



4100ESi

Australian Wiring Diagrams

LT0432
Issue 2.4

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The wiring details described in this document are intended to allow compliance with the statutory requirements of Australian fire alarm systems. Some aspects of compliance require corresponding settings in the configuration of the fire alarm system. Because this configuration will be customized by the User to define in detail the operation of particular 4100ES or 4100ESi systems, changes may be made by the User that prevent this installation from meeting statutory requirements.

Therefore, Johnson Controls cannot accept any responsibility as to the suitability of the functions generated by the User in any particular configured system.

Revision history	
2.0 12-07-2016	Extensively revised for 4100ESi
2.1 17-11-2016	Added sheets 608 and 708. Revised sheets 308, 309, 427, 603, 604, and 705. Withdrew sheet 212.
2.2 23-01-2017	Revised sheet 207.
2.3 09-11-2017	Added sheets 109, 429-432. Revised sheets 600, 601, 606, 609
2.4 31-10-2018	Added sheets 433, 434 Revised sheets 429-432, 707.

About this guide

These diagrams show the wiring for particular modules or cards or detector bases which can be used with the 4 100ES (AS4428.1) or 4 100ESi (AS7240.2) Simplex Fire Alarm systems.

Organization

Each diagram has a 3 digit reference number from the drawing series 1976 - 181. This sheet numbering is divided into ranges, reflecting the type of device or module, as follows:

Sheet Number	Type of Devices Covered
100-199	Detectors & bases
200-299	Zone modules & cards providing detection circuits
300-399	Input devices
400-499	Output devices or mixed input/output devices
500-599	Fault isolators
600-699	Communications – networks, printers, etc.
700-799	Power Supply details

Abbreviations

Abbreviation	Description
MAPNET	Multi-Application Peripheral Network – early version of addressable device communication.
IDNet	Individual Device Network – later version of addressable device communication.
IAM	Individually Addressable Module.
ZAM	Zone Addressable Module – interfaces to conventional detectors.
RUI	Remote Unit Interface – connects 4 100ES Master panel and Slave transponders.
RTU	Remote Transponder Unit – slave unit.
NAC	Notification Appliance Circuit – drives DC-powered sounders and visual warning devices, usually with supervision.
MX	Refers to detectors and devices using the MX DIGITAL communication protocol on an addressable loop. Not compatible with MAPNET/IDNet devices.
NC	Normally Closed Relay Contact.
NO	Normally Open Relay Contact.

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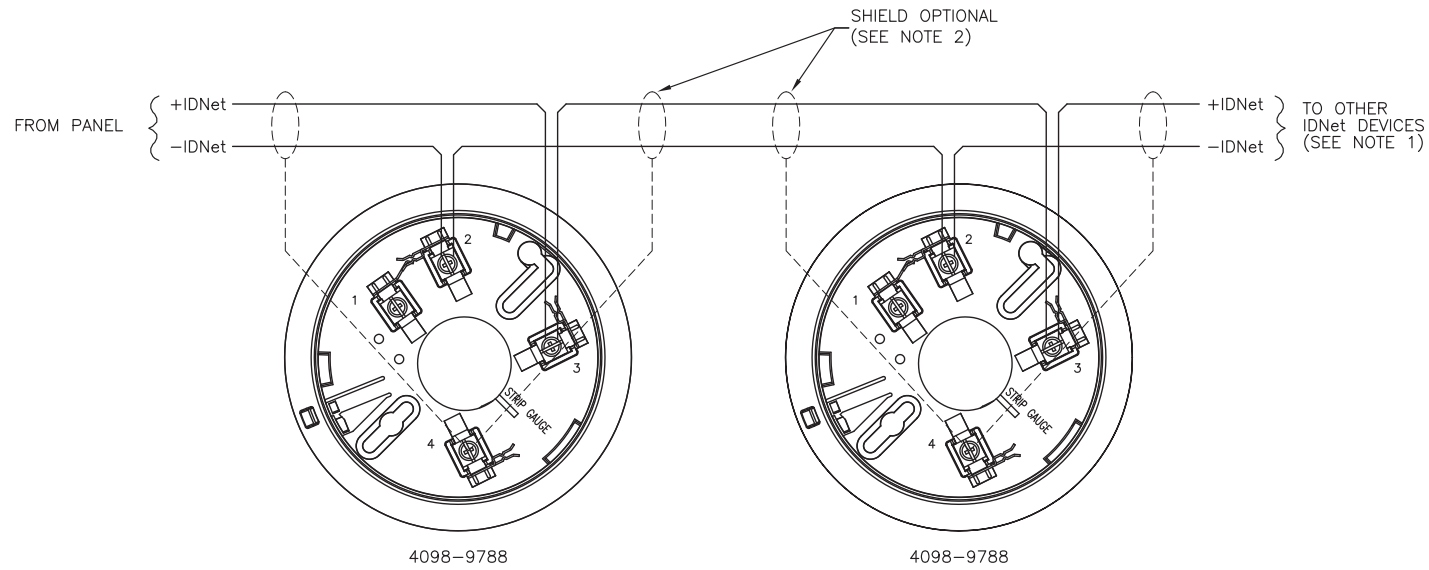
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Detectors and bases

100: 2W Detector Bases - QuickConnect Detectors



CAUTION: DO NOT LOOP WIRE UNDER TERMINALS. BREAK WIRE RUNS TO PROVIDE SUPERVISION.

QUICKCONNECT SENSOR CONNECTIONS

NOTES:

1. MAXIMUM QUANTITY OF DEVICES IS 127 PER CIRCUIT FOR MAPNET MODULE AND 250 FOR 4190-3106 IDNET MODULE.
2. IDNET CIRCUIT VOLTAGE IS 18 TO 32 VDC, .008 AMPERES TYPICAL/.013 AMPERES MAX.
3. 4098-9757 AND 4098-9717 QUICKCONNECT SENSORS USE THE 4098-9788 BASE.

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3rd ANGLE PROJECTION

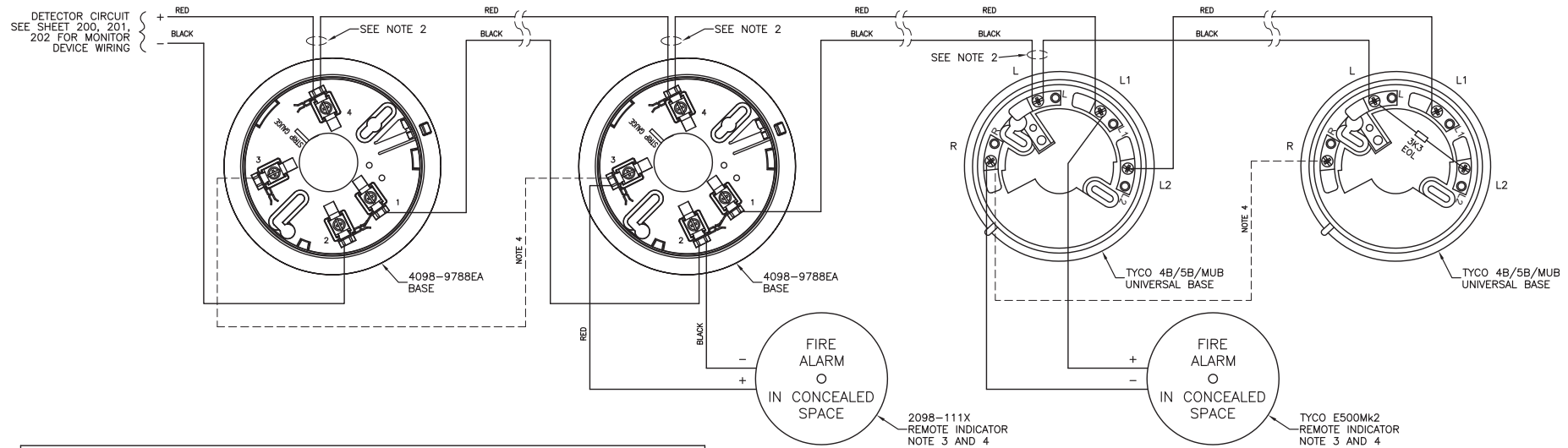
ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS				21-7-06
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	12-1-16

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4100ES			
2 WIRE DETECTOR BASES - QUICKCONNECT DETECTORS			
WIRING DIAGRAM			
DRAWING No: 1976-181		SHEET 100 of N	
A3	ISS/REV	B	PART No:

101: 2W Detector Bases - Conventional Detectors



MAX QTY OF DETECTORS PER CIRCUIT (SEE NOTE 5)				
DETECTOR MODEL	DETECTOR TYPE	4100-5001/2/4 8 ZONE MODULE	2190-9156 MONITOR ZAM	4090-9101 MONITOR ZAM
4098-9601EA	PHOTOELECTRIC	30	20	20
4098-9603EA	IONISATION	30	20	20
4098-9618EA	HEAT TYPE A	30	20	20
4098-9619EA	HEAT TYPE B	30	20	20
4098-9621EA	HEAT TYPE D	30	20	20
USED IN 4098-9788EA BASES				

MAX QTY OF DETECTORS PER CIRCUIT (SEE NOTE 5)				
DETECTOR MODEL	DETECTOR TYPE	4100-5001/2/4 8 ZONE MODULE	2190-9156 MONITOR ZAM	4090-9101 MONITOR ZAM
614CH	CO AND HEAT	37	25	25
614I	IONISATION	40	29	29
614P	PHOTOELECTRIC	28	19	19
614T	HEAT	30	20	20
USED IN 4B/5B/MUB BASES				

NOTES:

- IF USED, REMOTE INDICATORS ARE POLARIZED; OBSERVE COLOUR-CODED WIRING.
- BREAK WIRES BEFORE CONNECTING TO TERMINAL 4 OR L TO MAINTAIN SUPERVISION. DO NOT LOOP WIRE UNDERNEATH TERMINAL 4 OR L.
- 2098-111X REMOTE INDICATOR CANNOT BE USED WITH TYCO BASES, AND E500 REMOTE INDICATOR CANNOT BE USED WITH 4098-9788EA BASES.
- MULTIPLE BASES OF THE SAME TYPE CAN DRIVE A COMMON REMOTE INDICATOR BY LINKING BASES AS SHOWN. HOWEVER, DO NOT INTERCONNECT REMOTE INDICATOR OUTPUTS OF 4098-9788EA BASES WITH 4B/5B/MUB BASES, OR THE DETECTOR CIRCUIT WILL BE SHORT CIRCUITED.
- WHEN USING MULTIPLE DETECTOR TYPES ON ONE CIRCUIT, THE SUM OF EACH TYPE'S QUANTITY AS A PROPORTION OF ITS MAXIMUM MUST NOT EXCEED 1, E.G. 22 X 614I AND 16 X 4098-9603EA ARE NOT PERMITTED ON 4100-5001 AS 22/40 + 16/30 IS GREATER THAN 1.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS				21-7-06
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

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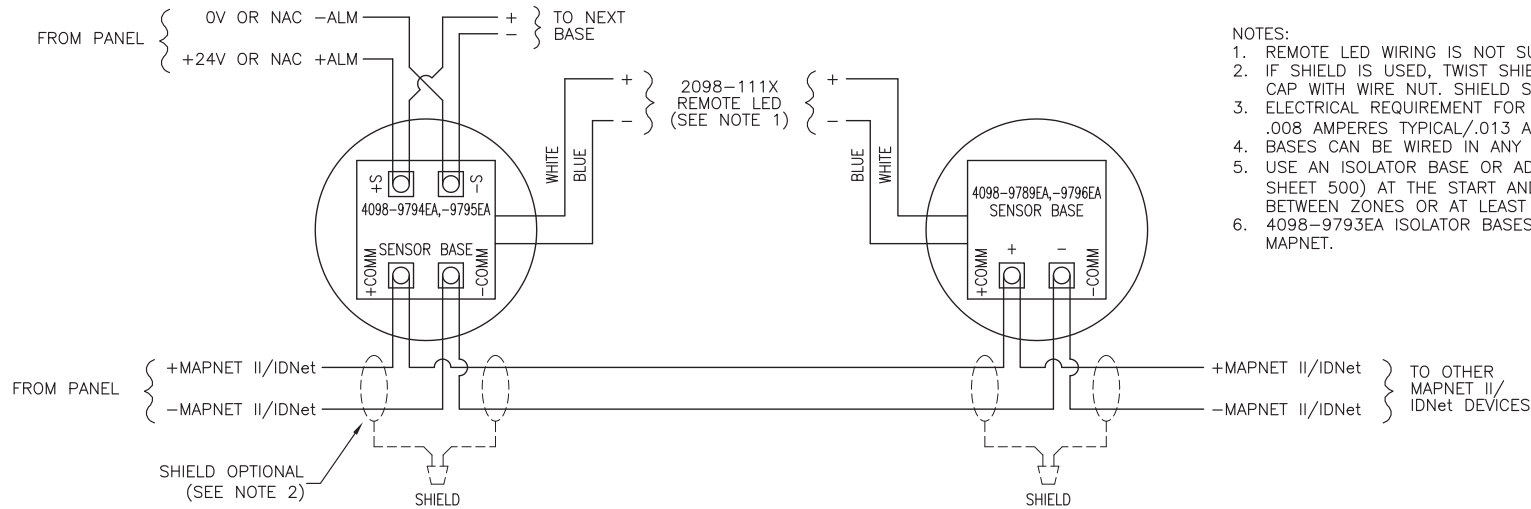
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4100ES
2 WIRE DETECTOR BASES - CONVENTIONAL DETECTORS
WIRING DIAGRAM

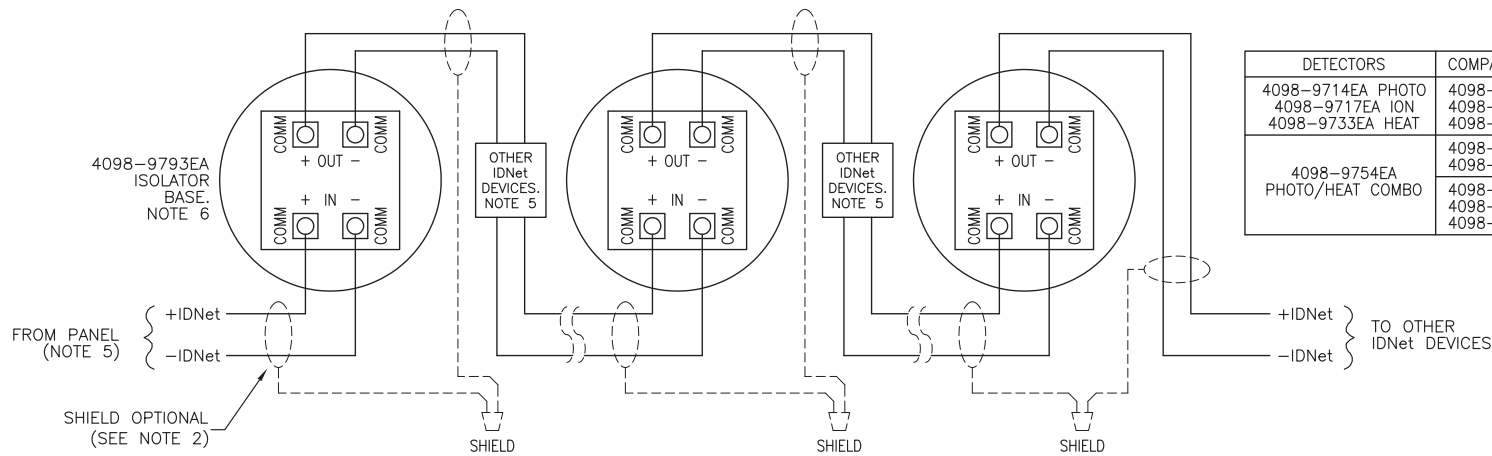
DRAWING No: **1976-181** SHEET 101 of N

A3 | ISS/REV **B** | PART No:

102: TrueAlarm Addressable Detector Bases



- NOTES:
1. REMOTE LED WIRING IS NOT SUPERVISED.
 2. IF SHIELD IS USED, TWIST SHIELD WIRES TOGETHER AND CAP WITH WIRE NUT. SHIELD SHOULD BE INSULATED.
 3. ELECTRICAL REQUIREMENT FOR EACH BASE: 18 TO 32VDC, .008 AMPERES TYPICAL/.013 AMPERES MAX.
 4. BASES CAN BE WIRED IN ANY ORDER.
 5. USE AN ISOLATOR BASE OR ADDRESSABLE ISOLATOR (SEE SHEET 500) AT THE START AND END OF EACH LOOP AND BETWEEN ZONES OR AT LEAST EVERY 40 DEVICES.
 6. 4098-9793EA ISOLATOR BASES CANNOT BE USED WITH MAPNET.



DETECTORS	COMPATIBLE BASES	
4098-9714EA PHOTO 4098-9717EA ION 4098-9733EA HEAT	4098-9789EA 4098-9793 ISOLATOR, NOTE 6 4098-9794EA SOUNDER	MAPNET OR IDNet
4098-9754EA PHOTO/HEAT COMBO	4098-9795EA SOUNDER 4098-9796EA	MAPNET ONLY
	4098-9789EA 4098-9793EA ISOLATOR 4098-9794EA SOUNDER	IDNet ONLY

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS				21-7-06
B	NOTE 5 - ISOLATOR AT START AND END ADDED.	3809	KJS	PA	LSC	DP	20-11-06
C	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

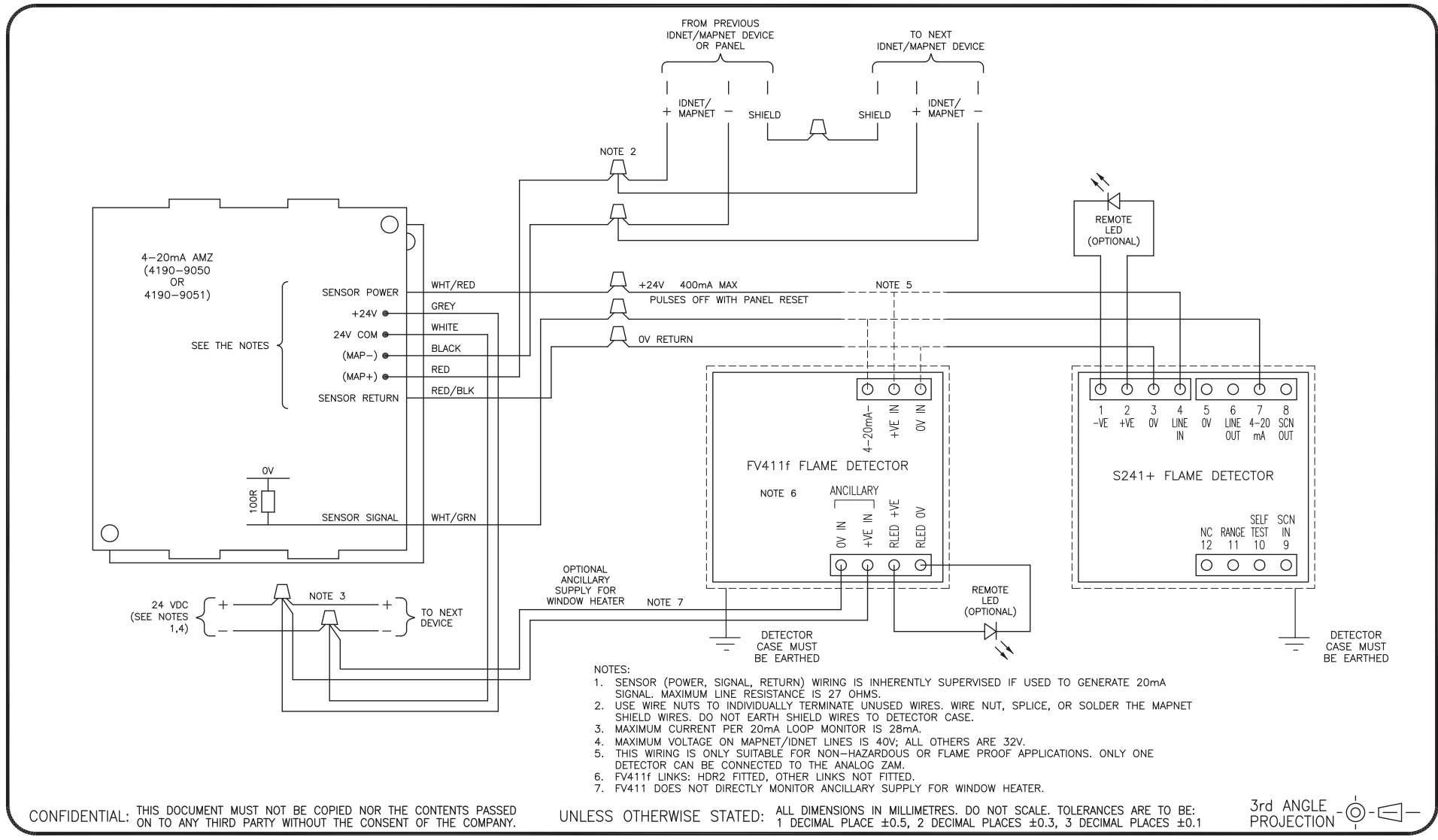
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4100ES
TRUEALARM ADDRESSABLE DETECTOR BASES
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET 102 of N

A3	ISS/REV C	PART No:
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103: Flame Detector with Analog ZAM (4190-9050)



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4615	KS	LSC	RC	DP	02-09-14
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

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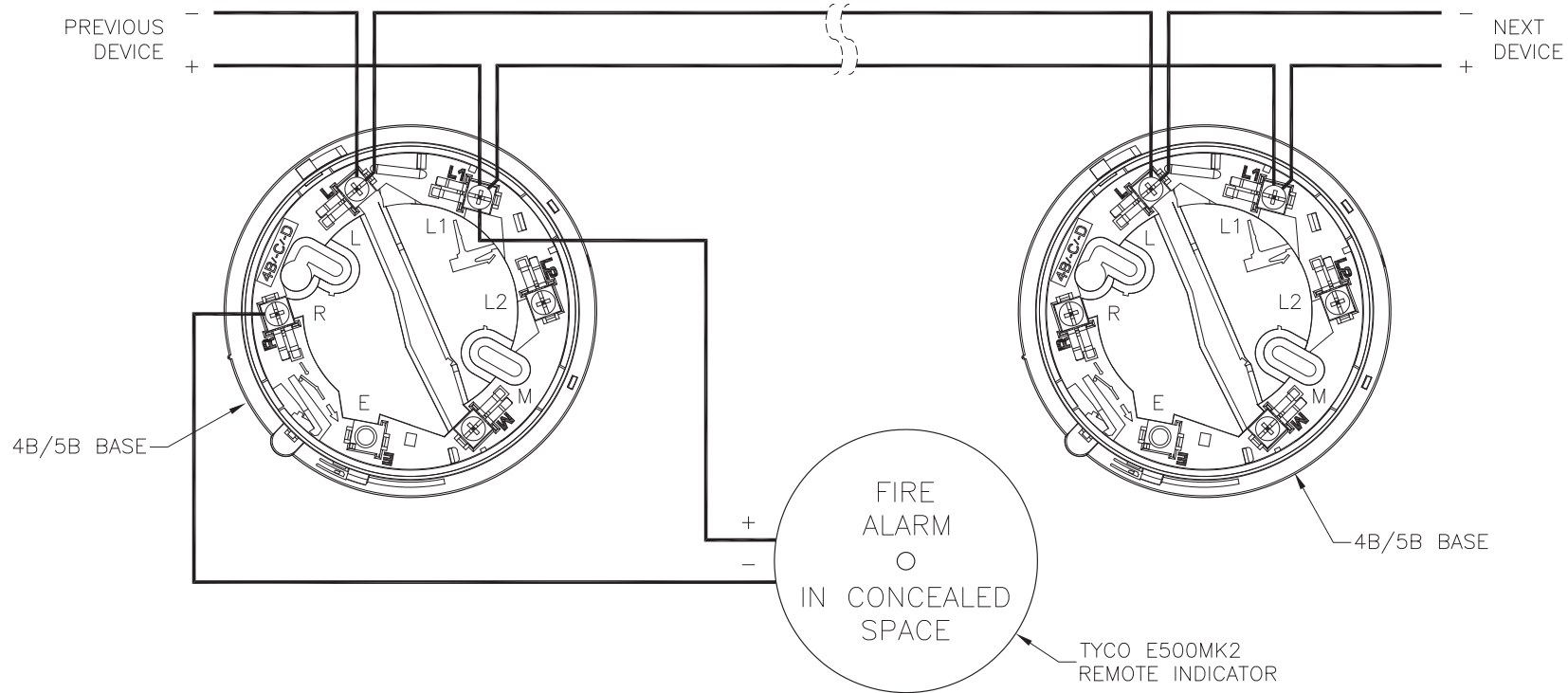
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**4100ES
 FLAME DETECTOR WITH ANALOG ZAM
 WIRING DIAGRAM**

DRAWING No: **1976-181** SHEET **103** of **N**

A3	ISS/REV	B	PART No:
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104: 4B/5B MX Base



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4809	KJS	LSC	RC	DK	12-11-15

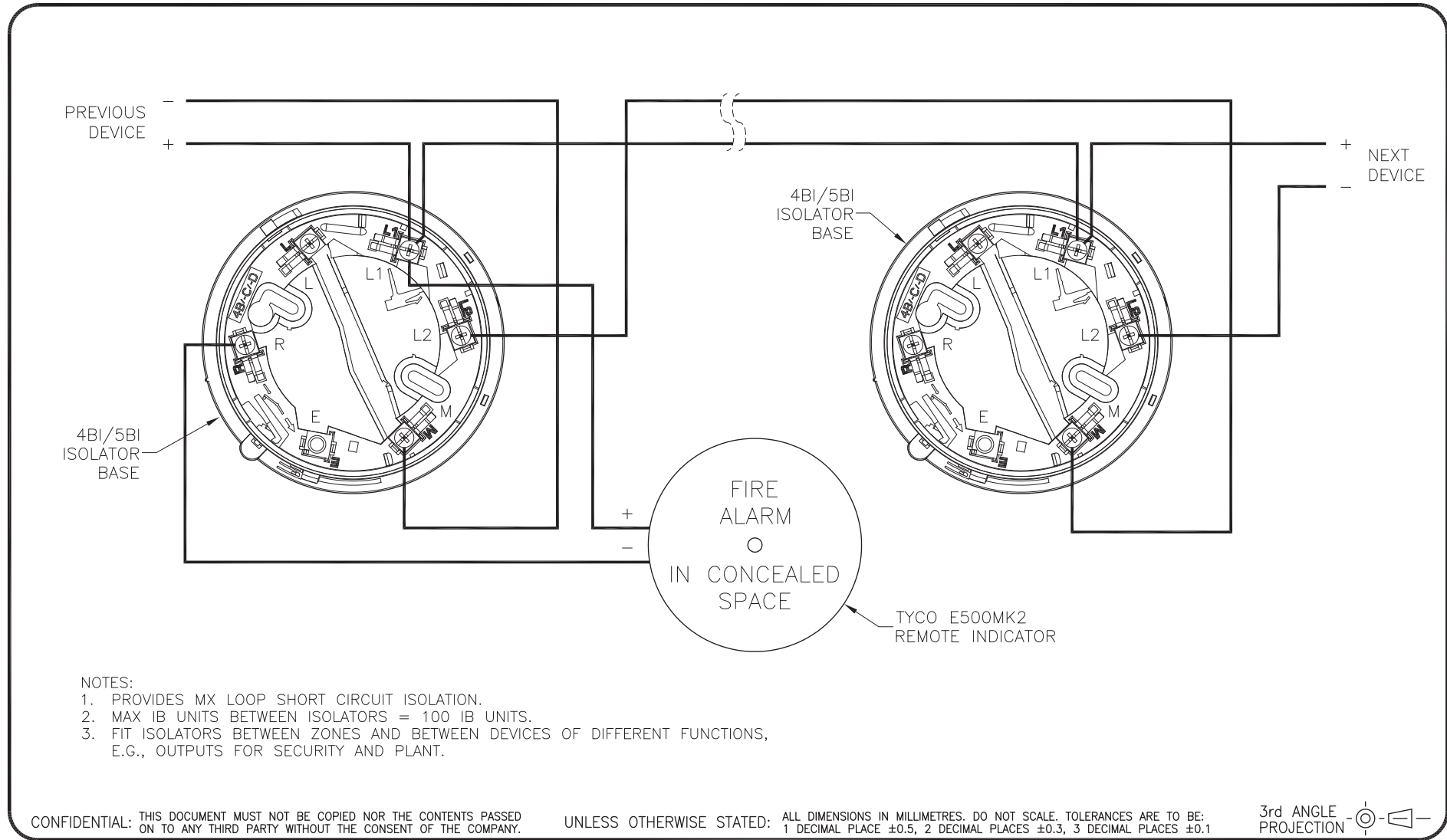
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4100ESi
4B / 5B MX BASE
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **104** of **1**

A3	ISS/REV	A	PART No:
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105: 4BI/5BI MX Isolator Base



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL FROM 1982-71-103.	4809	KJS	LSC	RC	DK	12-11-15

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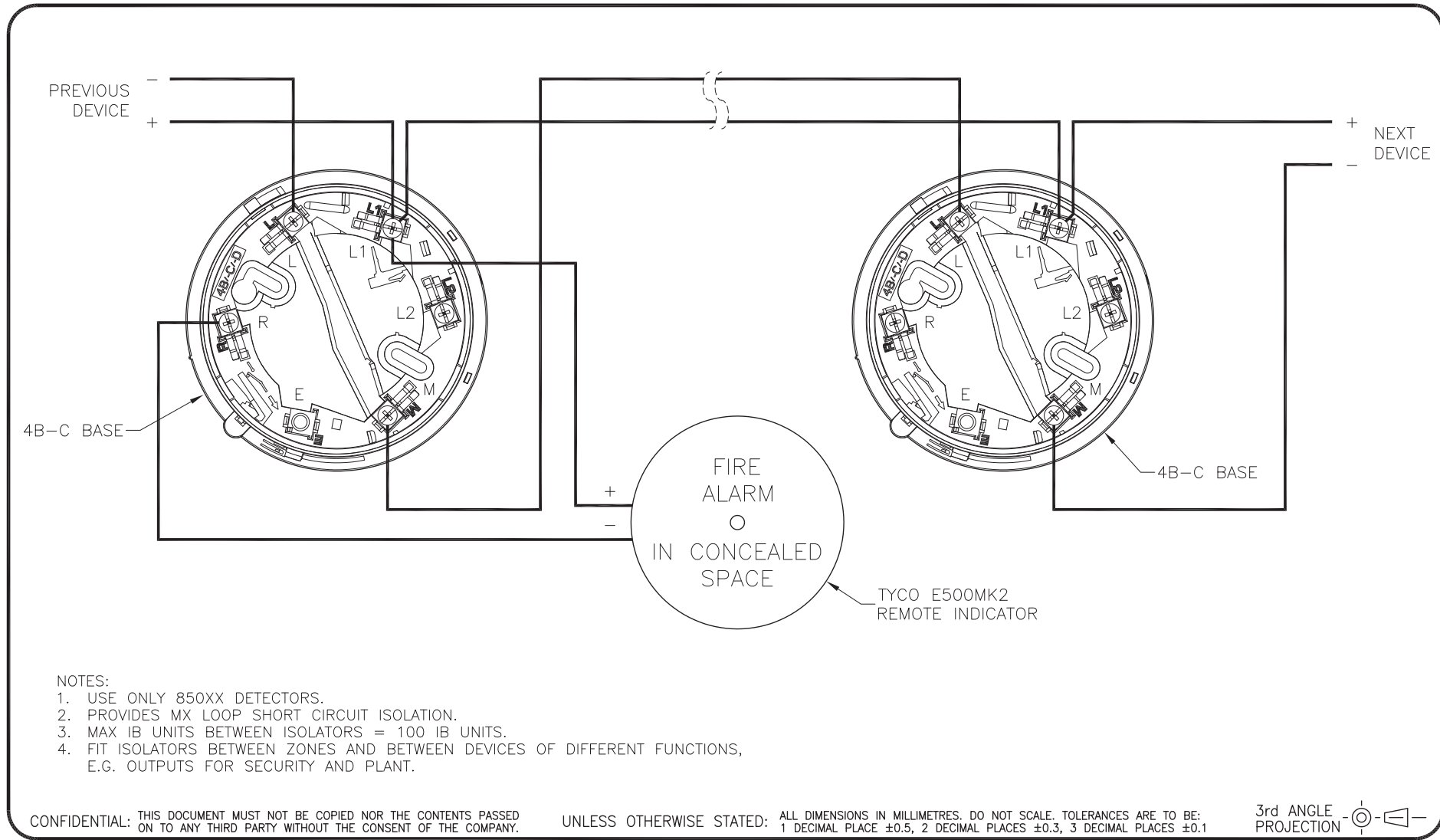
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4100ESi
4BI / 5BI MX ISOLATOR BASE
WIRING DIAGRAM

DRAWING No: 1976-181 SHEET 105 of N

A3 | ISS/REV A | PART No:

106: 4B-C MX Continuity Base



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL FROM 1982-71-105.	4809	KJS	LSC	RC	DK	12-11-15

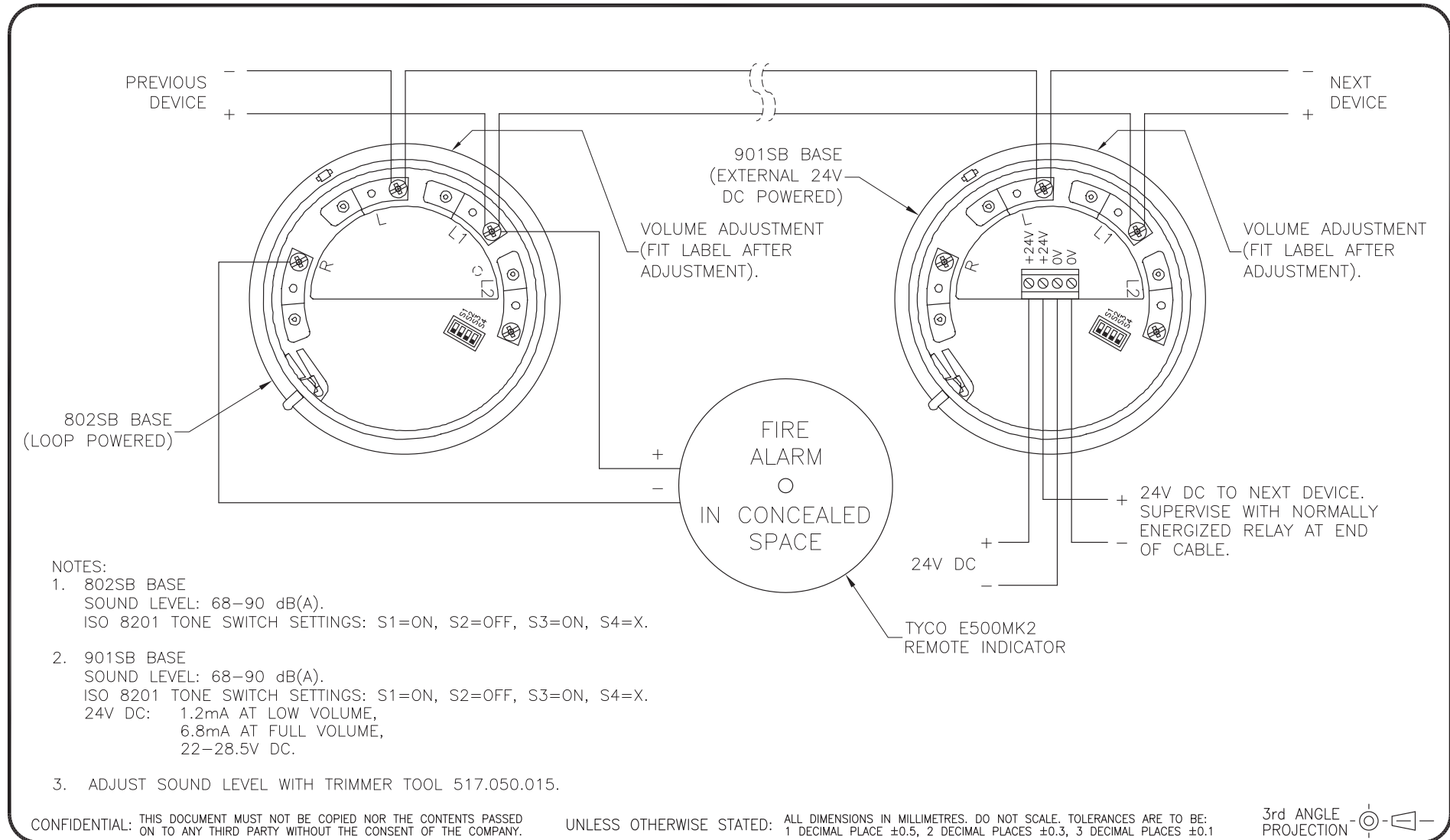
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4100ESi
4B-C MX CONTINUITY BASE
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **106** of **N**

A3	ISS/REV A	PART No:
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107: 802SB/901SB MX Sounder Base



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL FROM 1982-71-106	4809	KJS	LSC	RC	DK	12-11-15

