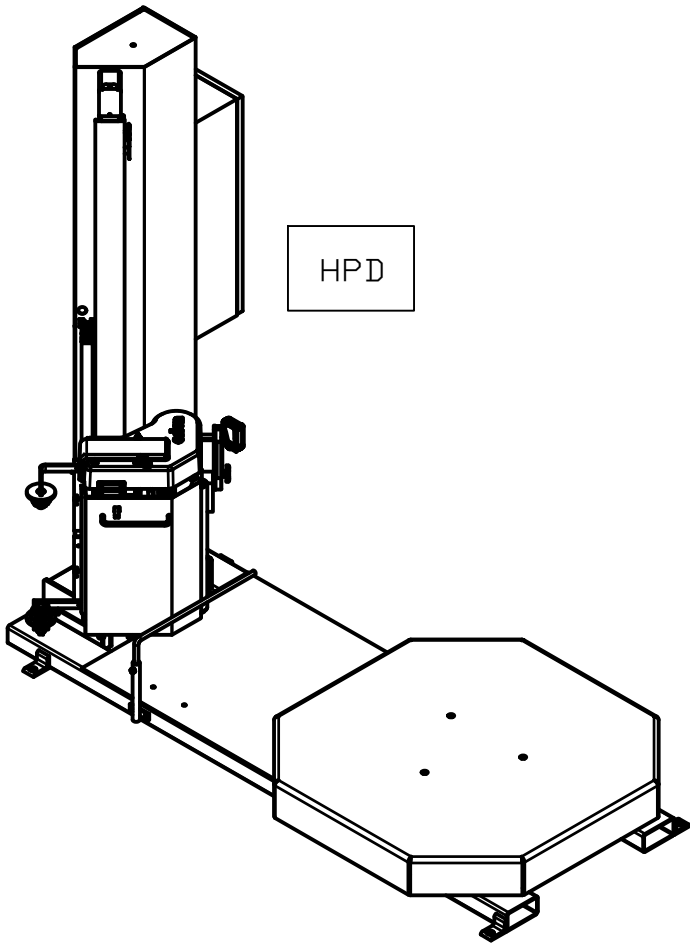
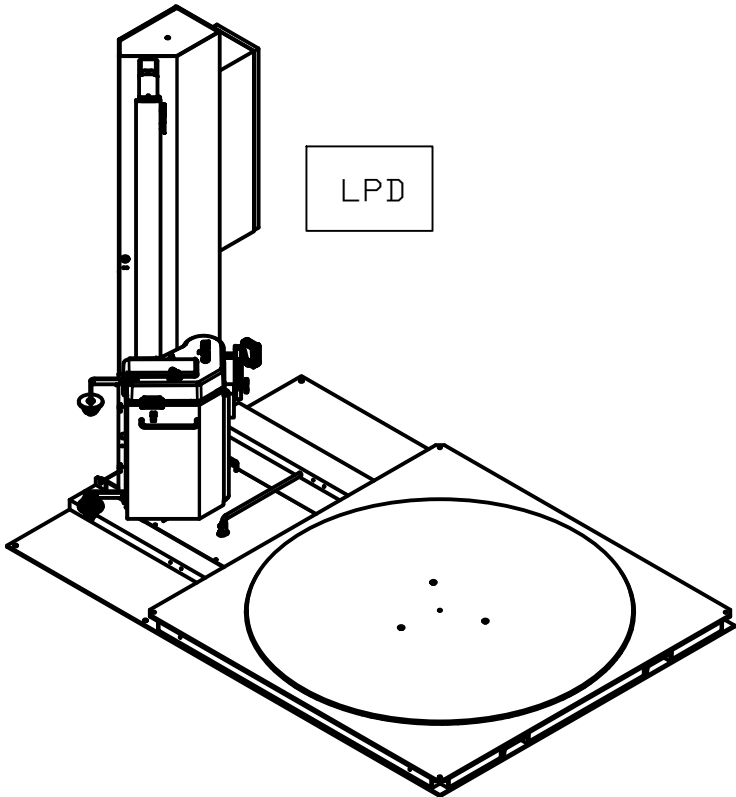
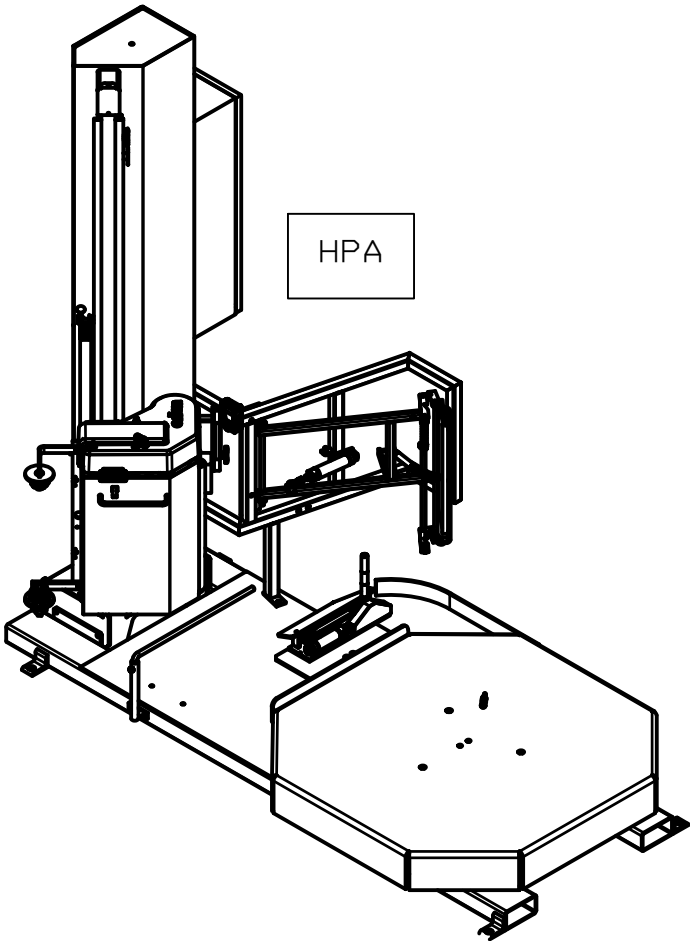




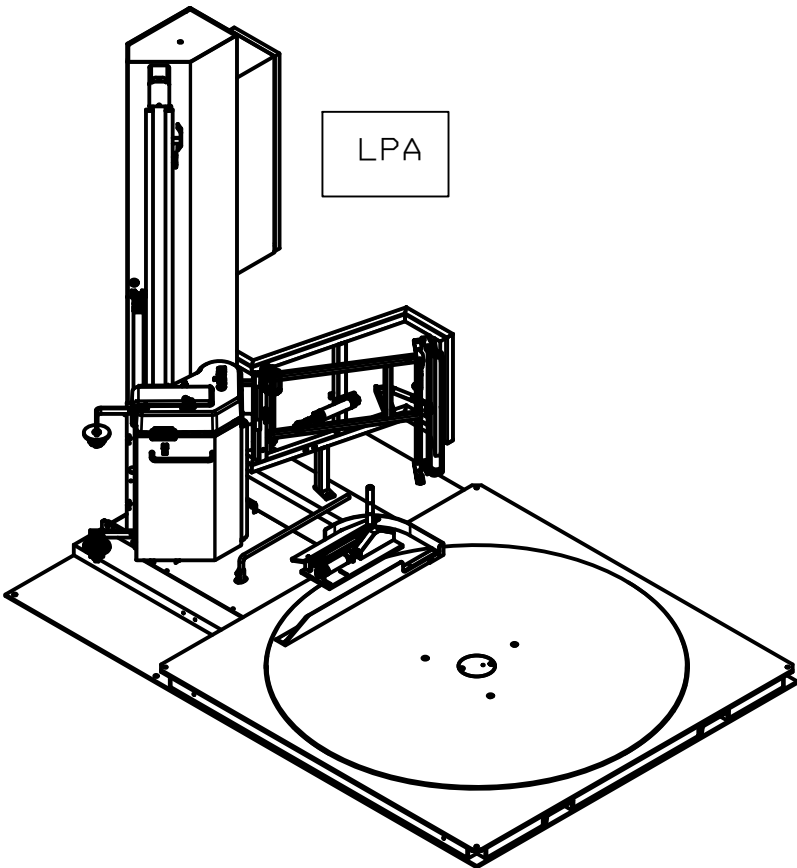
HPD



LPD



HPA



LPA

SH	DWGDESC	DWGDESC2	DWGDESC3	FILENAME
1	COVER PAGE			PG1
2	115VAC POWER DROP	AND DISTRIBUTION	100/200	PG2
3	115VAC VFD		300/400	PG3
4	START/STOP CIRCUIT	AND REMOTE START	20100/20200	PG4
5	LIGHT CURTAINS		20300/20400	PG5
6	X20 I/O POWER	INPUTS	30100/30200	PG6
7	X20 I/O OUTPUT	POWER SUPPLY	30300/30400	PG7
8	X20 RS485 COMM	INPUTS	30500/30600	PG8
9	X20 I/O OUTPUT		30700/30800	PG9
10	CARRIAGE I/O BLOCK		50100/50200	PG10
11	PNEUMATIC	SCHEMATIC	60100	PG11
12	SPLIT BASE OPTION	EXTENDED TOWER	70100/70200	PG12
13	ENCLOSURES AND	PANEL, BOM		PG13
14	MACHINE FIELD AND	CARRIAGE BOM		PG14
15	REMOTE E-STOP/START		70100	PG15

