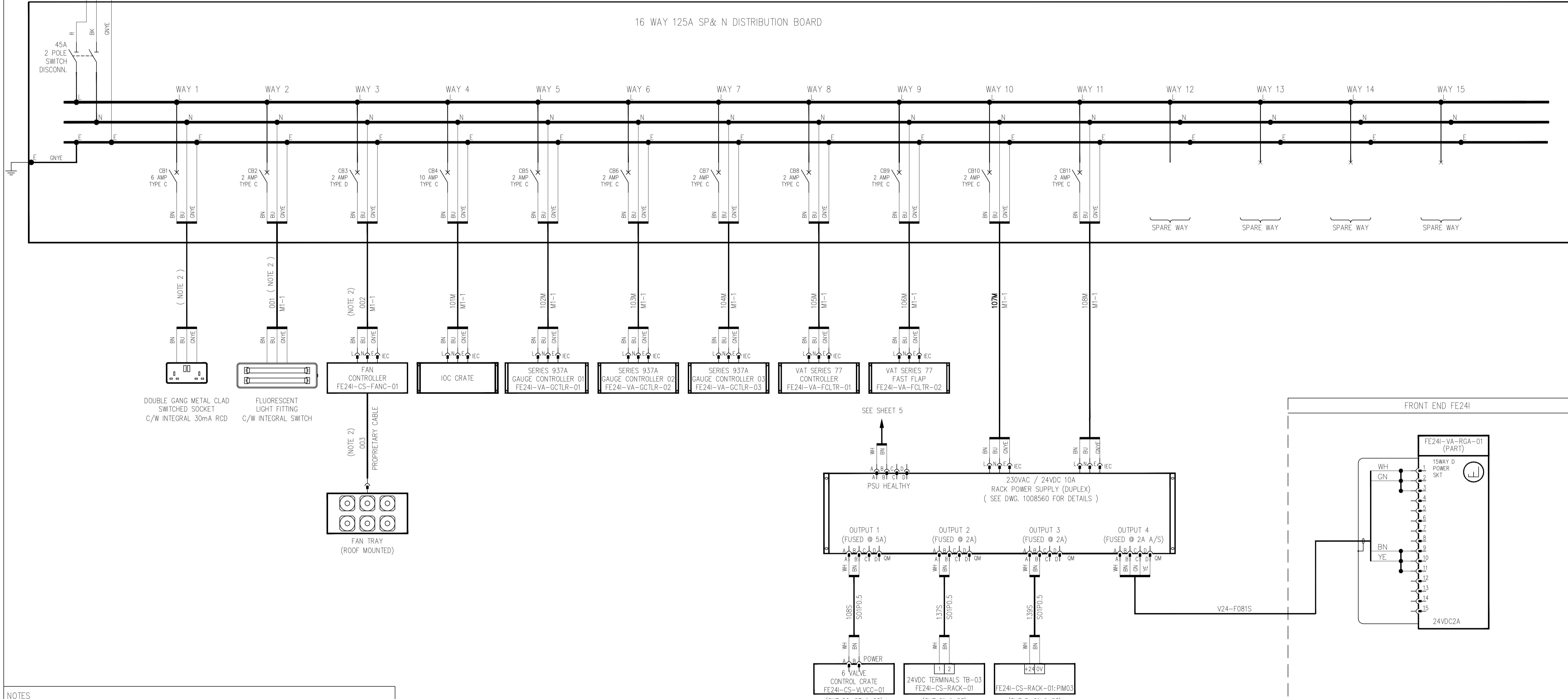




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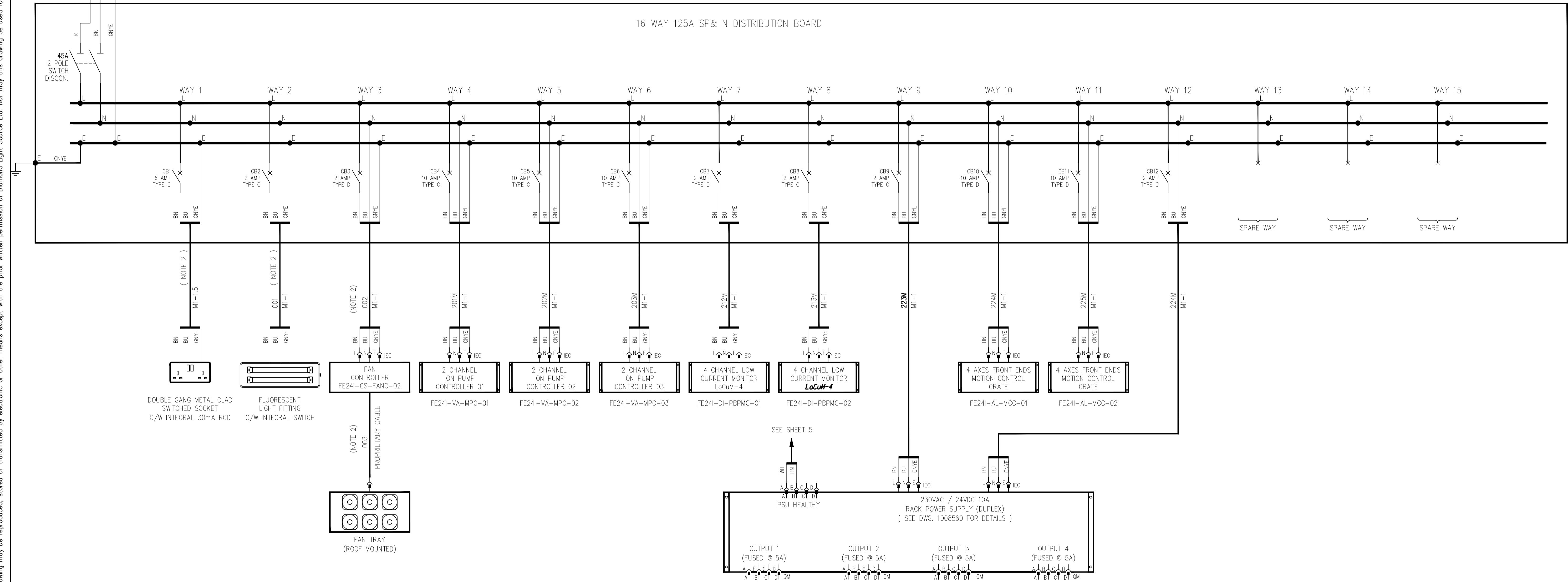
**A** FIRST ISSUE  
**B** ADDED ALARM A SIGNALS TO TRIP AMPS ON SHEET 24.  
**C** SEE EENG-FE-RAF-0020  
ENCODER WIRING MODIFIED ON FE24I-MOR-REC-02 (PHASES A AND B SWAPPED)  
**D**

**E** SHEET 4 SLOT 3 DELETED, PMC EVENT RECEIVER ADDED.  
SHEET 7 - GUARD LINE A & B PLACED IN SERIES, ID INTERLOCK ADDED.  
READY OUTPUT FROM FCCTRL CONNECTED TO TB-02 AND CU01  
SHEET 21 - FE24I-RS-APTR-01 DELETED  
**F** SHEET 2 & 3 PSU REPLACED WITH DUPLEX PSU, SHT 5.  
PSU HEALTHY SIGNALS ADDED TO PIM 03  
**G** SHEET 17 & 19 CABLES D24-0215S AND D24-0221S ADDED  
**H** SHEET 20 CORE COLOURS CHANGED ON A24-F001S & F002S, COMMENT ADDED TO APTR 1 & 2 PT100.

THIS REVISION		TITLE	
DRN DATE	TJT 31/01/12	STORAGE RING CELL 24	
CHK DATE	TJT 31/01/12	FE24I FRONT END CONTROL SYSTEM	
APPD DATE	AFT 30/03/12	HOOK UP DRAWING	
ORIGINATOR/DATE	DOR 04/01/07	Approved	DRG STATUS
DRG No.	1023295	1023295	SHEET 2 OF 24
			REVISION G

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NOTES  
 1. FOR ALL ASSOCIATED REFERENCE DRAWINGS / DOCUMENTATION SEE INDEX SHEET 1.  
 2. PRE-CABLED BY ENCLOSURE VENDOR.  
 3. ALL INTERNAL RACK EQUIPMENT TO BE SUITABLY IDENTIFIED.



DIAMOND LIGHT SOURCE LTD, DIAMOND HOUSE, CHILTON, DIDCOT, OXFORDSHIRE, OX11 0DE.

THIS REVISION  
 DRN TJT DATE 31/01/12  
 CHK TJT DATE 31/01/12  
 APPD AFT DATE 30/03/12  
 ORIGINATOR/DATE DOR 04/01/07 DRG STATUS Approved  
 DRC No. 1023295 SHEET 3 OF 24 REVISION G  
 AUTOCAD

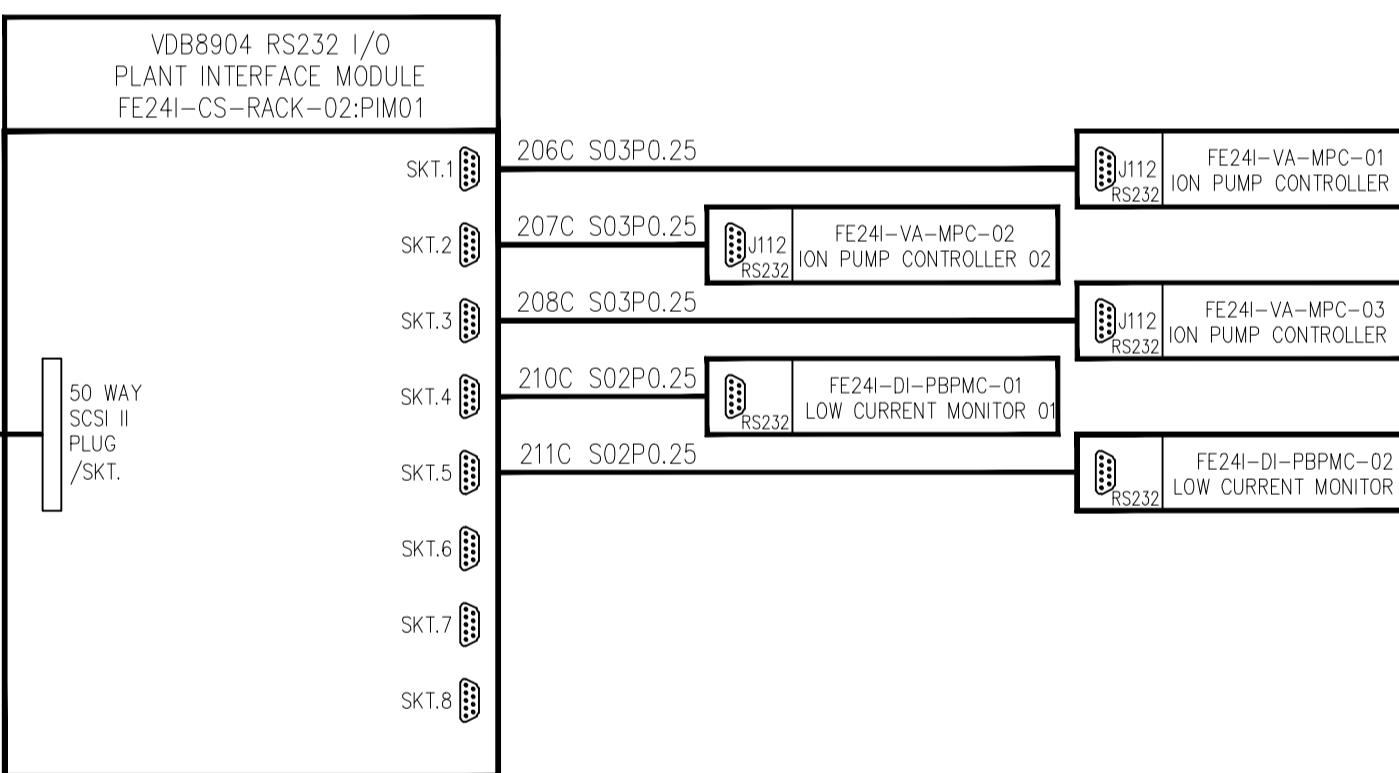
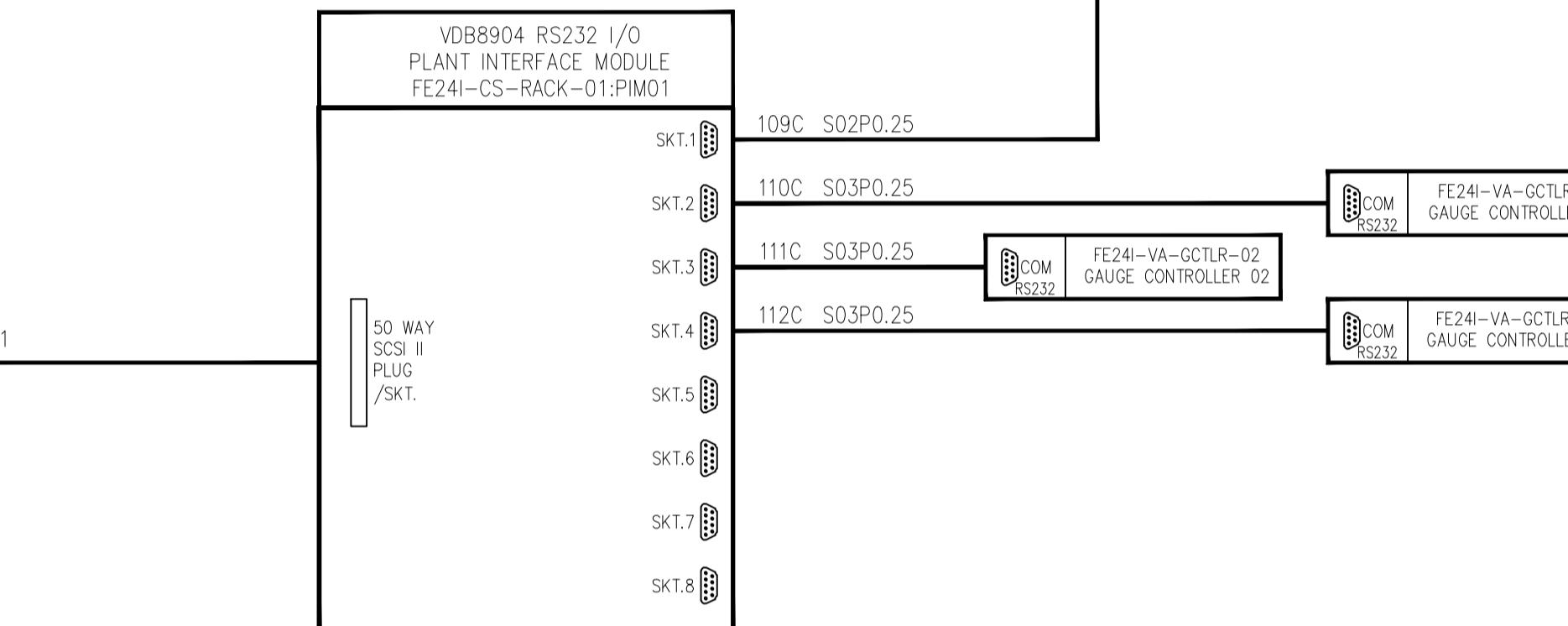
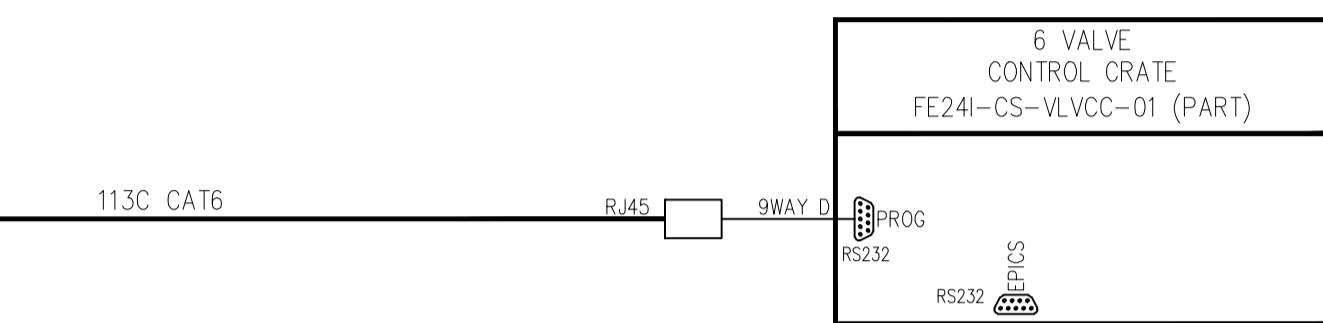
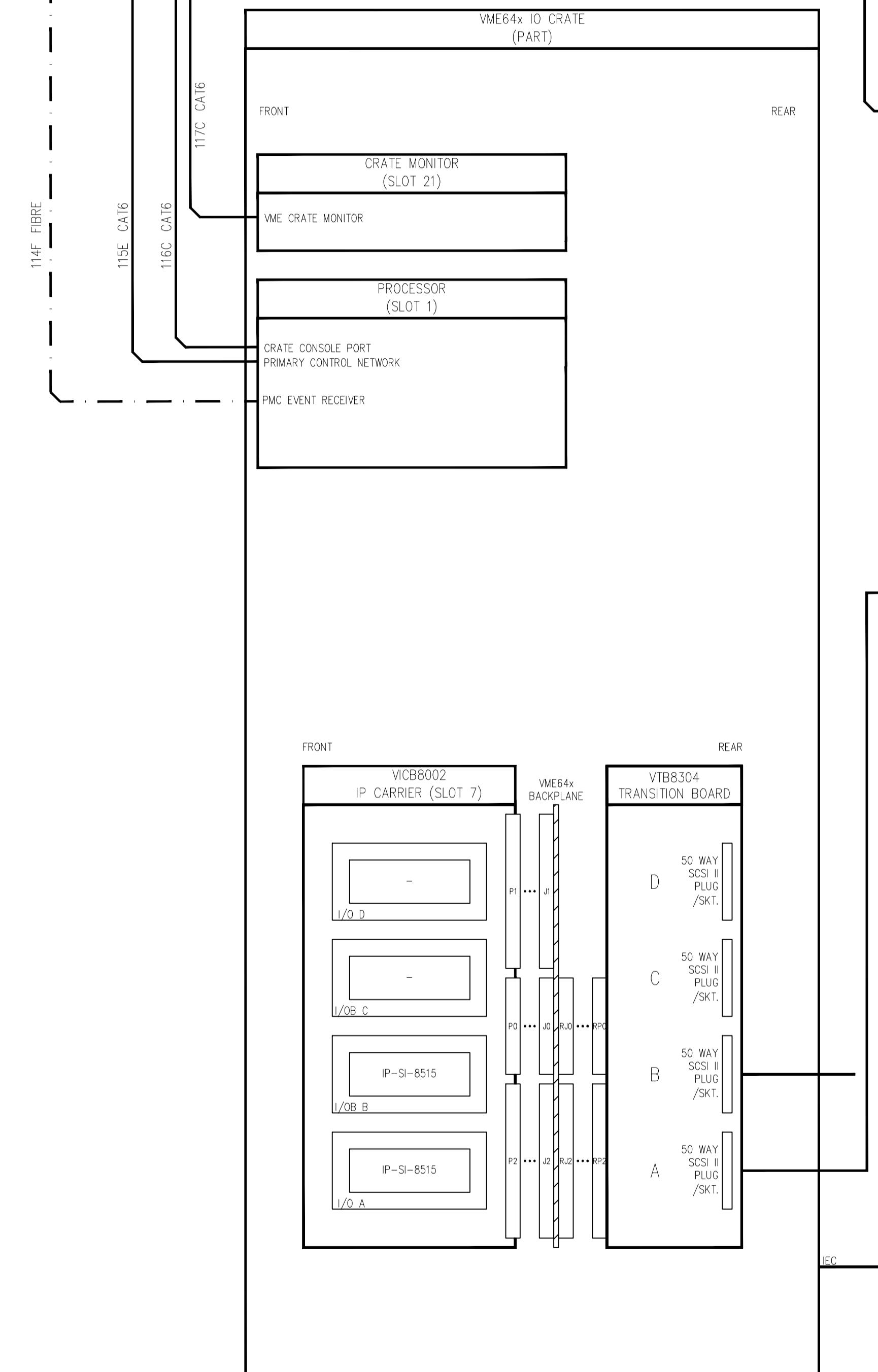
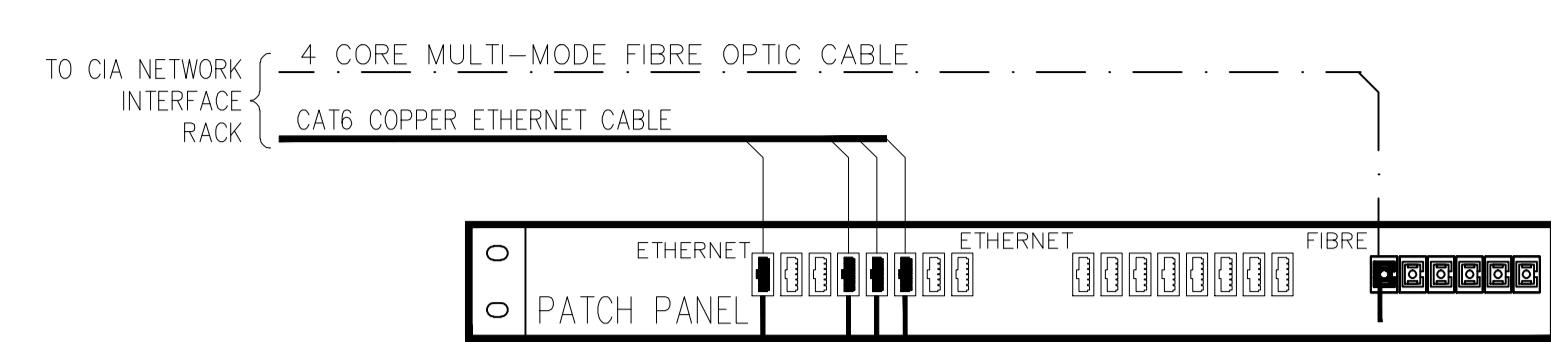
A FIRST ISSUE	
B	ADDED ALARM A SIGNALS TO TRIP AMPS ON SHEET 24.
C	SEE EENG-TE-RAF-0020 ENCODER WIRING MODIFIED ON FE24I-MO-RENC-02 (PHASES A AND B SWAPPED)
D	SHEET 4 SLOTTED, PMC EVENT RECEIVER ADDED. SHEET 7 - GUARD LINE A & B PLACED IN SERIES, ID INTERLOCK ADDED. SHEETS 9 & 10 - READY OUTPUT FROM FCTRL CONNECTED TO TB-02 AND CUOI SHEET 21 - FE24I-RS-APTR-01 DELETED
E	SHEET 2 & 3 PSU REPLACED WITH DUPLEX PSU. SH15. PSU HEALTHY SIGNALS ADDED TO HIM 03
F	SHEET 17 & 19 CABLES D24-C0215S AND D24-C0221S ADDED
G	SHEET 20 CORE COLOURS CHANGED ON A24-F001S & F002S, COMMENT ADDED TO APTR 1 & 2 PT100.

D E F G H J K

SR24C-CS-CIA-01

FE24I-CS-RACK-01

FE24I-CS-RACK-02



**NOTES**

1. ALL INTERNAL RACK EQUIPMENT TO BE SUITABLY IDENTIFIED.
2. ALL EXTERNAL EQUIPMENT SHOWN DASHED.
3. FOR ALL ASSOCIATED REFERENCE DRAWINGS / DOCUMENTATION SEE INDEX SHEET 1.
4. FOR RS232 / 422 LEAD DETAILS SEE DWG 1008690



DIAMOND LIGHT SOURCE LTD, DIAMOND  
HOUSE, CHILTON, DIDCOT  
OXFORDSHIRE, OX11 0DE.

