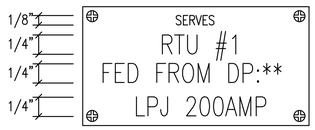
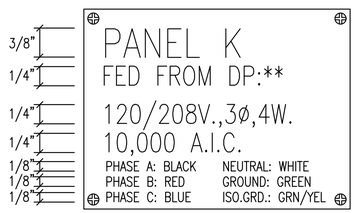
SWITCHBOARD/DISTRIBUTION PANEL/MOTOR CONTROL CENTER BREAKER/SWITCH



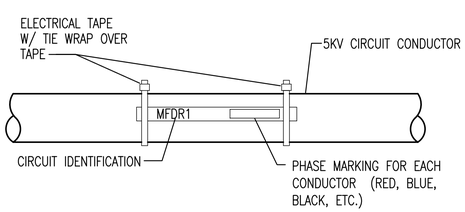
DISCONNECT SWITCH



BRANCH CIRCUIT/DISTRIBUTION PANEL

1 TYPICAL NAME PLATES

NO SCALE



TYPICAL FOR ALL EXISTING AND NEW CABLES IN THE WORK AREA

2 CABLE IDENTIFICATION

NO SCALE

(1) CONTROL PANEL CP-4

CIRCUIT NO.	EQUIPMENT SERVED/ MARK	CONNECT				DESCRIPTION/FUNCTION	CONDUCTORS IN CABLE	DISCRETE	ANALOG	DIGITAL	INPUT	OUTPUT	REMARKS
		DEVICE	CTL. PNL.	STARTER	VFD								
1	GLS-11	X	–	–	–	PUMP SUCTION VALVE CLOSED	2 #14	X	–	–	X	–	
2	GLS-15	X	–	–	–	PUMP DISCHARGE VALVE OPEN	2 #14	X	–	–	X	–	
3	GLS-15	X	–	–	–	PUMP DISCHARGE VALVE OPEN COMMAND	2 #14	X	–	–	–	X	
4	GLS-15	X	–	–	–	PUMP DISCHARGE VALVE CLOSE COMMAND	2 #14	X	–	–	–	X	
5	SS-4	X	–	–	–	DISCHARGE VALVE IN AUTO MODE	2 #14	X	–	–	X	–	
6	GLS-6	X	–	–	–	PUMP DISCHARGE VALVE CLOSED	2 #14	X	–	–	X	–	
7	SCADA	X	–	–	–	PUMP SUCTION VALVE OPEN	2 #14	X	–	–	X	–	
8	SCADA	X	–	–	–	PUMP VALVE FAIL	2 #14	X	–	–	X	–	
9	SCADA	–	X	–	–	VFD IN LOCAL/REMOTE TO SCADA	2 #14	X	–	–	–	X	

(1) ALLEN-BRADLEY VFD INTERFACE PANEL.

(1) CONTROL PANEL CP-1

CIRCUIT NO.	EQUIPMENT SERVED/ MARK	CONNECT				DESCRIPTION/FUNCTION	CONDUCTORS IN CABLE	DISCRETE	ANALOG	DIGITAL	INPUT	OUTPUT	REMARKS
		DEVICE	CTL. PNL.	STARTER	VFD								
1	GLS-11	X	–	–	–	PUMP SUCTION VALVE CLOSED	2 #14	X	–	–	X	–	
2	GLS-15	X	–	–	–	PUMP DISCHARGE VALVE OPEN	2 #14	X	–	–	X	–	
3	GLS-15	X	–	–	–	PUMP DISCHARGE VALVE OPEN COMMAND	2 #14	X	–	–	–	X	
4	GLS-15	X	–	–	–	PUMP DISCHARGE VALVE CLOSE COMMAND	2 #14	X	–	–	–	X	
5	SS-4	X	–	–	–	DISCHARGE VALVE IN AUTO MODE	2 #14	X	–	–	X	–	
6	GLS-6	X	–	–	–	PUMP DISCHARGE VALVE CLOSED	2 #14	X	–	–	X	–	
7	SCADA	X	–	–	–	PUMP SUCTION VALVE OPEN	2 #14	X	–	–	X	–	
8	SCADA	X	–	–	–	PUMP VALVE FAIL	2 #14	X	–	–	X	–	
9	SCADA	–	X	–	–	VFD IN LOCAL/REMOTE TO SCADA	2 #14	X	–	–	–	X	