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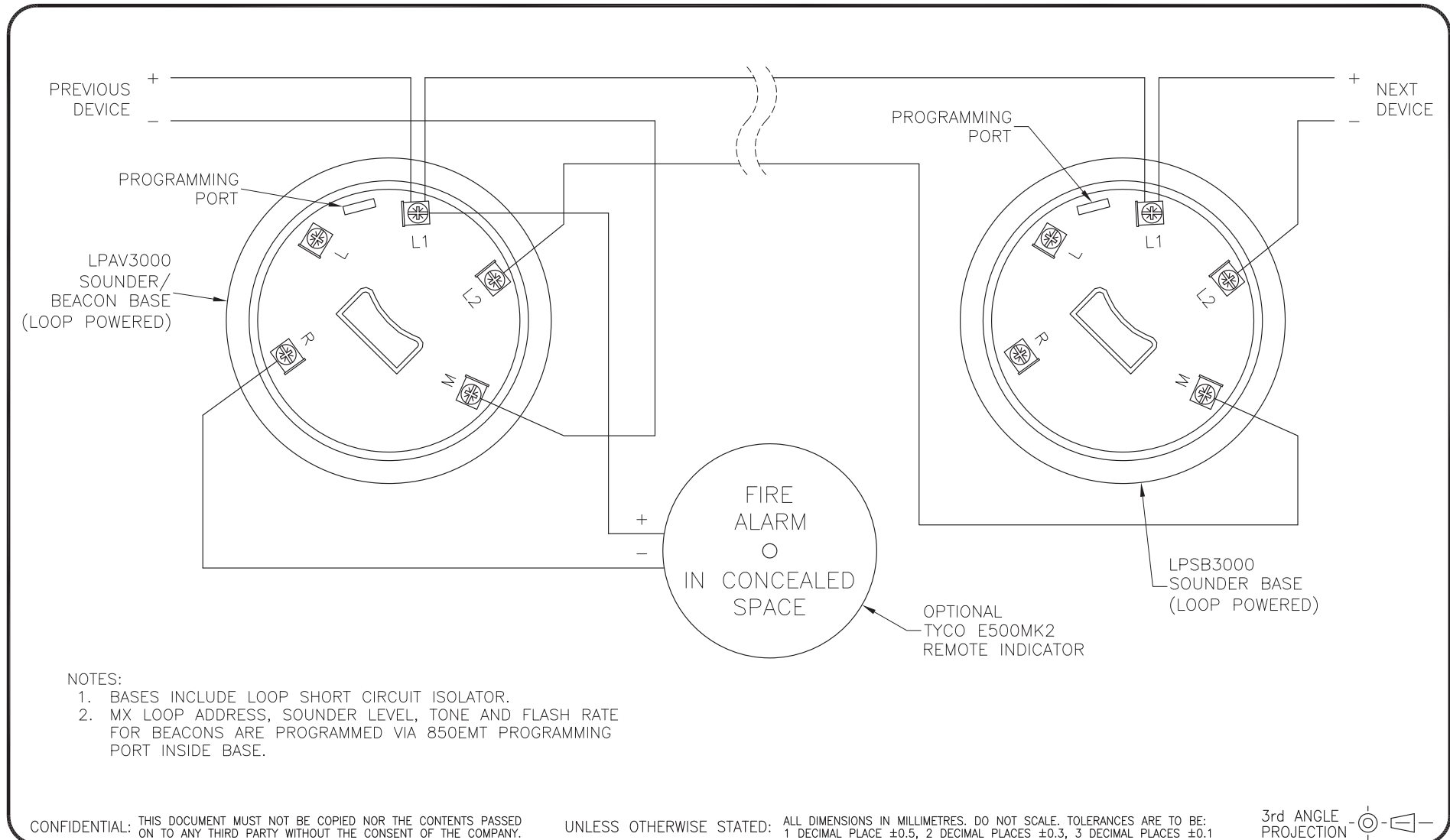
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4100ESi
802SB / 901SB MX SOUNDER BASE
WIRING DIAGRAM

DRAWING No: 1976-181 SHEET 107 of N

A3	ISS/REV	A	PART No:
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108: LPSB3000/LPAV3000 MX Addressable Sounder/Beacon Bases



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4809	KJS	LSC	RC	DP	23-2-16
B	PART NUMBERS CHANGED TO USE MX PART NUMBERS.	4936	KJS	MH	RC	DP	11-7-16

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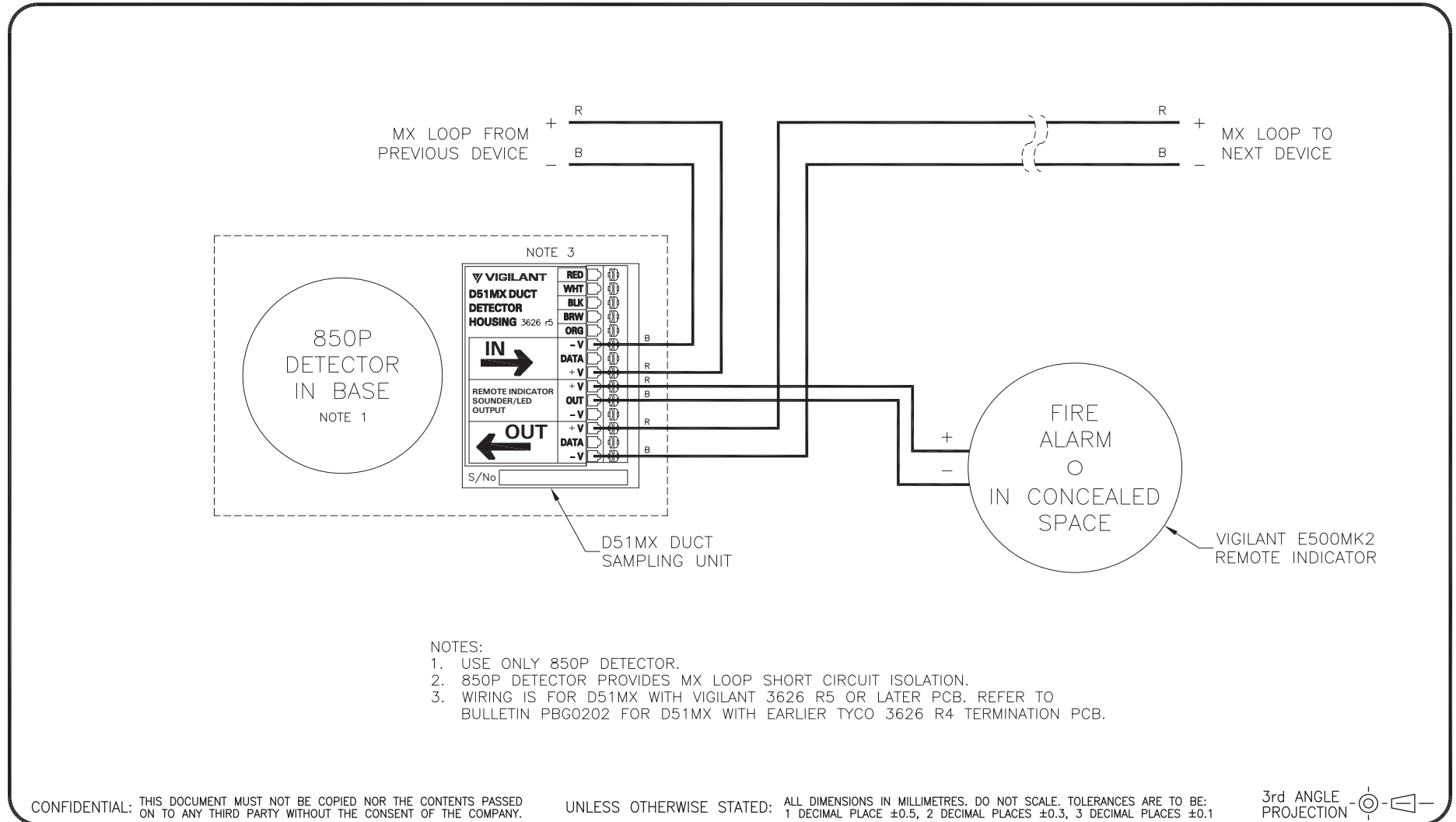
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4100ESi
LPSB3000 / LPAV3000 SOUNDER / BEACON BASE
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **108** of **N**

A3	ISS/REV	B	PART No:
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109: D51MX Duct Sampling Unit Wiring



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	5053	KJS	LSC	LSC	DC	10-8-17

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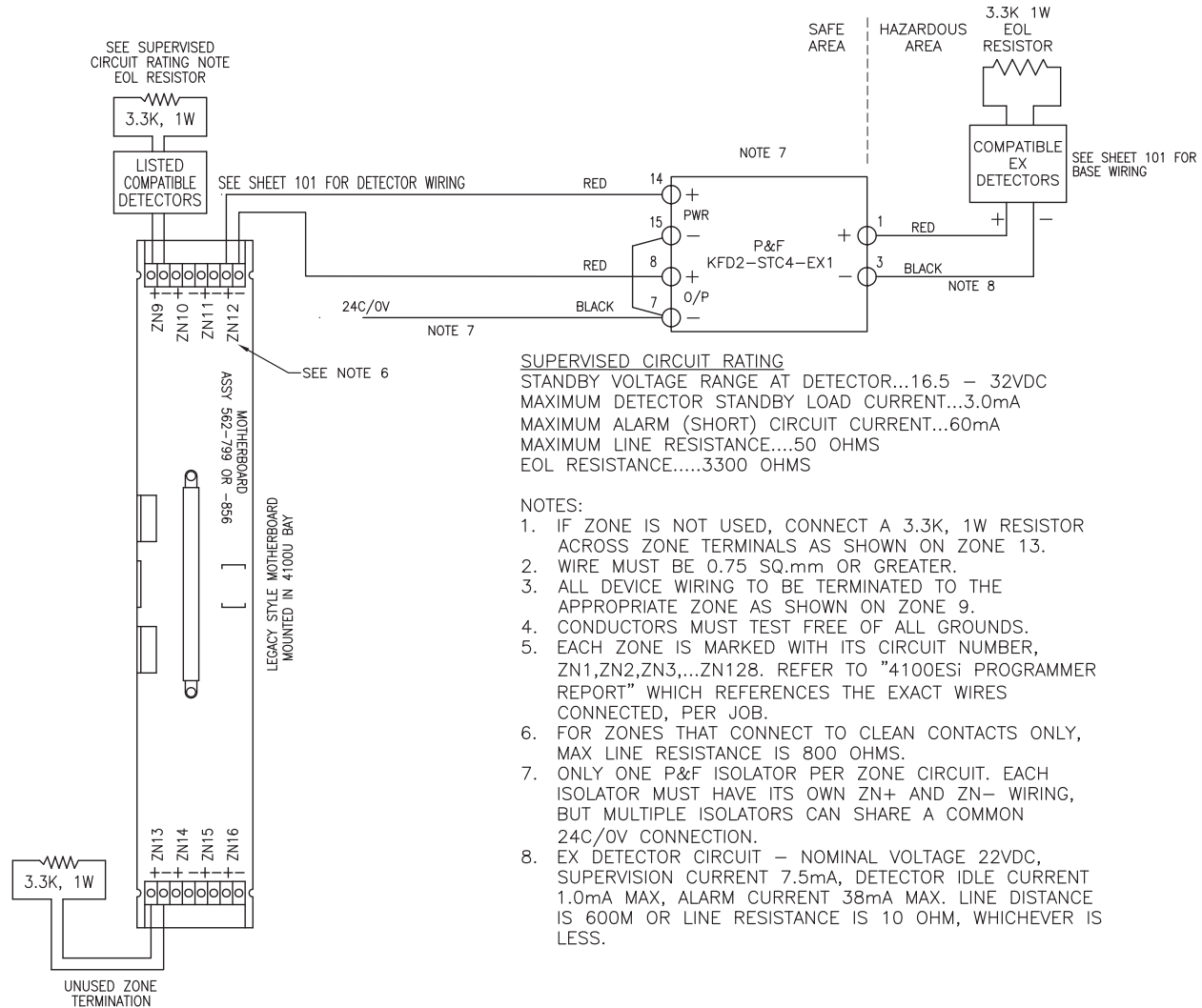
4100ESi
D51MX DUCT SAMPLING UNIT
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **109** of **N**

A3 | ISS/REV **A** | PART No:

Zone module and detection cards

200: 8 Zone Module Motherboard (4100-5004)



SUPERVISED CIRCUIT RATING
 STANDBY VOLTAGE RANGE AT DETECTOR...16.5 – 32VDC
 MAXIMUM DETECTOR STANDBY LOAD CURRENT...3.0mA
 MAXIMUM ALARM (SHORT) CIRCUIT CURRENT...60mA
 MAXIMUM LINE RESISTANCE...50 OHMS
 EOL RESISTANCE.....3300 OHMS

- NOTES:**
- IF ZONE IS NOT USED, CONNECT A 3.3K, 1W RESISTOR ACROSS ZONE TERMINALS AS SHOWN ON ZONE 13.
 - WIRE MUST BE 0.75 SQ.mm OR GREATER.
 - ALL DEVICE WIRING TO BE TERMINATED TO THE APPROPRIATE ZONE AS SHOWN ON ZONE 9.
 - CONDUCTORS MUST TEST FREE OF ALL GROUNDS.
 - EACH ZONE IS MARKED WITH ITS CIRCUIT NUMBER, ZN1,ZN2,ZN3,...ZN128. REFER TO "4100ESi PROGRAMMER REPORT" WHICH REFERENCES THE EXACT WIRES CONNECTED, PER JOB.
 - FOR ZONES THAT CONNECT TO CLEAN CONTACTS ONLY, MAX LINE RESISTANCE IS 800 OHMS.
 - ONLY ONE P&F ISOLATOR PER ZONE CIRCUIT. EACH ISOLATOR MUST HAVE ITS OWN ZN+ AND ZN- WIRING, BUT MULTIPLE ISOLATORS CAN SHARE A COMMON 24C/0V CONNECTION.
 - EX DETECTOR CIRCUIT – NOMINAL VOLTAGE 22VDC, SUPERVISION CURRENT 7.5mA, DETECTOR IDLE CURRENT 1.0mA MAX, ALARM CURRENT 38mA MAX. LINE DISTANCE IS 600M OR LINE RESISTANCE IS 10 OHM, WHICHEVER IS LESS.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS				21-07-06
B	ADDED P&F ISOLATOR AND EX DETECTOR CIRCUIT. UPDATED THE NOTES.	4615	SS	LSC	RC	DP	08-05-15
C	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

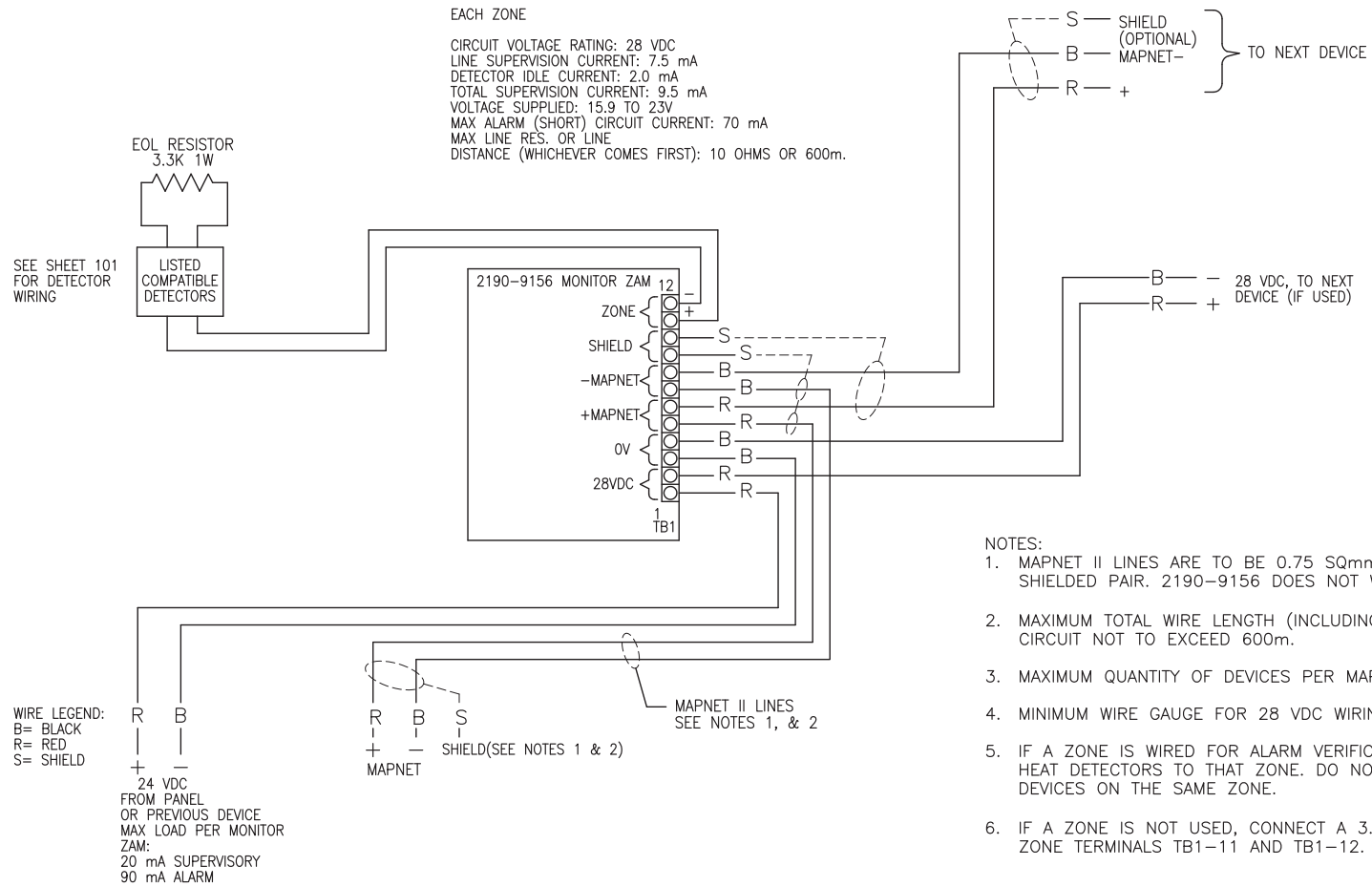
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4100ESi
8 ZONE MODULE - CONVENTIONAL DETECTORS
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **200** of **N**

A3	ISS/REV C	PART No:	
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201: Mapnet Monitor ZAM (2190-9156)



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS				21-7-06
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	12-1-16

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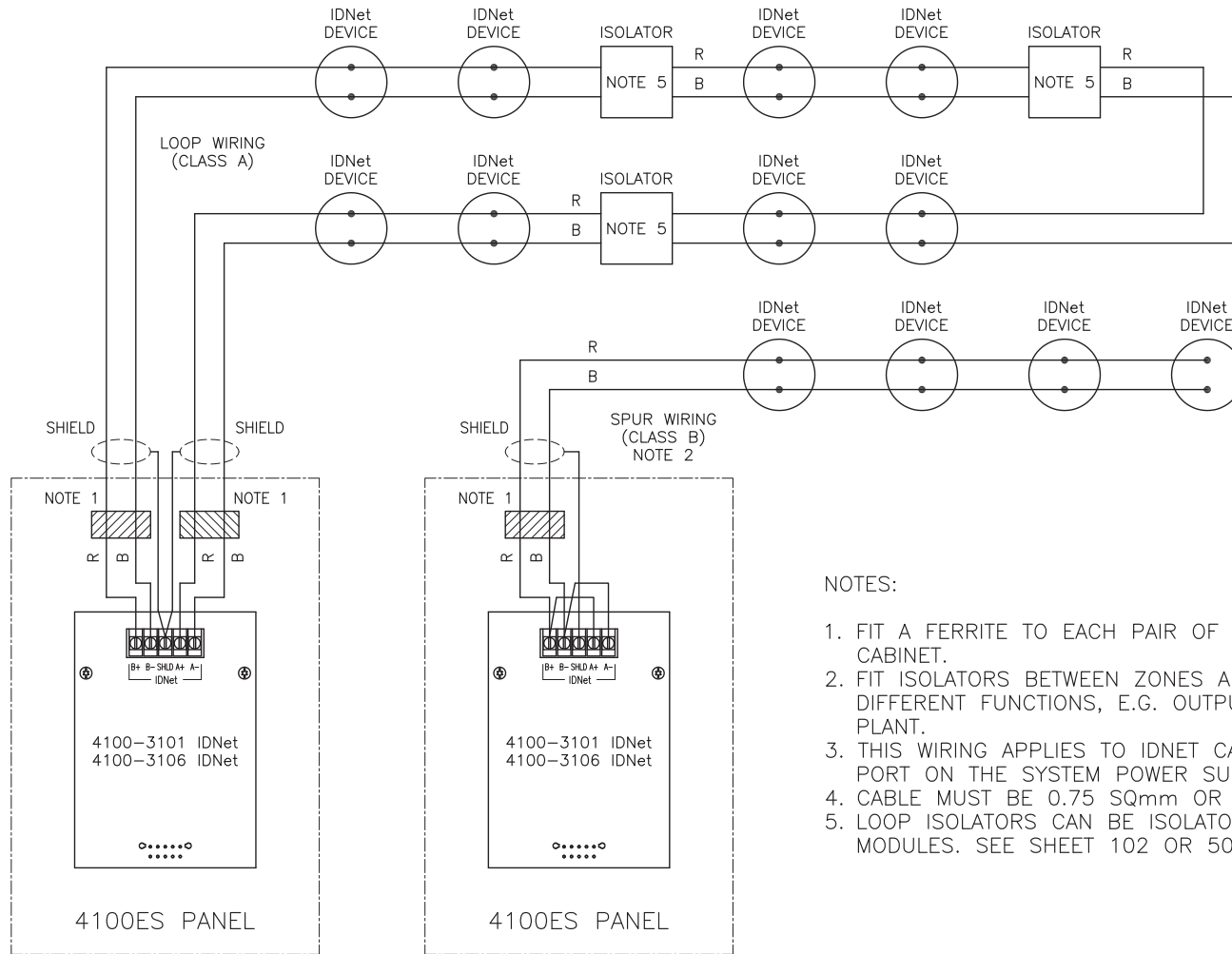
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4100ES
 MAPNET MONITOR ZONE ADDRESSABLE MODULE (2190-9156)
 WIRING DIAGRAM

DRAWING No: 1976-181 SHEET 201 of 1

A3 | ISS/REV B | PART No:

203: IDNet Module (4 100-3 101)



NOTES:

1. FIT A FERRITE TO EACH PAIR OF WIRES LEAVING THE 4100ES CABINET.
2. FIT ISOLATORS BETWEEN ZONES AND BETWEEN DEVICES OF DIFFERENT FUNCTIONS, E.G. OUTPUTS TO SECURITY AND PLANT.
3. THIS WIRING APPLIES TO IDNET CARDS AND TO THE IDNET PORT ON THE SYSTEM POWER SUPPLY.
4. CABLE MUST BE 0.75 SQmm OR HEAVIER.
5. LOOP ISOLATORS CAN BE ISOLATOR BASES OR ISOLATOR MODULES. SEE SHEET 102 OR 500 FOR ISOLATOR WIRING.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS				30-8-06
B	NOTE 2 UPDATED. ISOLATORS AT START AND END.	3809	KJS	PA	LSC	DP	10-11-06
C	FIXED TYPOS	4352	KJS				13-4-12
D	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	12-1-16

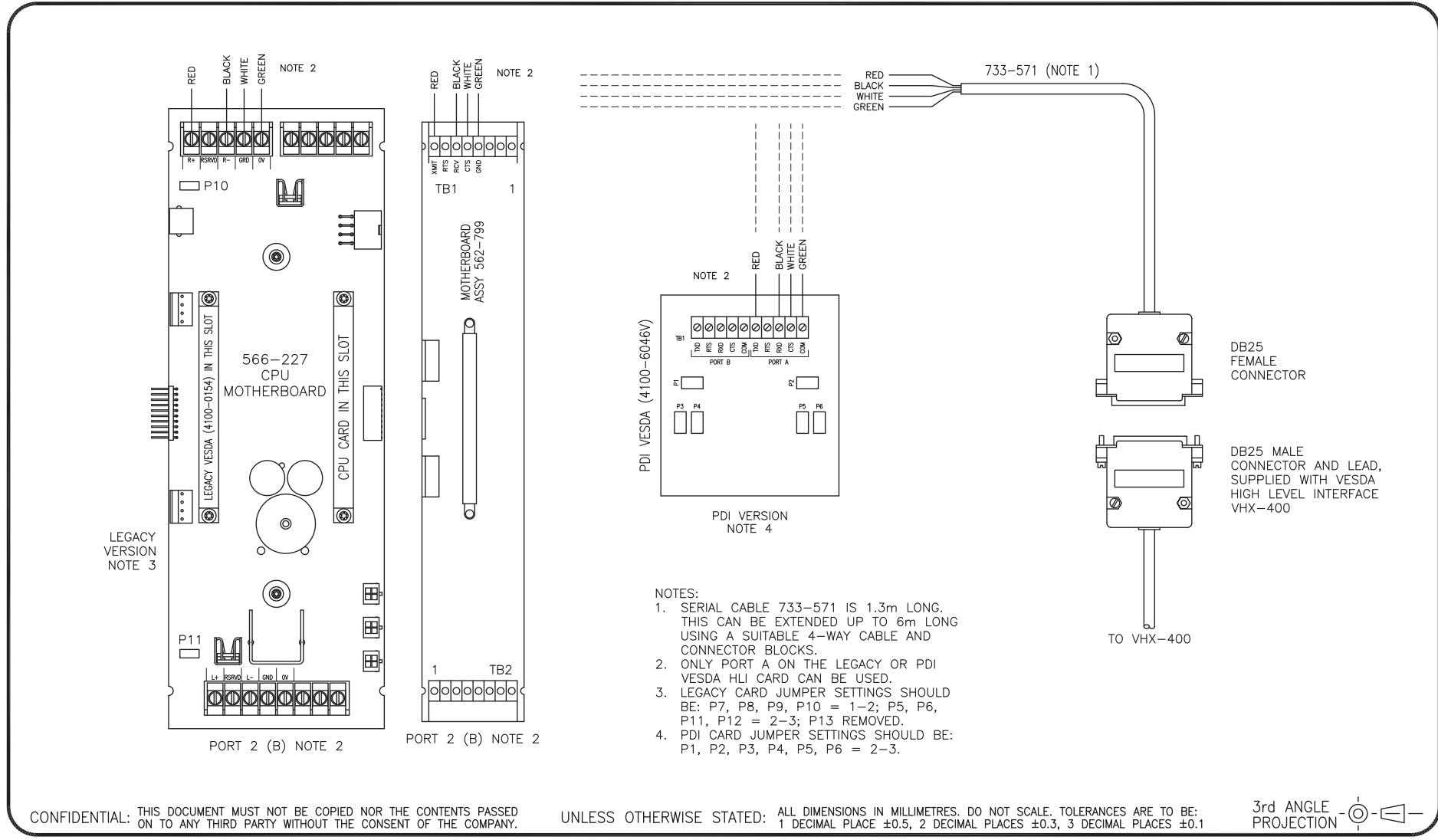
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**4100ES
 IDNET LOOP CARD WIRING
 WIRING DIAGRAM**

DRAWING No: **1976-181** SHEET **203** of **N**

A3	ISS/REV D	PART No:	
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204: VESDA High Level Interface



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4809	KJS	LSC	RC	DK	13-1-16

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**4100ESi
 VESDA HIGH LEVEL I/F
 WIRING DIAGRAM**

DRAWING No: **1976-181** SHEET **204** of **N**

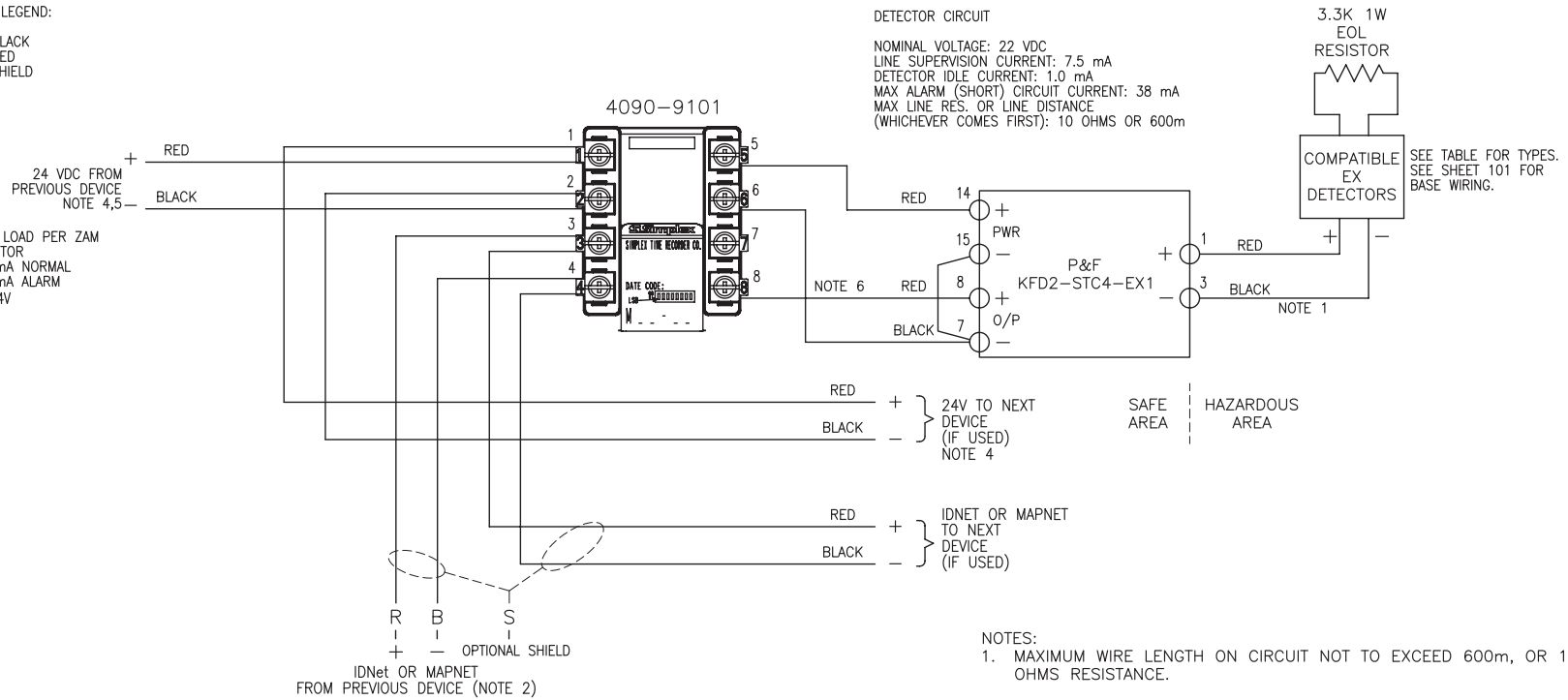
A3	ISS/REV A	PART No:	
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205: IDNet ZAM (2 190-9 156) Ex Detectors

WIRE LEGEND:

B= BLACK
R= RED
S= SHIELD

MAX LOAD PER ZAM MONITOR
16 mA NORMAL
72 mA ALARM
@ 24V



DETECTOR CIRCUIT
NOMINAL VOLTAGE: 22 VDC
LINE SUPERVISION CURRENT: 7.5 mA
DETECTOR IDLE CURRENT: 1.0 mA
MAX ALARM (SHORT) CIRCUIT CURRENT: 38 mA
MAX LINE RES. OR LINE DISTANCE (WHICHEVER COMES FIRST): 10 OHMS OR 600m

3.3K 1W EOL RESISTOR
COMPATIBLE EX DETECTORS
SEE TABLE FOR TYPES. SEE SHEET 101 FOR BASE WIRING.

COMPATIBLE "Ex" DETECTORS	QTY/CCT
MD601Ex (HEAT)	20
MDU601Ex (HEAT & CO)	15
MF601Ex (ION)	20
MR601TEx (PHOTO)	9
MU601Ex (CO)	15
601FEx (FLAME)	1
SHORT CIRCUIT DEVICE (T54,MCP,ETC)	40

- NOTES:**
1. MAXIMUM WIRE LENGTH ON CIRCUIT NOT TO EXCEED 600m, OR 10 OHMS RESISTANCE.
 2. MAPNET II OR IDNET LINES ARE TO BE 0.75 SQmm OR GREATER TWISTED SHIELDED PAIR.
 3. MAXIMUM QUANTITY OF ADDRESSABLE DEVICES PER MAPNET CIRCUIT: 127. MAXIMUM FOR IDNET IS 250.
 4. MINIMUM WIRE GAUGE FOR 24 VDC WIRING IS 0.75 SQmm.
 5. 24V SUPPLY AT ZAM MUST BE 20.0-33V DC.
 6. IF A ZONE IS NOT USED, CONNECT A 3.3K 1/2W RESISTOR ACROSS ZONE TERMINALS 7 AND 8 OF THE 4100-9101.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	PAA	RAC	RAC	DSCP	18-7-07
B	FIXES TO NOTES AND TABLE	4615	SS	LSC	RC	DP	04-9-14
C	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

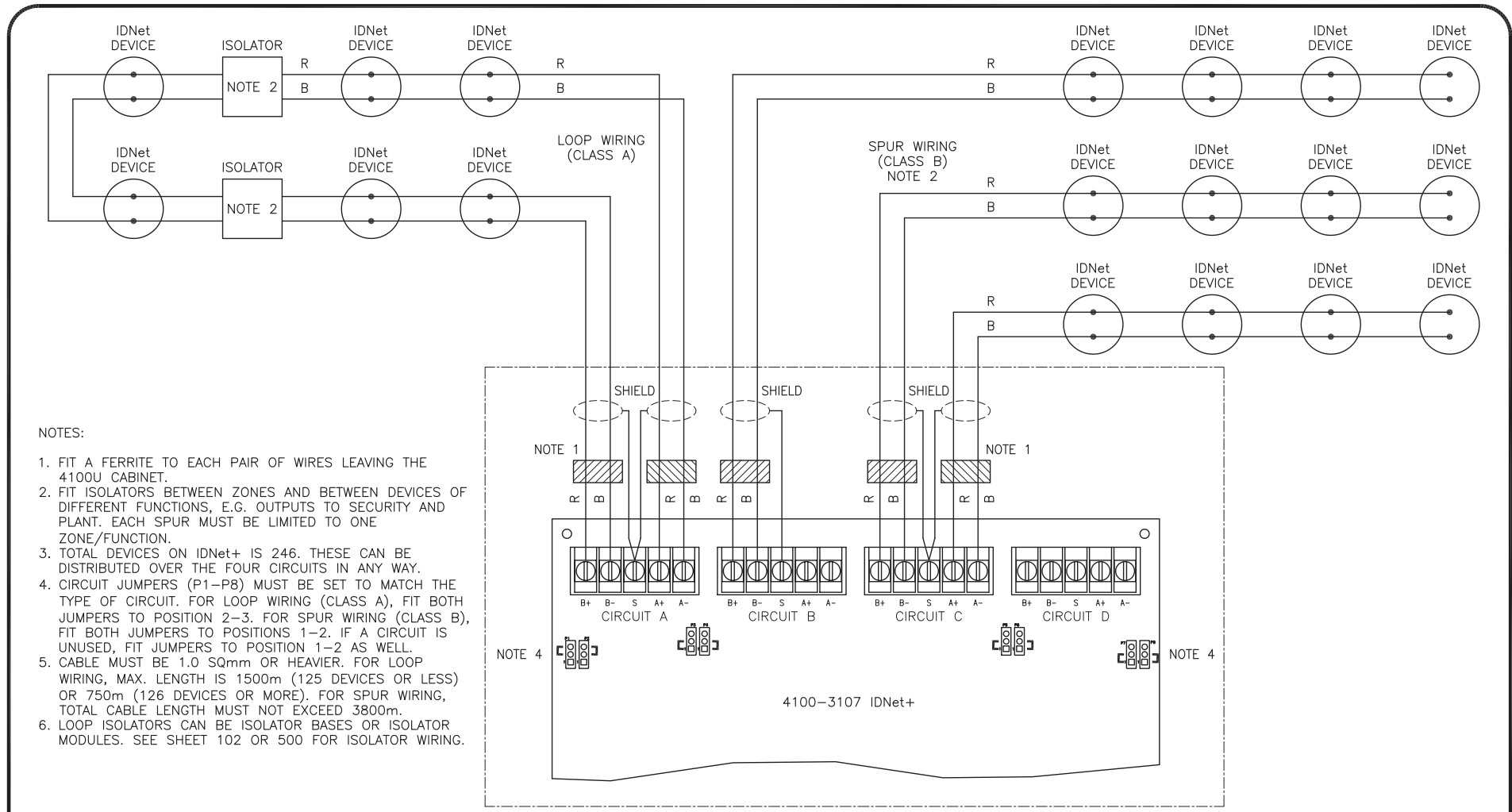
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4100ES
4090-9101 ZAM & "Ex" DETECTORS
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **205** of **N**

A3	ISS/REV	C	PART No:
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206: IDNet+ Loop Card (4100-3107)



NOTES:

1. FIT A FERRITE TO EACH PAIR OF WIRES LEAVING THE 4100U CABINET.
2. FIT ISOLATORS BETWEEN ZONES AND BETWEEN DEVICES OF DIFFERENT FUNCTIONS, E.G. OUTPUTS TO SECURITY AND PLANT. EACH SPUR MUST BE LIMITED TO ONE ZONE/FUNCTION.
3. TOTAL DEVICES ON IDNet+ IS 246. THESE CAN BE DISTRIBUTED OVER THE FOUR CIRCUITS IN ANY WAY.
4. CIRCUIT JUMPERS (P1-P8) MUST BE SET TO MATCH THE TYPE OF CIRCUIT. FOR LOOP WIRING (CLASS A), FIT BOTH JUMPERS TO POSITION 2-3. FOR SPUR WIRING (CLASS B), FIT BOTH JUMPERS TO POSITIONS 1-2. IF A CIRCUIT IS UNUSED, FIT JUMPERS TO POSITION 1-2 AS WELL.
5. CABLE MUST BE 1.0 SQmm OR HEAVIER. FOR LOOP WIRING, MAX. LENGTH IS 1500m (125 DEVICES OR LESS) OR 750m (126 DEVICES OR MORE). FOR SPUR WIRING, TOTAL CABLE LENGTH MUST NOT EXCEED 3800m.
6. LOOP ISOLATORS CAN BE ISOLATOR BASES OR ISOLATOR MODULES. SEE SHEET 102 OR 500 FOR ISOLATOR WIRING.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS	LSC	RC	DP	13-4-12
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

