

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	01/09/13	PXEC_29	BFH	CHR
B-2	CHANGE TRANSDUCER	02/01/13	PXEC_33	BFH	CHR
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	9/4/18	PXEC0169	AKH	KMD

OPTIONAL:

SINGLE CYLINDER AND SCROLLPUMPS

DOUBLE-CYLINDER PUMPS

BACNET, WEBSRVR, TRIPLE-CYLINDER PUMPS



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
12/03/12	01/09/13	01/09/13

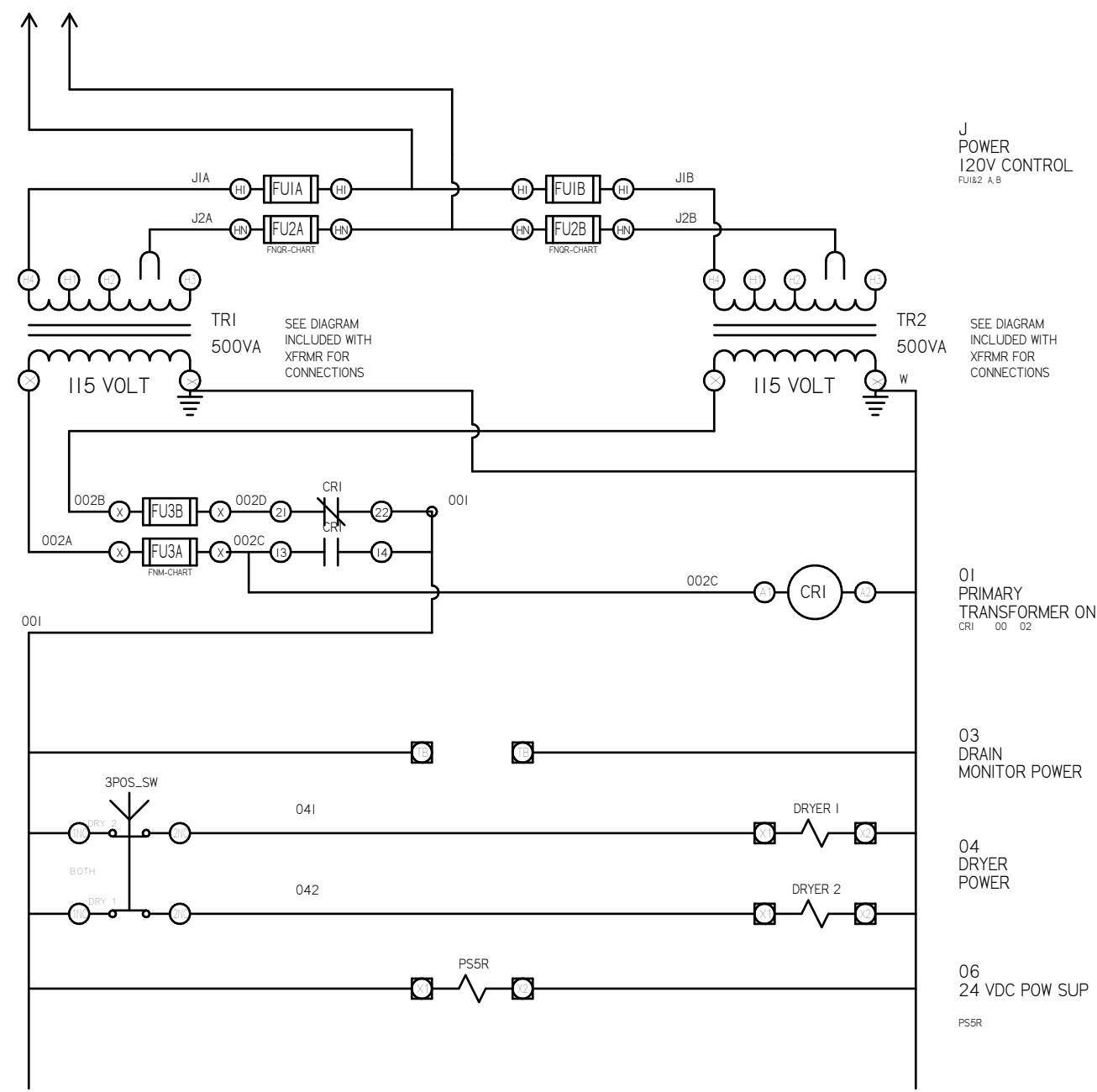
PANEL TYPE  
NONOPLX MEDICAL COMP  
HMI, BACNET, WEBSRVR, NFPA

DWG. TYPE WIRING

DWG. NO.  
PXMI-A916

SHEET W-1 SIZE B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	01/09/13	PXEC_29	BFH	CHR
B-2	CHANGE TRANSDUCER	02/01/13	PXEC_33	BFH	CHR
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	9/4/18	PXEC0165	AKH	KMD



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
BFH	CHR	CHR
12/03/12	01/09/13	01/09/13