STORAGE RING CELL 24  
FE24I FRONT END CONTROL SYSTEM  
HOOK UP DRAWING

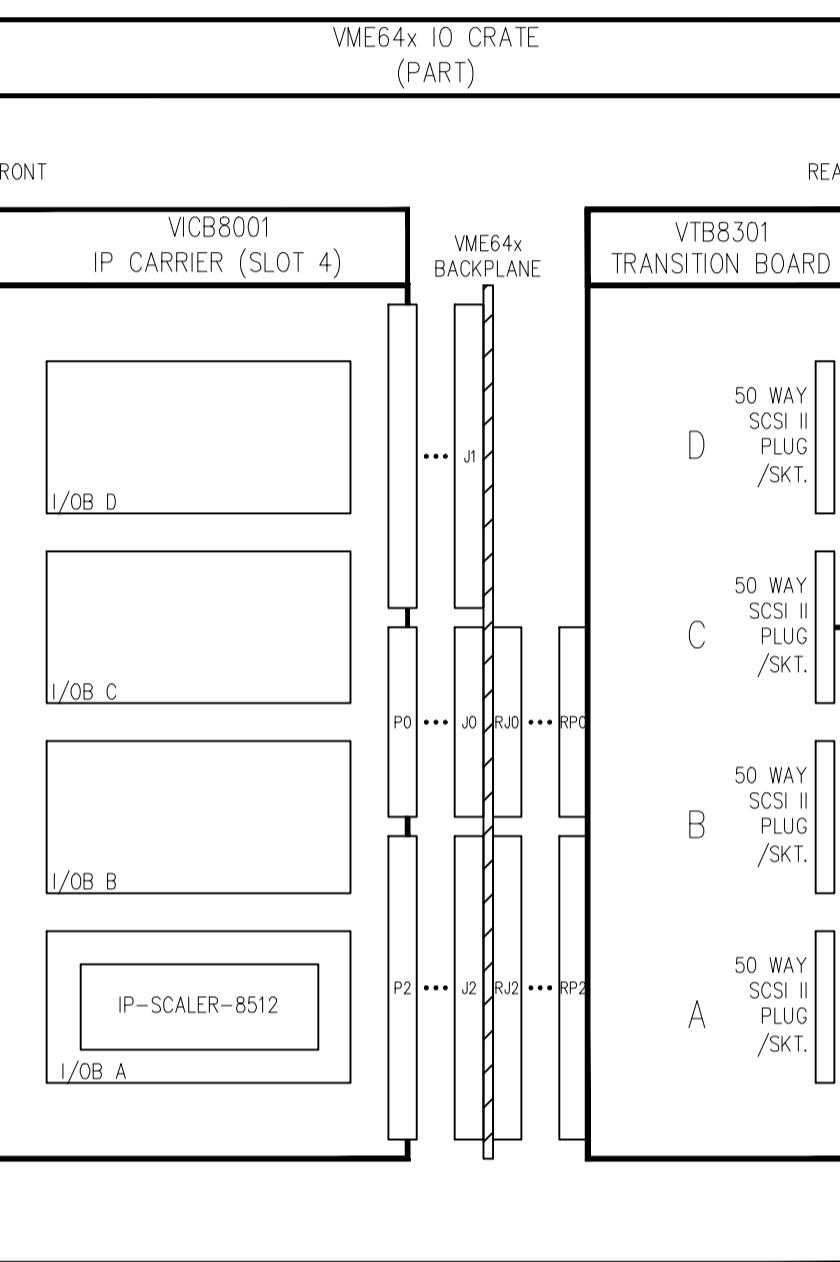
THIS REVISION	TITLE	
DRN TJT	DATE	31/01/12
CHK TJT	DATE	31/01/12
APPD AFT	DATE	30/03/12
ORIGINATOR/DATE		DRG STATUS
DOR 04/01/07		Approved
DRG No. 1023295		SHEET 4 OF 24
		REVISION G

<b>A</b>	SEE EENG-FE-RAF-0020
<b>B</b>	ADDED ALARM A SIGNALS TO TRIP AMPS ON SHEET 24.
<b>C</b>	ENCODER WIRING MODIFIED ON FE24I-MORENC-02 (PHASES A AND B SWAPPED)
<b>D</b>	SHEET 4 SLOT 3 DELETED, PMC EVENT RECEIVER ADDED. SHEET 7 - GUARD LINE A & B PLACED IN SERIES, ID INTERLOCK ADDED. SHEETS 9 & 10 - READY OUTUT FROM FCTRL CONNECTED TO TB-02 AND CIU01 SHEET 21 - FE24I-RS-APTR-01 DELETED

<b>E</b>	SHEET 2 & 3 PSU REPLACED WITH DUPLEX PSU. SHT 5. PSU HEALTHY SIGNALS ADDED TO PIM 03
<b>F</b>	SHEET 17 & 19 CABLES D24-0215S AND D24-0221S ADDED
<b>G</b>	SHEET 20 CORE COLOURS CHANGED ON A24-F001S & F002S, COMMENT ADDED TO APTR 1 & 2 PT100.

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<b>A</b>	FIRST ISSUE
<b>B</b>	ADDED ALARM A SIGNALS TO TRIP AMPS ON SHEET 24.
<b>C</b>	SEE EENG-FE-RAF-0020 ENCODER WIRING MODIFIED ON FE24I-M0-RENG-02 (PHASES A AND B SWAPPED)
<b>D</b>	SHEET 4 SLOT 3 DELETED, PMC EVENT RECEIVER ADDED. SHEET 7 - GUARD LINE A & B PLACED IN SERIES, ID INTERLOCK ADDED. SHEETS 9 & 10 - READY OUTUT FROM FC1RL CONNECTED TO TB-02 AND CU01 SHEET 21 - FE24I-RS-APTR-01 DELETED



<b>E</b>	SHEET 2 & 3 PSU REPLACED WITH DUPLEX PSU. SH1.5. PSU HEALTHY SIGNALS ADDED TO PIM 03
<b>F</b>	SHEET 17 & 19 CABLES D24-0215S AND D24-0221S ADDED
<b>G</b>	SHEET 20 CORE COLOURS CHANGED ON A24-F001S & F002S, COMMENT ADDED TO APTR 1 & 2 PT100.

D

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F

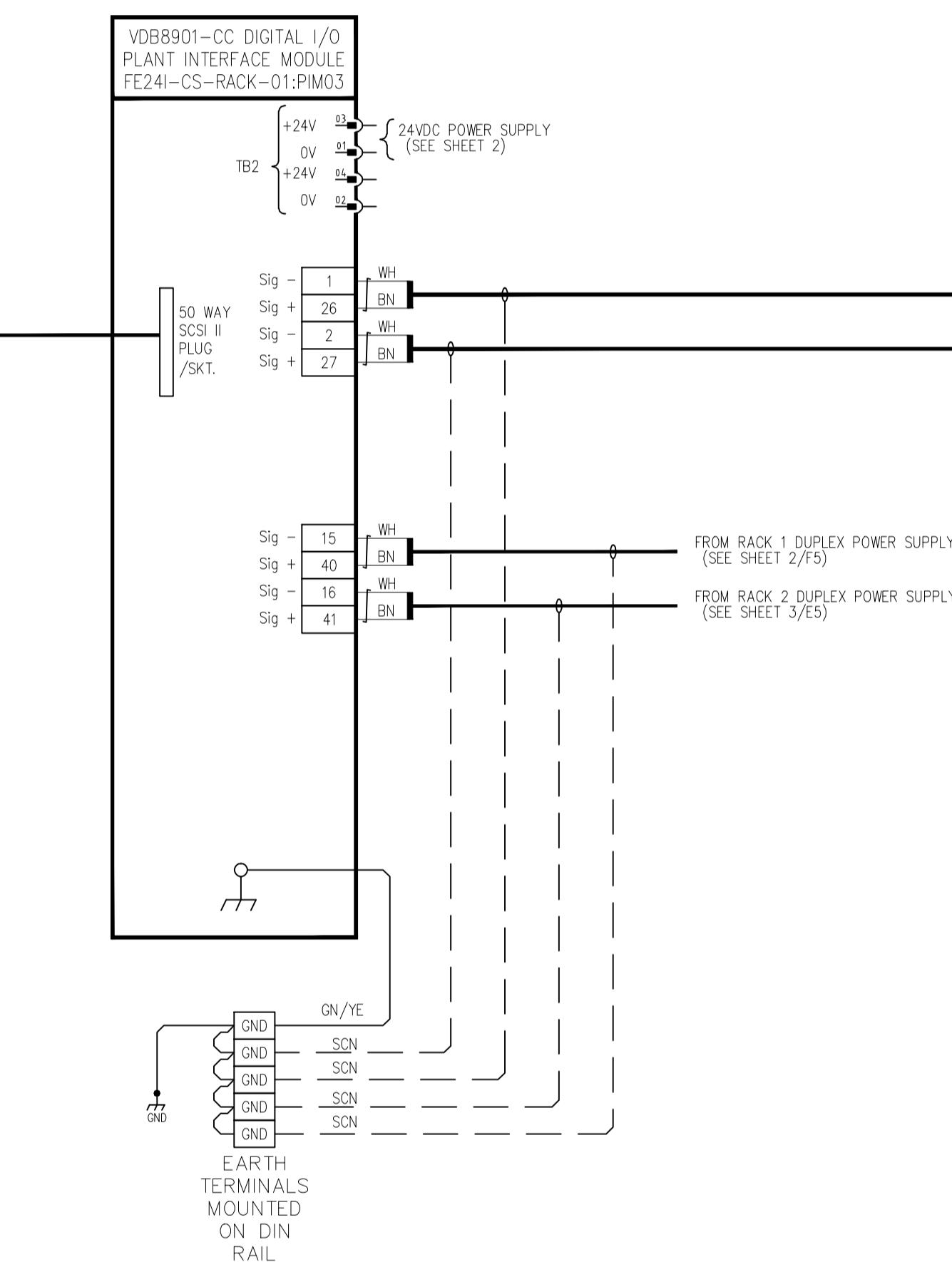
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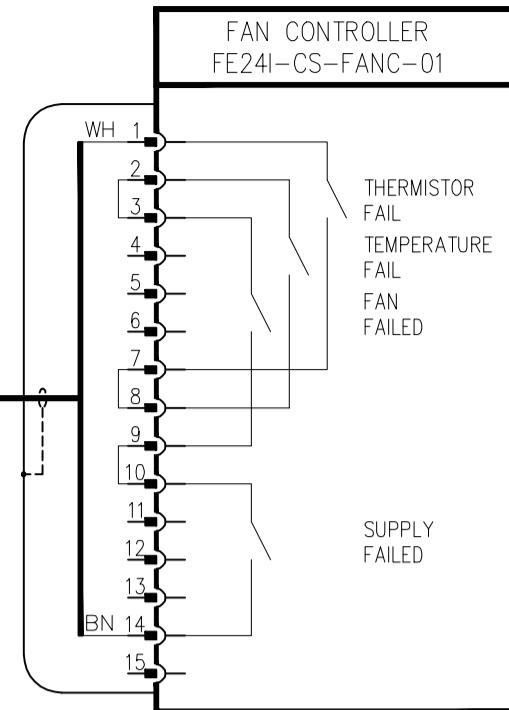
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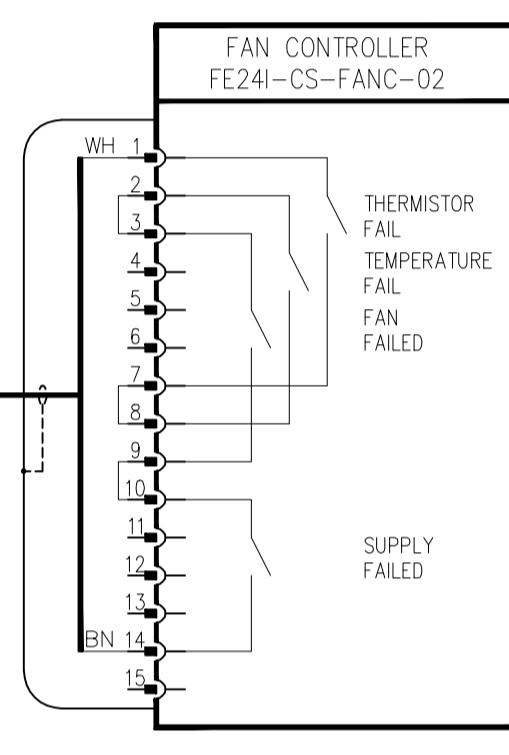
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118S S01P0.25

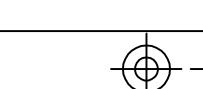


FE24I-CS-RACK-02



**NOTE**  
1. FOR ALL ASSOCIATED REFERENCE DRAWINGS / DOCUMENTATION SEE INDEX SHEET 1.

THIS REVISION		TITLE	
DRN	TJT	DATE	31/01/12
CHK	TJT	DATE	31/01/12
APPD	AFT	DATE	30/03/12
ORIGINATOR/DATE	DOR	DRG STATUS	Approved
	04/01/07		
AUTOCAD		DRG No.	1023295
1023295		SHEET	5 OF 24
		REVISION	<b>G</b>



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● DIAMOND LIGHT SOURCE LTD 2006

FIRST ISSUE

A

B  
ADDED ALARM A SIGNALS TO  
TRIP AMPS ON SHEET 24.  
SEE EENG-FE-RAF-0020C  
ENCODER WIRING MODIFIED  
ON FE24i-M0-RENC-02  
(PHASES A AND B SWAPPED)

D

SHEET 4  
SLOT 3 DELETED, PMC EVENT  
RECEIVER ADDED.  
SHEET 7 - GUARD LINE A &  
B PLACED IN SERIES, ID  
INTERLOCK ADDED.  
SHEETS 9 & 10 -  
READY OUTPUT FROM FCTRL  
CONNECTED TO TB-02 AND  
CU01  
SHEET 21 -  
FE24i-RS-APTR-01 DELETED

E

SHEET 2 & 3 PSU REPLACED  
WITH DUPLEX PSU. SHT 5.  
PSU HEALTHY SIGNALS  
ADDED TO PIM 03

F

SHEET 17 & 19  
CABLES D24-0215S AND  
D24-0221S ADDED

G

SHEET 20  
CORE COLOURS CHANGED ON  
A24-F001S & F002S.  
COMMENT ADDED TO APR1  
& 2 PT100.

D

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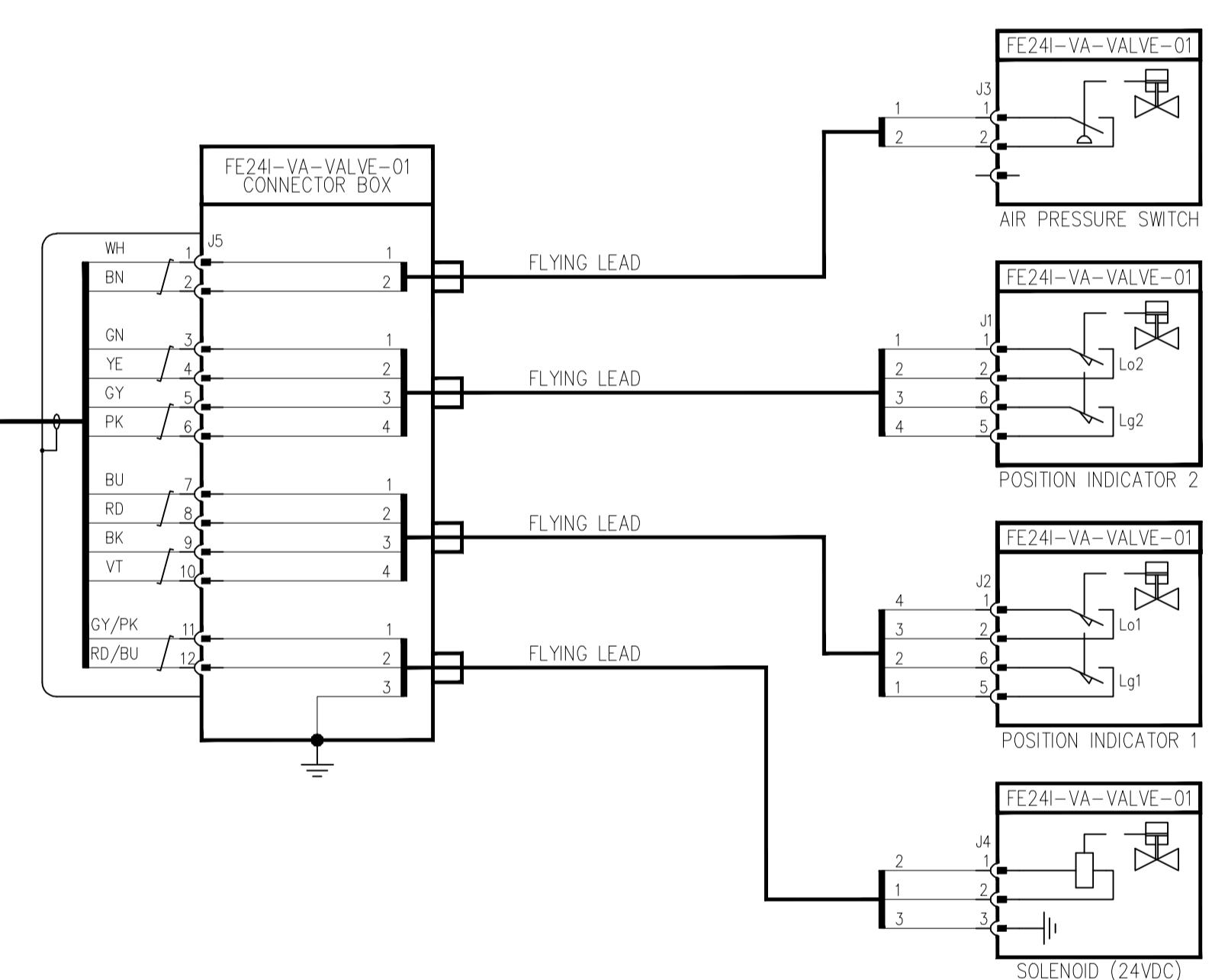
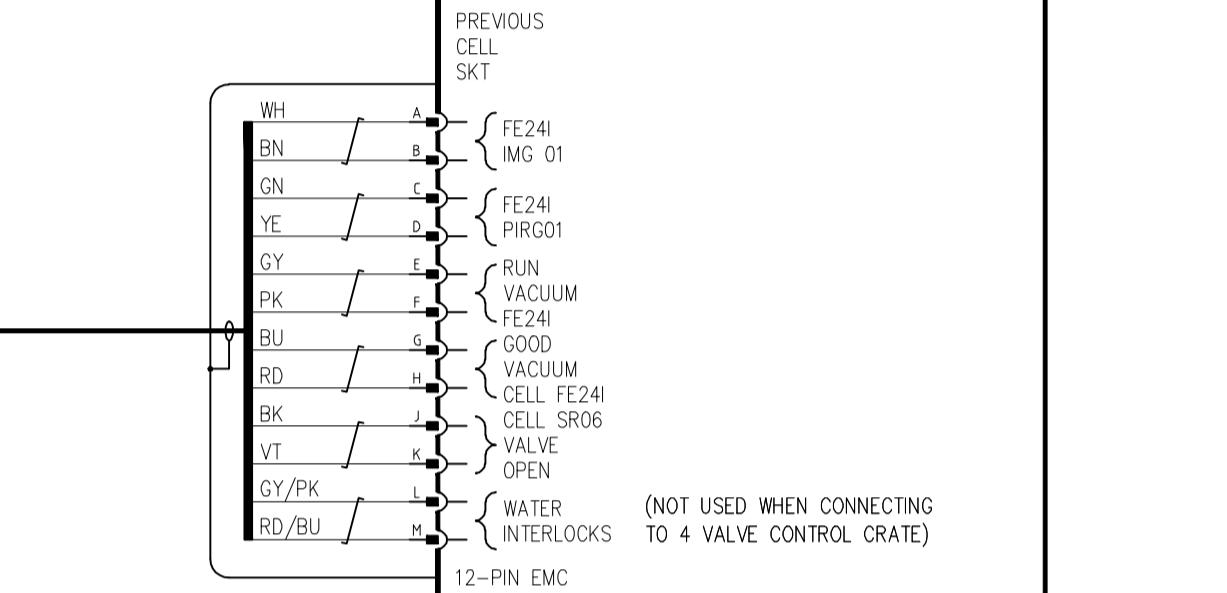
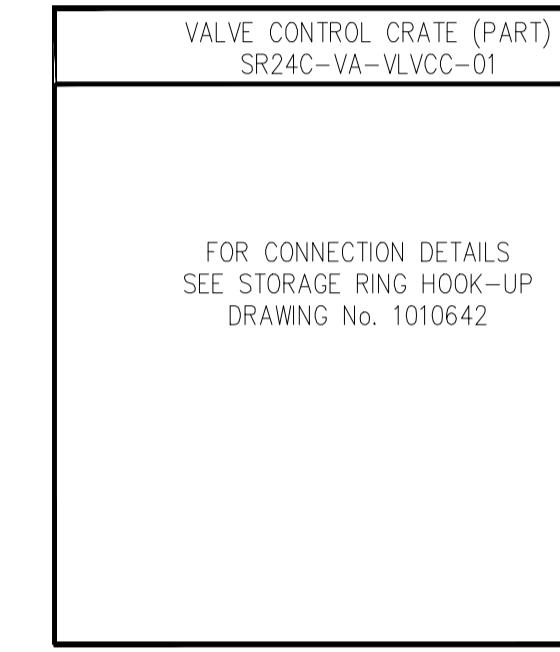
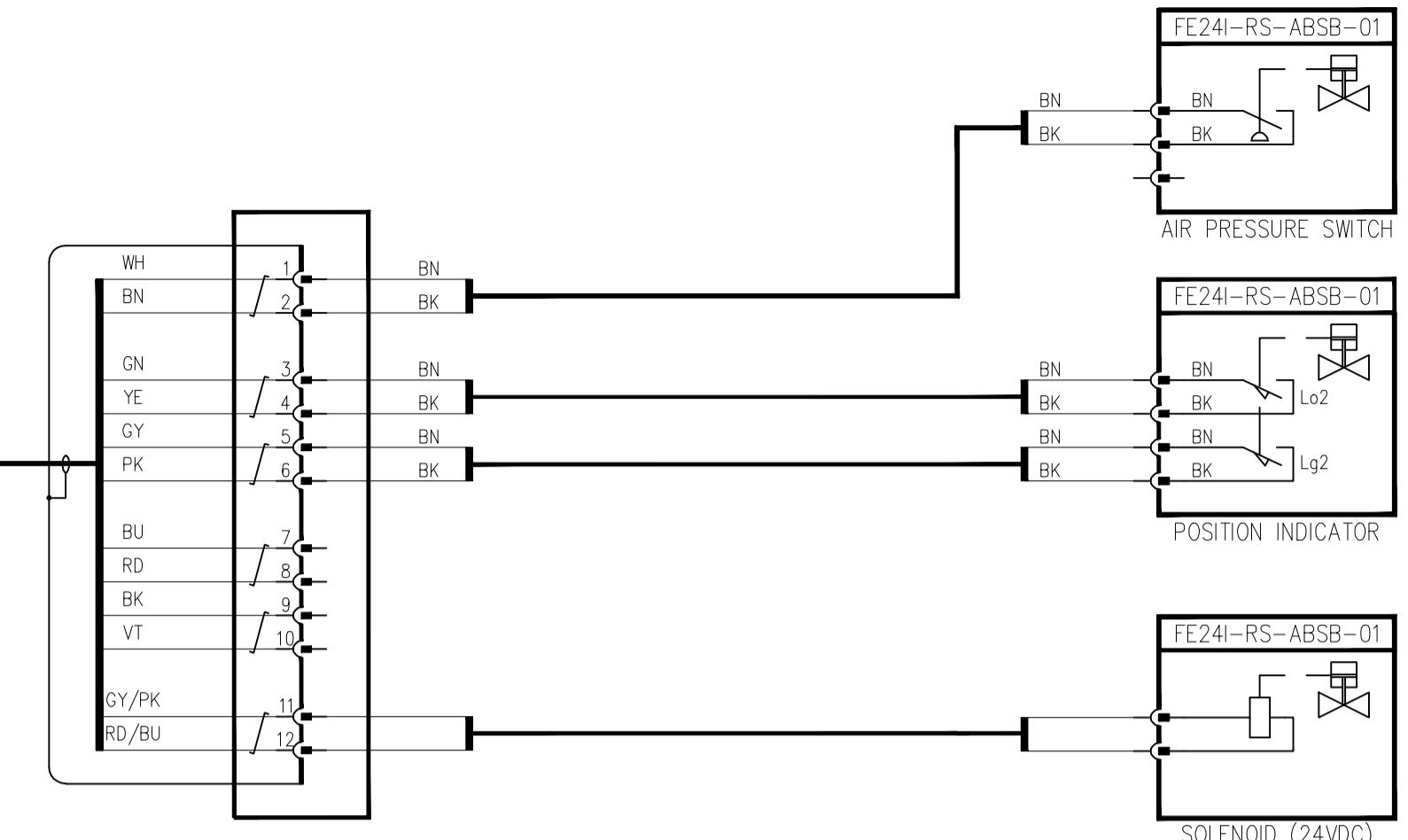
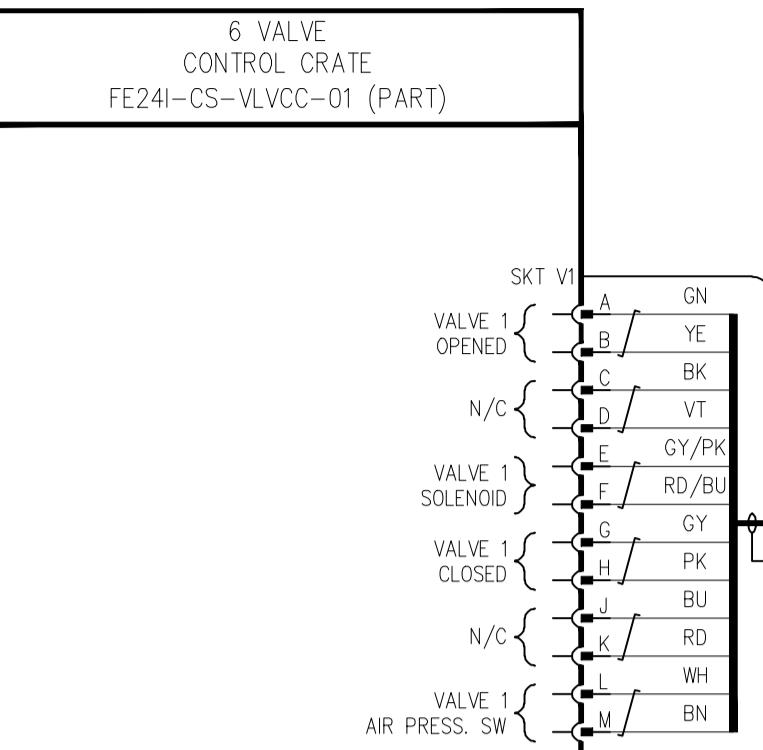
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SR24C-CS-CIA-01

FE24i-CS-RACK-01

STORAGE RING CELL 24  
FRONT END FE24i

SR24C-VA-RACK-01



24VDC POWER SUPPLY  
(SEE SHEET 2)  
PROGRAMMING  
RS232 (SEE SHEET 4)  
RS232 EPICS  
(SEE SHEET 4)

QM

9 PIN D

9 PIN D

NOTE  
1. FOR ALL ASSOCIATED REFERENCE DRAWINGS / DOCUMENTATION SEE INDEX SHEET 1.

