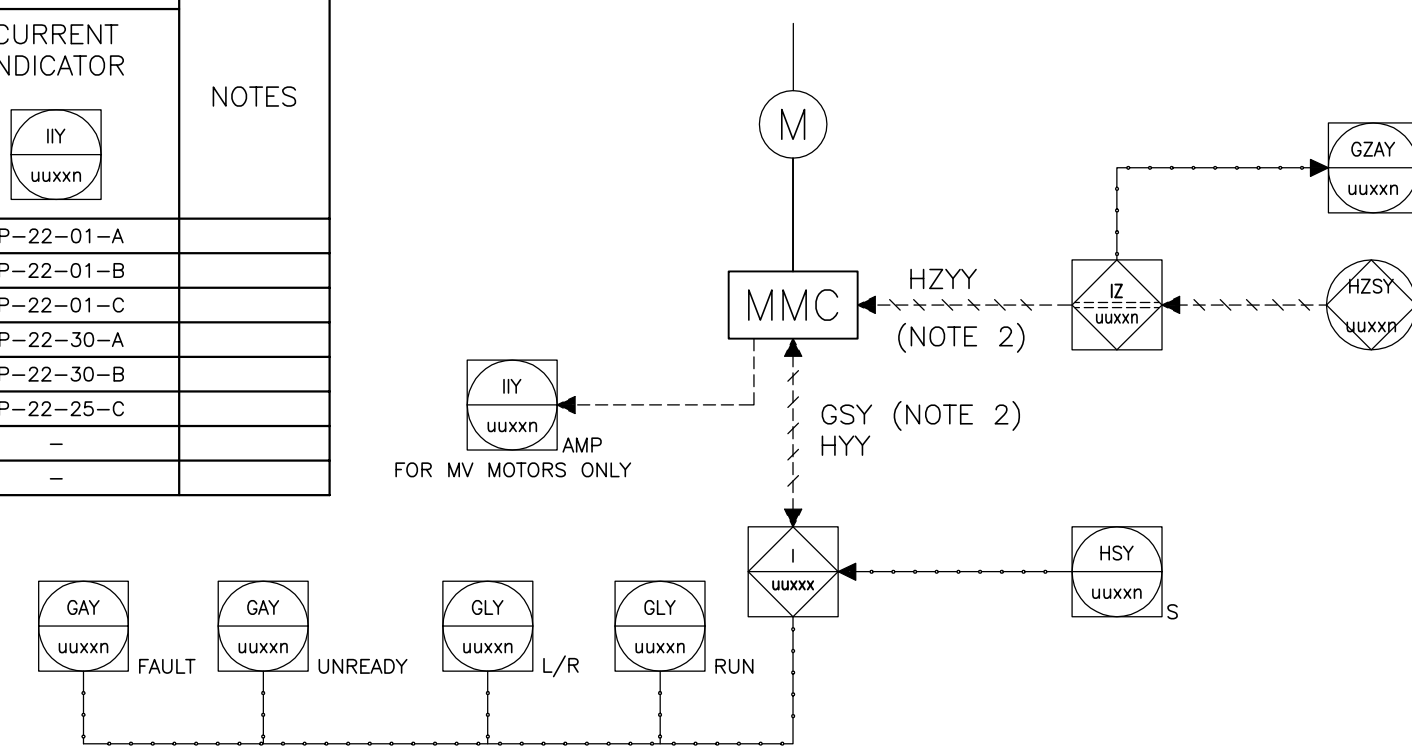


TYPICAL INSTRUMENTS LOOP 1- LV/MV MOTORS

MOTOR TAG	P&ID NO.	ESD			DCS							NOTES
		TRIP LOGIC	EMERGENCY STOP ESD PANEL	REMOTE STOP INDICATION	INTERLOCK LOGIC	REMOTE STOP HAND SWITCH	NOT READY INDICATION	RUNNING INDICATION	LOCAL/REMOTE INDICATION	ELECTRICAL FAULT	CURRENT INDICATOR	
MP-2201-A	UT-MT-22-PR-PID-0102-01	IZ-22-001	-	-	I-22-009	HSP-22-01-AA	GAP-22-01-AC	GLP-22-01-AA	GLP-22-01-AB	GAP-22-01-AD	IIP-22-01-A	
MP-2201-B	UT-MT-22-PR-PID-0102-01	IZ-22-001	-	-	I-22-009	HSP-22-01-BA	GAP-22-01-BC	GLP-22-01-BA	GLP-22-01-BB	GAP-22-01-BD	IIP-22-01-B	
MP-2201-C	UT-MT-22-PR-PID-0102-01	IZ-22-001	-	-	I-22-009	HSP-22-01-CA	GAP-22-01-CC	GLP-22-01-CA	GLP-22-01-CB	GAP-22-01-CD	IIP-22-01-C	
MP-2230-A	UT-MT-22-PR-PID-0105-01	IZ-22-006	-	GZAP-22-30-A	I-22-003	HSP-22-30-AA	GAP-22-30-AC	GLP-22-30-AA	GLP-22-30-AB	GAP-22-30-AD	IIP-22-30-A	
MP-2230-B	UT-MT-22-PR-PID-0105-01	IZ-22-006	-	GZAP-22-30-B	I-22-003	HSP-22-30-BA	GAP-22-30-BC	GLP-22-30-BA	GLP-22-30-BB	GAP-22-30-BD	IIP-22-30-B	