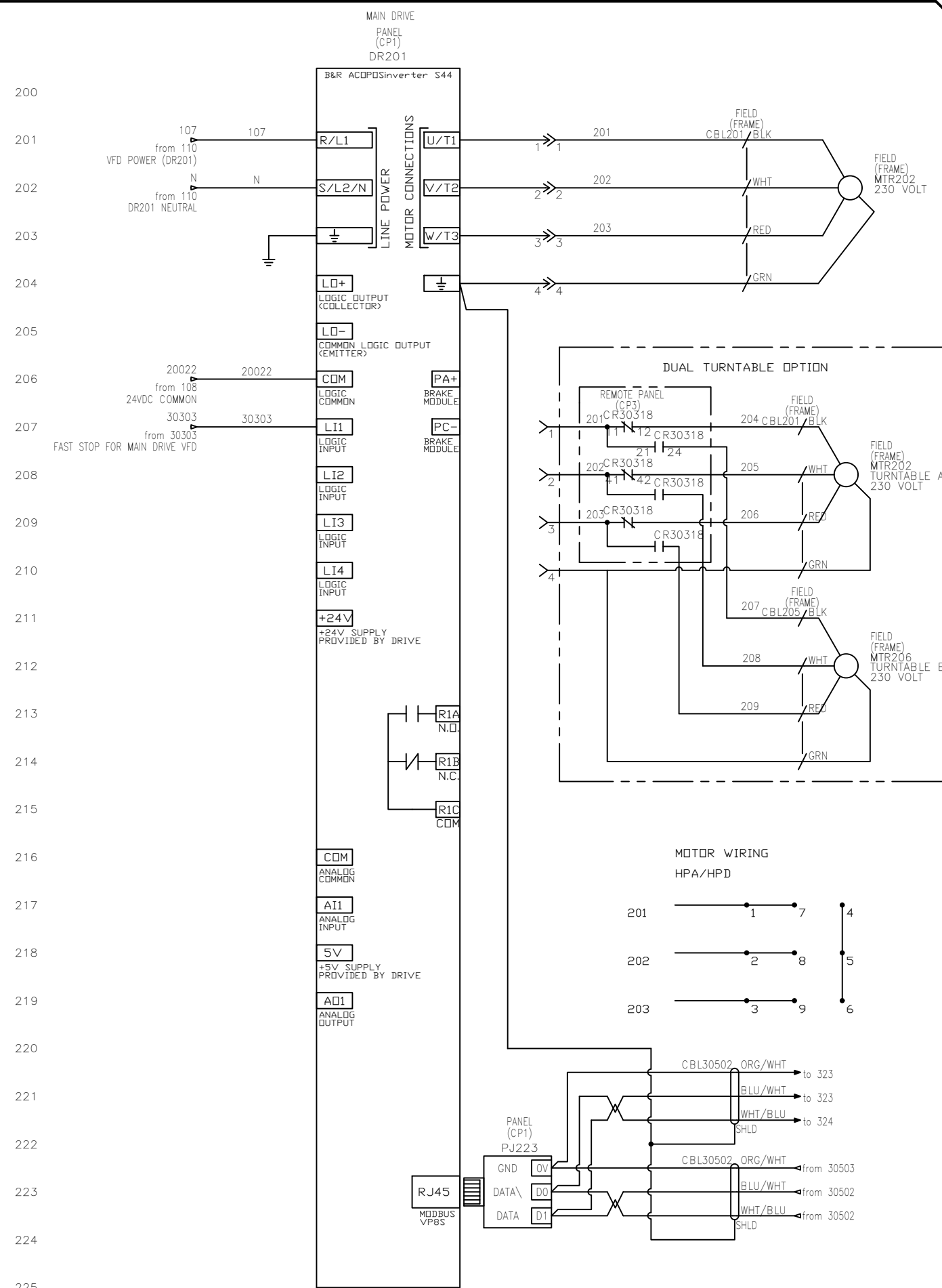
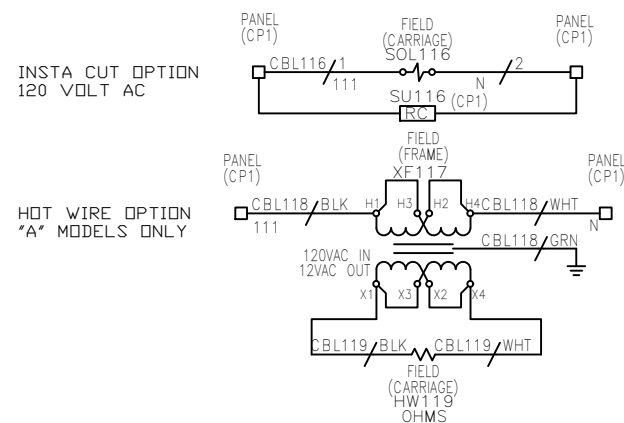
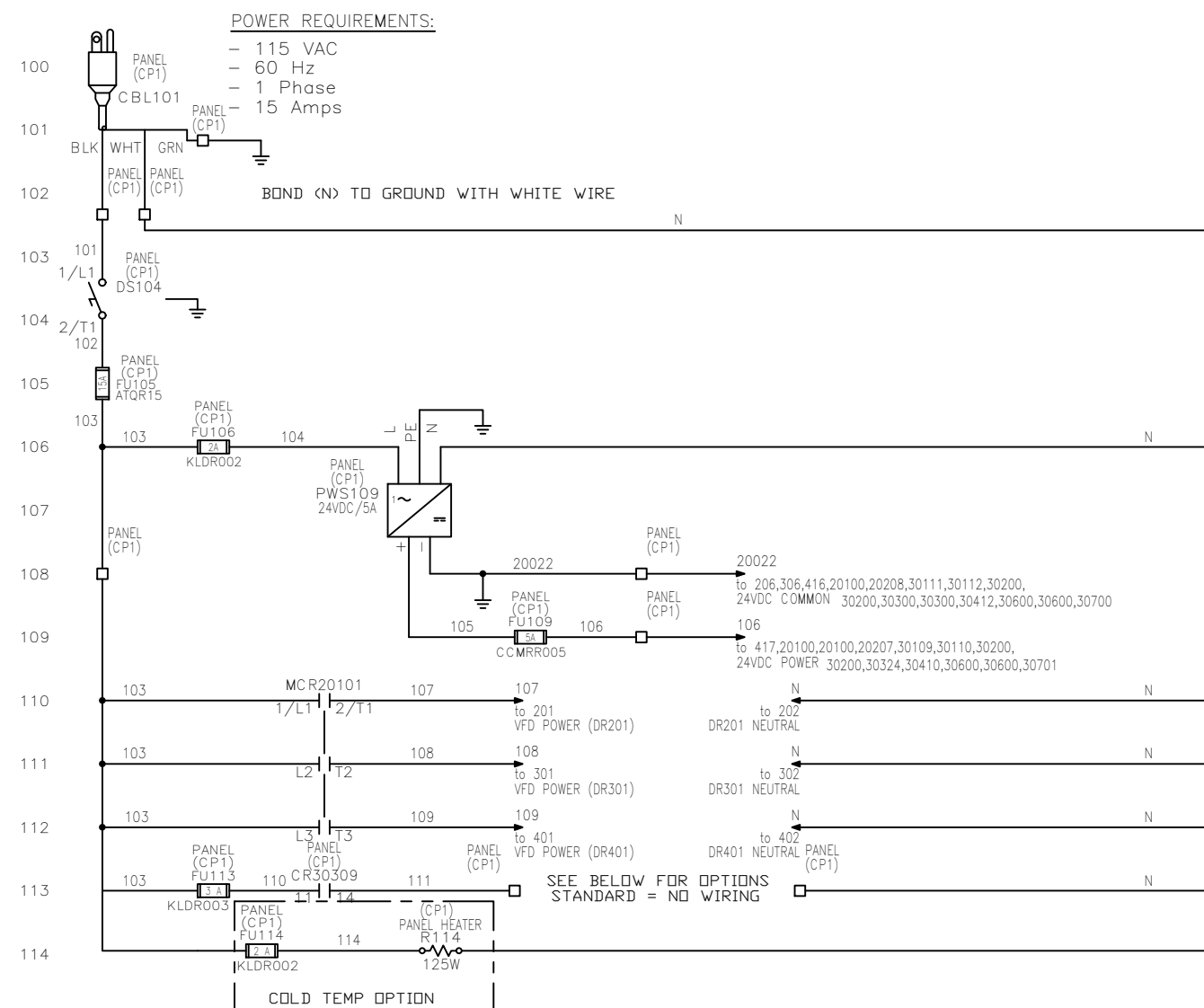
WIRING COLOR AND SIZE
115VAC (RED) 14 AWG MINIMUM
NEUTRAL (WHITE) 14 AWG MINIMUM
GND (GREEN/YELLOW) 14 AWG MINIMUM
+24VDC (BLUE) 18 AWG MINIMUM
DC COMMON (WHITE/BLUE) 18 AWG MINIMUM
CABLE COLORS AND GAUGE ARE LISTED IN PRINTS

- NOTES
1. SILICONE BASE PRODUCTS SHALL NOT BE USED ANYWHERE IN THIS ASSEMBLY.
 2. ALL FIELD CONTROL WIRE TO BE A MINIMUM 14 AWG 75C COPPER, UNLESS OTHERWISE NOTED.
 3. ALL CONDUIT HUB RATINGS MUST BE EQUAL TO OR SURPASS THE ASSEMBLY ENVIRONMENT RATING.
 4. WHEN ORDERING REPLACEMENT PARTS, PLEASE SUPPLY THE JOB NUMBER AS SHOWN INSIDE THE CONTROL PANEL DOOR.
 5. MANUFACTURES OF COMPONENTS USED IN THIS ASSEMBLY ARE SUBJECT TO CHANGE WITHOUT NOTICE.
 6. THIS DOCUMENT IS THE PROPERTY OF THE END USER, PLEASE DO NOT REMOVE FROM THE ELECTRICAL CONTROL ENCLOSURE.
 7. ALL WIRES CONNECTED TO THE B&R X20 IO MUST HAVE FERRULS.

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DWG TITLE	
FLEX (STANDARD) HPA/LPA/HPD/LPD COVER PAGE	
ENGINEER	CHECKED BY
JOB NO	DRAWN BY
SCALE	DATE
NO SCALE	04/2019
DWG NO	
751012-HPLP	
SHEET NO	
1 OF 15	



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DWG	TITLE
	<i>FLEX (STANDARD) HPA/LPA/HPD/LPD 115VAC POWER DROP AND DISTRIBUTION</i>

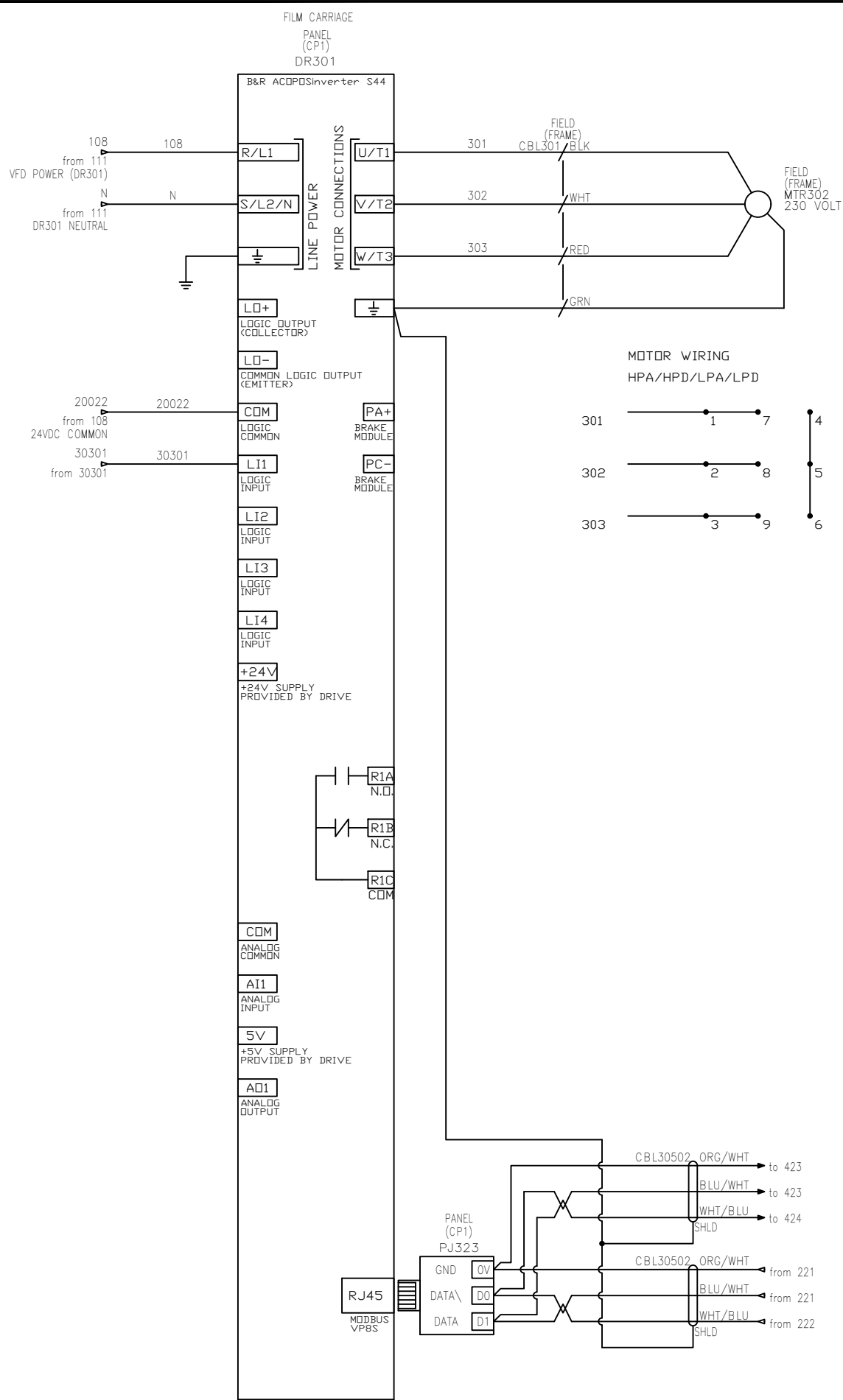
ENGINEER	CHECKED BY
JOB NO	DRAWN BY
SCALE NO SCALE	DATE 04/2019