DIAMOND LIGHT SOURCE LTD, DIAMOND  
HOUSE, CHILTON, DIDCOT  
OXFORDSHIRE, OX11 0DE.

THIS REVISION		TITLE	
DRN	TJT	FE24i FRONT END CONTROL SYSTEM	HOOK UP DRAWING
CHK	TJT		
APPD	AFT		
DRC No.	04/01/07	ORIGINATOR/DATE	DRG STATUS
1023295		SHEET 6 OF 24	Approved

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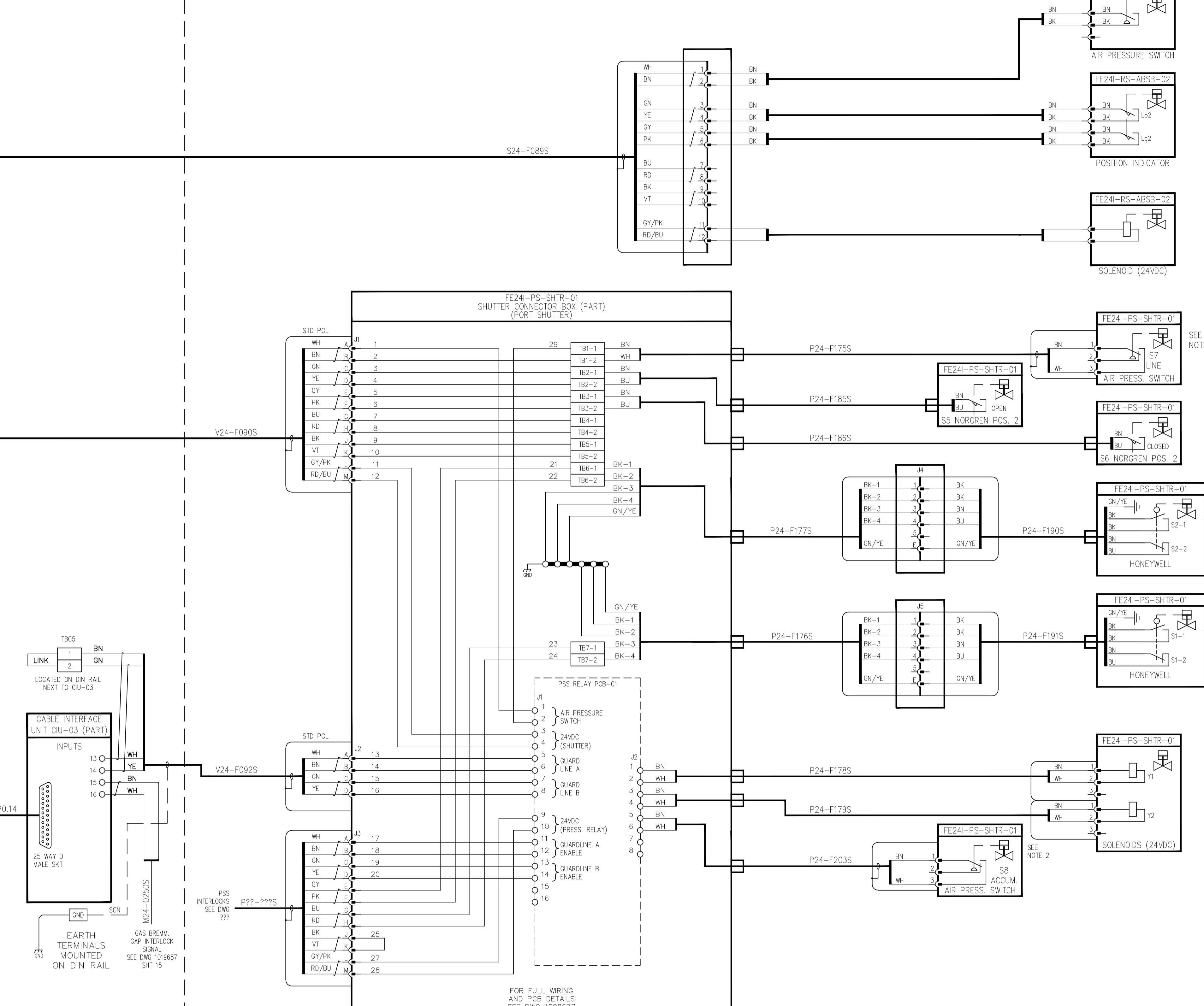
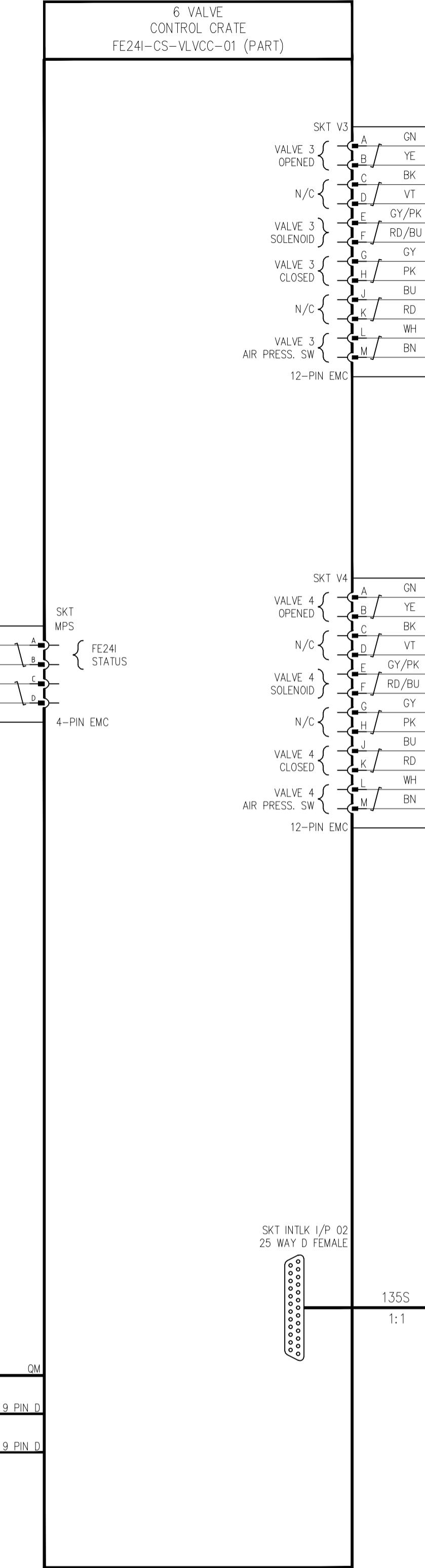
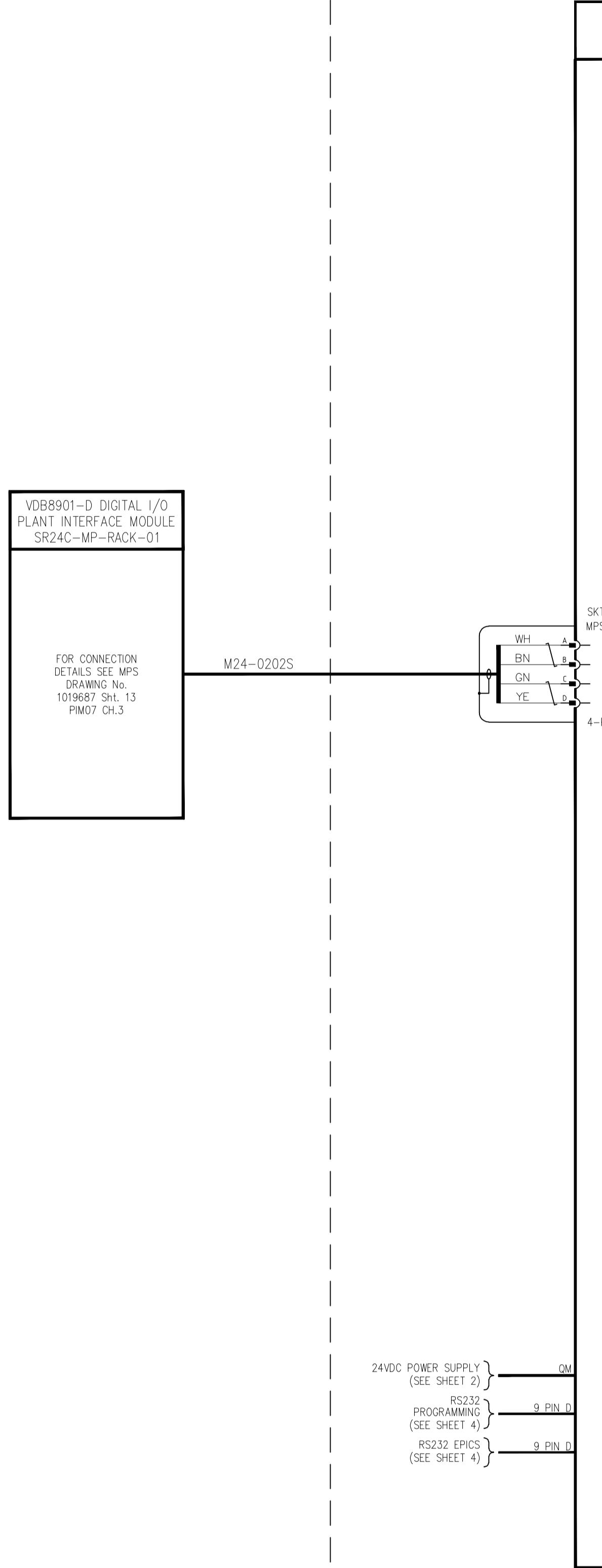
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SR24C-CS-CIA-01

FE24I-CS-RACK-01

STORAGE RING CELL 24

FRONT END FE24I



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**A** FIRST ISSUE  
**B** ADDED ALARM A SIGNALS TO TRIP AMPS ON SHEET 24.  
**C** SEE FE24I-RS-RAF-0020  
 ENCODER WIRING MODIFIED  
 ON FE24I-M0-RENC-02  
 (PHASES A AND B SWAPPED)

**D** SHEET 4  
 SLOT 3 DELETED, PMC EVENT RECEIVER ADDED.  
 SHEET 7 - GUARD LINE A & B PLACED IN SERIES, ID INTERLOCK ADDED.  
 SHEETS 9 & 10 - READY OUTPUT FROM FC1RL CONNECTED TO TB-02 AND CIU1  
 SHEET 21 - FE24I-RS-APTR-01 DELETED

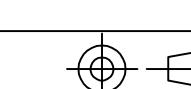
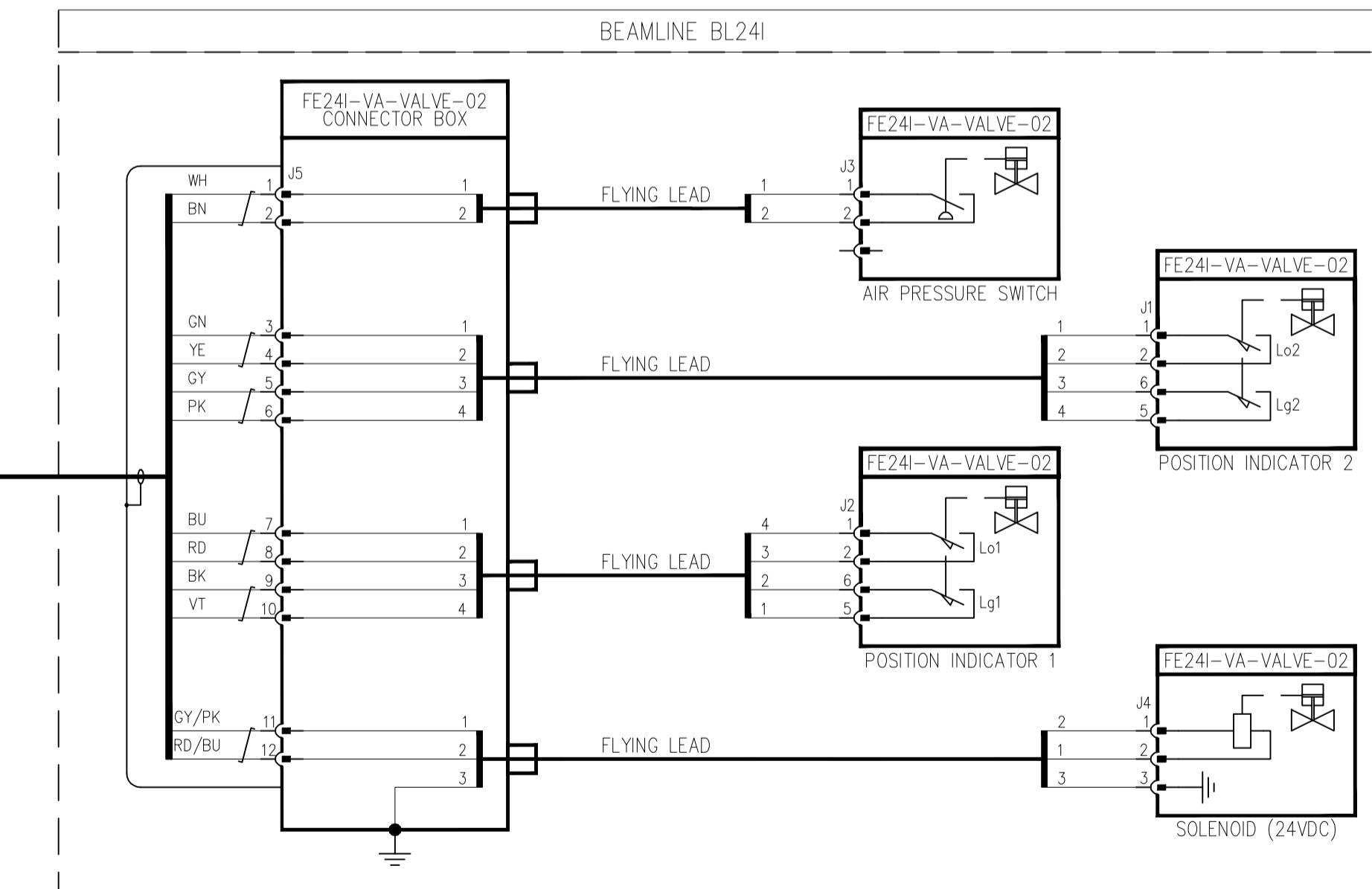
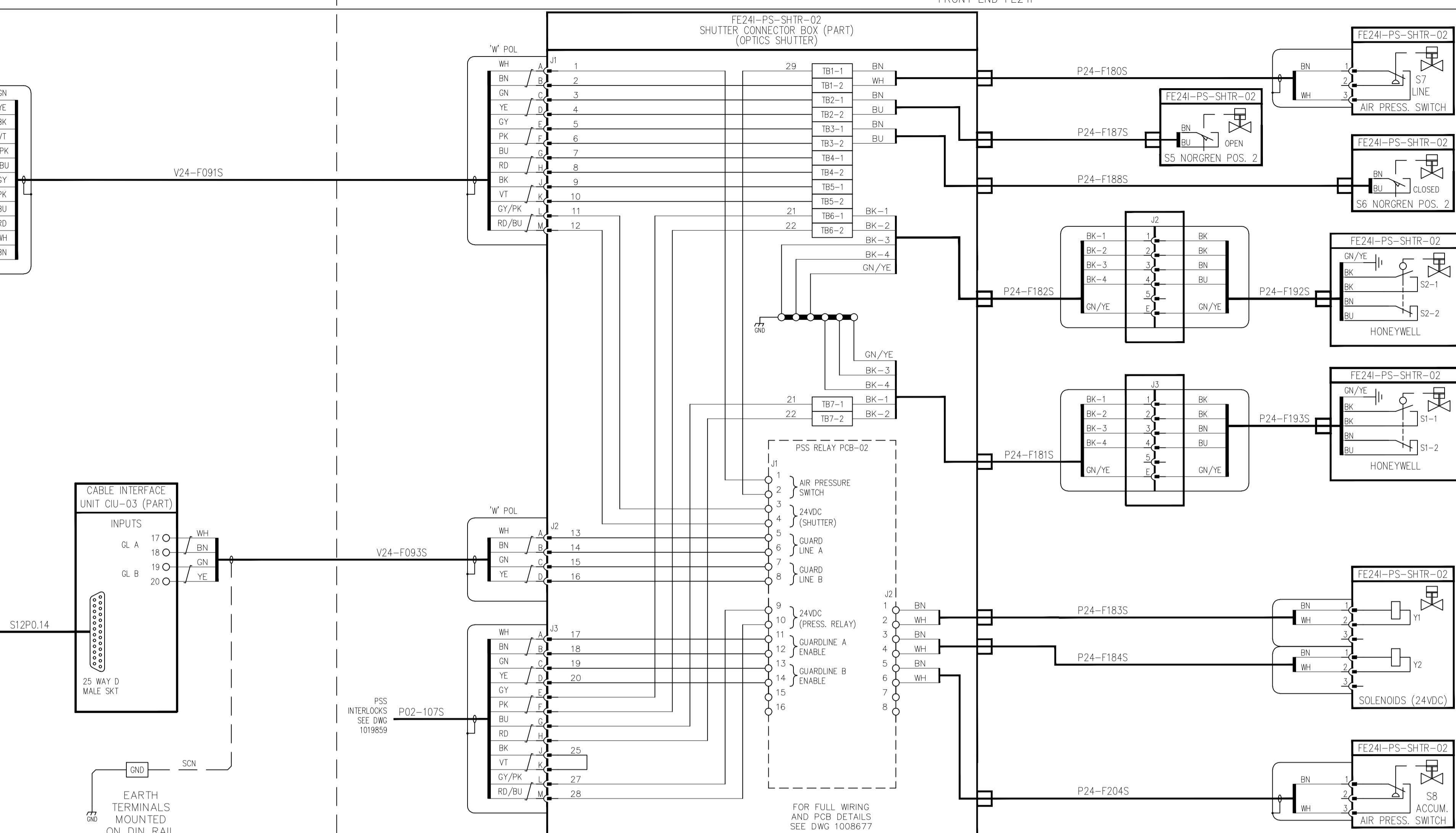
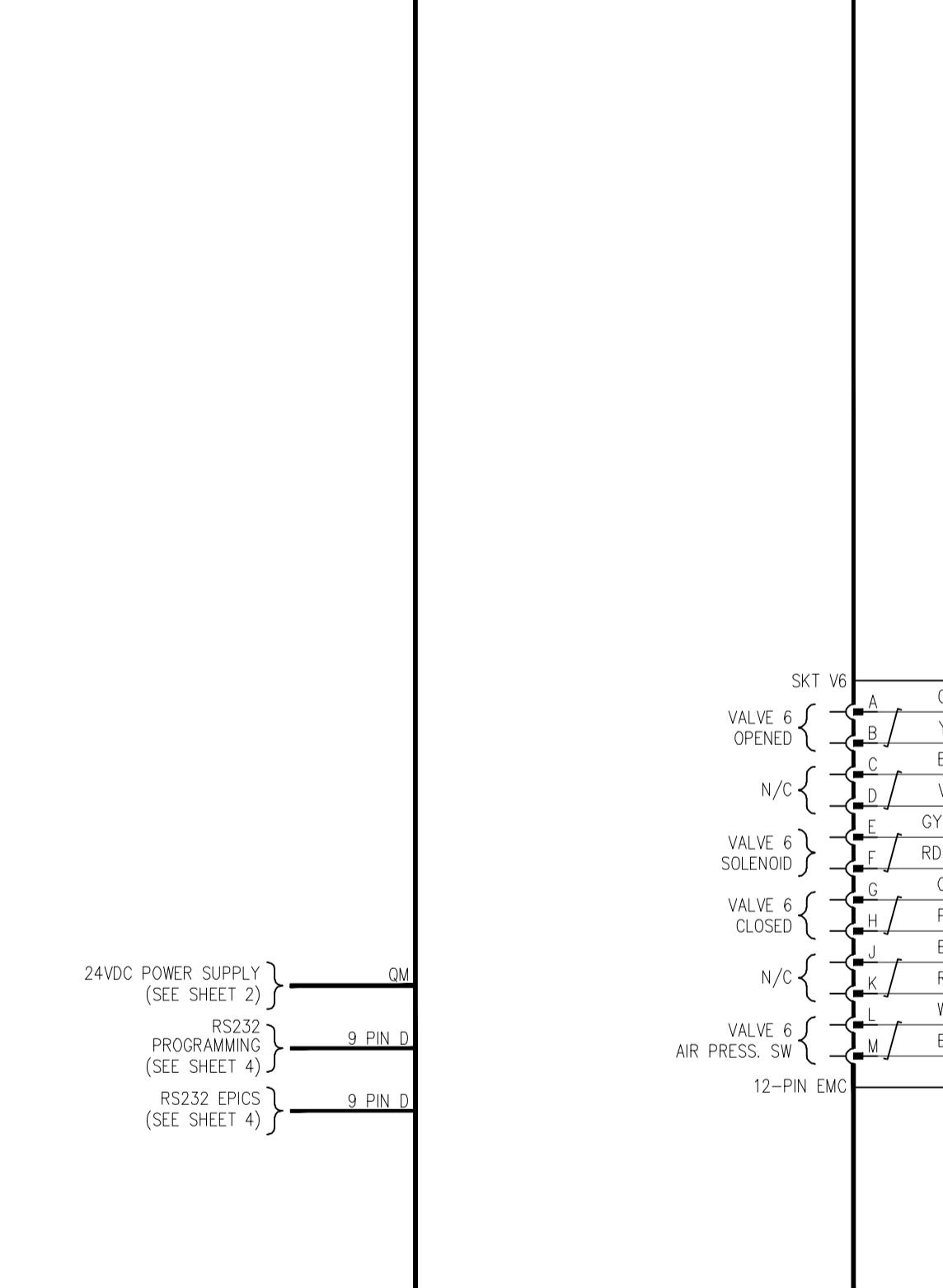
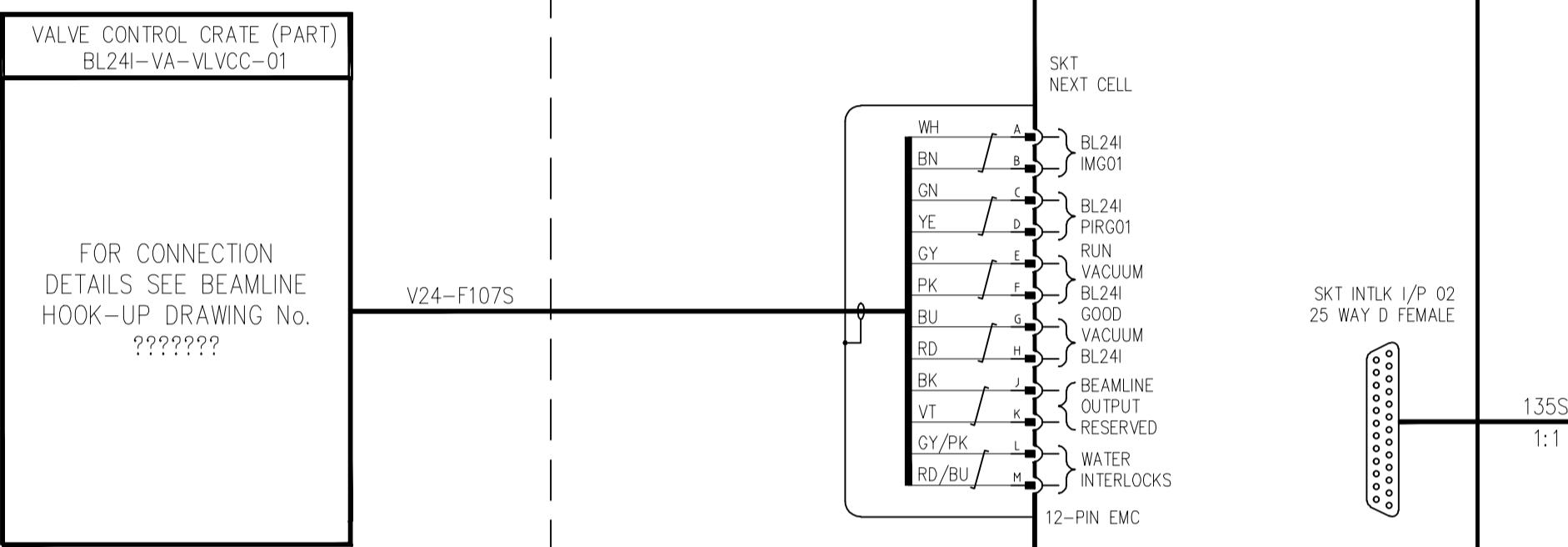
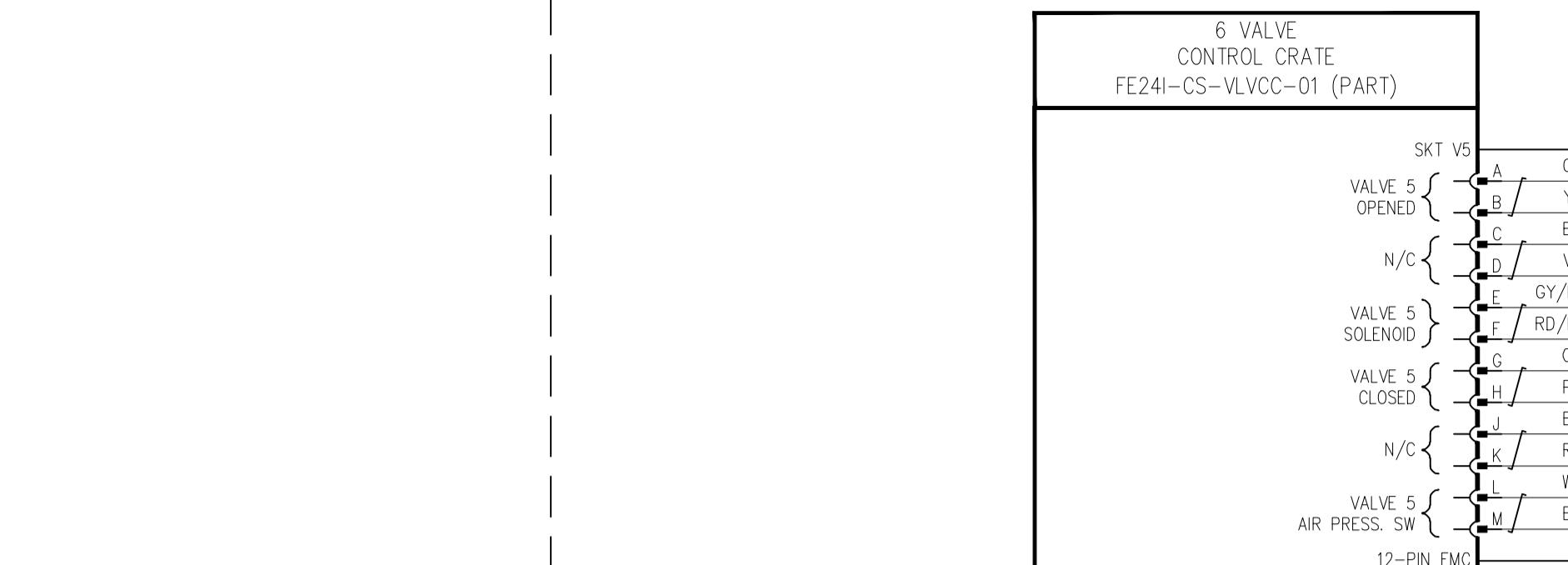
**E** SHEET 2 & 3 PSU REPLACED WITH DUPLEX PSU, SHT 5.  
 PSU HEALTHY SIGNALS ADDED TO FM 03