MP-2225-C	UT-MT-22-PR-PID-0107-01	IZ-22-004	HZSP-22-25-CA	GZAP-22-25-C	I-22-005	HSP-22-25-CA	GAP-22-25-CC	GLP-22-25-CA	GLP-22-25-CB	GAP-22-25-CD	IIP-22-25-C	
MP-2215-A	UT-MT-22-PR-PID-0112-01	IZ-22-005	-	-	-	HSP-22-15-AA	GAP-22-15-AC	GLP-22-15-AA	GLP-22-15-AB	-	-	
MP-2215-B	UT-MT-22-PR-PID-0112-01	IZ-22-005	-	-	-	HSP-22-15-BA	GAP-22-15-BC	GLP-22-15-BA	GLP-22-15-BB	-	-	

TYPICAL 1 - MOTOR



1- MANUAL START FROM DCS IS NOT ANTICIPATED WHEN THE MOTOR IS IN REMOTE CONTROL MODE. HENCE, IN CASE WHILE THE MOTOR A/M FIELD SWITCH IS IN "AUTO POSITION" THE FOLLOWING COMMANDS ARE ENABLED:  
 - DCS HANDY MANUAL STOP.  
 - DCS AUTO START.  
 - DCS AUTO STOP; THIS CASE IS PROCEEDING BY LOGIC OF PROCESS.

2- THE LOOP SHALL BE IDENTIFIED AS MY-uuxxn WHERE:  
 MY = MP (PUMPS), MC (COMPRESSORS), MX (MIXERS), ME (AIR COOLERS), MBL (FAN, BLOWER), MS (SCREENED FILTER), MG (GEAR BOX, CRANE).  
 uu = UNIT  
 xxx = EQUIPMENT SERIAL NUMBER  
 n = EQUIPMENT SUFFIX (IF USED)

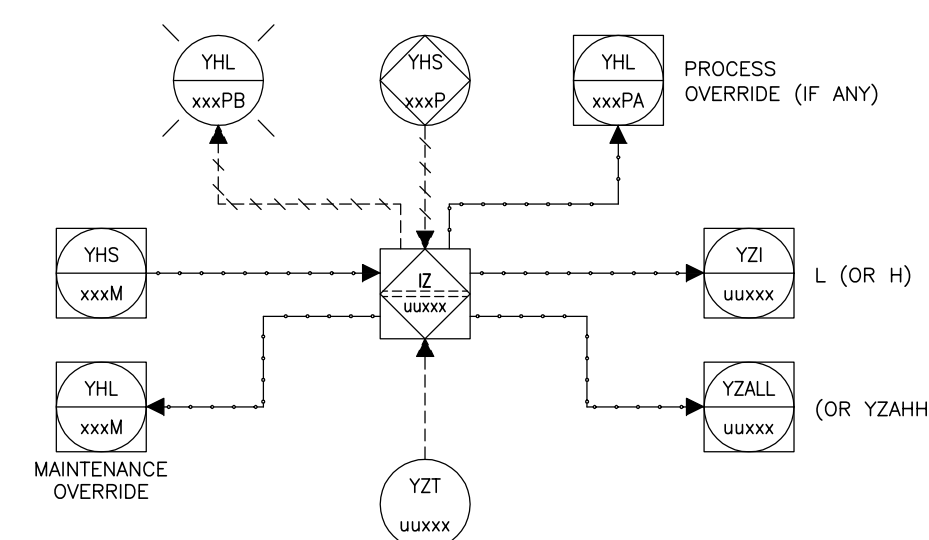
NOTES:

