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G

H

I

J

K

L

M

N

O

P

NOTES:

1) ALL 200V AND UP POWER WIRING SHALL BE COLORED BLACK.

2) ALL 120V CONTROL WIRING SHALL HAVE THE
UNGROUND CONDUCTOR COLORED RED; THE NEUTRAL
CONDUCTOR SHALL BE COLORED WHITE.

3) ALL 24 VDC CONTROL WIRING SHALL HAVE THE
POSITIVE CONDUCTOR COLORED BLUE; THE NEGATIVE
CONDUCTOR SHALL BE COLORED BLUE/WHITE.

4) ALL GROUNDING CONDUCTORS SHALL BE COLORED GREEN.

5) ALL CONNECTIONS BETWEEN CN4 AND CN5 ON THE MDR
MODULES ARE MADE WITH STRAIGHT THROUGH ETHERNET
CABLES. THESE ARE NOT USED AS ETHERNET
COMMUNICATION. PLUGGING INTO A CPOPUTER ETHERNET
PORT WILL DAMAGE THE MODULE AND/OR THE COMPUTER
COMMUNICATION PORT.

THIS DRAWING IS THE PROPERTY OF
BETTER ENGINEERING MFG., INC. ALL
EQUIPMENT DESIGN AND APPLICATION
DATA SHOWN HEREIN IS CONSIDERED
CONFIDENTIAL. NO USE OR DIS-
CLOSURE THEREOF MAY BE MADE
WITHOUT WRITTEN PERMISSION FROM
BETTER ENGINEERING MFG., INC.

REVISIONS

REV	E.C.N.#	APPROVAL	DATE
A			

SHEET 19

SHEET 18

SHEET 17

SHEET 16

SHEET 15

SHEET 14

SHEET 13

SHEET 12

SHEET 11

SHEET 10

SHEET 9

SHEET 8

SHEET 7

SHEET 6

SHEET 5

SHEET 4

SHEET 3

Stop Process
Sensor (to Denki)

Label verification
SR5000 Camera
LRZ Sensor to Keyence

Blade
(Small package stopper)

Box length detection
2 x photo eyes

Max height
verification

Start Process
Sensor

Transfer
For
Rejects

30" wide Gravity Hospital Lane,
5' long

MDR

MDR1433

MDR1422

MDR1412

MDR1402

MDR1312

MDR1302

MDR1233

MDR1222

MDR1212

MDR1202

MDR1033

MDR1022

MDR1012

MDR1002

MDR0933

MDR0922

MDR0912

MDR0902

Zone 17

Zone 16

Zone 15

Zone 14

Zone 13

Zone 12

Zone 11

Zone 10

Zone 9

Zone 8

Zone 7

Zone 6

Zone 5

Zone 4

Zone 3

Zone 2

Zone 1

REV

DATE

REV BY

AREA

DESCRIPTION

2

2/2023

WLS

ALL

ADD PLC I/O SHT 2; ADD MDR SETTING CHARTS

3

3/2023

WLS

5, 8-10,15-20

LINE # CHGS MKD W/ REV CLOUD

4

3/2023

WLS

all

added DIP switch settings for all MDRs

MATERIAL:

FINISH:

2 PL. DEC. ---

3 PL. DEC. ---

ANGLES ± ---

DO NOT SCALE DRAWING

ENGR:

ELEC:

MECH:

LAYOUT:

DWG/DOC:

APPVD/CHECKED:
A1001264SCHEM 3/2023

DIMENSIONS IN INCHES (MM)
TOLERANCES ANSI-Y14.5M

SERIAL NO.

Automation

ARNOLD

AUTOMATION

RJW
LABEL LINE
SCHEMATIC

DWG. NO.

SIZE:

SCALE

SHEET

OF

AA1001264

AA1001264SCHEM

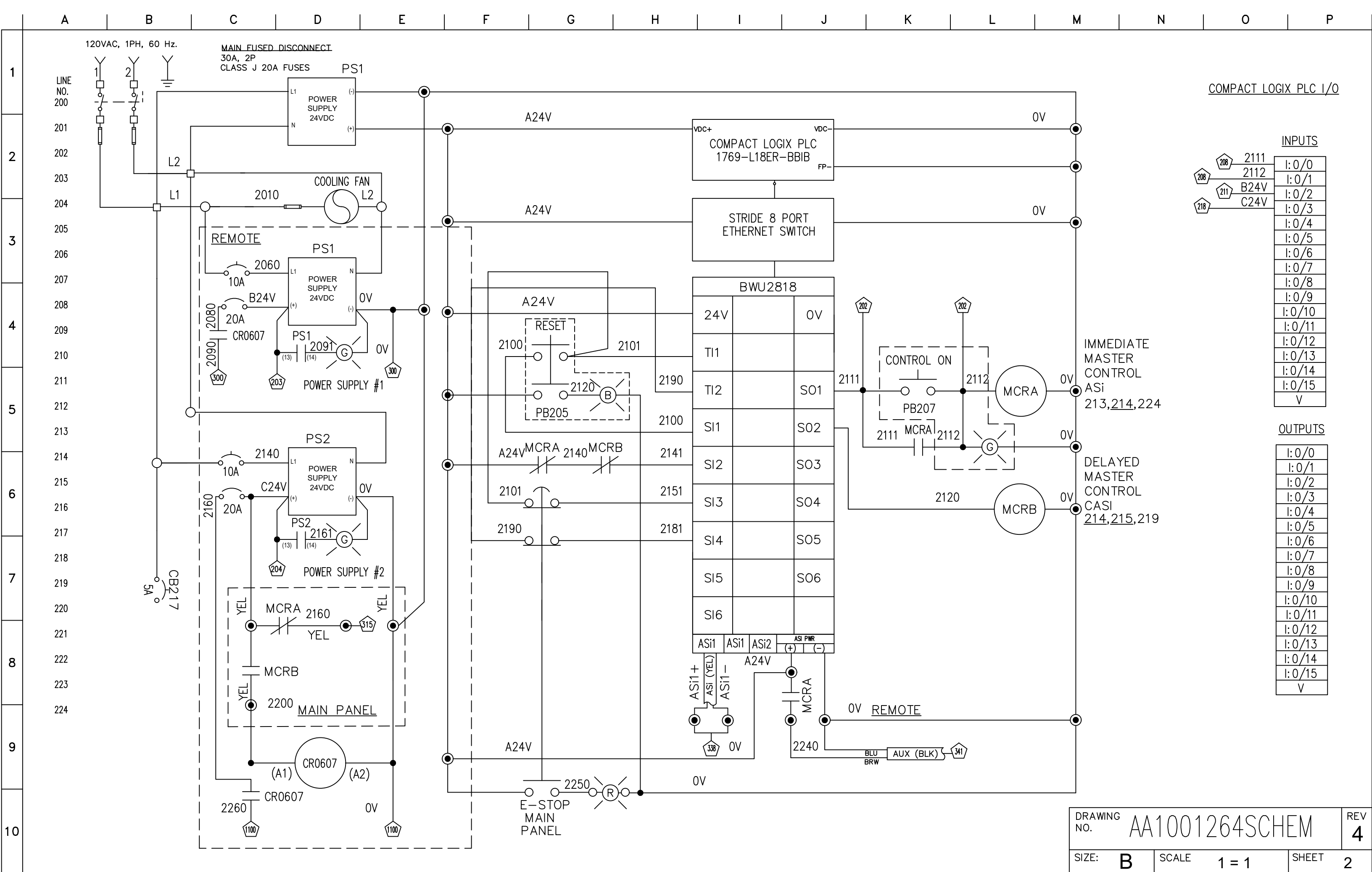
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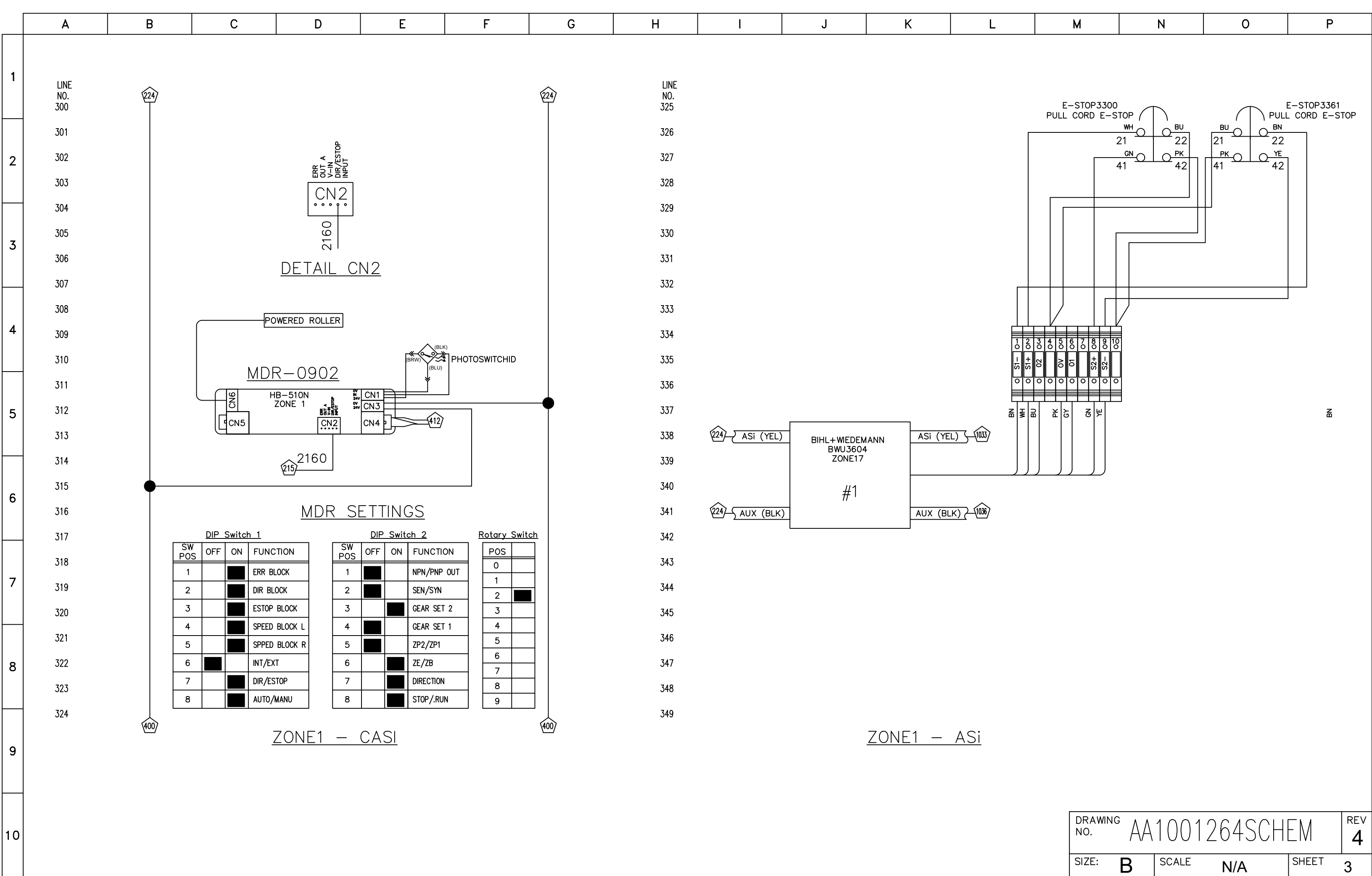
1