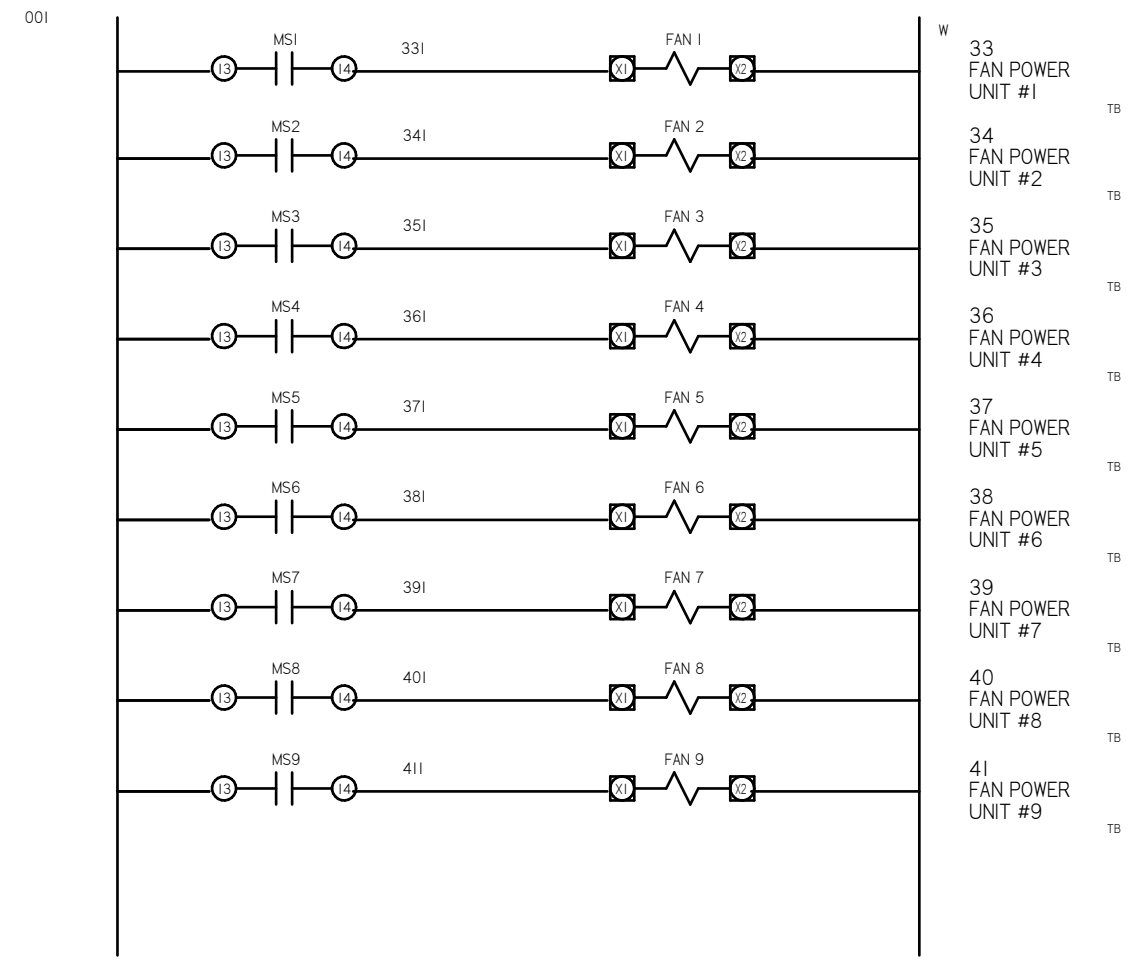
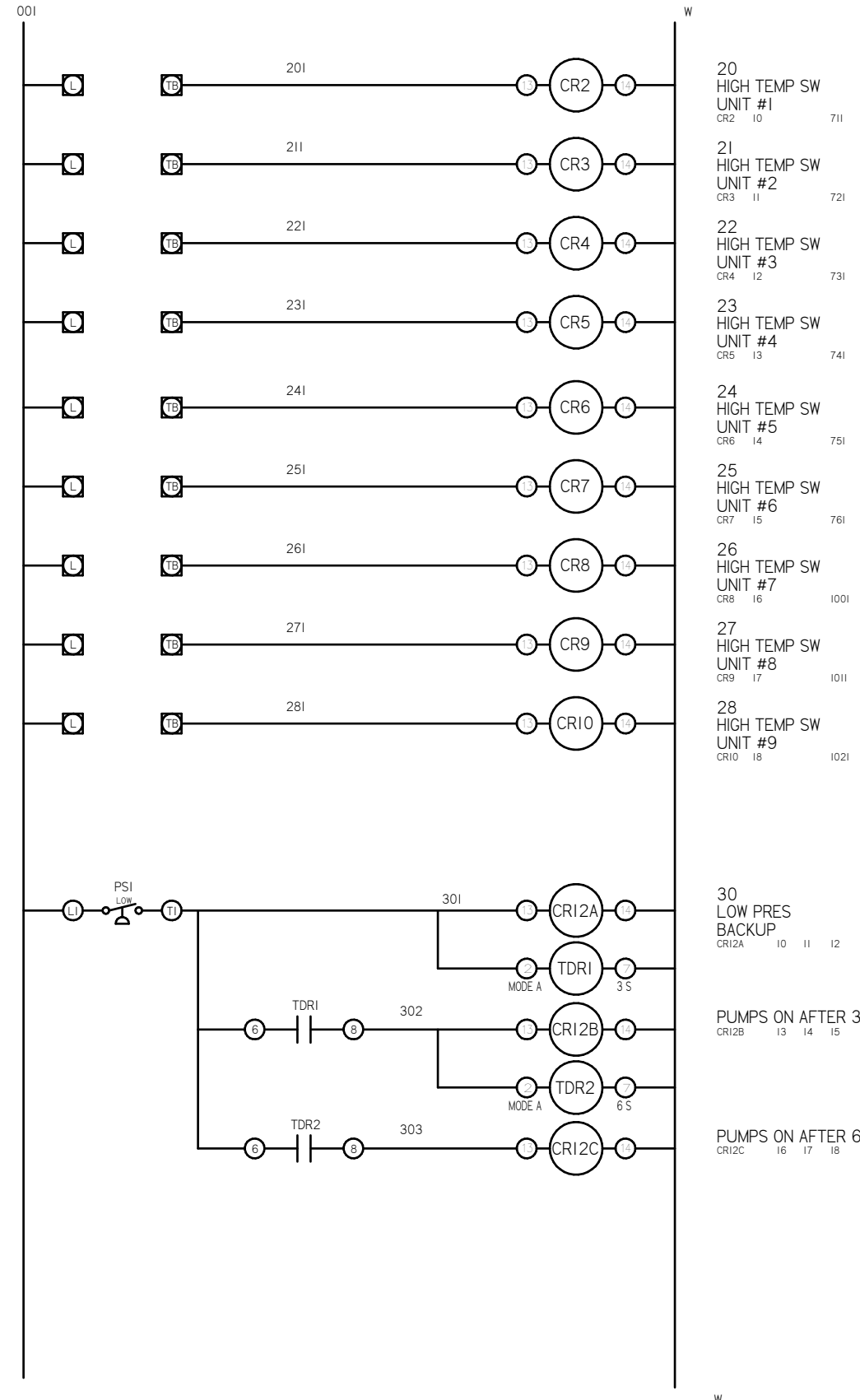
PANEL TYPE  
NONOPLX MEDICAL COMP  
HMI, BACNET, WEBSRVR, NFPA

DWG. TYPE WIRING

DWG. NO. PXMI-A916

SHEET	SIZE
W-2	B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	01/09/13	PXEC_29	BFH	CHR
B-2	CHANGE TRANSDUCER	02/01/13	PXEC.33	BFH	CHR
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	9/4/18	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
BFH	CHR	CHR
12/03/12	01/09/13	01/09/13

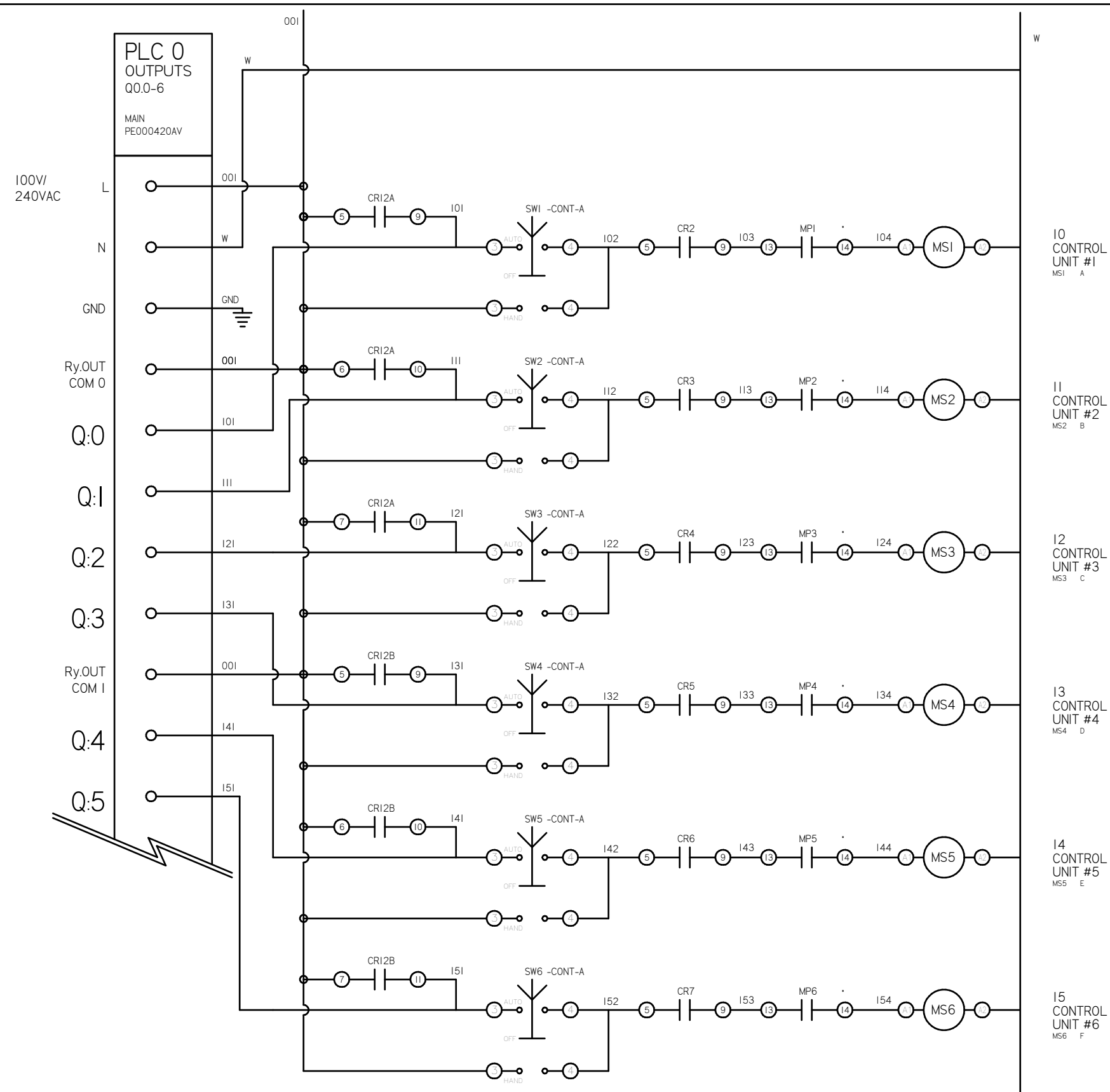
PANEL TYPE  
NONOPLX MEDICAL COMP  
HMI, BACNET, WEBSRVR, NFPA

