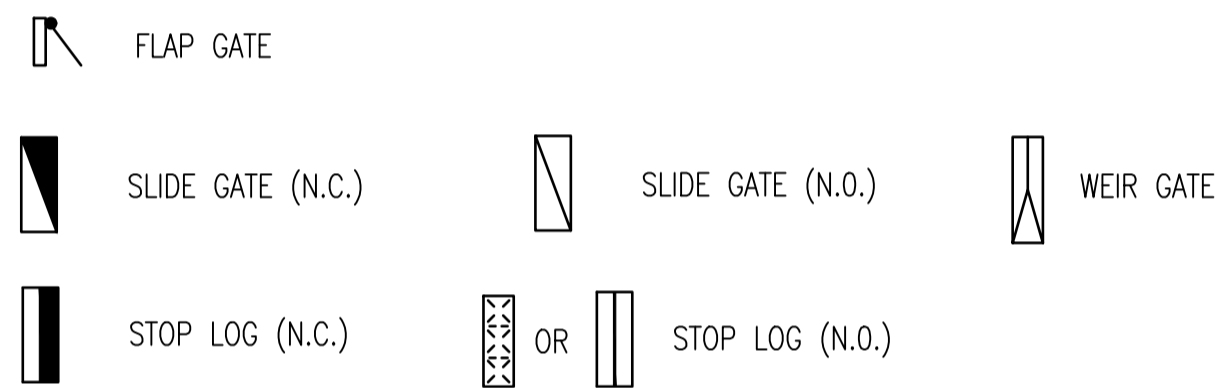


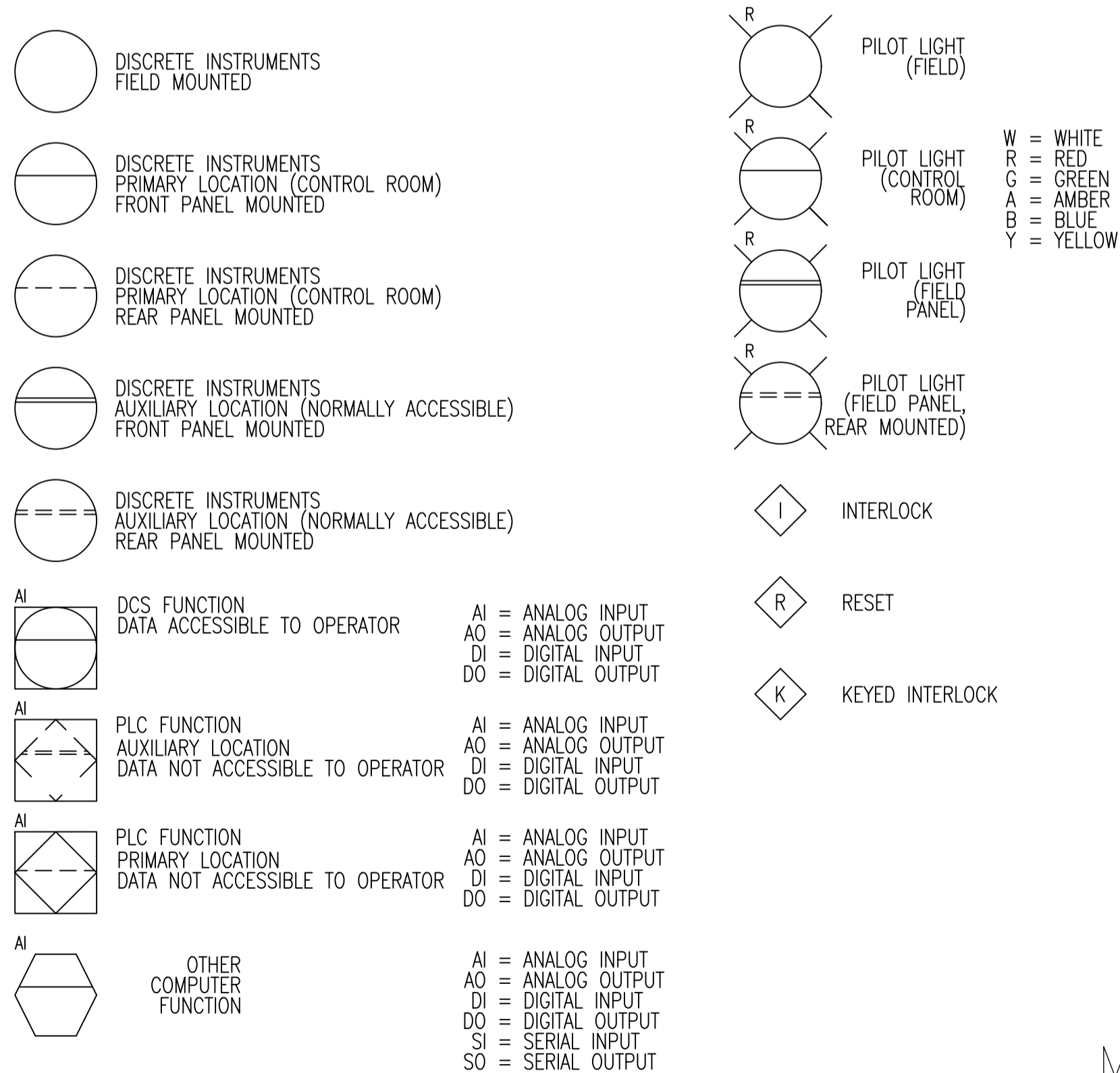
VALVE SYMBOLS



GATE SYMBOLS



INSTRUMENT SYMBOLS