751012-HPLP

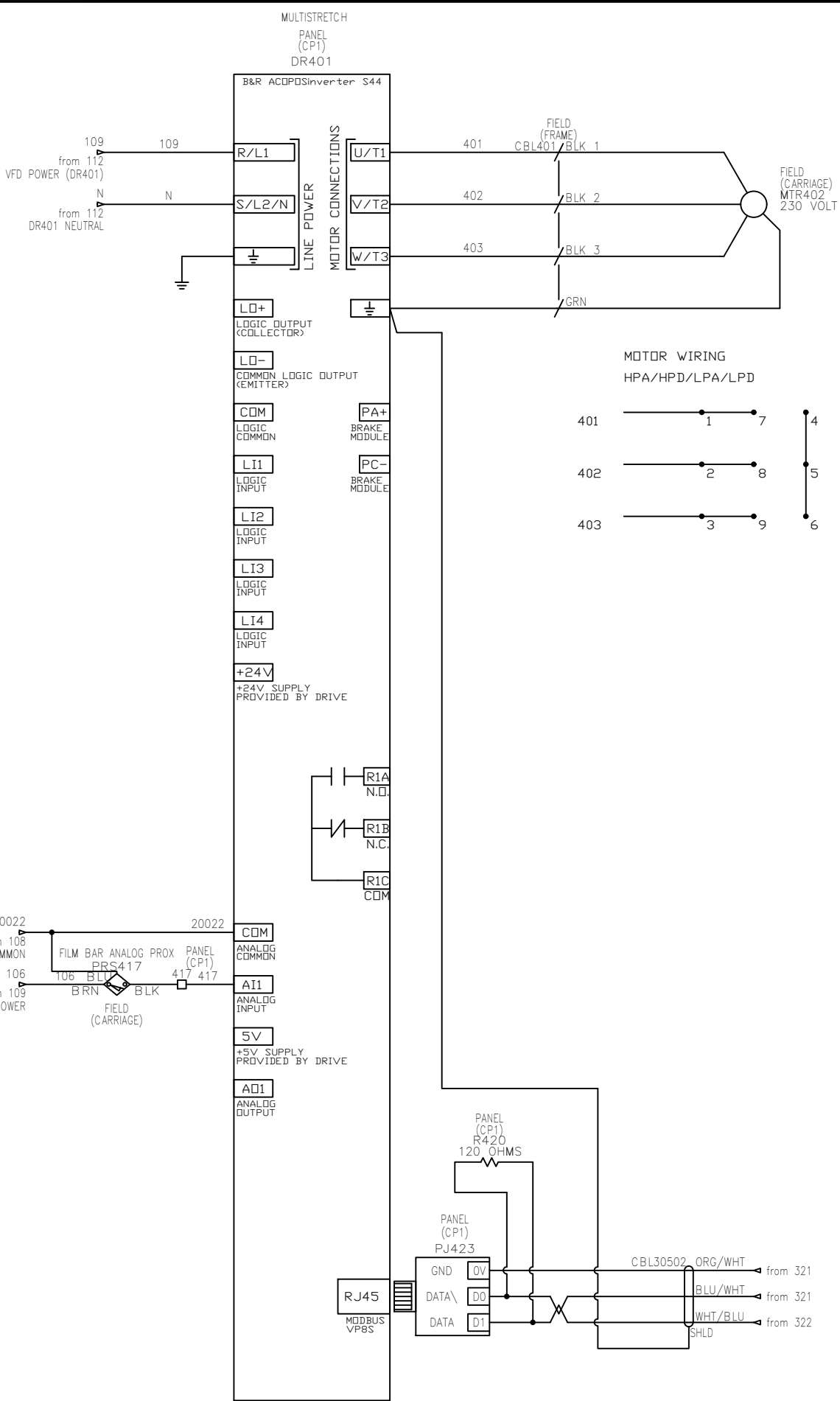
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2 OF 15

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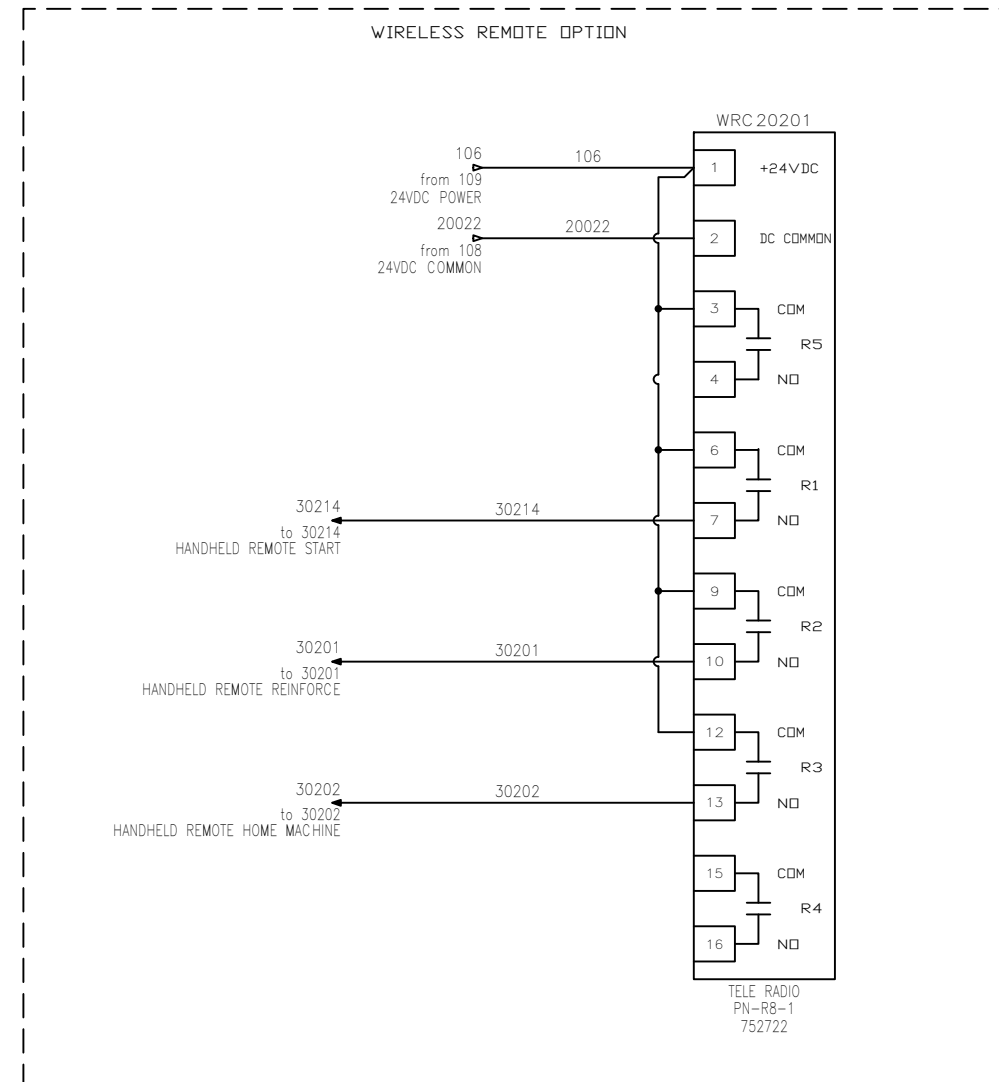
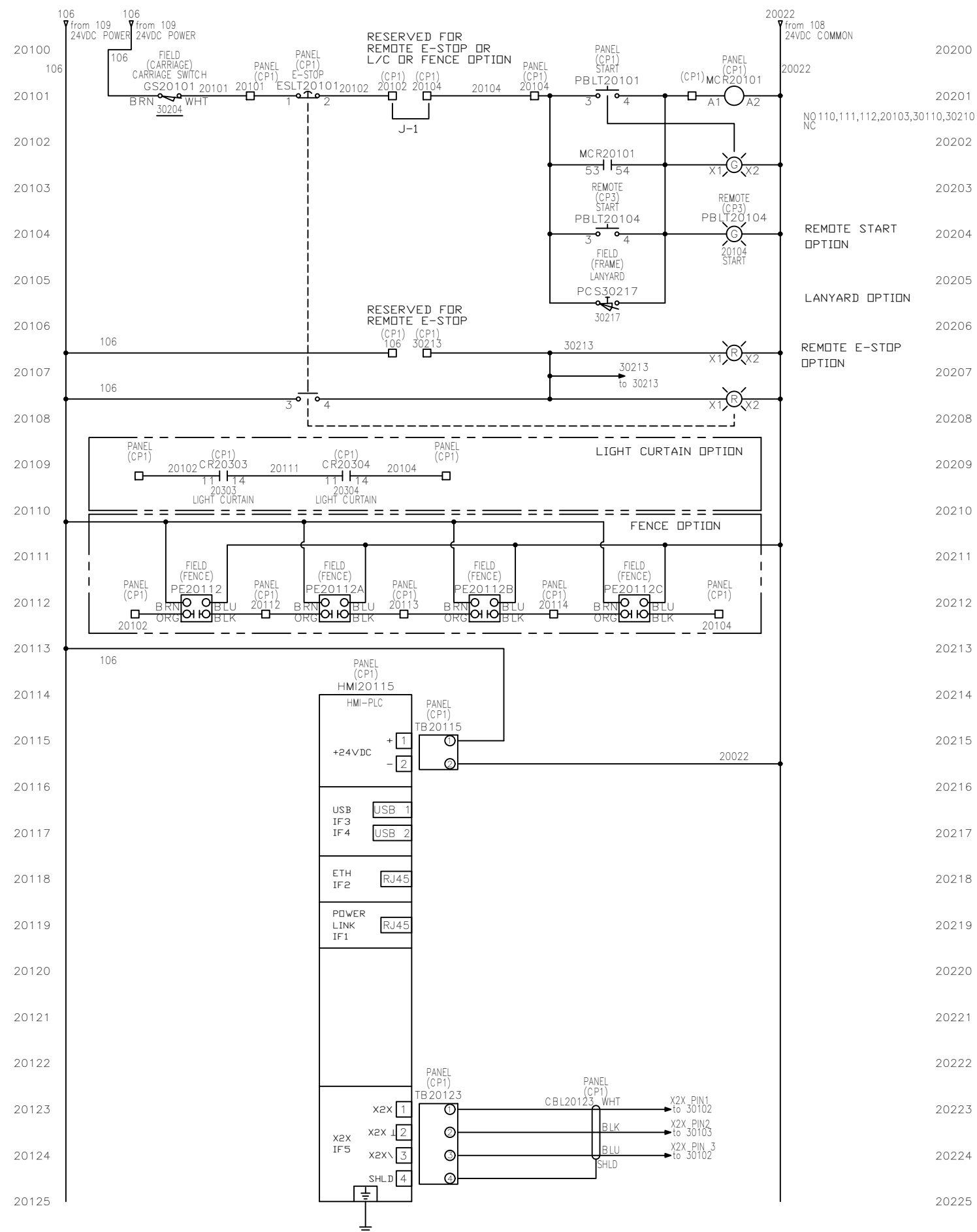