DWG. TYPE  
WIRING

DWG. NO.  
PXMI-A916

SHEET	SIZE
W-3	B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	01/09/13	PXEC_29	BFH	CHR
B-2	CHANGE TRANSDUCER	02/01/13	PXEC_33	BFH	CHR
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	9/4/18	PXEC0169	AKH	KMD



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

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



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
12/03/12	01/09/13	01/09/13

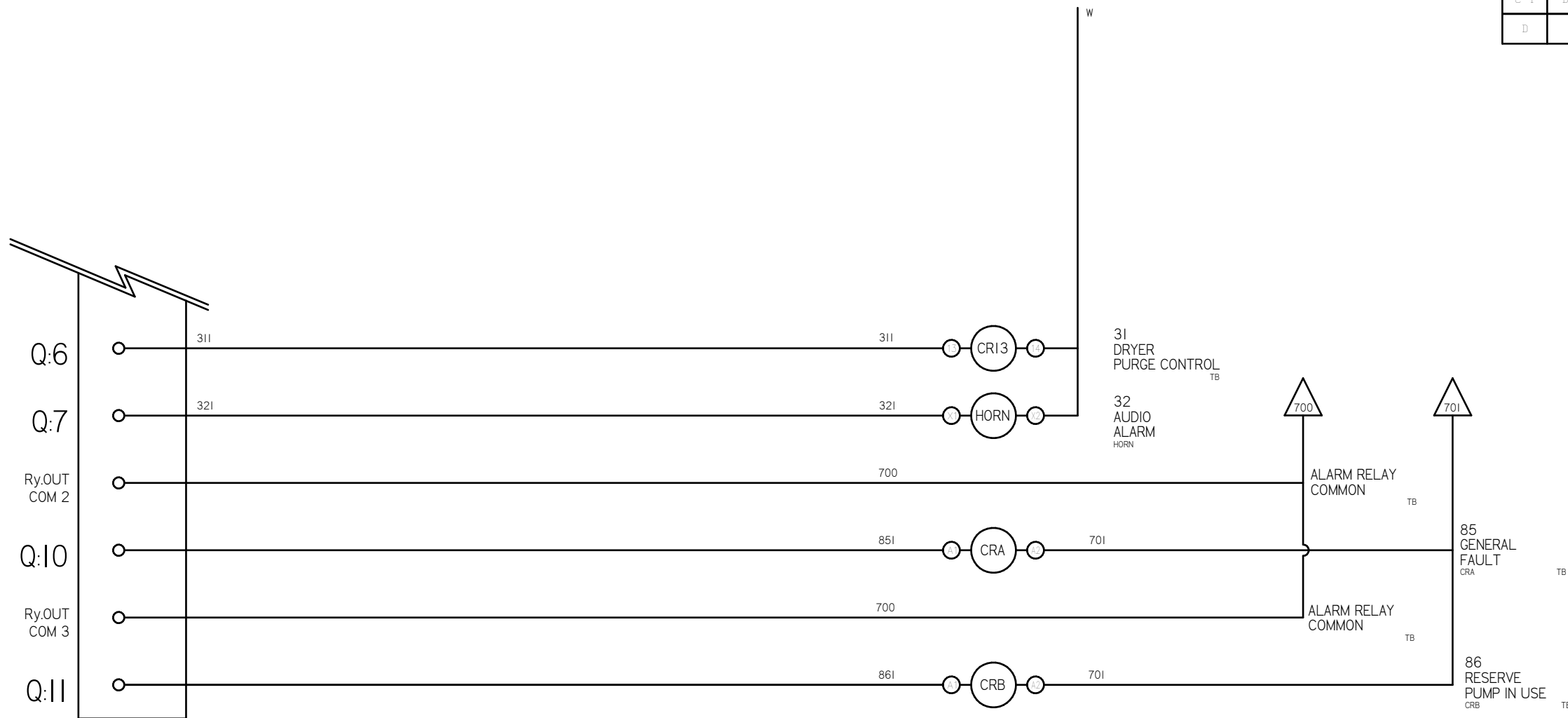
PANEL TYPE  
NONOPLX MEDICAL COMP  
HMI, BACNET, WEBSRVR, NFPA

DWG. TYPE WIRING

DWG. NO. PXMI-A916

SHEET W-4 SIZE B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	01/09/13	PXEC_29	BFH	CHR
B-2	CHANGE TRANSDUCER	02/01/13	PXEC_33	BFH	CHR
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	9/4/18	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
BFH	CHR	CHR
12/03/12	01/09/13	01/09/13

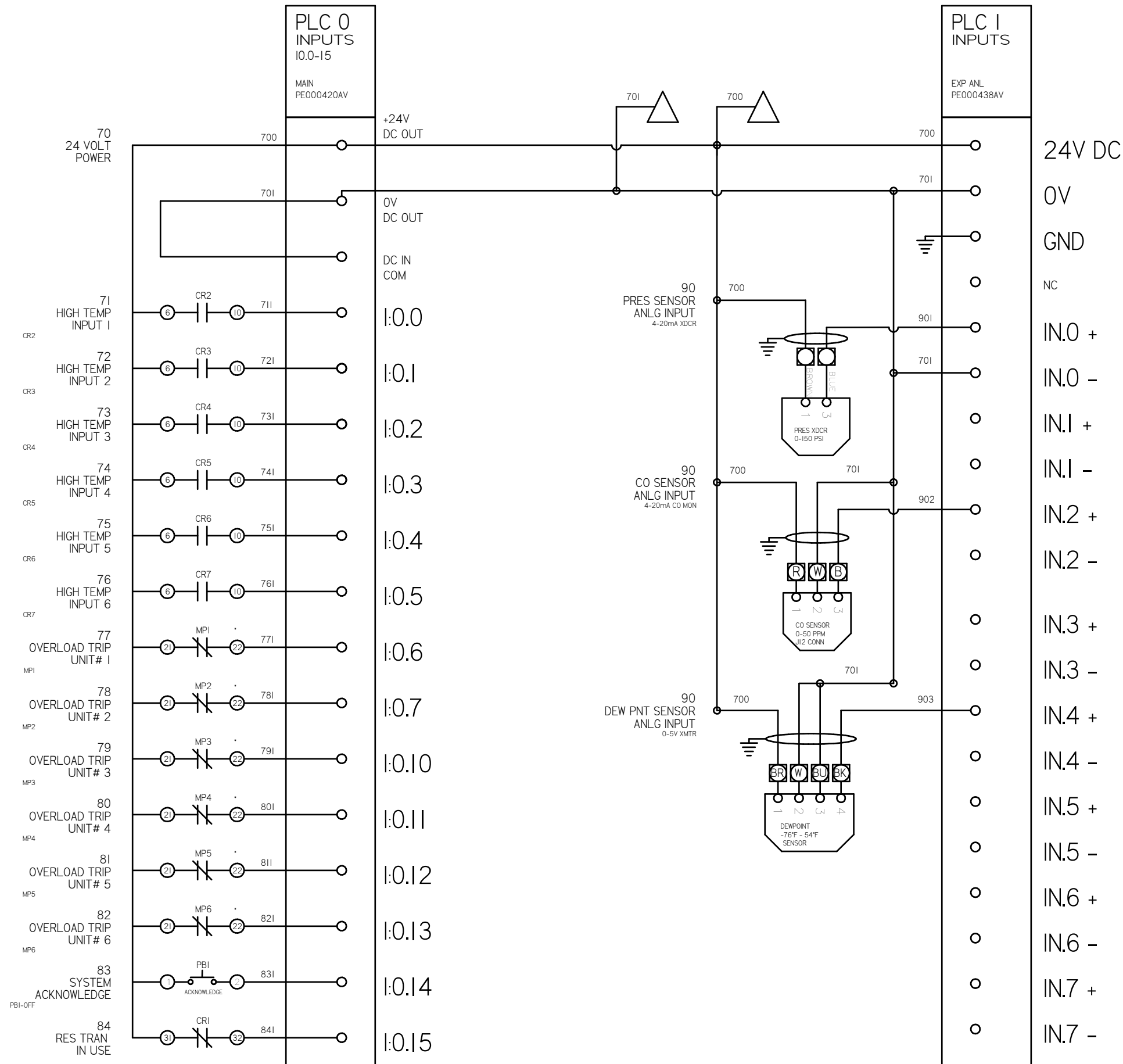
PANEL TYPE  
 NONOPLX MEDICAL COMP  
 HMI, BACNET, WEBSRVR, NFPA