**F** SHEET 17 & 19  
 CABLES D24-0215S AND D24-0221S ADDED

**G** SHEET 20  
 CORE COLOURS CHANGED ON A24-F001S & F002S,  
 COMMENT ADDED TO APTR 1 & 2 PT100.

THIS REVISION		TITLE	
DRN DATE	TJT 31/01/12	CHK DATE	TJT 31/01/12
APPD DATE	AFT 30/03/12	ORIGINATOR/DATE	DOR 04/01/07
DRG No.	1023295	DRG STATUS	Approved
AUTOCAD		SHEET 7 OF 24	REVISION <b>G</b>

DIAMOND LIGHT SOURCE LTD, DIAMOND  
HOUSE, CHILTON, DIDCOT  
OXFORDSHIRE, OX11 0DE.STORAGE RING CELL 24  
FE24I FRONT END CONTROL SYSTEM  
HOOK UP DRAWING

BL24I-CS-CIA-01  
BL24I-CS-RACK-01SR24C-CS-CIA-01  
FE24I-CS-RACK-01STORAGE RING CELL 24  
FRONT END FE24I

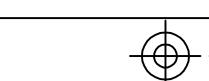
NOTES  
1. FOR ALL ASSOCIATED REFERENCE DRAWINGS / DOCUMENTATION SEE INDEX SHEET 1.  
2. PRESSURE SWITCH OPEN ON LOSS OF AIR PRESSURE.



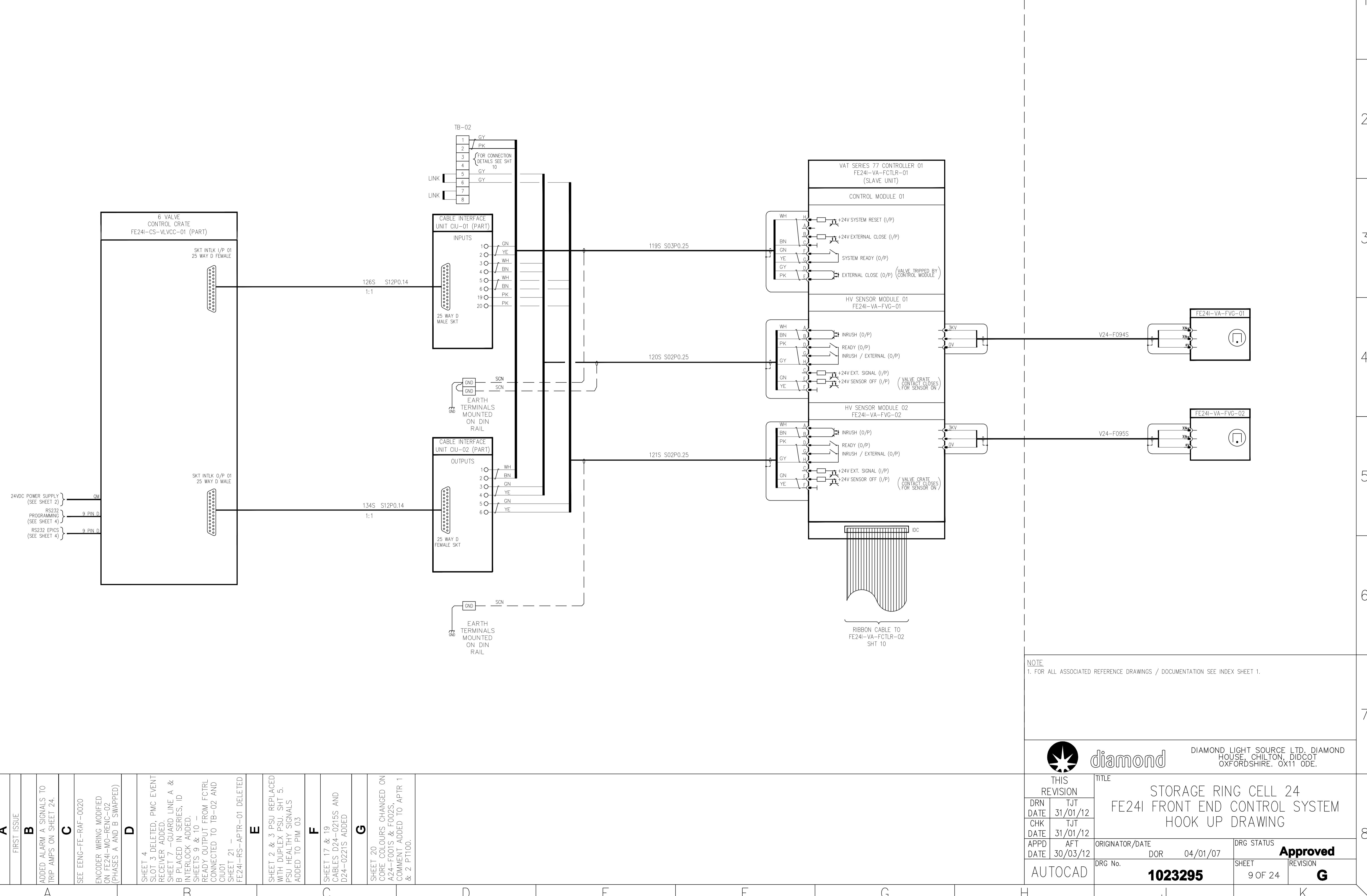
DIAMOND LIGHT SOURCE LTD, DIAMOND HOUSE, CHILTON, DIDCOT, OXFORDSHIRE, OX11 0DE.

THIS REVISION  
DRN TJT DATE 31/01/12  
CHK TJT DATE 31/01/12  
APPD AFT DATE 30/03/12  
AUTOCAD

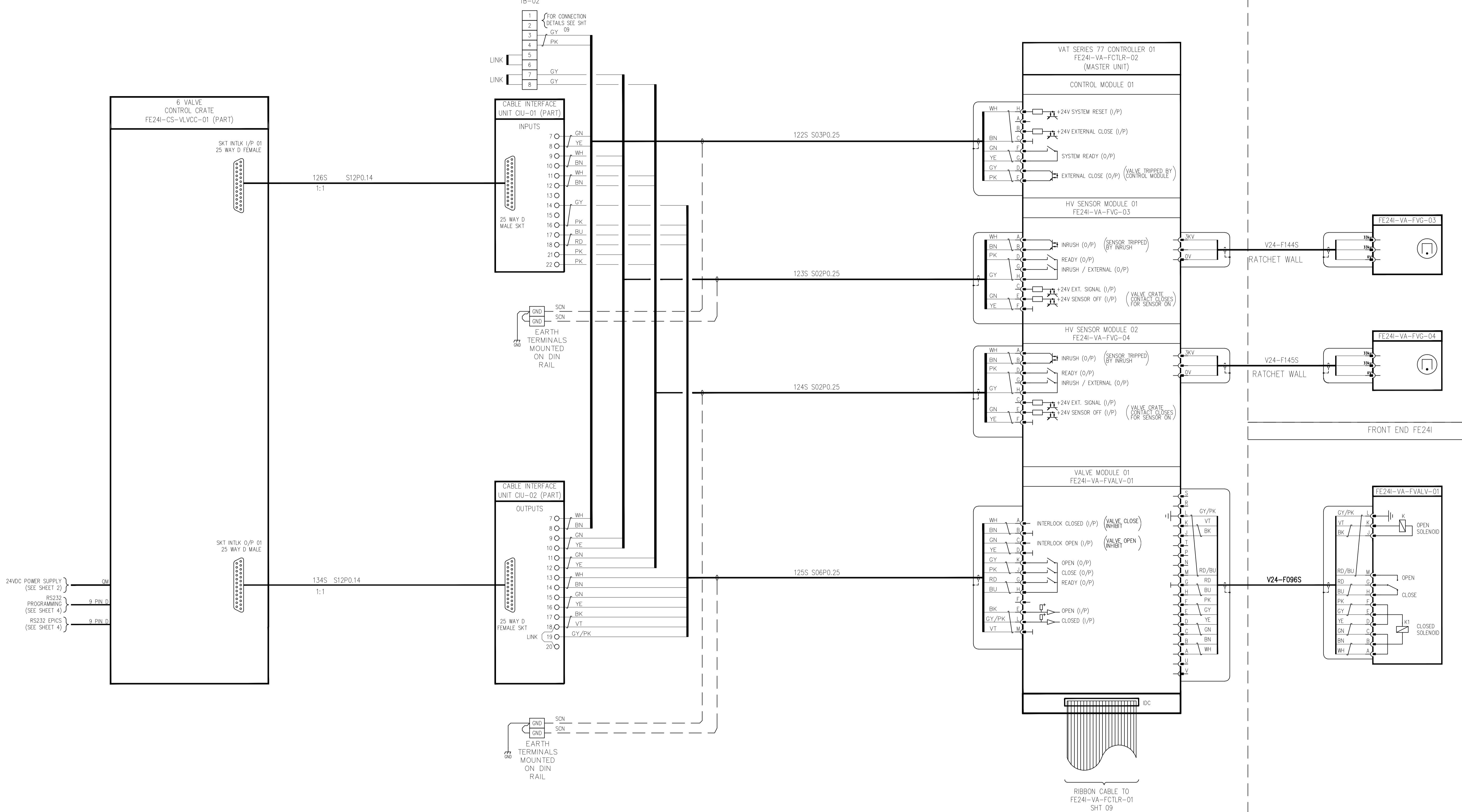
TITLE  
STORAGE RING CELL 24  
FE24I FRONT END CONTROL SYSTEM  
HOOK UP DRAWING  
ORIGINATOR/DATE DOR 04/01/07 DRG STATUS Approved  
DRC No. 1023295 SHEET 8 OF 24 REVISION G

1  
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**NOTE:**  
1. FOR ALL ASSOCIATED REFERENCE DRAWINGS / DOCUMENTATION SEE INDEX SHEET 1.

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A

FIRST ISSUE

B

ADDED ALARM A SIGNALS TO TRIP AMPS ON SHEET 24.

C

SEE EENG-TE-RAF-0020

ENCODER WIRING MODIFIED ON FE24I-M0-REN-02 (PHASES A AND B SWAPPED)

D

SHEET 4  
SLOT 3 DELETED, PMC EVENT RECEIVER ADDED.  
SHEET 7 - GUARD LINE A & B PLACED IN SERIES, ID INTERLOCK ADDED.  
READY OUTPUT FROM FCIRL CONNECTED TO TB-02 AND CIU01  
SHEET 21 - FE24I-RS-APTR-01 DELETED

E

SHEET 2 & 3 PSU REPLACED WITH DUPLEX PSU. SHT 5.  
PSU HF ALTHY SIGNALS ADDED TO PIM 03

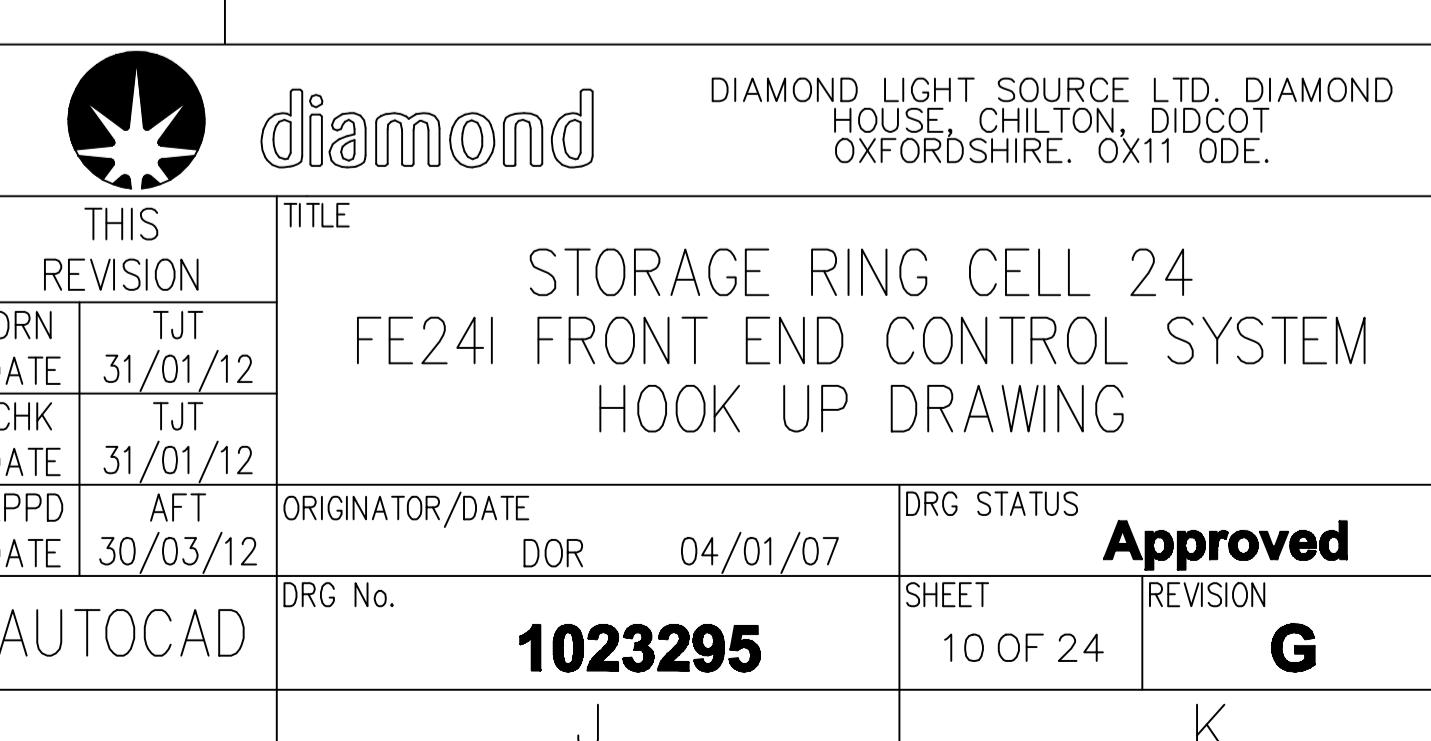
F

SHEET 17 & 19  
CABLES D24-0215S AND D24-0221S ADDED

G

SHEET 20  
CORE COLOURS CHANGED ON A24-F001S & F002S,  
COMMENT ADDED TO APTR 1 & 2 PT100.

THIS REVISION		TITLE	
DRN	TJT	ORIGINATOR/DATE	DRG STATUS
31/01/12	31/01/12	DOR 04/01/07	Approved
CHK	TJT		
APPD	AFT		
DATE	30/03/12		
AUTOCAD		DRC No.	1023295
10 OF 24		REVISION	G



DIAMOND LIGHT SOURCE LTD, DIAMOND HOUSE, CHILTON, DIDCOT, OXFORDSHIRE, OX11 0DE.

STORAGE RING CELL 24  
FE24I FRONT END CONTROL SYSTEM  
HOOK UP DRAWING

A

B

C

D

E

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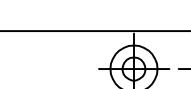
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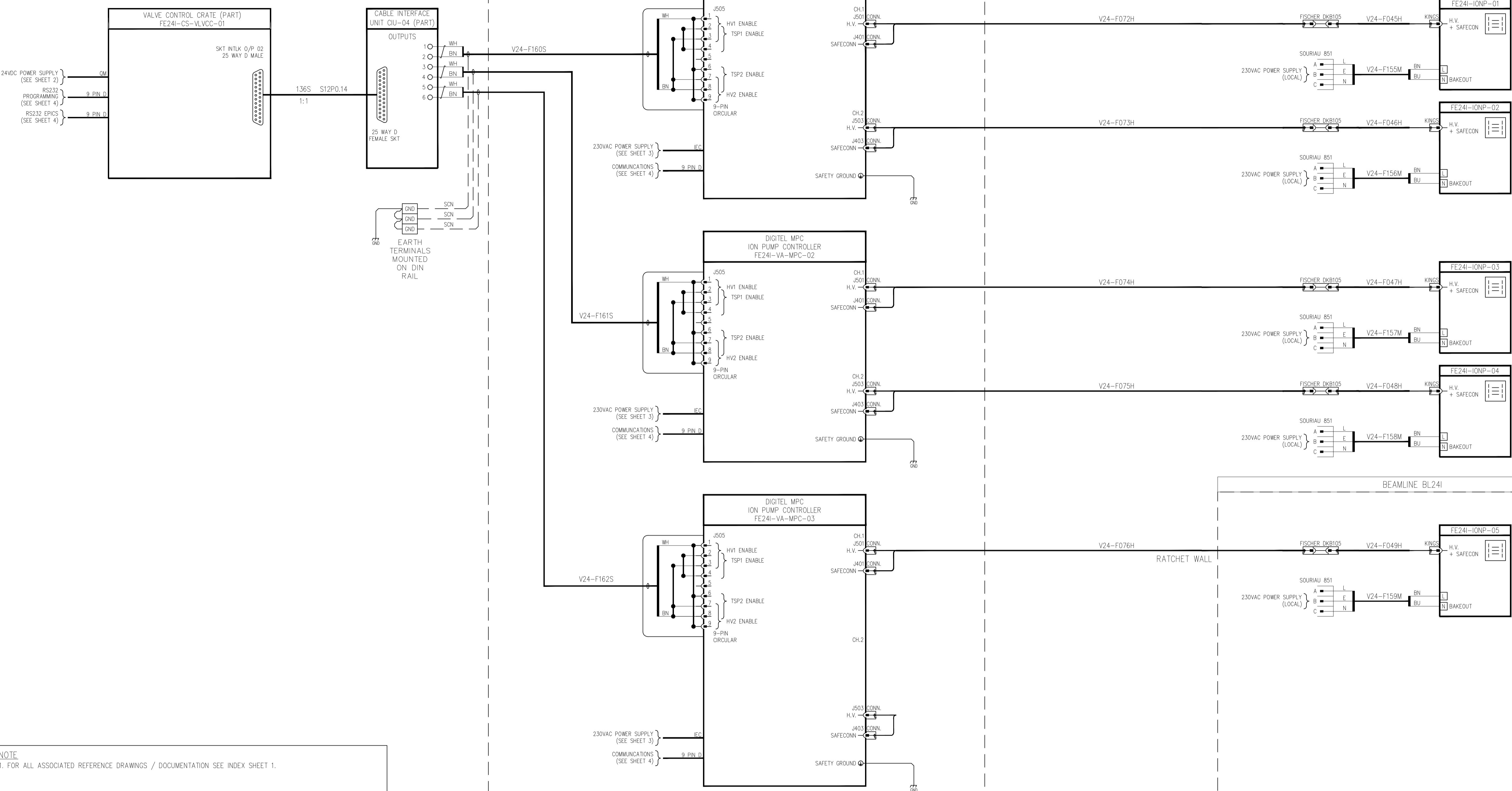
FE24I-CS-RACK-01

SR24C-CS-CIA-01

FE24I-CS-RACK-02

STORAGE RING CELL 24

FRONT END FE24I



## NOTE

1. FOR ALL ASSOCIATED REFERENCE DRAWINGS / DOCUMENTATION SEE INDEX SHEET 1.

<b>A</b>	FIRST ISSUE
<b>B</b>	ADDED ALARM A SIGNALS TO TRIP AMPS ON SHEET 24.
<b>C</b>	SEE EENG-FE-RAF-0020 ENCODER WIRING MODIFIED ON FE24I-MO-RENC-02 (PHASES A AND B SWAPPED)
<b>D</b>	SHEET 3 DELETED, PMC EVENT RECEIVER ADDED. SHEET 7 - GUARD LINE A & B PLACED IN SERIES, ID INTERLOCK ADDED. SHEETS 9 & 10 - READY OUTUT FROM FC1RL CONNECTED TO TB-02 AND CIU01 SHEET 21 - FE24I-RS-APTR-01 DELETED
<b>E</b>	SHEET 2 & 3 PSU REPLACED WITH DUPLEX PSU. SH1.5. PSU HEALTHY SIGNALS ADDED TO PIM 03
<b>F</b>	SHEET 17 & 19 CABLES D24-0215S AND D24-0221S ADDED
<b>G</b>	SHEET 20 CORE COLOURS CHANGED ON A24-F001S & F002S, COMMENT ADDED TO APTR 1 & 2 PT100.

diamond DIAMOND LIGHT SOURCE LTD, DIAMOND HOUSE, CHILTON, DIDCOT, OXFORDSHIRE, OX11 0DE.