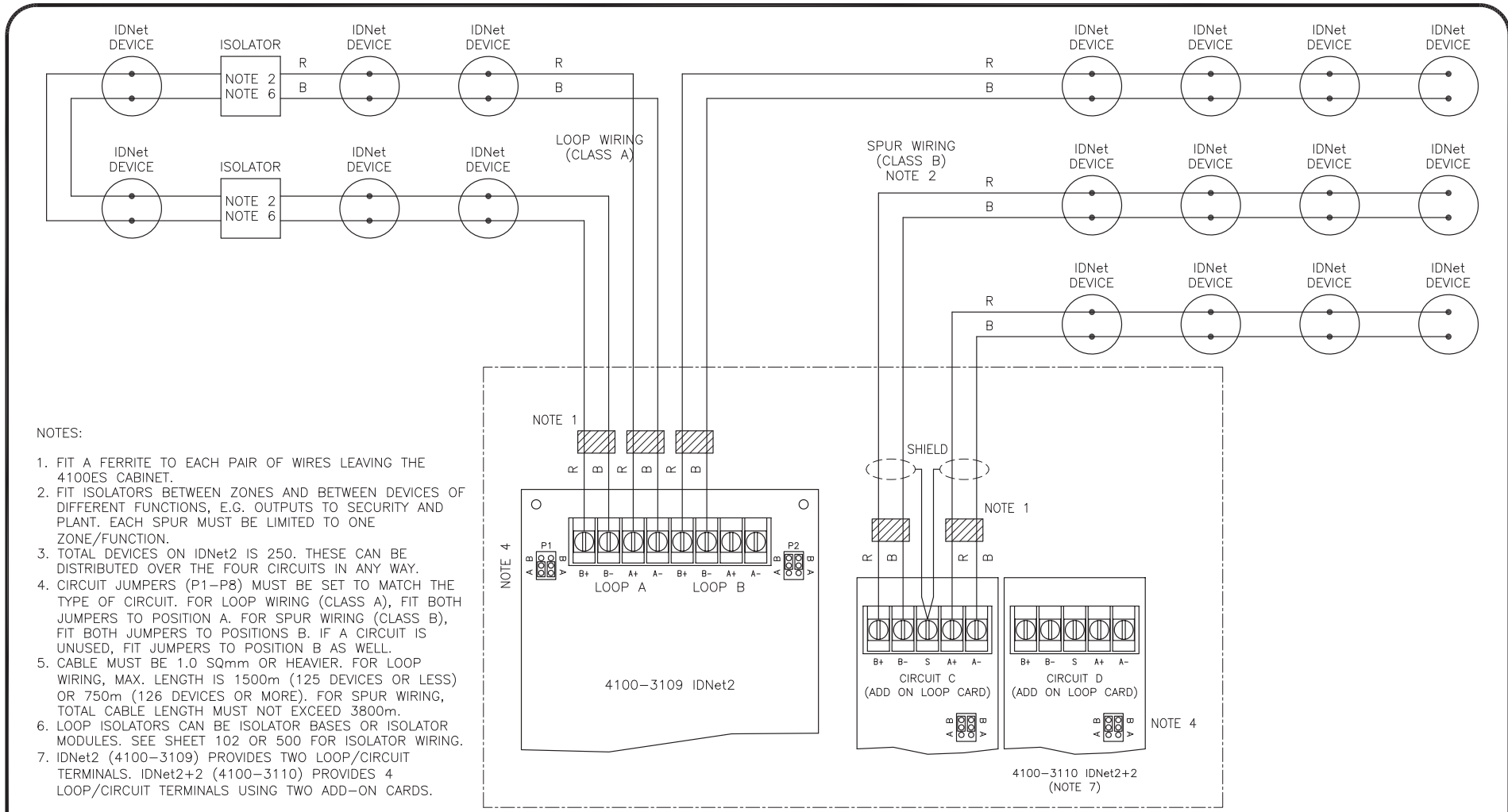
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**4100ES
 IDNET+ LOOP CARD
 WIRING DIAGRAM**

DRAWING No: **1976-181** SHEET **206** of **N**

A3	ISS/REV B	PART No:	
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207: IDNet2/IDNet2+2 Loop Card (4 100-3 109/4 100-3 110)



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4809	KJS	LSC	RC	DP	16-3-16
B	UPDATED FOR IDNET2+2	4989	KJS	LSC	LSC	DP	8-12-16

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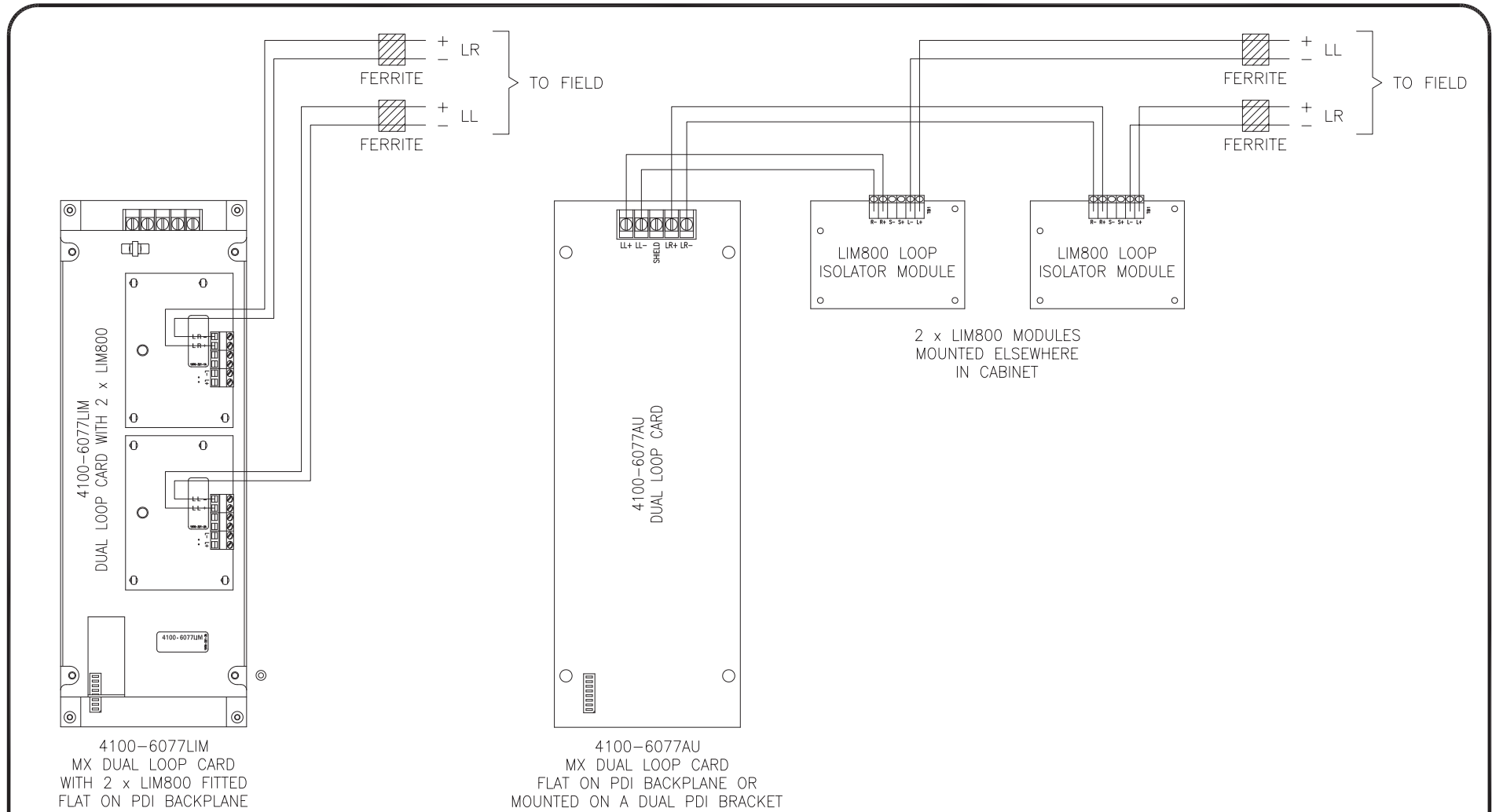
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**4100ES
IDNET2+2 LOOP CARDS
WIRING DIAGRAM**

DRAWING No: **1976-181** SHEET **207** of **N**

A3	ISS/REV B	PART No:	
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208: Dual Loop Card (MX) (4100-6077)



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4809	KJS	MH	RC	DP	5-7-16

tyco / Safety Products

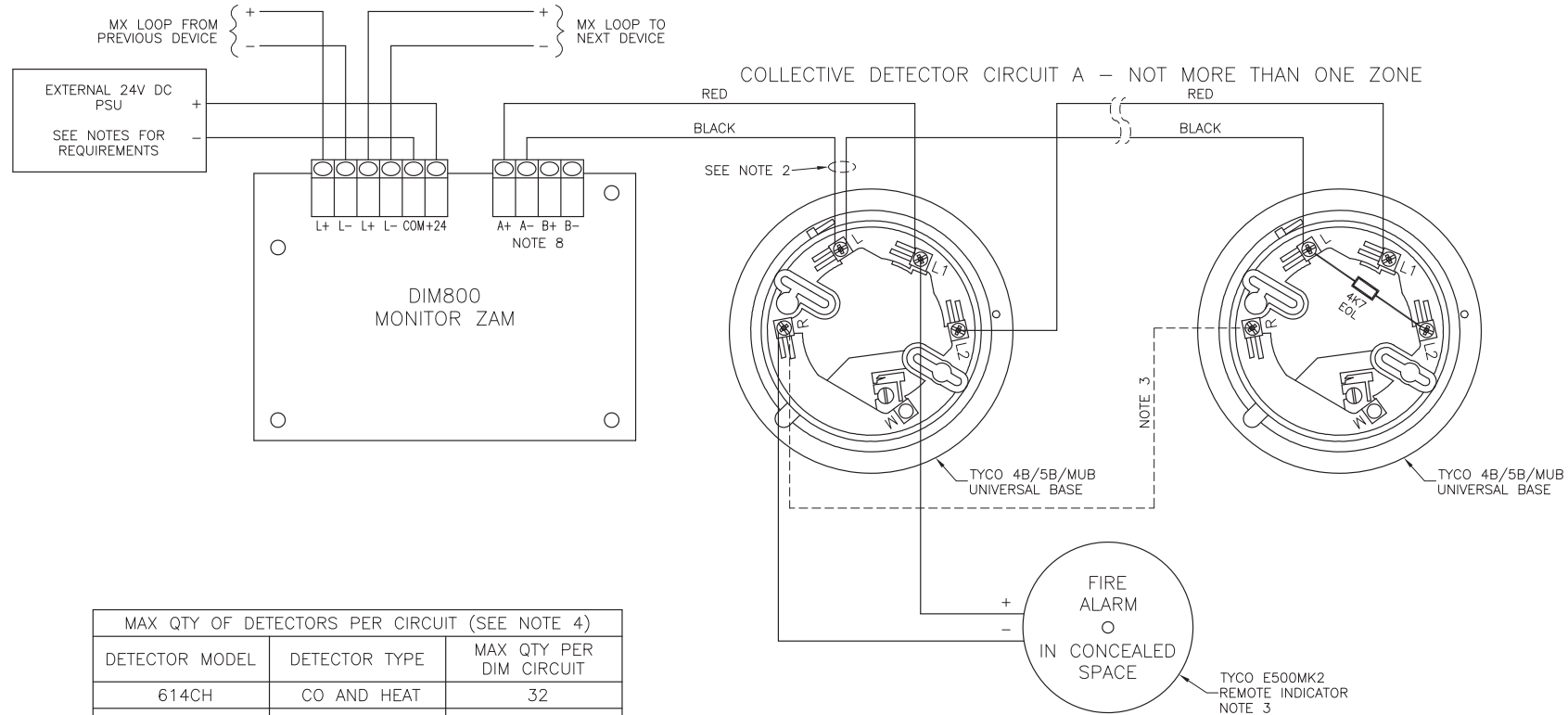
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**4100ESi
DUAL LOOP CARD
WIRING DIAGRAM**

DRAWING No: **1976-181** SHEET 208 of N

A3	ISS/REV A	PART No:
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210: DIM800 MX Monitor ZAM



MAX QTY OF DETECTORS PER CIRCUIT (SEE NOTE 4)		
DETECTOR MODEL	DETECTOR TYPE	MAX QTY PER DIM CIRCUIT
614CH	CO AND HEAT	32
614I	IONISATION	38
614P	PHOTOELECTRIC	25
614T	HEAT	23
S/C	HARD CONTACT	40
USED IN TYCO 4B/5B/MUB BASES		

- NOTES:
- IF EXTERNAL PSU IS REMOTE. DIM CIRCUITS MUST NOT COVER MORE THAN ONE ZONE IN TOTAL.
 - CUT WIRES BEFORE CONNECTING TO TERMINAL L TO MAINTAIN SUPERVISION. DO NOT LOOP WIRE UNDERNEATH TERMINAL L.
 - MULTIPLE BASES CAN DRIVE A COMMON REMOTE INDICATOR BY LINKING BASES AS SHOWN.
 - WHEN USING MULTIPLE DETECTOR TYPES ON ONE CIRCUIT, THE SUM OF EACH TYPE'S QUANTITY AS A PROPORTION OF ITS MAXIMUM MUST NOT EXCEED 1, E.G. 22 X 614I AND 16 X 614T ARE NOT PERMITTED AS 22/38 + 16/23 IS GREATER THAN 1.
 - MAX DETECTOR CURRENT: 3.0mA PER CIRCUIT.
 - EXTERNAL SUPPLY: 20.7-28.7V DC.
CURRENT: 7.5mA + DETECTORS EACH CIRCUIT USED.
ALARM CURRENT: 30-50mA (DEPENDS ON VOLTAGE).
 - MAX COLLECTIVE CIRCUIT RESISTANCE: 50 OHMS.
 - BOTH Cct A AND B CAN BE USED. EACH CIRCUIT MUST NOT COVER MORE THAN ONE ZONE.

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ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL FROM 1982-71-107.	4809	KJS	LSC	RC	DK	12-11-15
B	PART NUMBERS CHANGED TO USE MX PART NUMBERS.	4936	KJS	MH	RC	DP	11-7-16

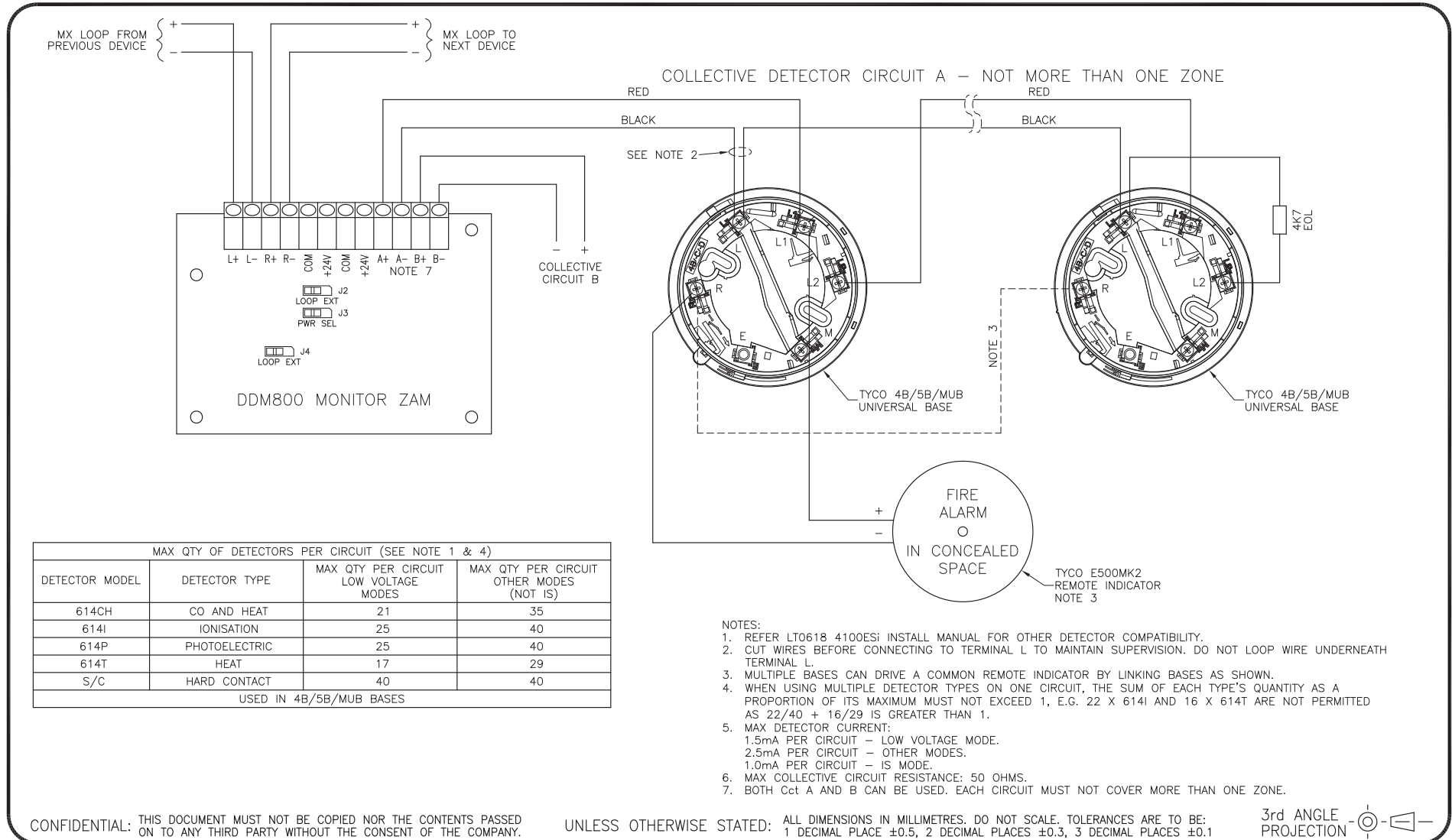
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4100ESi
DIM800 MX MONITOR ZAM
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **210** of **N**

A3	ISS/REV B	PART No:	
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211: DDM800 MX Monitor ZAM Loop Powered



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL FROM 1982-71-164.	4809	KJS	LSC	RC	DK	12-11-15
B	PART NUMBERS CHANGED TO USE MX PART NUMBERS.	4936	KJS	MH	RC	DP	11-7-16

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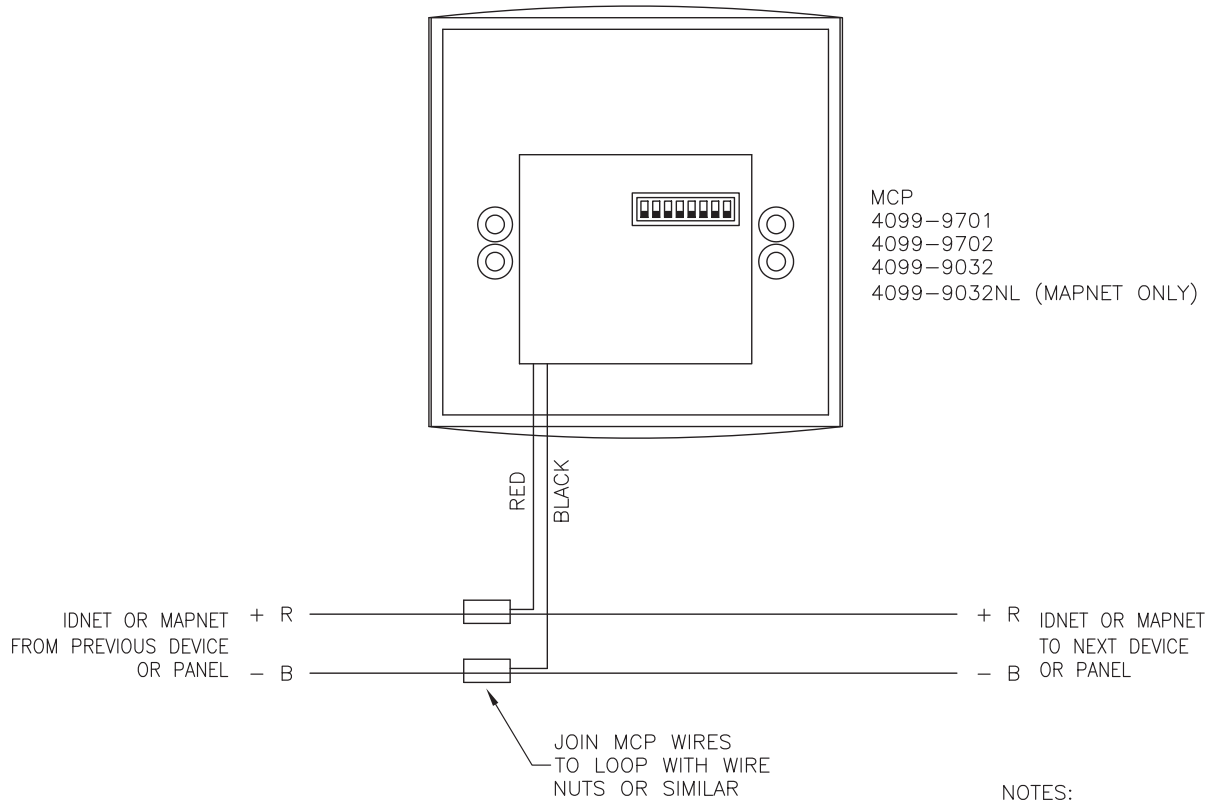
4100ESi
DDM800 MX MONITOR ZAM LOOP POWERED
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **211** of **N**

A3	ISS/REV	B	PART No:
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Input devices

300: MapNet/IDNet Addressable MCP



MCP
 4099-9701
 4099-9702
 4099-9032
 4099-9032NL (MAPNET ONLY)

- NOTES:
1. MAPNET OR IDNET LINES ARE TO BE 0.75 SQmm OR GREATER TWISTED SHIELDED PAIR.
 2. MAXIMUM CABLE LENGTH 4100m (4 SQmm).
 3. MAXIMUM NUMBER OF DEVICES PER LOOP IS 127 FOR MAPNET, 250 FOR IDNET.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4615	KJS	LSC	RC	DP	19-8-15
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

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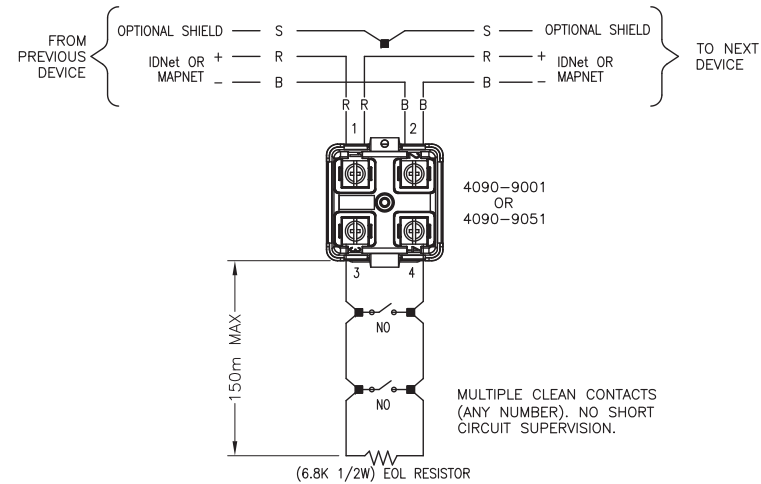
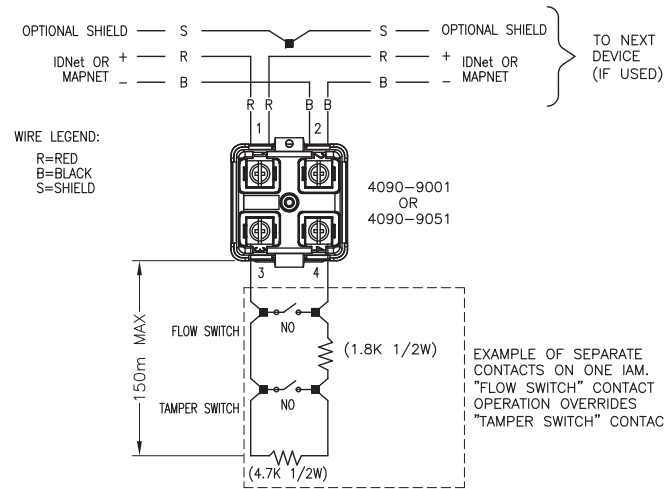
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4100ES
MAPNET / IDNET ADDRESSABLE MCP
WIRING DIAGRAM

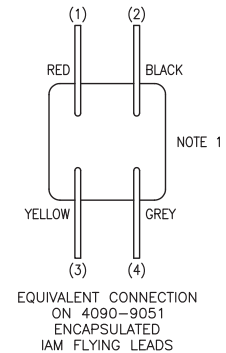
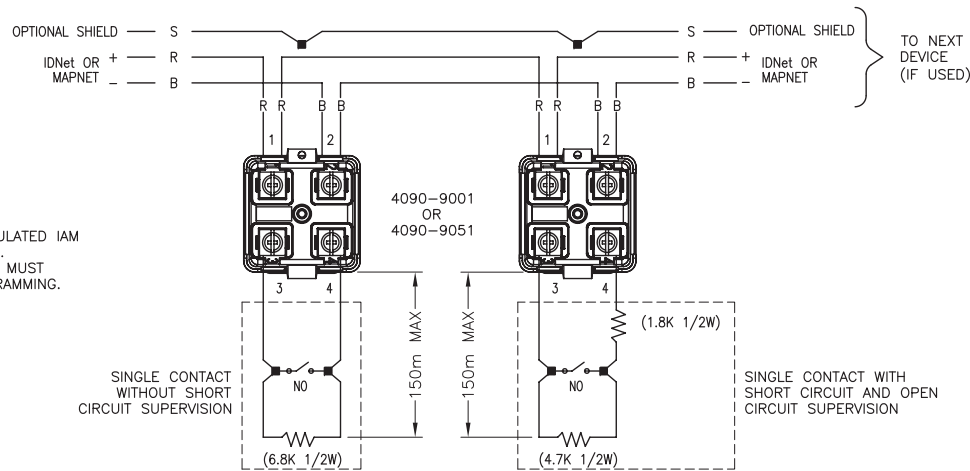
DRAWING No: **1976-181** SHEET **300** of **N**

A3	ISS/REV	B	PART No:
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301: IDNet Supervised IAM (4090-9001, 4090-9051)



- NOTES:
 1. 4090-9051 ENCAPSULATED IAM DOES NOT HAVE LED.
 2. IAM CONTACT WIRING MUST MATCH PANEL PROGRAMMING.



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS				21-7-06
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

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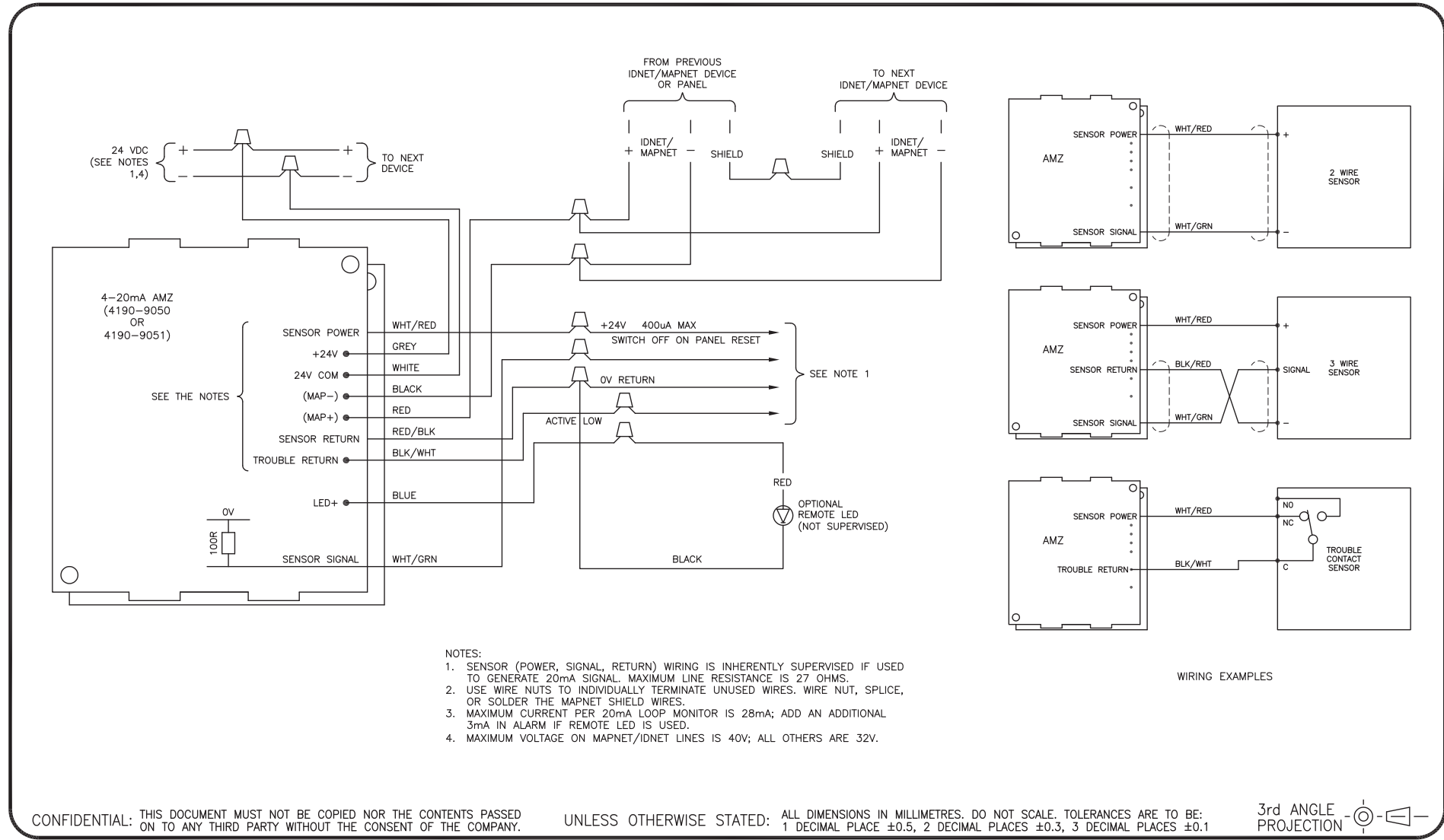
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4100ES
SUPERVISED IAM (4090-9001, 4090-9051)
 WIRING DIAGRAM

DRAWING No: 1976-181 SHEET 301 of N

A3 ISS/REV B PART No:

302: IDNet 4-20mA Analog Monitor AMZ (4190-9050)



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4615	SS/KS	LSC	RC	DP	02-09-14
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

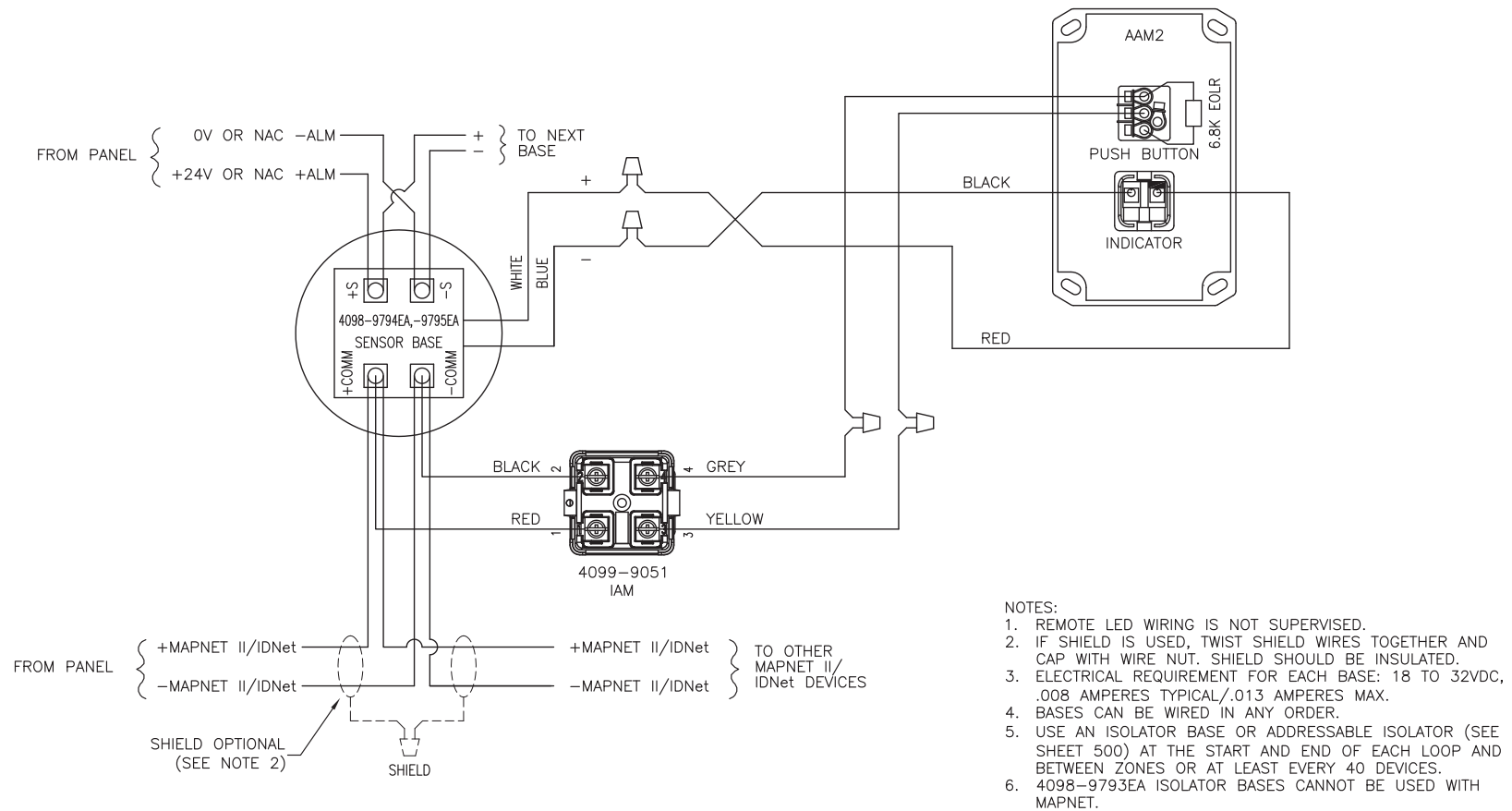
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4100ES
4-20mA ANALOG MONITOR ZAM (4190-9050)
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **302** of **N**

A3	ISS/REV B	PART No:	
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303: Alarm Acknowledgment - IDNet AAM2 Wiring



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4615	SS	LSC	RC	DP	28-8-14
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

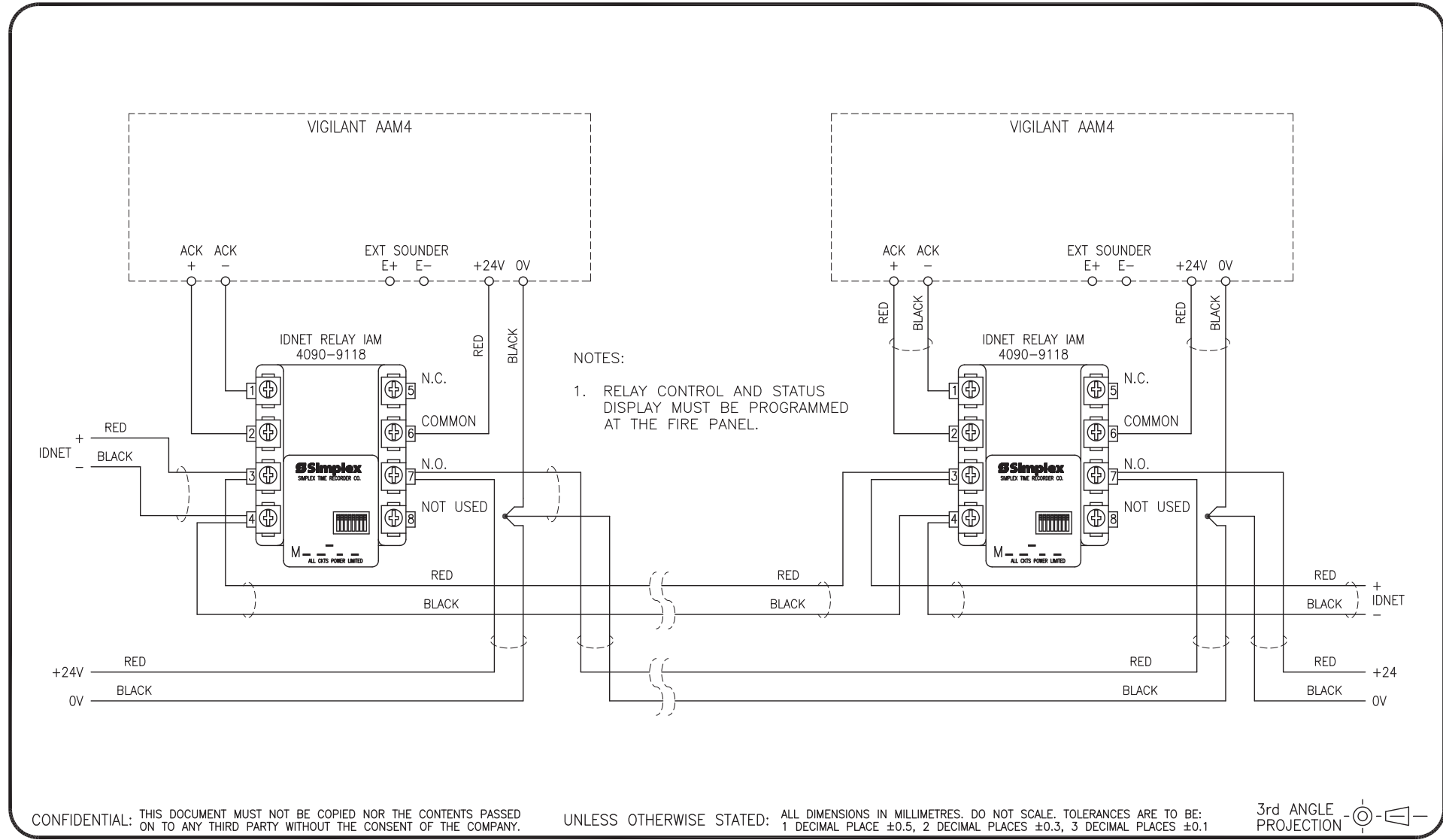
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4100ES
ALARM ACKNOWLEDGEMENT - AAM2
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **303** of **N**