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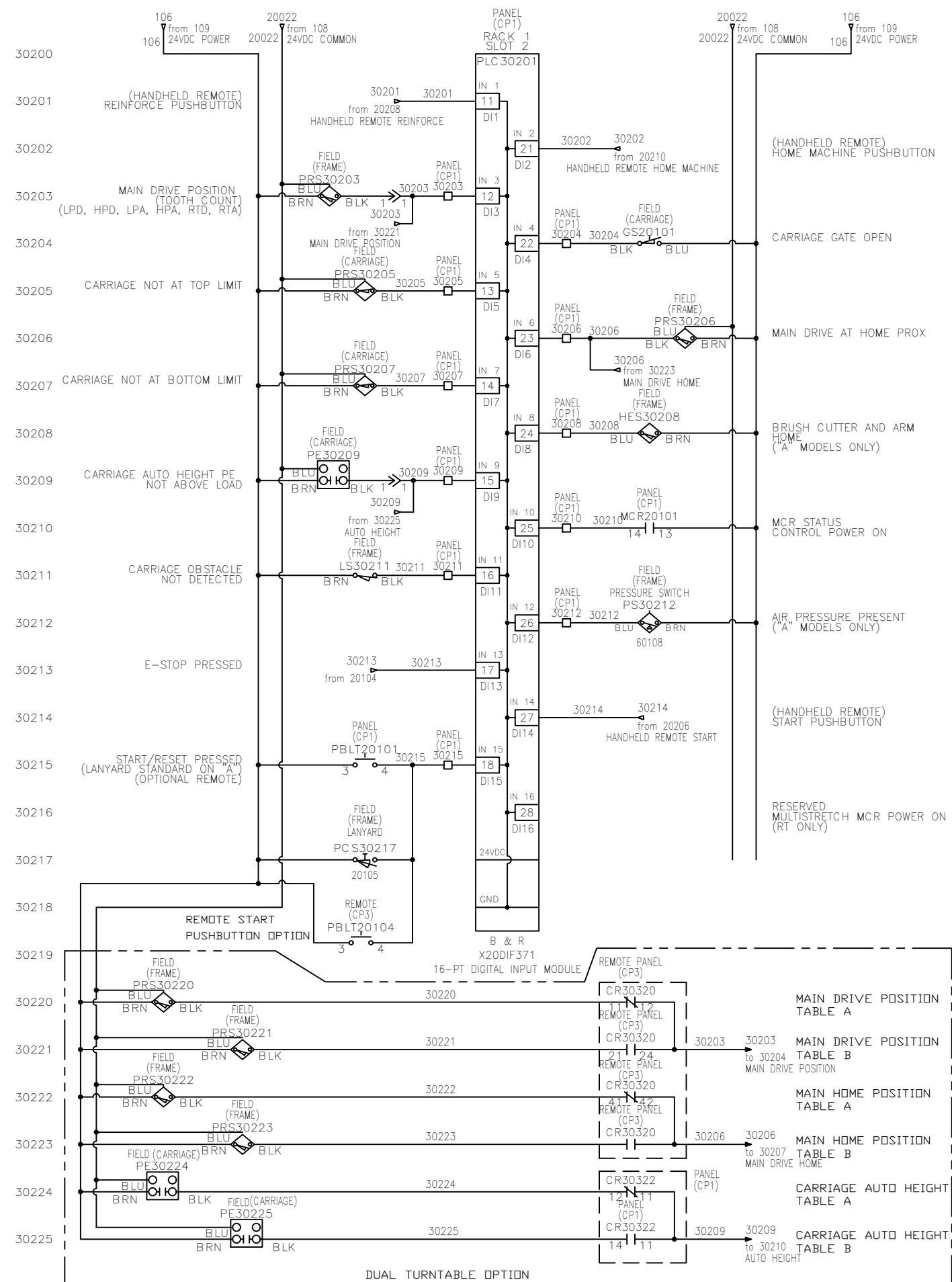
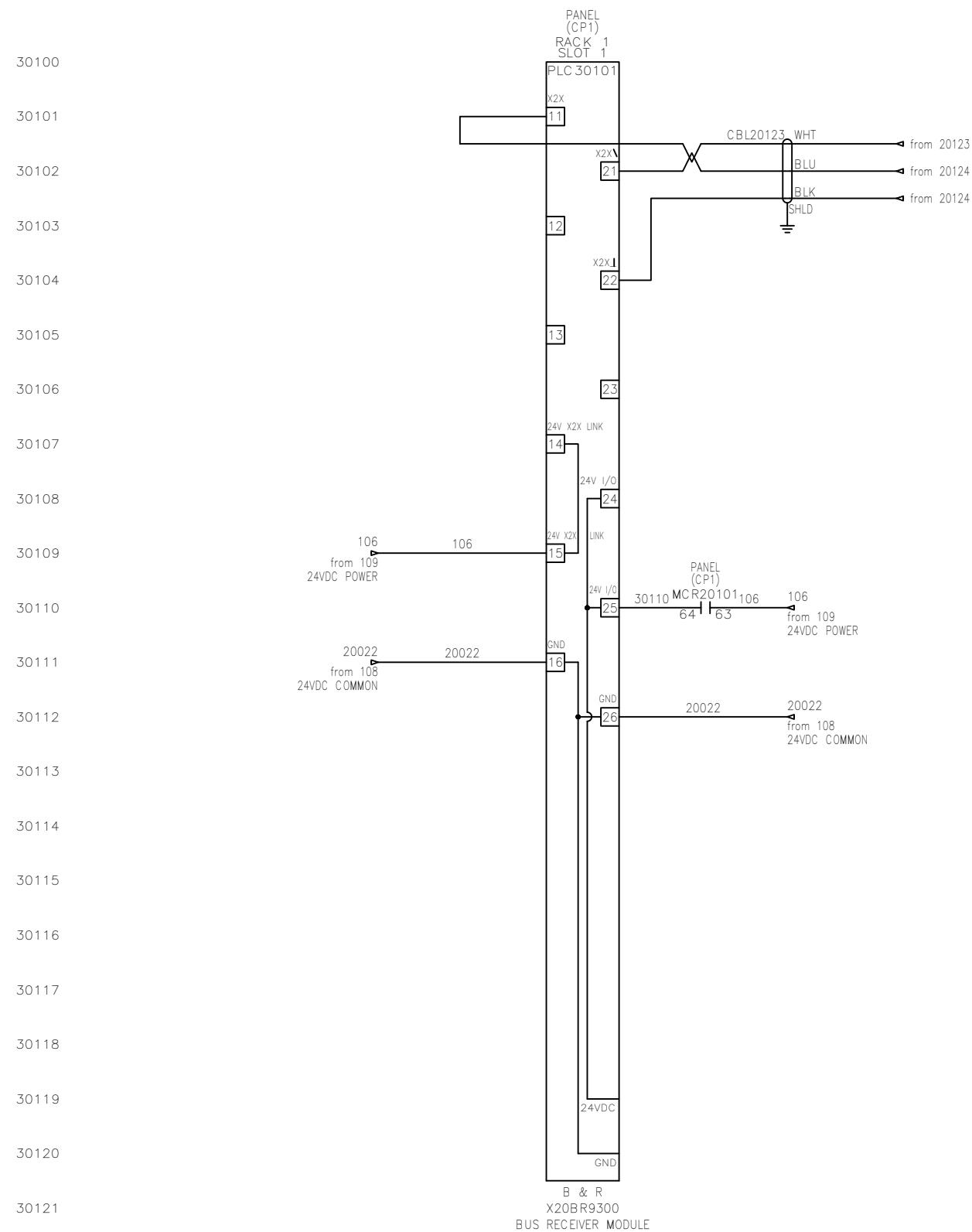
FLEX (STANDARD) HPA/LPA/HPD/LPD 115VAC VFD	
ENGINEER	CHECKED BY
JOB NO	DRAWN BY
SCALE	DATE
DWG NO	NO SCALE 04/2019
751012-HPLP	
SHEET NO	
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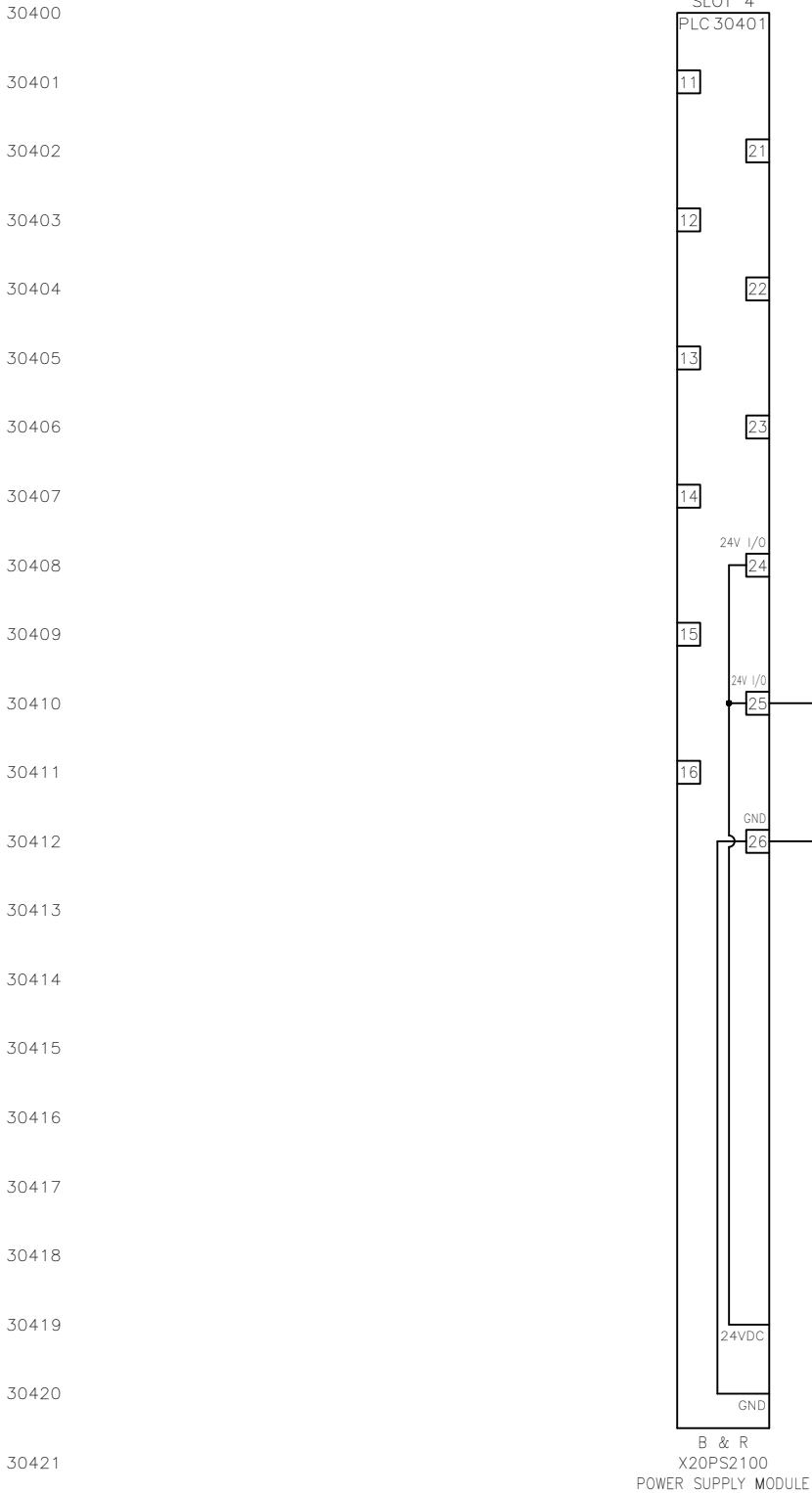
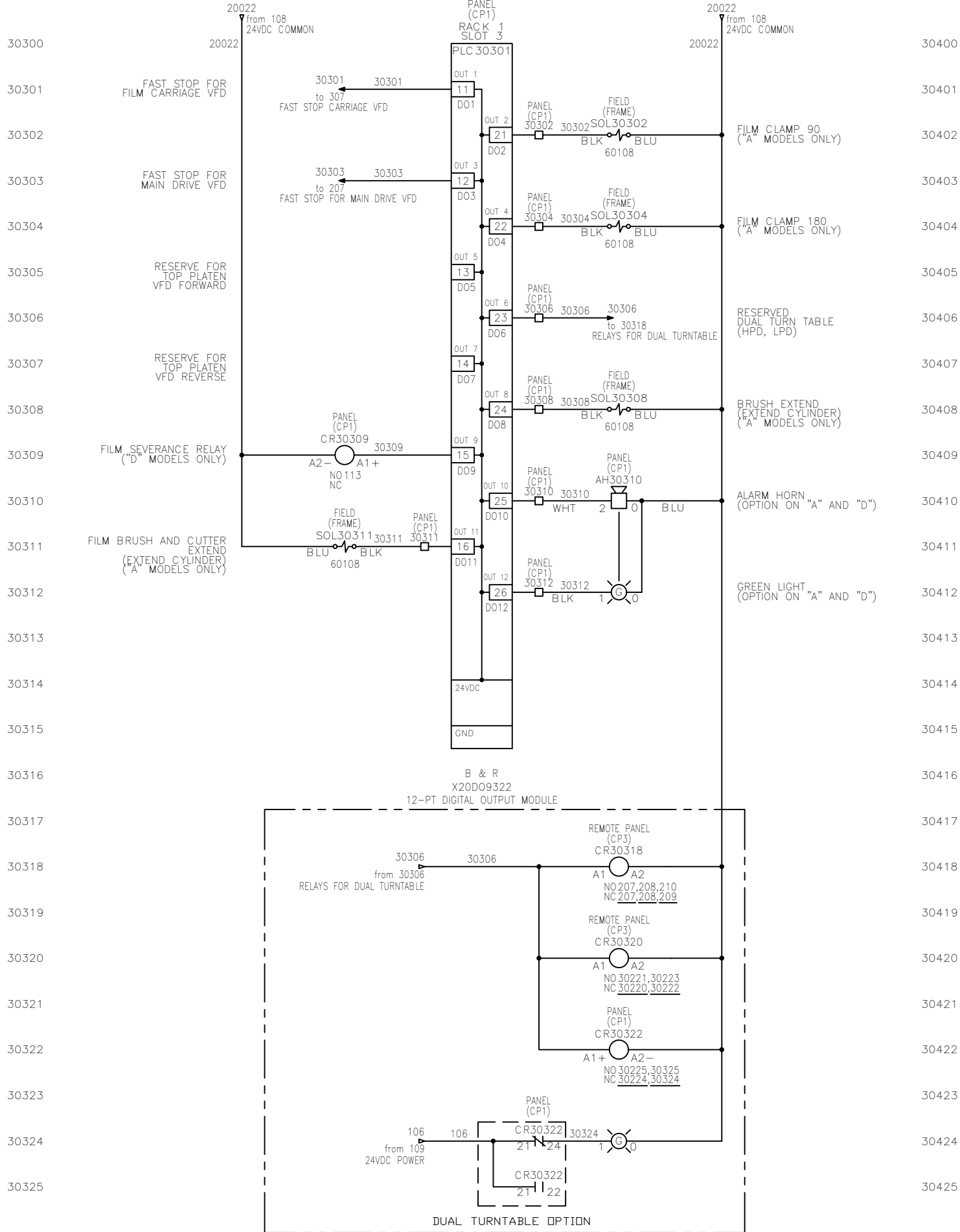
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DWG TITLE	
<i>FLEX (STANDARD) HPA/LPA/HPD/LPD START/STOP CIRCUIT AND REMOTE START</i>	
ENGINEER	CHECKED BY
JOB NO	DRAWN BY
SCALE	DATE
NO SCALE	04/2019
DWG NO	
751012-HPLP	
SHEET NO	