THIS REVISION	TITLE
DRN TJT DATE 31/01/12	STORAGE RING CELL 24
CHK TJT DATE 31/01/12	FE24I FRONT END CONTROL SYSTEM
APPD AFT DATE 30/03/12	HOOK UP DRAWING
ORIGINATOR/DATE DOR 04/01/07	DRG STATUS
DRG No. 1023295	SHEET 11OF 24
REVISION G	Approved

A

B

C

D

E

F

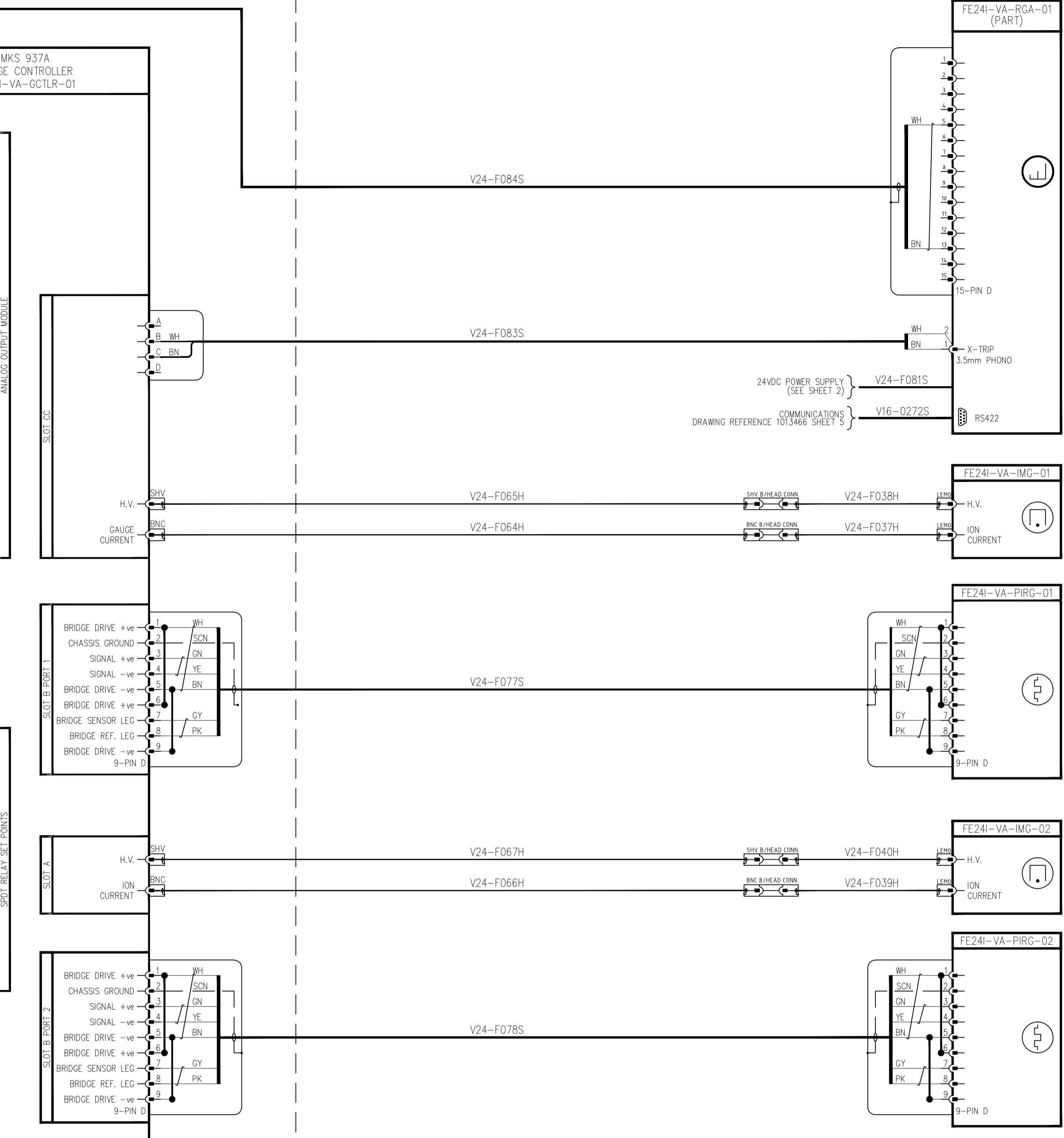
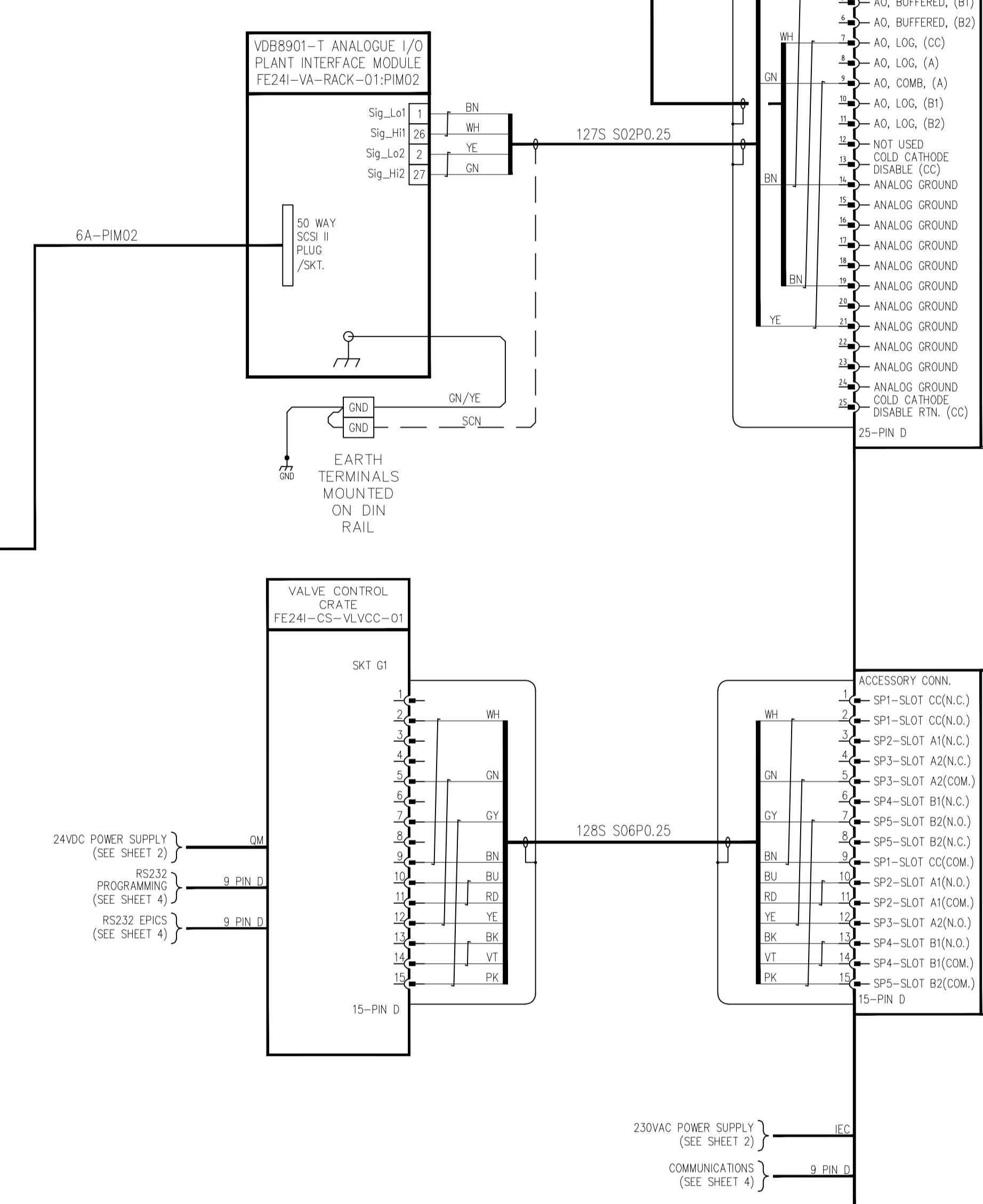
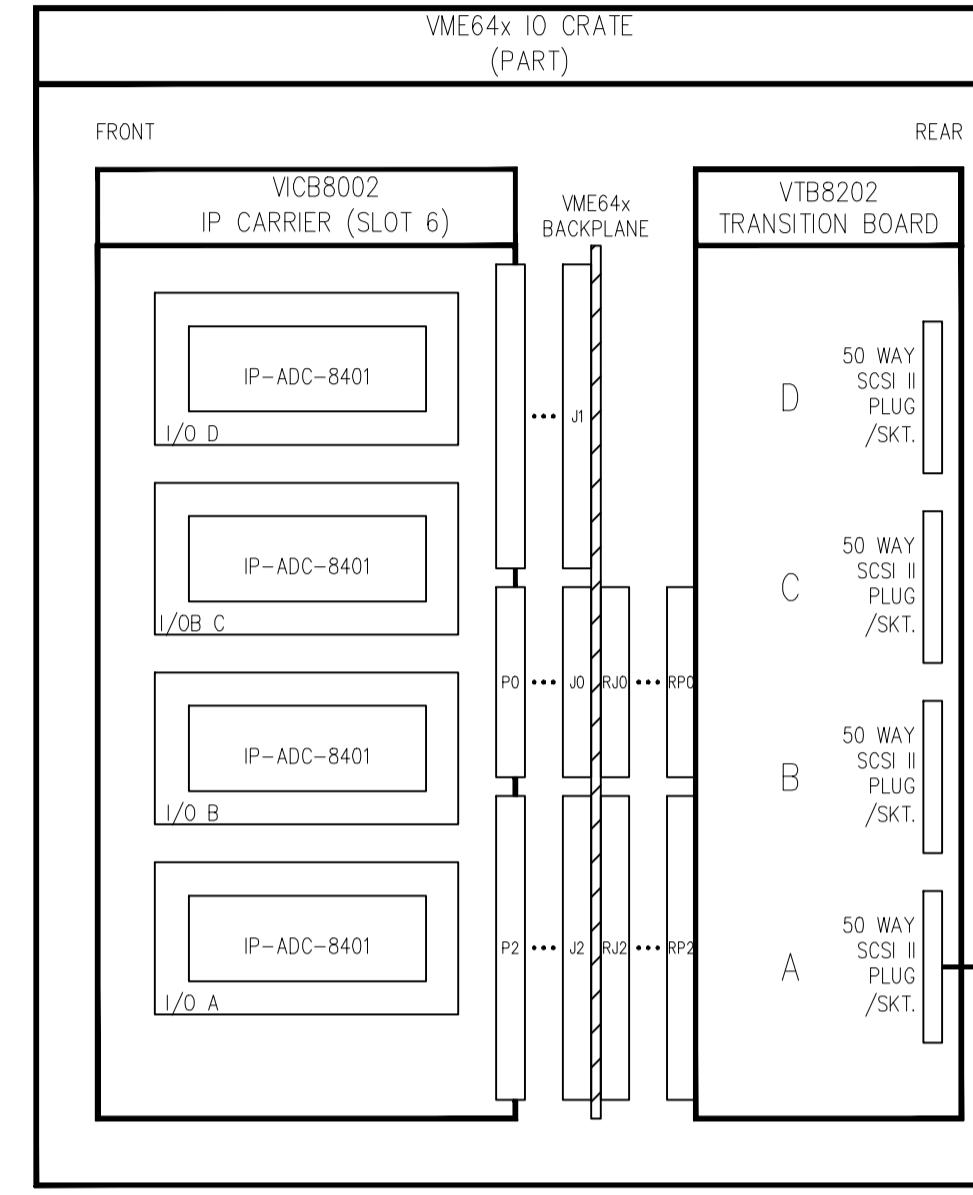
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**NOTE**  
1. FOR ALL ASSOCIATED REFERENCE DRAWINGS / DOCUMENTATION SEE INDEX SHEET 1.

THIS REVISION		TITLE	
DRN	TJT	STORAGE RING CELL 24	
DATE	31/01/12	FE24I FRONT END CONTROL SYSTEM	
CHK	TJT	HOOK UP DRAWING	
DATE	31/01/12		
APPD	AFT		Approved
DATE	30/03/12		
ORIGINATOR/DATE	DOR	04/01/07	DRG STATUS
DRC No.			SHEET
			REVISION
		1023295	G
		12 OF 24	

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A

FIRST ISSUE

B

ADDED ALARM A SIGNALS TO TRIP AMPS ON SHEET 24.

C

SEE EENG-FE-RAF-0020

ENCODER WIRING MODIFIED ON FE24I-M0-RENG-02 (PHASES A AND B SWAPPED)

D

SHEET 3 DELETED, PMC EVENT RECEIVER ADDED.

SHEET 7 - GUARD LINE A &amp; B PLACED IN SERIES, ID INTERLOCK ADDED.

SHEETS 9 &amp; 10 - READY OUTPORT FROM FCIRL CONNECTED TO TB-02 AND CIU01

SHEET 21 - FE24I-RS-APTR-01 DELETED

A

E

SHEET 2 &amp; 3 PSU REPLACED WITH DUPLEX PSU. SH1:5. PSU HEALTHY SIGNALS ADDED TO FIM 03

F

SHEET 17 &amp; 19 CABLES D24-0215S AND D24-0221S ADDED

G

SHEET 20 CORE COLOURS CHANGED ON A24-F001S &amp; F002S, COMMENT ADDED TO APTR 1 &amp; 2 PT100.

B

C

D

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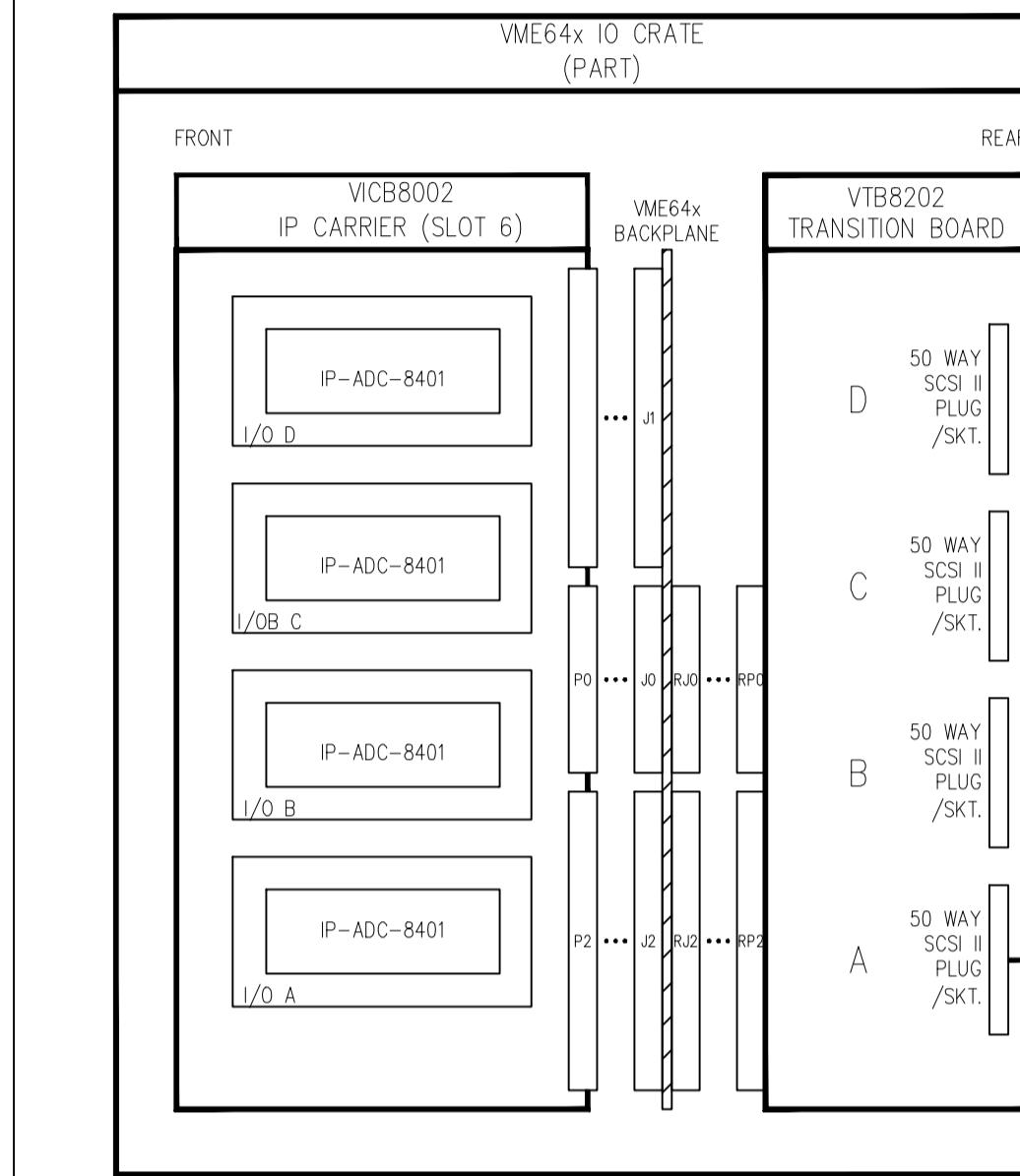
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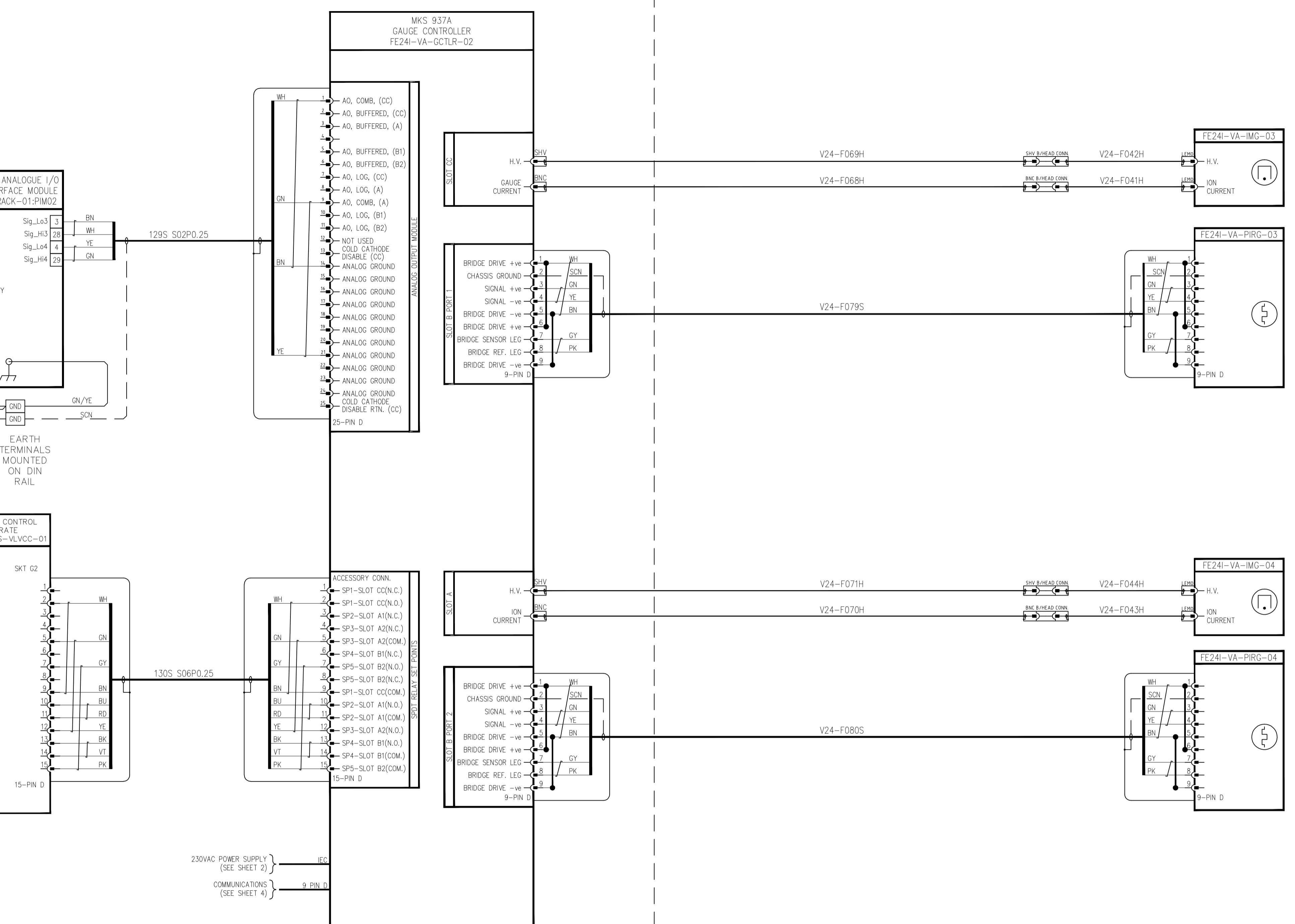
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<b>A</b>	FIRST ISSUE
<b>B</b>	ADDED ALARM A SIGNALS TO TRIP AMPS ON SHEET 24.
<b>C</b>	SEE EENG-FE-RAF-0020 ENCODER WIRING MODIFIED ON FE24I-M0-RENC-02 (PHASES A AND B SWAPPED)
<b>D</b>	SHEET 4 SLOT 3 DELETED, PMC EVENT RECEIVER ADDED. SHEET 7 - GUARD LINE A & B PLACED IN SERIES, ID INTERLOCK ADDED. SHEETS 9 & 10 - READY OUTPUT FROM FCTRL CONNECTED TO TB-02 AND CUOI SHEET 21 - FE24I-RS-APTR-01 DELETED

<b>E</b>	SHEET 2 & 3 PSU REPLACED WITH DUPLEX PSU. SHT 5. PSU HEALTHY SIGNALS ADDED TO TIM 03
<b>F</b>	SHEET 17 & 19 CABLES D24-0215S AND D24-0221S ADDED
<b>G</b>	SHEET 20 CORE COLOURS CHANGED ON A24-F001S & F002S, COMMENT ADDED TO APTR 1 & 2 PT100.



**NOTE**  
1. FOR ALL ASSOCIATED REFERENCE DRAWINGS / DOCUMENTATION SEE INDEX SHEET 1.



THIS REVISION	TITLE	
	DRN	TJT
CHK		
APPD		
ORIGINATOR/DATE		DRG STATUS
DOR	04/01/07	Approved
AUTOCAD		
1023295		
DRG No.		SHEET 13 OF 24
		REVISION <b>G</b>



