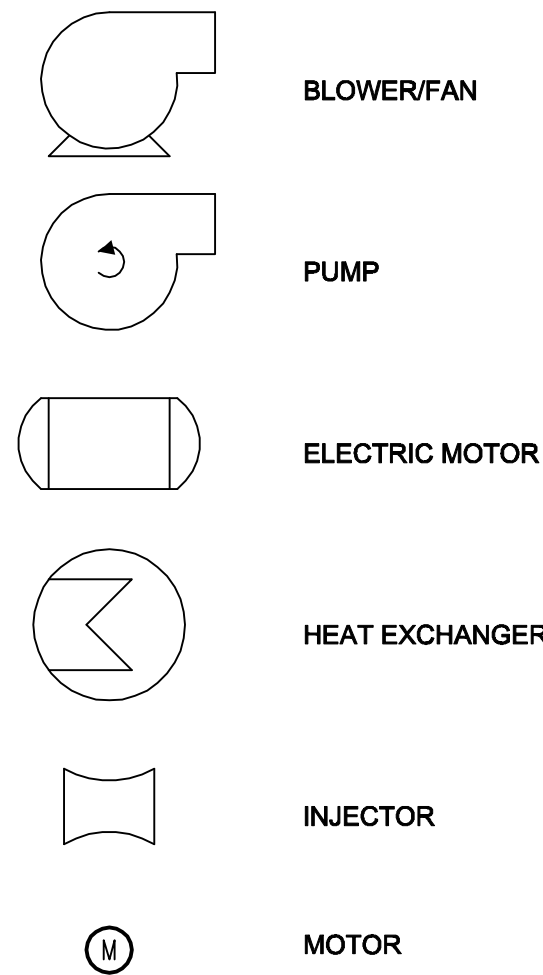
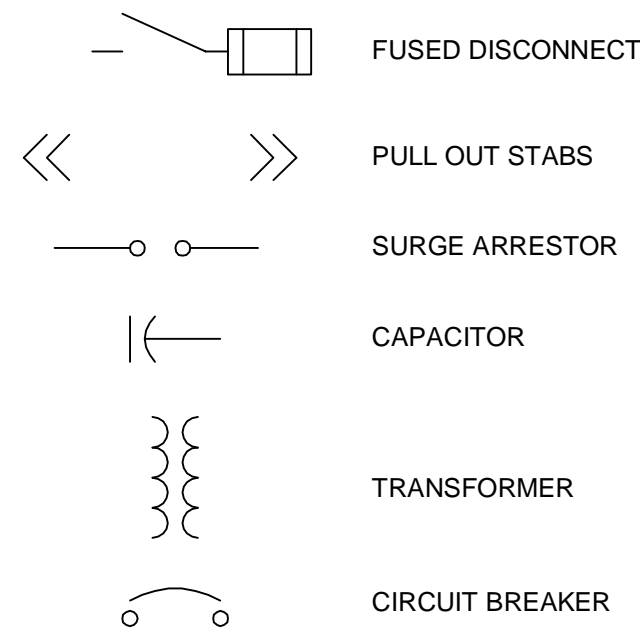


