

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	12/02/13	PXEC_29	KMD	AJL
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	05/03/17	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	8/27/18	PXEC0165	AKH	KMD

OPTIONAL:	SINGLE CYLINDER AND SCROLLPUMPS	<input checked="" type="checkbox"/>
	DOUBLE-CYLINDER PUMPS	<input type="checkbox"/>
BACNET, WEBSVR,	TRIPLE-CYLINDER PUMPS	<input type="checkbox"/>



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
KMD	AJL	DMS
12/02/13	1/2/14	1/2/14

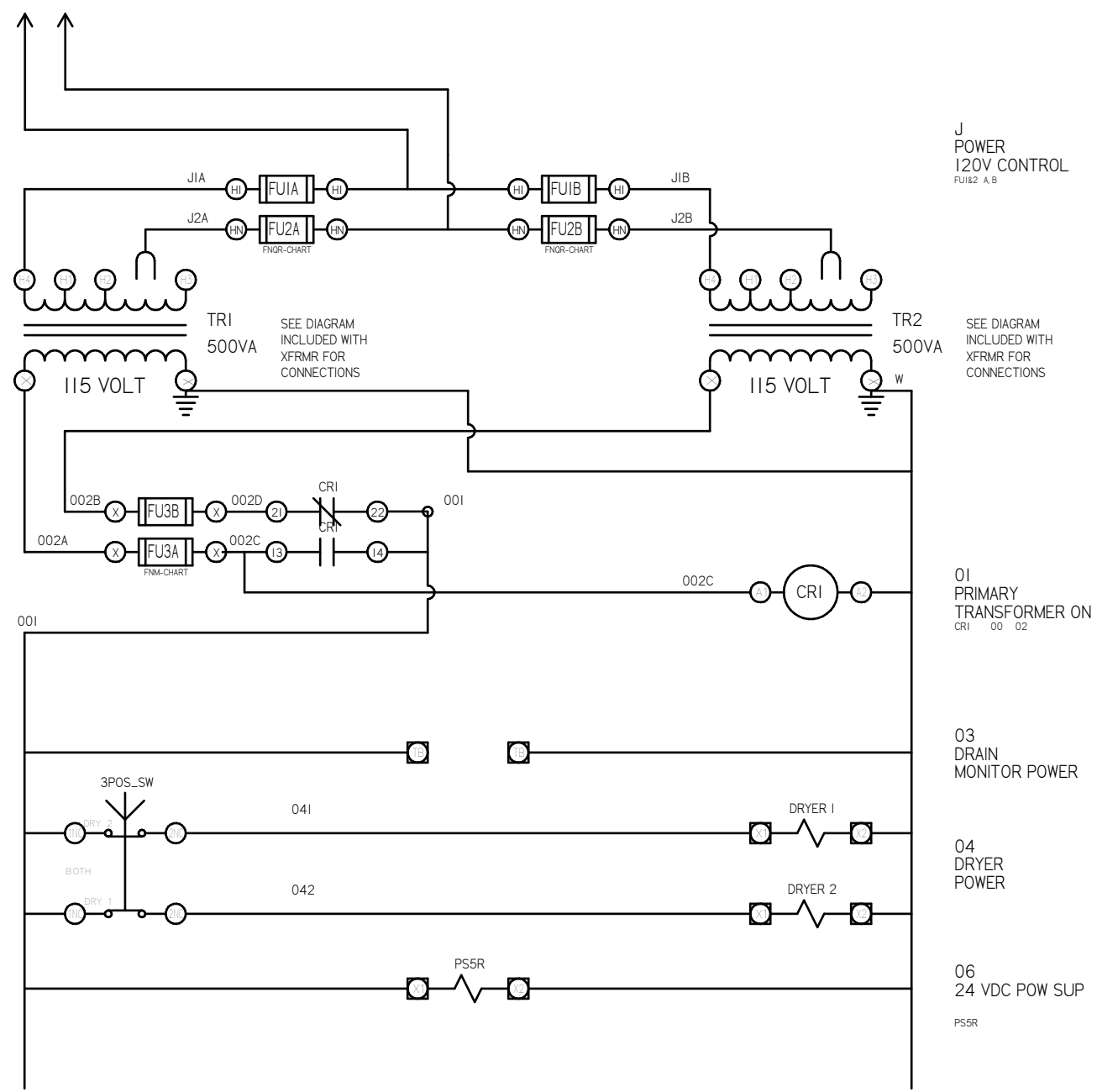
PANEL TYPE
OCTOPLX LAB COMP
HMI, BACNET, WEBSVR, NFPA

DWG. TYPE WIRING

DWG. NO. PXMI-LAB816

SHEET W-1	SIZE B
-----------	--------

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	12/02/13	PXEC_29	KMD	AJL
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	05/03/17	PXEC0118	AJL	KMD
D	ADDED FAN WIRING	8/27/18	PXEC0165	AKH	KMD



J
POWER
120V CONTROL
FU1&2 A,B

TR1
500VA
115 VOLT
SEE DIAGRAM
INCLUDED WITH
XFRMR FOR
CONNECTIONS

01
PRIMARY
TRANSFORMER ON
CRI 00 02

03
DRAIN
MONITOR POWER

04
DRYER
POWER

06
24 VDC POW SUP
PSSR

001

W

OPTIONAL:	SINGLE CYLINDER AND SCROLLPUMPS	<input checked="" type="checkbox"/>
	DOUBLE-CYLINDER PUMPS	<input type="checkbox"/>
BACNET, WEBSRVR,	TRIPLE-CYLINDER PUMPS	<input type="checkbox"/>



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
KMD	AJL	DMS
12/02/13	1/2/14	1/2/14