FE24i-CS-RACK-01

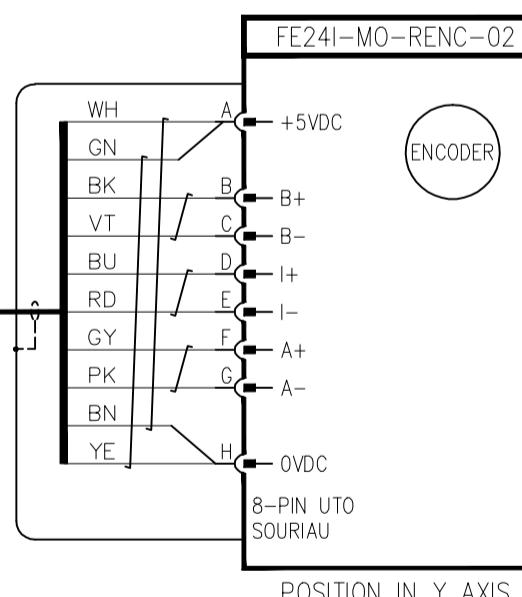
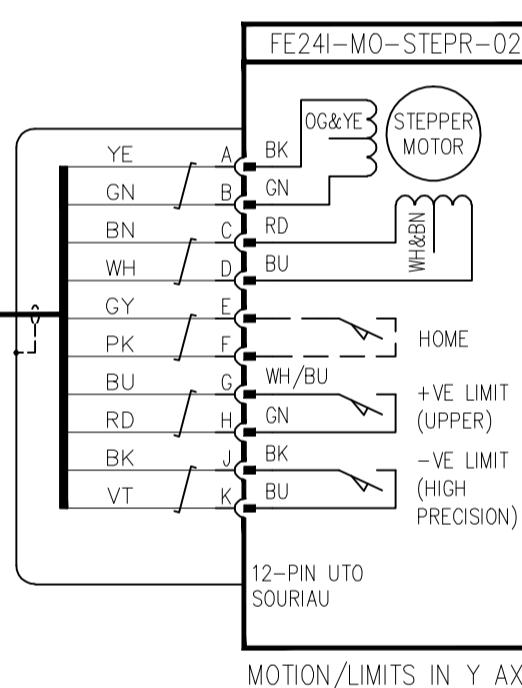
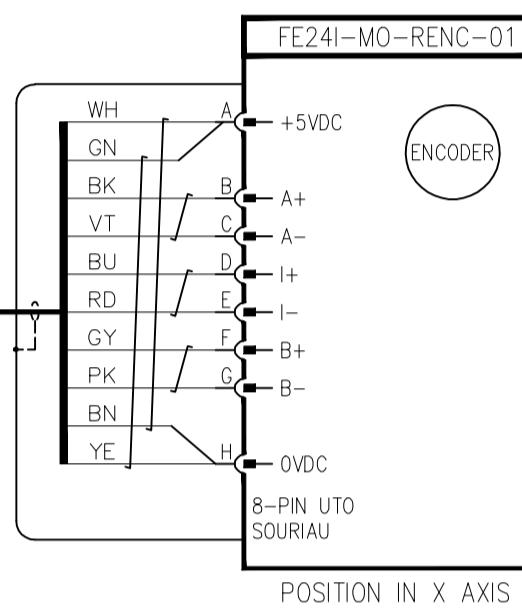
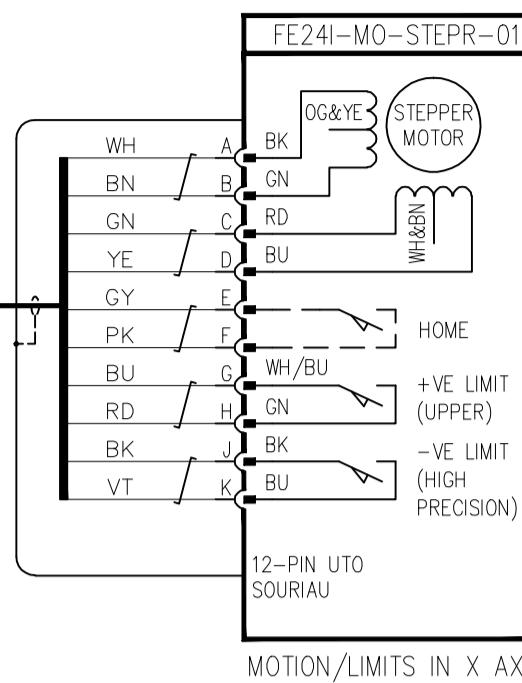
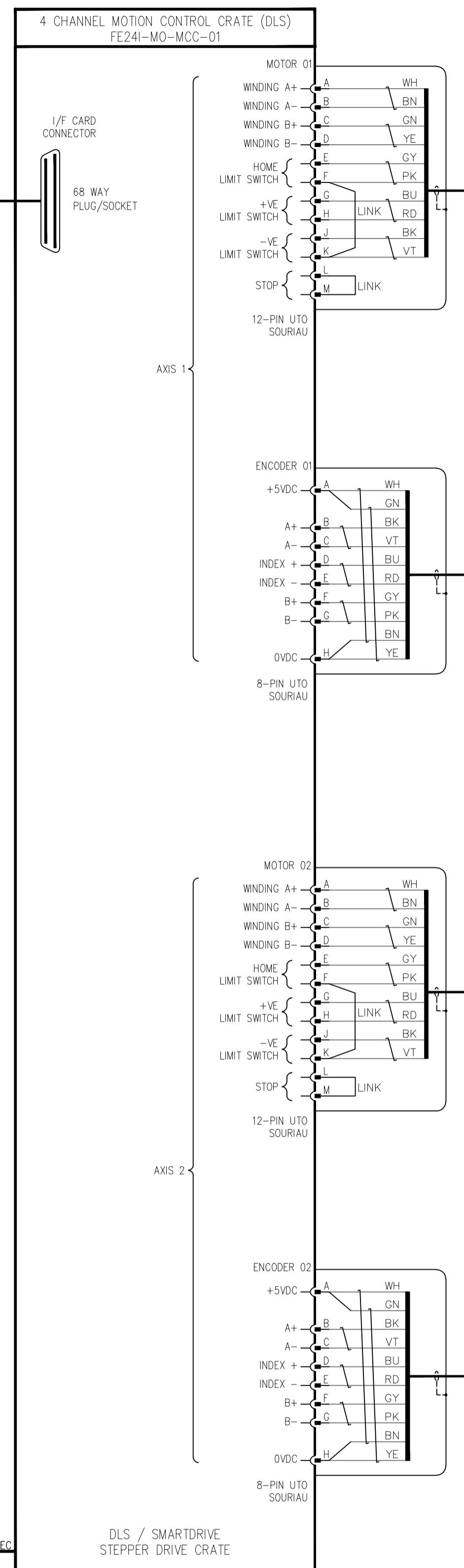
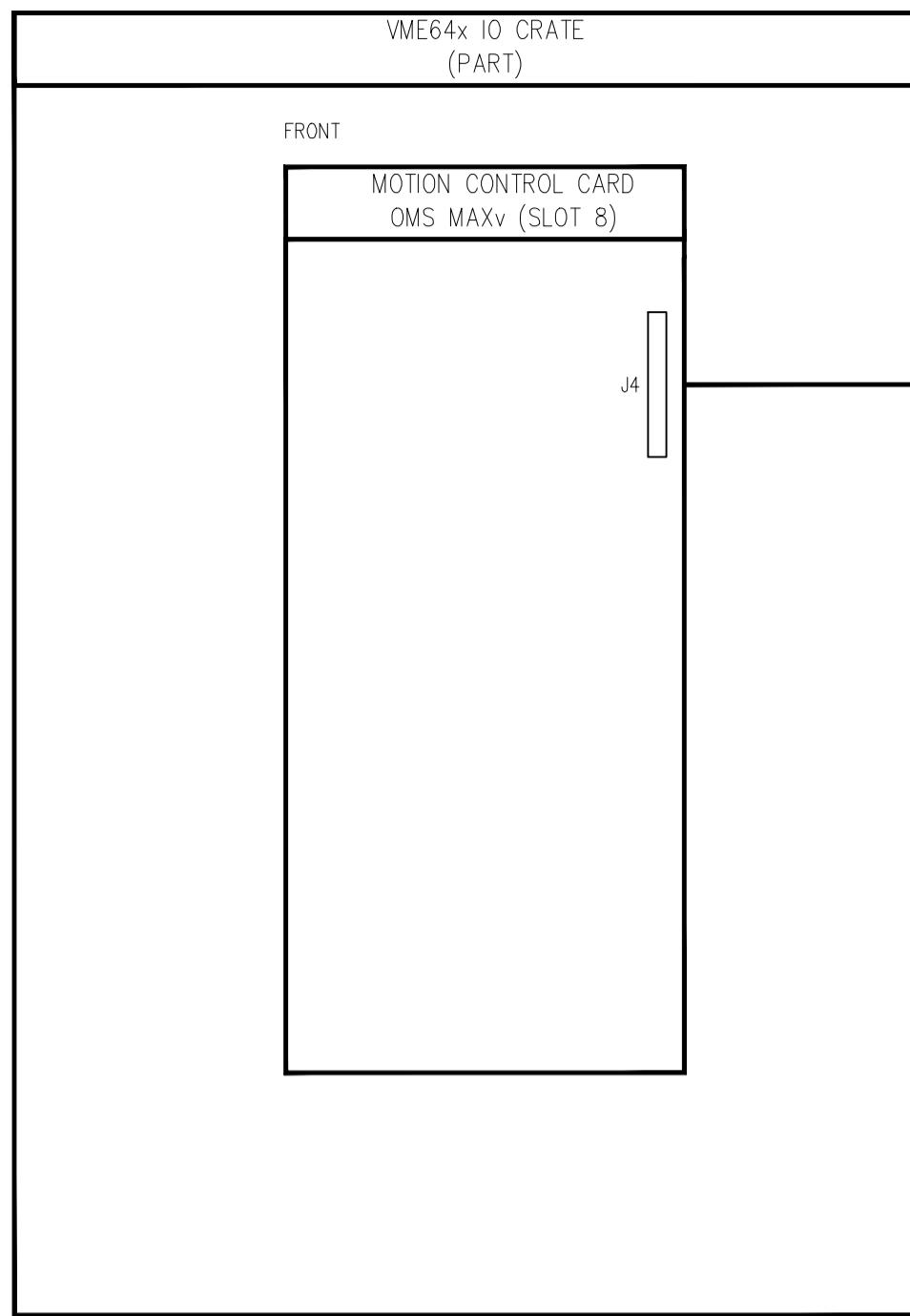
SR24C-CS-CIA-01

FE24i-CS-RACK-02

STORAGE RING CELL 24

FRONT END FE24i

TRANSLATION TABLE FE24i-AL-APTR-02



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## NOTE

- FOR ALL ASSOCIATED REFERENCE DRAWINGS / DOCUMENTATION SEE INDEX SHEET 1.
- PAIRS GN/YE AND WH/BN ARE CONNECTED TOGETHER TO COMPENSATE FOR VOLTAGE DROP.  
SEE ENCODER CONNECTOR 01 AND 02 ON THE 4 CHANNEL MOTION CONTROL CRATE.
- THE LINK BETWEEN F & K INPUTS A 'HOME' SIGNAL WHEN '-VE LIMIT' IS ACTIVATED.

A

FIRST ISSUE

B

ADDED ALARM A SIGNALS TO  
TRIP AMPS ON SHEET 24.

C

SEE EENG-FE-RAF-0020  
ENCODER WIRING MODIFIED  
ON FE24i-MO-RENC-02  
(PHASES A AND B SWAPPED)

D

SHEET 3 DELETED, PMC EVENT  
RECEIVER ADDED.  
SHEET 7 - GUARD LINE A &  
B PLACED IN SERIES, ID  
INTERLOCK ADDED.  
SHEETS 9 & 10 -  
READY OUTUT FROM FC1R  
CONNECTED TO TB-02 AND  
CLU01  
SHEET 21 -  
FE24i-RS-APTR-01 DELETED

E

SHEET 2 & 3 PSU REPLACED  
WITH DUPLEX PSU. SH1-5.  
PSU HEALTHY SIGNALS  
ADDED TO FIM 03

F

SHEET 17 & 19  
CORE COLOURS CHANGED ON  
A24-F001S & F002S,  
COMMENT ADDED TO APTR 1  
& 2 PT100.

G

SHEET 20  
CABLES D24-0215S AND  
D24-0221S ADDED

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REVISION  
DRN TJT  
DATE 31/01/12  
CHK TJT  
DATE 31/01/12  
APPD AFT  
DATE 30/03/12  
AUTOCADORIGINATOR/DATE  
DOR 04/01/07  
DRG STATUS  
**Approved**  
DRC No. 1023295  
SHEET 15 OF 24  
REVISION G

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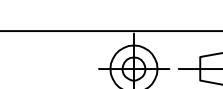
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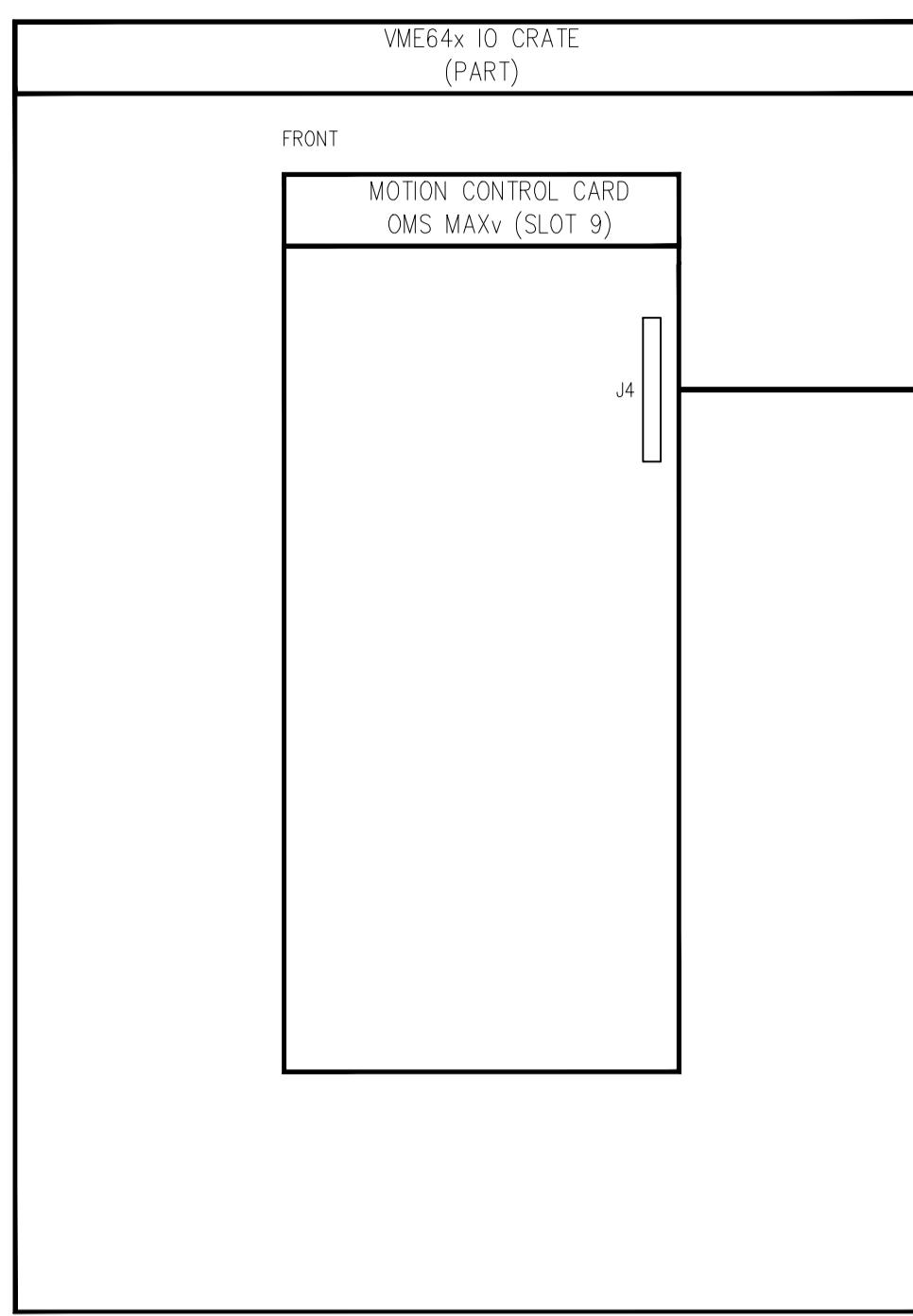
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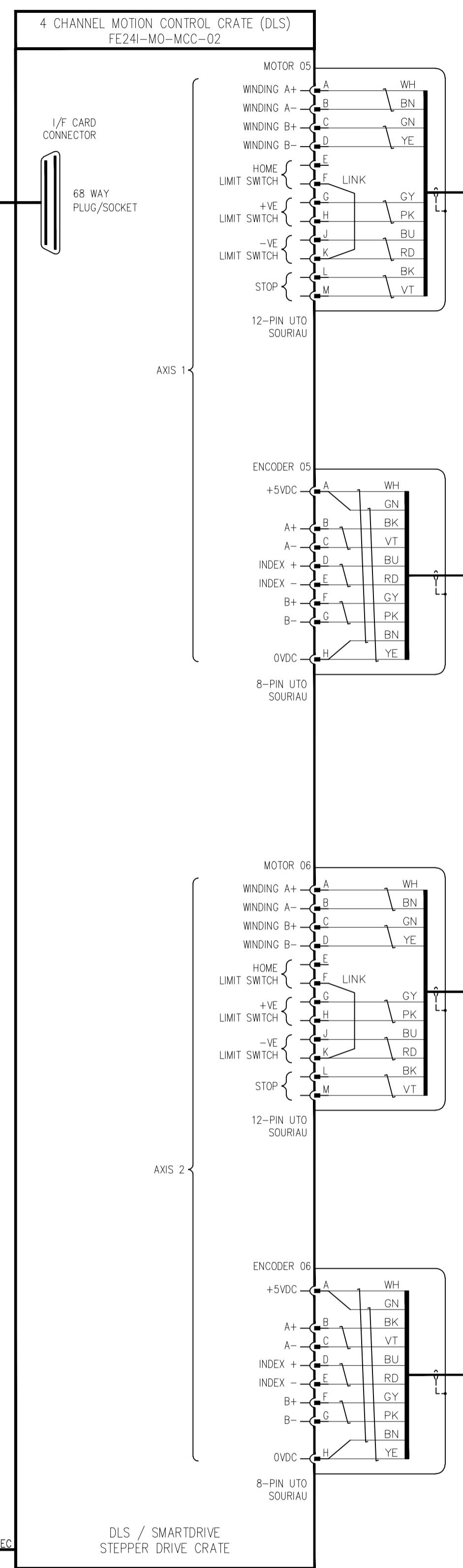


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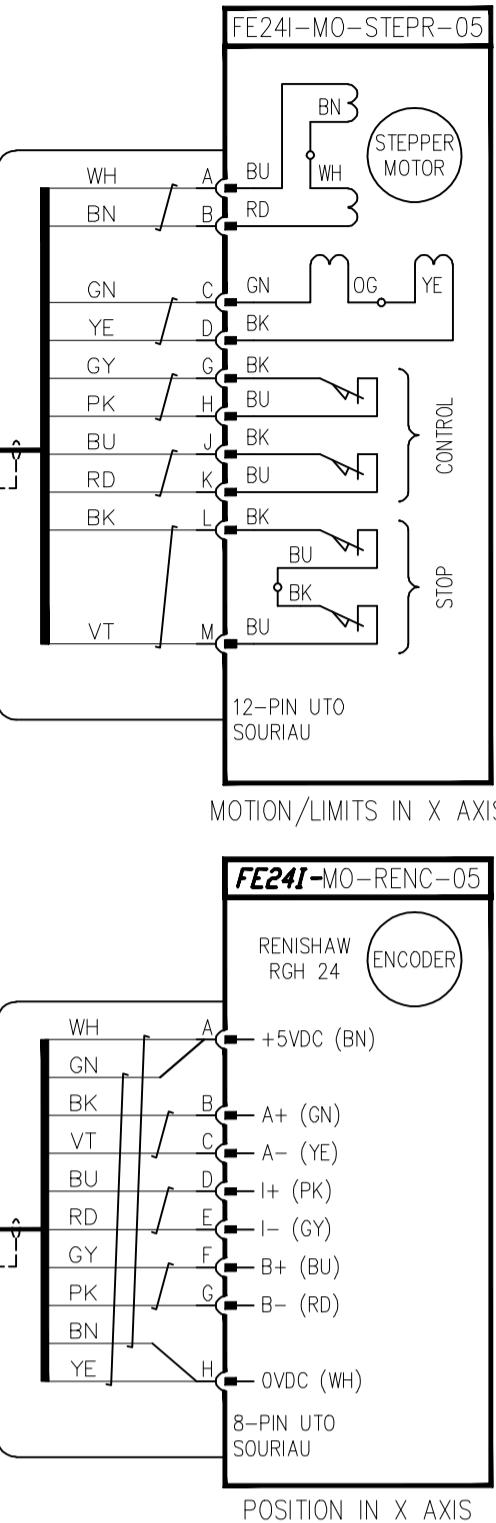


C24-F189S

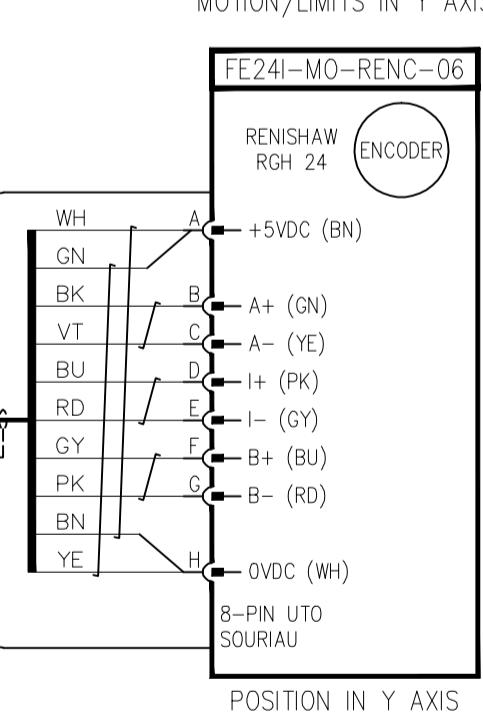
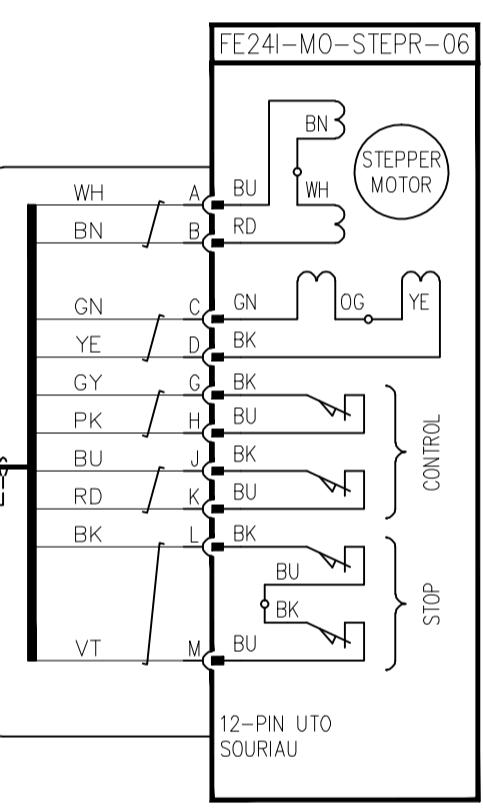
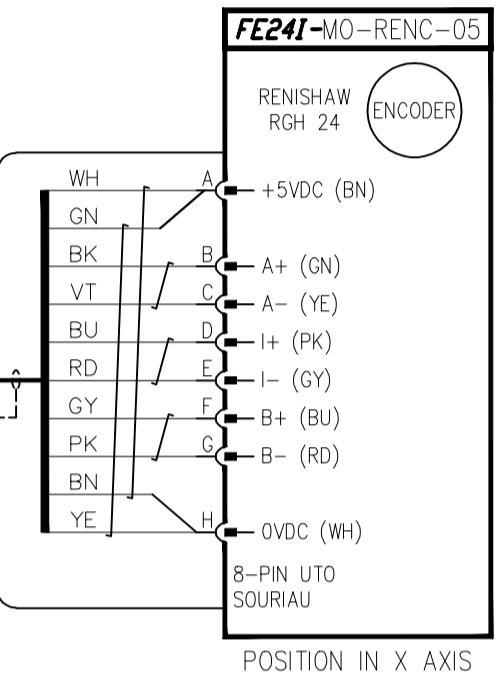


SEE NOTE 3

C24-F108S



MOTION/LIMITS IN X AXIS



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NOTE  
1. FOR ALL ASSOCIATED REFERENCE DRAWINGS / DOCUMENTATION SEE INDEX SHEET 1.  
2. PAIRS GN/YE AND WH/BN ARE CONNECTED TOGETHER TO COMPENSATE FOR VOLTAGE DROP.  
SEE ENCODER CONNECTOR 01 AND 02 ON THE 4 CHANNEL MOTION CONTROL CRATE.  
3. THE LINK BETWEEN F & K INPUTS A 'HOME' SIGNAL WHEN '-VE LIMIT' IS ACTIVATED.

FIRST ISSUE

B

C

SEE EENG-FE-RAF-0020  
ENCODER WIRING MODIFIED  
ON FE24I-MO-RENC-02  
(PHASES A AND B SWAPPED)

D

SHEET 4  
SLOT 3 DELETED, PMC EVENT  
RECEIVER ADDED.  
SHEET 7 - GUARD LINE A &  
B PLACED IN SERIES, ID  
INTERLOCK ADDED.  
SHEETS 9 & 10 -  
READY OUTPORT FROM FC1R  
CONNECTED TO TB-02 AND  
CLU01  
SHEET 21 -  
FE24I-RS-APTR-01 DELETED

E

SHEET 2 & 3 PSU REPLACED  
WITH DUPLEX PSU. SH1-5.  
PSU HEALTHY SIGNALS  
ADDED TO FIM 03

F

SHEET 17 & 19  
CABLES D24-0215S AND  
D24-0221S ADDED

G

SHEET 20  
CORE COLOURS CHANGED ON  
A24-F001S & F002S,  
COMMENT ADDED TO APTR 1  
& 2 PT100.