- THE FOLLOWING SIGNALS FROM/TO DCS LOGIC TO/FROM MCC ARE SPECULATED:  
 STOP COMMAND HYY-xx-nA (DIGITAL OUTPUT)  
 START COMMAND HYY-xx-nB (DIGITAL OUTPUT)  
 RUNNING STATUS GSY-xx-nA (DIGITAL INPUT)  
 LOC/REM STATUS GSY-xx-nB (DIGITAL INPUT)  
 NOT READY ALARM GSY-xx-nC (DIGITAL INPUT)  
 ELEC. FAULT ALARM GSY-xx-nD (DIGITAL INPUT)
- THE FOLLOWING SIGNAL FROM ESD LOGIC TO MCC SHALL BE CONSIDERED:  
 # TRIP COMMAND  
 # HZYY-uuxxn (DIGITAL OUTPUT)
- THE FOLLOWING SIGNAL FROM ESD LOGIC TO MCC SHALL BE CONSIDERED:  
 TRIP COMMAND HZYY-uuxxn (DIGITAL OUTPUT)
- SIGNALIZATION "READY" (AVAILABLE) WILL SUMMARIZE THE FOLLOWING INFORMATION:  
 # MOTOR NOT TRIPPED  
 # NOT IN ELECTRICAL FAULT  
 # REMOTE OPERATION SELECTED

TYPICAL INSTRUMENTS LOOP 2 - TRANSMITTER TO ESD

INSTRUMENT TAG	P&ID NO.	ESD		DCS					ESD LOGIC	NOTES
		PROCESS OVERRIDE HAND SWITCH	OVERRIDE INDICATION	PROCESS OVERRIDE INDICATION	MAINTENANCE OVERRIDE HAND SWITCH	MAINTENANCE OVERRIDE INDICATION	REMOTE VARIABLE INDICATION	REMOTE LOW LOW ALARM		
-	-	-	-	-	I-22-009	HSP-22-01-AA	GAP-22-01-AC	GLP-22-01-AB	GLP-22-01-AB	
-	-	-	-	-	I-22-009	HSP-22-01-BA	GAP-22-01-BC	GLP-22-01-BB	GLP-22-01-BB	
-	-	-	-	-	I-22-009	HSP-22-01-CA	GAP-22-01-CC	GLP-22-01-CB	GLP-22-01-CB	