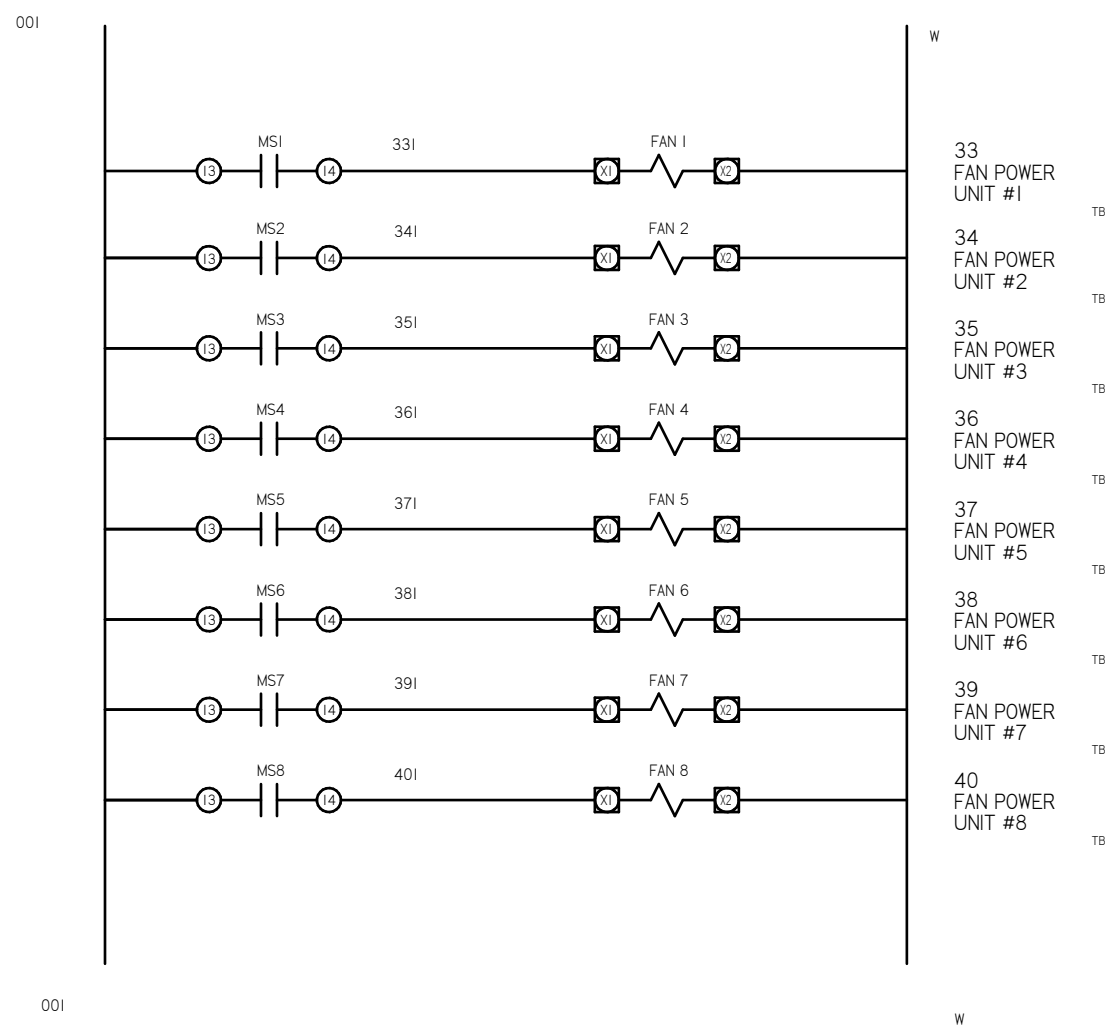
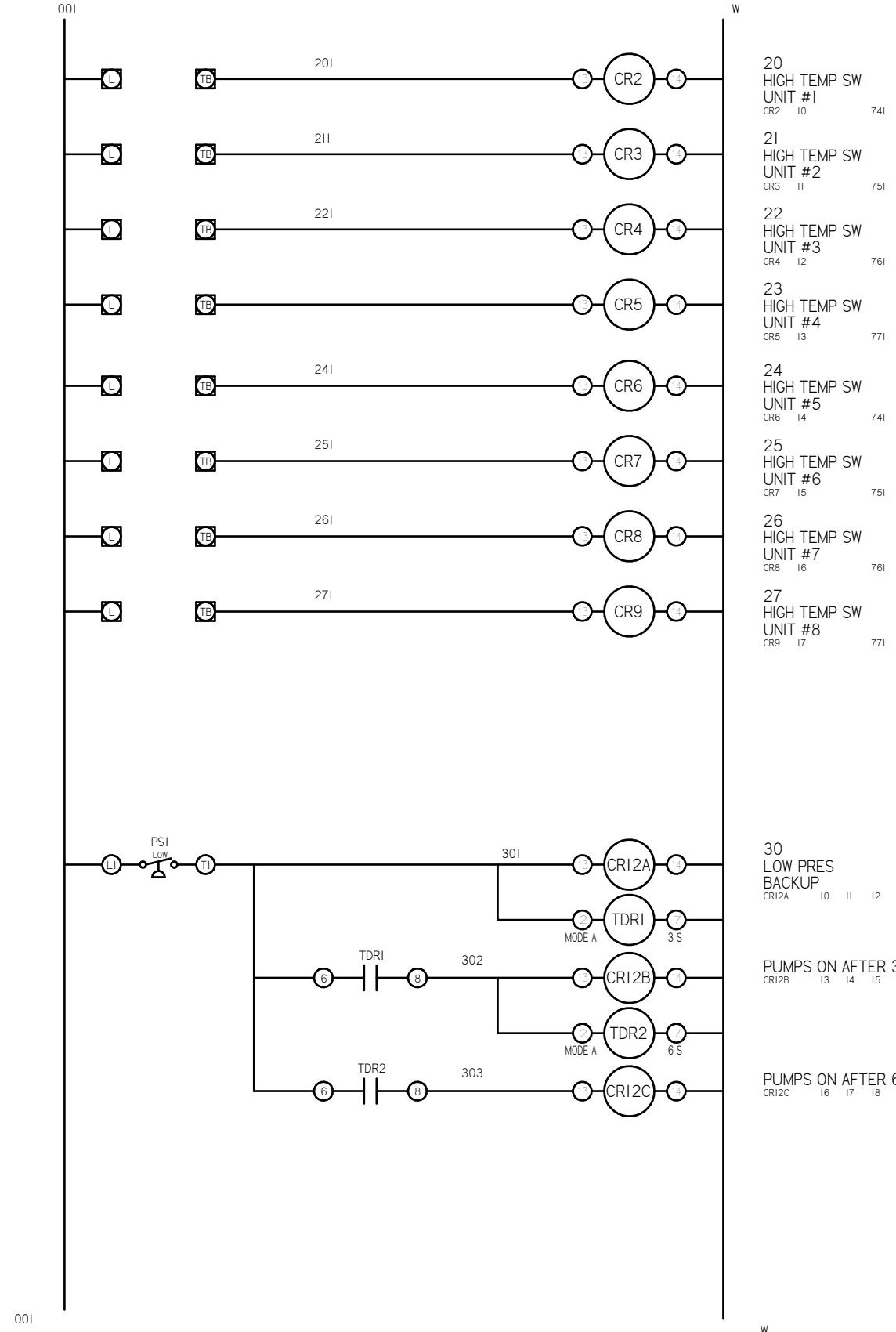
PANEL TYPE
OCTOPLX LAB COMP
HMI, BACNET, WEBSRVR, NFPA

DWG. TYPE WIRING

DWG. NO. PXMI-LA816

SHEET W-2	SIZE B
--------------	-----------

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	12/02/13	PXEC_29	KMD	AJL
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	05/03/17	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	8/27/18	PXEC0169	AKH	KMD



OPTIONAL:

SINGLE CYLINDER AND SCROLLPUMPS	<input checked="" type="checkbox"/>
DOUBLE-CYLINDER PUMPS	<input type="checkbox"/>
TRIPLE-CYLINDER PUMPS	<input type="checkbox"/>

BACNET, WEBSRVR,



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
KMD	AJL	DMS
12/02/13	1/2/14	1/2/14

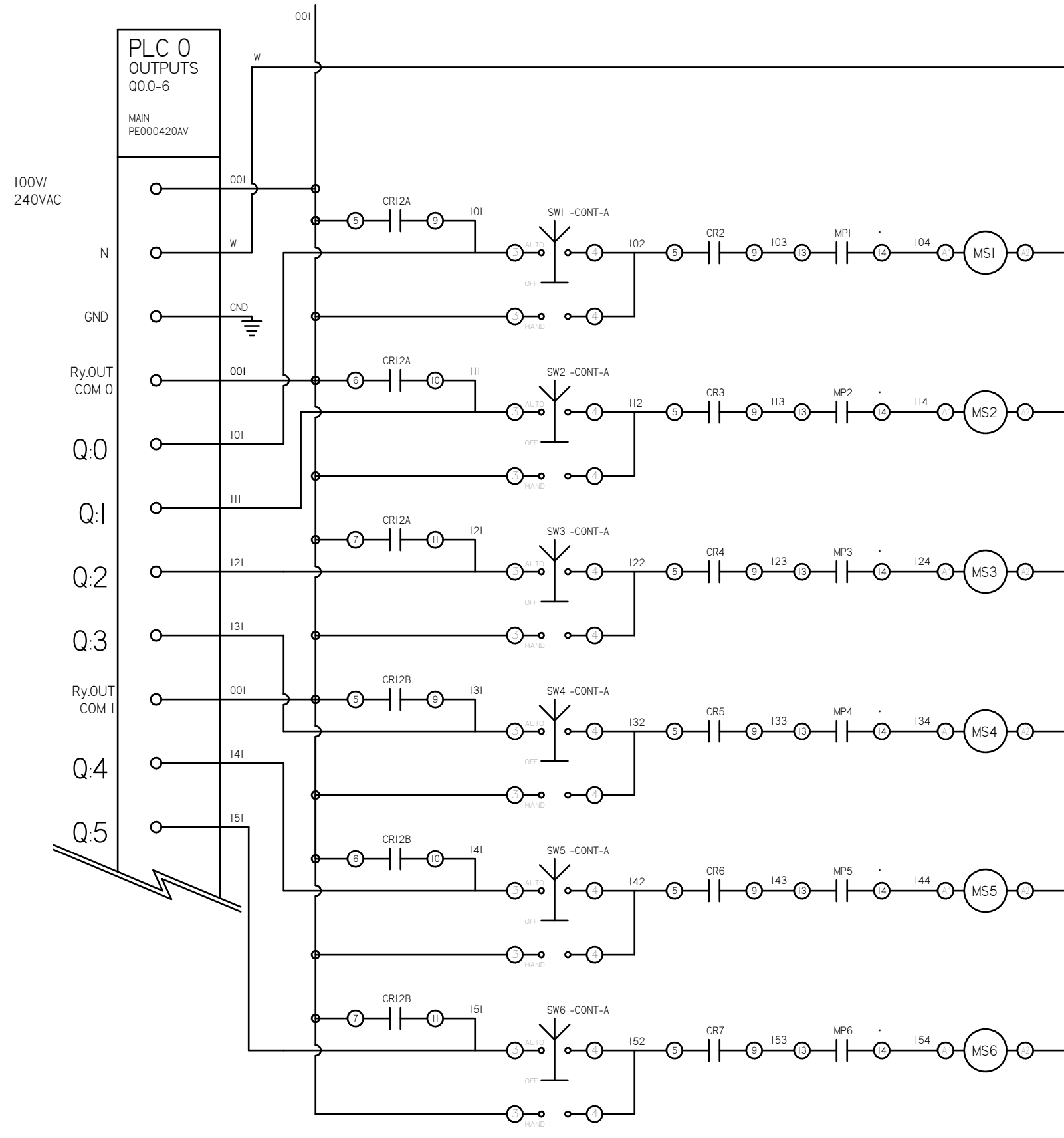
PANEL TYPE
OCTOPLX LAB COMP
HMI, BACNET, WEBSRVR, NFPA