DWG. TYPE  
 WIRING

DWG. NO.  
 PXMI-A916

SHEET W-5	SIZE B
--------------	-----------

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	01/09/13	PXEC_29	BFH	CHR
B-2	CHANGE TRANSDUCER	02/01/13	PXEC_33	BFH	CHR
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	9/4/18	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
BFH	CHR	CHR
12/03/12	01/09/13	01/09/13

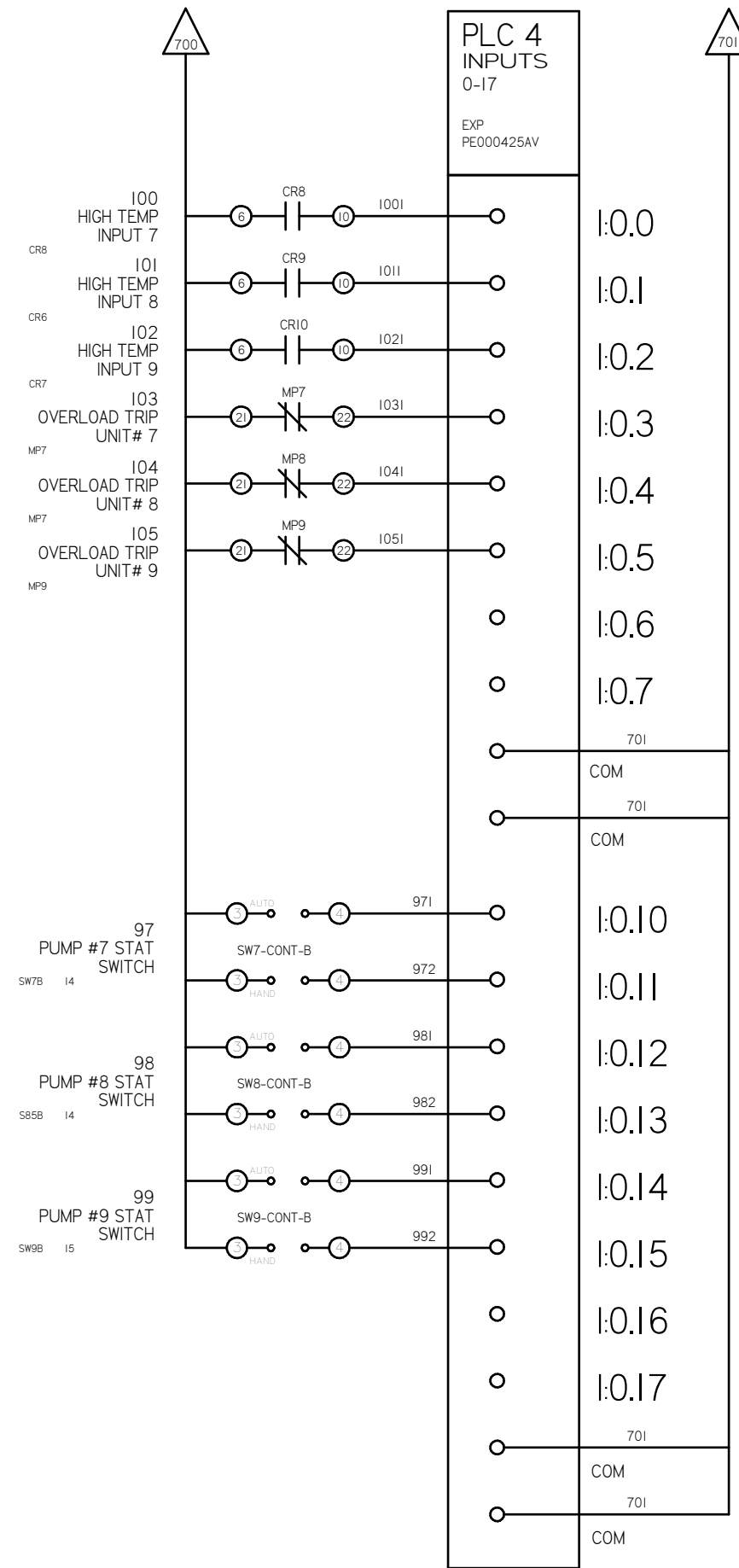
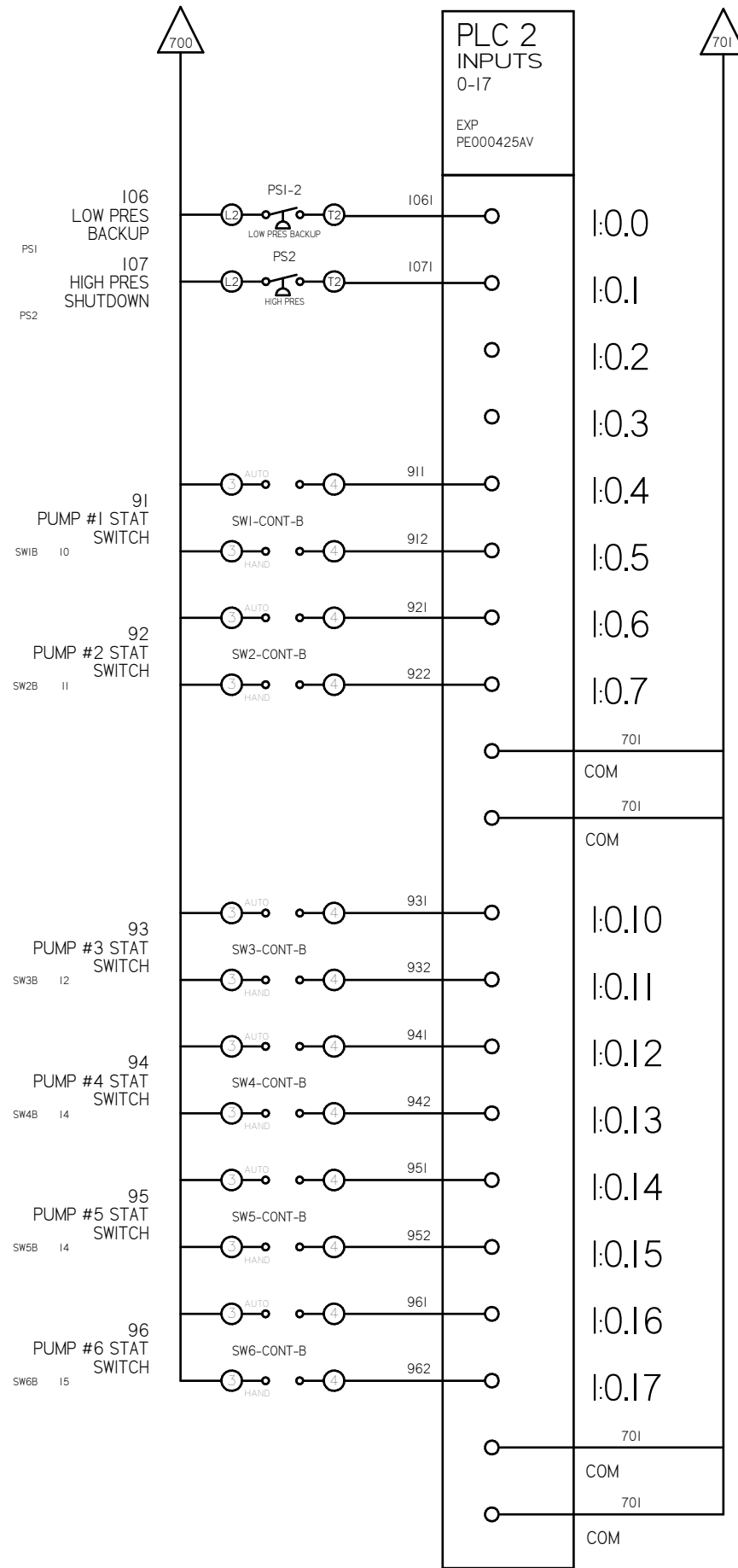
PANEL TYPE  
NONOPLX MEDICAL COMP  
HMI, BACNET, WEBSRVR, NFPA