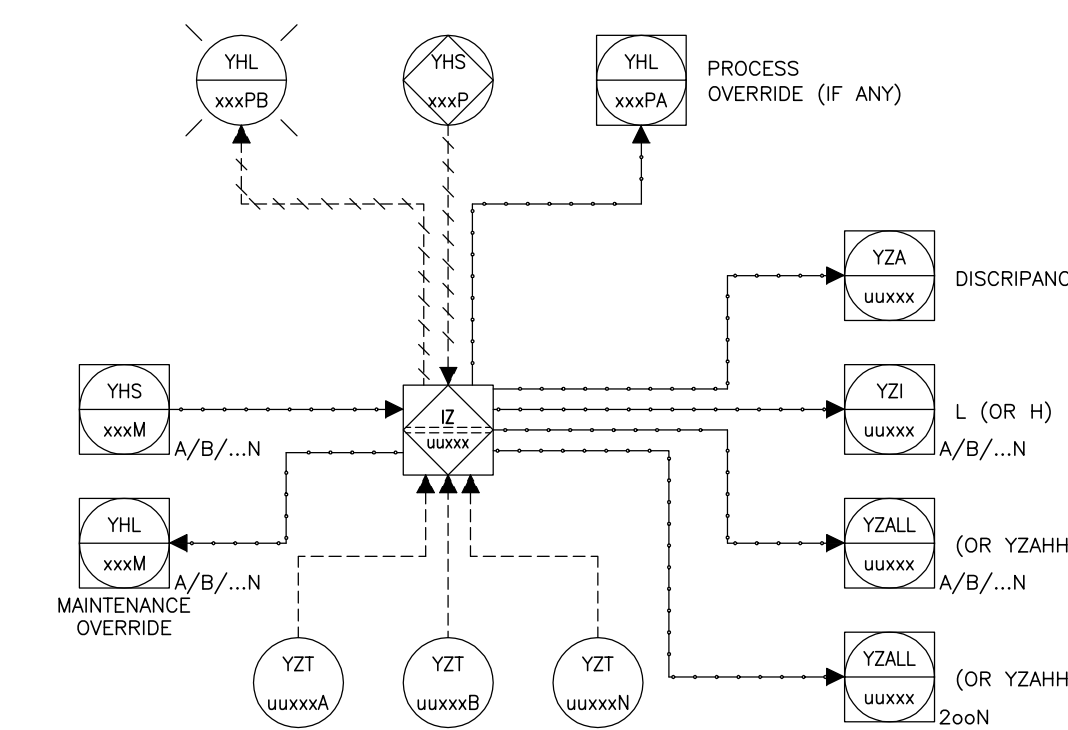
TYPICAL 2 - SINGULAR TRANSMITTER



TYPICAL INSTRUMENTS LOOP 2 - TRANSMITTER TO ESD

INSTRUMENT TAG	P&ID NO.	ESD		DCS							ESD LOGIC	NOTES	
		PROCESS OVERRIDE HAND SWITCH	OVERRIDE INDICATION	PROCESS OVERRIDE INDICATION	MAINTENANCE OVERRIDE HAND SWITCH	MAINTENANCE OVERRIDE INDICATION	REMOTE VARIABLE INDICATION	REMOTE LOW LOW SINGLE ALARM	REMOTE HIGH HIGH SINGLE ALARM	DISCREPANCY			REMOTE HIGH HIGH 2oo3 ALARM
LZT-22002A	-	-	-	-	LHS-22002AM	LHL-22002AM	LZI-22002A	LZALL-22002A	LZAHH-22002A	LZA-22002	LZAHH-22002	LZALL-22002	IZ-22001
LZT-22002B	-	-	-	-	LHS-22002BM	LHL-22002BM	LZI-22002B	LZALL-22002B	LZAHH-22002B	LZA-22002	LZAHH-22002	LZALL-22002	IZ-22002
LZT-22002C	-	-	-	-	LHS-22002CM	LHL-22002CM	LZI-22002C	LZALL-22002C	LZAHH-22002C	LZA-22002	LZAHH-22002	LZALL-22002	IZ-22002
LZT-22008A	-	-	-	-	LHS-22008AM	LHL-22008AM	LZI-22008A	LZALL-22008A	-	-	-	-	-
LZT-22008B	-	-	-	-	LHS-22008BM	LHL-22008BM	LZI-22008B	LZALL-22008B	-	LZA-22008	-	LZALL-22008	IZ-22004
LZT-22008C	-	-	-	-	LHS-22008CM	LHL-22008CM	LZI-22008C	LZALL-22008C	-	-	-	-	-

TYPICAL 3 - 2ooN TRANSMITTERS



B3											
B2											
B1											
A4											
A3											
A2											
A1	11/2012	M.A	M.A	R.S	H.B						IFA
REV.	DATE	DESIGN	DRAW	CHECK	APPROVE	M.C.					DESCRIPTION

CLIENT:

PROJECT:  
 METHANOL PLANT (5000 MTPD)  
 UTILITY AND OFFSITE

MC: CONTRACTOR:

DRAWING TITLE:  
 UNIT 22  
 PIPING AND INSTRUMENTATION DIAGRAM  
 TYPICAL SIGNALIZATION INDEX

SIZE:	A1	REV.	A1	DRAWING NUMBER				
PAGE:	1 OF 2	SCALE:	N/A	CODE No.	TYPE	SIZE	GROUP	CODE No.
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