(1) ALLEN-BRADLEY VFD INTERFACE PANEL.

(1) CONTROL PANEL CP-3

CIRCUIT NO.	EQUIPMENT SERVED/ MARK	CONNECT				DESCRIPTION/FUNCTION	CONDUCTORS IN CABLE	DISCRETE	ANALOG	DIGITAL	INPUT	OUTPUT	REMARKS
		DEVICE	CTL. PNL.	STARTER	VFD								
1	GLS-11	X	–	–	–	PUMP SUCTION VALVE CLOSED	2 #14	X	–	–	X	–	
2	GLS-15	X	–	–	–	PUMP DISCHARGE VALVE OPEN	2 #14	X	–	–	X	–	
3	GLS-15	X	–	–	–	PUMP DISCHARGE VALVE OPEN COMMAND	2 #14	X	–	–	–	X	
4	GLS-15	X	–	–	–	PUMP DISCHARGE VALVE CLOSE COMMAND	2 #14	X	–	–	–	X	
5	SS-4	X	–	–	–	DISCHARGE VALVE IN AUTO MODE	2 #14	X	–	–	X	–	
6	GLS-6	X	–	–	–	PUMP DISCHARGE VALVE CLOSED	2 #14	X	–	–	X	–	
7	SCADA	X	–	–	–	PUMP SUCTION VALVE OPEN	2 #14	X	–	–	X	–	
8	SCADA	X	–	–	–	PUMP VALVE FAIL	2 #14	X	–	–	X	–	
9	SCADA	–	X	–	–	VFD IN LOCAL/REMOTE TO SCADA	2 #14	X	–	–	–	X	

(1) ALLEN-BRADLEY VFD INTERFACE PANEL.

(1) VFD-4

CIRCUIT NO.	EQUIPMENT SERVED/ MARK	CONNECT				DESCRIPTION/FUNCTION	CONDUCTORS IN CABLE	DISCRETE	ANALOG	DIGITAL	INPUT	OUTPUT	REMARKS
		DEVICE	CTL. PNL.	STARTER	VFD								
1	RTD-1	X	–	–	–	MOTOR RTD	RTD	–	X	–	X	–	
2	RTD-2	X	–	–	–	MOTOR RTD	RTD	–	X	–	X	–	
3	RTD-3	X	–	–	–	MOTOR RTD	RTD	–	X	–	X	–	
4	RTD-4	X	–	–	–	BEARING RTD	RTD	–	X	–	X	–	
5	RTD-5	X	–	–	–	BEARING RTD	RTD	–	X	–	X	–	
6	SCADA	–	X	–	–	SCADA START COMMAND REMOTE	2 #14	X	–	–	X	–	
7	SCADA	–	X	–	–	SCADA START COMMAND LOCAL	2 #14	X	–	–	X	–	
8	SCADA	–	X	–	–	SCADA STOP COMMAND	2 #14	X	–	–	X	–	
9	–	X	–	–	–	PUMP TEMP SWITCH	2 #14	X	–	–	X	–	
10	–	X	–	–	–	AIR RELEASE SOLENOID	2 #14	X	–	–	–	X	
11	–	X	–	–	–	PUMP OVERTEMP	2 #14	X	–	–	X	–	
12	SCADA	–	X	–	–	VFD ESTOP STATUS TO SCADA	2 #14	X	–	–	–	X	

(1) ALLEN-BRADLEY VFD INTERFACE PANEL.