DWG. TYPE
WIRING

DWG. NO.
PXMI-LA816

SHEET	SIZE
W-3	B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	12/02/13	PXEC_29	KMD	AJL
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	05/03/17	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	8/27/18	PXEC0169	AKH	KMD



W

10
CONTROL
UNIT #1
MS1 A

11
CONTROL
UNIT #2
MS2 B

12
CONTROL
UNIT #3
MS3 C

13
CONTROL
UNIT #4
MS4 D

14
CONTROL
UNIT #5
MS5 E

15
CONTROL
UNIT #6
MS6 F

* FOR LAYOUT-B MOTOR PROTECTORS USE PINS #1 AND #4 ON AUX CONTACTS

OPTIONAL:
SINGLE CYLINDER AND SCROLLPUMPS
DOUBLE-CYLINDER PUMPS
BACNET, WEBSVR, TRIPLE-CYLINDER PUMPS



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
KMD	AJL	DMS
12/02/13	1/2/14	1/2/14

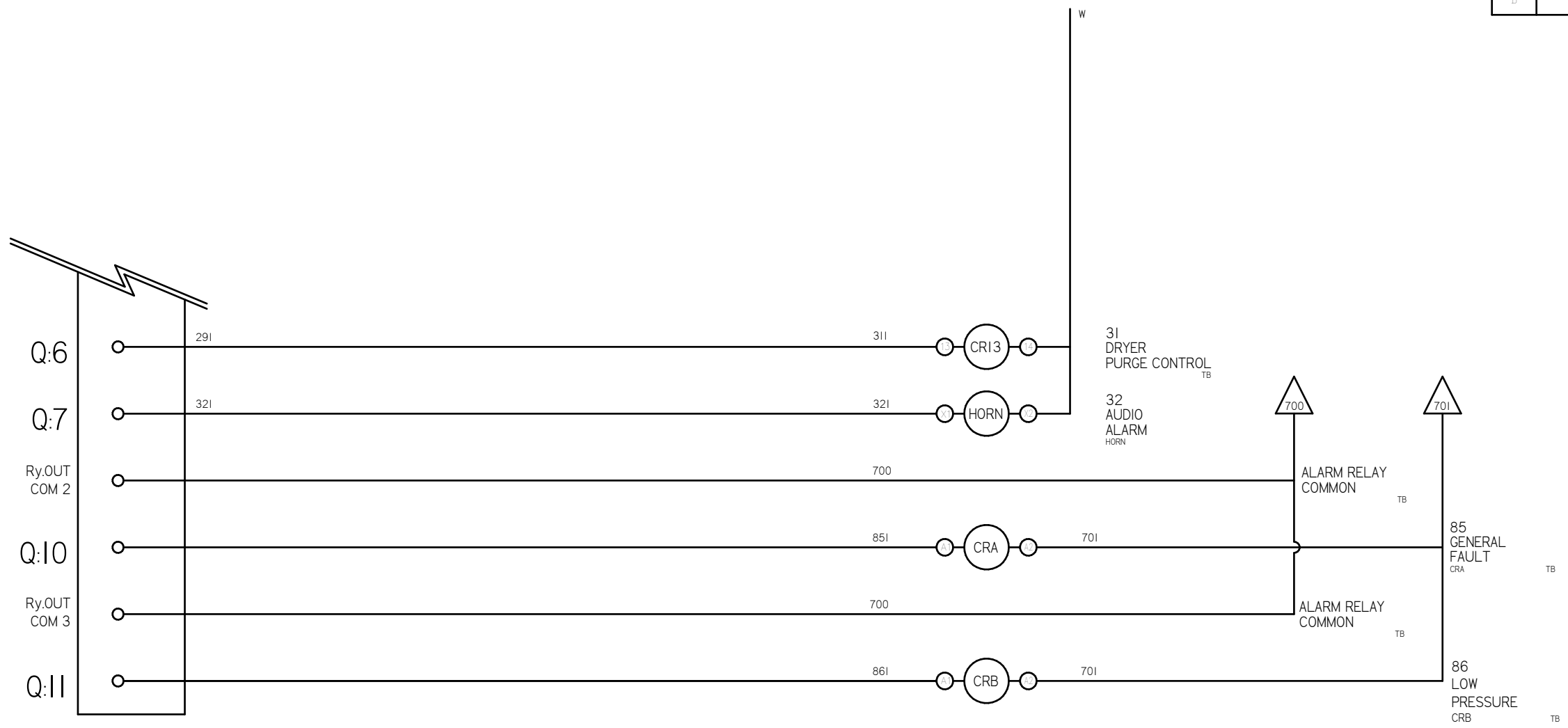
PANEL TYPE
OCTOPLX LAB COMP
HMI, BACNET, WEBSVR, NFPA

DWG. TYPE
WIRING

DWG. NO.
PXMI-LA816

SHEET	SIZE
W-4	B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	12/02/13	PXEC_29	KMD	AJL
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	05/03/17	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	8/27/18	PXEC0165	AKH	KMD



OPTIONAL:	SINGLE CYLINDER AND SCROLLPUMPS	<input checked="" type="checkbox"/>
	DOUBLE-CYLINDER PUMPS	<input type="checkbox"/>
BACNET, WEBSRVR,	TRIPLE-CYLINDER PUMPS	<input type="checkbox"/>



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
KMD	AJL	DMS
12/02/13	1/2/14	1/2/14

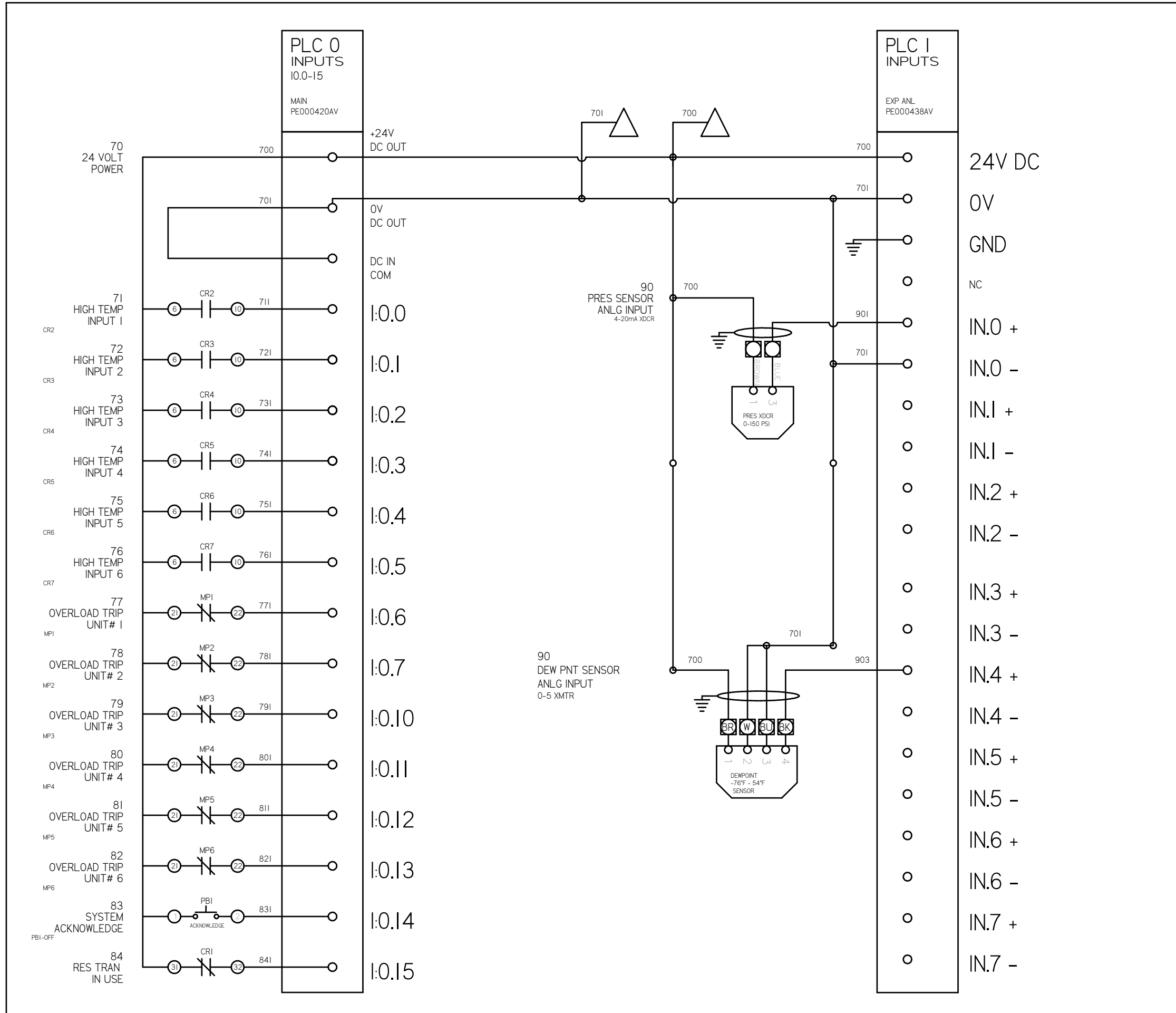
PANEL TYPE
OCTOPLX LAB COMP
HMI, BACNET, WEBSRVR, NFPA