DWG. TYPE: WIRING

DWG. NO.: PXMI-A916

SHEET: W-6	SIZE: B
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REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	01/09/13	PXEC_29	BFH	CHR
B-2	CHANGE TRANSDUCER	02/01/13	PXEC_33	BFH	CHR
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	9/4/18	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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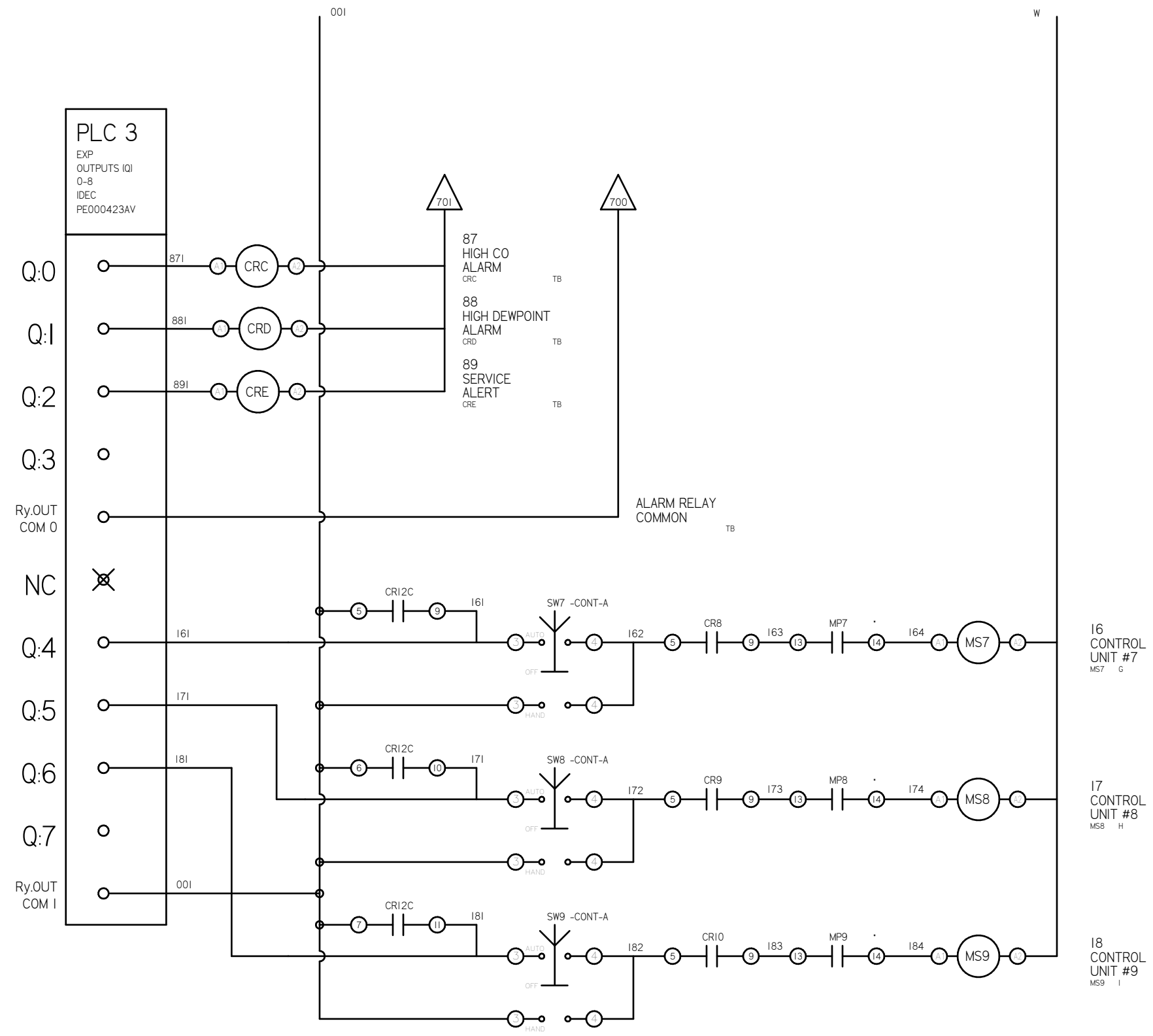
DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
12/03/12	01/09/13	01/09/13

PANEL TYPE  
NONOPLX MEDICAL COMP  
HMI, BACNET, WEBSVR, NFPA

DWG. TYPE: WIRING  
DWG. NO.: PXMI-A916

SHEET: W-7  
SIZE: B

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	01/09/13	PXEC_29	BFH	CHR
B-2	CHANGE TRANSDUCER	02/01/13	PXEC_33	BFH	CHR
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	9/4/18	PXEC0165	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
BFH	CHR	CHR
12/03/12	01/09/13	01/09/13