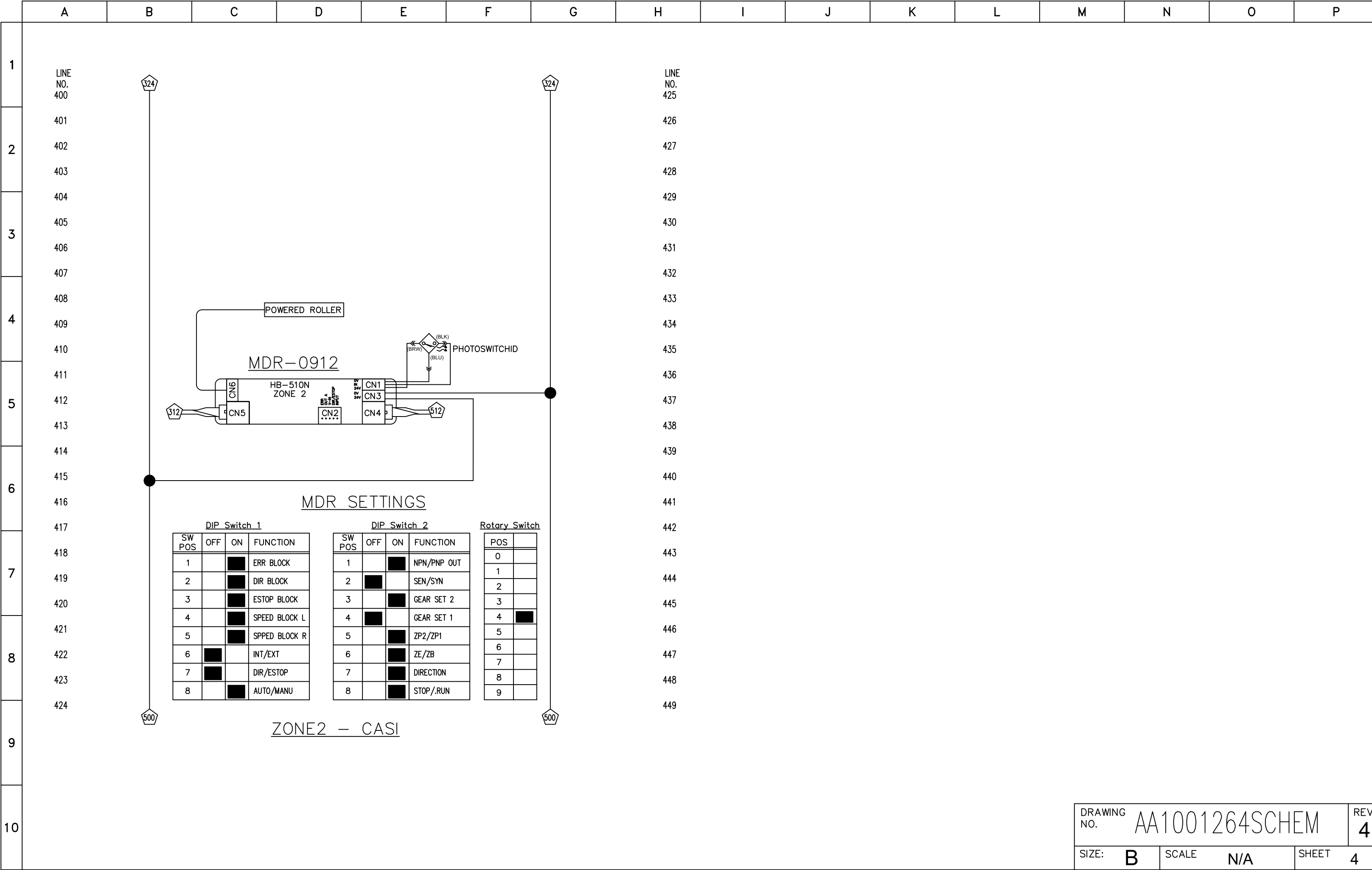
1

REV

4







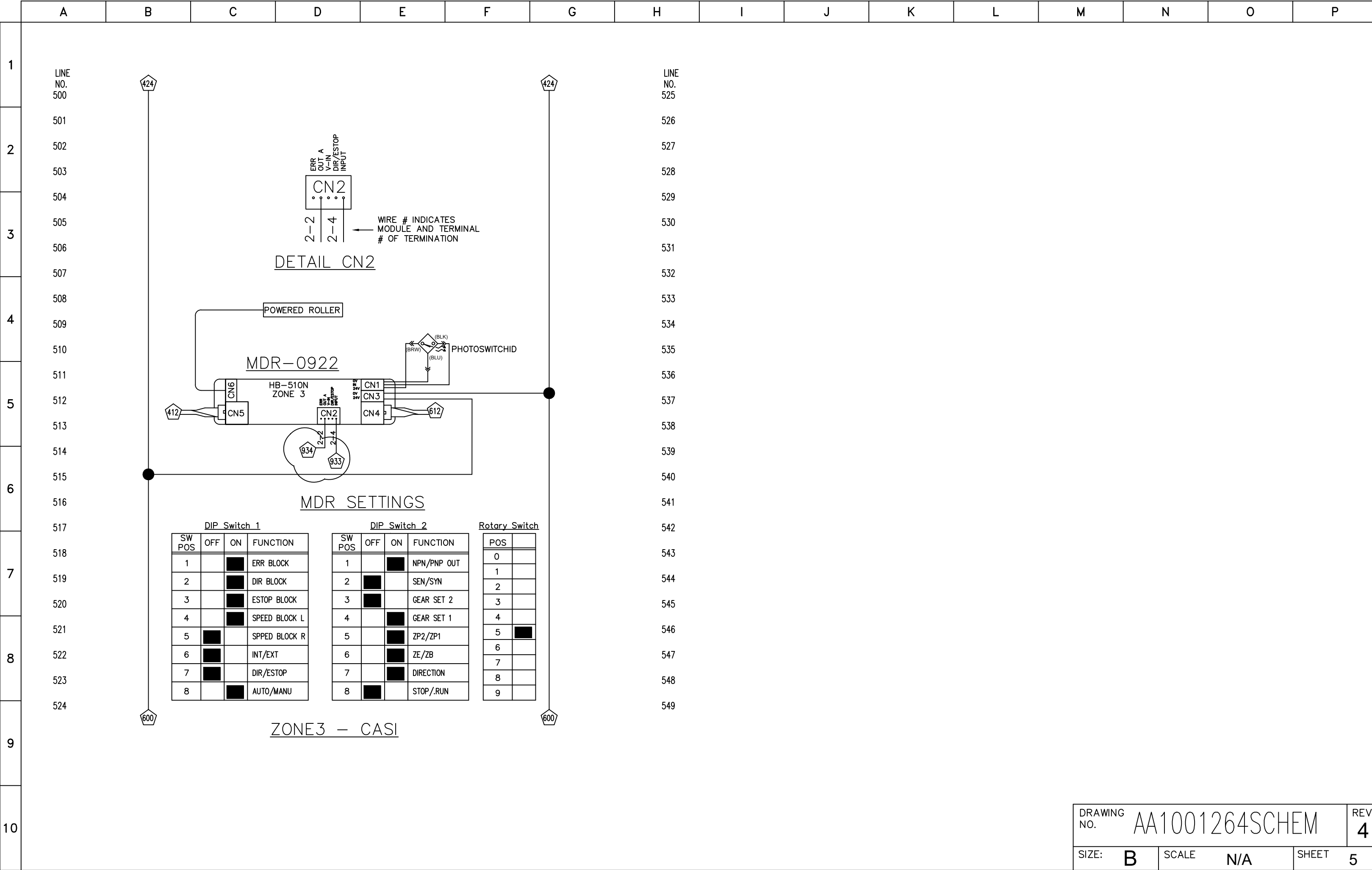
DRAWING NO. AA1001264SCHEM

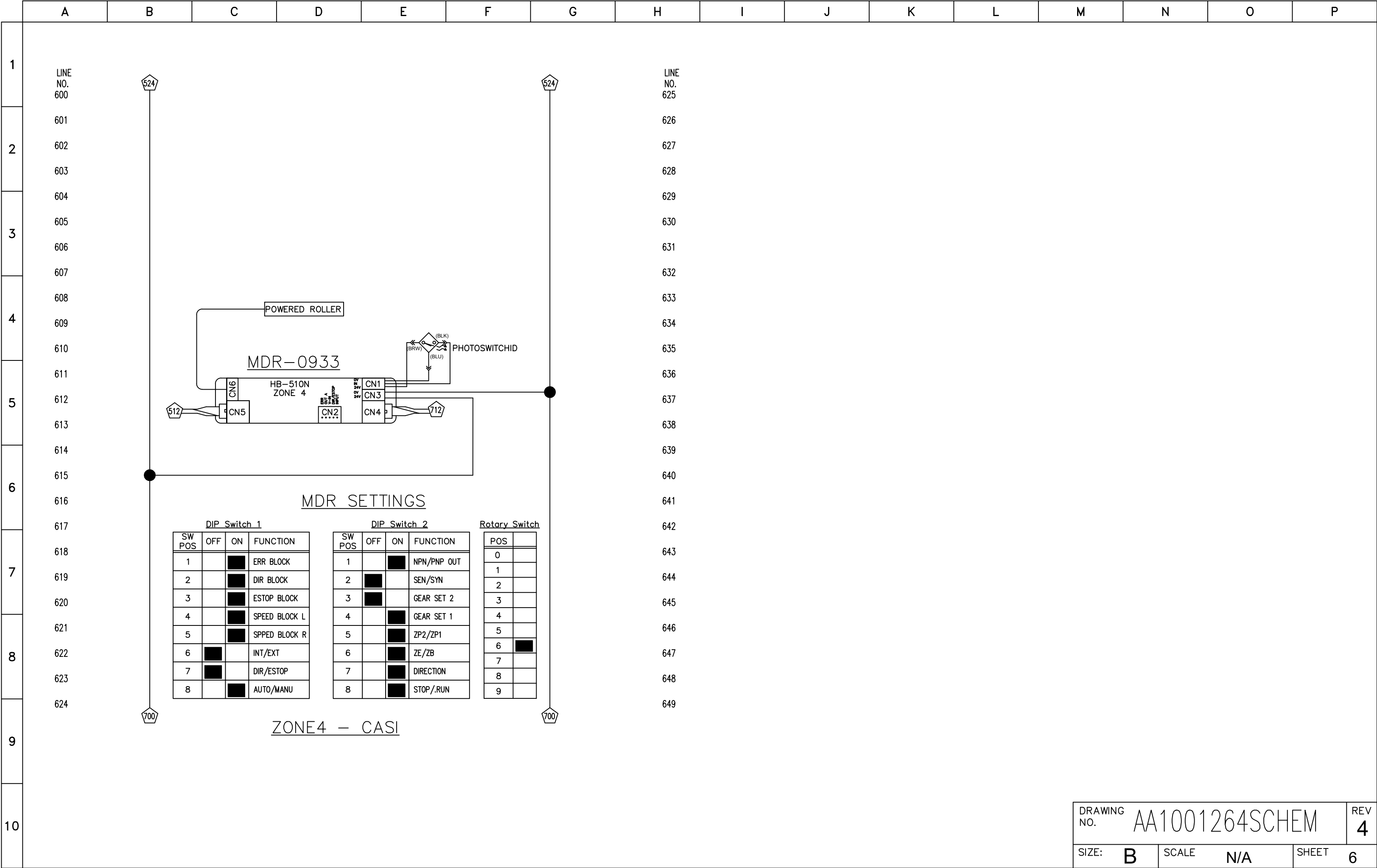
REV 4