DWG. TYPE WIRING

DWG. NO. PXMI-LA816

SHEET	SIZE
W-5	B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	12/02/13	PXEC_29	KMD	AJL
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	05/03/17	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	8/27/18	PXEC0165	AKH	KMD



OPTIONAL:	SINGLE CYLINDER AND SCROLLPUMPS	<input checked="" type="checkbox"/>
	DOUBLE-CYLINDER PUMPS	<input type="checkbox"/>
BACNET, WEBSVR,	TRIPLE-CYLINDER PUMPS	<input type="checkbox"/>



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
KMD	AJL	DMS
12/02/13	1/2/14	1/2/14

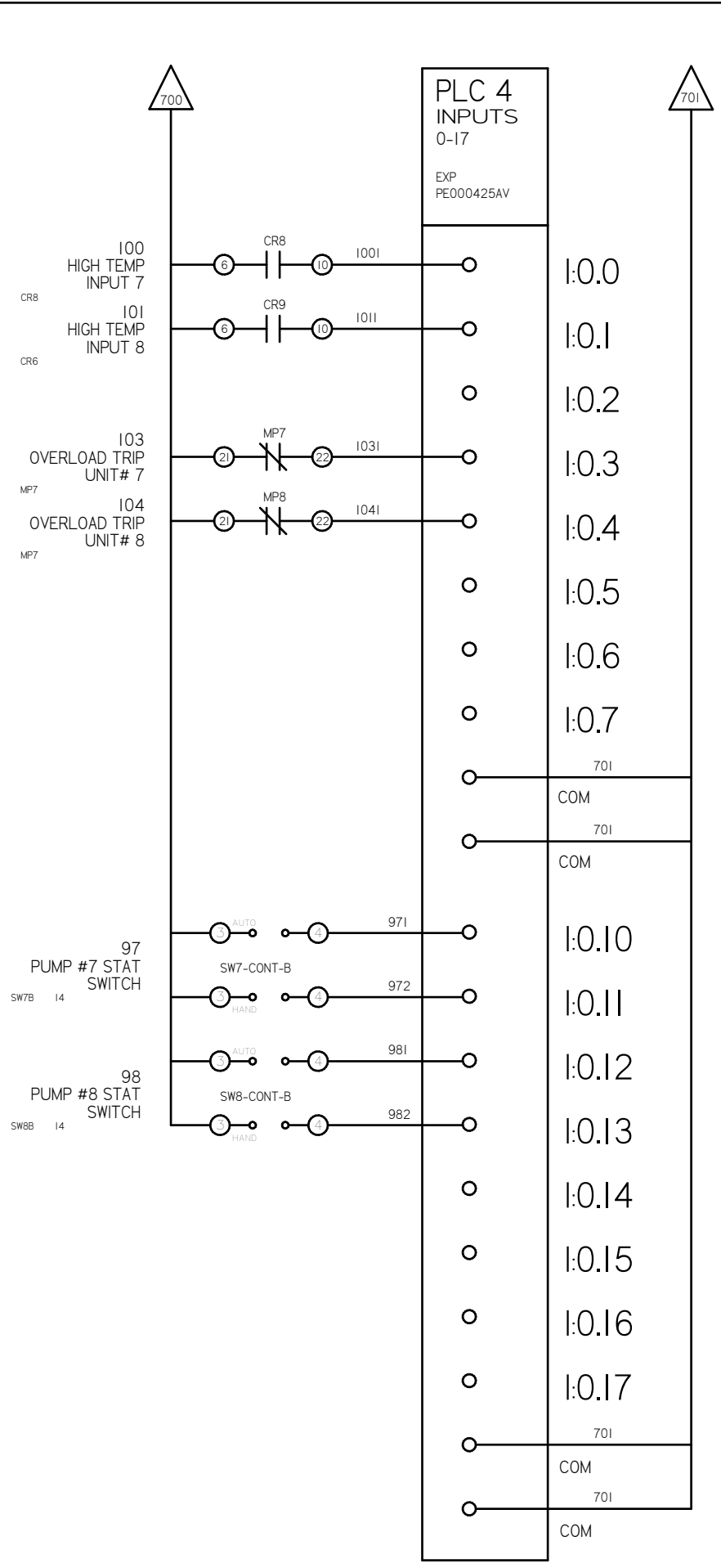
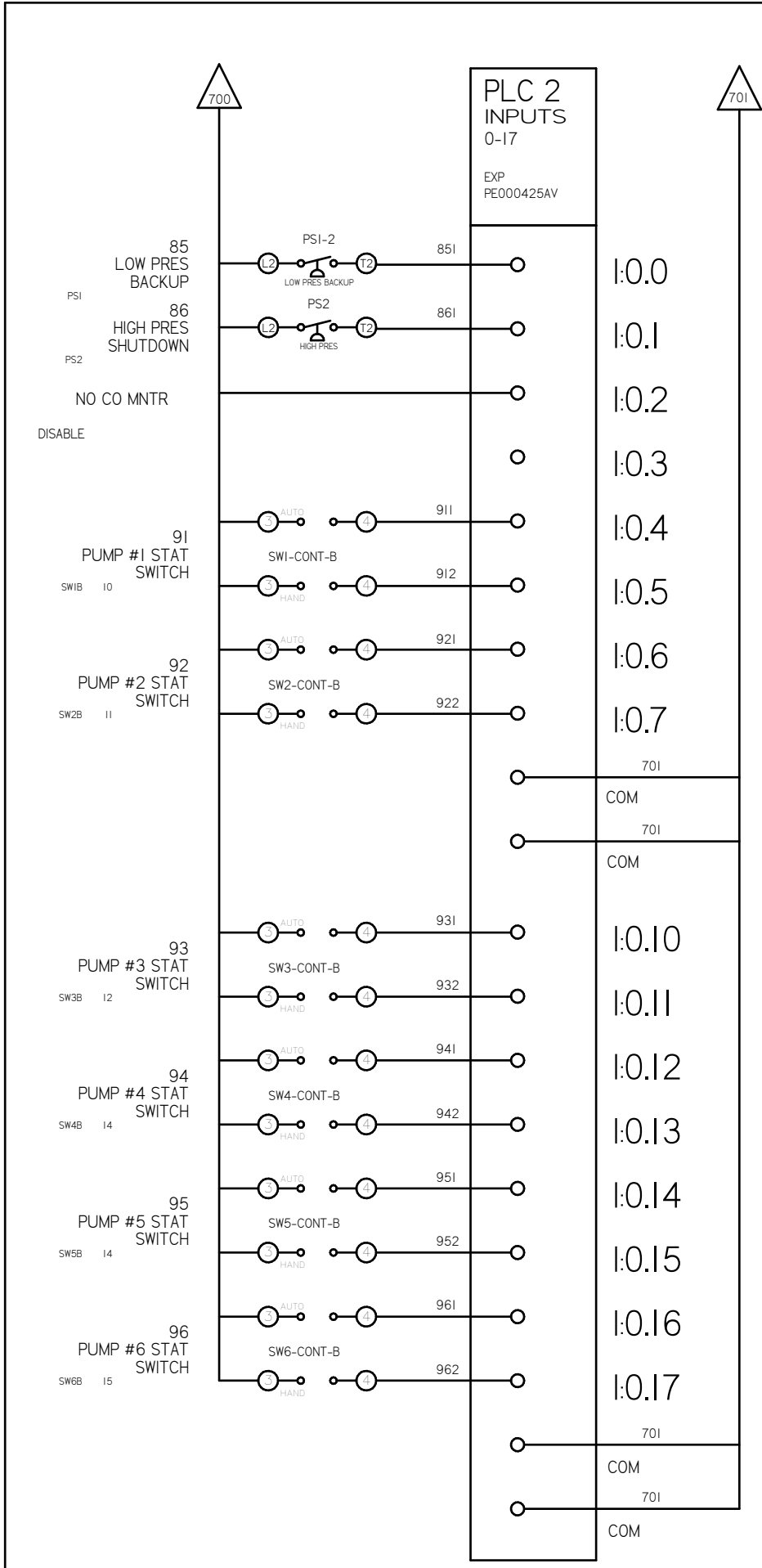
PANEL TYPE
OCTOPLX LAB COMP
HMI, BACNET, WEBSVR, NFPA