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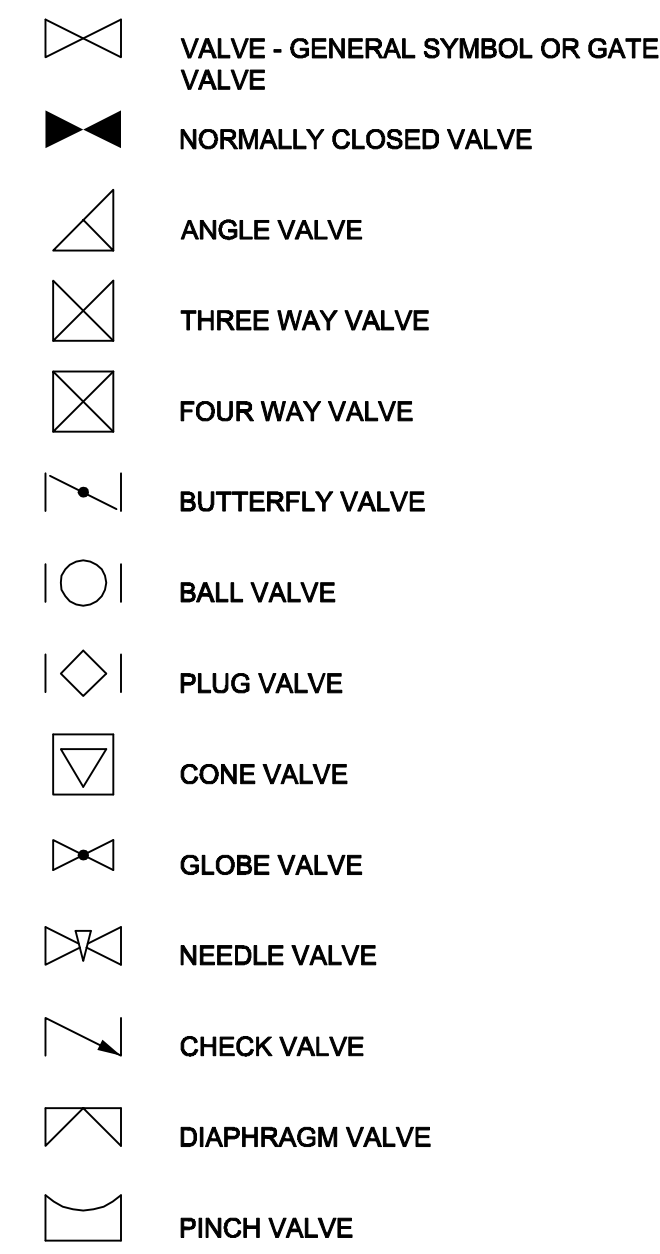
**EQUIPMENT SYMBOLS**