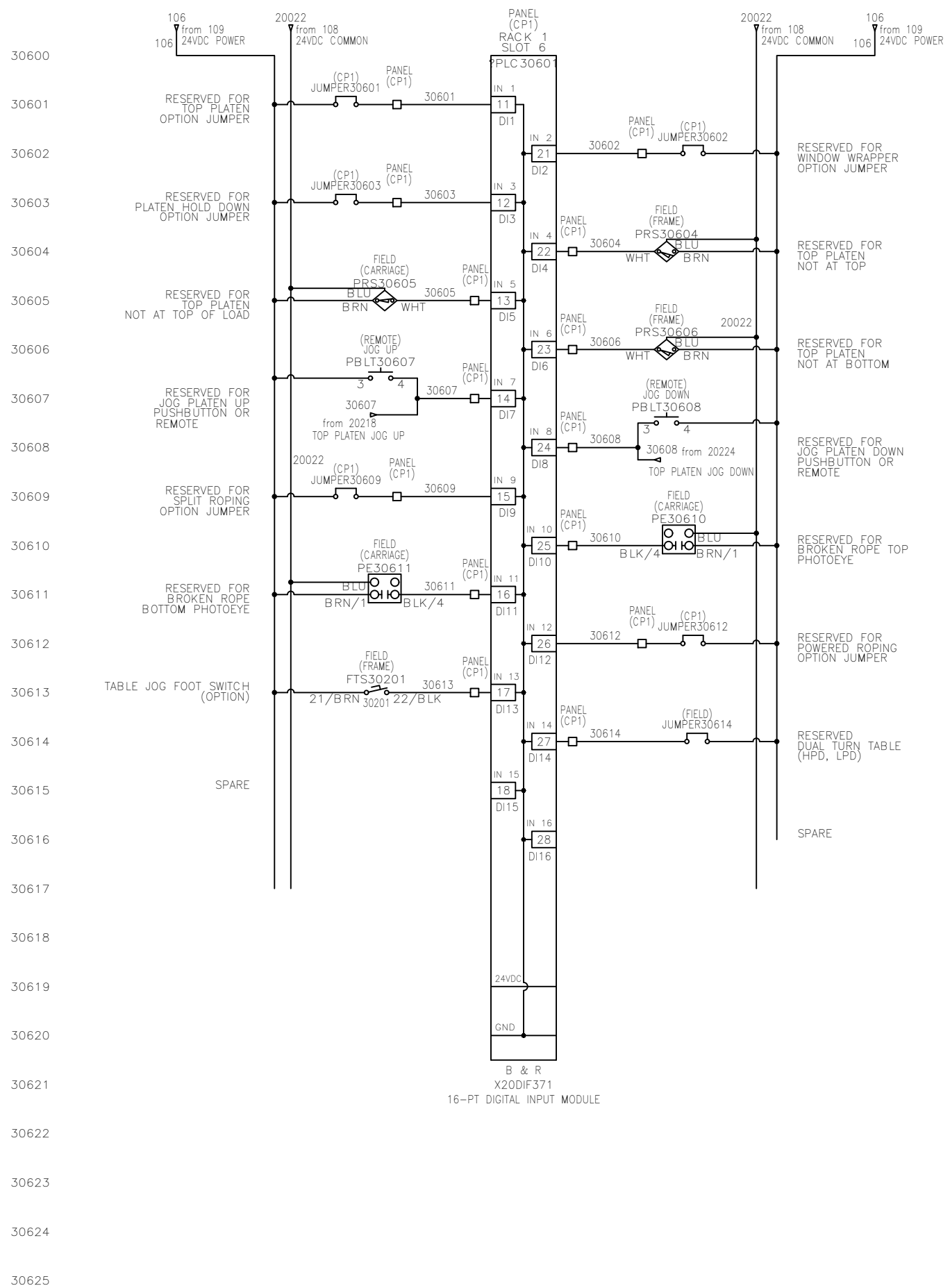
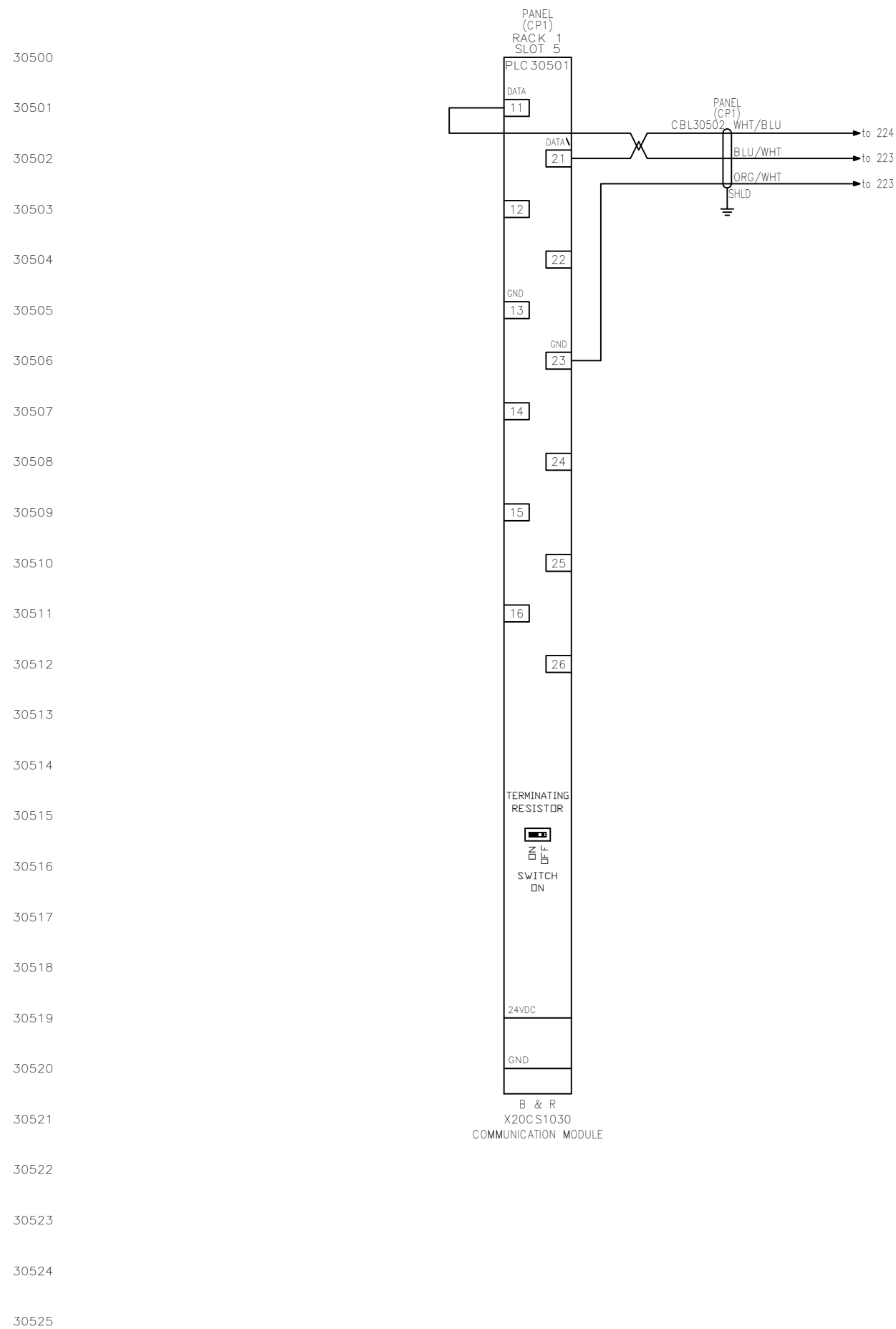
A	MOVED FOOT SWITCH (30201) TO INPUT 13 (30613) ON PAGE 8	01-15-20	SDR
B	MOVED DUAL TURN TABLE JUMPER (30202) TO INPUT 14 (30614) ON PAGE 8	01-15-20	SDR
C			



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DWG TITLE	
FLEX (STANDARD) HPA/LPA/HPD/LPD X20 I/O OUTPUT POWER SUPPLY	
ENGINEER	CHECKED BY
JOB NO	DRAWN BY
SCALE	DATE
DWG NO	NO SCALE 04/2019
751012-HPLP	
SHEET NO	
7 OF 15	