PANEL TYPE  
 NONOPLX MEDICAL COMP  
 HMI, BACNET, WEBSRVR, NFWA

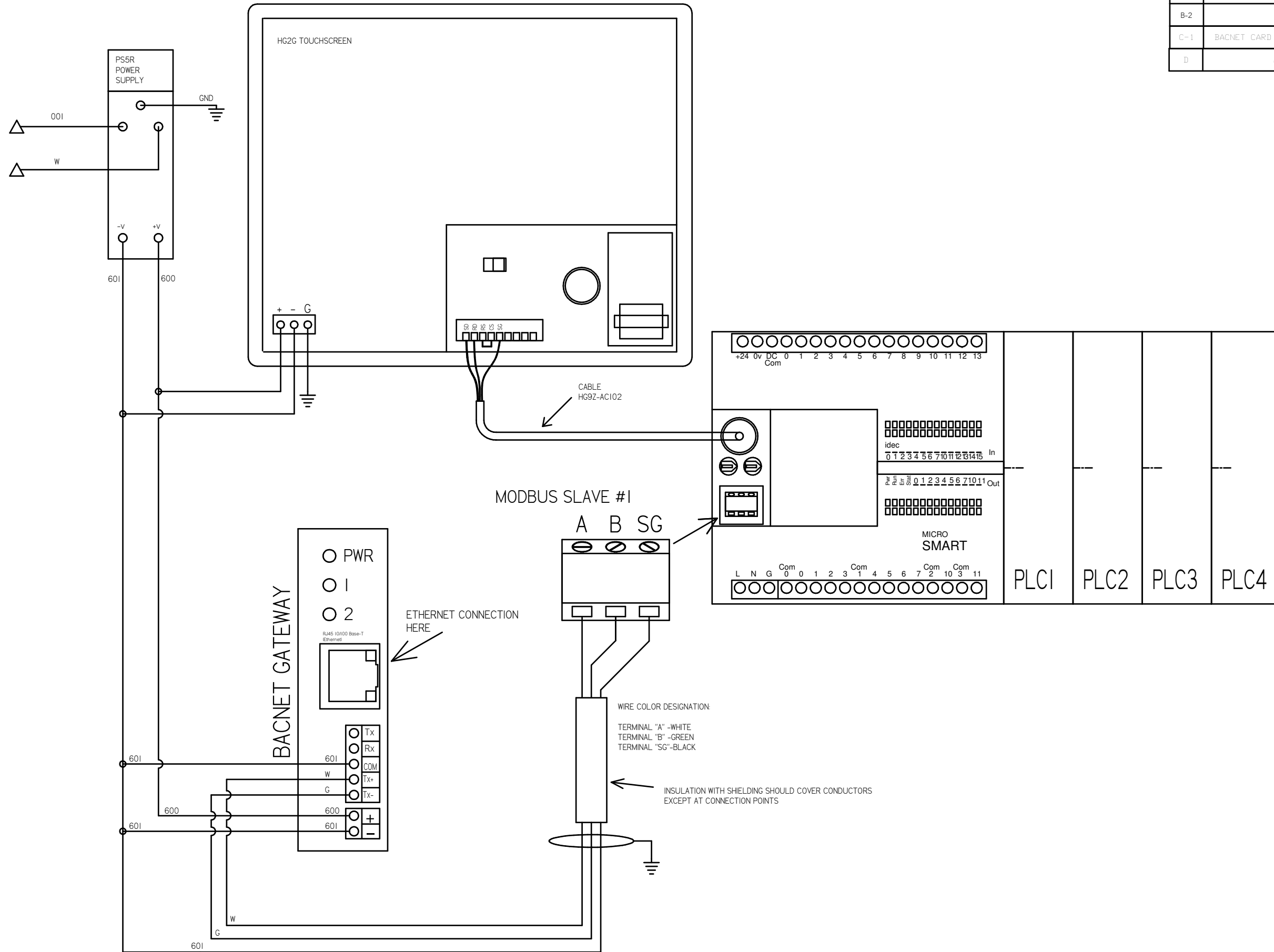
DWG. TYPE WIRING

DWG. NO. PXMI-A916

SHEET	SIZE
W-8	B



REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	01/09/13	PXEC_29	BFH	CHR
B-2	CHANGE TRANSDUCER	02/01/13	PXEC_33	BFH	CHR
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	9/4/18	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, WEBSVR,		



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
12/03/12	01/09/13	01/09/13

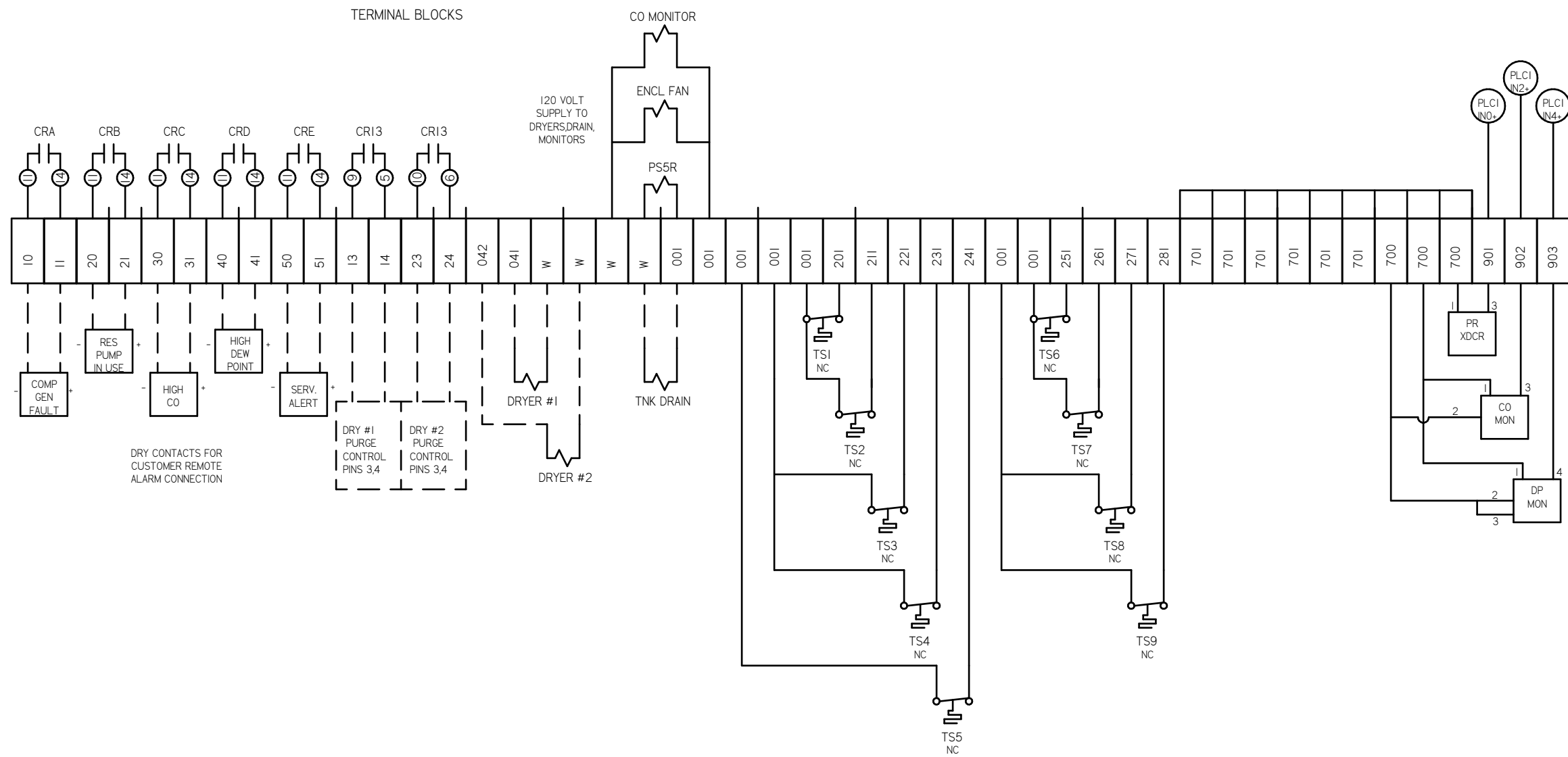
PANEL TYPE  
 NONOPLX MEDICAL COMP  
 HMI, BACNET, WEBSVR, NFPA

DWG. TYPE  
 WIRING

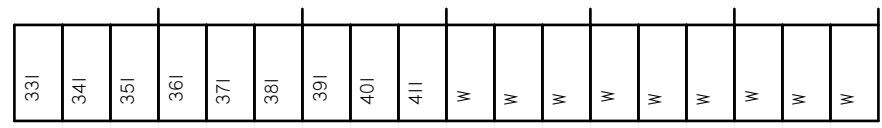
DWG. NO.  
 PXMI-A916

SHEET W-9	SIZE B
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REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	01/09/13	PXEC_29	BFH	CHR
B-2	CHANGE TRANSDUCER	02/01/13	PXEC_33	BFH	CHR
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	9/4/18	PXEC0169	AKH	KMD



- 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



FAN WIRING  
SEE RUNGS 33-41 FOR DETAILS

OPTIONAL:

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

BACNET, WEBSRVR



CONFIDENTIAL DISCLOSURE:  
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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
12/03/12	01/09/13	01/09/13