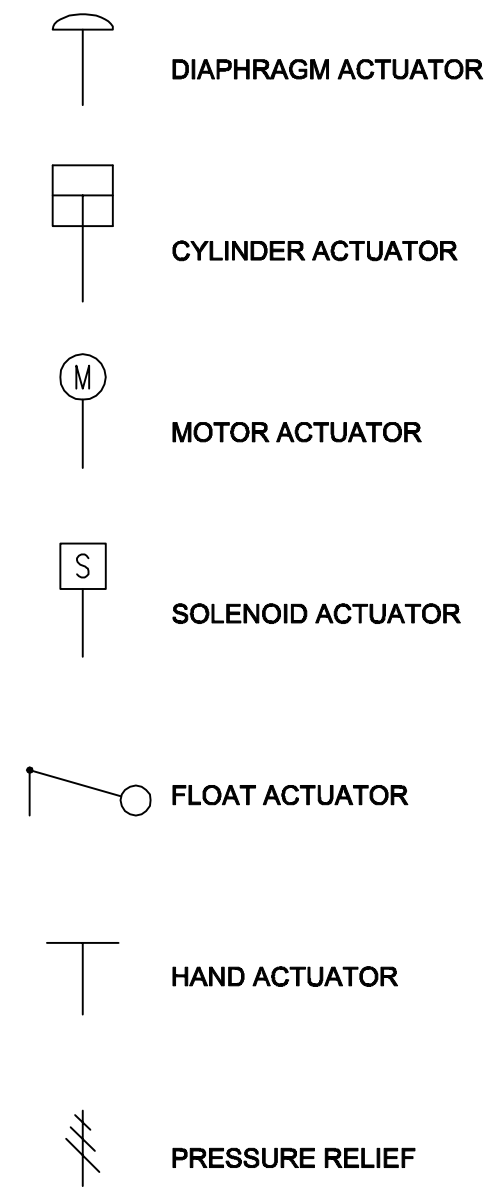
**ELECTRICAL SYMBOLS**



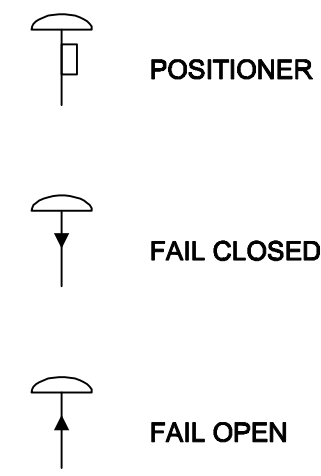
**VALVE SYMBOLS**



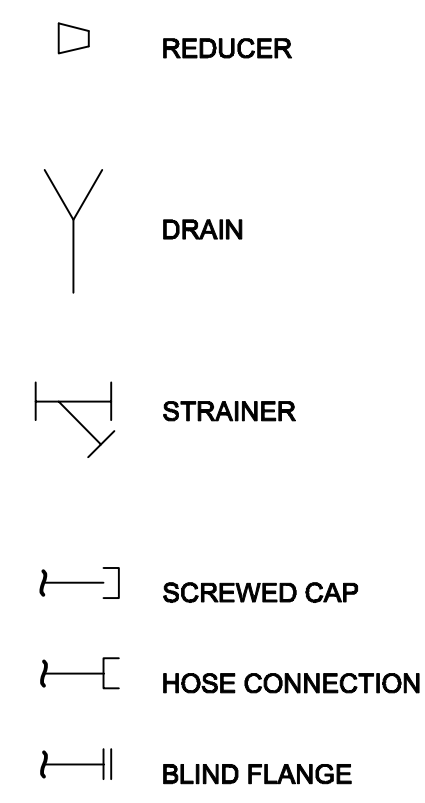
**ACTUATOR SYMBOLS**



**ACTUATOR DETAIL SYMBOLS**



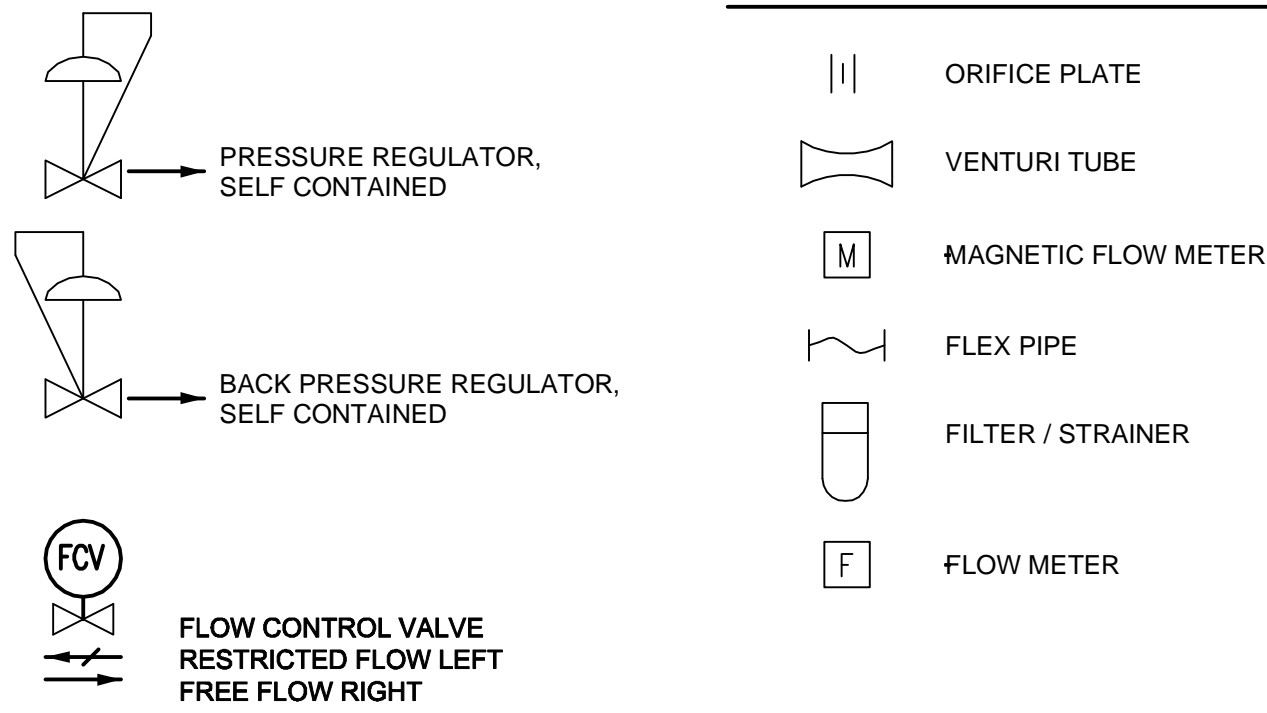
**PIPING DETAIL SYMBOLS**



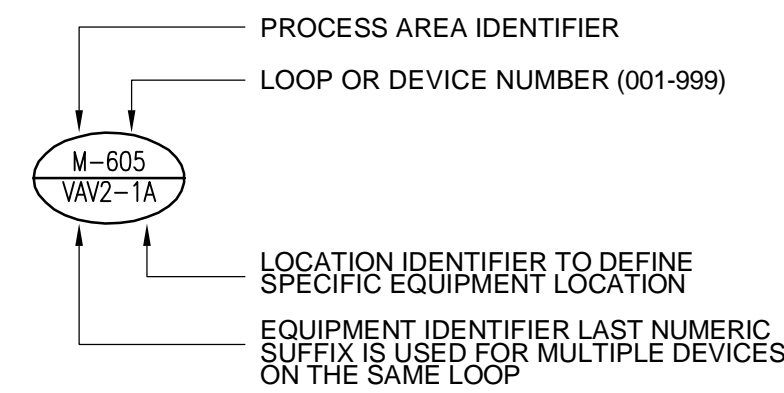
**PID STANDARDS**

- 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 ISA-5.1 STANDARD. AN EXCEPTION REGARDING EQUIPMENT TAGGING HAS BEEN MADE TO ALLOW CONFORMITY WITH EXISTING NAMING CONVENTIONS.
- PID'S INDICATE MAJOR PROCESS PIPING AND EQUIPMENT AND ASSOCIATED LOCAL INSTRUMENTATION, SCADA PLC AND OTHER PROCESS I/O.
- EQUIPMENT INCLUDING VESSELS, DRUMS, EXCHANGERS, HEATERS, PUMPS, COMPRESSORS, ETC. ARE ARRANGED IN SEQUENCE WITH PRINCIPAL 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.