A3	ISS/REV	B	PART No:
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304: Alarm Acknowledgement - IDNet AAM4 Wiring



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4615	SS	LSC	RC	DP	29-8-14
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

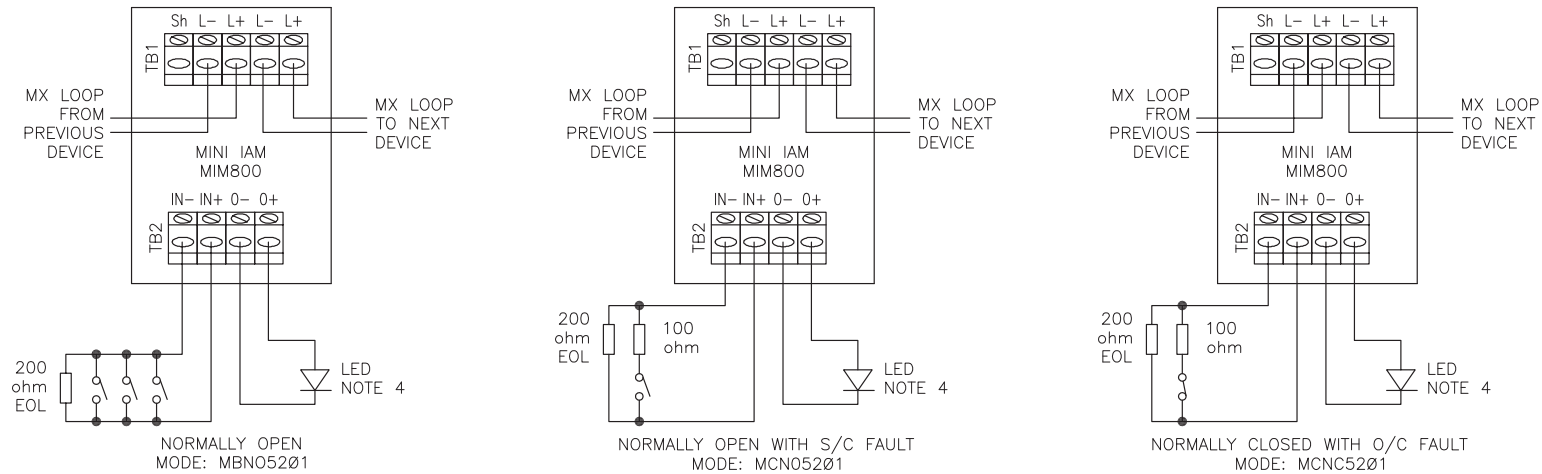
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4100ES
ALARM ACKNOWLEDGEMENT - AAM4
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **304** of **N**

A3	ISS/REV	B	PART No:
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305: MIM800 MX Mini IAM



- NOTES:
1. INPUT CONTACTS MUST BE VOLTAGE FREE.
 2. CIRCUIT RESISTANCE: 10 OHM MAX.
 3. CIRCUIT LENGTH: 10m MAX.
 4. LED IS OPTIONAL. LED CURRENT: 2.5mA.
 5. MODES REFER TO CONFIGURATION IN ES PROGRAMMER.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL FROM 1982-71-108.	4809	KJS	LSC	RC	DP	12-11-15
B	PART NUMBERS CHANGED TO USE MX PART NUMBERS.	4936	KJS	MH	RC	DP	11-7-16

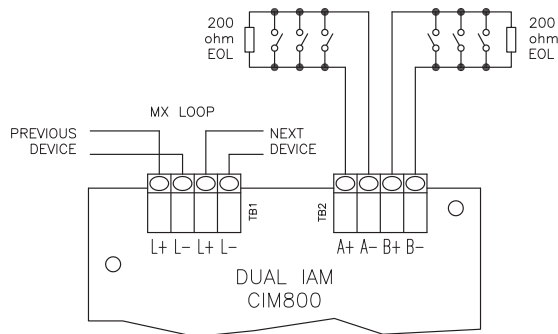
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**4100ESi
 MIM800 MINI IAM
 WIRING DIAGRAM**

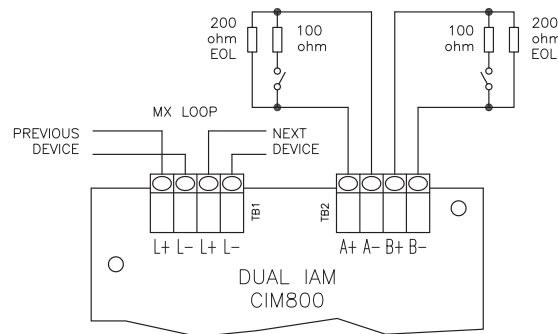
DRAWING No: **1976-181** SHEET **305** of **N**

A3	ISS/REV	B	PART No:
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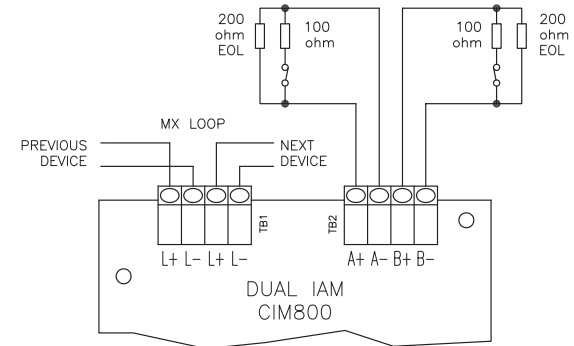
306: CIM800 MX Dual Input IAM



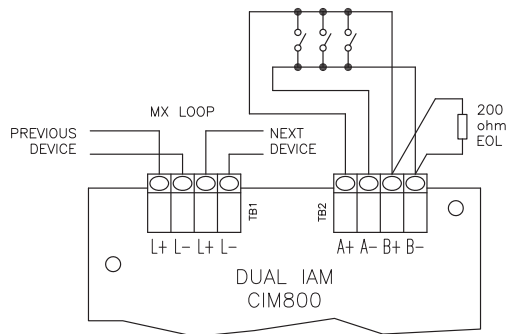
SPUR - NORMALLY OPEN,
S/C = ACTIVE
MODE: MBNO OR MBNOI



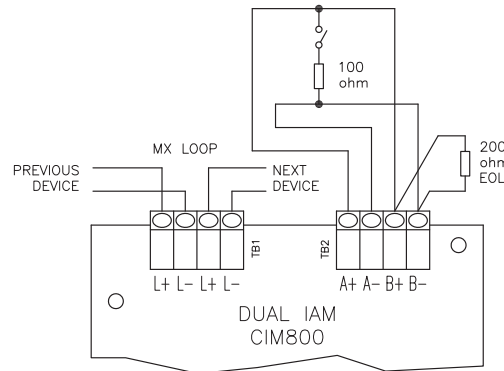
SPUR - NORMALLY OPEN,
S/C OR O/C = FAULT
MODE: MCNO



SPUR - NORMALLY CLOSED,
S/C OR O/C = FAULT
MODE: MCNC



LOOP - NORMALLY OPEN,
S/C = ALARM
MODE: MADNO OR MADNOI



LOOP - NORMALLY OPEN,
S/C OR O/C = FAULT
MODE: MAENO OR MAENOI

- NOTES:
1. INPUT CONTACTS MUST BE VOLTAGE FREE.
 2. CIRCUIT RESISTANCE: 10 OHM MAX.
 3. CIRCUITS MUST NOT BE JOINED TOGETHER OR TO ANY OTHER WIRING.
 4. MODES REFER TO CONFIGURATION IN ES PROGRAMMER.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL FROM 1982-71-109.	4809	KJS	LSC	RC	DP	12-11-15
B	PART NUMBERS CHANGED TO USE MX PART NUMBERS.	4936	KJS	MH	RC	DP	11-7-16

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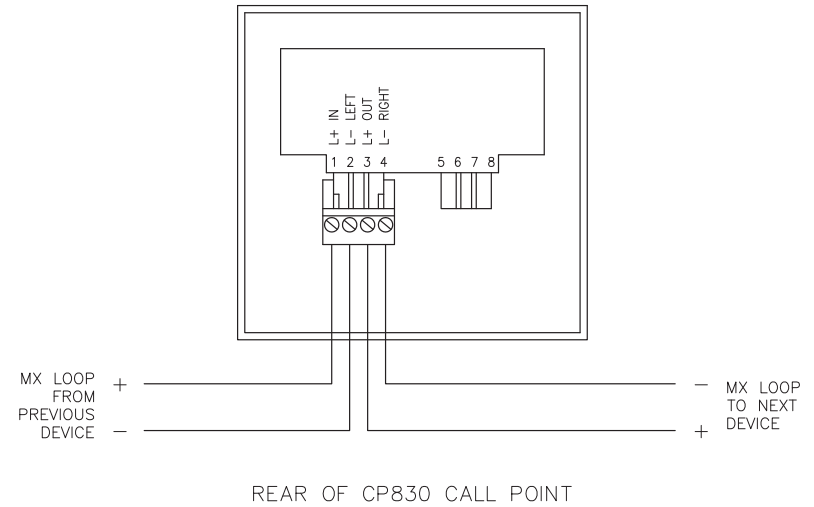
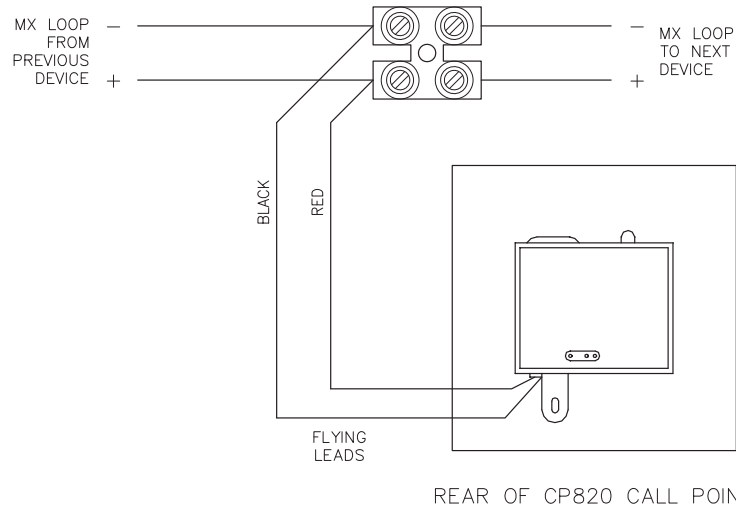
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4100ESi
CIM800 DUAL INPUT IAM
WIRING DIAGRAM

DRAWING No: 1976-181 SHEET 306 of N

A3 ISS/REV B PART No:

307: CP820/CP830 MX MCP



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL, FROM 1982-71-115.	4809	KJS	LSC	RC	DK	12-11-15
B	PART NUMBERS CHANGED TO USE MX PART NUMBERS.	4936	KJS	MH	RC	DP	11-7-16

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Fire Protection Products

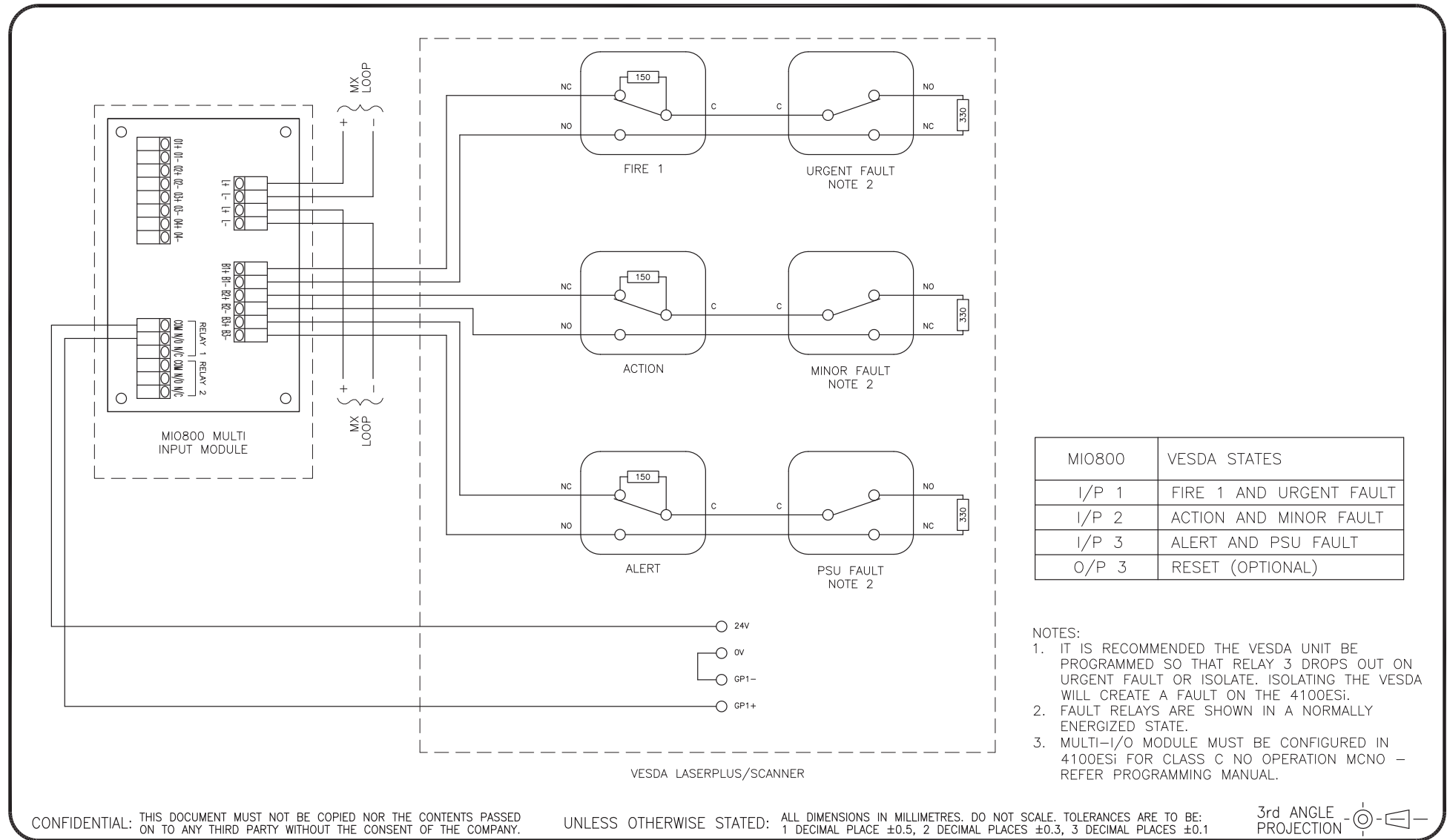
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4100ESi
CP820 / CP830 CALL POINT
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **307** of **N**

A3	ISS/REV B	PART No:	
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308: VIO800 Multi I/O with Laser Scanner



MIO800	VESDA STATES
I/P 1	FIRE 1 AND URGENT FAULT
I/P 2	ACTION AND MINOR FAULT
I/P 3	ALERT AND PSU FAULT
O/P 3	RESET (OPTIONAL)

- NOTES:
- IT IS RECOMMENDED THE VESDA UNIT BE PROGRAMMED SO THAT RELAY 3 DROPS OUT ON URGENT FAULT OR ISOLATE. ISOLATING THE VESDA WILL CREATE A FAULT ON THE 4100ESI.
 - FAULT RELAYS ARE SHOWN IN A NORMALLY ENERGIZED STATE.
 - MULTI-I/O MODULE MUST BE CONFIGURED IN 4100ESI FOR CLASS C NO OPERATION MCNO - REFER PROGRAMMING MANUAL.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL FROM 1982-71-119.	4809	KJS	LSC	RC	DK	12-11-15
B	USE VIO800 INSTEAD OF 4090-5208.	4943	KJS	MH	RC	DP	1-8-16
C	NOTE 3 UPDATED.	4977	KJS	LSC	RC	DP	2-11-16

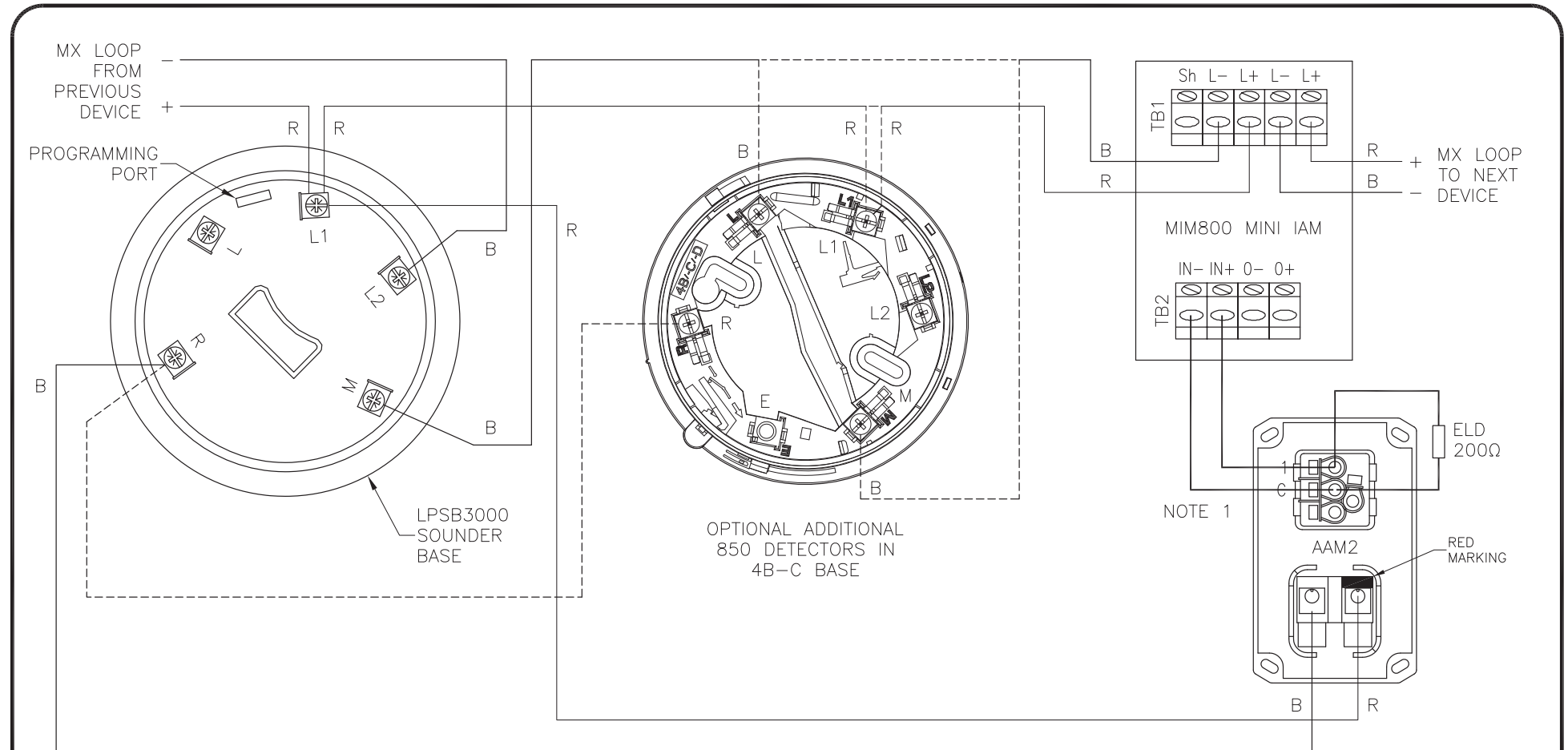
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4100ESI
VIO800 MULTI-I/O WITH LASER / SCANNER
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **308** of **N**

A3	ISS/REV C	PART No:	
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309: AAM2 with MX Devices



NOTES:
 1. MIM800 IS LOCATED IN CAVITY BEHIND AAM2 FACEPLATE. CONFIGURE THE INPUT FOR MBNOI AND UTILITY TYPE.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL FROM 1982-71-120.	4809	KJS	LSC	RC	DK	17-12-15
B	SOUNDER BASE WAS 8023B, SECOND DETECTOR ADDED, NOTES UPDATED.	4977	KJS	LSC	RC	DP	2-11-16

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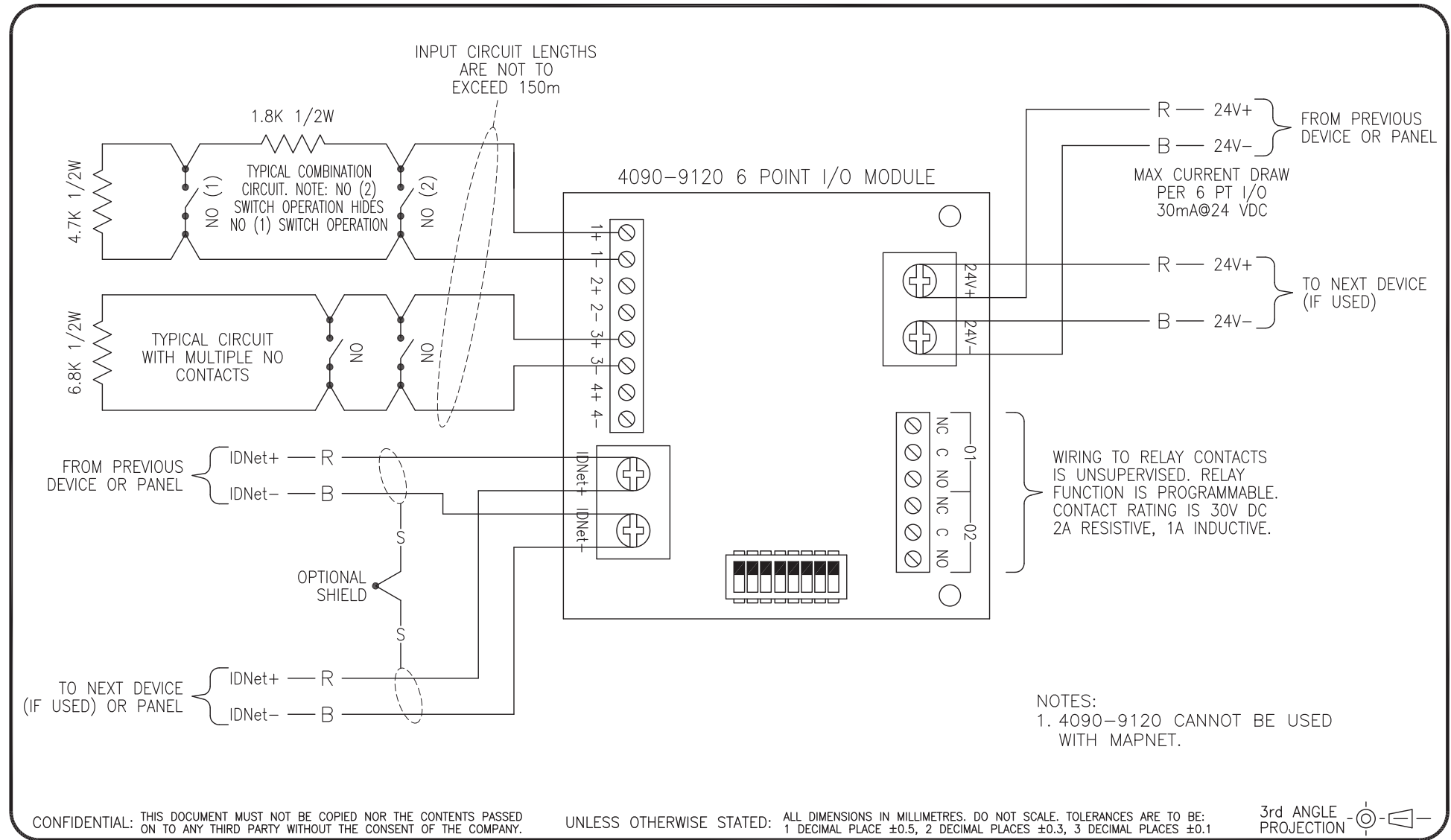
**4100ESi
 AAM2 WITH MX DEVICES
 WIRING DIAGRAM**

DRAWING No: **1976-181** SHEET **309** of **N**

A3	ISS/REV B	PART No:	
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Output devices and mixed I/O devices

400: IDNet 6 Point I/O Module (4090-9120)



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS				21-7-06
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

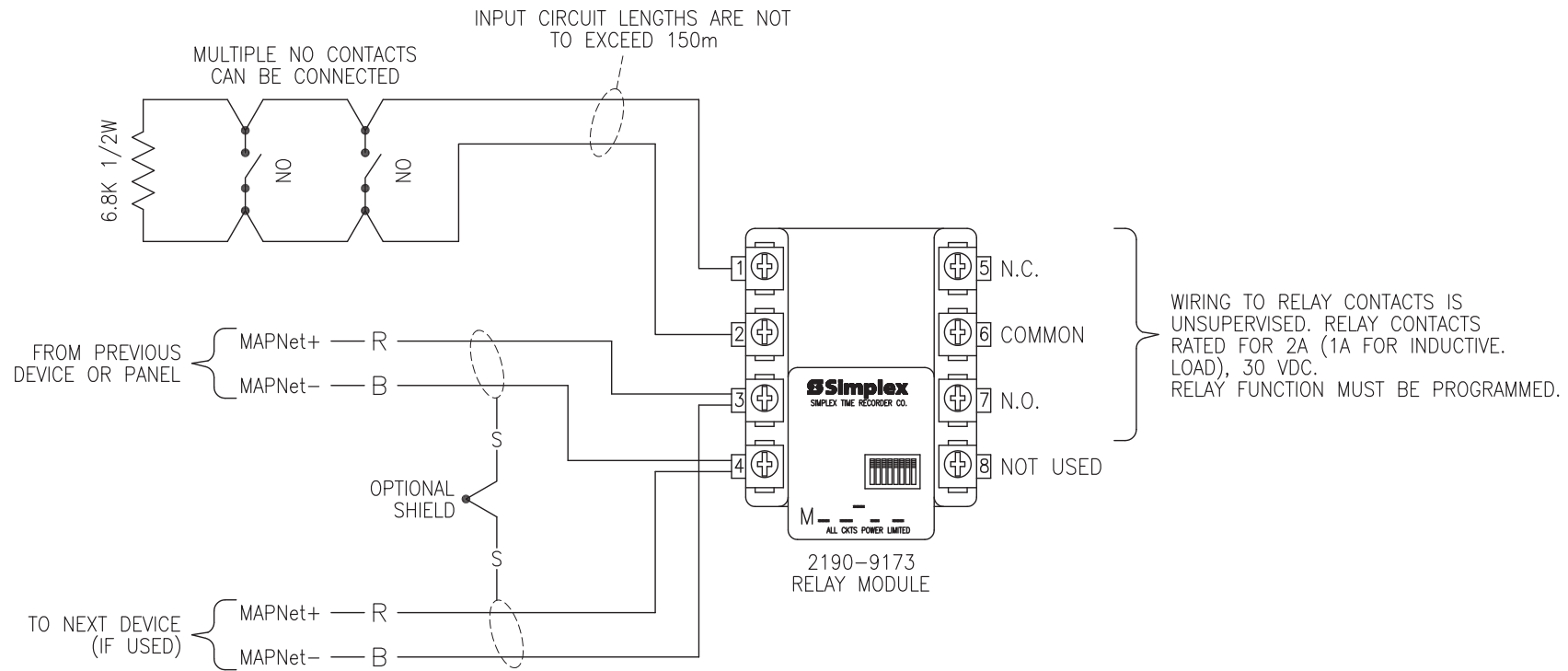
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4100ES
IDNET 6 POINT I/O MODULE (4090-9120)
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **400** of **N**

A3	ISS/REV B	PART No:	
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401: MapNet2 Relay Module with Supervised Input (2190-9173)



NOTES:

- DO NOT MOUNT DEVICE WHERE IT WILL EXPERIENCE SHOCKS GREATER THAN 60G, VIBRATION GREATER THAN 2.5mm (10 TO 55 Hz DOUBLE AMPLITUDE), OR MAGNETIC FIELD GREATER THAN 7000A/m.
- 2190-9173 CANNOT BE USED WITH IDNet.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS				21-7-06
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	12-1-16

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Fire Protection Products

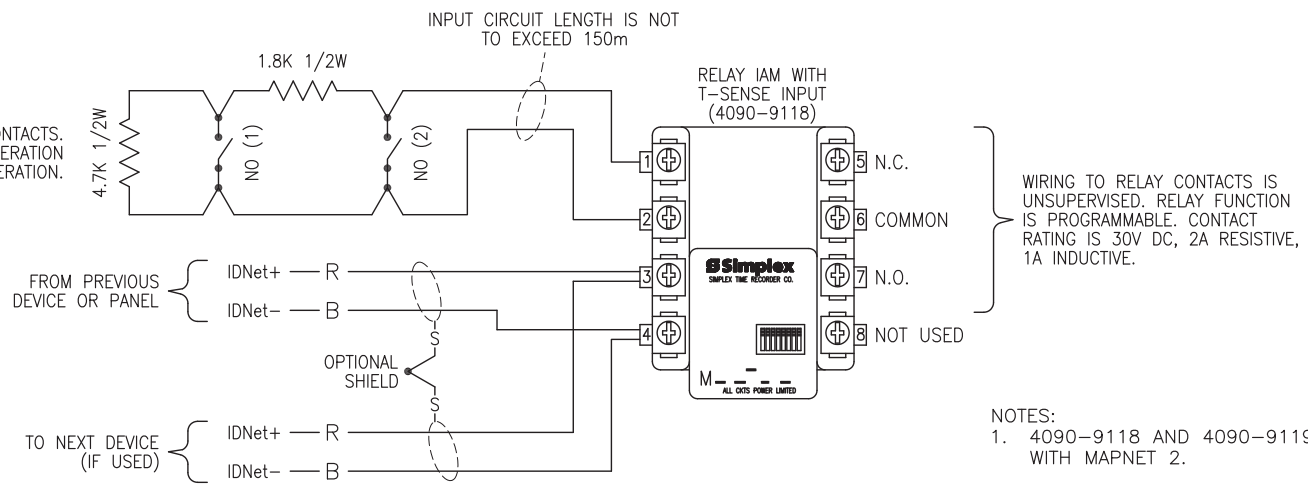
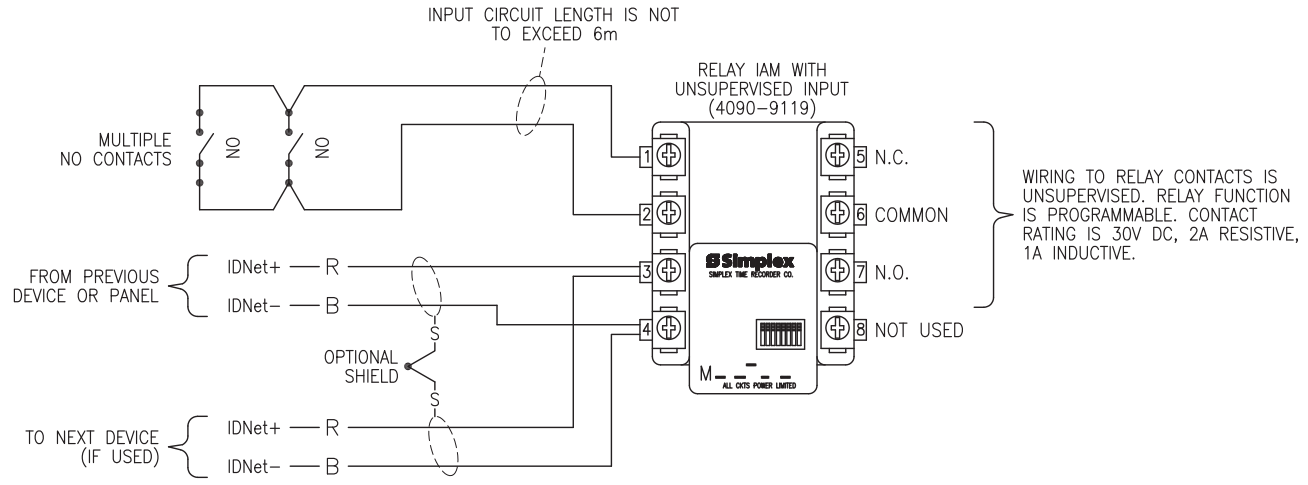
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4100ES
MAPNET RELAY MODULE WITH SUPERVISED INPUT
(2190-9173) WIRING DIAGRAM

DRAWING No: 1976-181 SHEET 401 of N

A3 | ISS/REV B | PART No:

402: IDNet Relay IAMs with Inputs (4090-9118, 4090-9119)



NOTES:
1. 4090-9118 AND 4090-9119 CANNOT BE USED WITH MAPNET 2.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS				21-7-06
B	IAM PART NUMBERS CORRECTED.	-	KJS				6-10-06
C	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

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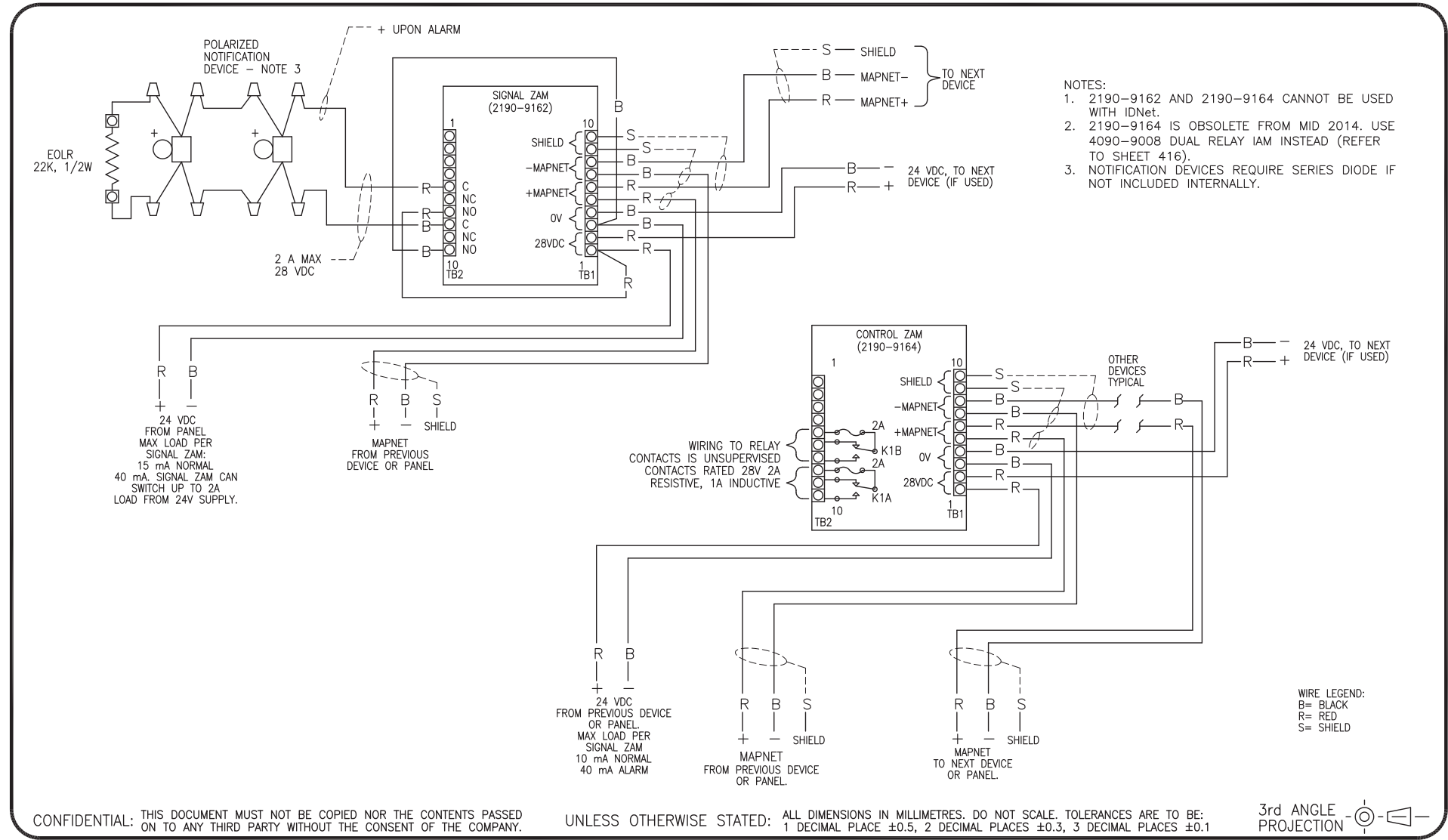
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4100ES
IDNET RELAY IAMs WITH INPUTS (4090-9118, 4090-9119)
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **402** of **N**

A3	ISS/REV C	PART No:
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403: MapNet2 Signal ZAM (2190-9162) and Control ZAM (2190-9164)



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS				21-7-06
B	OBSOLETE NOTE 2 ADDED	4615	KJS	LSC	RC	DP	04-9-14
C	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	12-1-16

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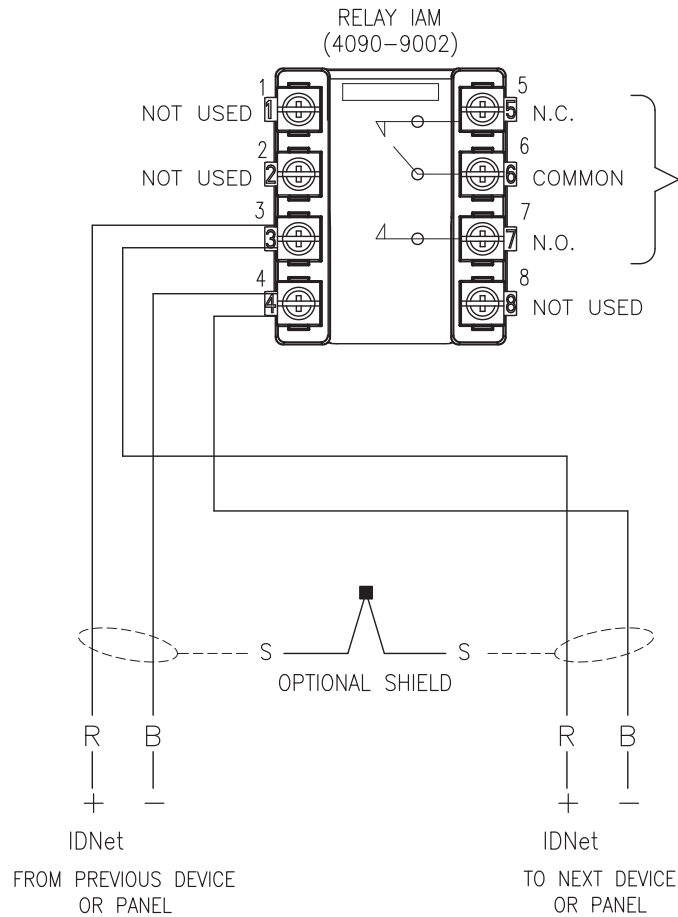
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4100ES
MAPNET 2 SIGNAL ZAM (2190-9162) AND CONTROL ZAM (2190-9164) WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **403** of **N**

A3	ISS/REV C	PART No:	
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404: IDNet Relay IAM (4090-9002)



WIRING TO RELAY CONTACTS IS UNSUPERVISED. RELAY CONTACTS RATED AT 2A, 30 VDC. (1A FOR INDUCTIVE LOAD). THE OPERATION OF THE RELAY IS PROGRAMMABLE.