DWG. TYPE WIRING

DWG. NO. PXMI-LA816

SHEET W-6	SIZE B
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REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	12/02/13	PXEC_29	KMD	AJL
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	05/03/17	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	8/27/18	PXEC0169	AKH	KMD



OPTIONAL:	SINGLE CYLINDER AND SCROLLPUMPS	<input checked="" type="checkbox"/>
	DOUBLE-CYLINDER PUMPS	<input type="checkbox"/>
BACNET, WEBSRVR,	TRIPLE-CYLINDER PUMPS	<input type="checkbox"/>



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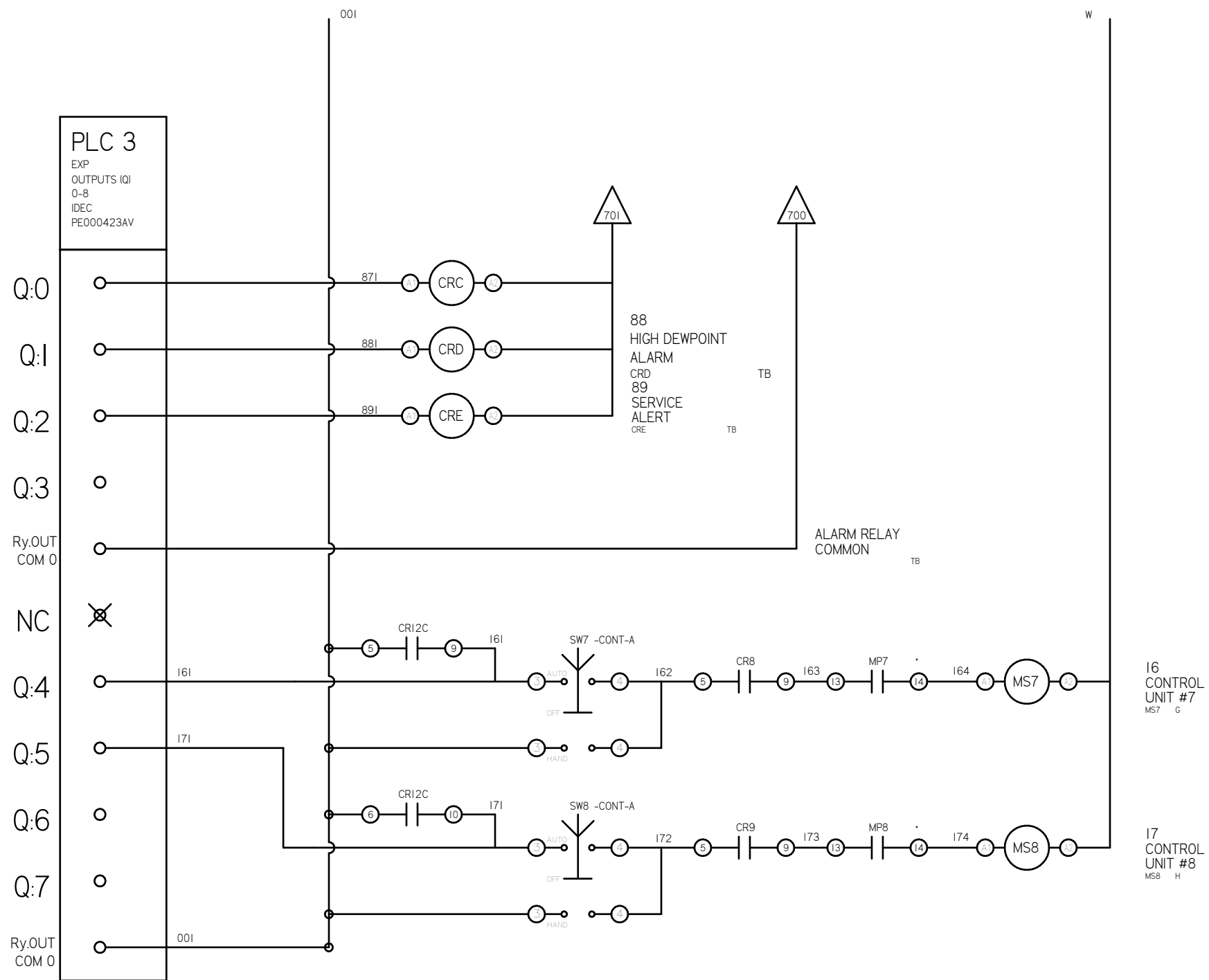
DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
KMD	AJL	DMS
12/02/13	1/2/14	1/2/14

PANEL TYPE
OCTOPLX LAB COMP
HMI, BACNET, WEBSRVR, NFPA

DWG. TYPE: WIRING
DWG. NO.: PXMI-LA816

SHEET	SIZE
W-7	B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	12/02/13	PXEC_29	KMD	AJL
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	05/03/17	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	8/27/18	PXEC0169	AKH	KMD



OPTIONAL:

SINGLE CYLINDER AND SCROLLPUMPS	<input checked="" type="checkbox"/>
DOUBLE-CYLINDER PUMPS	<input type="checkbox"/>
TRIPLE-CYLINDER PUMPS	<input type="checkbox"/>

BACNET, WEBSRVR



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
KMD	AJL	DMS
12/02/13	1/2/14	1/2/14

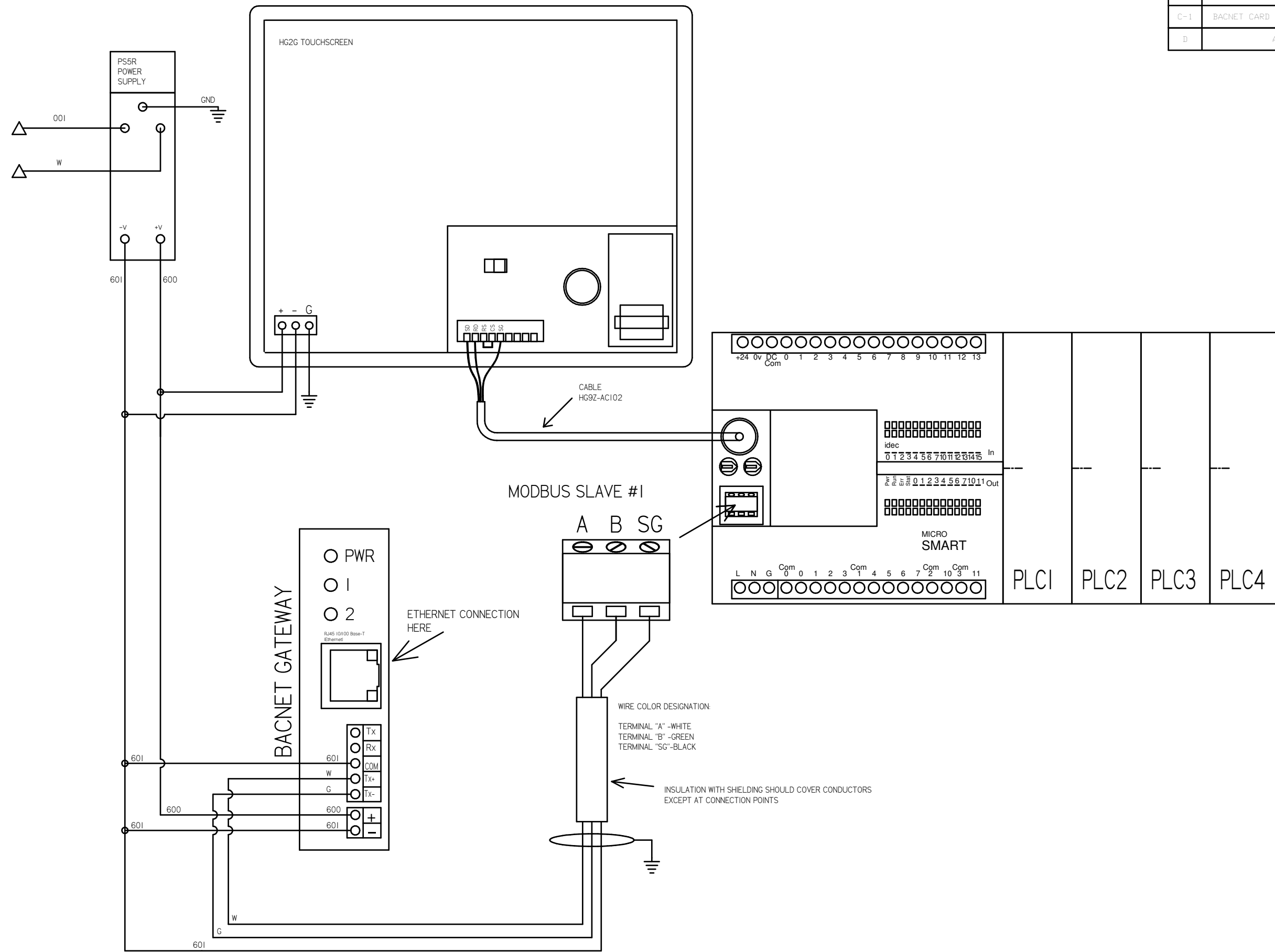
PANEL TYPE
 OCTOPLX LAB COMP
 HMI, BACNET, WEBSRVR, NFPA