PANEL TYPE  
NONOPLX MEDICAL COMP  
HMI, BACNET, WEBSRVR, NFPA

DWG. TYPE  
WIRING

DWG. NO.  
PXMI-A916

SHEET	SIZE
W-10	B

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	38.9	50	45	50
	12AJ	4.5	42.5	60	50	50
	22AJ	6	56	70	70	70
	32AJ	8.5	78.5	100	90	100
	52AJ	14	128	175	150	150
	72AJ	20.5	186.5	250	225	225
	A2AJ *	27.4	248.6	350	300	300
F2AJ *	41.1	371.9	500	450	450	
230V (3Ø)	03AJ	3.6	34.4	45	40	45
	13AJ	4.4	41.6	60	45	50
	23AJ	5.8	54.2	70	60	70
	33AJ	7.7	71.3	90	80	90
	53AJ	12.7	116.3	150	150	150
	73AJ	18.5	168.5	225	200	200
	A3AJ	24.8	225.2	300	250	300
	F3AJ *	37.2	336.8	450	400	400
460V (3Ø)	04AJ	1.8	18.2	25	20	25
	14AJ	2.2	21.8	30	25	30
	24AJ	2.9	28.1	35	35	35
	34AJ	3.9	37.1	45	40	45
	54AJ	6.3	58.7	80	70	70
	74AJ	9.3	85.7	110	100	110
	A4AJ	12.4	113.6	150	125	150
	F4AJ	18.6	169.4	225	200	200
380V (3Ø) 50HZ	08AJ					
	18AJ					
	28AJ	3.4	32.6	40	35	40
	38AJ	4.6	43.4	60	50	60
	58AJ	7.7	71.3	90	80	90
	78AJ	11.1	101.9	125	110	125
	A8AJ	14.9	136.1	175	150	175
F8AJ	22.1	200.9	250	225	250	
575V (3Ø)	07AJ	1.1	11.9	15	15	15
	17AJ					
	27AJ	2.3	22.7	30	25	30
	37AJ	3.1	29.9	40	35	40
	57AJ	5.1	47.9	60	60	60
	77AJ	6.9	64.1	80	70	80
	A7AJ	9.9	91.1	125	100	110
F7AJ	14.9	136.1	175	150	175	

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 I .
- 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.

REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	01/09/13	PXEC_29	BFH	CHR
B-2	CHANGE TRANSDUCER	02/01/13	PXEC_33	BFH	CHR
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	9/4/18	PXEC0165	AKH	KMD

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
FU3AB	FNM	7A	7A	7A	7A

OPTIONAL:

SINGLE CYLINDER AND SCROLL PUMPS

DOUBLE-CYLINDER PUMPS

BACNET, WEBSRVR, TRIPLE-CYLINDER PUMPS



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DRAWN BY	CHECKED BY	ENGINEERING APPROVAL
BFH	CHR	CHR
12/03/12	01/09/13	01/09/13

PANEL TYPE  
NONOPLX MEDICAL COMP  
HMI, BACNET, WEBSRVR, NFPA

DWG. TYPE DATA

DWG. NO.  
PXMI-A916

SHEET D-1 SIZE B

### SEQUENCE OF OPERATIONS

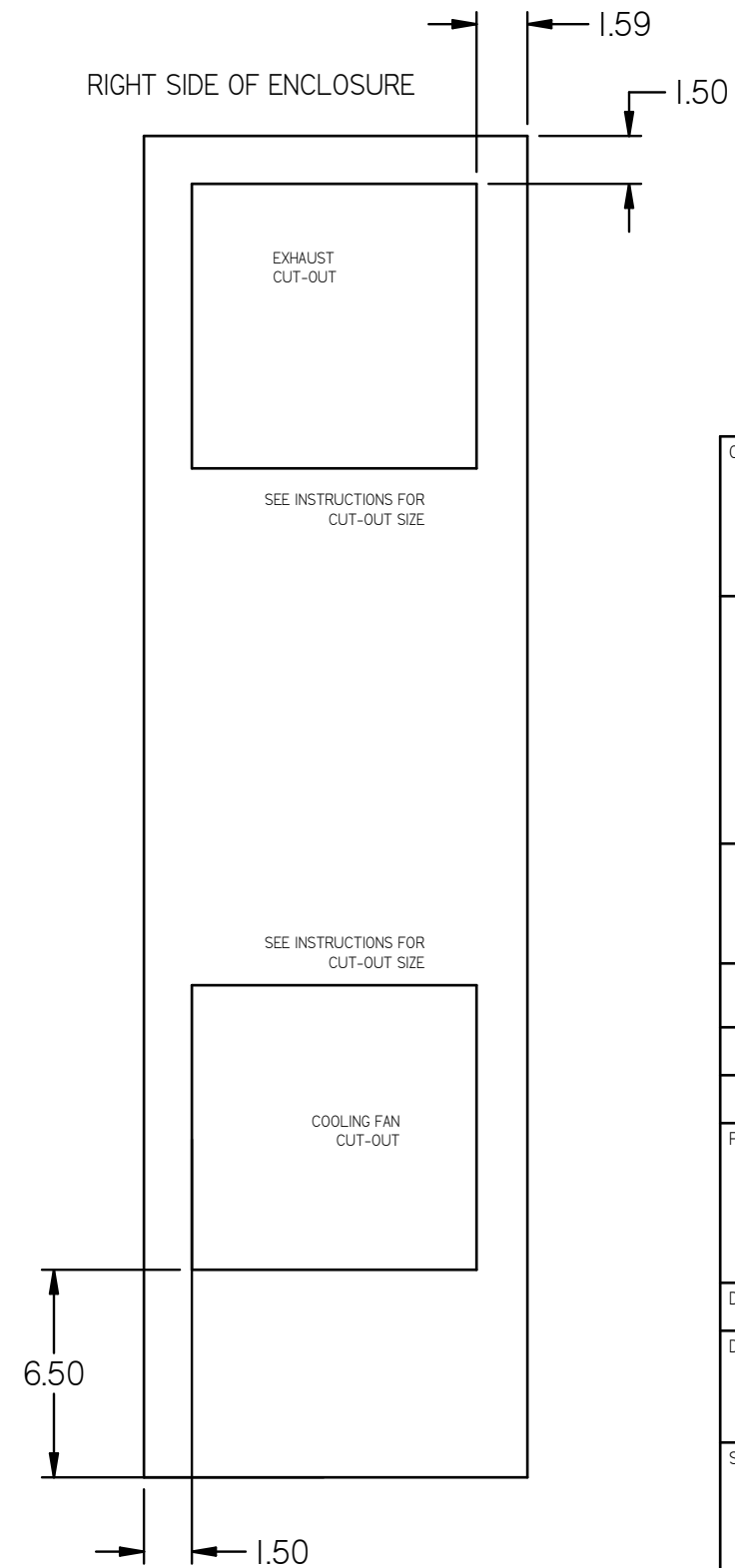
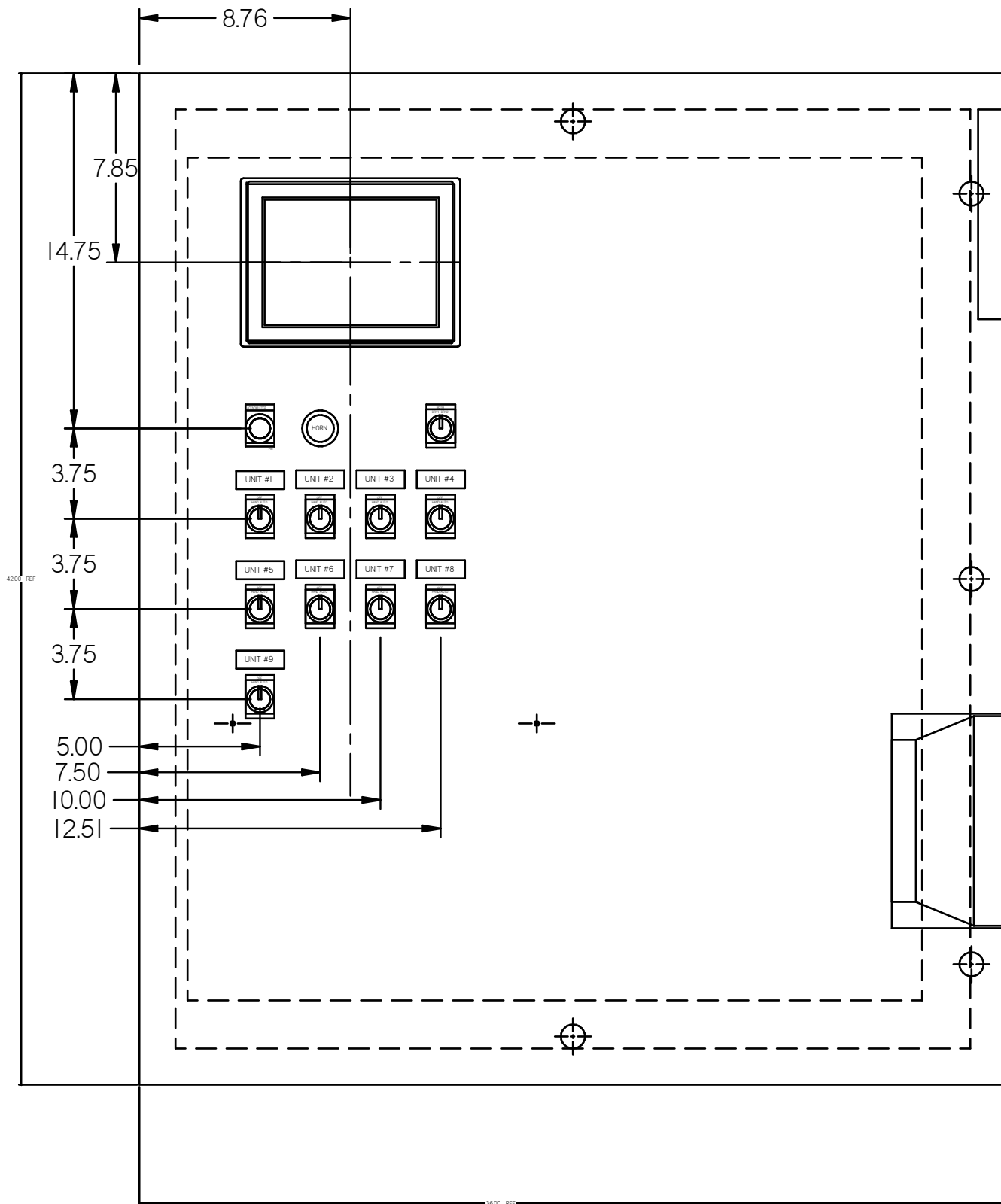
During normal operation the PBMI controller will signal the Lead compressor to run when pressure drops below lead cut-in set-point and stop when the pressure reaches the lead cut-out set-point. Lead alternation to the next pump, will occur with each lead run signal or every 10-minutes (which ever happens 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	01/09/13	PXEC_29	BFH	CHR
B-2	CHANGE TRANSDUCER	02/01/13	PXEC_33	BFH	CHR
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	9/4/18	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
BFH	CHR	CHR
12/03/12	01/09/13	01/09/13