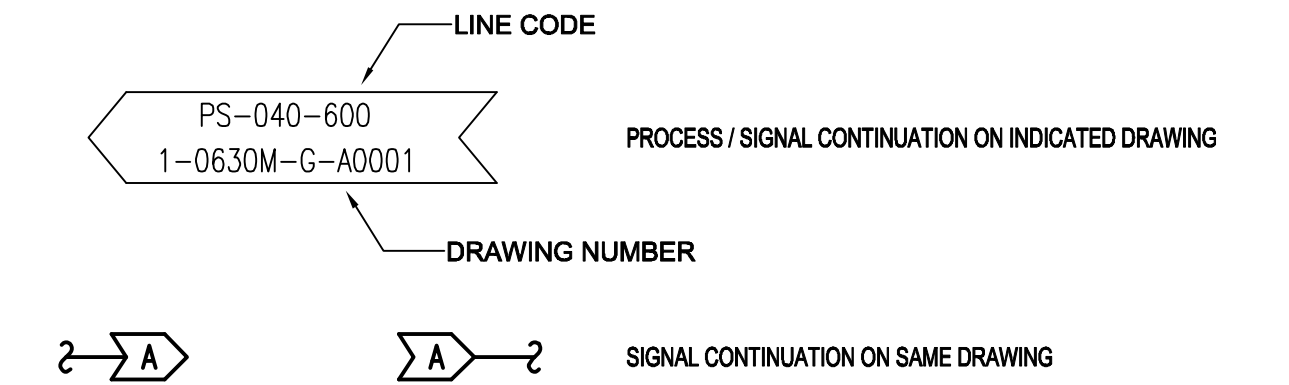
**ACCESSORY DEVICE SYMBOLS**