SIZE: B

SCALE N/A

SHEET 4





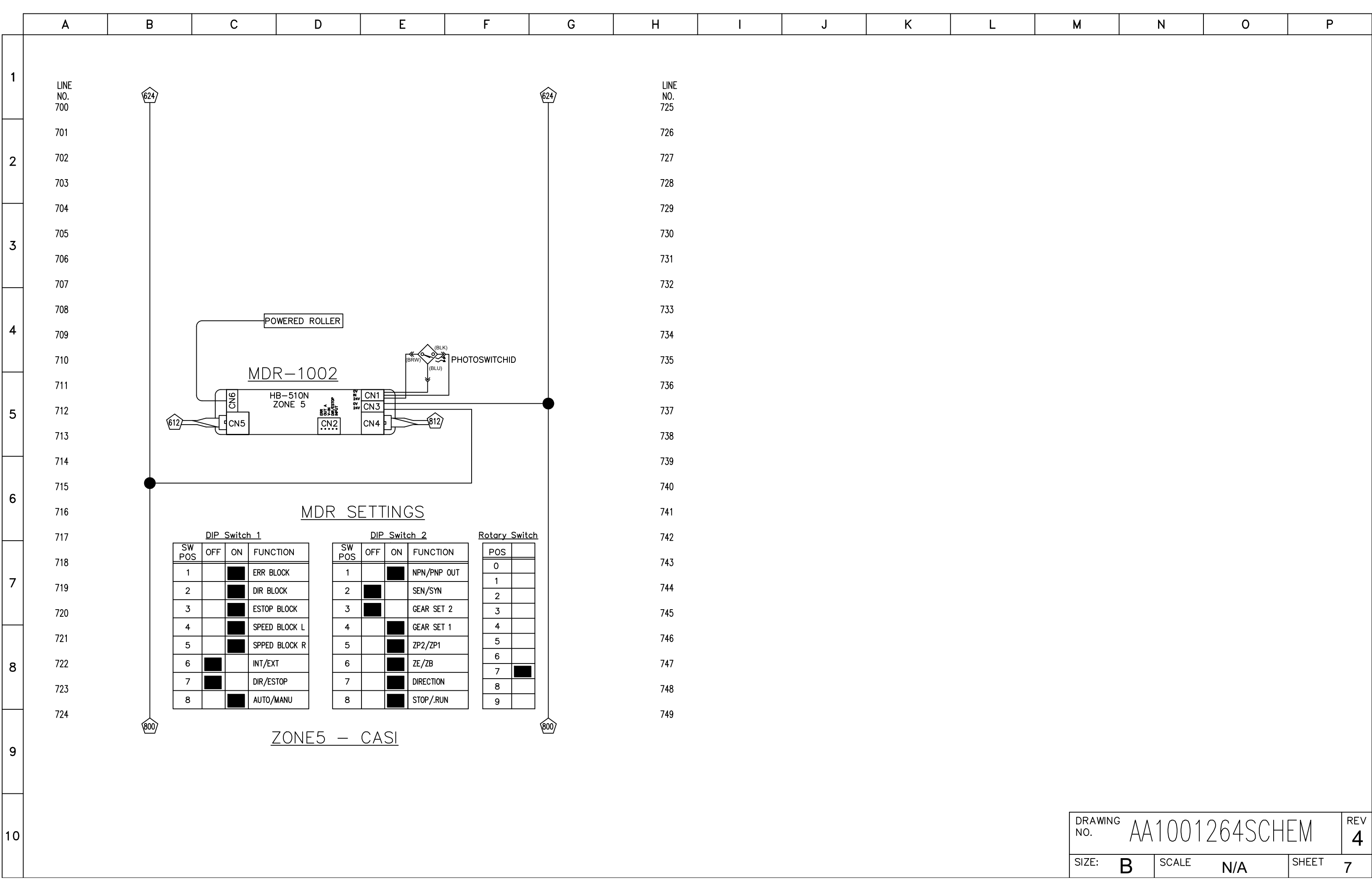
DRAWING NO. AA1001264SCHEM

REV 4

SIZE: B

SCALE N/A

SHEET 6



DRAWING NO.

AA1001264SCHEM

REV

4

SIZE:

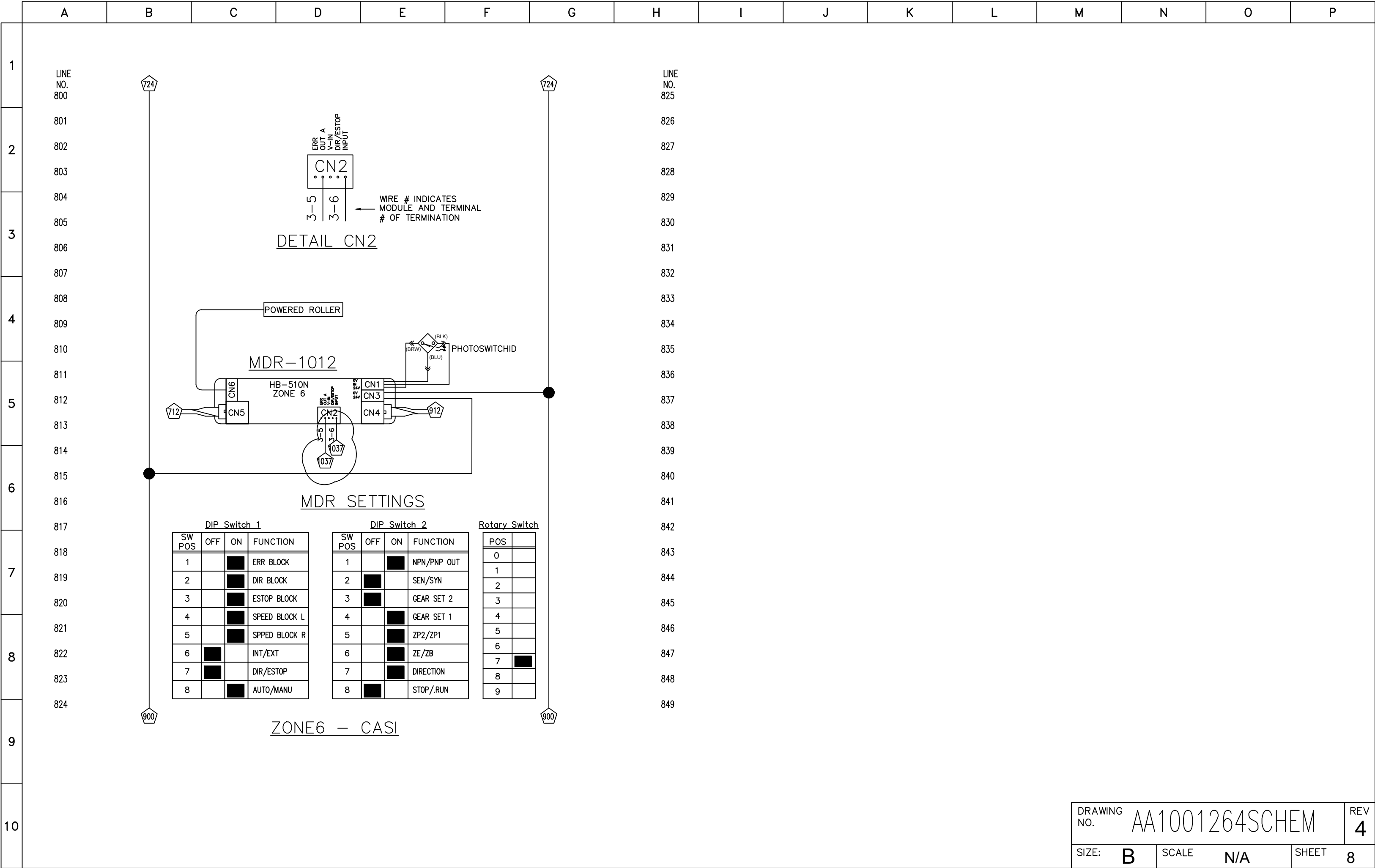
B

SCALE

N/A

SHEET

7



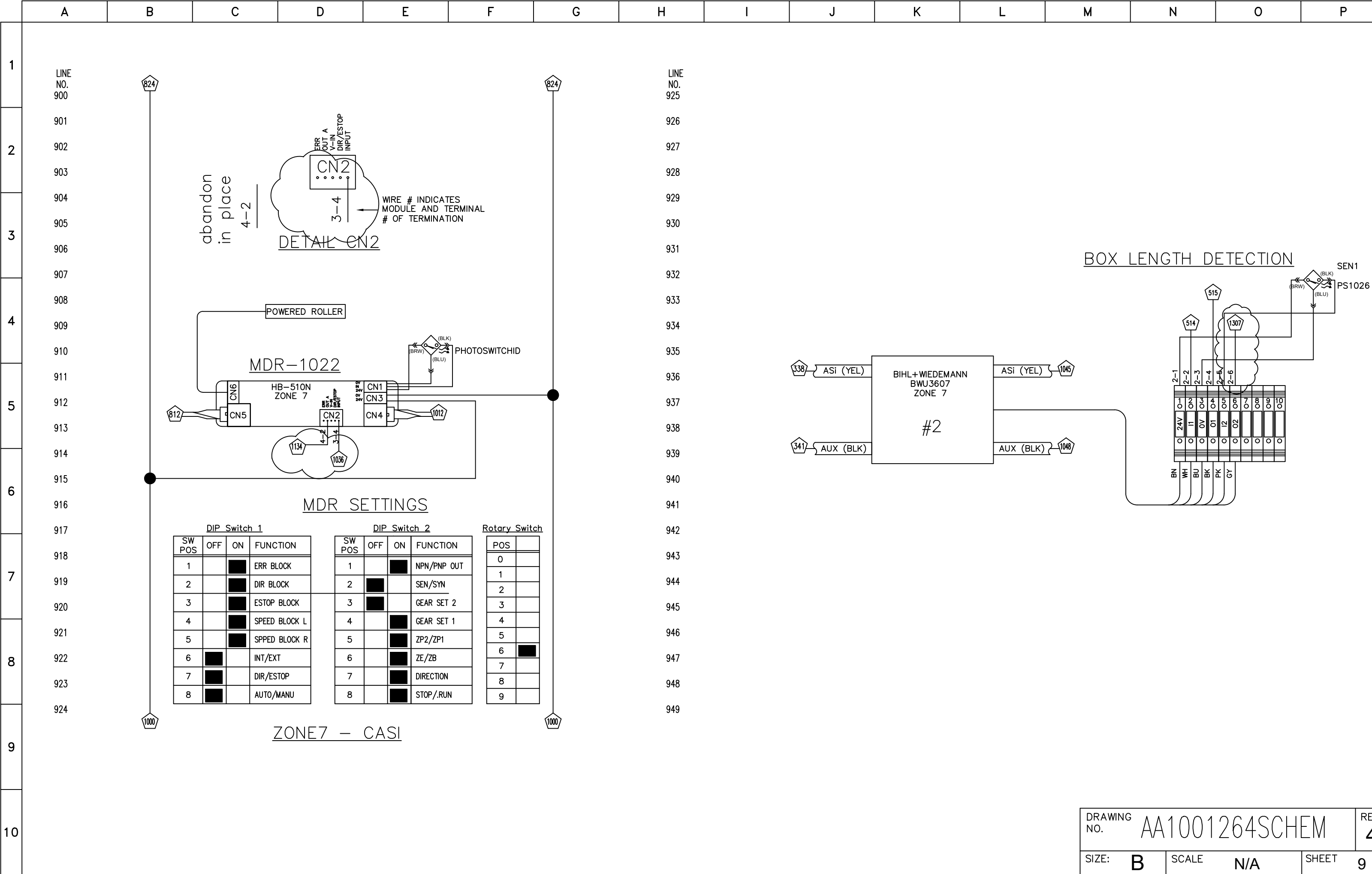
DRAWING NO. AA1001264SCHEM

REV 4

SIZE: B

SCALE N/A

SHEET 8



DRAWING NO.

AA1001264SCHEM

REV

4

SIZE:

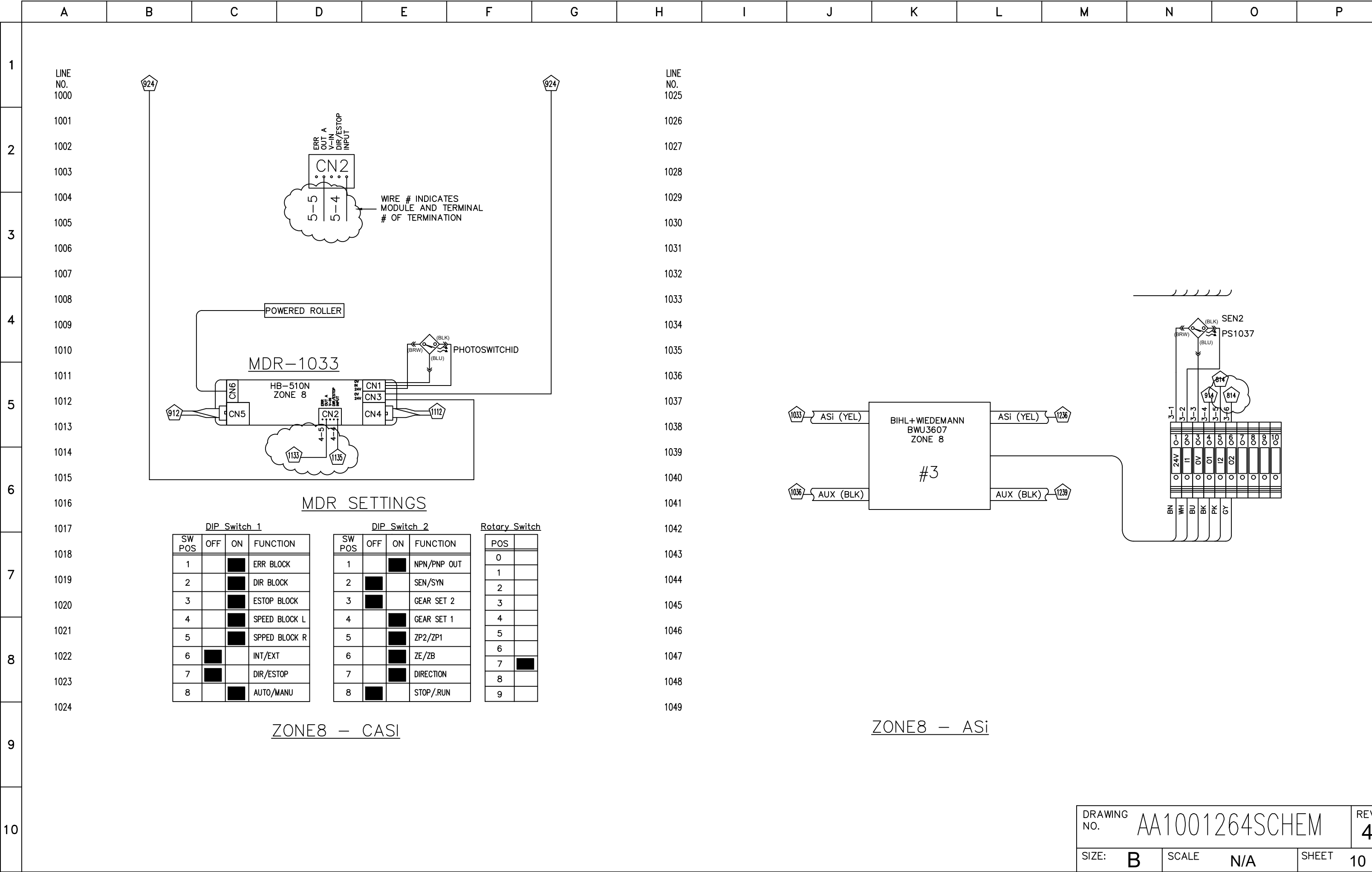
B

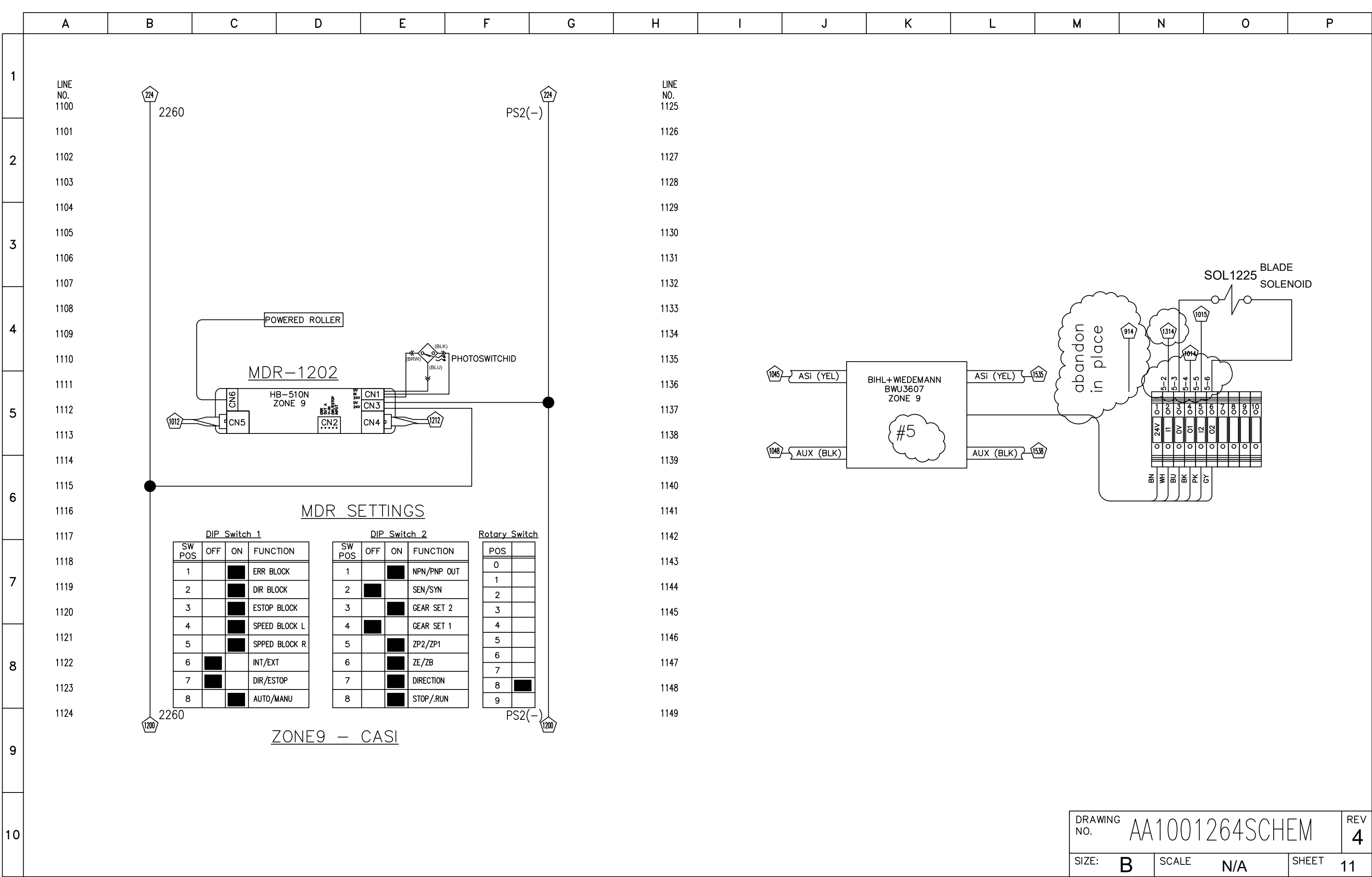
SCALE

N/A

SHEET

9





	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	LINE NO. 1200															
2	1201															
3	1202															
4	1203															
5	1204															
6	1205															
7	1206															
8	1207															
9	1208															
10	1209															
11	1210															
12	1211															
13	1212															
14	1213															
15	1214															
16	1215															
17	1216															
18	1217															
19	1218															
20	1219															