THIS REVISION		TITLE	
DRN DATE	TJT	DRG STATUS	Approved
CHK DATE	TJT	ORIGINATOR/DATE	DOR 04/01/07
APPD DATE	AFT	DRG STATUS	Approved
30/03/12	31/01/12	DRG No.	1023295
		SHEET	16 OF 24
		REVISION	G

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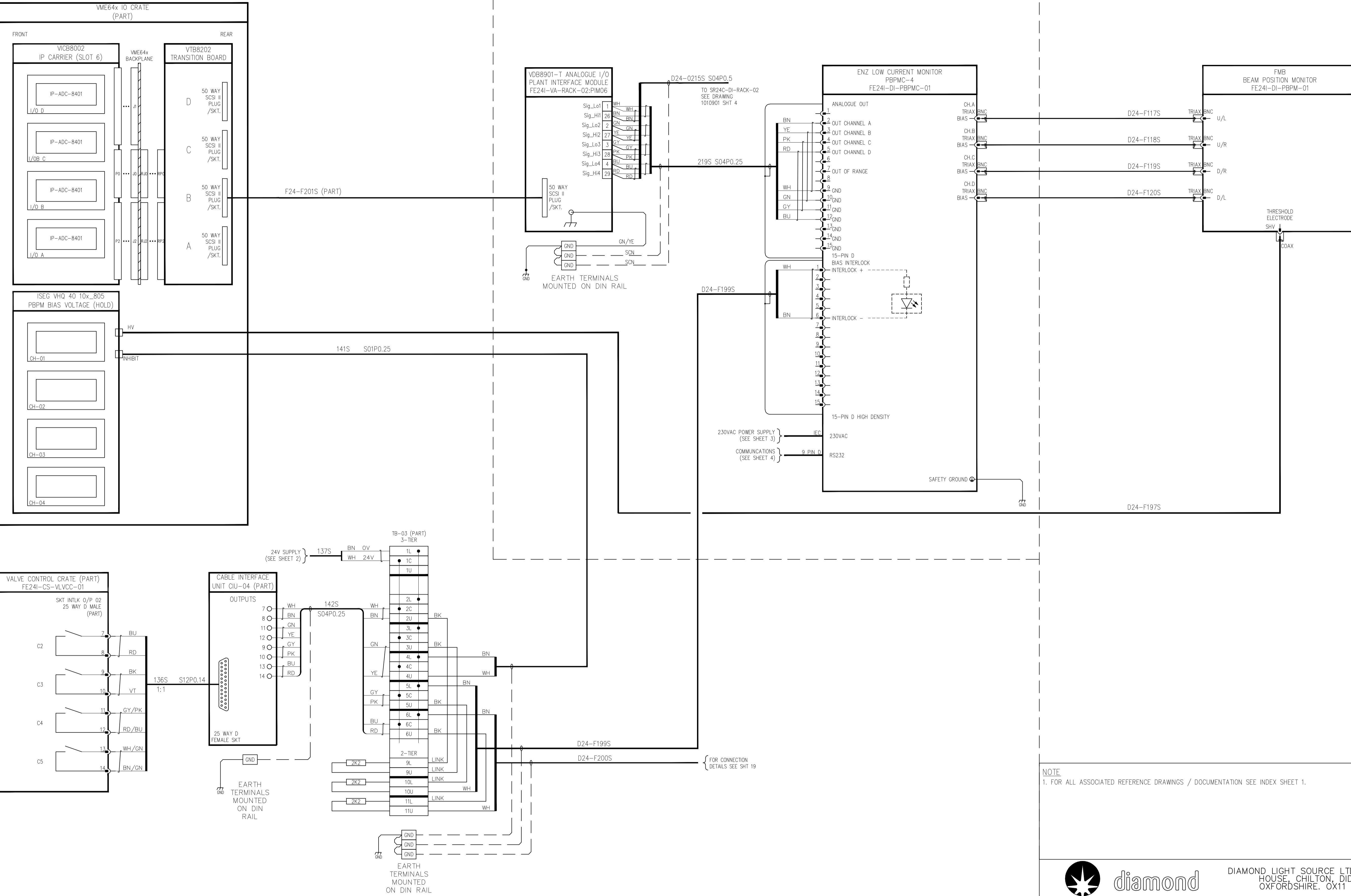
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STORAGE RING CELL 24

FE24I FRONT END GIRDER ASSEMBLY 01

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A	FIRST ISSUE
B	ADDED ALARM A SIGNALS TO TRIP AMPS ON SHEET 24.
C	SEE EENG-FE-RAF-0020 ENCODER WIRING MODIFIED ON FE24I-MO-RENC-02 (PHASES A AND B SWAPPED)
D	SHEET 3 DELETED, PMC EVENT RECEIVER ADDED. SHEET 7 - GUARD LINE A & B PLACED IN SERIES, ID INTERLOCK ADDED. SHEETS 9 & 10 - READY OUTOUT FROM FC1RL CONNECTED TO TB-02 AND CIU01 SHEET 21 - FE24I-RS-APIR-01 DELETED



**NOTE**  
1. FOR ALL ASSOCIATED REFERENCE DRAWINGS / DOCUMENTATION SEE INDEX SHEET 1.



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THIS REVISION		TITLE	
DRN	TJT	DATE	STORAGE RING CELL 24
CHK	TJT	DATE	FE24I FRONT END CONTROL SYSTEM
APPD	AFT	DATE	HOOK UP DRAWING
ORIGINATOR/DATE		DRG STATUS	Approved
DRG No.	1023295	REVISION	G
AUTOCAD		SHEET	17 OF 24

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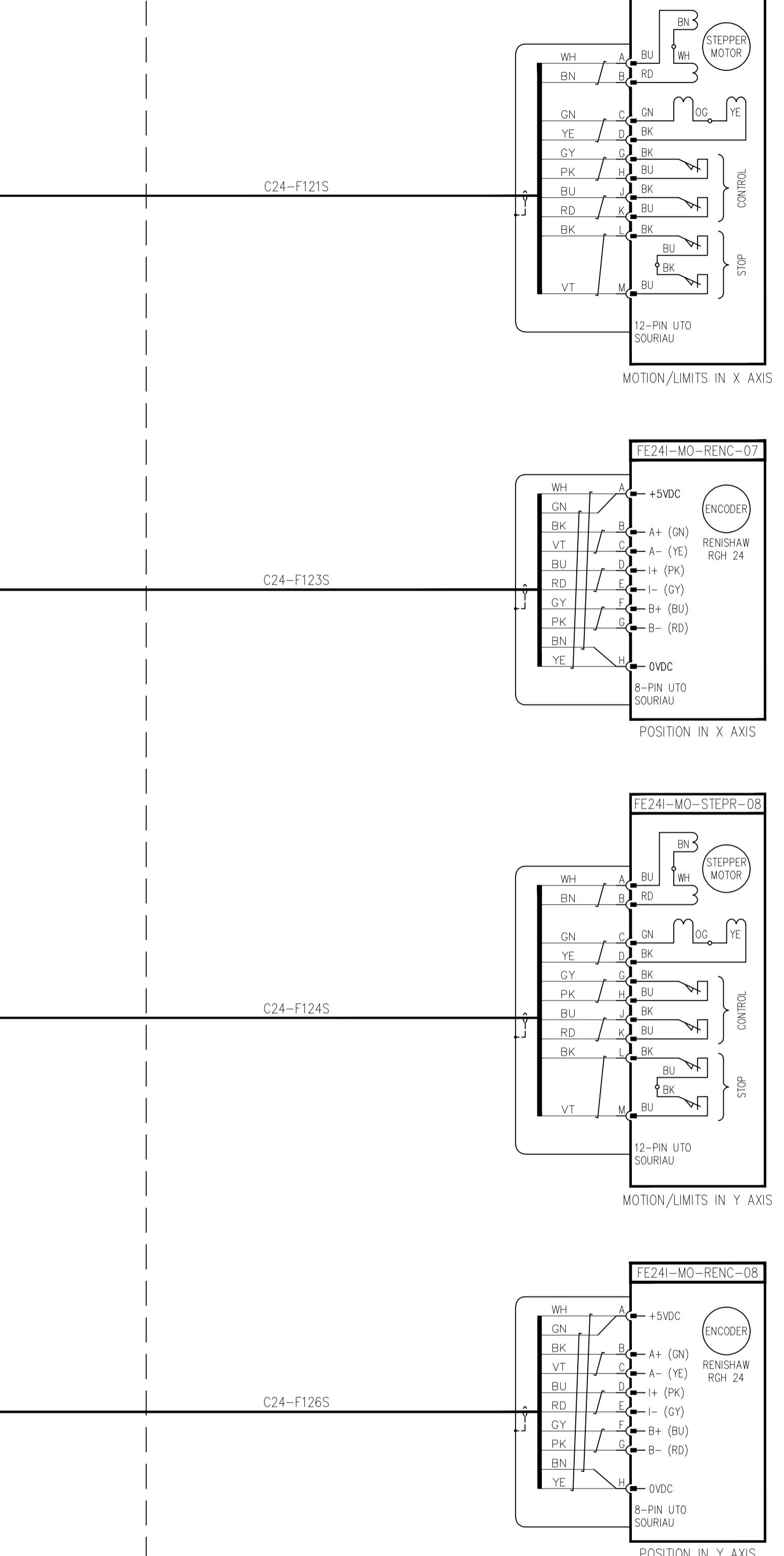
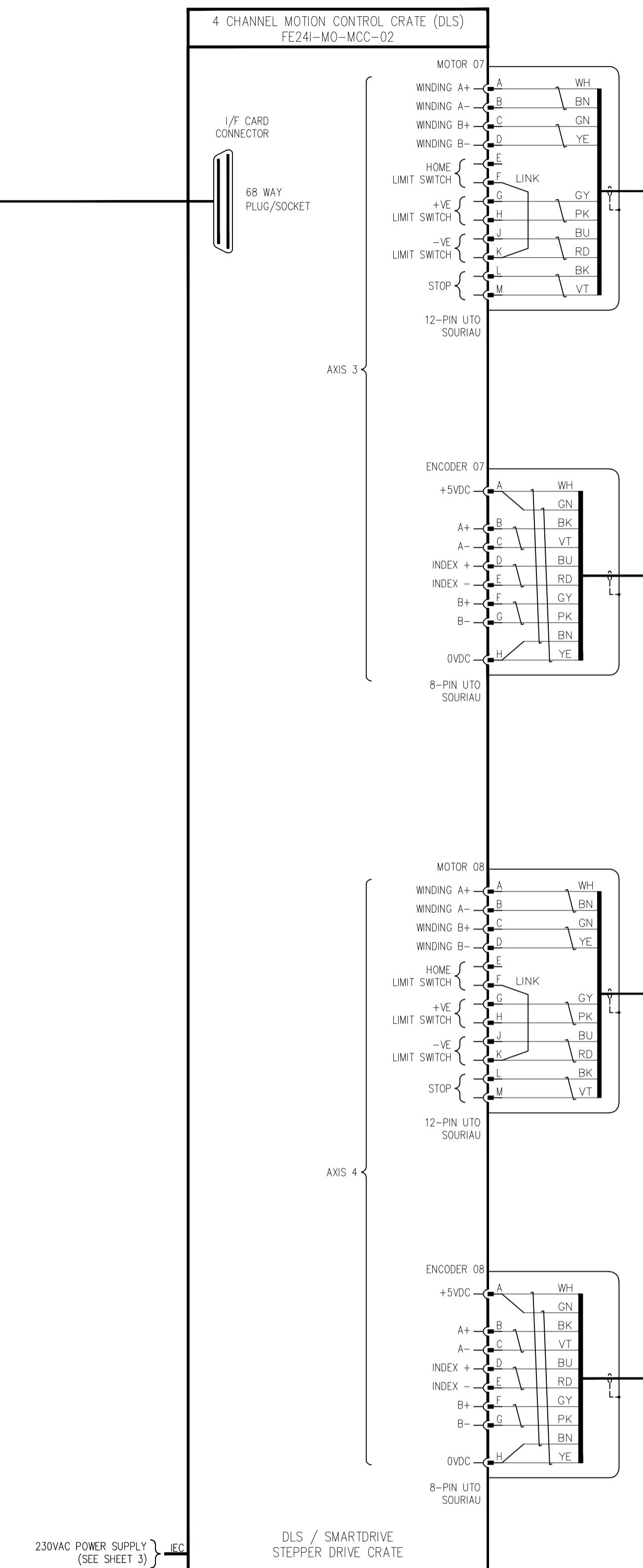
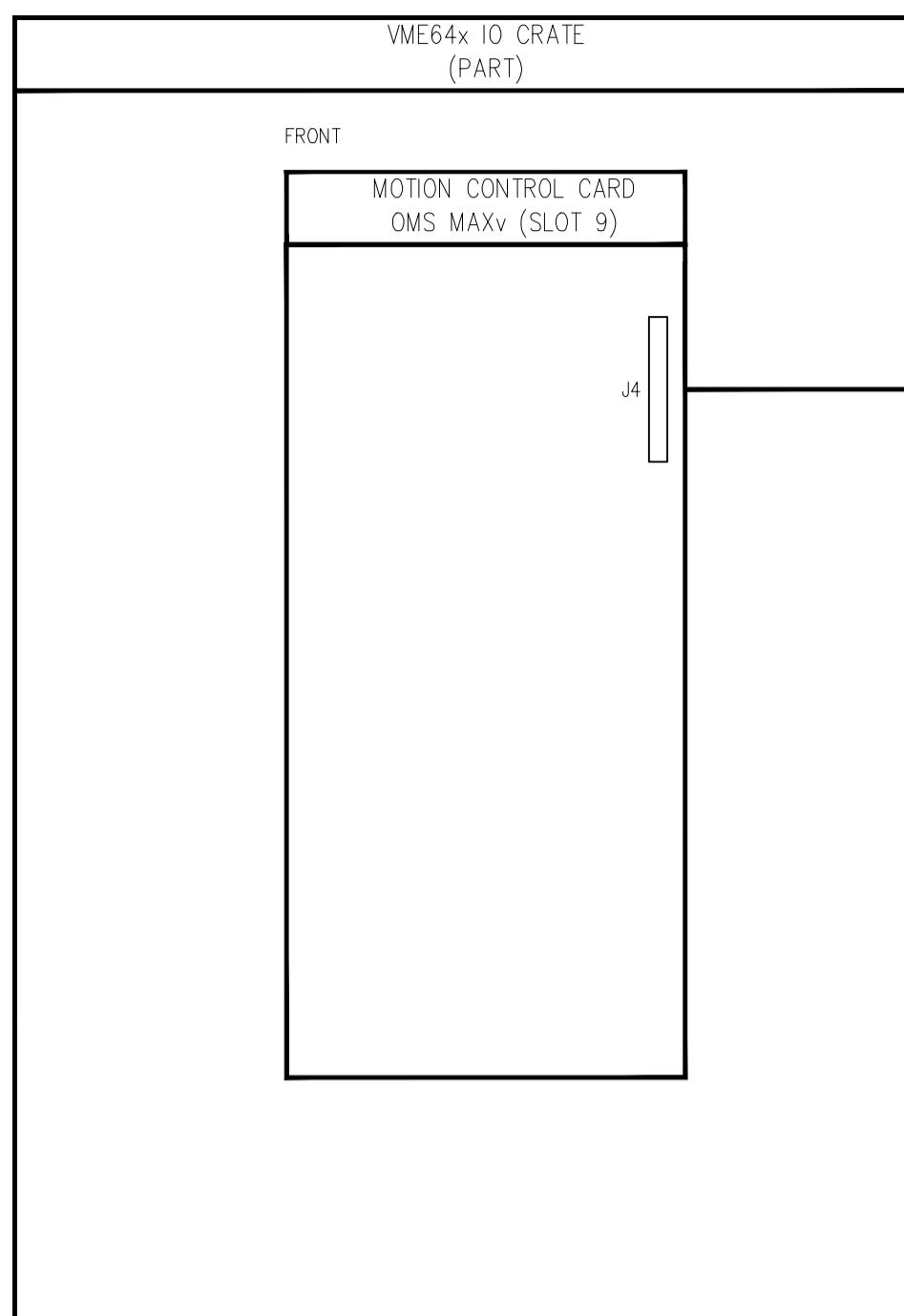
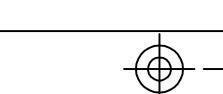
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## NOTE

1. FOR ALL ASSOCIATED REFERENCE DRAWINGS / DOCUMENTATION SEE INDEX SHEET 1.
2. PAIRS GN/YE AND WH/BN ARE CONNECTED TOGETHER TO COMPENSATE FOR VOLTAGE DROP.  
SEE ENCODER CONNECTOR 01 AND 02 ON THE 4 CHANNEL MOTION CONTROL CRATE.
3. THE LINK BETWEEN F & K INPUTS A 'HOME' SIGNAL WHEN '-VE LIMIT' IS ACTIVATED.

A	FIRST ISSUE
B	ADDED ALARM A SIGNALS TO TRIP AMPS ON SHEET 24.
C	SEE EENG-FE-RAF-0020
D	ENCODER WIRING MODIFIED ON FE24I-MO-RENC-02 (PHASES A AND B SWAPPED).
E	SHEET 4 SLOT 3 DELETED, PMC EVENT RECEIVER ADDED, SHEET 7 -GUARD LINE A & B PLACED IN SERIES, ID INTERLOCK ADDED.
F	READY OUTPUT FROM FCTRL CONNECTED TO TB-02 AND CU01
G	SHEET 21 FE24I-RS-APTR-01 DELETED
H	SHEET 2 & 3 PSU REPLACED WITH DUPLEX PSU SH1.5.
I	PSU HEALTHY SIGNALS ADDED TO PIM 03
J	SHEET 17 & 19 CABLES D24-0215S AND D24-0221S ADDED
K	SHEET 20 CORE COLOURS CHANGED ON A24-F001S & F002S, COMMENT ADDED TO APTR 1 & 2 PT100.

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THIS REVISION		TITLE
DRN	TJT	STORAGE RING CELL 24
DATE	31/01/12	FE24I FRONT END CONTROL SYSTEM
CHK	TJT	HOOK UP DRAWING
DATE	31/01/12	
APPD	AFT	
DATE	30/03/12	
ORIGINATOR/DATE		DRG STATUS
DOR	04/01/07	Approved
DRC No.		SHEET
1023295		REVISION
18 OF 24		G

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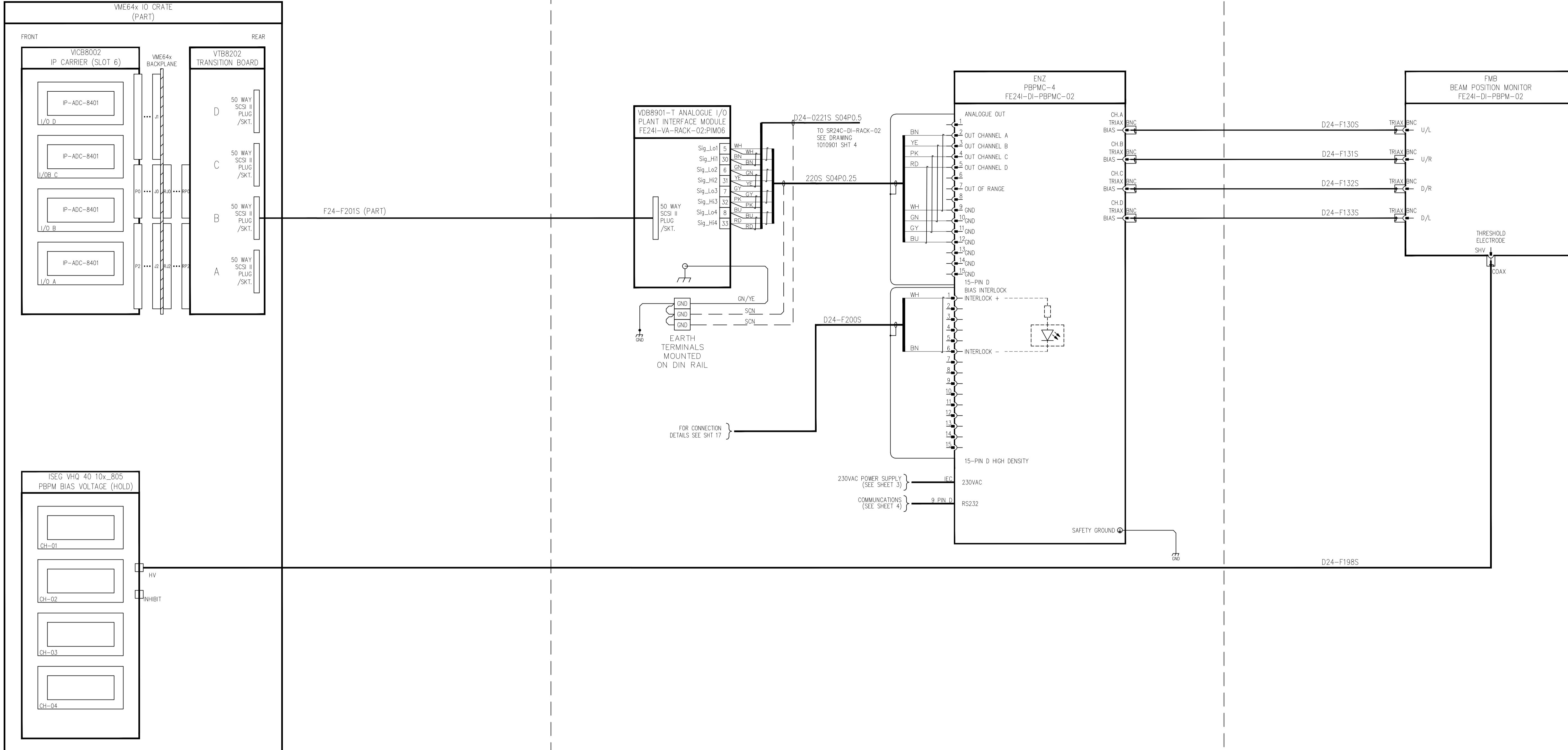
FE24I-CS-RACK-01

SR24C-CS-CIA-01

FE24I-CS-RACK-02

STORAGE RING CELL 24

FE24I FRONT END GIRDER ASSEMBLY 02



NOTE  
1. FOR ALL ASSOCIATED REFERENCE DRAWINGS / DOCUMENTATION SEE INDEX SHEET 1.



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THIS REVISION		TITLE	
DRN	TJT	ORIGINATOR/DATE	DRG STATUS
CHK	TJT	31/01/12	Approved
APPD	AFT	30/03/12	
DRC No.	1023295	SHEET 19 OF 24	REVISION G

FIRST ISSUE

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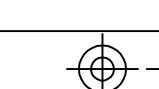
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## NOTE

1. FOR ALL ASSOCIATED REFERENCE DRAWINGS / DOCUMENTATION SEE INDEX SHEET 1.

A  
FIRST ISSUEB  
ADDED ALARM A SIGNALS TO  
TRIP AMPS ON SHEET 24.C  
SEE EENG-TE-RAF-0020  
ENCODER WIRING MODIFIED  
ON FE24I-MOREN-02  
(PHASES A AND B SWAPPED)

D

SHEET 4  
SLOT 3 DELETED. PMC EVENT  
RECEIVER ADDED.  
SHEET 7 - GUARD LINE A &  
B PLACED IN SERIES. ID  
INTERLOCK ADDED.READY OUTFIT FROM FCTRL  
CONNECTED TO TB-02 AND  
SHEET 21 -  
FE24I-RS-APTR-01 DELETED