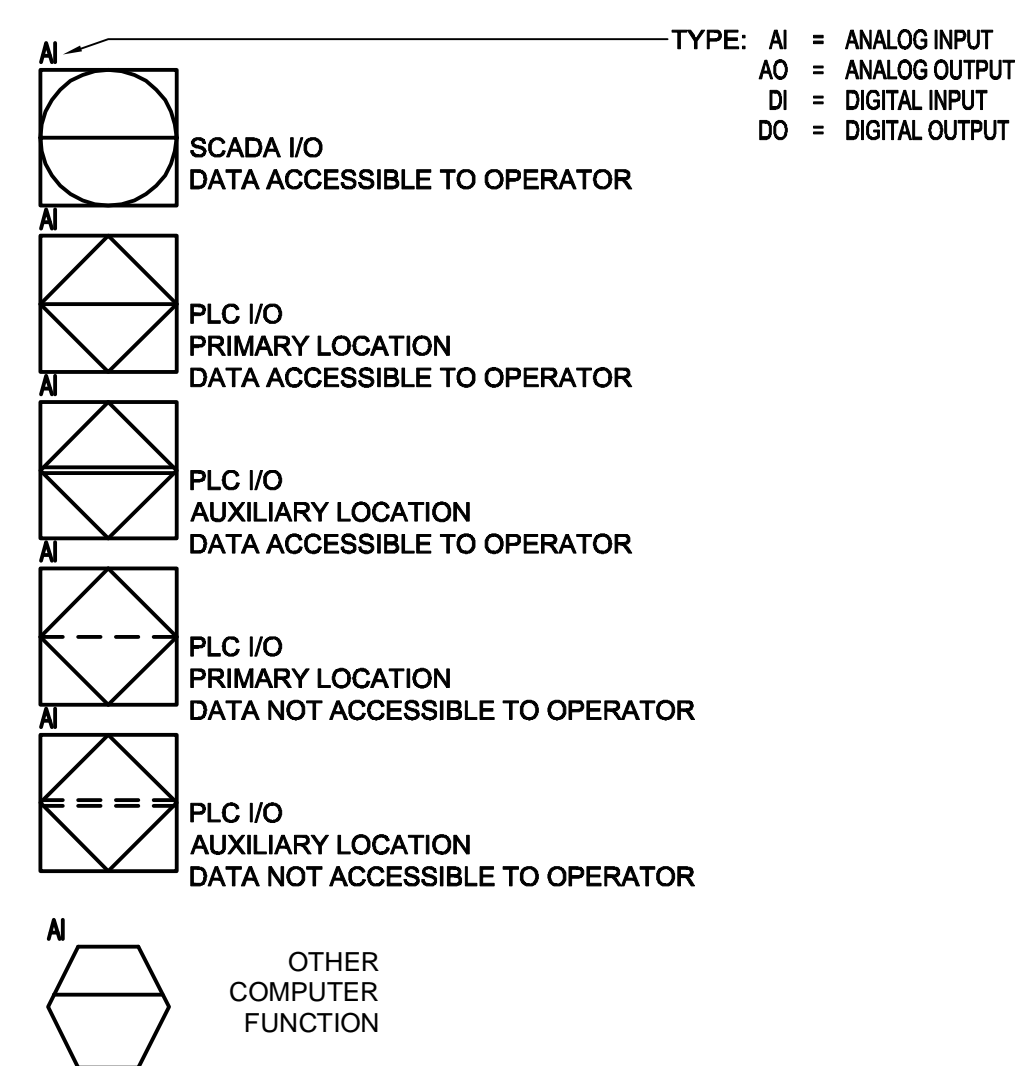
**EQUIPMENT TAGS**



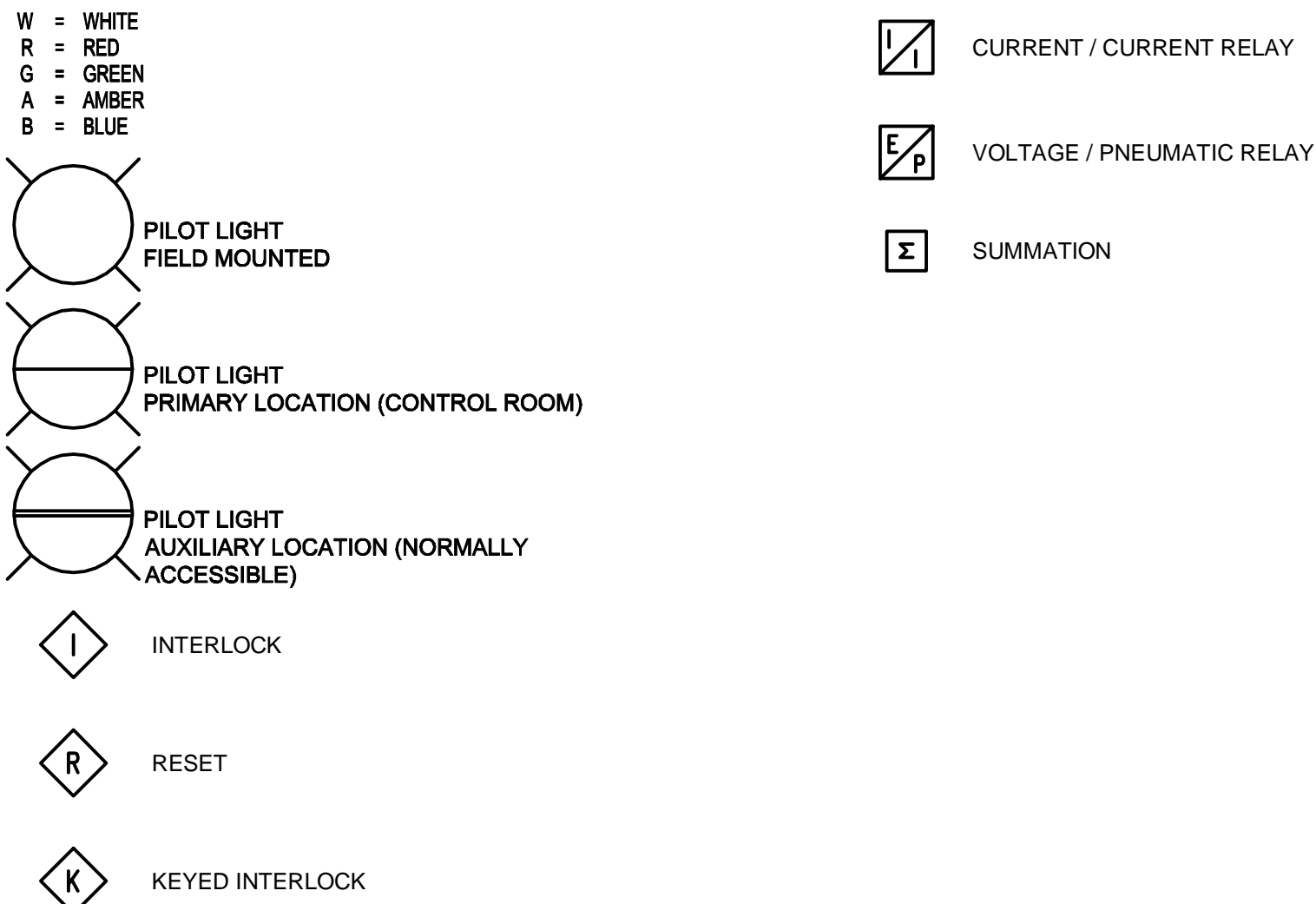