21	1220															
22	1221															
23	1222															
24	1223															
25	1224															

1124

2260

1124

PS2(-)

1112

1312

1300

2260

1300

PS2(-)

POWERED ROLLER

MDR-1212

HB-510N ZONE 10

CN1

CN3

CN4

CN5

CN2

PHOTOSWITCHID

MDR SETTINGS

DIP Switch 1

SW POS	OFF	ON	FUNCTION
1			ERR BLOCK
2			DIR BLOCK
3			ESTOP BLOCK
4			SPEED BLOCK L
5			SPPED BLOCK R
6			INT/EXT
7			DIR/ESTOP
8			AUTO/MANU

DIP Switch 2

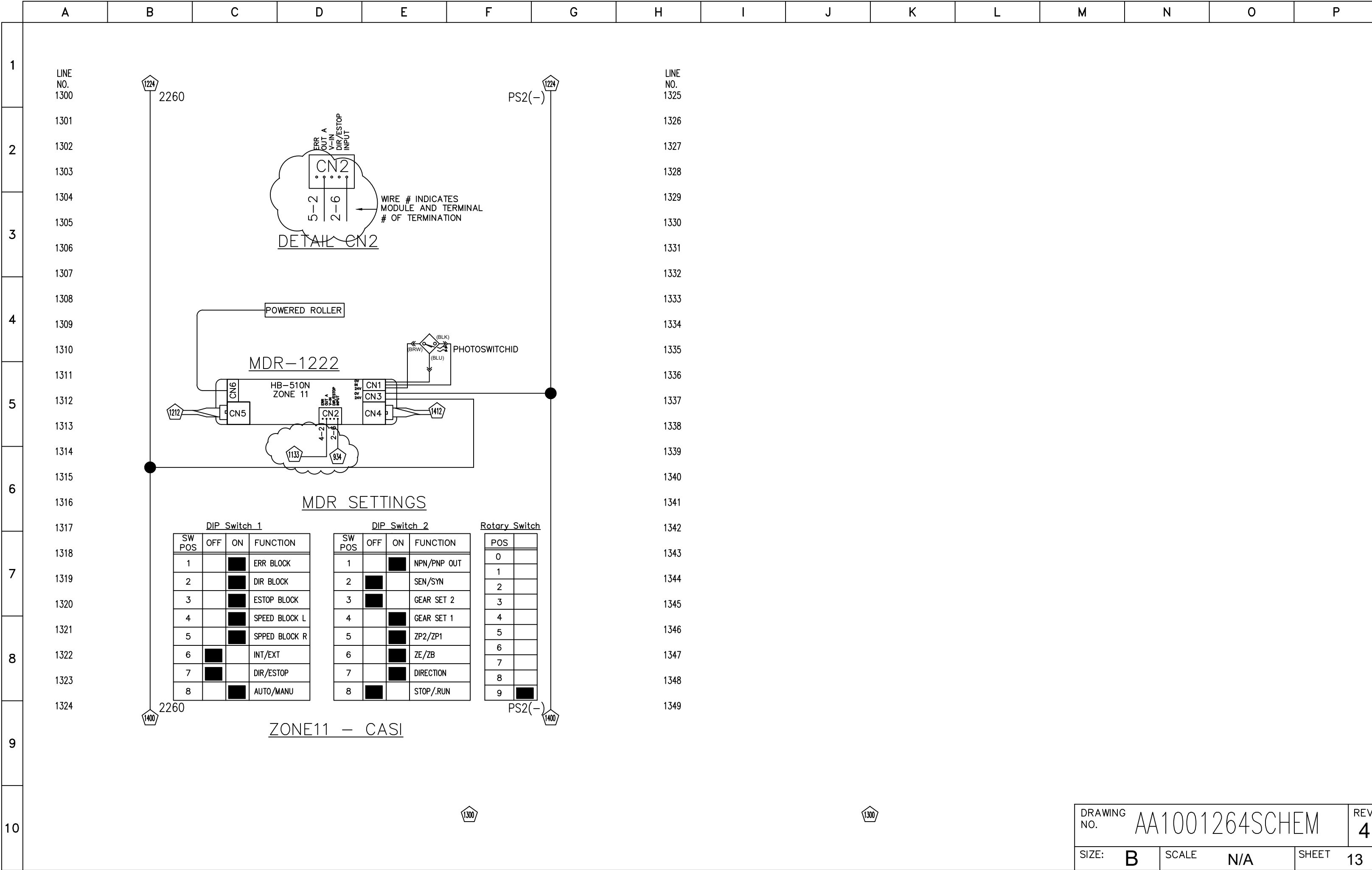
SW POS	OFF	ON	FUNCTION
1			NPN/PNP OUT
2			SEN/SYN
3			GEAR SET 2
4			GEAR SET 1
5			ZP2/ZP1
6			ZE/ZB
7			DIRECTION
8			STOP/.RUN