NOTES:

1. IF SHIELD IS PRESENT, IT SHOULD BE CONNECTED TO THE OUTGOING IDNet SHIELD TO PROVIDE A CONTINUOUS SHIELD OVER THE LENGTH OF THE IDNet CIRCUIT. DO NOT CONNECT THE SHIELD TO ANY METALWORK AT THE ZAM.
2. 4090-9002 CANNOT BE USED WITH MAPNET.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS				21-7-06
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	12-1-16

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Fire Protection Products

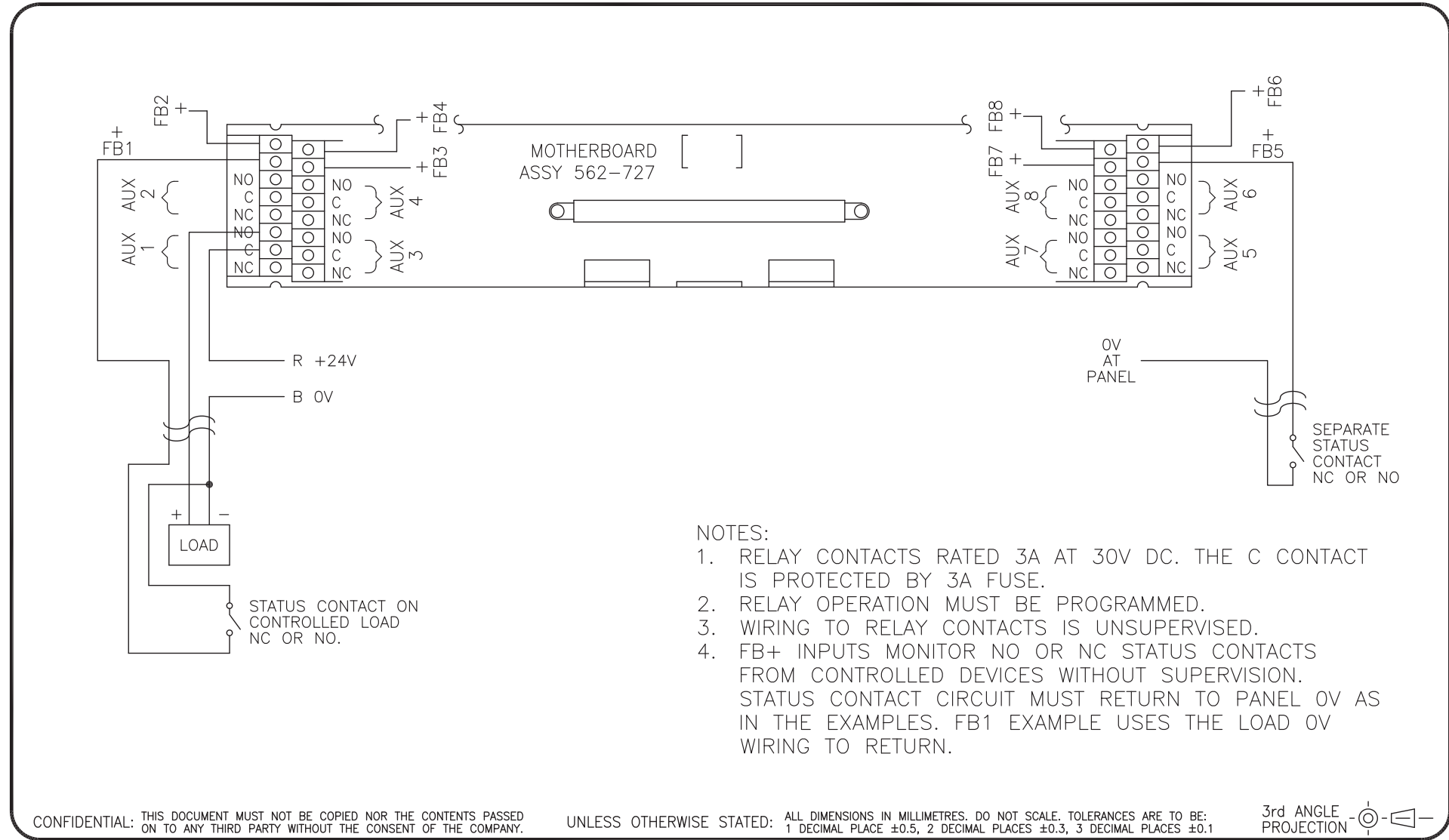
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4100ES
IDNET RELAY IAM (4090-9002)
WIRING DIAGRAM

DRAWING No: 1976-181 SHEET 404 of N

A3 | ISS/REV B | PART No:

405: 8 Point Auxiliary Relay Card (4100-3003)



NOTES:

1. RELAY CONTACTS RATED 3A AT 30V DC. THE C CONTACT IS PROTECTED BY 3A FUSE.
2. RELAY OPERATION MUST BE PROGRAMMED.
3. WIRING TO RELAY CONTACTS IS UNSUPERVISED.
4. FB+ INPUTS MONITOR NO OR NC STATUS CONTACTS FROM CONTROLLED DEVICES WITHOUT SUPERVISION. STATUS CONTACT CIRCUIT MUST RETURN TO PANEL 0V AS IN THE EXAMPLES. FB1 EXAMPLE USES THE LOAD 0V WIRING TO RETURN.

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ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS				21-7-06
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	12-1-16

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Fire Protection Products

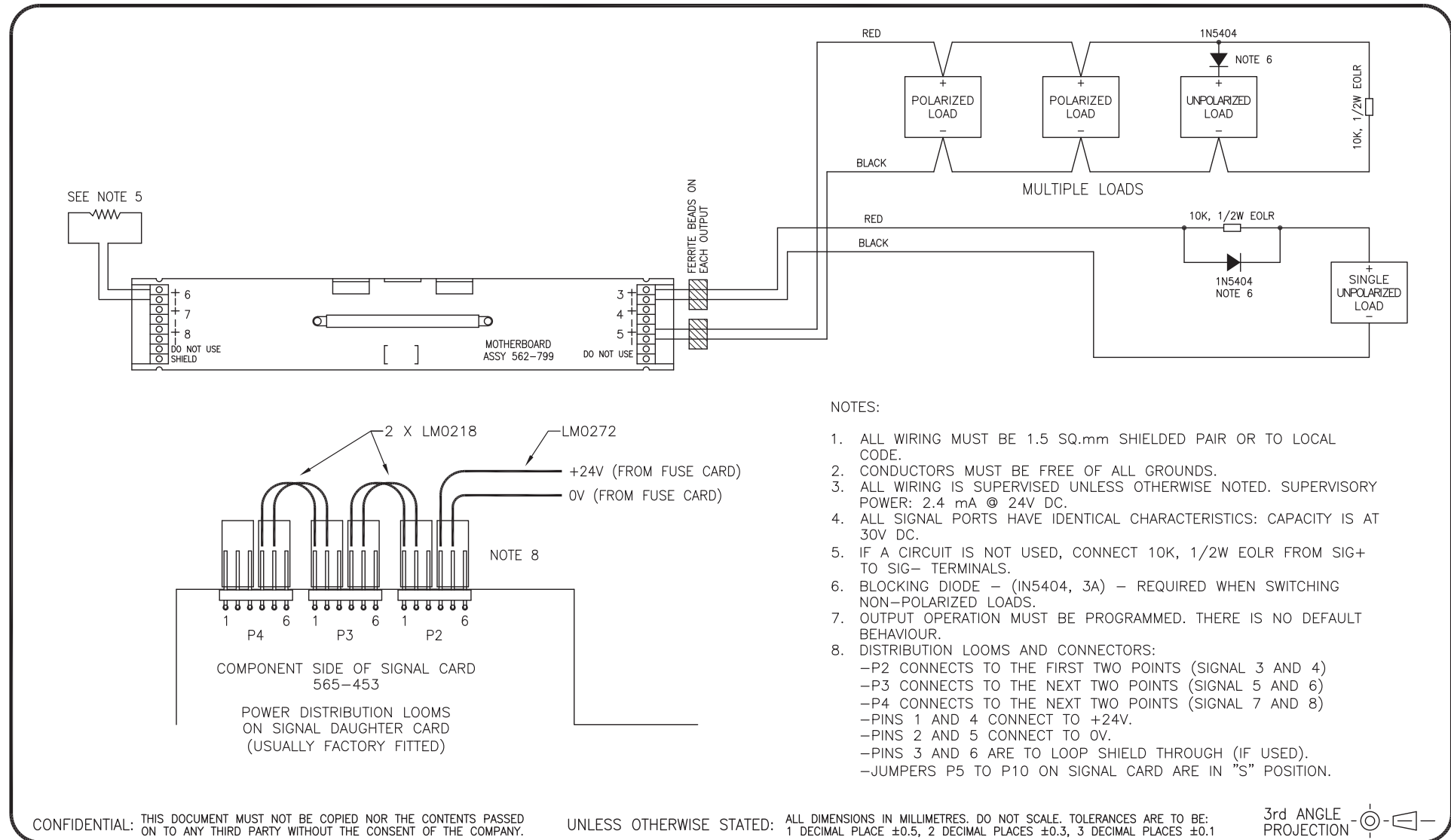
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4100ES
8 POINT AUXILIARY RELAY CARD (4100-3003)
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **405** of **N**

A3	ISS/REV	B	PART No:
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406: 6 Point Signal Card (4100-4321)



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS				20-9-06
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

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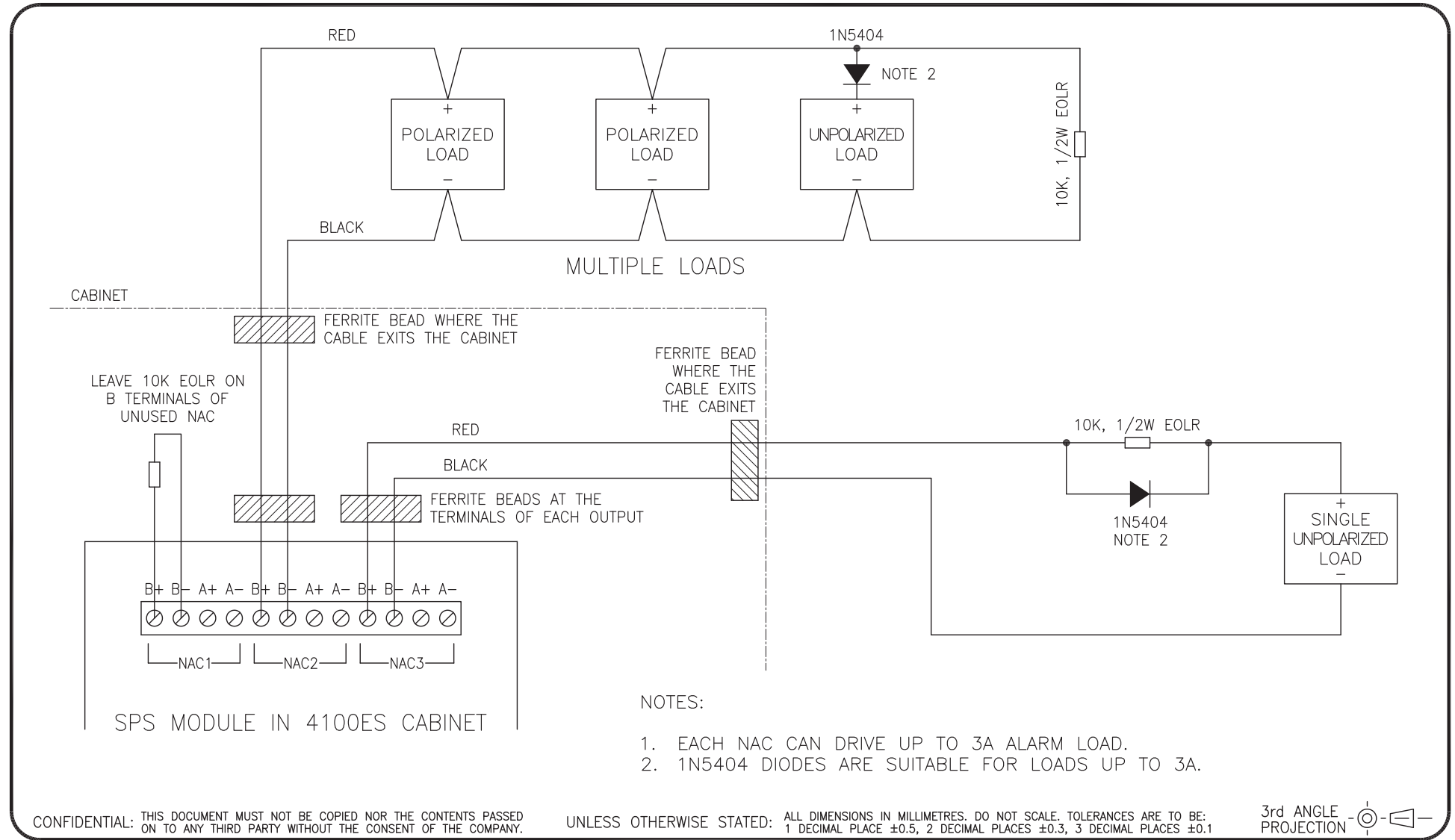
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4100ESi
6 POINT SIGNAL CARD (4100-4321)
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **406** of **N**

A3	ISS/REV B	PART No:	
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407: SPS NAC Outputs (4 100-9848AU)



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS				22-8-06
B	ADDED FERRITE AT CABINET EXIT	4352	KJS	LSC	RC	DP	13-4-12
C	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	12-1-16

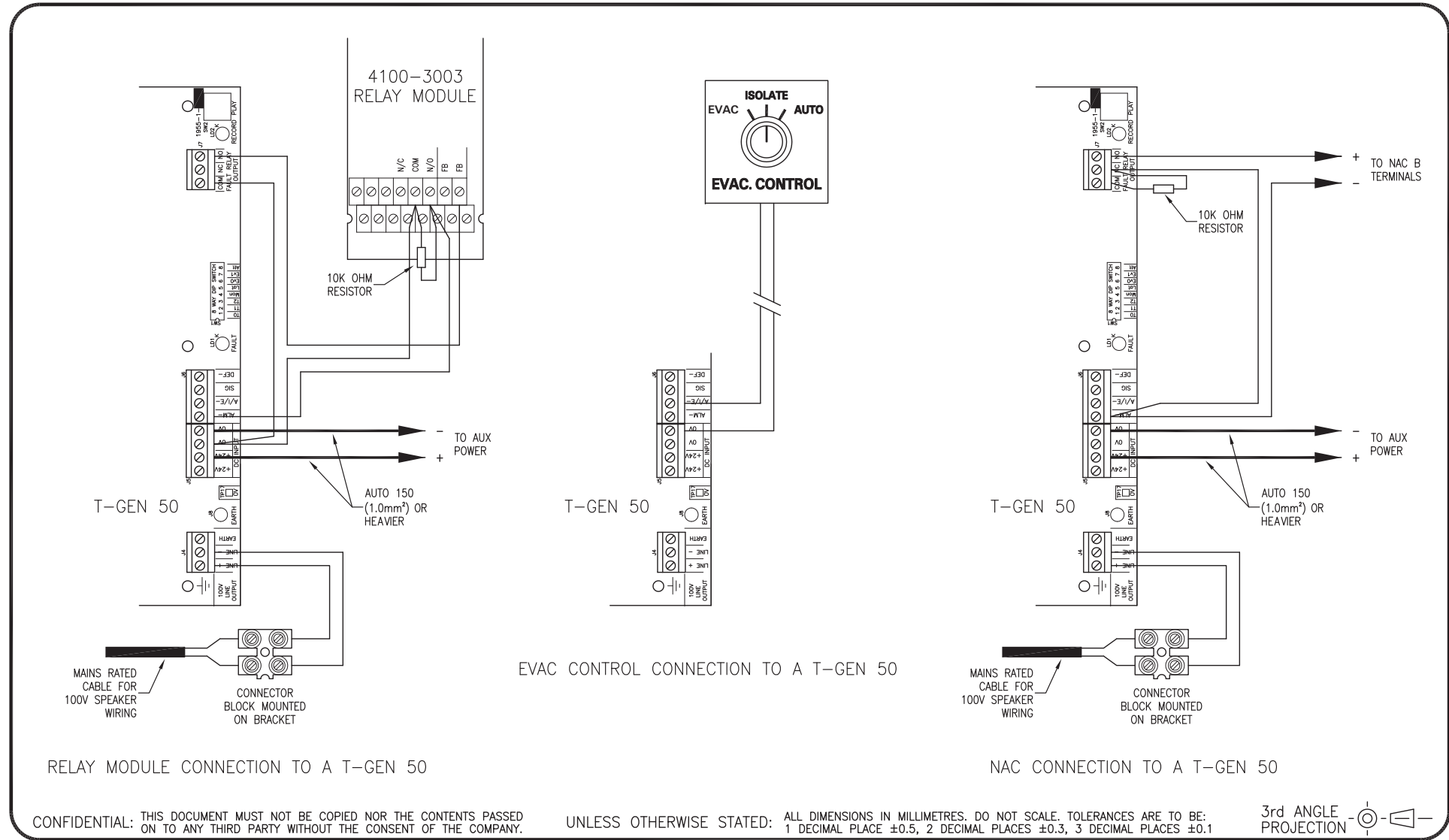
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**4100ES
 SPS NAC LOADS
 WIRING DIAGRAM**

DRAWING No: **1976-181** SHEET **407** of **N**

A3	ISS/REV C	PART No:
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408: SPS NAC Connection to T-GEN50 Tone Generator



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4615	KJS				21-7-15
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	12-1-16

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4100ES
SPS NAC CONNECTION TO T-GEN50
WIRING DIAGRAM

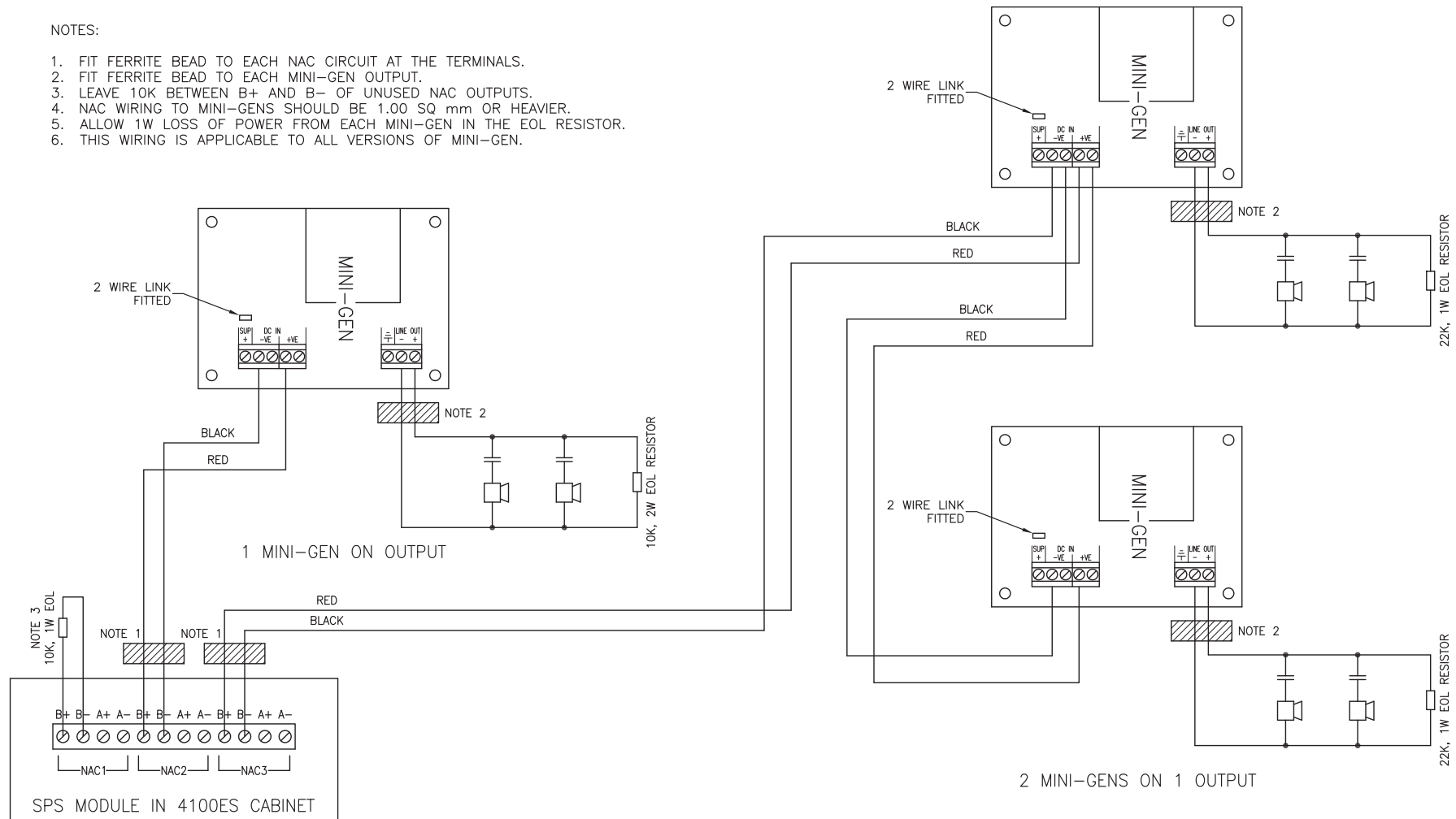
DRAWING No: **1976-181** SHEET **408** of **N**

A3	ISS/REV B	PART No:	
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409: SPS NAC Connection to Multi-Gen Tone Generator

NOTES:

1. FIT FERRITE BEAD TO EACH NAC CIRCUIT AT THE TERMINALS.
2. FIT FERRITE BEAD TO EACH MINI-GEN OUTPUT.
3. LEAVE 10K BETWEEN B+ AND B- OF UNUSED NAC OUTPUTS.
4. NAC WIRING TO MINI-GENS SHOULD BE 1.00 SQ mm OR HEAVIER.
5. ALLOW 1W LOSS OF POWER FROM EACH MINI-GEN IN THE EOL RESISTOR.
6. THIS WIRING IS APPLICABLE TO ALL VERSIONS OF MINI-GEN.



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4809	KJS				22-8-06
B	ADDED FERRITE ON MINI-GEN OUTPUTS	4352	KJS	LSC	RC	DP	13-4-12
C	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	12-1-16

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4100ES
SPS NAC WIRING TO MINI-GEN TONE GENERATOR
WIRING DIAGRAM

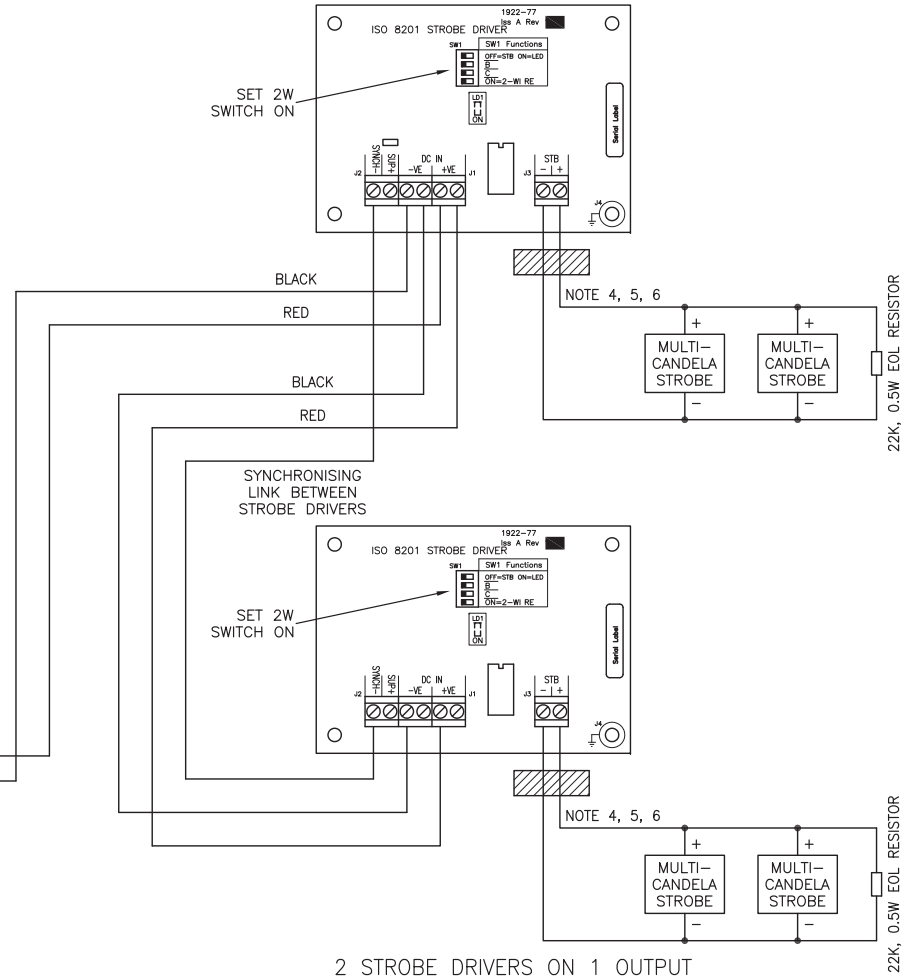
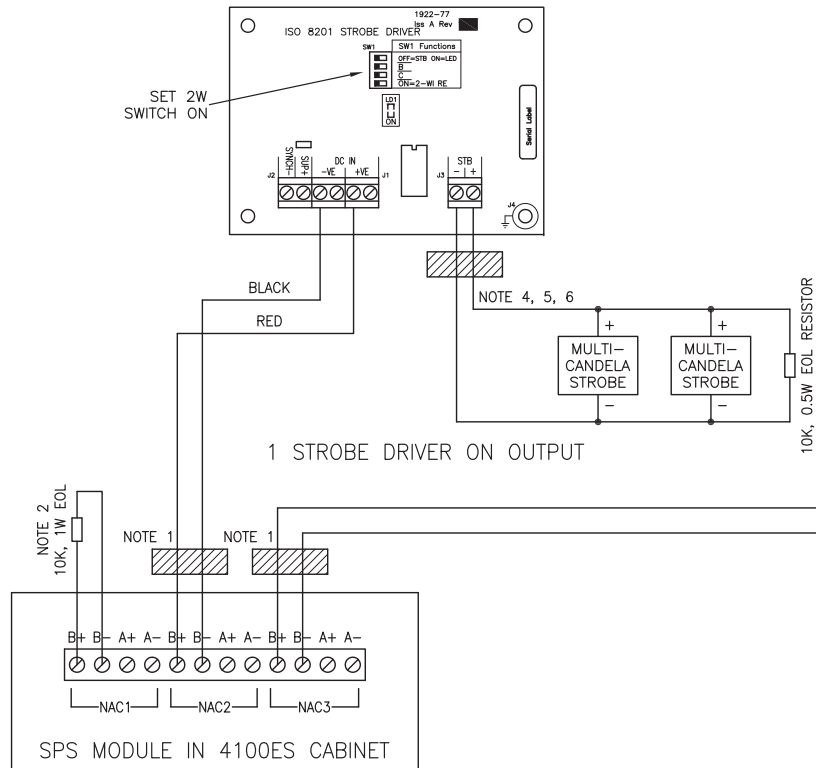
DRAWING No: **1976-181** SHEET **409** of **N**

A3	ISS/REV C	PART No:	
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410: SPS NAC Connection to Strobe Driver:

NOTES:

1. FIT FERRITE BEAD TO EACH NAC CIRCUIT.
2. LEAVE 10K BETWEEN B+ AND B- OF UNUSED NAC OUTPUTS.
3. NAC WIRING TO STROBE-DRIVERS SHOULD BE 1.00 SQ mm OR HEAVIER.
4. EACH STROBE DRIVER IS RATED AT 2A MAXIMUM. EACH NAC OUTPUT IS RATED AT 3A MAXIMUM.
5. MULTICANDELA STROBES AND LED BEACONS CANNOT BE MIXED ON THE SAME CIRCUIT.
6. FIT FERRITE BEAD TO EACH STROBE DRIVER OUTPUT.



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS				24-8-06
B	ADDED FERRITE ON STROBE DRIVER OUTPUTS	4352	KJS	LSC	RC	DP	13-4-12
C	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	12-1-16

tyco
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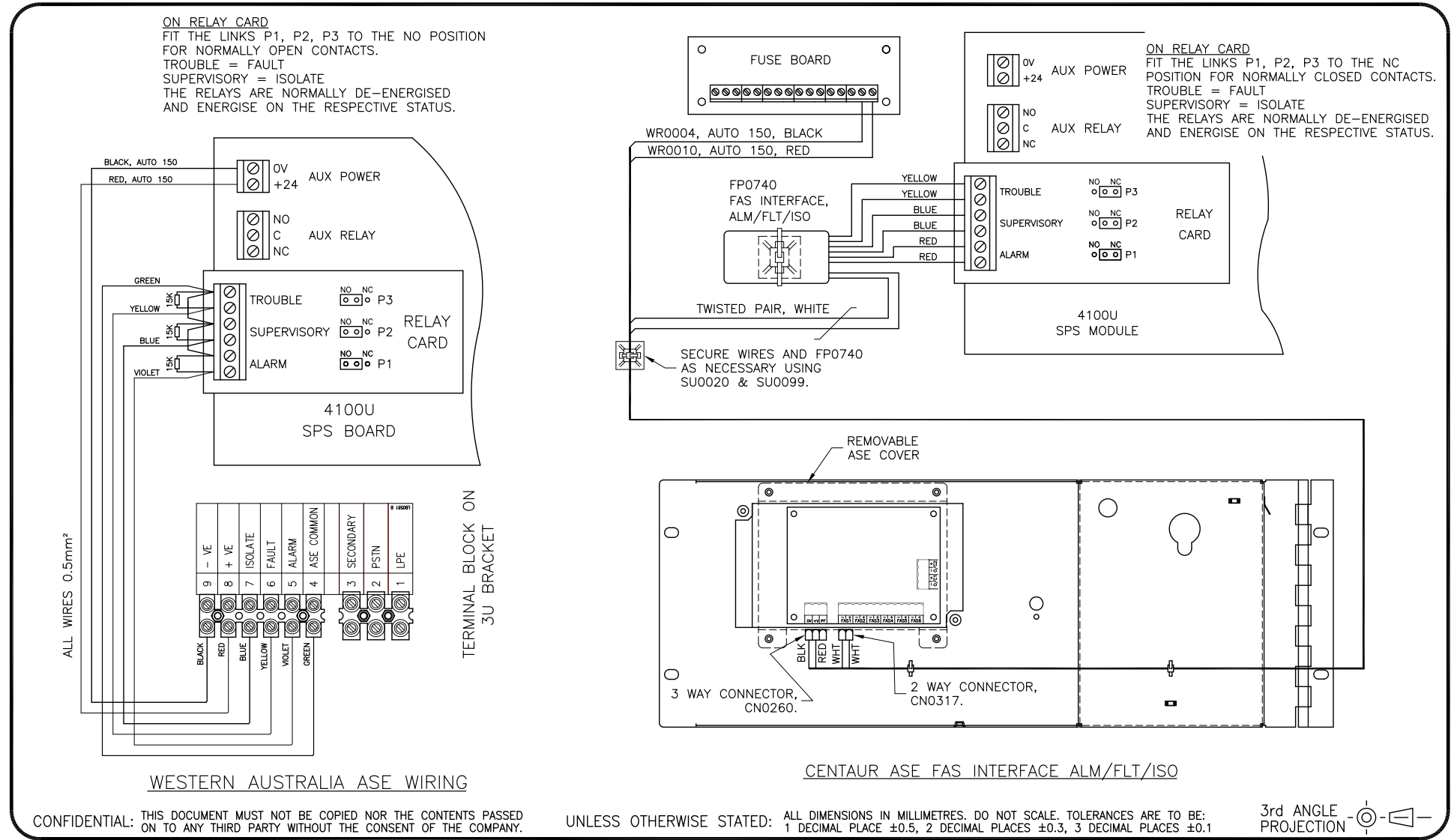
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4100ES
SPS NAC WIRING TO STROBE DRIVER
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **410** of **N**

A3	ISS/REV C	PART No:	
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411: SPS to Centaur/WA ASE



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS				29-8-06
B	UPDATED FOR NEW WA ASE.	4333	KJS	YZH	RC	DP	8-3-13
C	3U ASE DOOR HINGING CHANGED.	4704	KJS	LSC	LSC	DP	24-2-15
D	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	12-1-16