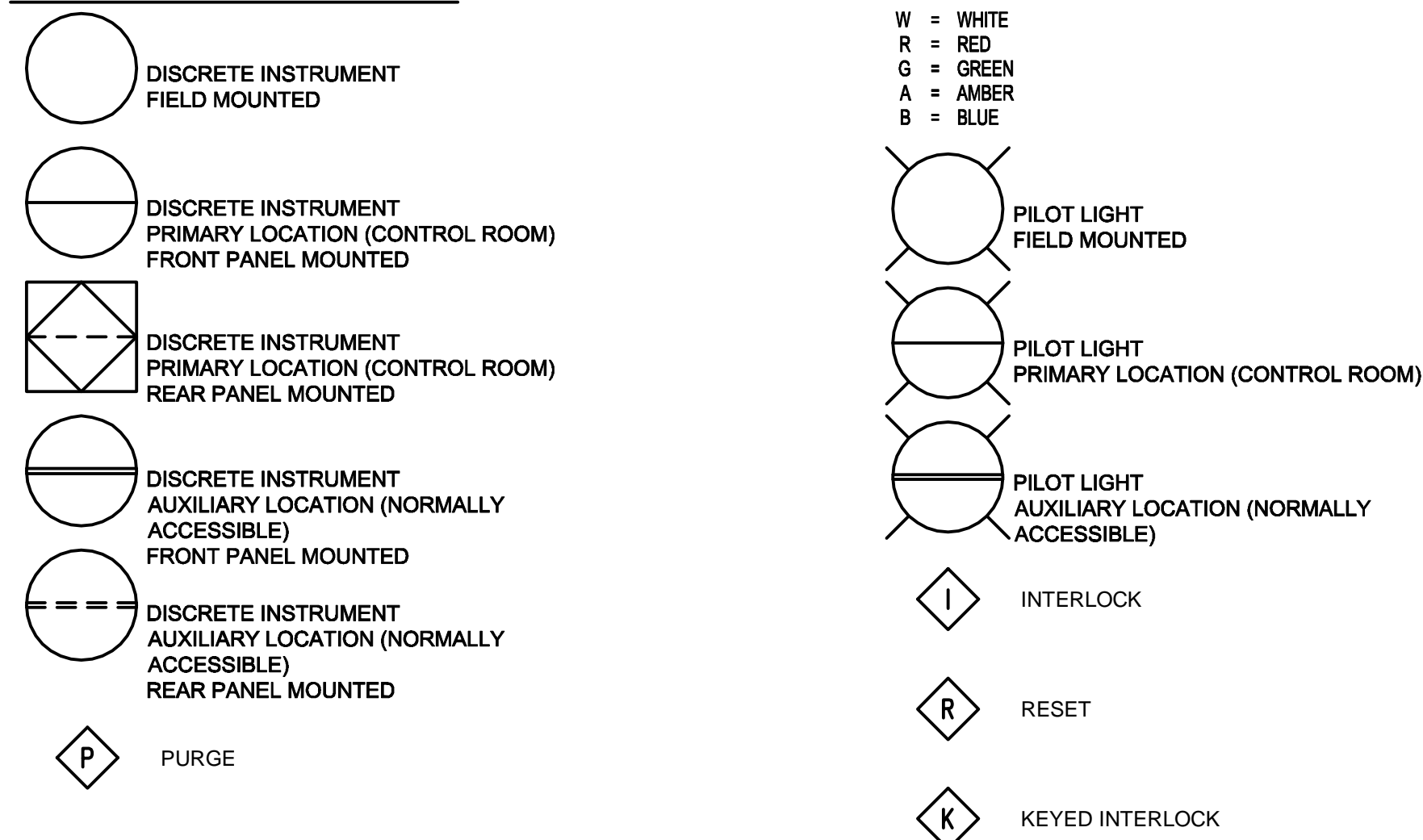
**CONNECTING ARROWS**