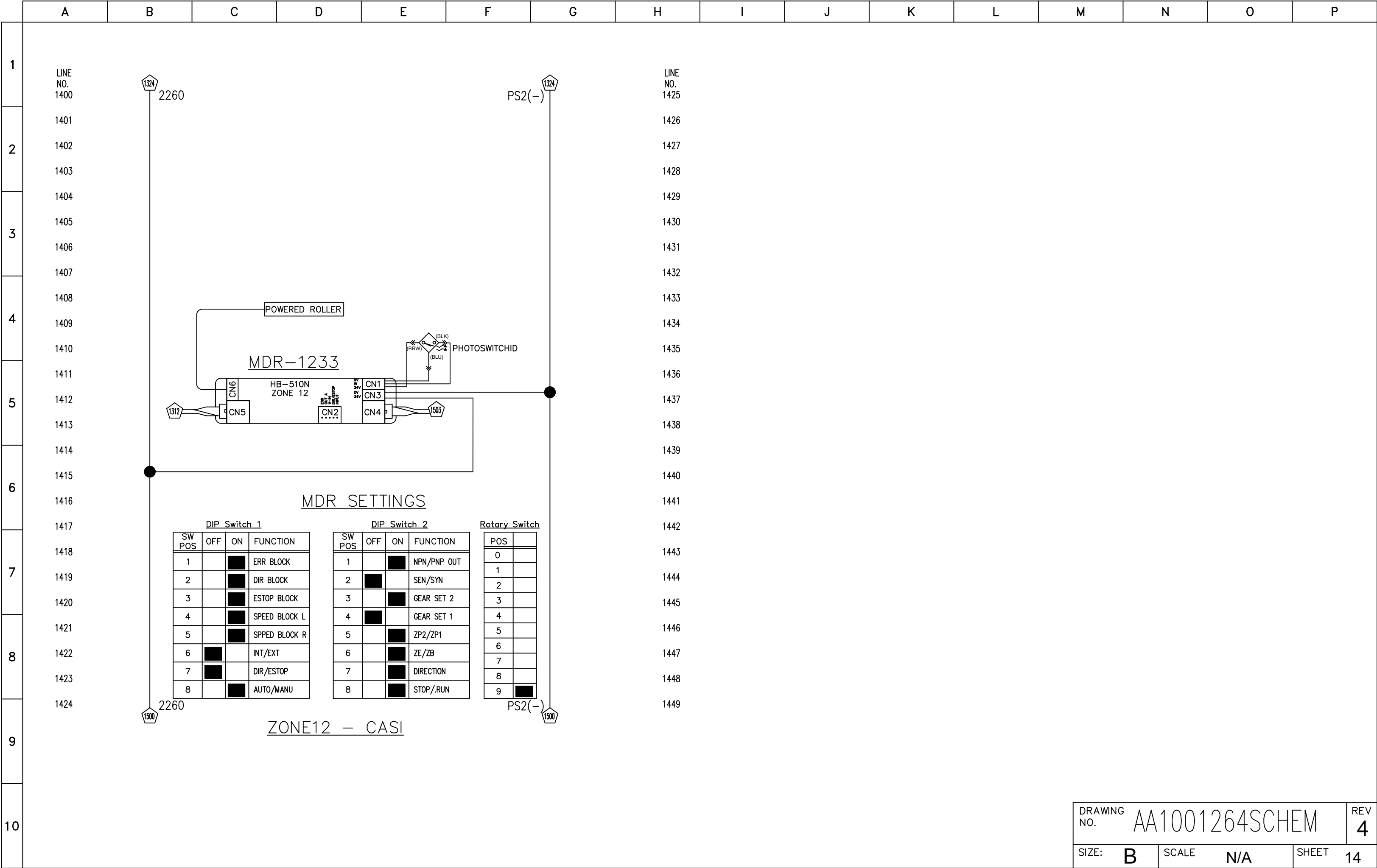
Rotary Switch

POS	
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	

ZONE10 - CASI

ZONE10 - ASi





LINE NO.
1425

1426

1427

1428

1429

1430

1431

1432

1433

1434

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1445

1446

1447

1448

1449

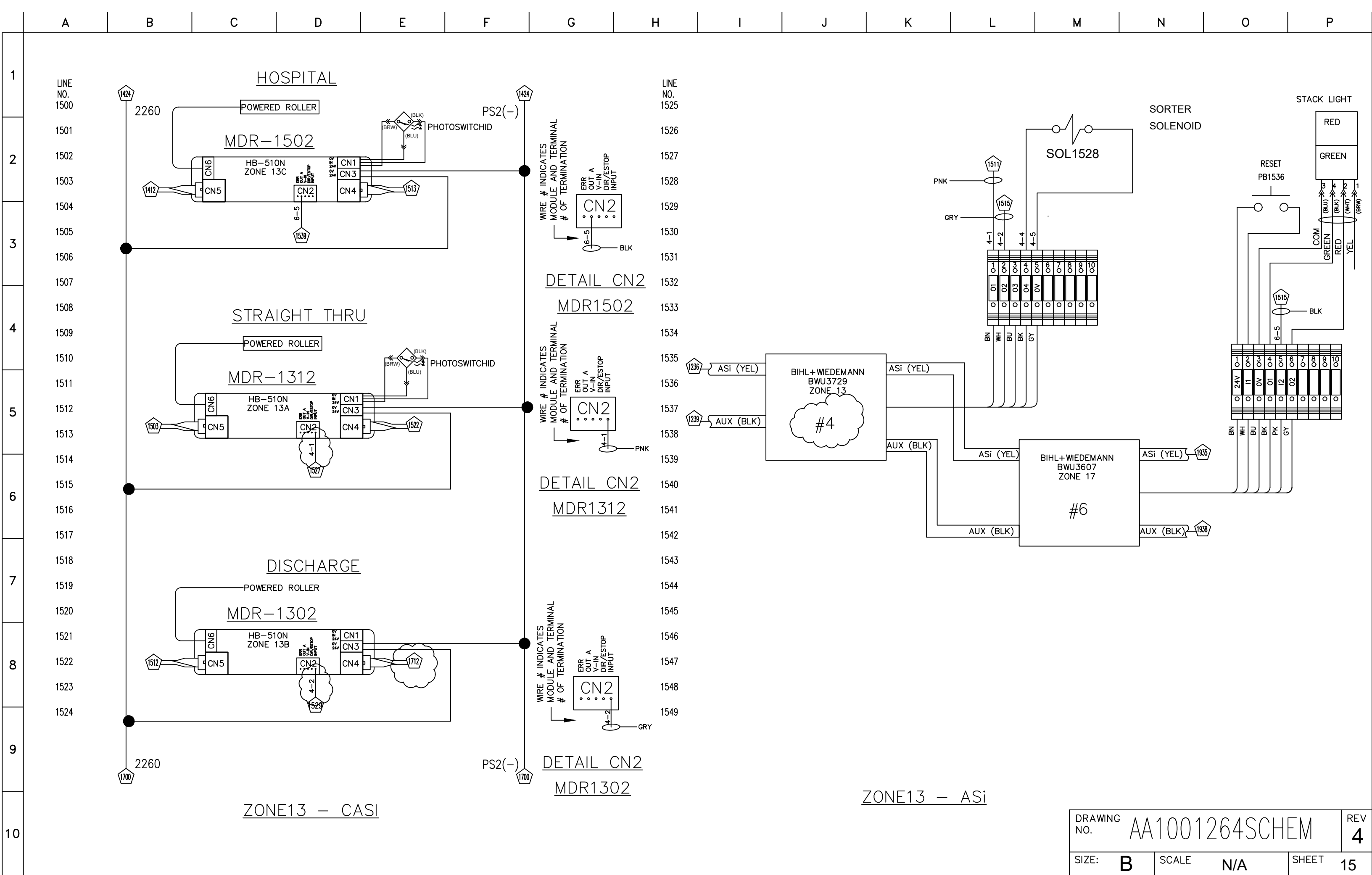
DRAWING NO. AA1001264SCHEM

REV 4

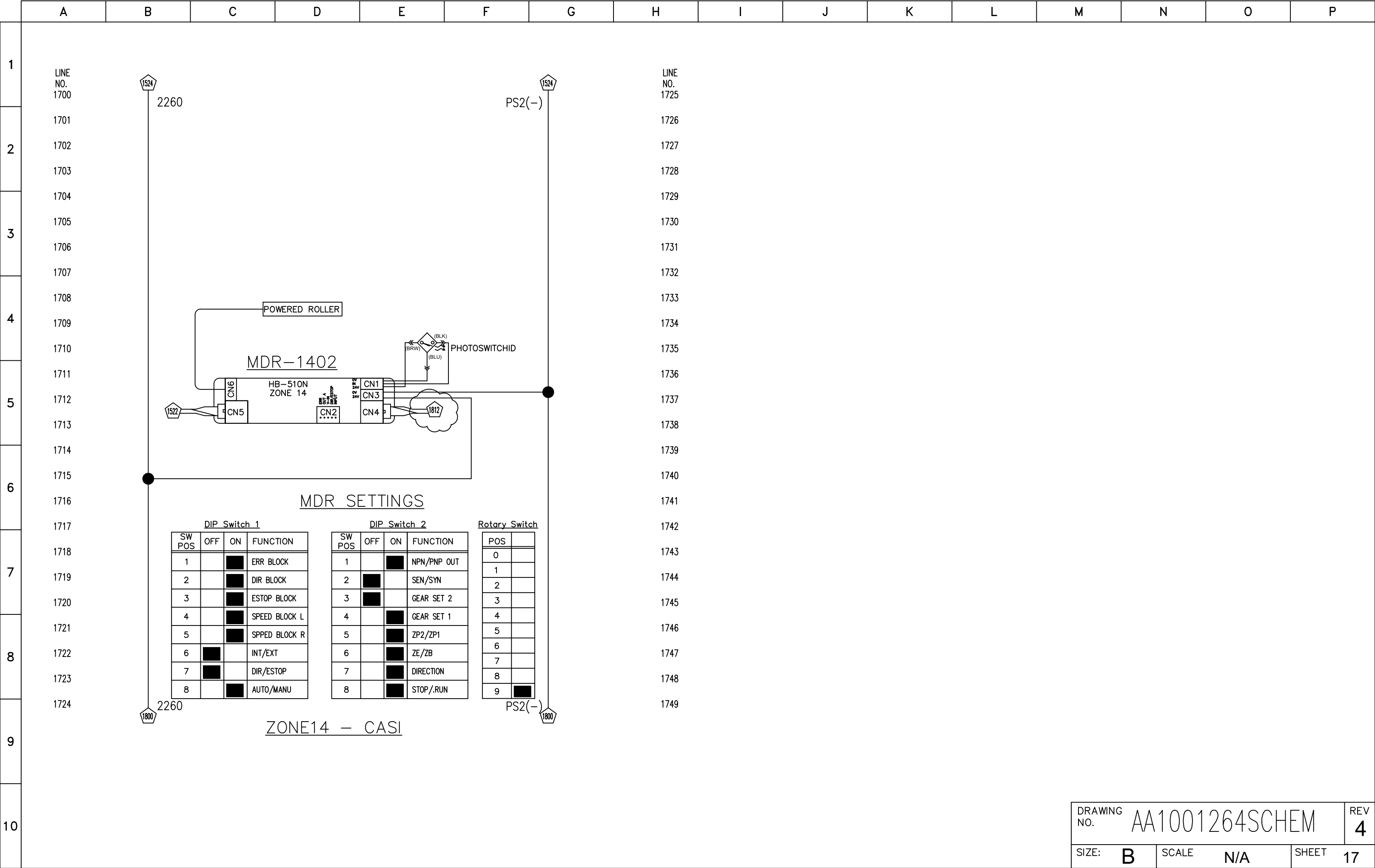
SIZE: B

SCALE N/A

SHEET 14



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
1	LINE NO. 1600	MDR-1502 SETTINGS															
2	1601	DIP Switch 1			DIP Switch 2			Rotary Switch									
	1602	SW POS	OFF	ON	FUNCTION	SW POS	OFF	ON	FUNCTION	POS							
	1603	1			ERR BLOCK	1			NPN/PNP OUT	0							
	1604	2			DIR BLOCK	2			SEN/SYN	1							
3	1605	3			ESTOP BLOCK	3			GEAR SET 2	2							
	1606	4			SPEED BLOCK L	4			GEAR SET 1	3							
	1607	5			SPPED BLOCK R	5			ZP2/ZP1	4							
	1608	6			INT/EXT	6			ZE/ZB	5							
4	1609	7			DIR/ESTOP	7			DIRECTION	6							
	1610	8			AUTO/MANU	8			STOP/.RUN	7							
	1611	MDR-1312 SETTINGS															
	1612	DIP Switch 1			DIP Switch 2			Rotary Switch									
5	1613	SW POS	OFF	ON	FUNCTION	SW POS	OFF	ON	FUNCTION	POS							
	1614	1			ERR BLOCK	1			NPN/PNP OUT	0							
	1615	2			DIR BLOCK	2			SEN/SYN	1							
	1616	3			ESTOP BLOCK	3			GEAR SET 2	2							
6	1617	4			SPEED BLOCK L	4			GEAR SET 1	3							
	1618	5			SPPED BLOCK R	5			ZP2/ZP1	4							
	1619	6			INT/EXT	6			ZE/ZB	5							
	1620	7			DIR/ESTOP	7			DIRECTION	6							
7	1621	8			AUTO/MANU	8			STOP/.RUN	7							
	1622	MDR-1302 SETTINGS															
	1623	DIP Switch 1			DIP Switch 2			Rotary Switch									
	1624	SW POS	OFF	ON	FUNCTION	SW POS	OFF	ON	FUNCTION	POS							