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	DWG TITLE	

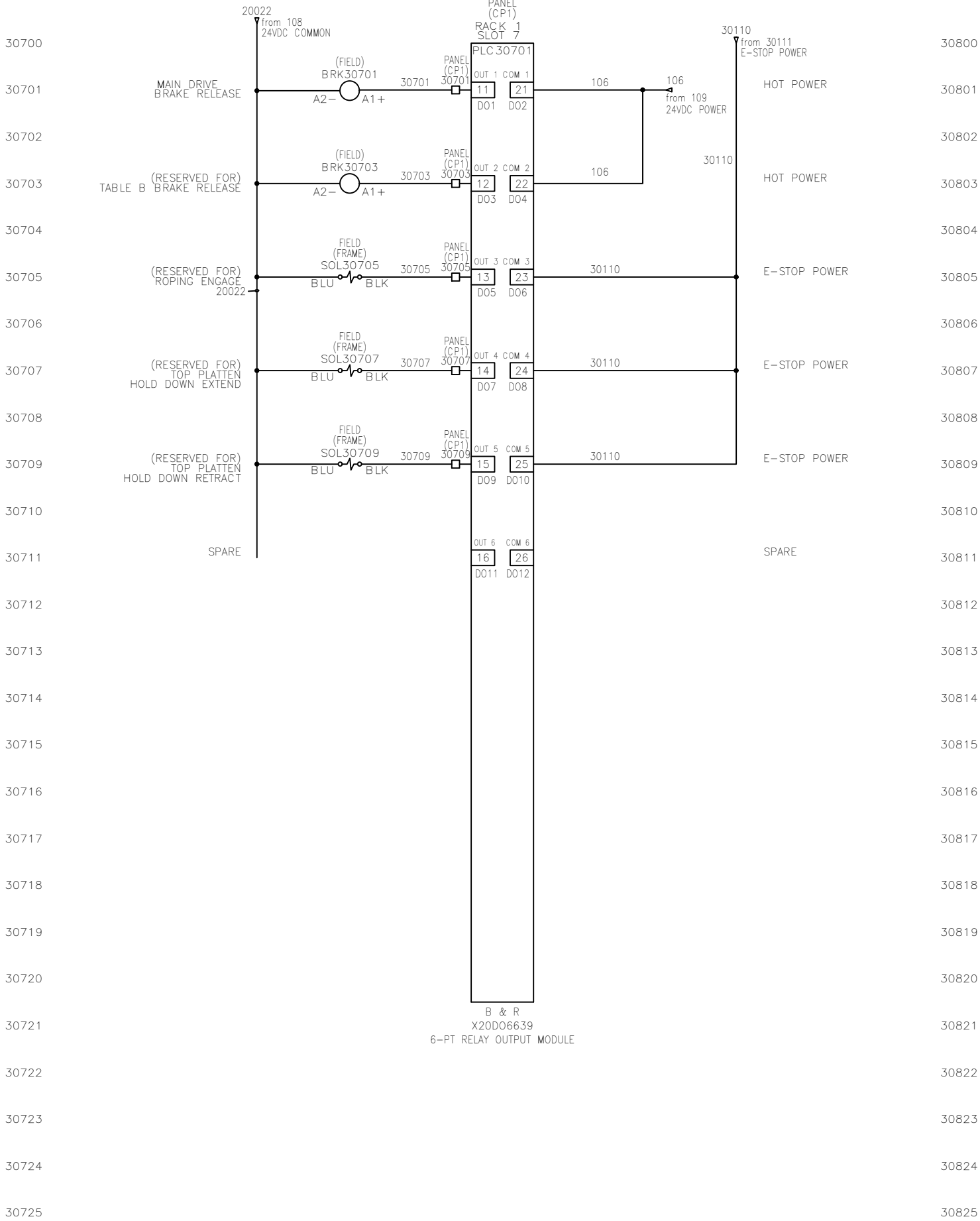
*FLEX (STANDARD)
HPA/LPA/HPD/LPD
X20 RS485 COMM
INPUTS*

ENGINEER	CHECKED BY
JOB NO	DRAWN BY
SCALE NO SCALE	DATE 04/2019

751012-HPLP

SHEET NO.

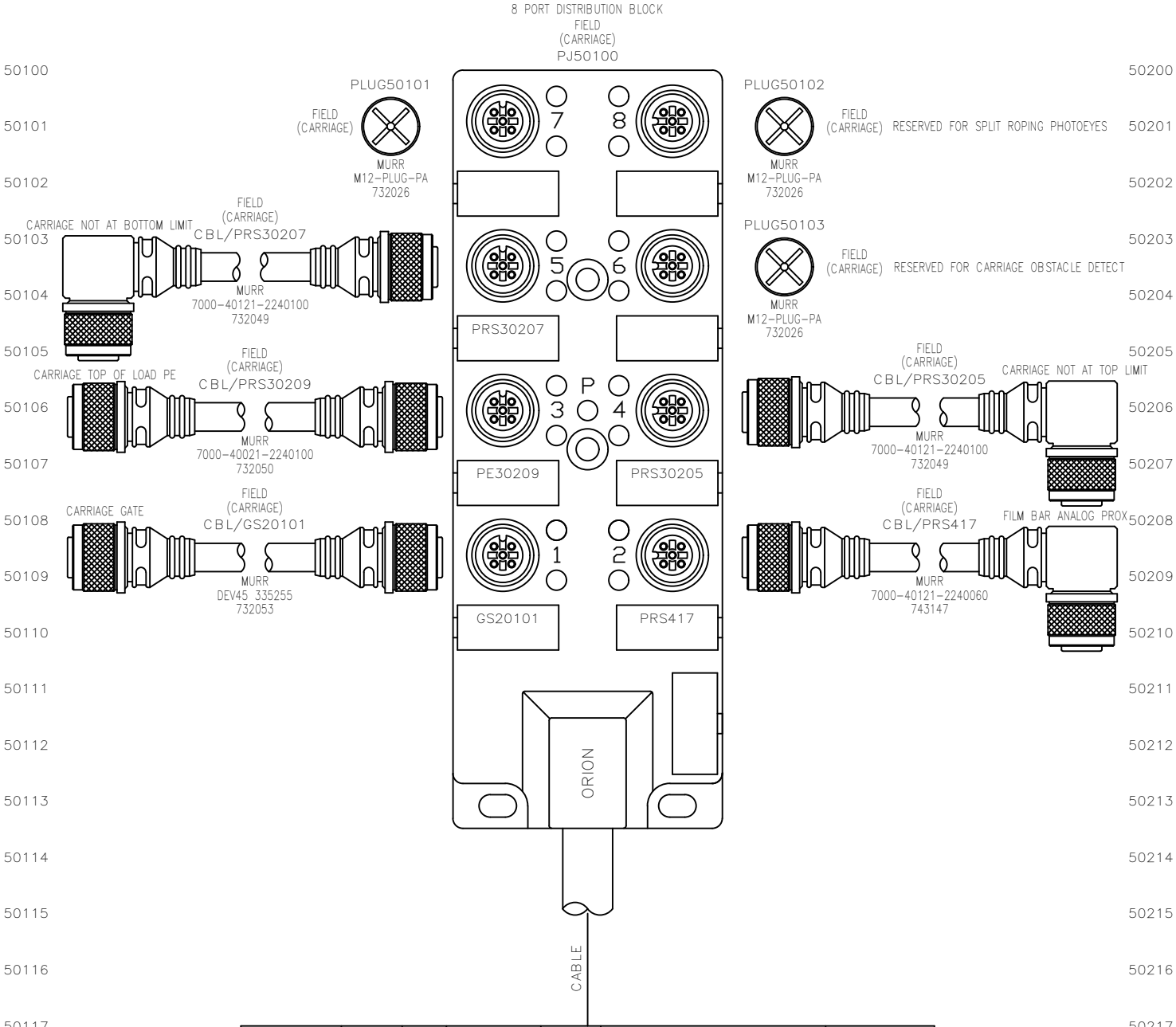
8 OF 15



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*FLEX (STANDARD)
HPA/LPA/HPD/LPD
X20 I/O OUTPUT*

ENGINEER	CHECKED BY
JOB NO	DRAWN BY
SCALE	DATE
NO SCALE	04/2019
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WIRE COLOR	PORT#	PIN#	DEVICE TAG	WIRE#	DESCRIPTION	I/O ADDRESS
WHITE	1	4	GS20101	30204	CARRIAGE GATE OPEN	
GRY/PNK	1	2	GS20101	20101	CARRIAGE GATE CLOSED	
GREEN	2	4				
RED/BLU	2	2	PRS417	417	ANALOG PROX	
YELLOW	3	4	PE30209	30209	CARRIAGE AUTO HEIGHT	
WHT/GRN	3	2				
GRAY	4	4				
BRN/GRN	4	2	PRS30205	30205	CARRIAGE TOP LIMIT	
PINK	5	4				
WHT/YEL	5	2	PRS30207	30207	CARRIAGE BOTTOM LIMIT	
RED	6	4				
YEL/BRN	6	2				
BLACK	7	4				
WHT/GRY	7	2				
VIOLET	8	4				
GRY/BRN	8	2				
BROWN	1 - 8	1		106	24VDC +	
BLUE	1 - 8	3		20022	0VDC -	
GRN/YEL	1 - 8	5		GND	GROUND	

REVISION TABLE			
NO.	DATE	DESCRIPTION	BY:

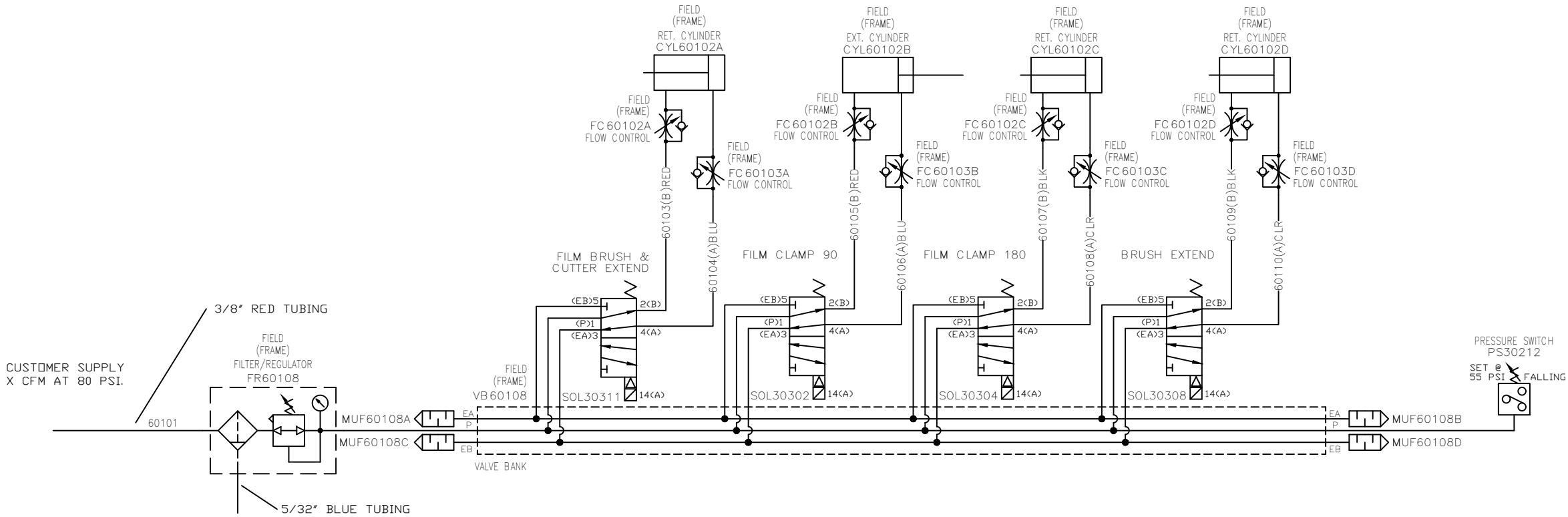
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**FLEX (STANDARD)
HPA/LPA/HPD/LPD
CARRIAGE I/O BLOCK**

ENGINEER	CHECKED BY
JOB NO	DRAWN BY
SCALE	DATE
DWG NO	NO SCALE 04/2019
751012-HPLP	
SHEET NO	
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NOTE:
ALL TUBING FROM VALVES TO CYLINDERS 1/4" OD.
TUBE NUMBER 60101 IS 3/8" OD.
WHITE FITTING CAPS USE CLEAR TUBING TO CYLINDERS.
FITTINGS TO MOUNT PRESSURE SWITCH. 3/8" NPT TO 1/4" REDUCING BUSHING AND 1/4" NPT STREET ELBOW.
FITTING FROM FILTER REGULATOR UNIT TO MANIFOLD 3/8" NIPPLE.