DWG. TYPE
 WIRING

DWG. NO.
 PXMI-LA816

SHEET	SIZE
W-8	B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	12/02/13	PXEC_29	KMD	AJL
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	05/03/17	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	8/27/18	PXEC0169	AKH	KMD



OPTIONAL:	SINGLE CYLINDER AND SCROLLPUMPS	<input checked="" type="checkbox"/>
	DOUBLE-CYLINDER PUMPS	<input type="checkbox"/>
BACNET, WEBSRVR,	TRIPLE-CYLINDER PUMPS	<input type="checkbox"/>



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
KMD	AJL	DMS
12/02/13	1/2/14	1/2/14

PANEL TYPE
OCTOPLX LAB COMP
HMI, BACNET, WEBSRVR, NFPA

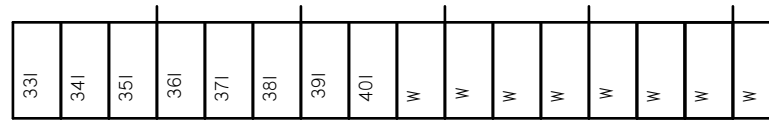
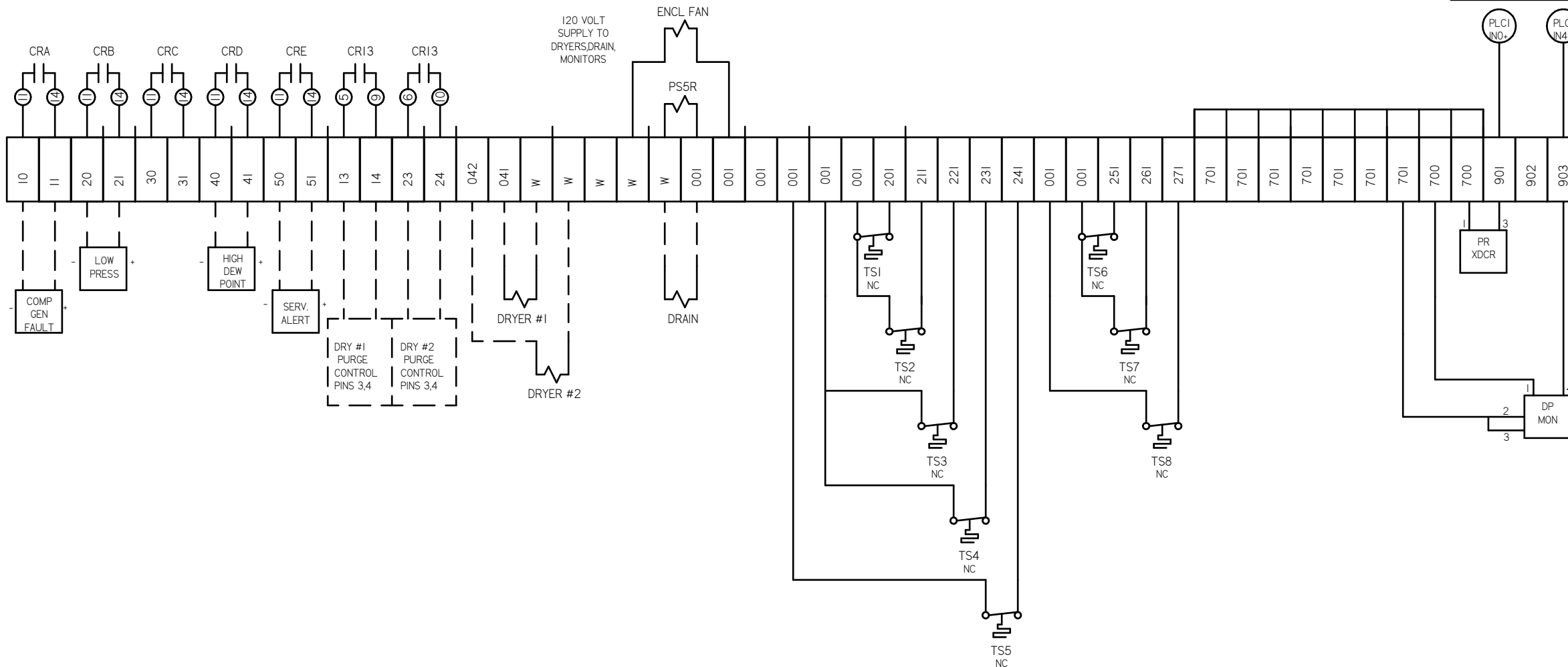
DWG. TYPE
WIRING

DWG. NO.
PXMI-LA816

SHEET	SIZE
W-9	B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	12/02/13	PXEC_29	KMD	AJL
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	05/03/17	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	8/27/18	PXEC0169	AKH	KMD

TERMINAL BLOCKS



FAN WIRING
SEE RUNGS 31-38 FOR DETAILS

FIELD WIRING NOTES:

1. PANEL GROUND MUST BE CONNECTED TO EARTH GROUND.
2. TRANSFORMER IS SIZED FOR LOADS SHOWN ON DRAWING ONLY.
3. FIELD WIRING INDICATED BY -----. WIRE TO BE COPPER RATED AT 75° C.
4. ALL ALARM DRY CONTACTS ARE CLOSED FOR NORMAL OPERATION AND OPEN IN ALARM.
5. DRY CONTACT RATING: 30V DC/2A (resistive load, inductive load L/R = 7 ms)
6. USE CAT-5 CABLE W/RJ45 CONNECTOR FOR ETHERNET CONNECTION TO COMMUNICATION NETWORK OR BAS SYSTEM

OPTIONAL:

SINGLE CYLINDER AND SCROLLPUMPS	<input checked="" type="checkbox"/>
DOUBLE-CYLINDER PUMPS	<input type="checkbox"/>
TRIPLE-CYLINDER PUMPS	<input type="checkbox"/>

BACNET, WEBSRVR,



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
KMD	AJL	DMS
12/02/13	1/2/14	1/2/14

PANEL TYPE
OCTOPLX LAB COMP
HMI, BACNET, WEBSRVR, NFPA

DWG. TYPE
WIRING

DWG. NO.
PXMI-LA816

SHEET	SIZE
W-10	B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	12/02/13	PXEC_29	KMD	AJL
D	ADDED FAN WIRING	8/27/18	PXEC0165	AKH	KMD

TABLE 1	P/N	MOTOR FULL LOAD AMPS	TOTAL FULL LOAD AMPS	NON-TIME DELAY FUSE	TIME DELAY FUSE	INVERSE-TIME CIRCUIT BREAKER
208V (3Ø)	02AJ	4.1	34.8	45	40	45
	12AJ	4.5	38	50	45	50
	22AJ	6	50	70	60	60
	32AJ	8.5	70	90	80	90
	52AJ	14	114	150	125	150
	72AJ	20.5	166	225	200	200
	A2AJ *	27.4	221.2	300	250	300
F2AJ *	41.1	330.8	450	400	400	
230V (3Ø)	03AJ	3.6	30.8	40	35	40
	13AJ	4.4	37.2	50	45	45
	23AJ	5.8	48.4	60	60	60
	33AJ	7.7	63.6	80	70	80
	53AJ	12.7	103.6	150	125	125
	73AJ	18.5	150	200	175	200
	A3AJ	24.8	200.4	250	225	250
F3AJ *	37.2	299.6	400	350	400	
460V (3Ø)	04AJ	1.8	16.4	20	20	20
	14AJ	2.2	19.6	25	25	25
	24AJ	2.9	25.2	35	30	35
	34AJ	3.9	33.2	45	40	40
	54AJ	6.3	52.4	70	60	70
	74AJ	9.3	76.4	100	90	100
	A4AJ	12.4	101.2	150	125	125
F4AJ	18.6	150.8	200	175	200	
380V (3Ø) 50HZ	08AJ					
	18AJ					
	28AJ	3.4	29.2	40	35	35
	38AJ	4.6	38.8	50	45	50
	58AJ	7.7	63.6	80	70	80
	78AJ	11.1	90.8	125	100	110
	A8AJ	14.9	121.2	175	150	150
F8AJ	22.1	178.8	225	200	225	