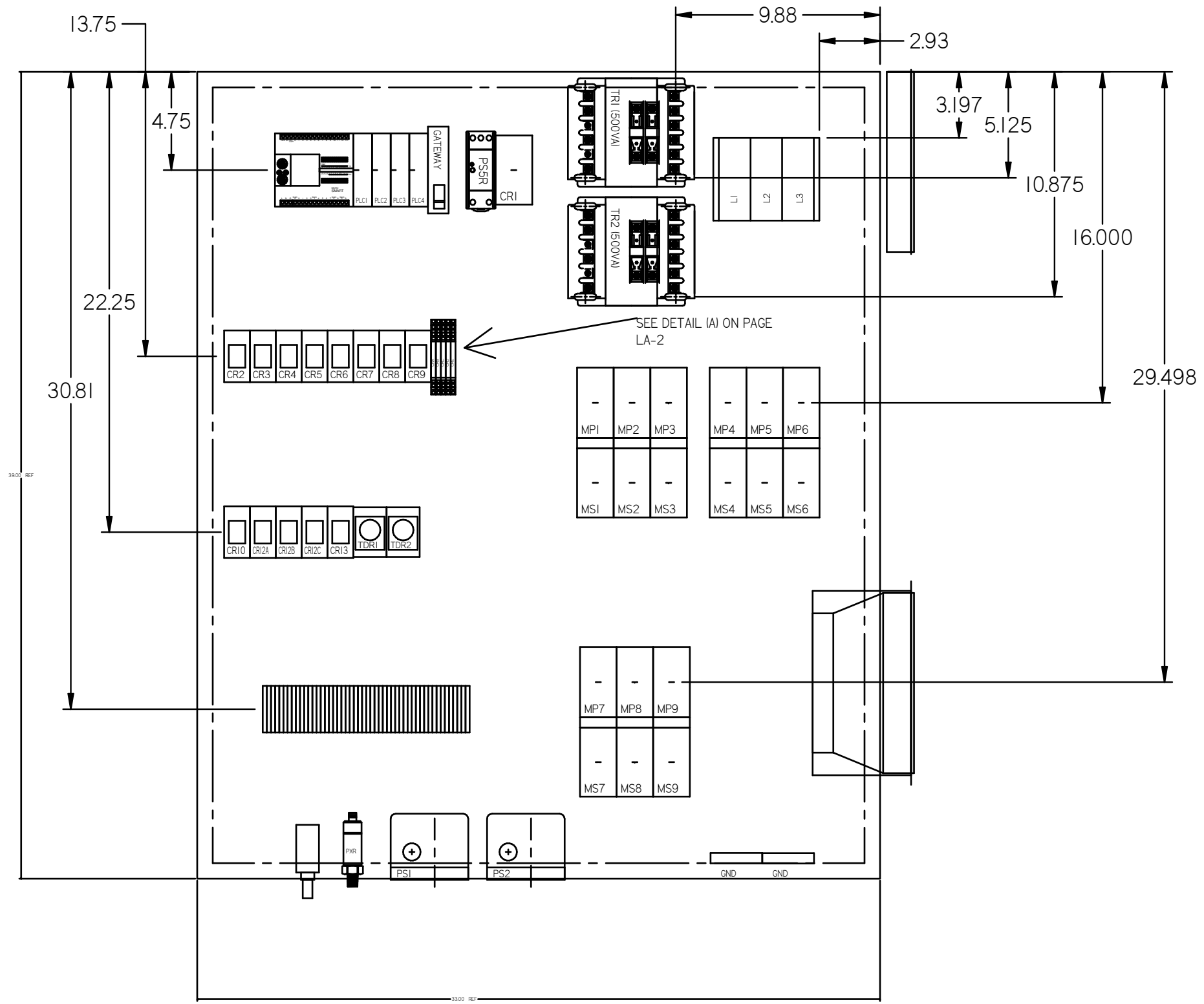
PANEL TYPE  
 NONOPLX MEDICAL COMP  
 HMI, BACNET, WEBSVR, NFPA

DWG. TYPE LAYOUT

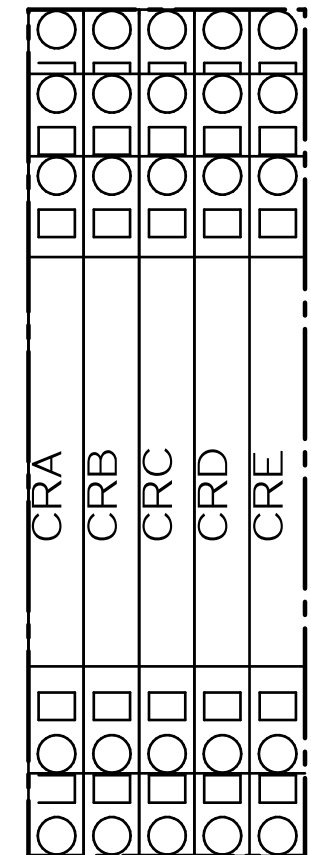
DWG. NO. PXMI-A916

SHEET L-1	SIZE B
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REV	REVISION	DATE	ECN	NAME	CHKD
B-1	RELEASE TO PRODUCTION	01/09/13	PXEC_29	BFH	CHR
B-2	CHANGE TRANSDUCER	02/01/13	PXEC_33	BFH	CHR
C-1	BACNET CARD UPDATE ADD ISOLATION RELAYS	07/20/15	PXEC0110	AJL	KMD
D	ADDED FAN WIRING	9/4/18	PXEC0165	AKH	KMD



DETAIL (A)



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
BFH	CHR	CHR
12/03/12	01/09/13	01/09/13

PANEL TYPE  
NONOPLX MEDICAL COMP  
HMI, BACNET, WEBSRVR, NFPA

DWG. TYPE LAYOUT

DWG. NO. PXMI-A916

SHEET	SIZE
L-2	B