8	1625	1			ERR BLOCK	1			NPN/PNP OUT	0							
	1626	2			DIR BLOCK	2			SEN/SYN	1							
	1627	3			ESTOP BLOCK	3			GEAR SET 2	2							
	1628	4			SPEED BLOCK L	4			GEAR SET 1	3							
9	1629	5			SPPED BLOCK R	5			ZP2/ZP1	4							
	1630	6			INT/EXT	6			ZE/ZB	5							
	1631	7			DIR/ESTOP	7			DIRECTION	6							
	1632	8			AUTO/MANU	8			STOP/.RUN	7							
10																	
												DRAWING NO.		AA1001264SCHEM		REV 4	
												SIZE: B		SCALE N/A		SHEET 16	



DRAWING NO.

AA1001264SCHEM

REV

4

SIZE:

B

SCALE

N/A

SHEET

17

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	LINE NO. 1800															
2	1801															
	1802															
	1803															
3	1804															
	1805															
	1806															
4	1807															
	1808															
	1809															
5	1810															
	1811															
	1812															
6	1813															
	1814															
	1815															
7	1816															
	1817															
	1818															
8	1819															
	1820															
	1821															
9	1822															
	1823															
	1824															
10																

1724

2260

1724

PS2(-)

1712

1912

1900

2260

1900

PS2(-)

POWERED ROLLER

MDR-1412

HB-510N ZONE 15

PHOTOSWITCHID

MDR SETTINGS

DIP Switch 1

SW POS	OFF	ON	FUNCTION
1			ERR BLOCK
2			DIR BLOCK
3			ESTOP BLOCK
4			SPEED BLOCK L
5			SPPED BLOCK R
6			INT/EXT
7			DIR/ESTOP
8			AUTO/MANU

DIP Switch 2

SW POS	OFF	ON	FUNCTION
1			NPN/PNP OUT
2			SEN/SYN
3			GEAR SET 2
4			GEAR SET 1
5			ZP2/ZP1
6			ZE/ZB
7			DIRECTION
8			STOP/.RUN

Rotary Switch

POS	
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	

ZONE15 - CASI

DRAWING NO. AA1001264SCHEM

REV 4

SIZE: B

SCALE N/A

SHEET 18