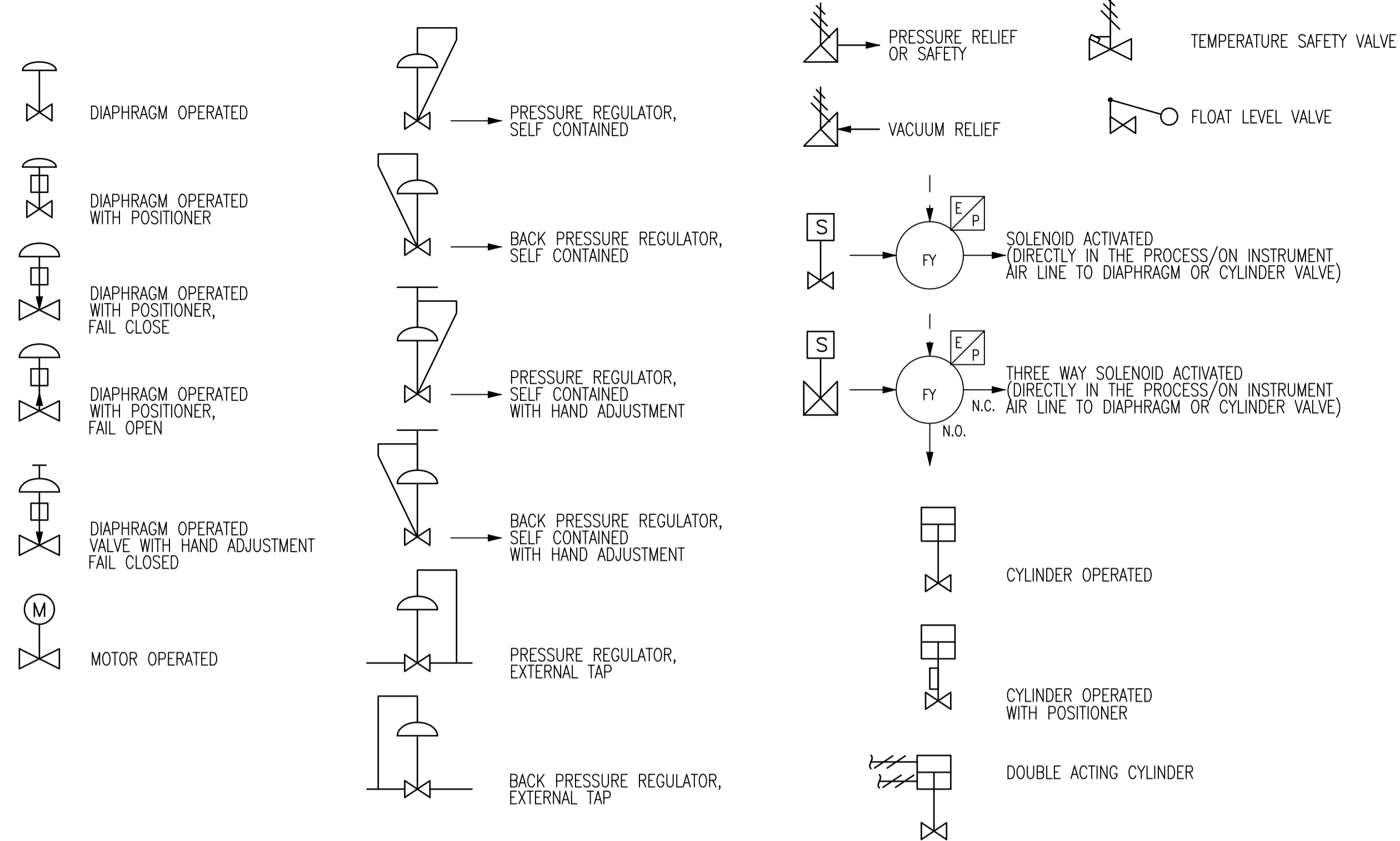
REVISION 04
THE ENGINEER'S DESIGN RESPONSIBILITIES ARE LIMITED TO THE CHANGES INDICATED IN THE CLOUDED WORK