**I/O TAGS**



**INSTRUMENT SYMBOLS**



**APEGM**  
Certificate of Authorization  
UMA Engineering Ltd. (MB)  
No. 256 Date: 07/12/14

QL	RS	BM	BM	BF
DRN	CHK	DES	ENG	IDR
UMA REVIEW				

B.M. ELEV.	FIELD BOOK #:		
POSTED TO LBIS			
	UMA	AECOM	
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DESIGNED BY	BLM	CHECKED BY	-----
DRAWN BY	SCK	APPROVED BY	-
HOR. SCALE	AS NOTED	RELEASED FOR CONSTRUCTION	
VERTICAL	AS NOTED		
B	ISSUED FOR BID	07/12/14	SCK
A	ISSUED FOR 100% REVIEW	07/11/09	RS
NO.	REVISIONS	DATE	BY
FILENAME: D265-202-02_00-P-0001_RX.dwg			

ENGINEER'S SEAL  
ISSUE / REVISION D  
ISSUED FOR BID  
WAS SEALED BY  
B.L. MOORE  
AND DATED  
07/12/14

**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT  
PERIMETER ROAD PUMPING STATION UPGRADES  
Contract B - Building Upgrades  
Process and Instrumentation  
LEGEND AND DETAILS  
CITY DRAWING NUMBER: 1-0111L-P0001  
SHEET: 001  
REV.: B  
SIZE: D