NOTES:

- RECOMMENDED TIGHTENING TORQUES FOR WIRE TERMINALS:
208-575 VOLT POWER 35 POUND INCHES
120 VOLT POWER AND CONTROL VOLTAGE 15 POUND INCHES
- PANEL GROUND MUST BE CONNECTED TO EARTH GROUND
- INSTALLER TO PROVIDE MAIN DISCONNECTING DEVICE WITH SHORT CIRCUIT PROTECTION FOR THIS ELECTRICAL ASSEMBLY. SEE TABLE 1.
- ALL WIRES MUST BE LABELED ON BOTH ENDS
- TRANSFORMER IS SIZED FOR LOADS SHOWN ON DRAWING ONLY. DO NOT CONNECT ANY OTHER DEVICES
- △ -INDICATES A DRAWING WIRE CONNECTION TO ANOTHER PAGE.

FIELD WIRING NOTES ON PAGE W-10.

WIRE TYPE TABLE			
VOLTAGE	WIRE NUMBERS	GAUGE	COLOR
120 VAC	01-699	16-18 AWG	RED/BLK
0VAC	W	16-18 AWG	WHT/BLK
24VDC	700-799	16-18 AWG	PURPLE
0VDC	701	16-18 AWG	PURPLE
GND	-	VARIES	GREEN
CUSTOMER SUPPLY	01-99	16 AWG	YELLOW

TABLE 2 - CONTROL CIRCUIT PROTECTION					
FUSE TYPE		208 VOLT	230 VOLT	460 VOLT	575 VOLT
FU1,2A	FNQR	6A	5A	5A	4A
FU1,2B					
FU3A,B	FNM	7A	7A	7A	7A

OPTIONAL:	SINGLE CYLINDER AND SCROLL PUMPS	<input checked="" type="checkbox"/>
	DOUBLE-CYLINDER PUMPS	<input type="checkbox"/>
BACNET, WEBSRVR,	TRIPLE-CYLINDER PUMPS	<input type="checkbox"/>



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
KMD	AJL	DMS
12/02/13	1/2/14	1/2/14

PANEL TYPE
OCTOPLX LAB COMP
HMI, BACNET, WEBSRVR, NFPA

DWG. TYPE DATA

DWG. NO. PXMI-LA816

SHEET D-1 SIZE B

SEQUENCE OF OPERATIONS

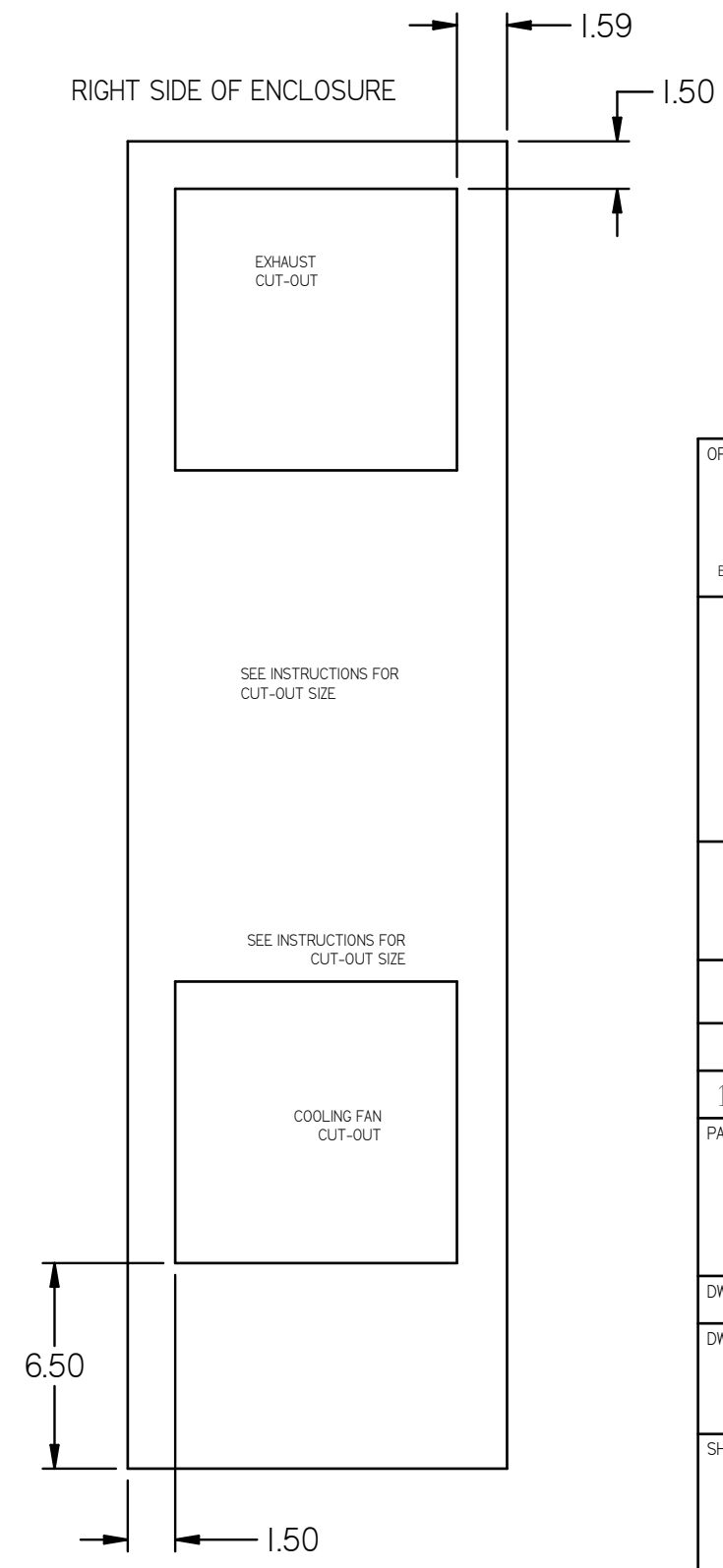
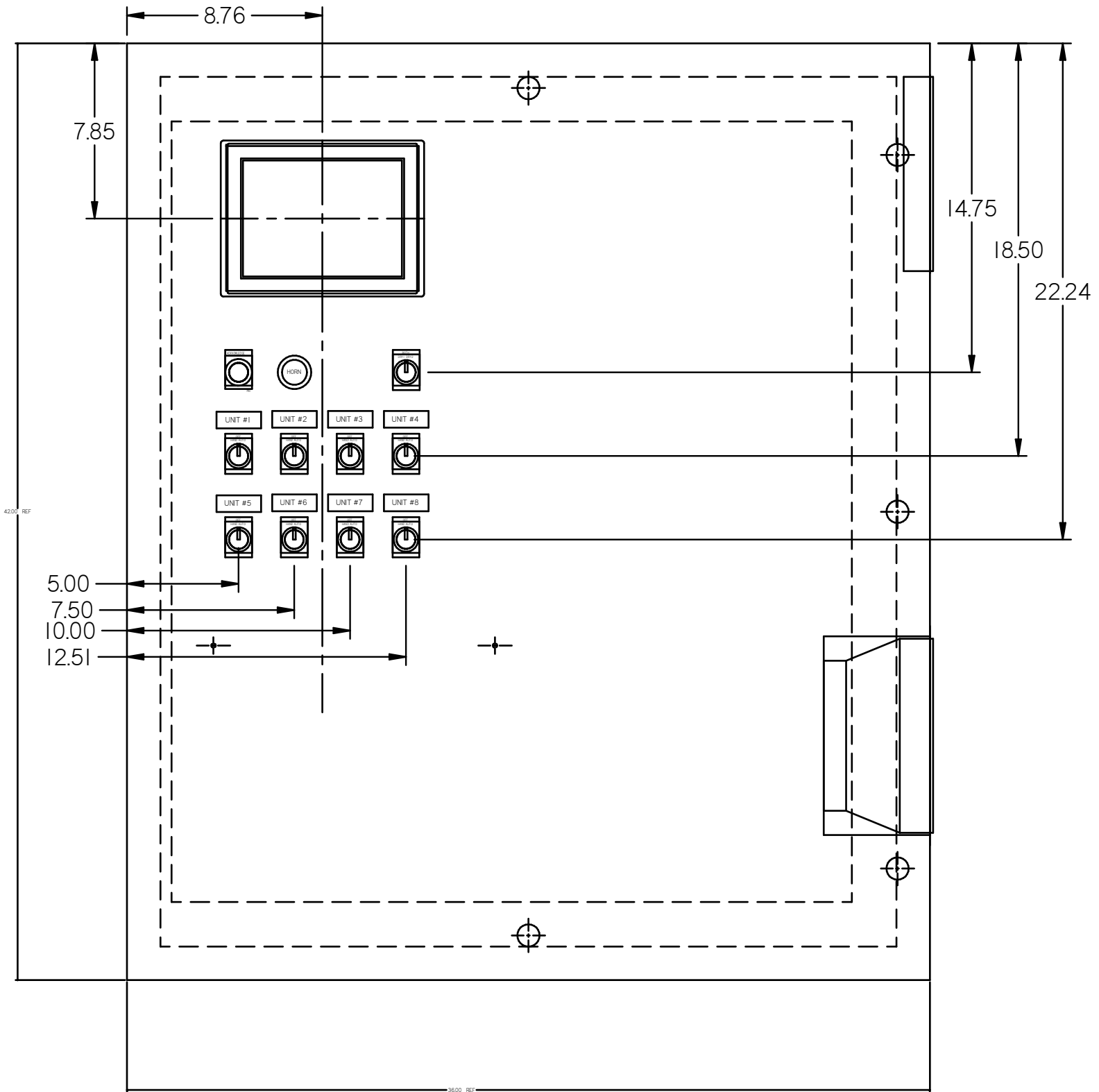
During normal operation the PBMI controller will signal the Lead compressor to run when pressure drops below lead cut-in set-point and stop when the pressure reaches the lead cut-out set-point. Lead alternation to the next pump, will occur with each lead run signal or every 10-minutes (which ever happens first). If demand cannot be satisfied by the lead pump, the lag pump(s) will start and stop based upon the lag cut-in and cut-out set-points. When more than one pump is running, lead alternation will occur when the lowest cut-out set-point is satisfied, or after 10-minutes (which ever happens first). The HOA switch's place the pump in the following modes: Hand-turns pump on to run continuous. Off-disables pump from running. Auto-places pump in the "ready mode" and will start and stop based on sequence described above.