DESIGNED BY: C. REIMER	CHECKED BY: C. REIMER
DRAWN BY: C. REIMER	APPROVED BY: C. REIMER
DATE: 2019-08-01	

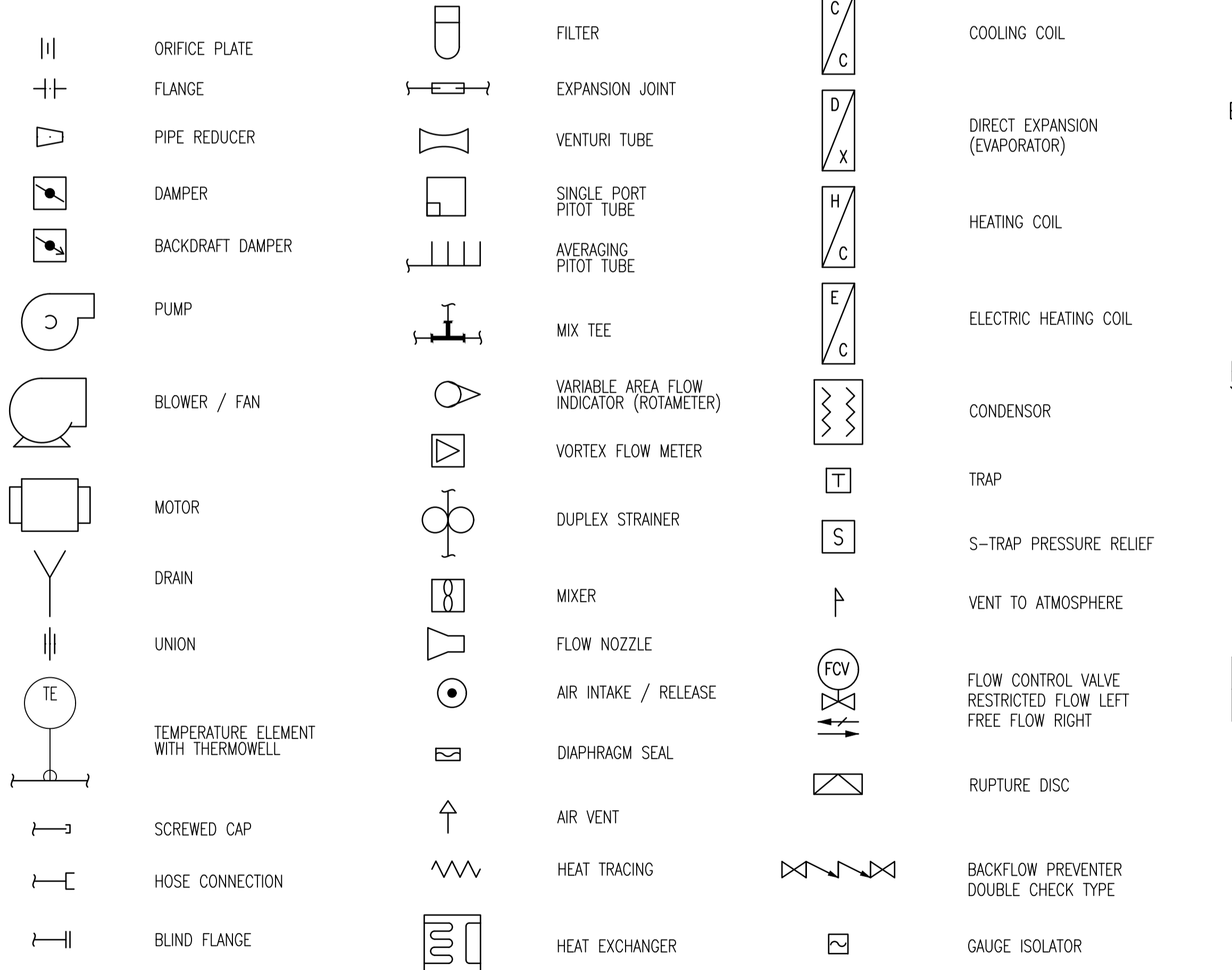
METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES



ACTUATOR SYMBOLS



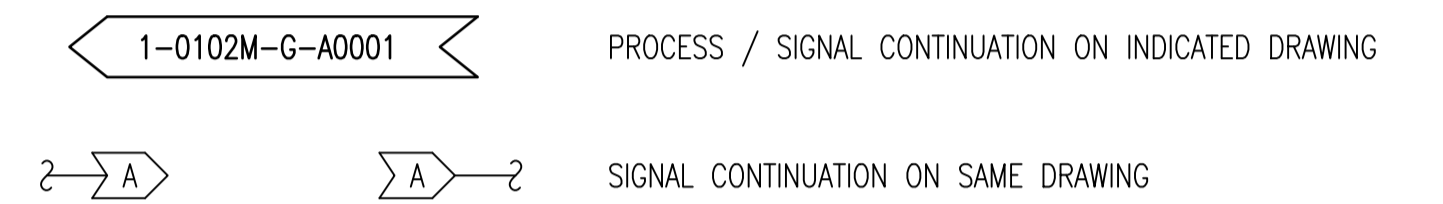
ACCESSORY DEVICE SYMBOLS



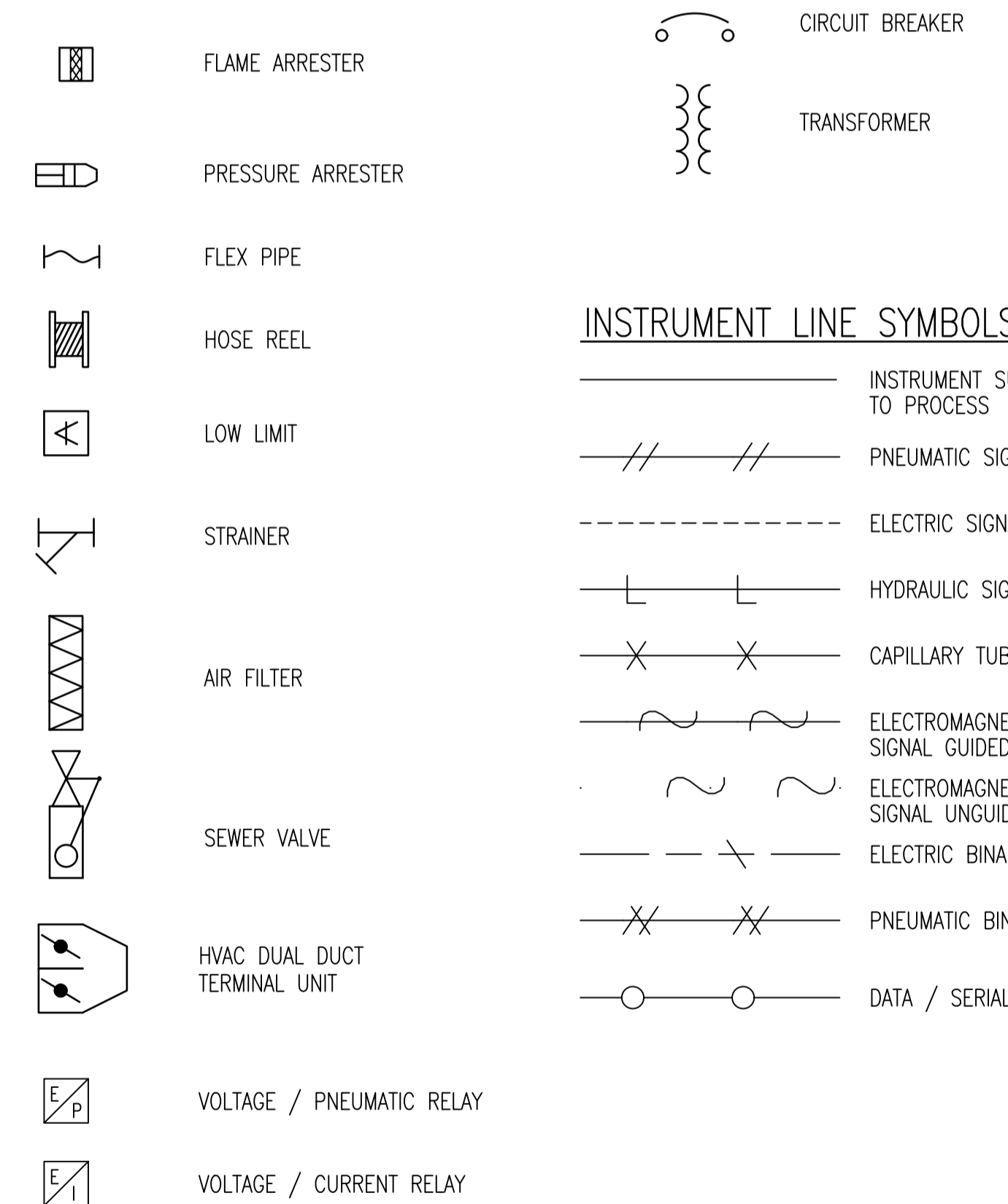
PID STANDARDS

1. DRAWINGS UTILIZE CITY OF WINNIPEG STANDARDS FOR BORDER AND TITLE BLOCK. ALL DRAWINGS ARE PRODUCED ON AUTOCAD (LATEST REV. R2006 OR LATER).
2. ALL UNITS ARE IN METRIC, EXCEPT AS NOTED OTHERWISE. ALL DIMENSIONS SHOWN ARE IN MILLIMETERS (mm).
3. DRAWING CONTENT GENERALLY CONFORMS WITH TO ISA-5.1 STANDARD. AN EXCEPTION REGARDING EQUIPMENT TAGGING HAS BEEN MADE TO ALLOW BETTER CONFORMITY IN NAMING.
4. PID'S INDICATE MAJOR PROCESS PIPING AND EQUIPMENT AND ASSOCIATED LOCAL INSTRUMENTATION, DCS AND OTHER PROCESS I/O.
5. EQUIPMENT INCLUDING VESSELS, DRUMS, EXCHANGERS, HEATERS, PUMPS, COMPRESSORS, ETC. ARE ARRANGED IN SEQUENCE WITH PRINCIPLE FUNCTIONS AND FLOWS.
6. ALL MAJOR EQUIPMENT INCLUDING PUMPS, COMPRESSORS, TANKS, ETC. ARE LABELED AS TO FUNCTION WITH DESIGN SIZES AND RATINGS.
7. ALL PROCESS LINES ARE LABELED ACCORDING TO FUNCTION AND SIZE UTILIZING SYSTEM CODES DEFINED HEREIN.
8. 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.