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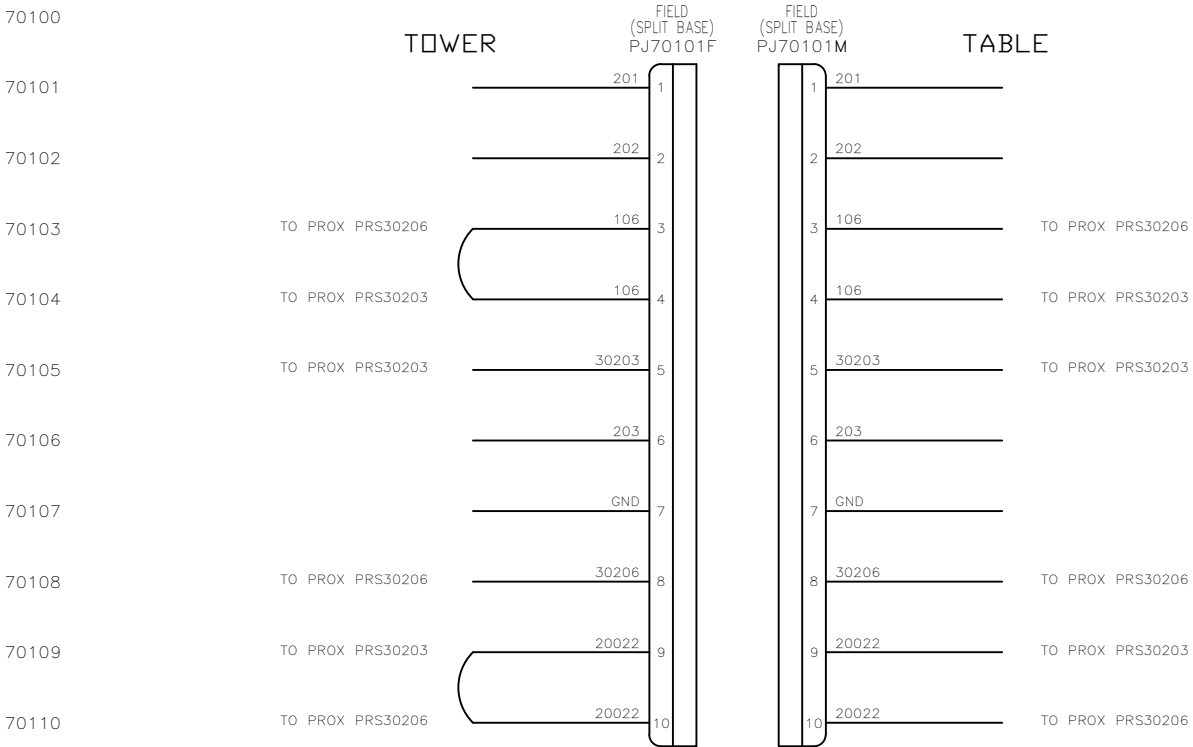
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*FLEX (STANDARD)
HPA/LPA/HPD/LPD
PNEUMATIC
SCHEMATIC*

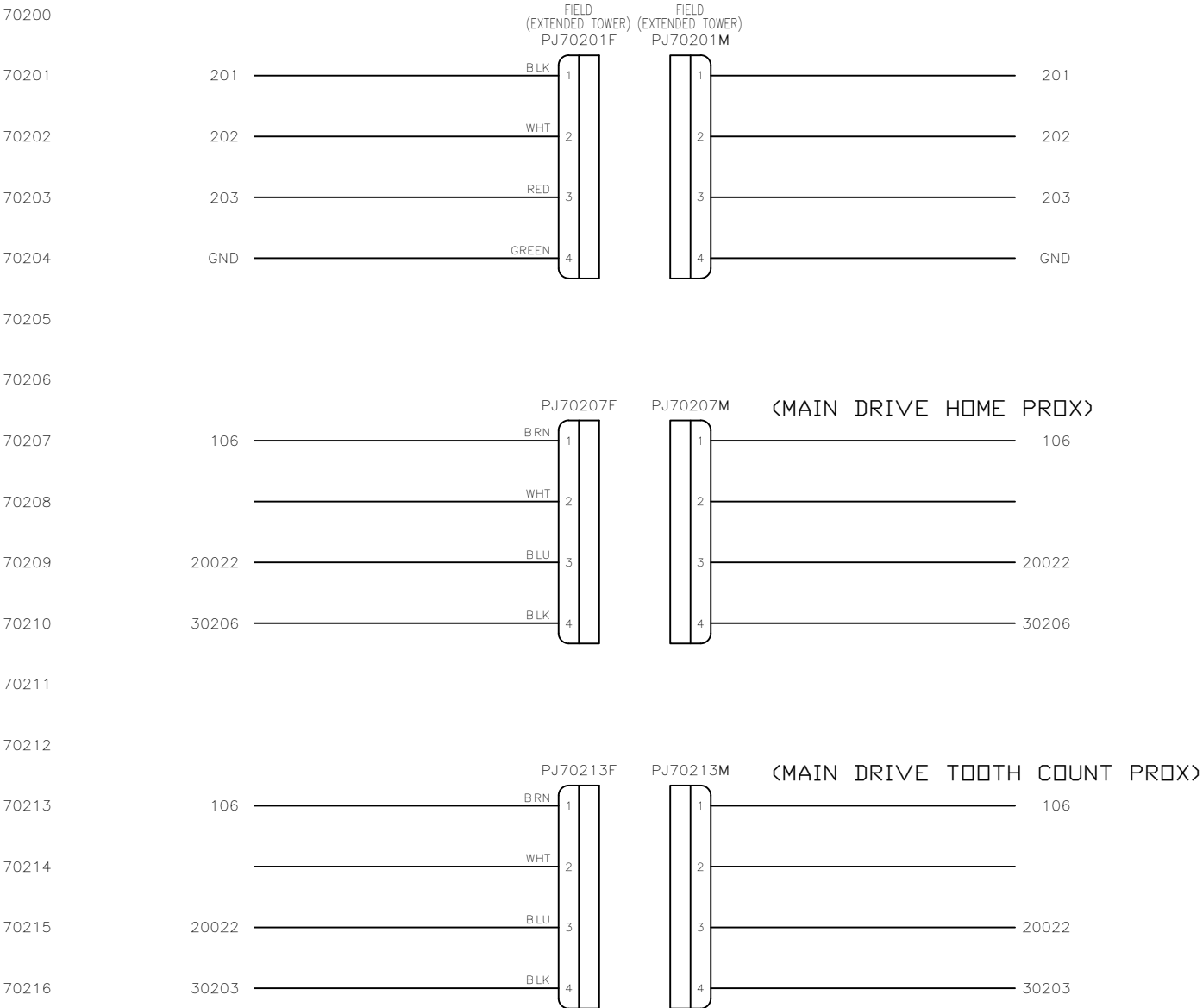
ENGINEER	CHECKED BY
JOB NO	DRAWN BY
SCALE	DATE
NO SCALE	04/2019
DWG NO	
751012-HPLP	
SHEET NO	
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SPLIT BASE OPTION (HPD ONLY)



TAGS	QTY	SUB	ASSYCODE	MFG	CATALOG
PJ70101F	1	*1	748545	PHOENIX	1585359
		*1	748546	PHOENIX	1411340
		*1	748548	PHOENIX	1411354
PJ70101M	1	*1	748544	PHOENIX	1585362
		*1	748547	PHOENIX	1411338 (WITH LATCH)
		*1	748548	PHOENIX	1411354

EXTENDED TOWER OPTION (HPA/HPD/LPA/LPD)



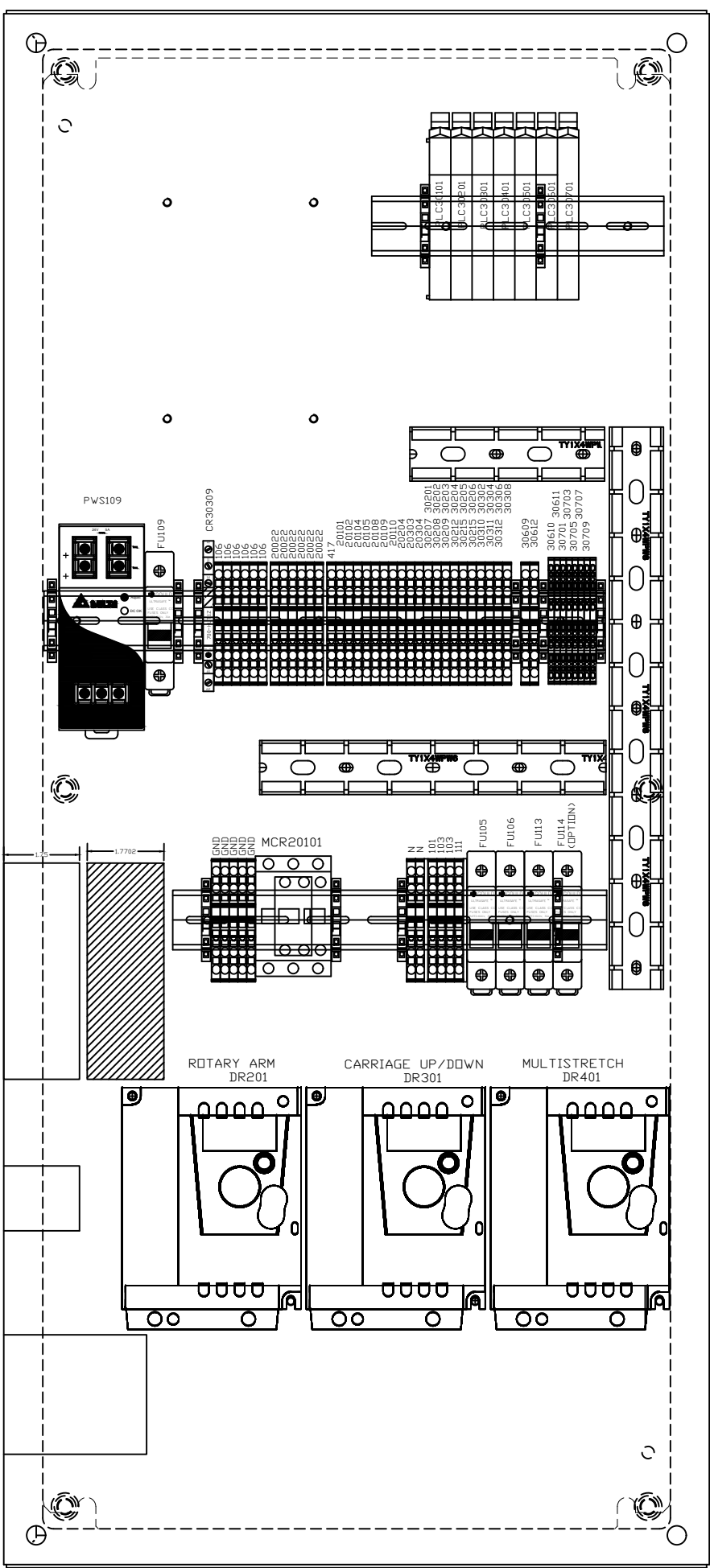
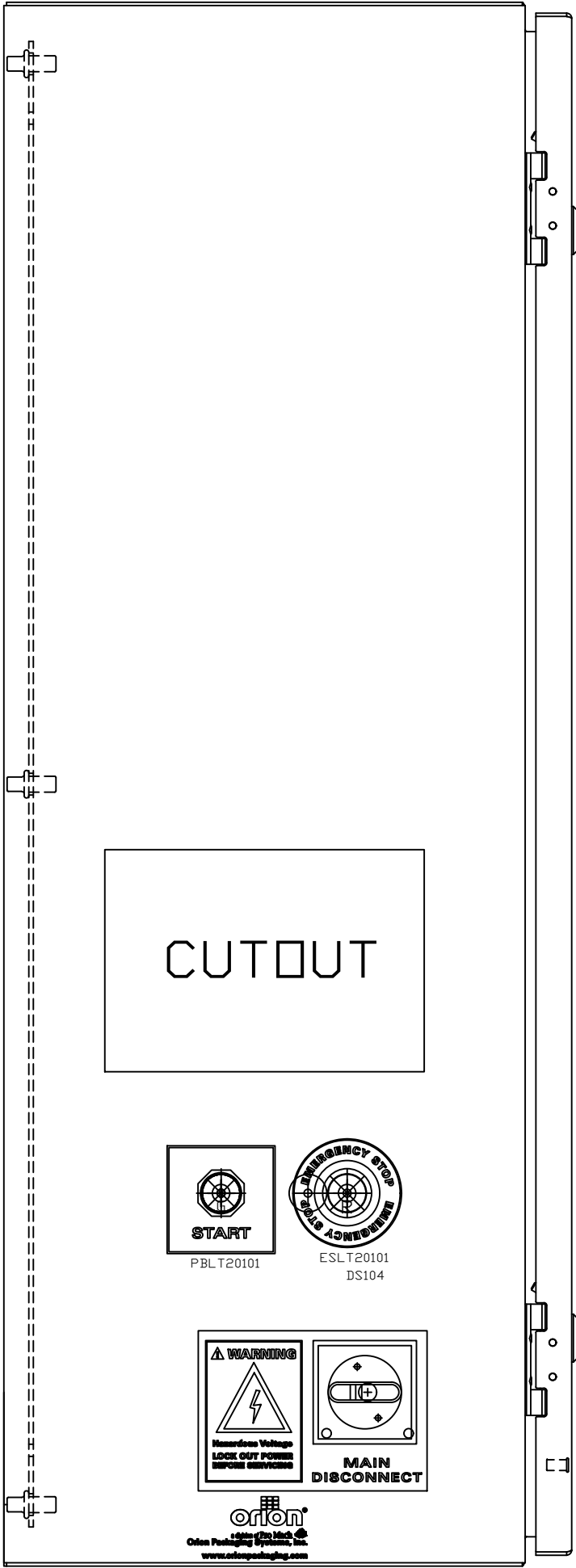
TAGS	QTY	SUB	ASSYCODE	MFG	CATALOG
PJ70201F	1	*1	748542	PHOENI	1419256
		*1	748540	PHOENI	1585265
PJ70201M	1	*1	748543	PHOENI	1419260
		*1	748541	PHOENI	1585252 (WITH LATCH)
PJ70207F	1		738870	MURR	7000-12221-0140500
PJ70207M	1		736697	HTM	FC-12MS4PP-PG7/9
PJ70213F	1		738870	MURR	7000-12221-0140500
PJ70213M	1		736697	HTM	FC-12MS4PP-PG7/9