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Fire Protection Products

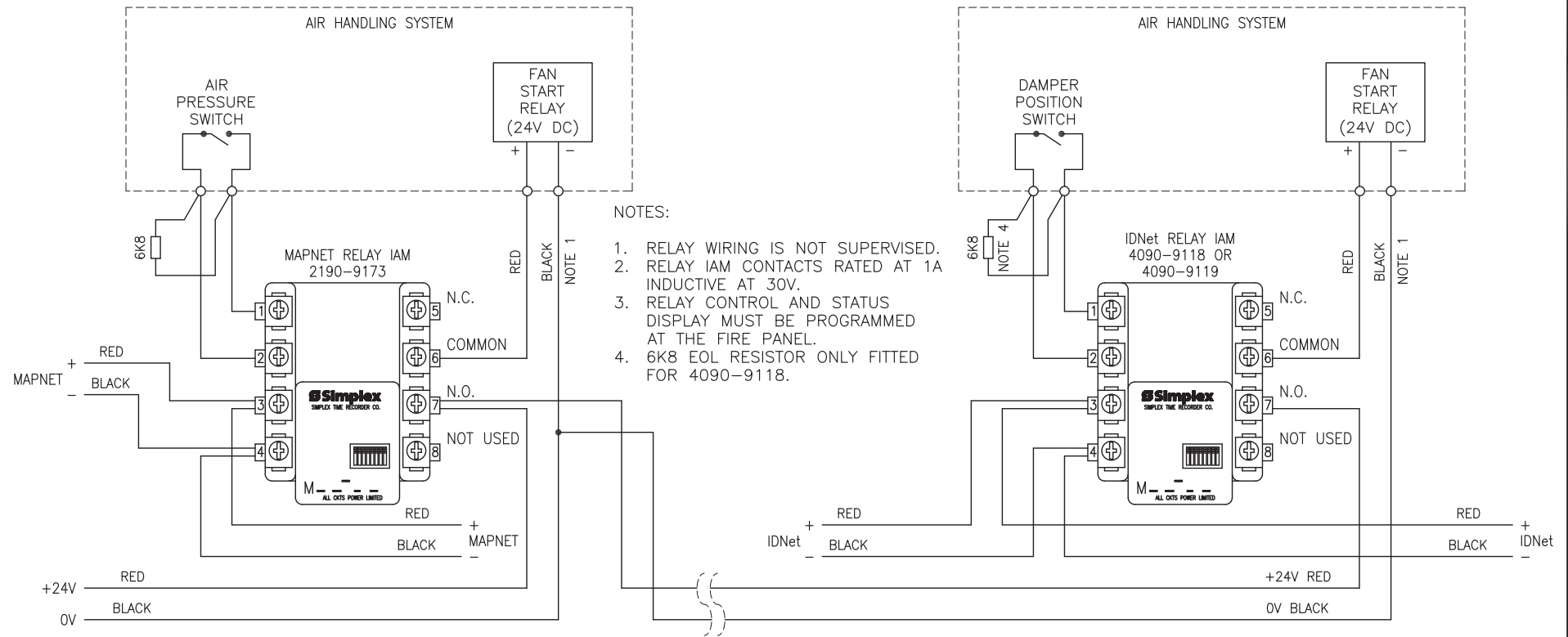
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4100ES
SPS TO CENTAUR / WA ASE
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **411** of **N**

A3	ISS/REV D	PART No:	
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412: Fan Controls with Relay IAMs



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS	SC			22-8-06
B	NOTE 4 ADDED	-	KJS				5-10-06
C	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

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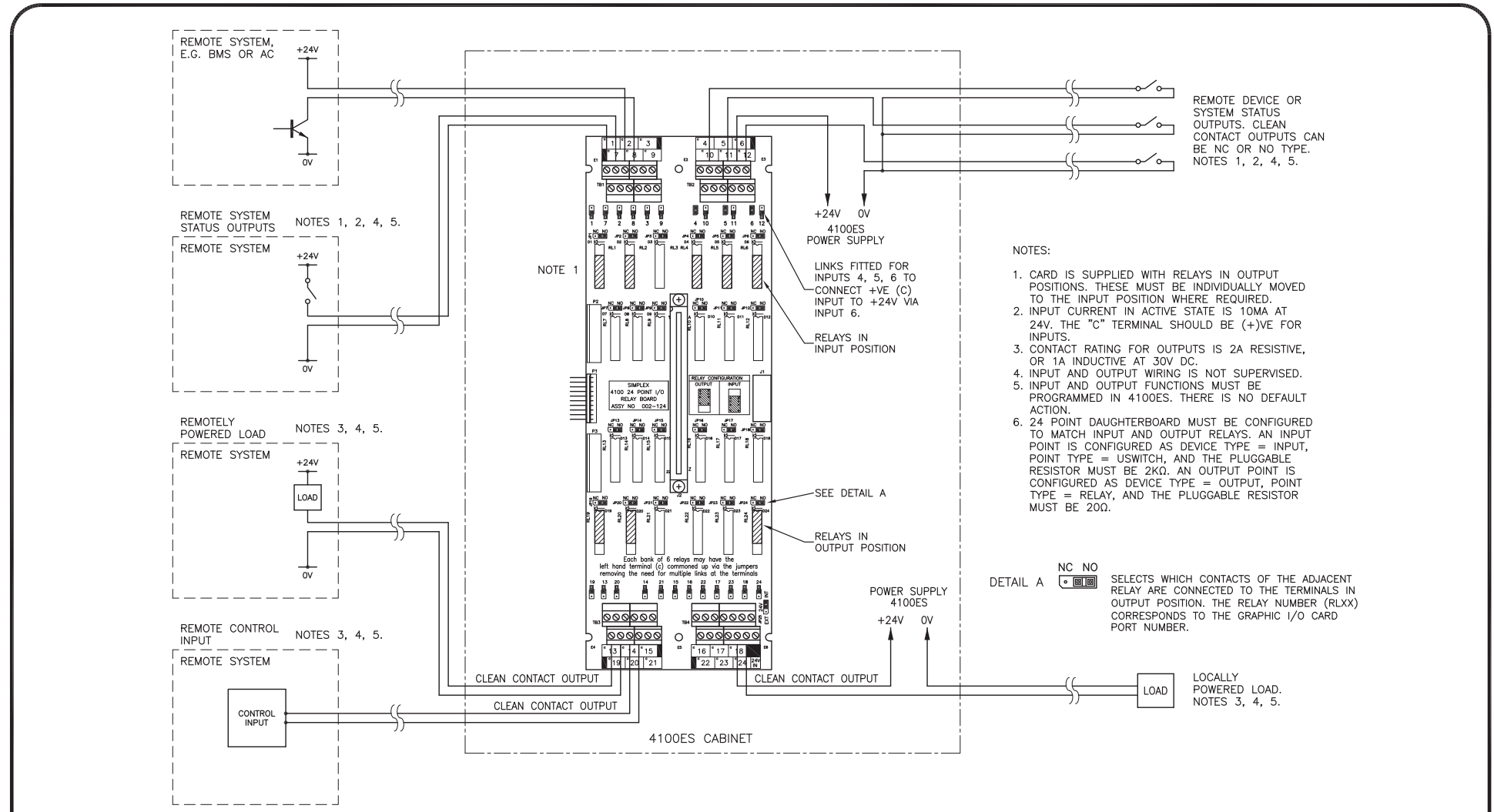
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4100ES
FAN CONTROLS WITH RELAY IAMs
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **412** of **N**

A3	ISS/REV C	PART No:	
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413: 24 Point I/O Card (002-124+4100-0302)



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS				7-9-06
B	"OV" 2 PLACES WAS "+24C"	ECS1371	KJS				10-7-09
C	UPDATES FOR 4100ES	4409	KJS	GEL	LSC	DP	10-9-12
D	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

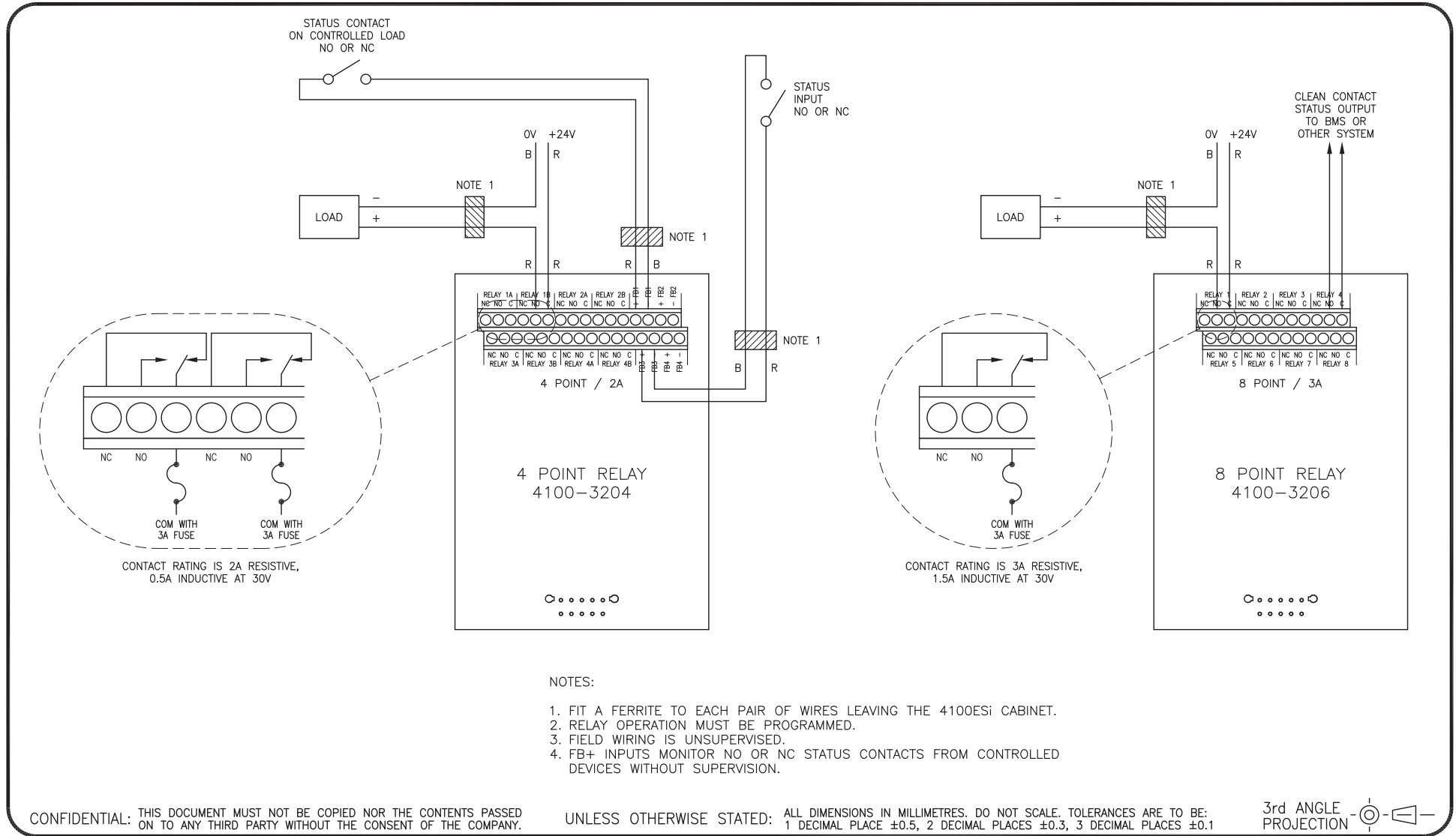
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4100ESi
24 POINT I/O CARD (002-124)
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **413** of **N**

A3	ISS/REV	D	PART No:
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414: 4100-3204/3206 PDI Relay Modules



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS	LSC	RC	DP	13-4-12
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

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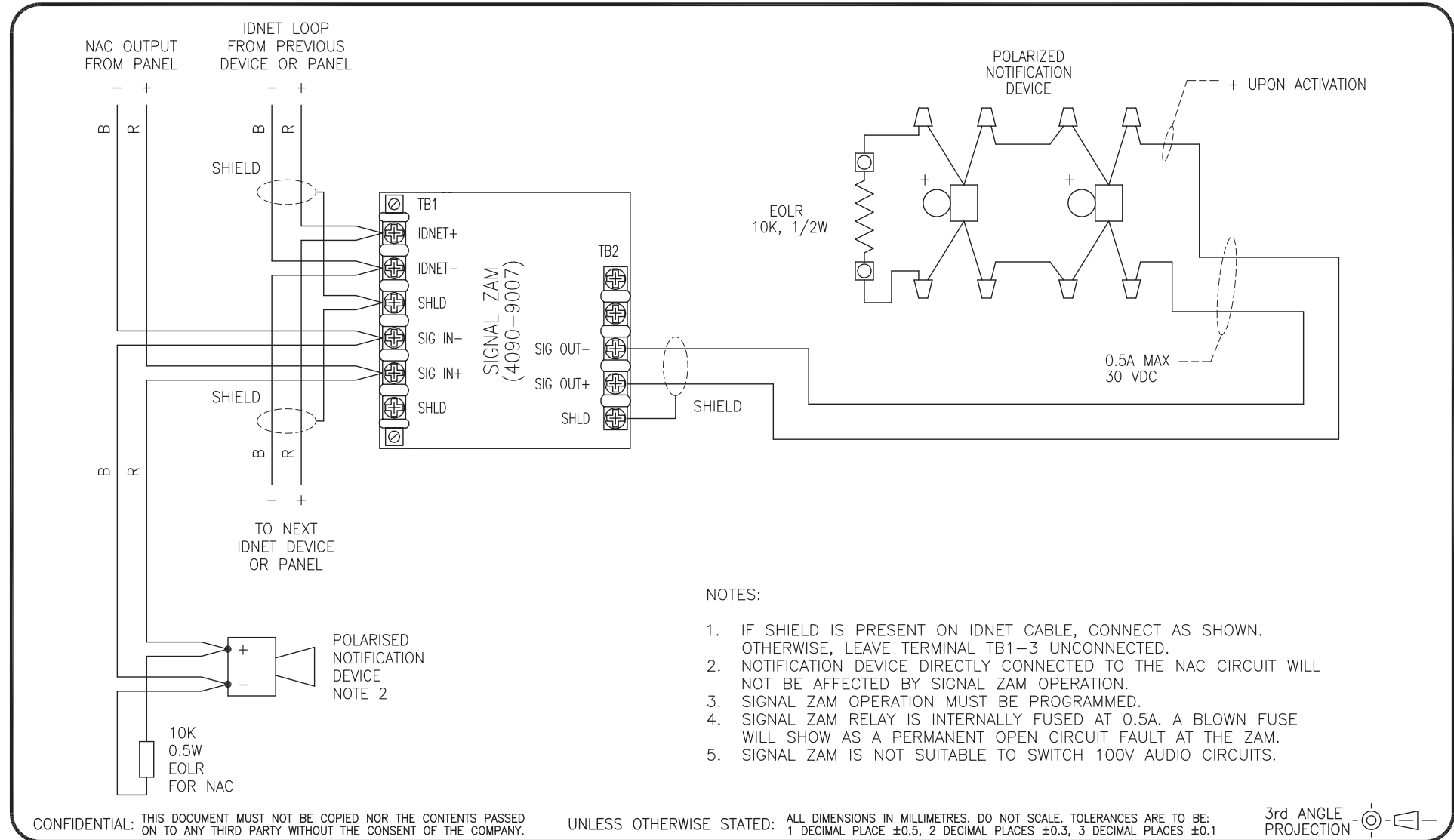
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4100ESi
4100-3204 / 3206 PDI RELAY MODULES
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **414** of **N**

A3	ISS/REV B	PART No:	
-----------	------------------	----------	--

415: Signal ZAM (4090-9007)



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4352	KJS	LSC	RC	DP	16-4-12
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	KS	8-12-15

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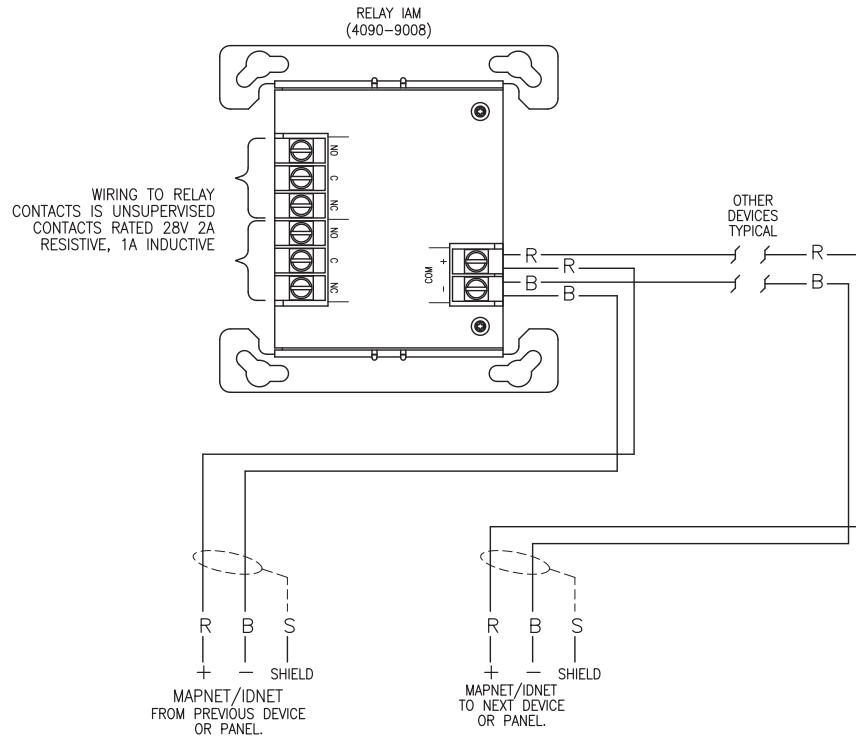
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4100ES
SIGNAL ZAM (4090-9007) WIRING
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **415** of **N**

A3	ISS/REV B	PART No:	
-----------	------------------	----------	--

416: MapNet/IDNet Relay IAM (4090-9008)



- NOTES:
1. 4090-9008 CAN BE USED WITH MAPNET OR IDNET.
 2. IF 4090-9008 IS USED TO REPLACE 2190-9164, THE 24V SUPPLY WILL NOT BE REQUIRED. ENSURE CONTINUITY IS MAINTAINED TO OTHER DEVICES.

WIRE LEGEND:
 B= BLACK
 R= RED
 S= SHIELD

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4615	SS	LSC	LSC	RC	03-9-14
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

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 Fire Protection Products

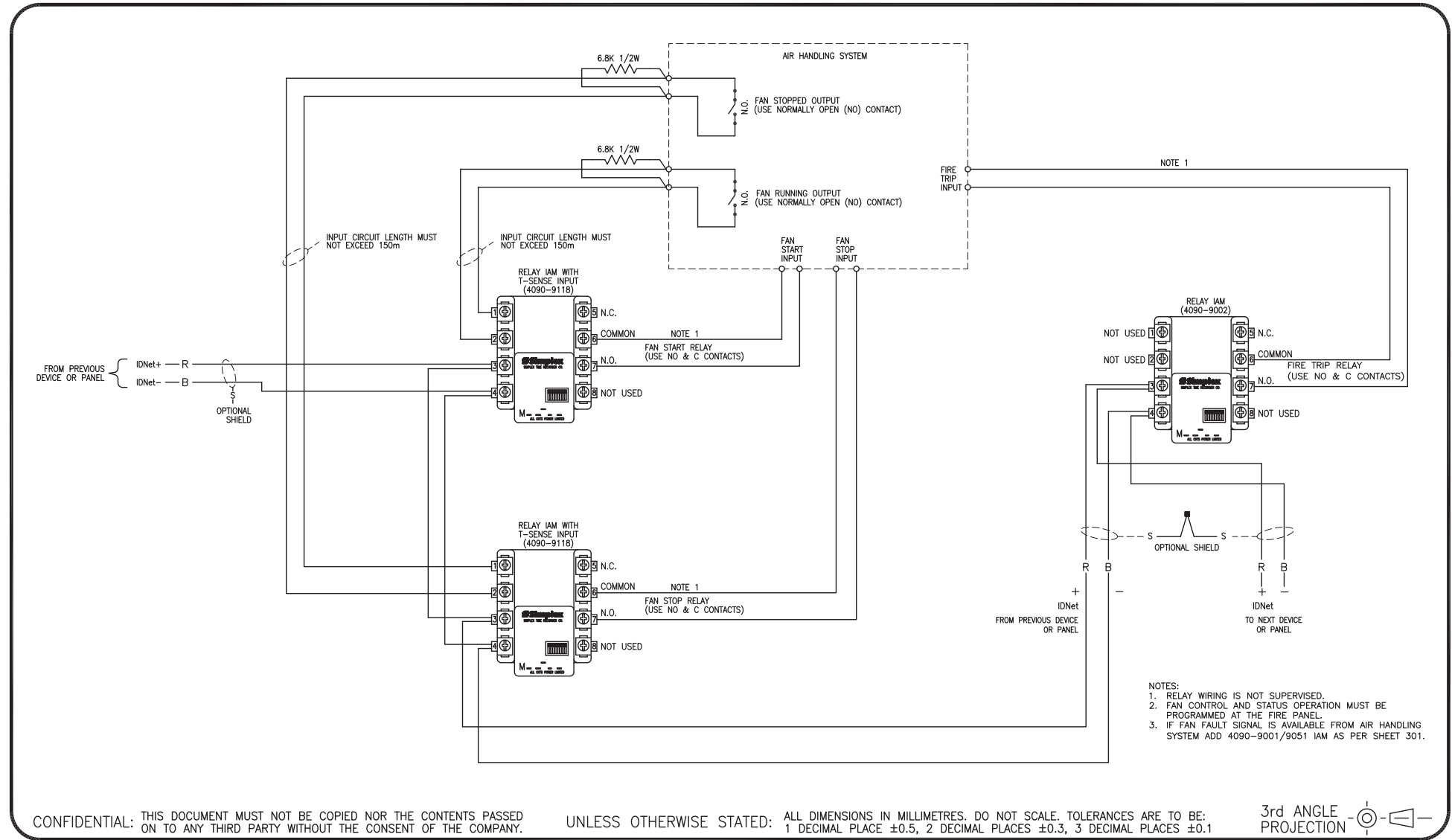
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4100ES
MAPNET / IDNET RELAY IAM (4090-9008)
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **416** of **N**

A3	ISS/REV B	PART No:
-----------	------------------	----------

417: Fan Interface - IDNet Loop Powered



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4615	SS	RC	RC	DP	04-9-14
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

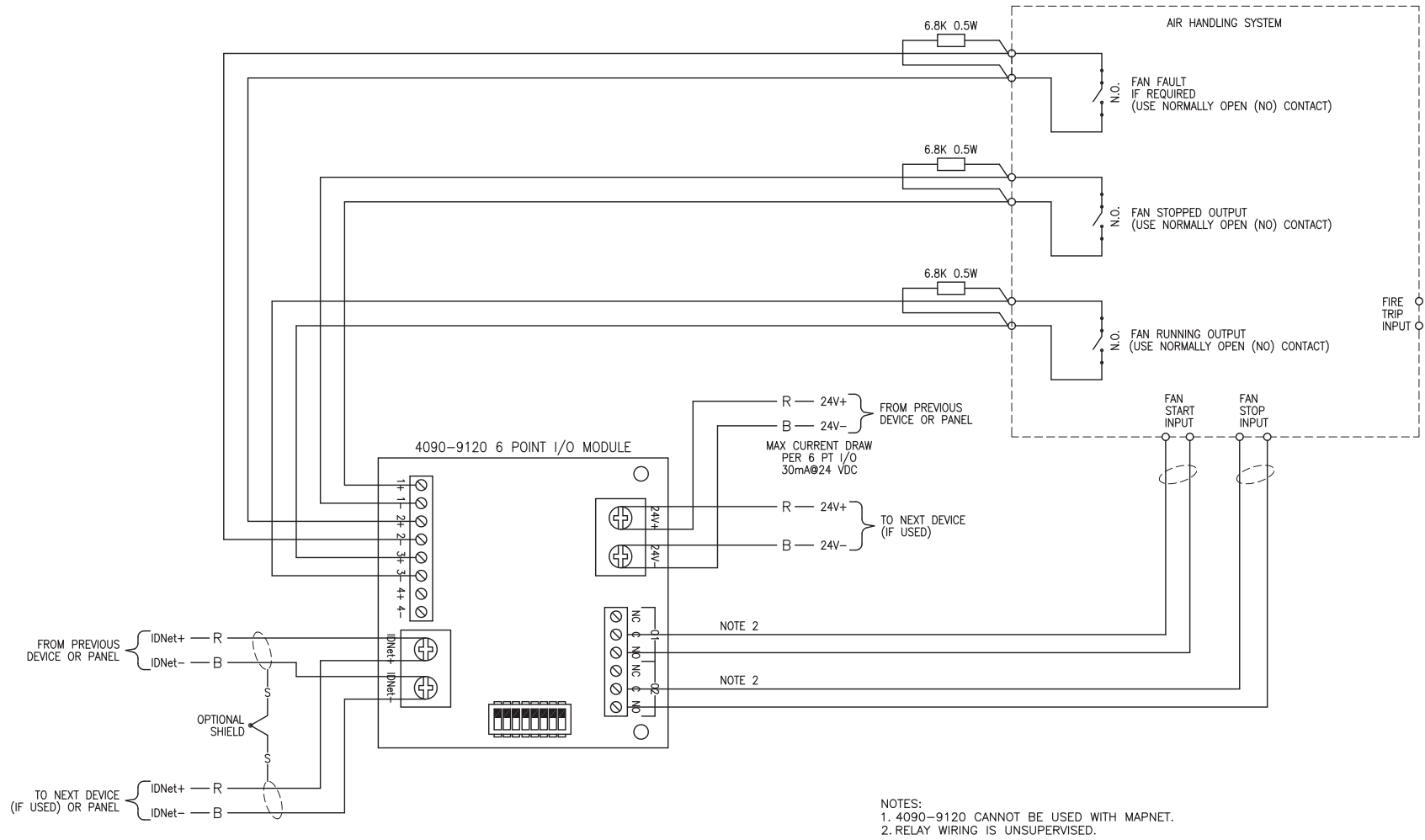
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4100ES
FAN INTERFACE - LOOP POWERED
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **417** of **N**

A3	ISS/REV B	PART No:
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418: Fan Interface - IDNet 24V Powered



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4615	KJS	RC	RC	DP	04-9-14
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

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4100ES
FAN INTERFACE - 24V POWERED
WIRING DIAGRAM

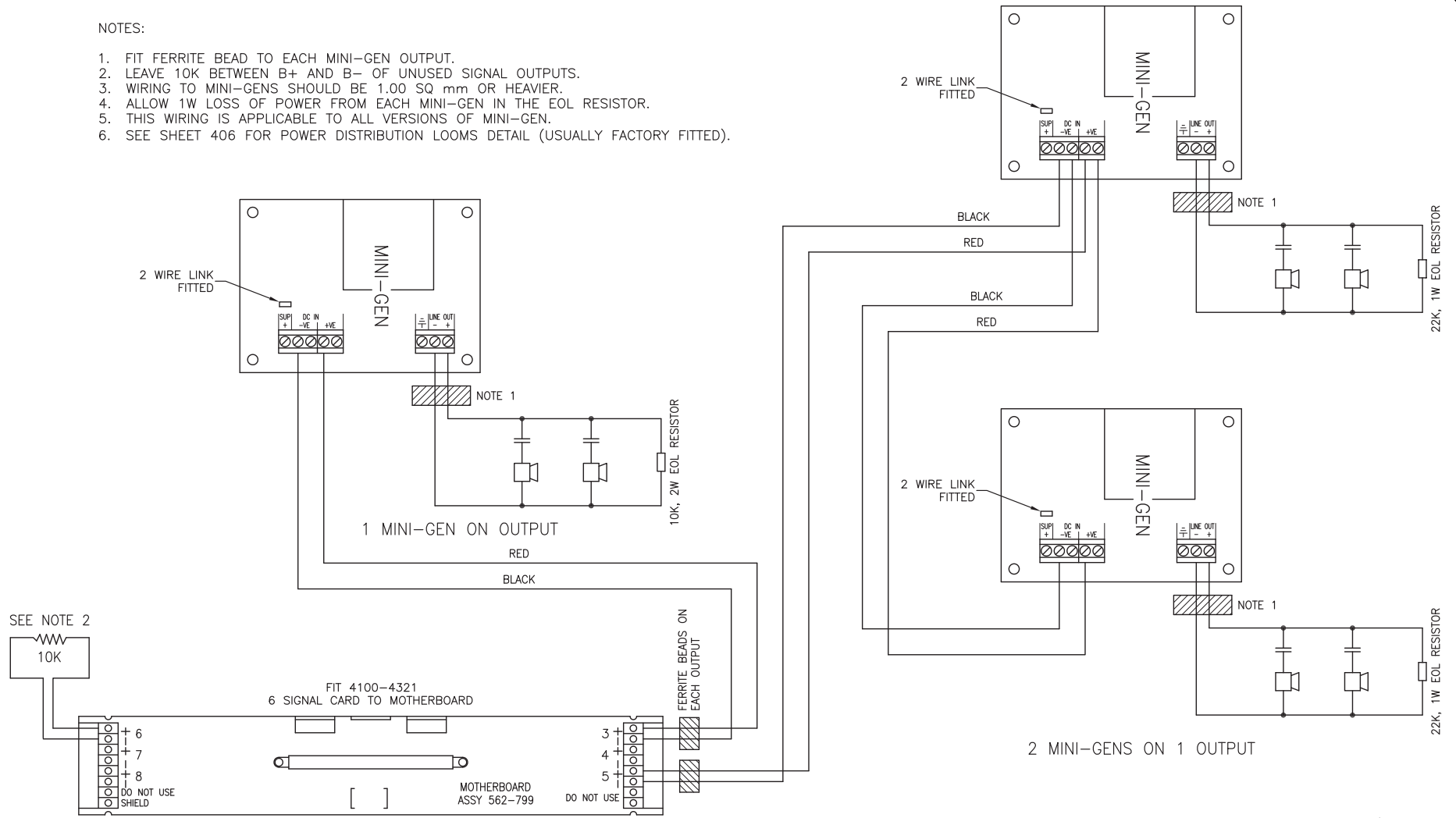
DRAWING No: 1976-181 SHEET 418 of N

A3 ISS/REV B PART No:

419: 6 Signal Card Connection to Mini-Gen Tone Generator

NOTES:

1. FIT FERRITE BEAD TO EACH MINI-GEN OUTPUT.
2. LEAVE 10K BETWEEN B+ AND B- OF UNUSED SIGNAL OUTPUTS.
3. WIRING TO MINI-GENS SHOULD BE 1.00 SQ mm OR HEAVIER.
4. ALLOW 1W LOSS OF POWER FROM EACH MINI-GEN IN THE EOL RESISTOR.
5. THIS WIRING IS APPLICABLE TO ALL VERSIONS OF MINI-GEN.
6. SEE SHEET 406 FOR POWER DISTRIBUTION LOOMS DETAIL (USUALLY FACTORY FITTED).



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ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS	LSC	RC	DP	14-6-12
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

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4100ESi
SIGNAL CARD WIRING TO MINI-GEN TONE GEN
WIRING DIAGRAM

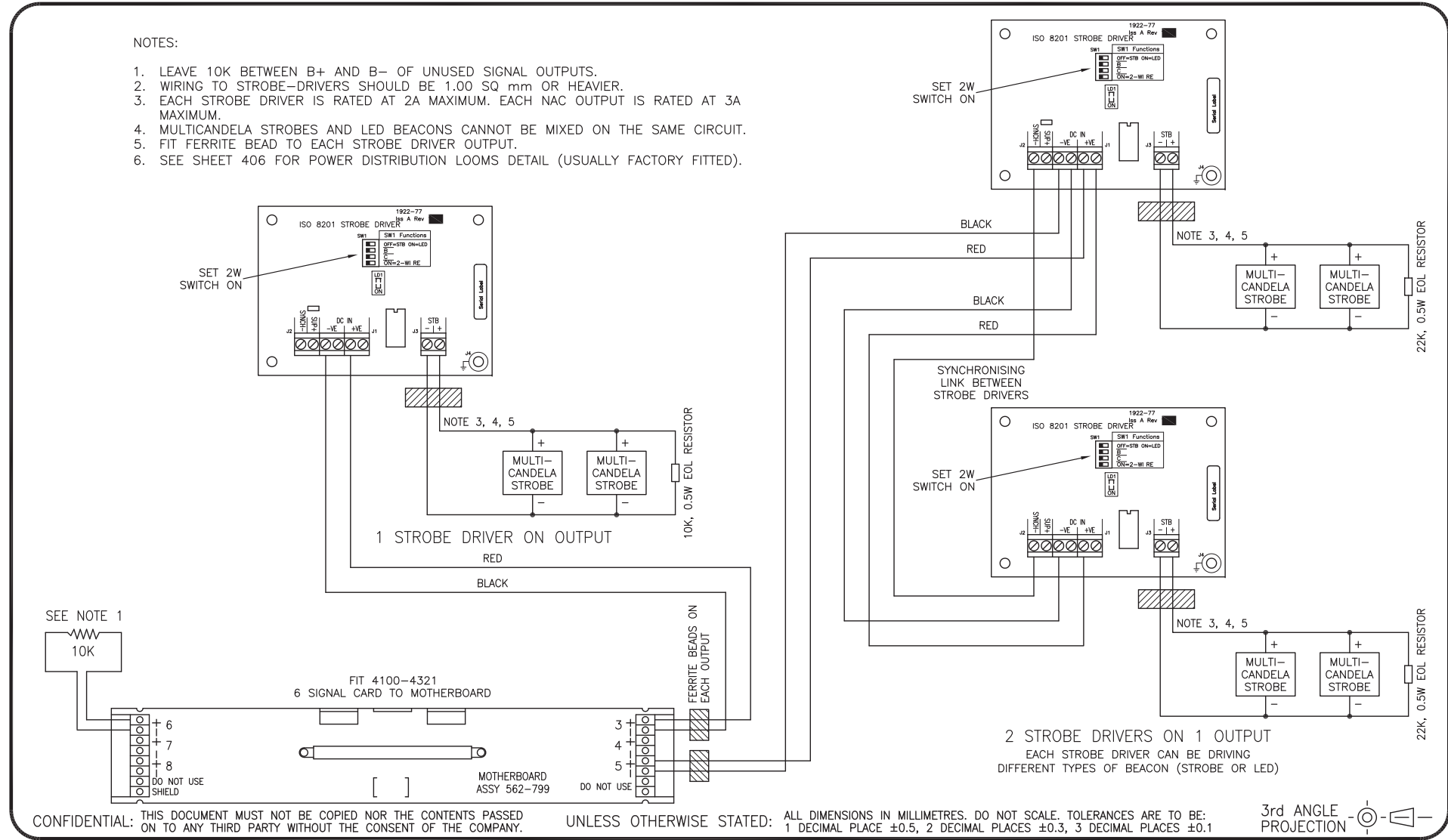
DRAWING No: **1976-181** SHEET **419** of **N**

A3	ISS/REV B	PART No:	
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420: 6 Signal Card Connection to Strobe Driver

NOTES:

1. LEAVE 10K BETWEEN B+ AND B- OF UNUSED SIGNAL OUTPUTS.
2. WIRING TO STROBE-DRIVERS SHOULD BE 1.00 SQ mm OR HEAVIER.
3. EACH STROBE DRIVER IS RATED AT 2A MAXIMUM. EACH NAC OUTPUT IS RATED AT 3A MAXIMUM.
4. MULTICANDELA STROBES AND LED BEACONS CANNOT BE MIXED ON THE SAME CIRCUIT.
5. FIT FERRITE BEAD TO EACH STROBE DRIVER OUTPUT.
6. SEE SHEET 406 FOR POWER DISTRIBUTION LOOMS DETAIL (USUALLY FACTORY FITTED).