E

SHEET 2 & 3 PSU REPLACED  
WITH DUPLEX PSU. SH15.5.  
PSU HEALTHY SIGNALS  
ADDED TO PM 03

F

SHEET 17 & 19  
CABLES D24-0215S AND  
D24-0221S ADDED

G

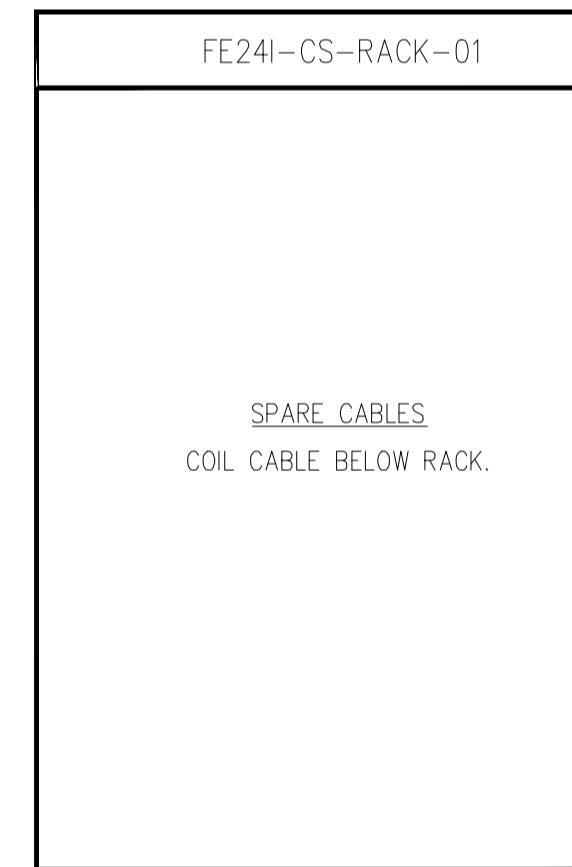
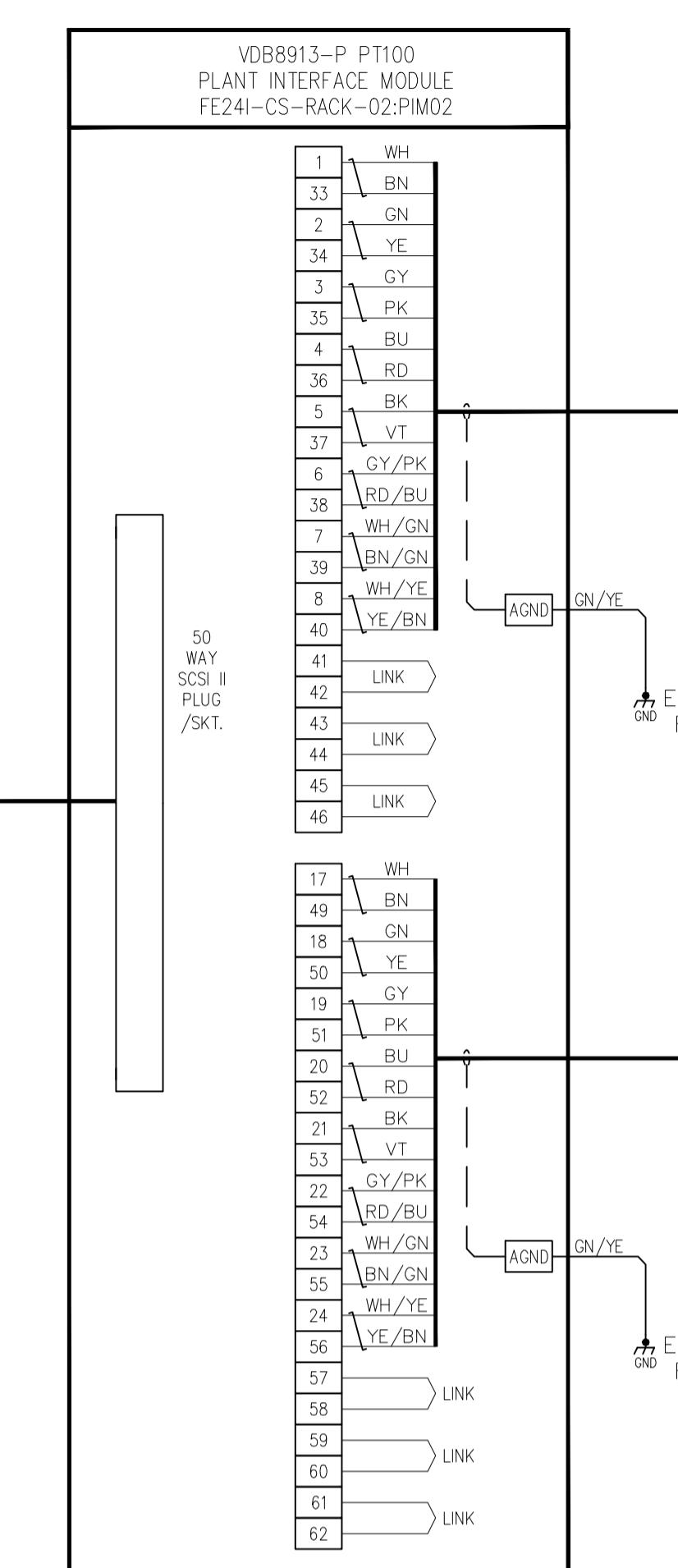
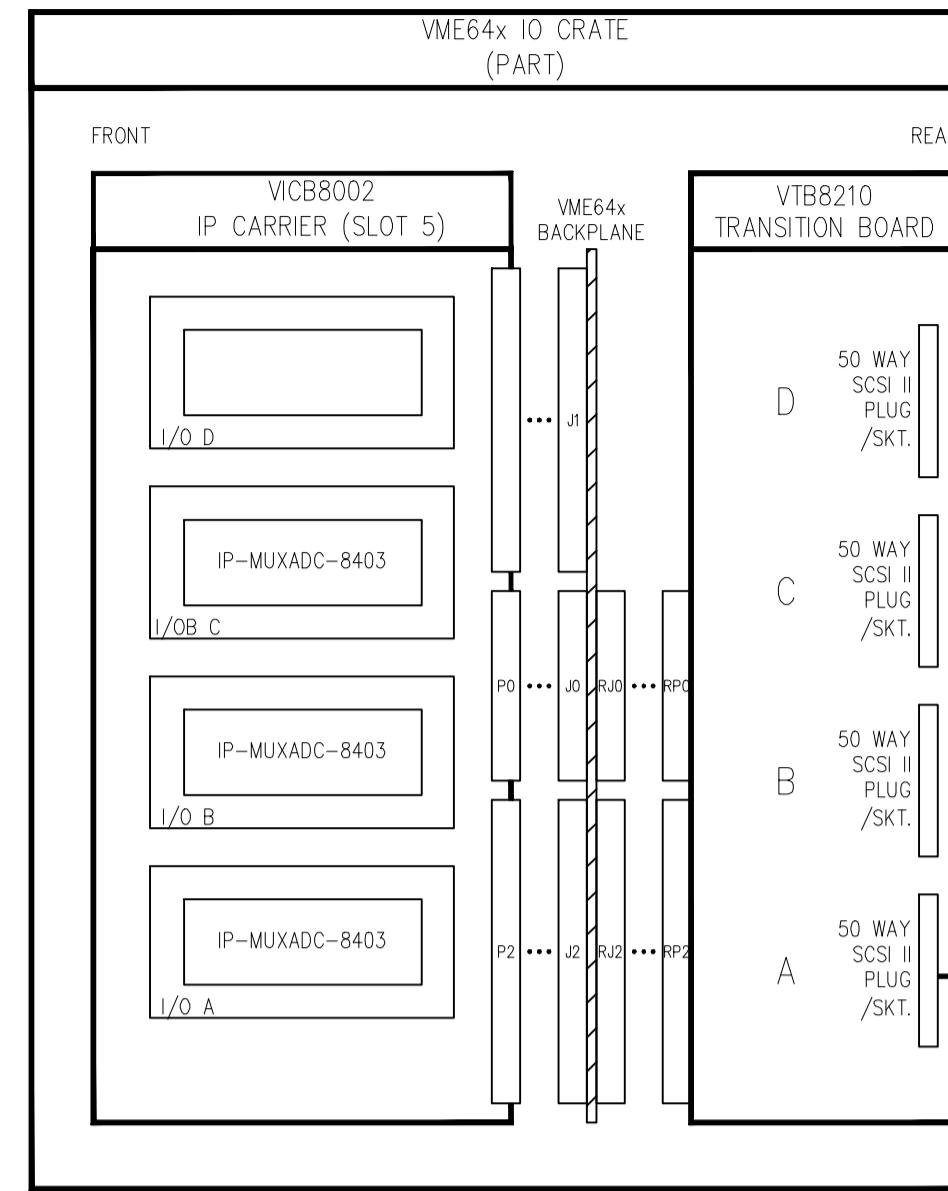
SHEET 20  
CORE COLOURS CHANGED ON  
A24-F001S & F002S.  
COMMENT ADDED TO APTR 1  
& 2 PT100.

SR24C-CS-CIA-01

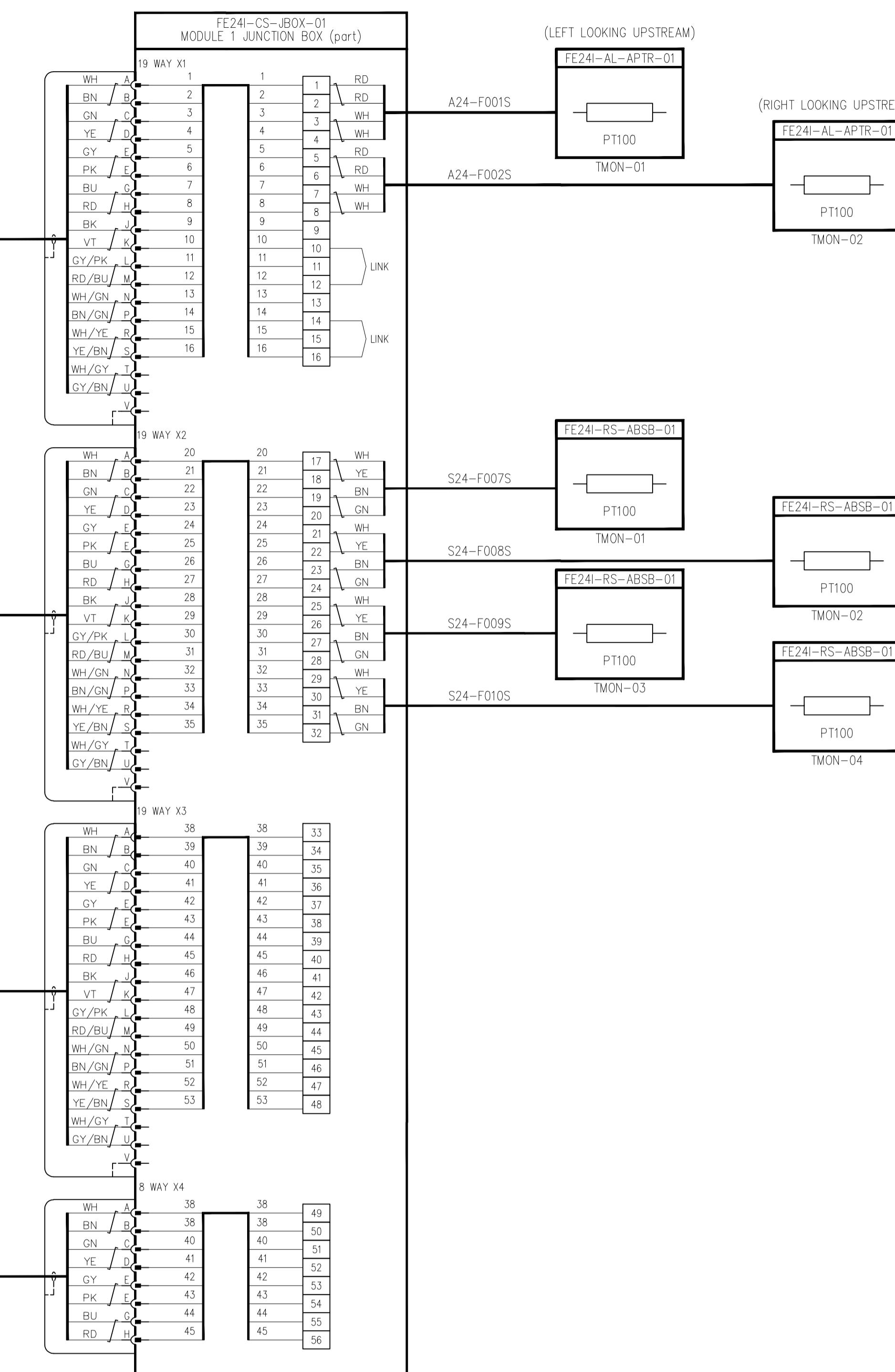
FE24I-CS-RACK-02

STORAGE RING CELL 24

FE24I FRONT END ASSEMBLY GIRDER 1



SPARE CABLE  
SPARE CABLE



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THIS REVISION		TITLE	
DRN	TJT	STORAGE RING CELL 24	
DATE	31/01/12	FE24I FRONT END CONTROL SYSTEM	
CHK	TJT	HOOK UP DRAWING	
DATE	31/01/12		
APPD	AFT		
DATE	30/03/12		
ORIGINATOR/DATE		DOR	04/01/07
DRC STATUS		Approved	
DRC No.		1023295	SHEET 20 OF 24
REVISION		G	

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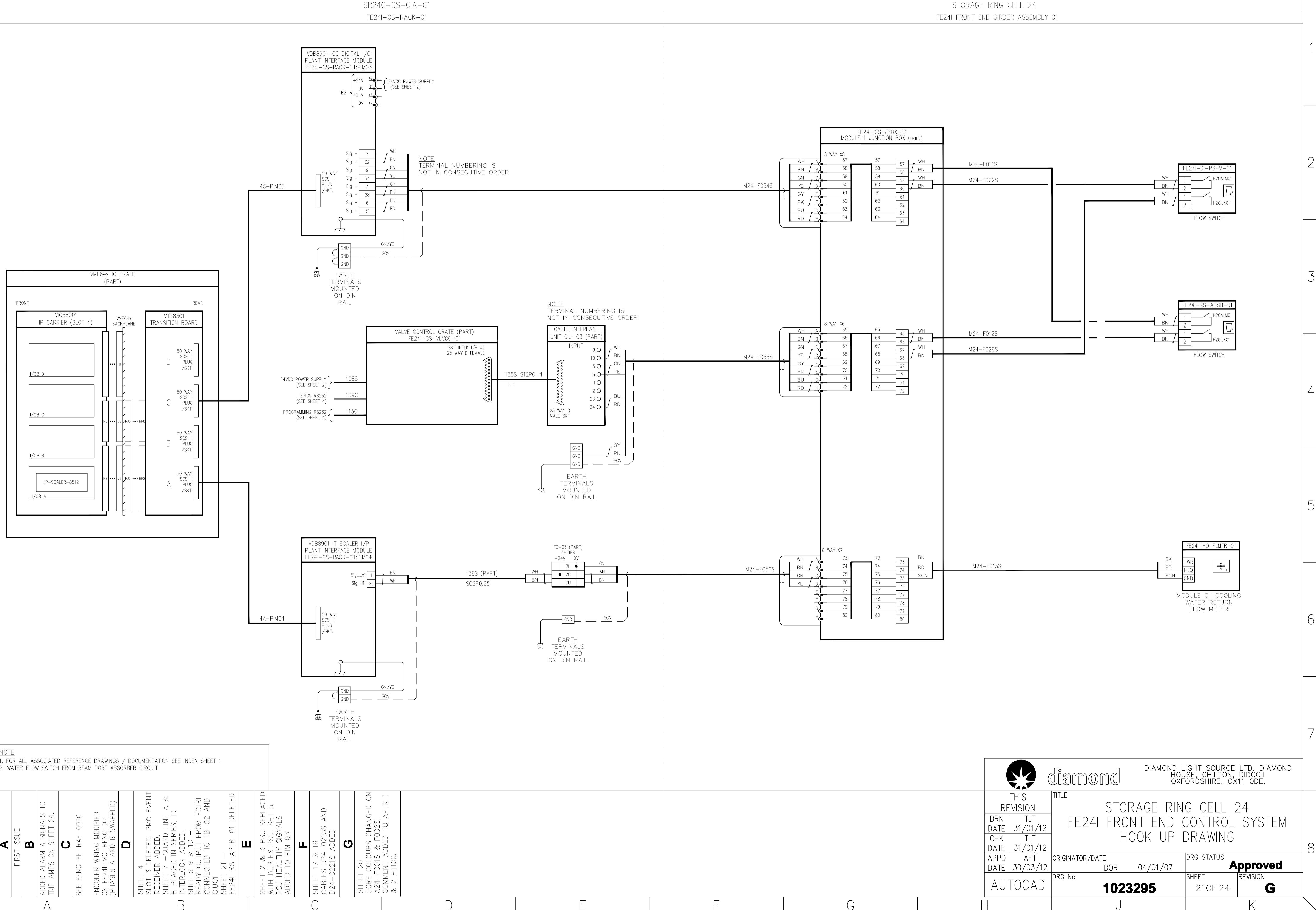
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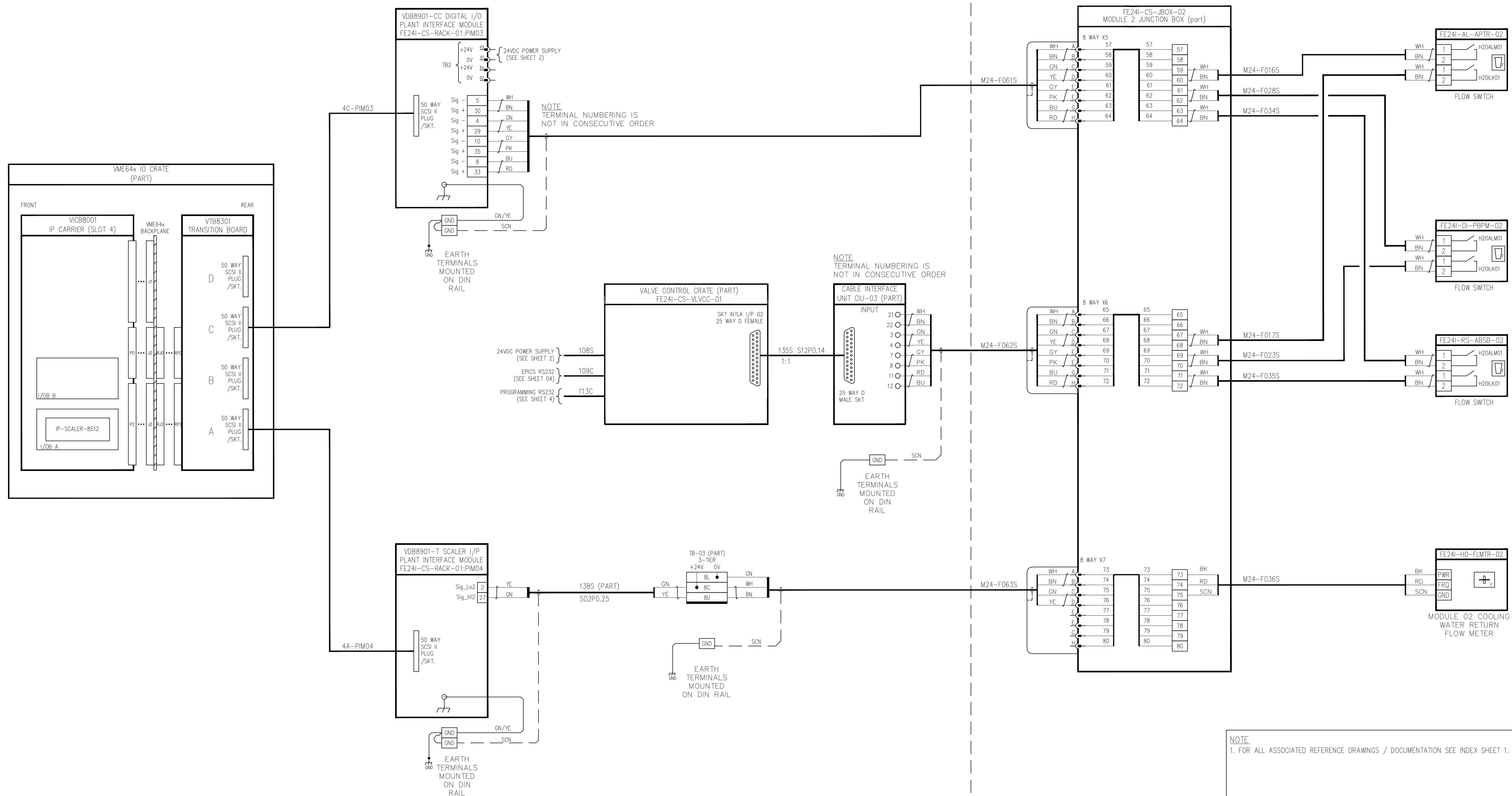
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FIRST ISSUE

<b>A</b>	ADDED ALARM A SIGNALS TO TRIP AMPS ON SHEET 24.
<b>B</b>	ENCODER WIRING MODIFIED ON FE24I-M01-RENC-02 (PHASES A AND B SWAPPED).
<b>C</b>	SEE EENS-FE-RAF-0020

**D**  
SHEET 4  
SLOT 3 DELETED, PMC EVENT RECEIVER ADDED.  
SHEET 7 - GUARD LINE A & B PLACED IN SERIES, ID INTERLOCK ADDED.  
SHEETS 9 & 10 - READY OUTPUT FROM FCTRL CONNECTED TO TB-02 AND CU01  
SHEET 21 - FE24I-RS-APTR-01 DELETED

**E**  
SHEET 2 & 3 PSU REPLACED WITH DUPLEX PSU. SHT 5.  
PSU HEALTHY SIGNALS ADDED TO TIM 03

**F**  
SHEET 17 & 19  
CORE COLOURS CHANGED ON A24-F001S & F002S,  
COMMENT ADDED TO APTR 1 & 2 PT100.

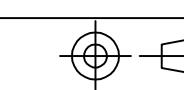
**G**  
SHEET 20  
CABLES D24-0215S AND D24-0221S ADDED

**NOTE**  
1. FOR ALL ASSOCIATED REFERENCE DRAWINGS / DOCUMENTATION SEE INDEX SHEET 1.



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HOUSE, CHILTON, DIDCOT  
OXFORDSHIRE, OX11 0DE.

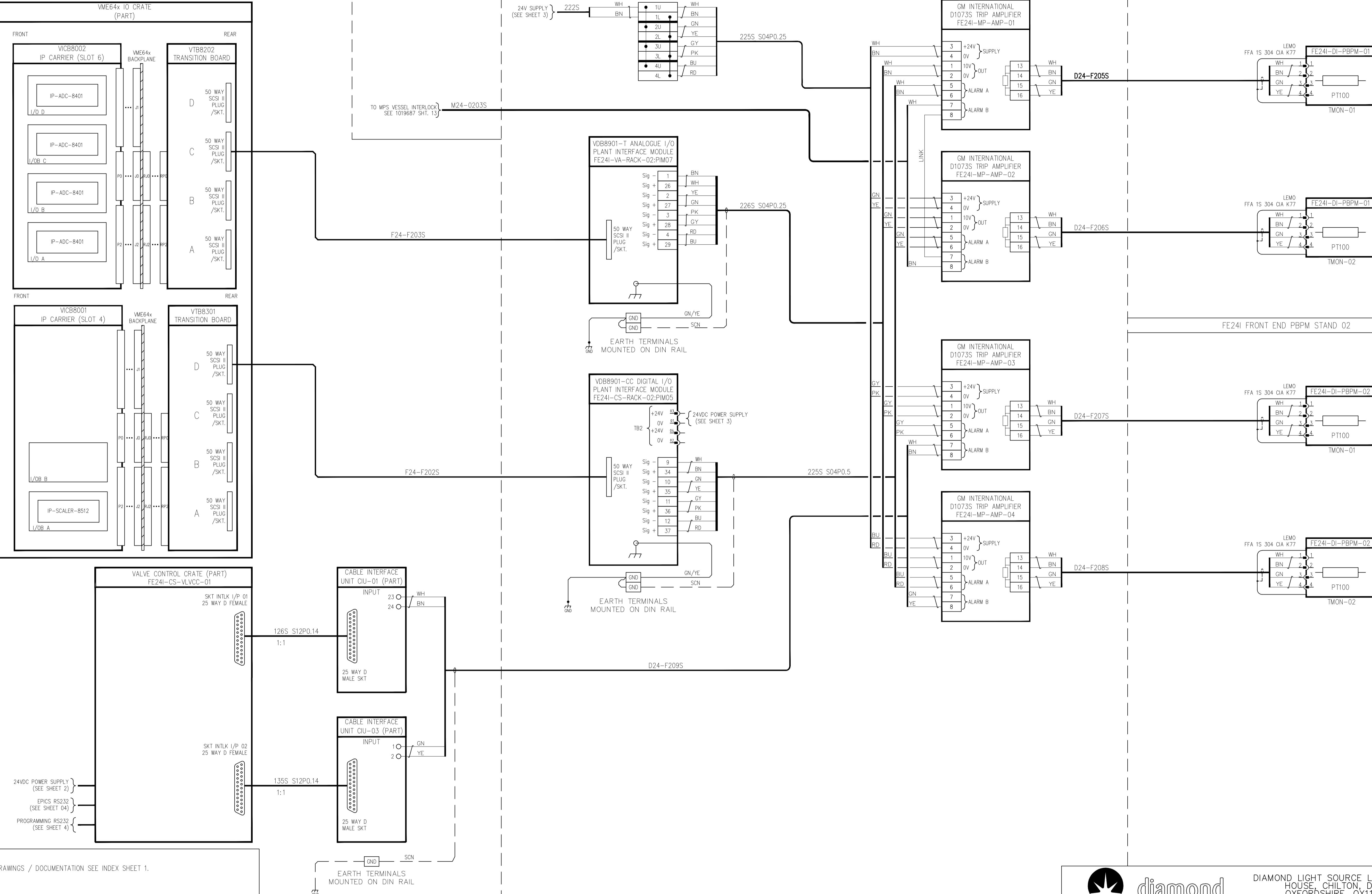
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DRN	TJT	STORAGE RING CELL 24
DATE	31/01/12	FE24I FRONT END CONTROL SYSTEM
CHK	TJT	HOOK UP DRAWING
DATE	31/01/12	
APPD	AFT	
DATE	30/03/12	
ORIGINATOR/DATE	DOR	DRG STATUS
	04/01/07	Approved
DRG No.	1023295	SHEET
		REVISION
	23 OF 24	G



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SR24C-CS-CIA-01  
FE24I-CS-RACK-01

SR24I-MP-RACK-01

SR24C-CS-CIA-01  
FE24I-CS-RACK-02STORAGE RING CELL 24  
FE24I FRONT END PBPM STAND 01A FIRST ISSUE  
B ADDED ALARM A SIGNALS TO TRIP AMPS ON SHEET 24.  
C SEE EENG-FE-RAF-0020  
ENCODER WIRING MODIFIED  
ON FE24I-WO-RENC-02  
(PHASES A AND B SWAPPED)D SHEET 4  
SLOT 3 DELETED, PMC EVENT  
RECEIVER ADDED,  
SHEET 7 - GUARD LINE A &  
B PLACED IN SERIES, ID  
INTERLOCK ADDED.  
READY OUTPUT FROM FCTRL  
SHEETS 9 & 10 -  
CONNECTED TO TB-02 AND  
SHEET 21 -  
FE24I-RS-APTR-01 DELETEDE SHEET 2 & 3 PSU REPLACED  
WITH DUPLEX PSU, SHT 5.  
PSU HEAVILY SIGNALS  
ADDED TO FM 03F SHEET 17 & 19  
CABLES D24-0215S AND  
D24-0221S ADDEDG SHEET 20  
CORE COLOURS CHANGED ON  
A24-0001S & F002S,  
COMMENT ADDED TO APTR 1  
& 2 PT100.

THIS REVISION		TITLE	
DRN DATE	TJT 31/01/12	STORAGE RING CELL 24	
CHK DATE	TJT 31/01/12	FE24I FRONT END CONTROL SYSTEM	
APPD DATE	AFT 30/03/12	HOOK UP DRAWING	
ORIGINATOR/DATE	DOR 04/01/07	DRG STATUS	Approved
DRG No.	1023295	SHEET 24 OF 24	REVISION <b>G</b>

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