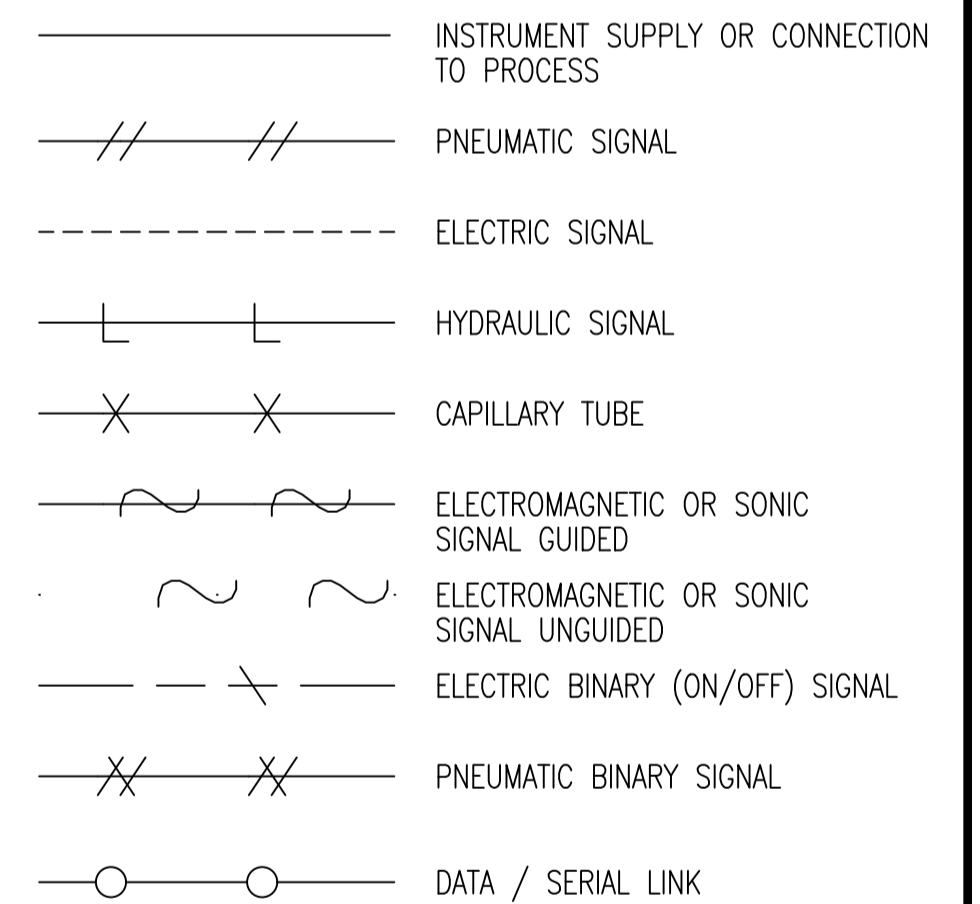
CONNECTING ARROWS



ELECTRICAL SYMBOLS



INSTRUMENT LINE SYMBOLS



LOCATION APPROVED UNDERGROUND STRUCTURES

SNIPV. 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.

NO.	REVISIONS	DATE	BY
4	MODIFIED KNIFE GATE VALVE	2019-06-14	C.J.R.
3	REVISED TO AS-BUILT	2017-11-01	K.R.
2	ISSUED FOR TENDER	2012-11-01	D.K.G.
1	ISSUED FOR 60% REVIEW	2012-07-25	D.K.G.

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: -

RELEASED FOR CONSTRUCTION: -
DATE: -

NO. REVISIONS: 4 DATE: 2012.01.23

ENGINEER'S SEAL

BID OPPORTUNITY NO. 630-2019

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

NORTH END WATER POLLUTION CONTROL CENTRE
REHABILITATION OF DIGESTER NO. 11, SLUDGE HOLDING TANKS
No. 5 AND No. 7

PROCESS & INSTRUMENTATION DIAGRAM LEGEND AND DETAILS-1

CITY DRAWING NUMBER: 1-0101D-A0081-001

SHEET 15 OF 44