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS	LSC	RC	DP	15-6-12
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

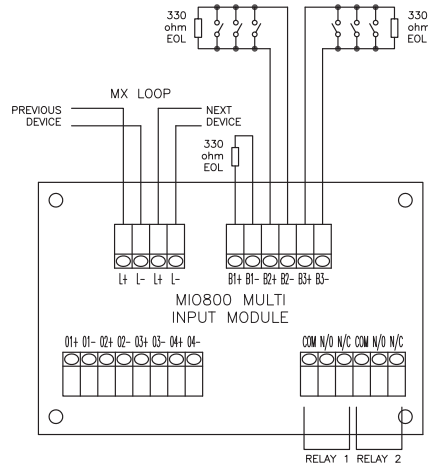
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4100ESi
SIGNAL CARD WIRING TO STROBE DRIVER
WIRING DIAGRAM

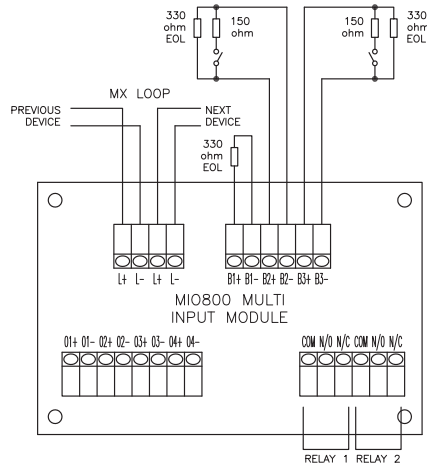
DRAWING No: **1976-181** SHEET **420** of **N**

A3	ISS/REV	B	PART No:
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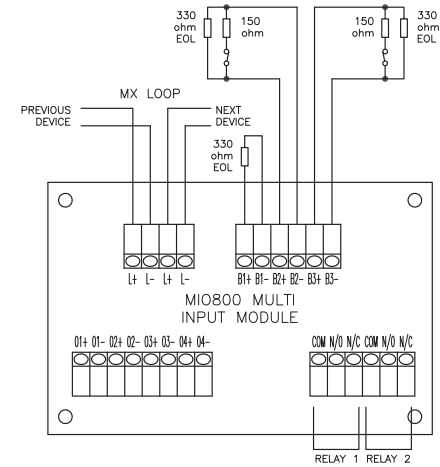
421: MIO800 MX Multi I/O Module



NORMALLY OPEN S/C = ALARM, O/C = FAULT
 MODES: MBNO OR MBNOI



NORMALLY OPEN S/C = FAULT, O/C = FAULT
 MODES: MCNO OR MCNOI



NORMALLY CLOSED O/C = FAULT, S/C = FAULT
 MODES: MCNC

NOTES:

1. INPUT CONTACTS MUST BE VOLTAGE FREE.
2. CIRCUIT RESISTANCE: 40 OHM MAX.
3. RELAYS ARE SINGLE POLE, UNSUPERVISED, VOLTAGE FREE CHANGE-OVER. CONTACT RATING: 2A @ 24V DC (RESISTIVE).
4. INPUT 1 CAN BE WIRED AS PER INPUTS 2 OR 3 AS SHOWN.
5. DO NOT USE 01 TO 04 OUTPUT TERMINALS.
6. INPUT CIRCUITS MUST NOT BE JOINED TOGETHER OR TO ANY OTHER WIRING.
7. FOR VIO800 WIRING REFER TO SHEET 308.
8. MODES REFER TO CONFIGURATION IN ES PROGRAMMER.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL FROM 1982-71-110.	4809	KJS	LSC	RC	DP	12-11-15
B	PART NUMBERS CHANGED TO USE MX PART NUMBERS.	4936	KJS	MH	RC	DP	11-7-16

tyco

Fire Protection Products

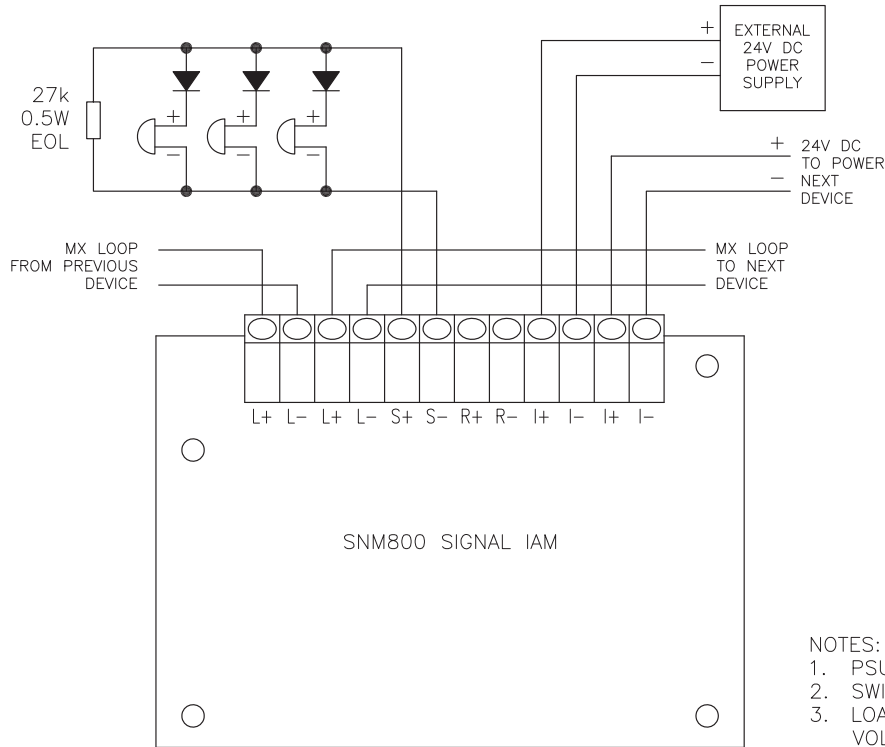
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4100ESi
MIO800 MULTI I/O MODULE
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **421** of **N**

A3	ISS/REV B	PART No:	
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422: SNM800 MX Signal IAM



- NOTES:
1. PSU: 20–30V DC.
 2. SWITCHED OUTPUT: PSU VOLTAGE; 2A MAX. ELD: 27k.
 3. LOAD DEVICES MUST HAVE SERIES DIODE AND BE VOLTAGE FREE.
 4. INDUCTIVE LOADS MUST HAVE BACK-EMF DIODE OR SUPPRESSION.
 5. DO NOT USE R+, R- TERMINAL.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL FROM 1982-71-111.	4809	KJS	LSC	RC	DK	12-11-15
B	PART NUMBERS CHANGED TO USE MX PART NUMBERS.	4936	KJS	MH	RC	DP	11-7-16

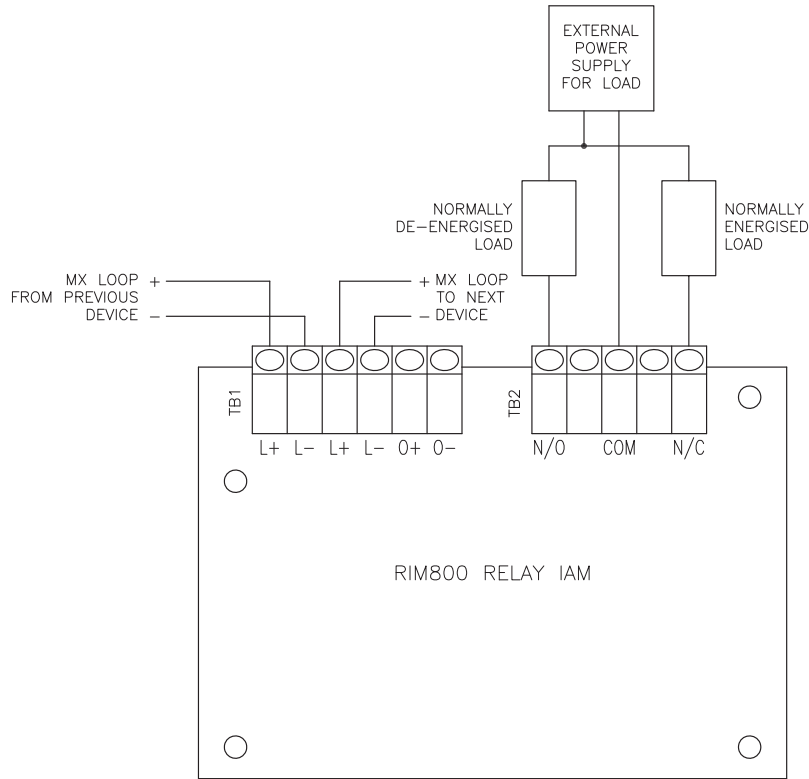
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4100ESi
SNM800 SIGNAL IAM
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **422** of **N**

A3	ISS/REV B	PART No:
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423: RIM800 MX Relay Interface Module



- NOTES:
1. RELAY IS SINGLE POLE CHANGEOVER, UNSUPERVISED, VOLTAGE-FREE OUTPUT.
 2. CONTACT RATING: 2A @ 30V DC (RESISTIVE).
 3. LEAVE 0+ AND 0- TERMINALS UNCONNECTED

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL FROM 1982-71-112.	4809	KJS	LSC	RC	DK	12-11-15
B	PART NUMBERS CHANGED TO USE MX PART NUMBERS.	4936	KJS	MH	RC	DP	11-7-16

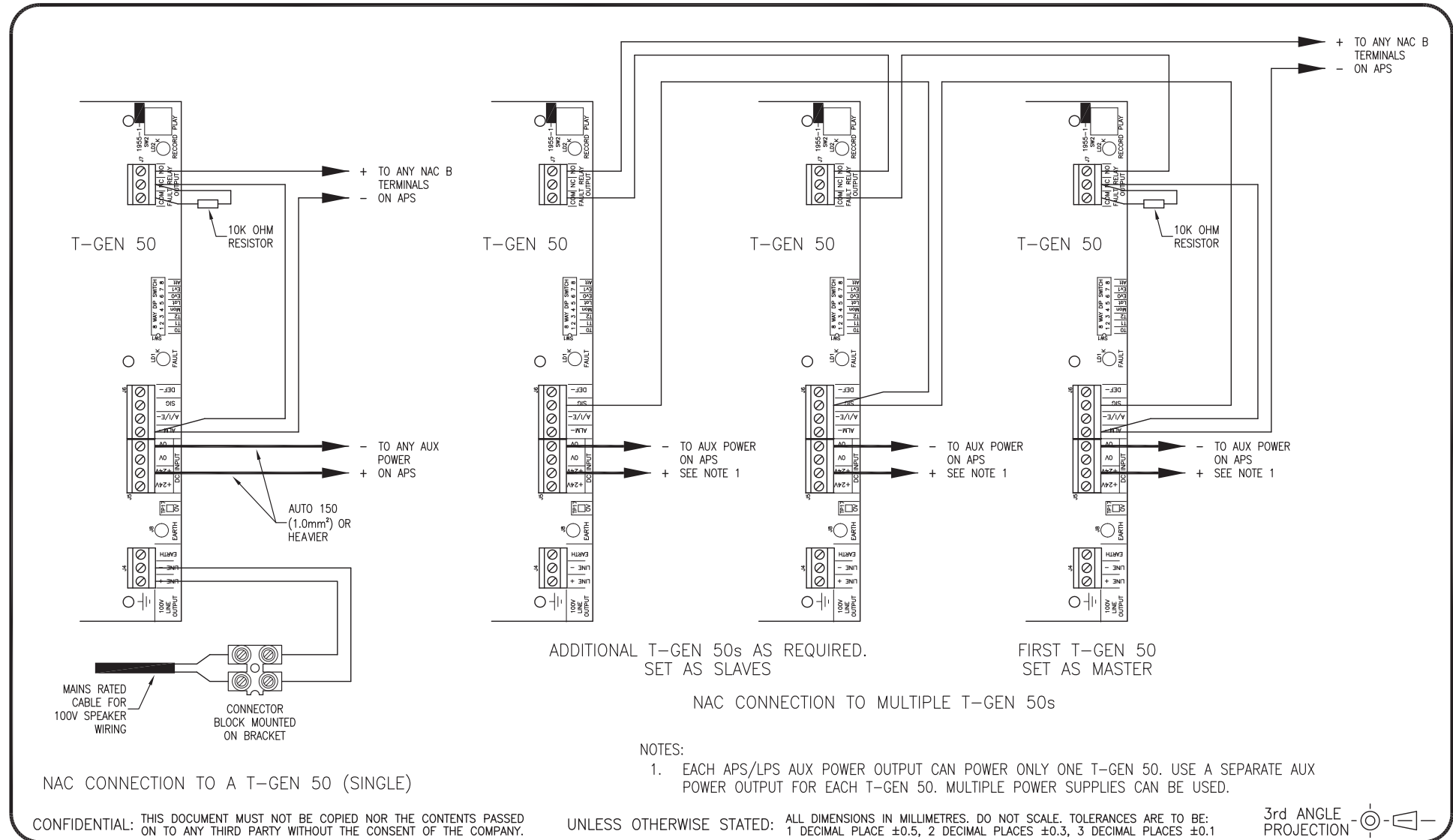
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4100ESi
RIM800 MX RELAY IAM
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **423** of **N**

A3	ISS/REV	B	PART No:
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424: APS/LPS NAC Connection to T-GEN50 Tone Generator



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4809	KJS	LSC	RC	DK	16-11-15

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4100ESi
APS/LPS NAC CONNECTION TO T-GEN50
WIRING DIAGRAM

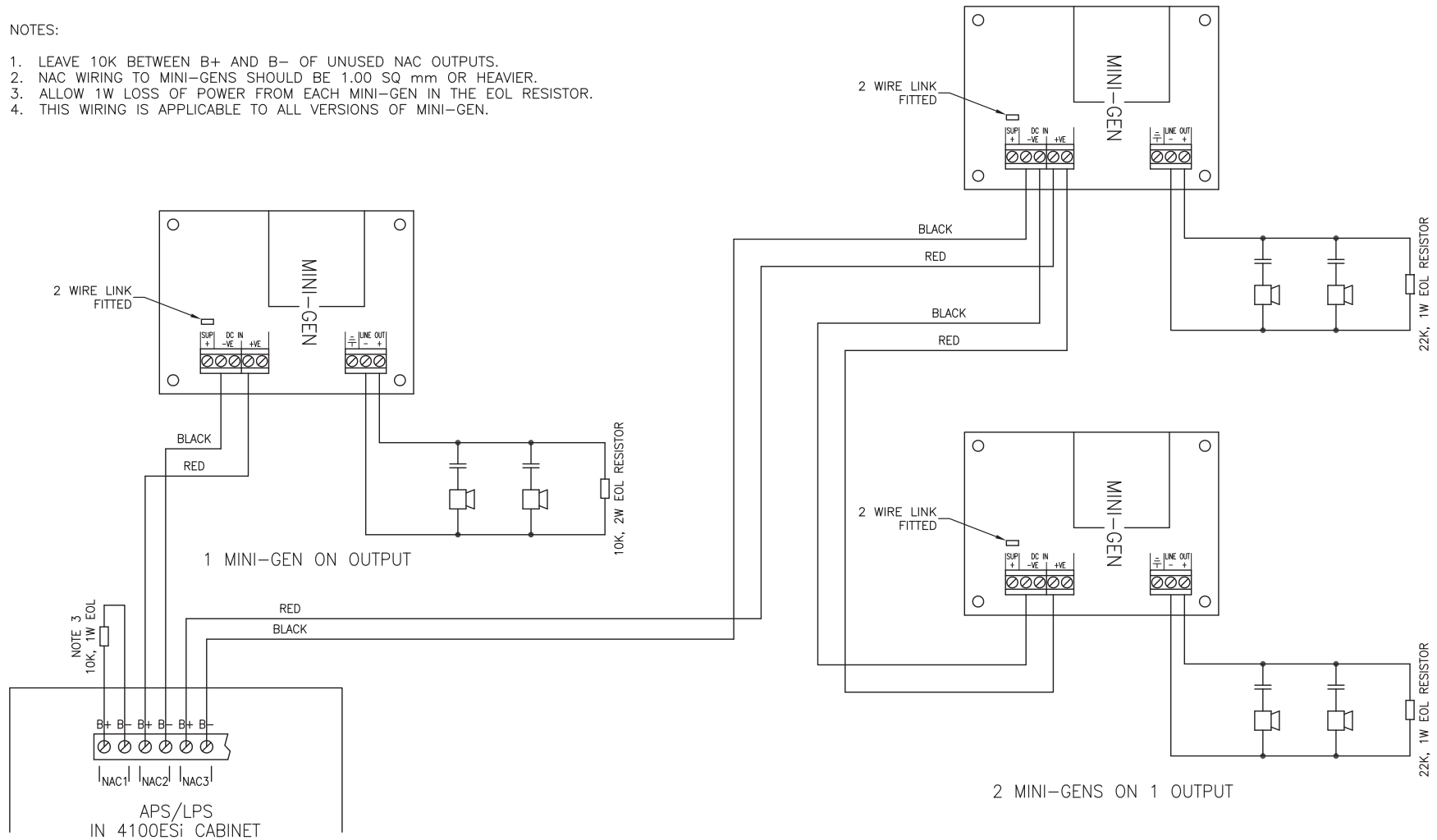
DRAWING No: **1976-181** SHEET **424** of **N**

A3	ISS/REV A	PART No:	
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425: APS/LPS NAC Connection to Mini-Gen Generator

NOTES:

1. LEAVE 10K BETWEEN B+ AND B- OF UNUSED NAC OUTPUTS.
2. NAC WIRING TO MINI-GENS SHOULD BE 1.00 SQ mm OR HEAVIER.
3. ALLOW 1W LOSS OF POWER FROM EACH MINI-GEN IN THE EOL RESISTOR.
4. THIS WIRING IS APPLICABLE TO ALL VERSIONS OF MINI-GEN.



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL FROM SHEET 409.	4809	KJS	LSC	RC	DK	16-11-15

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4100ESi
APS/LPS NAC WIRING TO MINI-GEN TONE GENERATOR
WIRING DIAGRAM

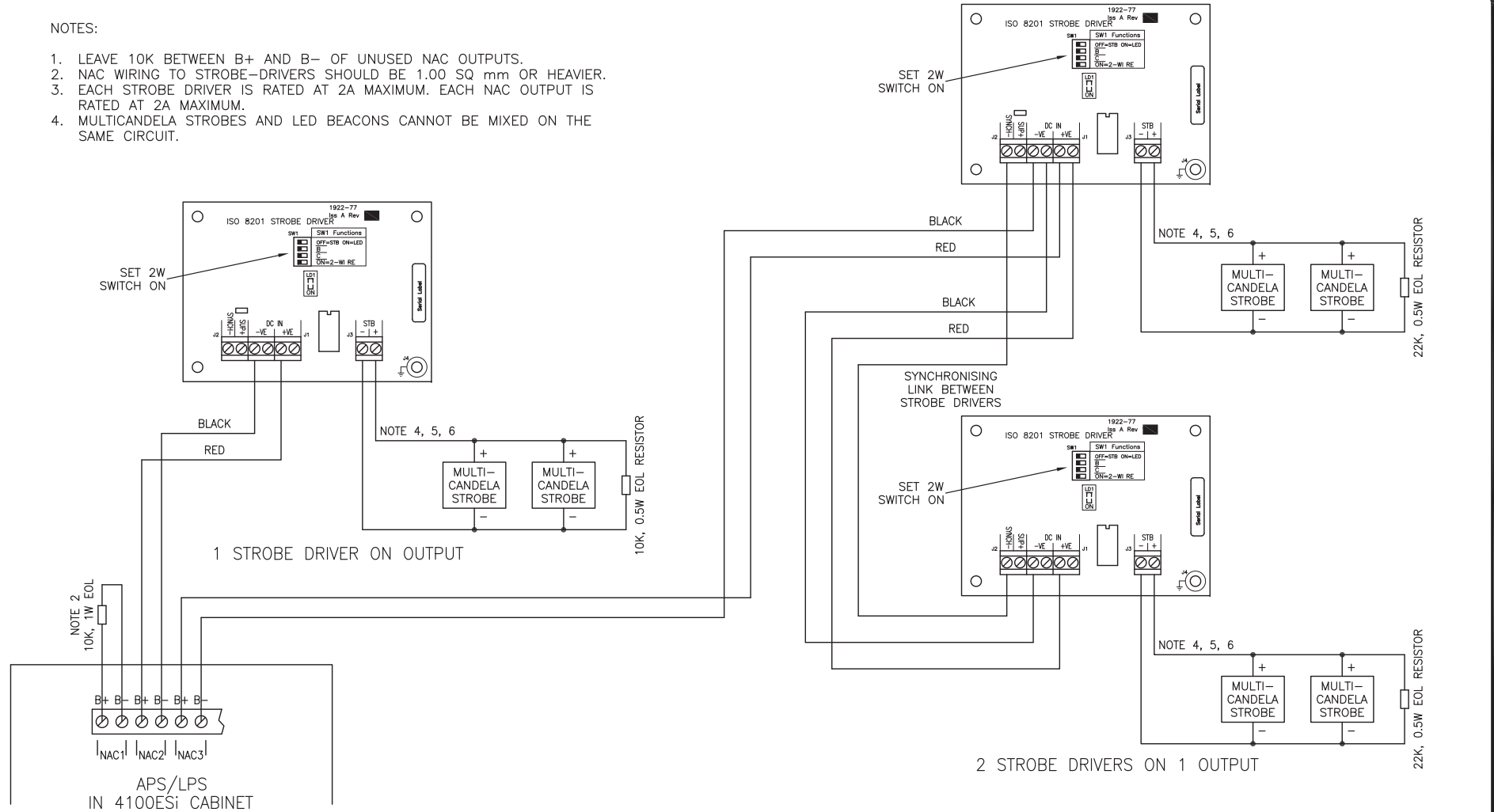
DRAWING No: **1976-181** SHEET **425** of **N**

A3	ISS/REV A	PART No:	
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426: APS/LPS NAC Connection to Strobe Driver:

NOTES:

1. LEAVE 10K BETWEEN B+ AND B- OF UNUSED NAC OUTPUTS.
2. NAC WIRING TO STROBE-DRIVERS SHOULD BE 1.00 SQ mm OR HEAVIER.
3. EACH STROBE DRIVER IS RATED AT 2A MAXIMUM. EACH NAC OUTPUT IS RATED AT 2A MAXIMUM.
4. MULTICANDELA STROBES AND LED BEACONS CANNOT BE MIXED ON THE SAME CIRCUIT.



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL FROM SHEET 410.	4809	KJS	LSC	RC	DK	12-11-15

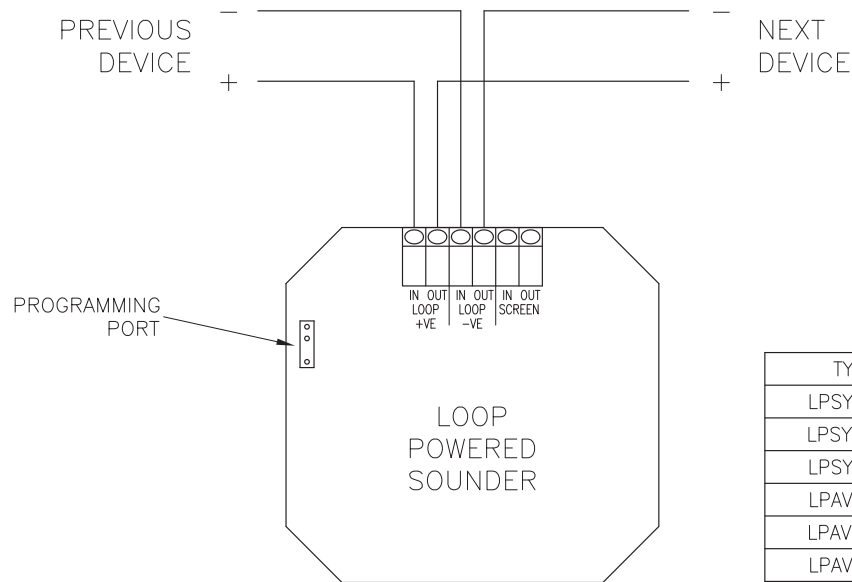
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4100ESi
APS /LPS NAC WIRING TO STROBE DRIVER
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **426** of **N**

A3	ISS/REV A	PART No:	
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428: LPSx800x MX Loop Powered Sounders



REAR INTERNAL VIEW OF SOUNDER/BEACON

TYPE	DESCRIPTION
LPSY800R	LOOP POWERED SOUNDER, INDOOR, RED
LPSY800W	LOOP POWERED SOUNDER, INDOOR, WHITE
LPSY865R	LOOP POWERED SOUNDER, OUTDOOR, RED
LPAV800R	LOOP POWERED SOUNDER/BEACON, INDOOR, RED
LPAV800W	LOOP POWERED SOUNDER/BEACON, INDOOR, WHITE
LPAV865R	LOOP POWERED SOUNDER/BEACON, OUTDOOR, RED

NOTES:

1. ALL UNITS INCLUDE LOOP SHORT CIRCUIT ISOLATOR.
2. MX LOOP ADDRESS, SOUNDER LEVEL, TONE AND FLASH RATE FOR BEACONS ARE PROGRAMMED USING 850EMT AND PROGRAMMING PORT INSIDE BASE.
3. TO OPEN UNIT, INSERT TWO-PINNED TOOL INTO 2 SMALL HOLES IN SIDE OF BASE AND CAREFULLY PUSH, WHILE OPENING UNIT.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4809	KJS	LSC	RC	DP	24-2-16
B	PART NUMBERS CHANGED TO USE MX PART NUMBERS.	4936	KJS	MH	RC	DP	11-7-16

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4100ESi
LPSX800X LOOP POWERED SOUNDERS
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **428** of **N**

A3	ISS/REV B	PART No:
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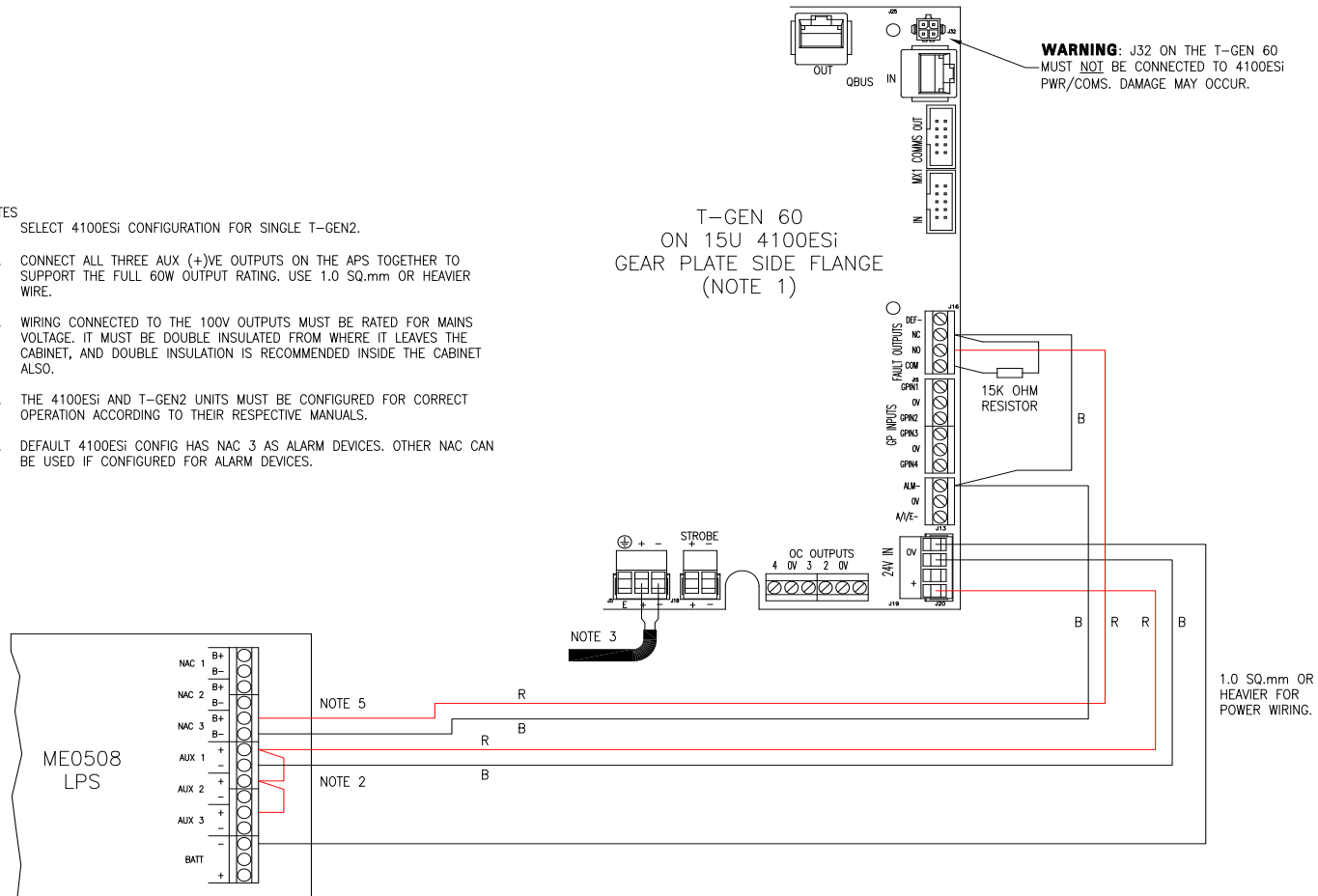
429: T-Gen 60 in 15U Panel

NOTES

1. SELECT 4100ESi CONFIGURATION FOR SINGLE T-GEN2.
2. CONNECT ALL THREE AUX (+)VE OUTPUTS ON THE APS TOGETHER TO SUPPORT THE FULL 60W OUTPUT RATING. USE 1.0 SQ.mm OR HEAVIER WIRE.
3. WIRING CONNECTED TO THE 100V OUTPUTS MUST BE RATED FOR MAINS VOLTAGE. IT MUST BE DOUBLE INSULATED FROM WHERE IT LEAVES THE CABINET, AND DOUBLE INSULATION IS RECOMMENDED INSIDE THE CABINET ALSO.
4. THE 4100ESi AND T-GEN2 UNITS MUST BE CONFIGURED FOR CORRECT OPERATION ACCORDING TO THEIR RESPECTIVE MANUALS.
5. DEFAULT 4100ESi CONFIG HAS NAC 3 AS ALARM DEVICES. OTHER NAC CAN BE USED IF CONFIGURED FOR ALARM DEVICES.

T-GEN 60
ON 15U 4100ESi
GEAR PLATE SIDE FLANGE
(NOTE 1)

WARNING: J32 ON THE T-GEN 60 MUST NOT BE CONNECTED TO 4100ESi PWR/COMS. DAMAGE MAY OCCUR.



1.0 SQ.mm OR HEAVIER FOR POWER WIRING.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	5053	KJS	LSC	RC	DC	9-8-17
B	UPDATED FOR T-GEN2 GRADE 2.	5142	KJS	PV	RC	DC	15-10-18

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4100ESi
T-GEN 60 IN 15U PANEL
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **429** of **N**

A3 ISS/REV **B** PART No:

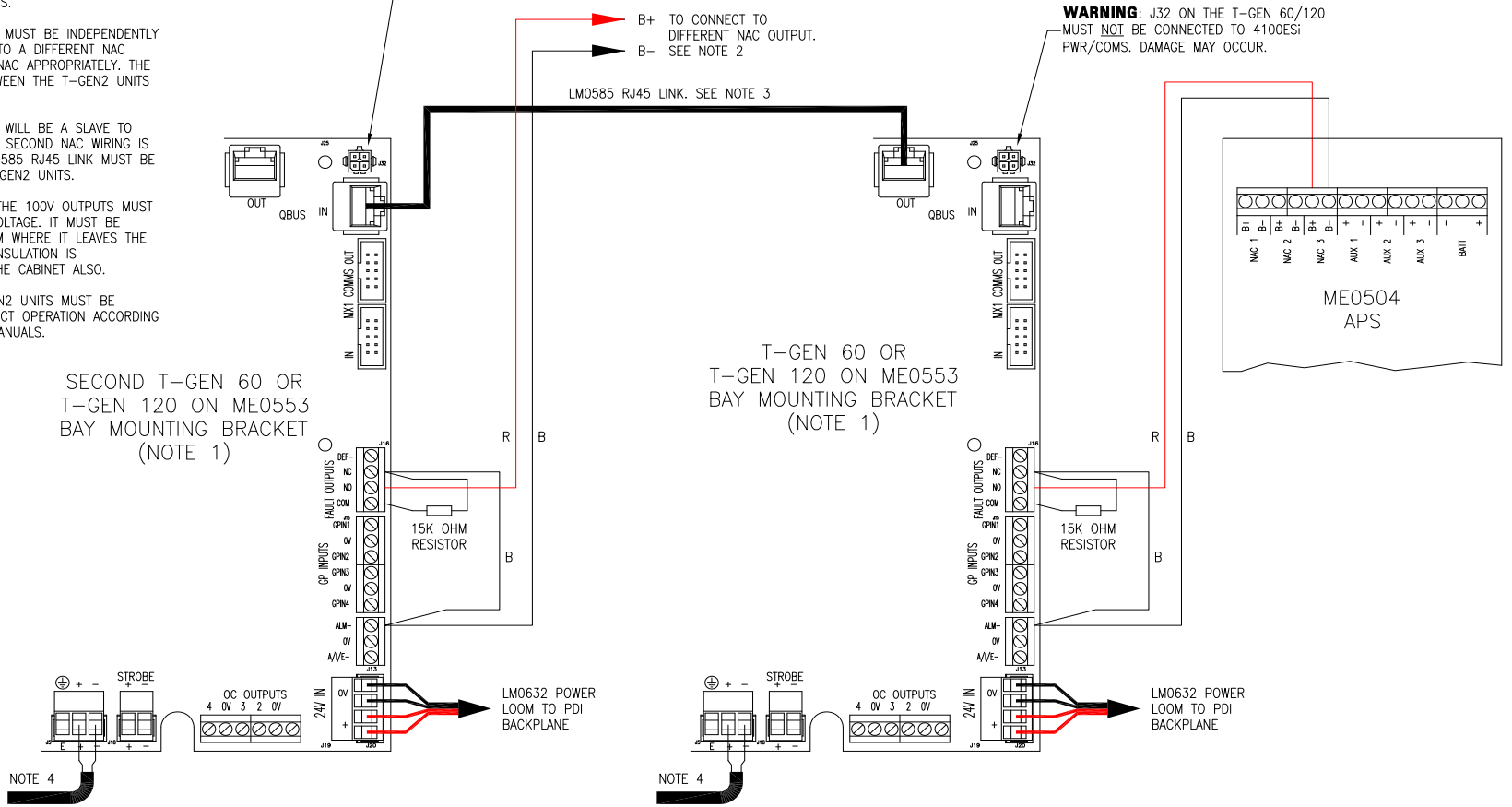
430: T-Gen 60/120 in APS Bay

NOTES

1. SELECT 4100ESi CONFIGURATION FOR SINGLE T-GEN2. FOR MULTIPLE T-GEN CONFIGURE MASTER USING SMARTCONFIG AND SELECT SLAVE, AND ADDRESS ON SLAVES.
2. IF THE SECOND T-GEN2 MUST BE INDEPENDENTLY CONTROLLED, CONNECT TO A DIFFERENT NAC OUTPUT AND PROGRAM NAC APPROPRIATELY. THE LM0585 RJ45 LINK BETWEEN THE T-GEN2 UNITS MUST NOT BE FITTED.
3. IF THE SECOND T-GEN2 WILL BE A SLAVE TO THE FIRST T-GEN2, THE SECOND NAC WIRING IS NOT REQUIRED. THE LM0585 RJ45 LINK MUST BE FITTED BETWEEN THE T-GEN2 UNITS.
4. WIRING CONNECTED TO THE 100V OUTPUTS MUST BE RATED FOR MAINS VOLTAGE. IT MUST BE DOUBLE INSULATED FROM WHERE IT LEAVES THE CABINET, AND DOUBLE INSULATION IS RECOMMENDED INSIDE THE CABINET ALSO.
5. THE 4100ESi AND T-GEN2 UNITS MUST BE CONFIGURED FOR CORRECT OPERATION ACCORDING TO THEIR RESPECTIVE MANUALS.

WARNING: J32 ON THE T-GEN 60/120 MUST NOT BE CONNECTED TO 4100ESi PWR/COMS. DAMAGE MAY OCCUR.

WARNING: J32 ON THE T-GEN 60/120 MUST NOT BE CONNECTED TO 4100ESi PWR/COMS. DAMAGE MAY OCCUR.