All plex configurations include a hardwired Back-up pressure switch circuit should a control failure occur. This circuit will call all pumps on and off based on the reserve pressure switch set-points.

Expandable systems include all control devices, operators, and programming for the maximum number of pumps (or plex) required. To expand the system: navigate to the "service screen" and enter the number of pumps.

Additional information and descriptions can be accessed through the HMI "service info" screen by pressing Sequence of Operations button.

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	12/02/13	PXEC_29	KMD	AJL
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	05/03/17	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	8/27/18	PXEC0169	AKH	KMD



OPTIONAL:	SINGLE CYLINDER AND SCROLLPUMPS	<input checked="" type="checkbox"/>
	DOUBLE-CYLINDER PUMPS	<input type="checkbox"/>
BACNET, WEBSVR,	TRIPLE-CYLINDER PUMPS	<input type="checkbox"/>



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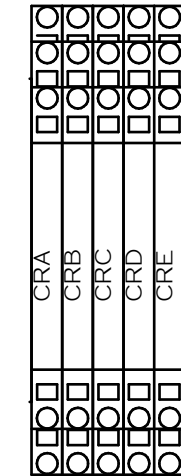
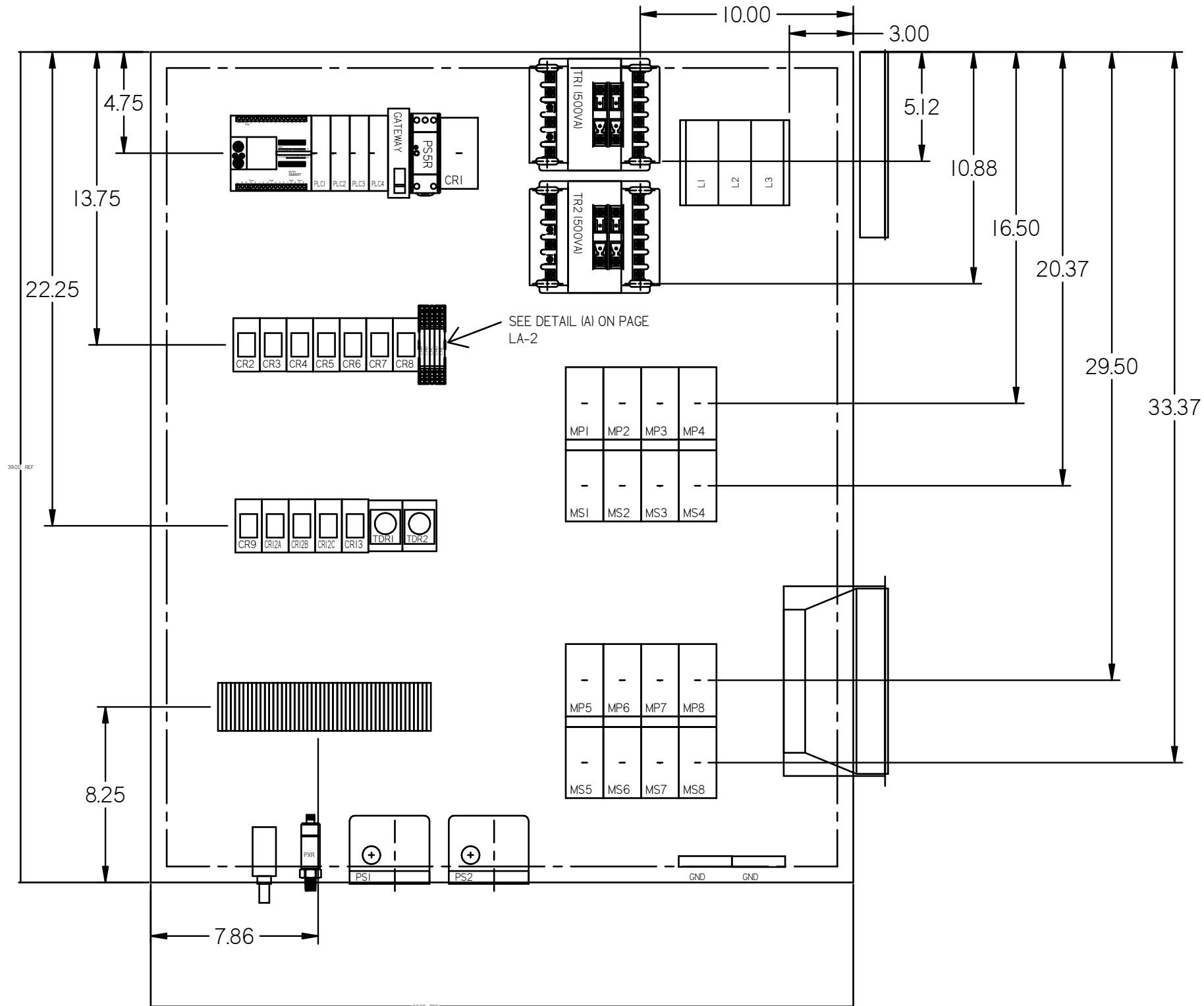
DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
KMD	AJL	DMS
12/02/13	1/2/14	1/2/14

PANEL TYPE
 OCTOPLX LAB COMP
 HMI, BACNET, WEBSVR, NFPA

DWG. TYPE LAYOUT
 DWG. NO. PXMI-LA816

SHEET L-1	SIZE B
-----------	--------

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	12/02/13	PXEC_29	KMD	AJL
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	05/03/17	PXEC0118	AJL	KMD
D	ADDED FAN WIRING	8/27/18	PXEC0169	AKH	KMD



DETAIL A

OPTIONAL:	SINGLE CYLINDER AND SCROLLPUMPS	<input checked="" type="checkbox"/>
	DOUBLE-CYLINDER PUMPS	<input type="checkbox"/>
BACNET, WEBSRVR,	TRIPLE-CYLINDER PUMPS	<input type="checkbox"/>



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
KMD	AJL	DMS
12/02/13	1/2/14	1/2/14

PANEL TYPE
 OCTOPLX LAB COMP
 HMI, BACNET, WEBSRVR, NFPA

DWG. TYPE LAYOUT

DWG. NO. PXMI-LA816

SHEET	SIZE
L-2	B