(1) VFD-1

CIRCUIT NO.	EQUIPMENT SERVED/ MARK	CONNECT				DESCRIPTION/FUNCTION	CONDUCTORS IN CABLE	DISCRETE	ANALOG	DIGITAL	INPUT	OUTPUT	REMARKS
		DEVICE	CTL. PNL.	STARTER	VFD								
1	RTD-1	X	–	–	–	MOTOR RTD	RTD	–	X	–	X	–	
2	RTD-2	X	–	–	–	MOTOR RTD	RTD	–	X	–	X	–	
3	RTD-3	X	–	–	–	MOTOR RTD	RTD	–	X	–	X	–	
4	RTD-4	X	–	–	–	BEARING RTD	RTD	–	X	–	X	–	
5	RTD-5	X	–	–	–	BEARING RTD	RTD	–	X	–	X	–	
6	SCADA	–	X	–	–	SCADA START COMMAND REMOTE	2 #14	X	–	–	X	–	
7	SCADA	–	X	–	–	SCADA START COMMAND LOCAL	2 #14	X	–	–	X	–	
8	SCADA	–	X	–	–	SCADA STOP COMMAND	2 #14	X	–	–	X	–	
9	–	X	–	–	–	PUMP TEMP SWITCH	2 #14	X	–	–	X	–	
10	–	X	–	–	–	AIR RELEASE SOLENOID	2 #14	X	–	–	–	X	
11	–	X	–	–	–	PUMP OVERTEMP	2 #14	X	–	–	X	–	
12	SCADA	–	X	–	–	VFD ESTOP STATUS TO SCADA	2 #14	X	–	–	–	X	

(1) ALLEN-BRADLEY VFD INTERFACE PANEL.

(1) VFD-3

CIRCUIT NO.	EQUIPMENT SERVED/ MARK	CONNECT				DESCRIPTION/FUNCTION	CONDUCTORS IN CABLE	DISCRETE	ANALOG	DIGITAL	INPUT	OUTPUT	REMARKS
		DEVICE	CTL. PNL.	STARTER	VFD								
1	RTD-1	X	–	–	–	MOTOR RTD	RTD	–	X	–	X	–	
2	RTD-2	X	–	–	–	MOTOR RTD	RTD	–	X	–	X	–	
3	RTD-3	X	–	–	–	MOTOR RTD	RTD	–	X	–	X	–	
4	RTD-4	X	–	–	–	BEARING RTD	RTD	–	X	–	X	–	
5	RTD-5	X	–	–	–	BEARING RTD	RTD	–	X	–	X	–	
6	SCADA	–	X	–	–	SCADA START COMMAND REMOTE	2 #14	X	–	–	X	–	
7	SCADA	–	X	–	–	SCADA START COMMAND LOCAL	2 #14	X	–	–	X	–	
8	SCADA	–	X	–	–	SCADA STOP COMMAND	2 #14	X	–	–	X	–	
9	–	X	–	–	–	PUMP TEMP SWITCH	2 #14	X	–	–	X	–	
10	–	X	–	–	–	AIR RELEASE SOLENOID	2 #14	X	–	–	–	X	
11	–	X	–	–	–	PUMP OVERTEMP	2 #14	X	–	–	X	–	
12	SCADA	–	X	–	–	VFD ESTOP STATUS TO SCADA	2 #14	X	–	–	–	X	

(1) ALLEN-BRADLEY VFD INTERFACE PANEL.

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Issue:

JOB NO.	217043-012
DATE	OCTOBER 2023
PM	RDB
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DRAWN BY	JAB
CHECKED BY	RWW

ELECTRICAL DETAILS

E1.1

Saved 06-27-2022 2:09:56 PM by JACOB.BURNS
Plot Scale 1:1 10-06-2023 12:08:22 PM by SHANNA.MATZEN
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