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FLEX (STANDARD)
HPA/LPA/HPD/LPD
SPLIT BASE OPTION
EXTENDED TOWER

ENGINEER	CHECKED BY
JOB NO	DRAWN BY
SCALE	DATE
NO SCALE	04/2019
DWG NO	
751012-HPLP	
SHEET NO	
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TAGS	QTY	SUB	ASSYCODE	MFG	CATALOG	DESCRIPTION
AH30310	1		729175	AB	EC-B24D3P1	
PJ223	2		750863	SCHNEIDER	VW3A8306TF03	RJ45 T-CABLE
CBL101	1		738880	QUAIL ELECTRONICS	5040.180	
CR30322	1		742987	PHOENIX	2903334	TERMINAL BLOCK RELAY, DPDT, 24VDC
CR30309	1		733320	EATON	XRUID24	TERMINAL BLOCK RELAY, 1PDT, 24VDC
DR201	3		732692	SCHNEIDER	ATV12H075F1	VARIABLE SPEED DRIVE, 1 HP, 0.75 kW, 120V, 1 PH,
DS104	1		742978	EATON	P1-25/EA/SVB	
TB20123	1		738894	B & R	DTB5104.2110-01	
TB20115	1		738883	B & R	DTB6102.2110-01	
HMI20115	1		743000	B & R	4PPC70.0702-20B	
PJ323	1		743142	B & R	810XC002.100.1	
FU109	1	x1	742985	EATON	C383FHCC	CLASS CC SINGLE POLE FUSE HOLDER
	1	x1	730999	LITTELFUSE	CCMR005	DUAL ELEMENT FUSE - CLASS CC, 5 AMP
FU106	1	x1	742985	EATON	C383FHCC	CLASS CC SINGLE POLE FUSE HOLDER
	1	x1	731038	LITTELFUSE	KLDR002	FUSE, CLASS CC, 2 AMP, TIME DELAY
FU114	1	x1	742985	EATON	C383FHMD	
	1	x1	731038	LITTELFUSE	KLDR002	FUSE, CLASS CC, 2 AMP, TIME DELAY
FU113	1	x1	742985	EATON	C383FHMD	
	1	x1	731039	LITTELFUSE	KLDR003	FUSE, CLASS CC, 3 AMP, TIME DELAY
FU105	1	x1	742985	EATON	C383FHMD	
	1	x1	731049	LITTELFUSE	KLDR015	FUSE, CLASS CC, 15 AMP, TIME DELAY
MCR20101	1	x1	742979	EATON	XTCE009B10TD	3 POLE CONTACTOR
	1	x1	742980	EATON	XTCEXFAC20	
PBLT20101	1	x1	742983	EATON	M22-DL-G	PUSH BUTTON - MOMENTARY, FLUSH, GREEN, NEMA 4X/13
	1	x2	737822	EATON	M22-K10	CONTACT BLOCK, 1 NO
	1	x1	742983	EATON	M22-DL-G	PUSH BUTTON - MOMENTARY, FLUSH, GREEN, NEMA 4X/13
	1	x1	732103	EATON	M22-LED-G	LIGHT UNIT
ESLT20101	1	x1	742981	EATON	M22-PVL	PUSH BUTTON - MUSHROOM, NEMA 4X/13
	1	x1	737822	EATON	M22-K10	CONTACT BLOCK, 1 NO
	1	x1	742982	EATON	M22-K01	CONTACT BLOCK, 1 NC
	1	x1	742984	EATON	M22-LED-R	LIGHT UNIT
PLC30101	1	x1	731535	B & R	X20BR9300	X20 BUS RECEIVER, X2X LINK BUS RECEIVER, 24VDC
	1	x1	742087	B & R	X20BM01	
	1	x1	742088	B & R	X20TB12	
PLC30501	1	x1	738900	B & R	X20CS1030	X20 INTERFACE MODULE, 1-PORT RS422/485, 24VDC, 115.2kbits
	1	x1	742083	B & R	X20BM11	PLC B&R BUS MODULE
	1	x1	742088	B & R	X20TB12	
PLC30201	2	x1	742084	B & R	X20DIF371	16 POINT X20 INPUT MODULE
PLC30601		x1	742083	B & R	X20BM11	PLC B&R BUS MODULE
	1	x1	742082	B & R	X20TB1F	16 PIN TERMINAL BLOCK
PLC30701	1	x1	742085	B & R	X20DD6639	
	1	x1	743727	B & R	X20TB32	6 RELAY OUTPUT TERMINAL BLOCK
	1	x1	743728	B & R	X20BM12	PLC B&R BUS MODULE
PLC30301	1	x1	742996	B & R	X20DD9322	X20 OUTPUT MODULE, 12-PT DIGITAL SOURCE, 24VDC
	1	x1	742083	B & R	X20BM11	PLC B&R BUS MODULE
	1	x1	742088	B & R	X20TB12	
PLC30401	1	x1	738899	B & R	X20PS2100	X20 POWER SUPPLY, FOR INTERNAL I/O, 24VDC,
	1	x1	742087	B & R	X20BM01	
	1	x1	742088	B & R	X20TB12	
PWS109	1		743729	DELTA	DRP024120V1AA	
R114	1		743609	SAGINAW	SCE-HF1251A	
R420	1		750864	SCHNEIDER	VW3A8306RC	MODBUS LINE TERMINATOR
SUI16	1		745572	RK ELECTRONICS	RCS1A-6	
	5		742993	PHOENIX	3209578	
	5		749752	WAGO	2000-5311	3 CONDUCTOR SENSOR TERMINAL BLOCK
	1	x1	749753	WAGO	2000-5391	END/INTERMEDIATE PLATE FOR 3 COND. TERMINALS
	1	x10	749754	WAGO	2000-402	PUSH IN 2 POLE JUMPER FOR 2000 SERIES
	33		731620	WAGO	2002-1401	TERMINAL
	5		749756	WAGO	2002-1407	GREEN/YELLOW 4 CONDUCTOR
	2	x1	750721	WAGO	2002-1661	CARRIER TERMINAL BLOCK
	1	x1	750860	WAGO	2002-401	DISCONNECT PLUG FOR 2002 SERIES
CBL20123	2		743144	HARTFIEL	THC50967	
CBL30502	1		733318	QUIKTRON	531-110-009	COMMUNICATION CABLE, ETHERNET, CAT 5, SHIELDED, 9 FT.
CBL30502	2		735720	QUIKTRON	531-110-6IN	COMMUNICATION CABLE, ETHERNET, CAT 5, SHIELDED, 6 IN.

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*FLEX (STANDARD)
HPA/LPA/HPD/LPD
ENCLOSURES AND
PANEL, BOM*

ENGINEER	CHECKED BY
JOB NO	DRAWN BY
SCALE	DATE
DWG NO	NO SCALE 04/2019
751012-HPLP	
SHEET NO	
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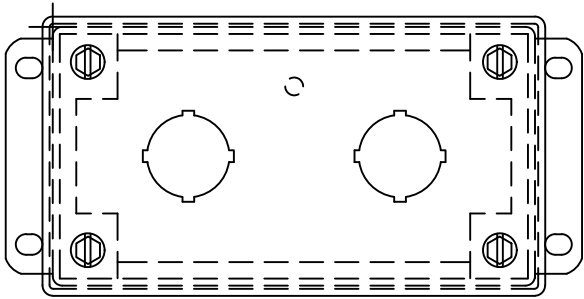
ORION, a ProMach product brand

DWG TITLE									
<i>FLEX (STANDARD)</i> <i>HPA/LPA/HPD/LPD</i> <i>MACHINE FIELD AND</i> <i>CARRIAGE BOM</i>									
ENGINEER					CHECKED BY				
JOB NO					DRAWN BY				
SCALE					DATE				
NO SCALE					04/2019				
DWG NO									
751012-HPLP									
SHEET NO									
14 OF 15									

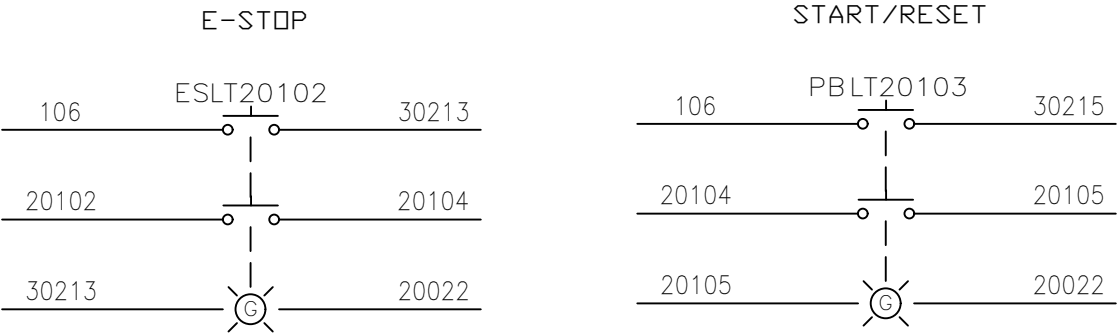
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E2PBGXM



REMOTE E-STOP AND START/RESET OPTION



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DWG TITLE	
FLEX (STANDARD) HPA/LPA/HPD/LPD REMOTE E-STOP/START	
ENGINEER	CHECKED BY
JOB NO	DRAWN BY
SCALE	DATE
NO SCALE	04/2019
DWG NO	
751012-HPLP	
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