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	5053	KJS	LSC	RC	DC	9-8-17
B	UPDATED FOR T-GEN2 GRADE 2.	5142	KJS	PV	RC	DC	15-10-18

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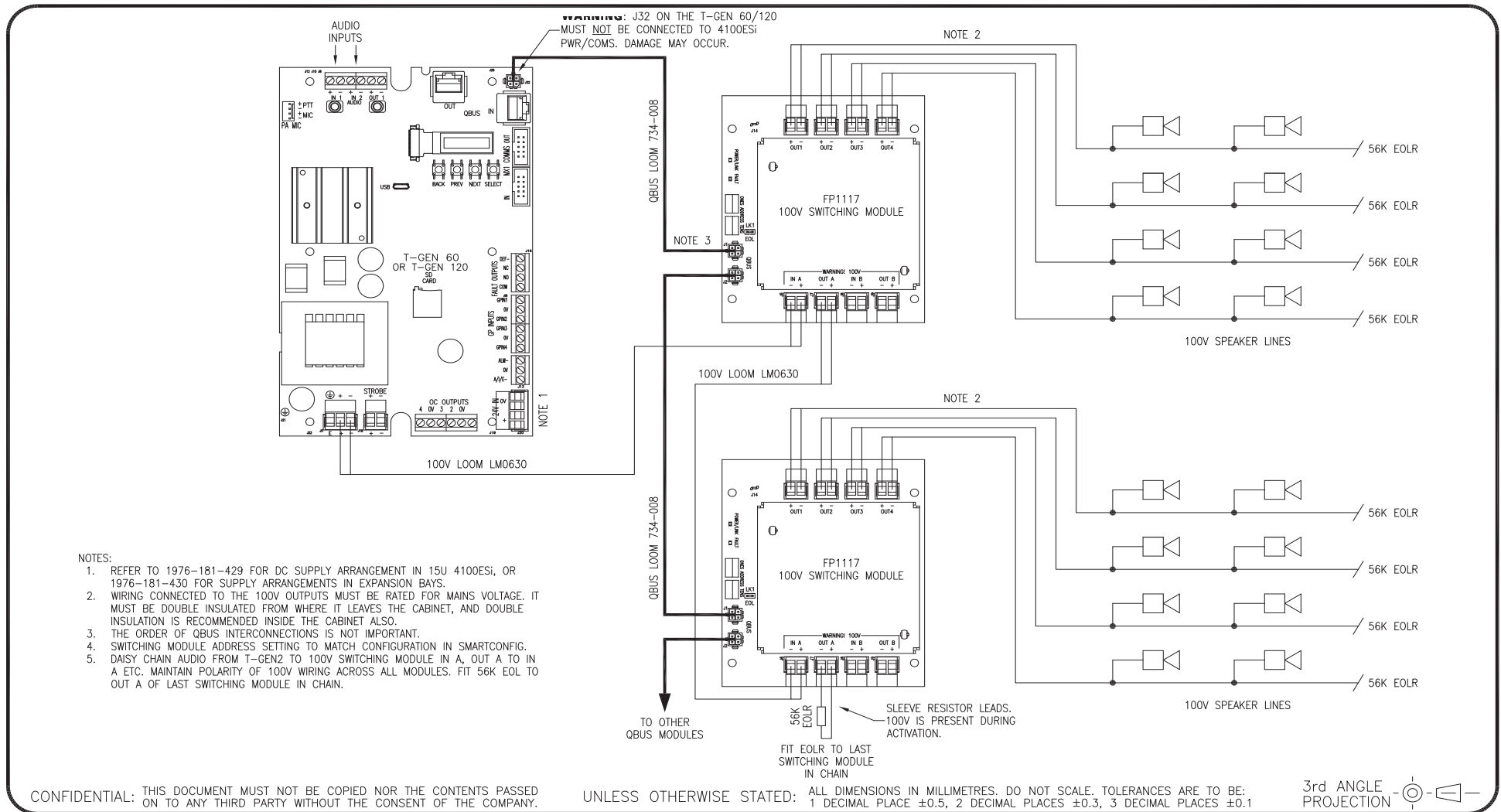
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4100ESi
T-GEN 60/120 IN APS BAY
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **430** of **N**

A3	ISS/REV	B	PART No:
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431: 100V Switching Module



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	5053	KJS	LSC	RC	DC	3-11-17
B	UPDATED FOR T-GEN2 GRADE 2.	5142	KJS	PV	RC	DC	15-10-18

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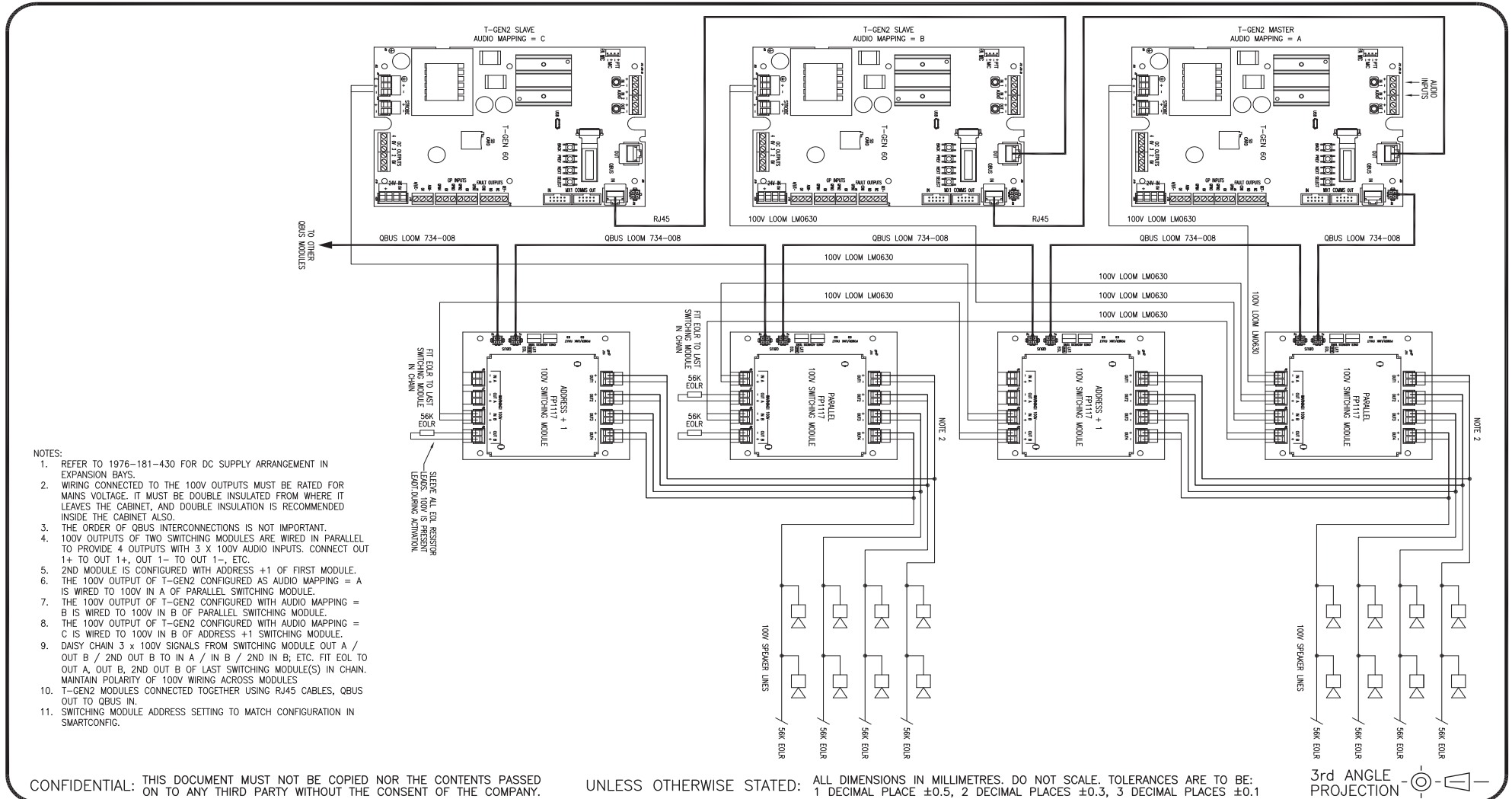
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4100ESi
SINGLE 100V SWITCHING MODULE
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **431** of **N**

A3	ISS/REV	B	PART No:
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434: Triple 100V Switching Module



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	5142	KJS	PV	RC	DC	15-10-18

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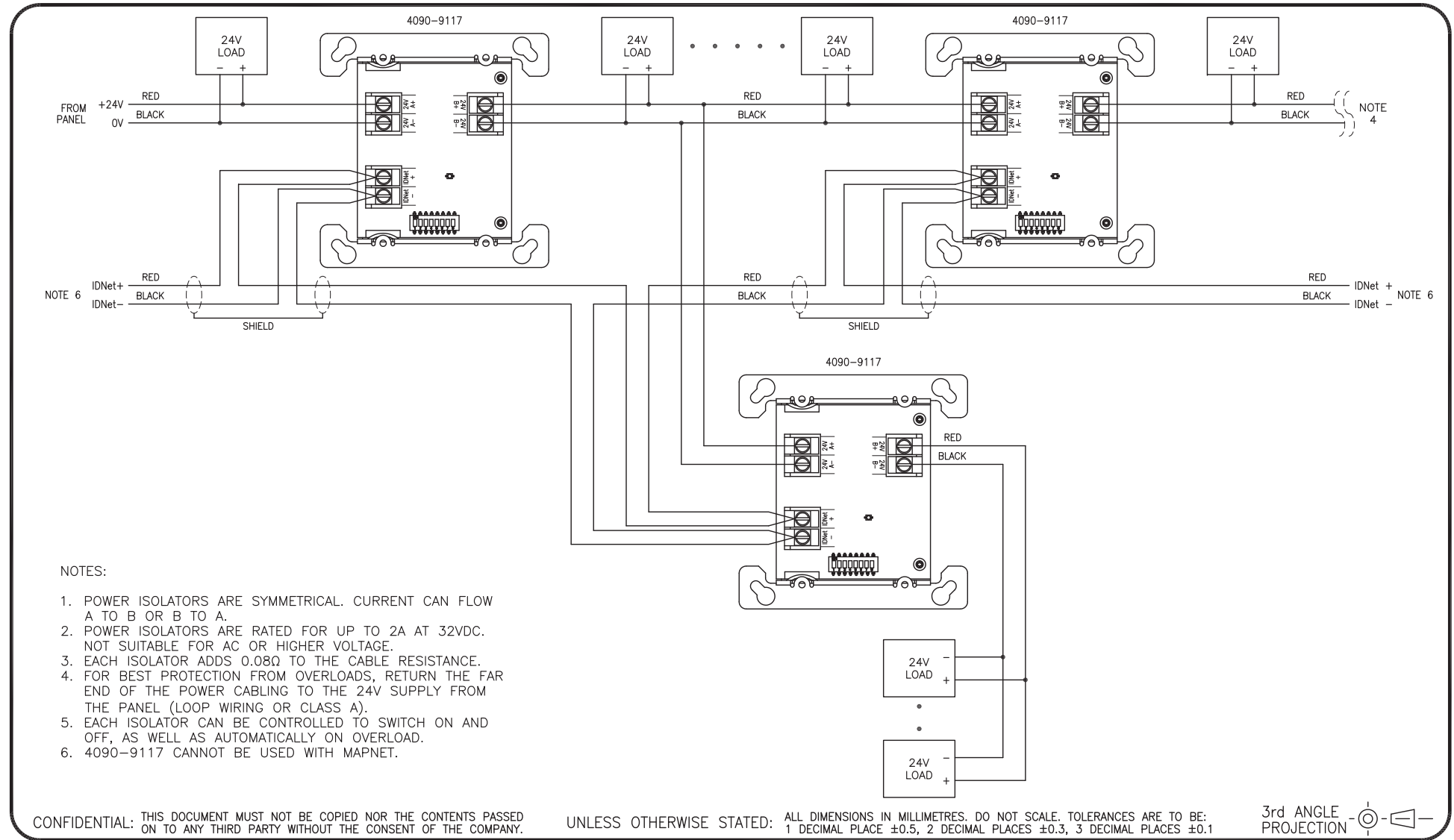
4100ESi
TRIPLE 100V SWITCHING MODULE
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **434** of **N**

A3	ISS/REV A	PART No:
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Isolators

501: IDNet Addressable Power Isolator (4090-9117AU)



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS				29-7-06
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

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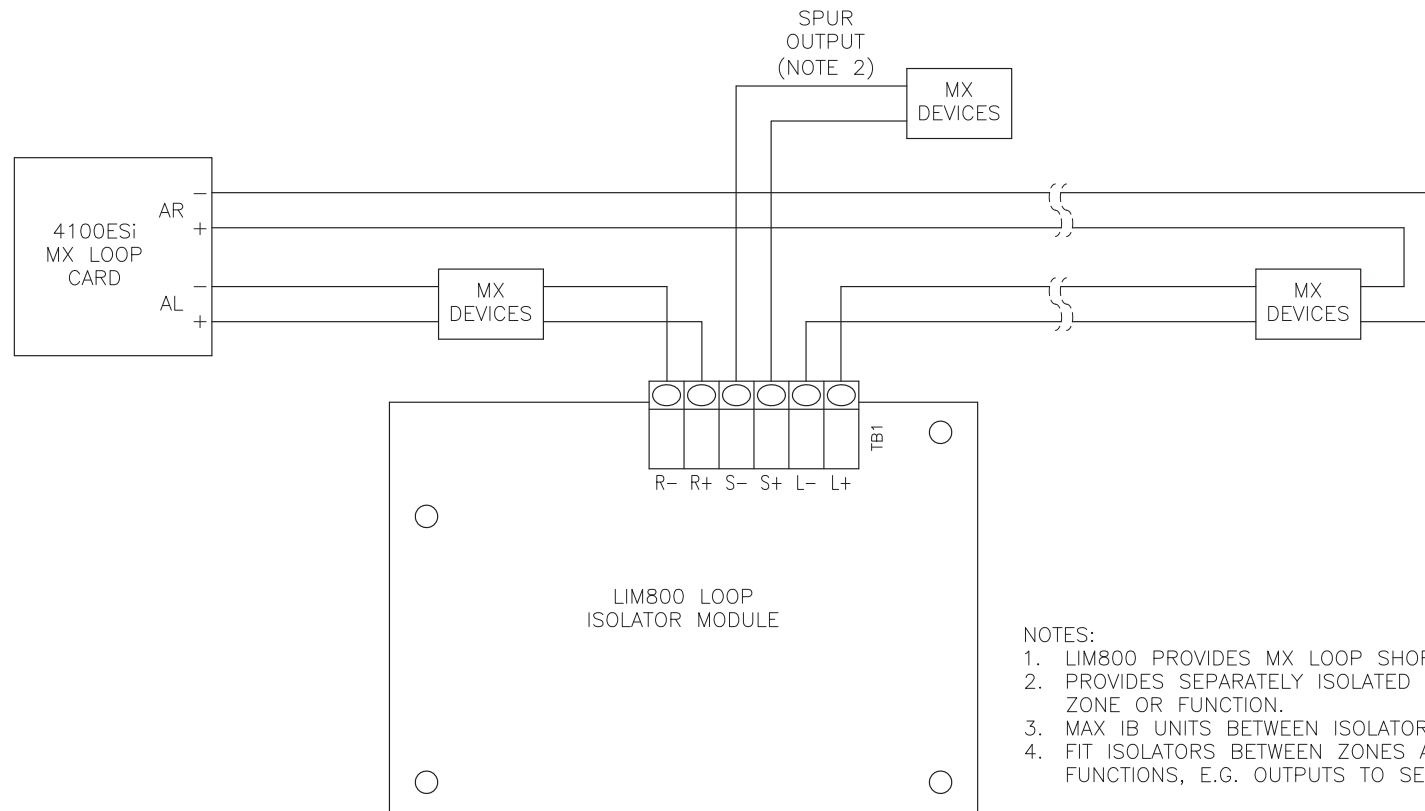
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4100ES
ADDRESSABLE POWER ISOLATOR (4090-9117)
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **501** of **N**

A3	ISS/REV B	PART No:
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502: LIM800 Loop Isolator Module



- NOTES:
1. LIM800 PROVIDES MX LOOP SHORT CIRCUIT ISOLATION.
 2. PROVIDES SEPARATELY ISOLATED SPUR OUTPUT TO A SINGLE ZONE OR FUNCTION.
 3. MAX IB UNITS BETWEEN ISOLATORS = 100 IB UNITS.
 4. FIT ISOLATORS BETWEEN ZONES AND DEVICES OF DIFFERENT FUNCTIONS, E.G. OUTPUTS TO SECURITY AND PLANT.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL, FROM 1982-71-116.	4809	KJS	LSC	RC	DK	12-11-15
B	PART NUMBERS CHANGED TO USE MX PART NUMBERS.	4936	KJS	MH	RC	DP	11-7-16

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**4100ESi
 LIM800 LOOP ISOLATOR MODULE
 WIRING DIAGRAM**

DRAWING No: **1976-181** SHEET **502** of **N**

A3	ISS/REV	B	PART No:
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Communication devices

600: Transponder Interface Card (4100-0620)

NOTES:

1. FIT FERRITE BEAD TO EACH PAIR OF WIRES LEAVING THE CABINET.
2. LOOP MODE (CLASS A) PROVIDES BEST SECURITY SINCE A FAULT IN ONE SECTION WILL NOT PREVENT COMMUNICATION. IF LOOP MODE IS NOT USED, LINK B+ TO A+ AND B- TO A- ON CPU MOTHERBOARD.
3. THE CONSTRAINTS ON RUI CIRCUIT CABLING ARE:

A. CABLE USED MUST BE 0.75 SQmm OR HEAVIER (AS 1670.1 REQUIREMENT).

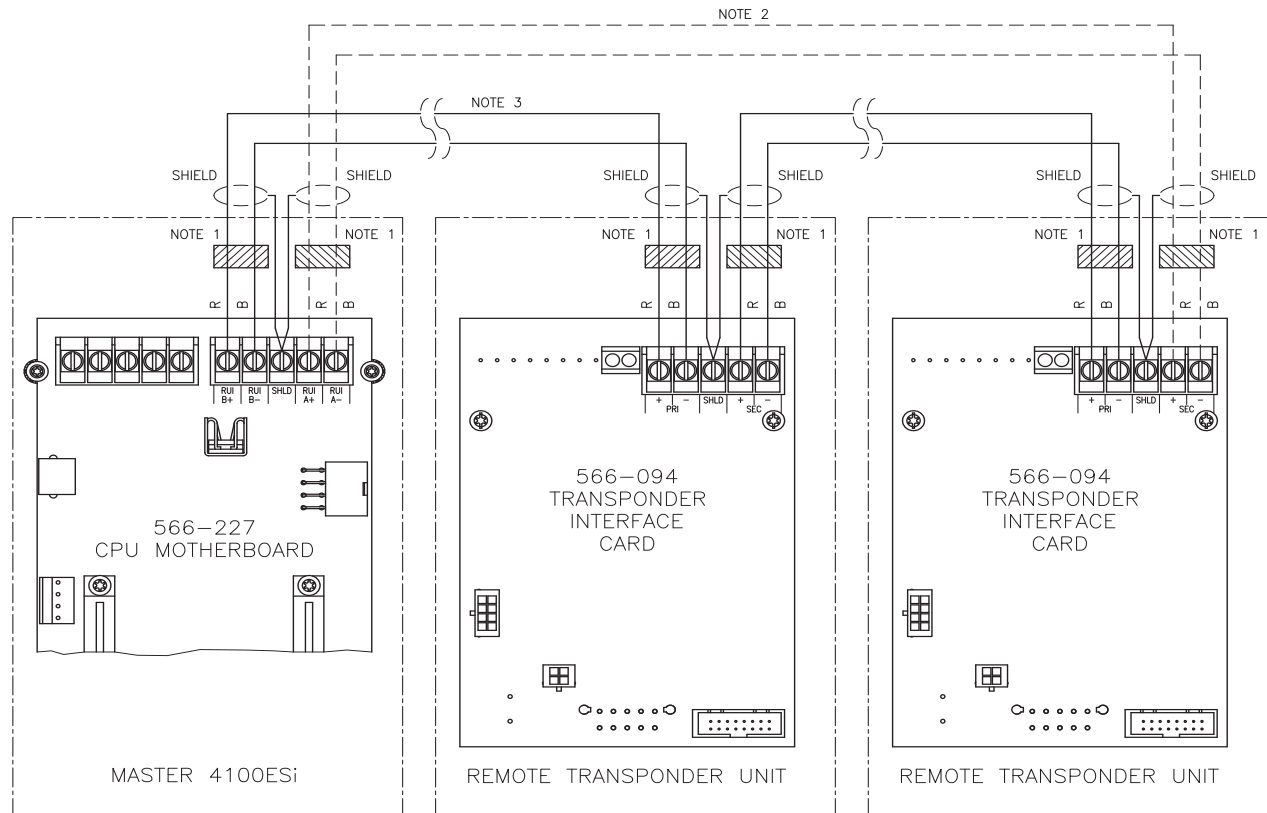
B. THE TOTAL CABLE CAPACITANCE AND RESISTANCE MUST BE NO MORE THAN 0.58µF AND 36Ω RESPECTIVELY. IF VOLTAGE TRANSIENT SUPPRESSORS ARE USED, THE ADDED CAPACITANCE AND RESISTANCE FROM THESE DEVICES MUST BE CONSIDERED.

C. FOR CLASS B/SPUR WIRING,
 i. THE CABLE DISTANCE FROM THE MASTER 4100ESi TO ANY SLAVE RTU IS NO MORE THAN 760M, AND THE COLLECTIVE DISTANCE OF ALL SPURS ON THE RUI CIRCUIT IS NO MORE THAN 3000M.
 ii. ALL INPUTS AND OUTPUTS MUST BE ON THE SAME ZONE (AS 1670.1 REQUIREMENT).

D. FOR CLASS A/LOOP WIRING,
 i. THE TOTAL CABLE DISTANCE AROUND THE LOOP IS NO MORE THAN 760M.
 ii. THERE IS NO SPECIFIC LIMIT FOR DETECTION DEVICES CONNECTED TO RTUS FORMING PART OF THE LOOP.
 iii. RTUS SERVED BY A SPUR FROM THE LOOP ARE LIMITED TO A SINGLE ZONE OR FUNCTIONS (AS 1670.1 REQUIREMENT).

E. RUI CABLING MUST NOT BE RUN CLOSER THAN 50MM TO 240V MAINS CABLING, OR CLOSER THAN 150MM TO HIGHER MAINS VOLTAGES (AS/ACIF S009 REQUIREMENT).

F. IF RUI CABLING AND MAPNET/IDNET CABLING ARE RUN IN CLOSE PARALLEL, E.G., IN CONDUIT, EITHER THE RUI OR THE MAPNET/IDNET CABLING MUST BE SCREENED.



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS				24-8-06
B	ADDED RUI CABLE REQUIREMENTS (FROM PBS0027).	4070	KJS	LSC	RC	DP	15-10-09
C	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15
D	DRG BORDER UPDATED TO JCI, NOTES UPDATED.	5053	KJS	SC	SC	DC	11-9-17

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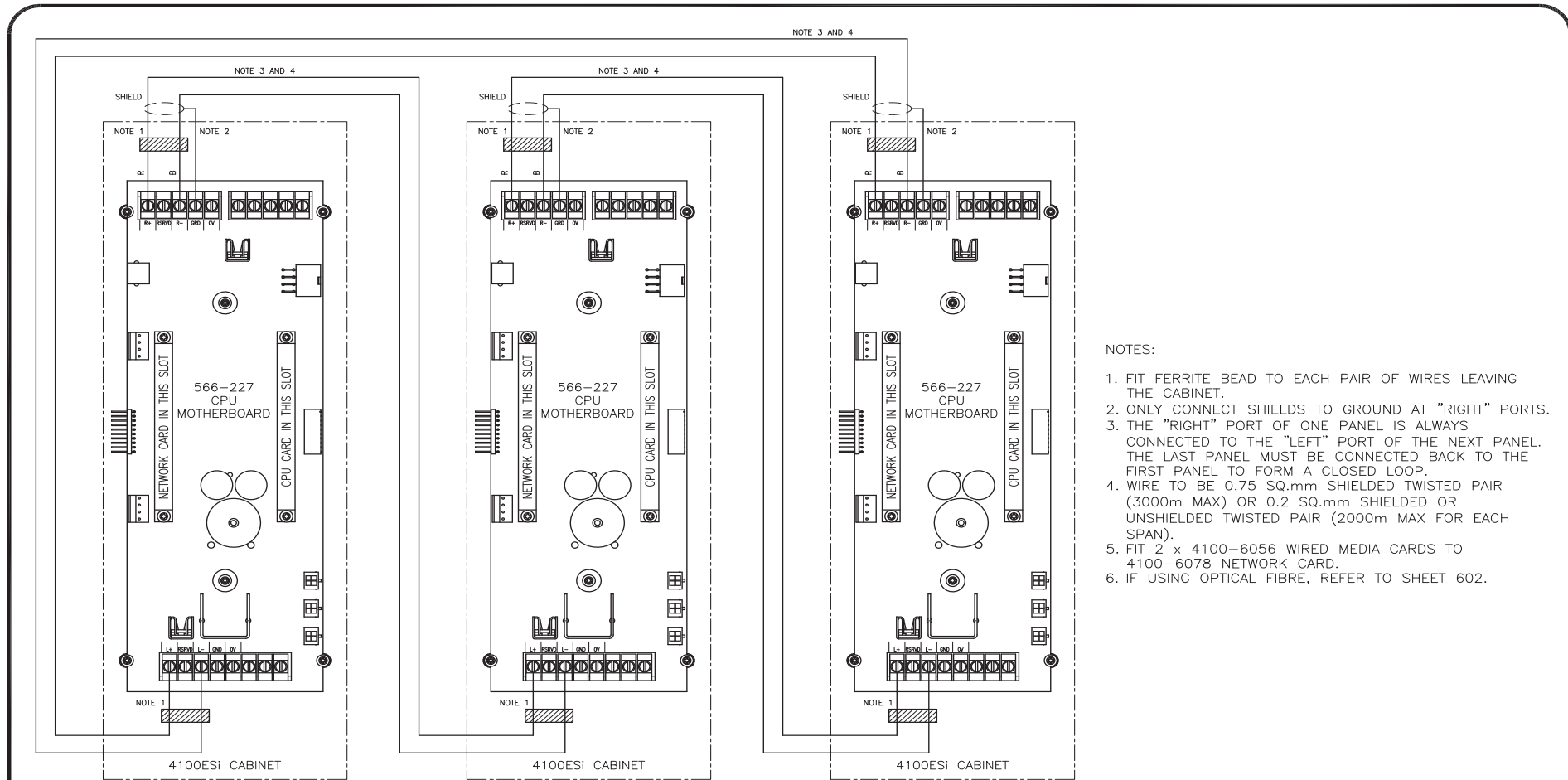
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**4100ESi
 TRANSPONDER INTERFACE (4100-0620)
 WIRING DIAGRAM**

DRAWING No: **1976-181** SHEET **600** of **N**

A3	ISS/REV D	PART No:	
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601: Network Interface Card (Wired Media) (4100-6078)



- NOTES:
1. FIT FERRITE BEAD TO EACH PAIR OF WIRES LEAVING THE CABINET.
 2. ONLY CONNECT SHIELDS TO GROUND AT "RIGHT" PORTS.
 3. THE "RIGHT" PORT OF ONE PANEL IS ALWAYS CONNECTED TO THE "LEFT" PORT OF THE NEXT PANEL. THE LAST PANEL MUST BE CONNECTED BACK TO THE FIRST PANEL TO FORM A CLOSED LOOP.
 4. WIRE TO BE 0.75 SQ.mm SHIELDED TWISTED PAIR (3000m MAX) OR 0.2 SQ.mm SHIELDED OR UNSHIELDED TWISTED PAIR (2000m MAX FOR EACH SPAN).
 5. FIT 2 x 4100-6056 WIRED MEDIA CARDS TO 4100-6078 NETWORK CARD.
 6. IF USING OPTICAL FIBRE, REFER TO SHEET 602.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS				7-9-06
B	PART NUMBER WAS 4100-6014, WAS 4100U.	4615	KJS	LSC	RC	DP	28-9-15
C	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15
D	DRG BORDER UPDATED TO JCI, NOTES UPDATED.	5053	KJS	SC	SC	DC	11-9-17

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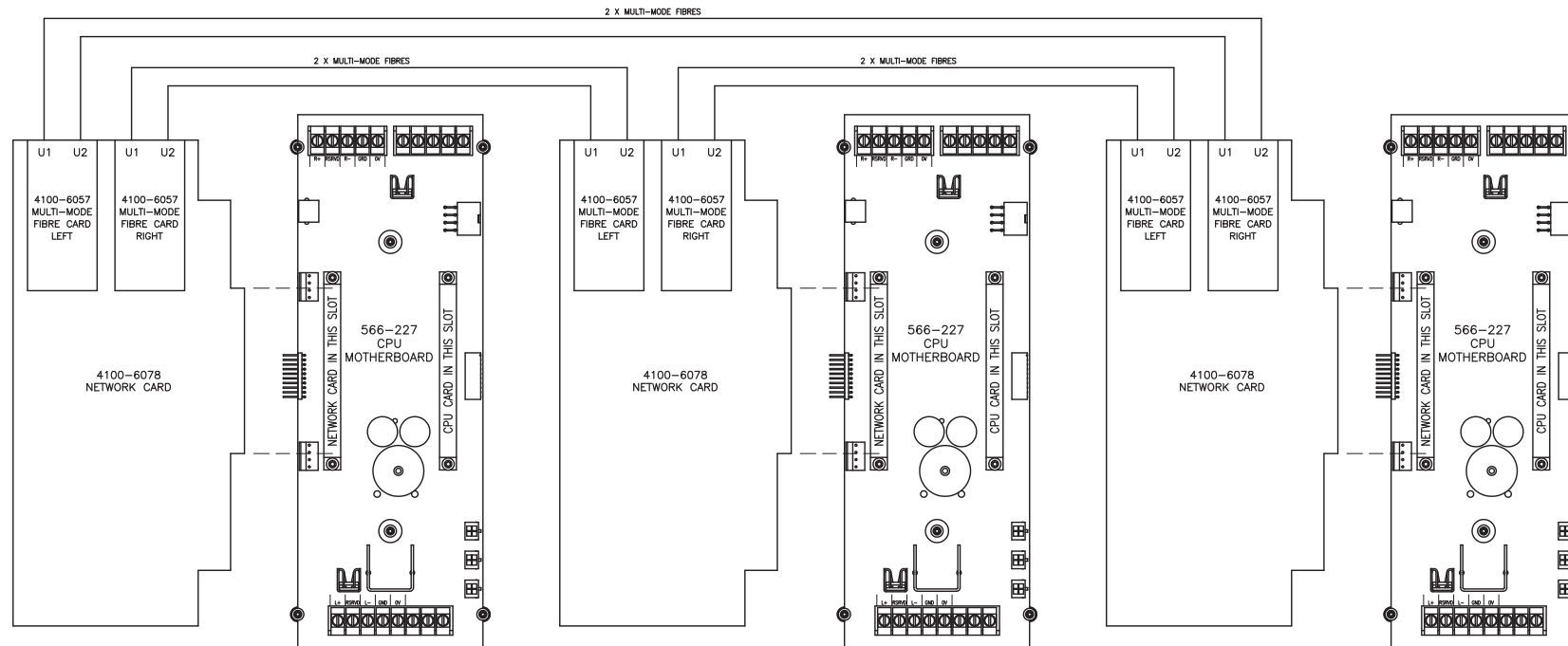
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4100ESi
NETWORK INTERFACE (WIRED MEDIA) (4100-6078)
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **601** of **N**

A3	ISS/REV D	PART No:	
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602: Network Interface Card (Fiber-optic) (4100-6078)



NOTES:

1. FIT 4100-6057 MULTI-MODE FIBRE MEDIA CARD TO 4100-6078 NETWORK INTERFACE CARD.
2. RUN MULTI-MODE FIBRE PAIR FROM U1 (TX) AND U2 (RX) OF THE RIGHT FIBRE CARD TO U2 AND U1 OF THE LEFT FIBRE CARD.
3. USE ST CONNECTORS WITH LONG STRAIN RELIEF BOOTS ON FIBRE LEADS.
4. IF ONLY SINGLE FIBRE CONNECTION AVAILABLE, USE 4190-9010 BI-DIRECTIONAL COUPLER AT EACH END TO COMBINE TX AND RX SIGNALS. REDUCED DISTANCE APPLIES.
5. USE 50u/125u OR 62.5u/125u MULTI-MODE FIBRE AND REFER TO LT0618 4100ESi INSTALLATION MANUALS FOR FIBRE LOSS CALCULATIONS AND TYPICAL MAXIMUM DISTANCES.
6. NETWORK LOOP CAN BE MIXED WIRED COPPER PAIR AND FIBRE. REFER TO SHEET 601 FOR WIRED CONNECTION DETAILS. RIGHT PORT MUST CONNECT TO LEFT PORT AROUND LOOP, REGARDLESS OF MEDIA TYPE.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS	LSC	LSC	DP	2-10-15
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

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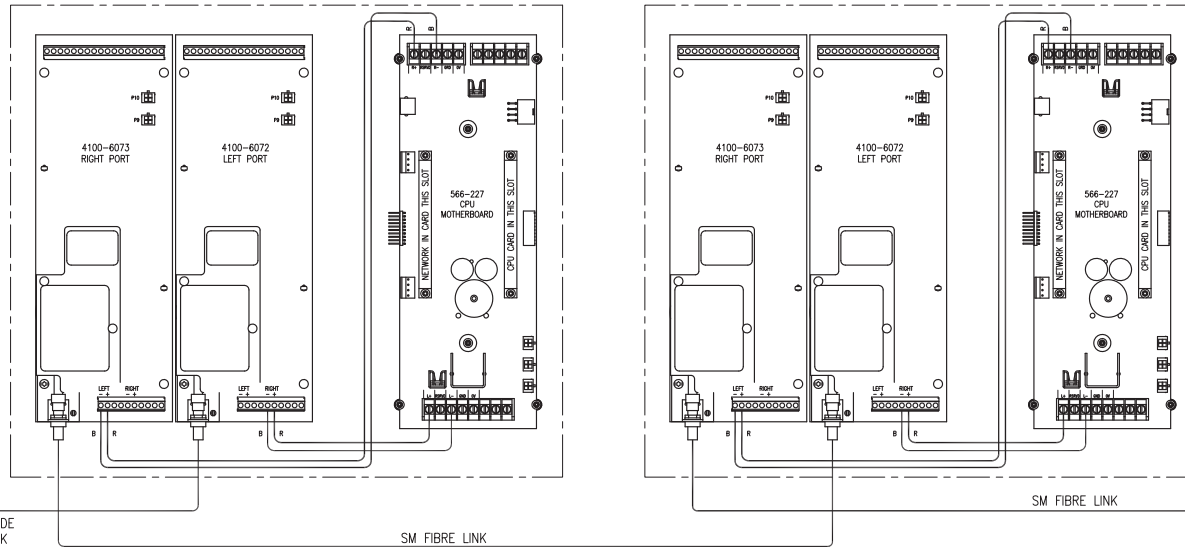
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4100ESi
NETWORK INTERFACE (FIBRE OPTIC) (4100-6057)
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **602** of **N**

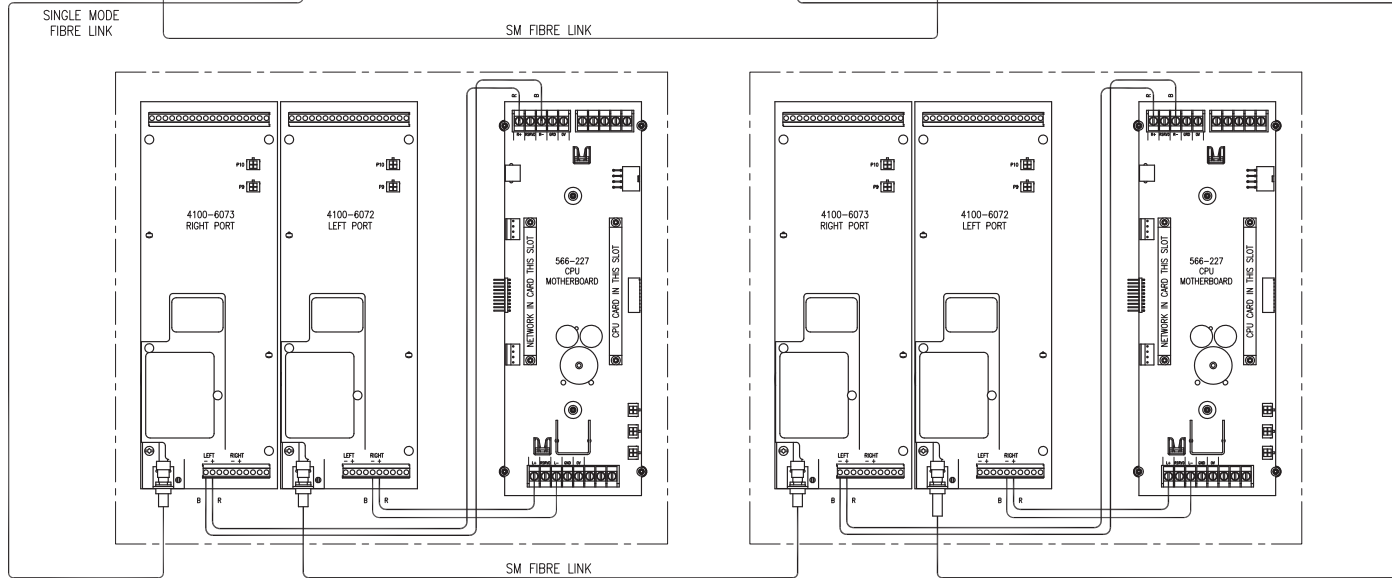
A3	ISS/REV	B	PART No:
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603: Fiber-optic Modem (4100-6072/6073) - Style 7 (Ring)



NOTES:

1. DIP SWITCH SETTINGS ON ALL FIBREOPTIC MODEM CARDS AS FOLLOWS:
 - a) SW1-6 ON FOR 8 BIT, OR OFF FOR 9 BIT OPERATION.
 - b) SW1-7 ON FOR 9600 BPS, OR OFF FOR 57.6 KBPS OPERATION.
 - c) ALL OTHER DIP SWITCHES ON THE MODEMS ARE OFF.
2. OPTIC CONNECTORS ARE ST TYPE.
3. SEE PRODUCT BULLETIN PBS0038 FOR DETAILED SPECIFICATIONS.



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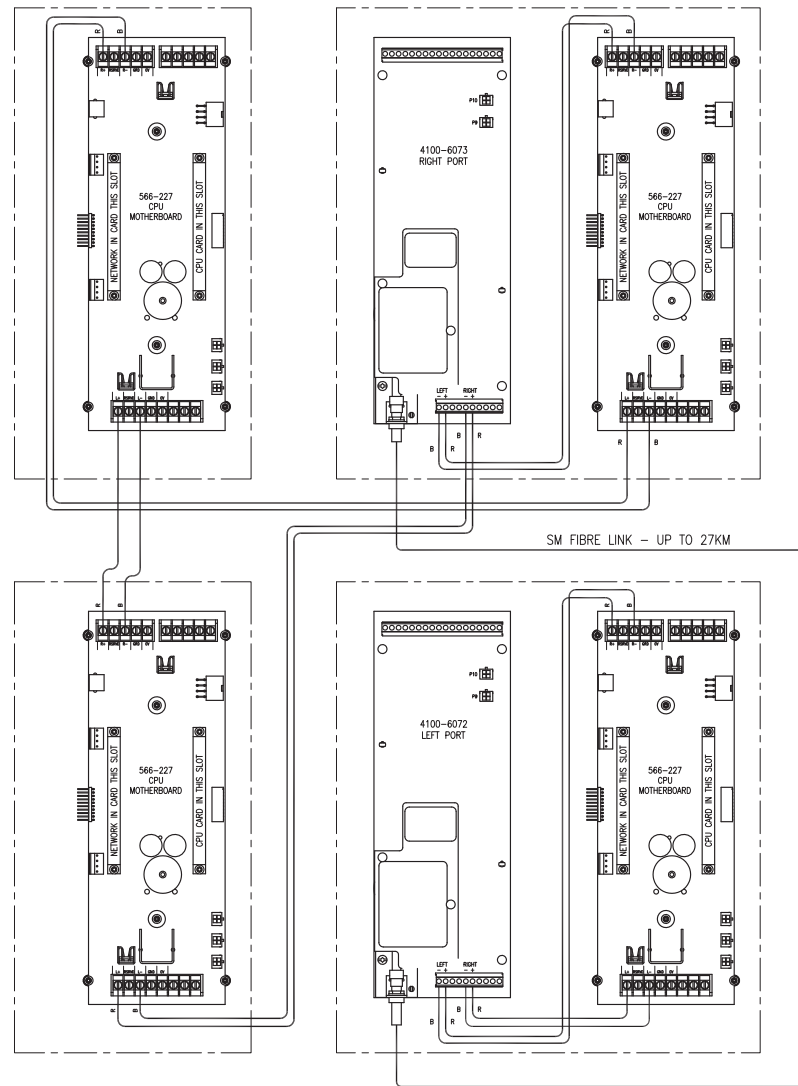
3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4615	SS	LSC	RC	DP	08-09-14
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15
C	NOTE 1b UPDATED. BPS WAS KBPS.	4977	KJS	LSC	RC	DP	2-11-16

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4100ESi
 FIBREOPTIC MODEM (4100-6072/6073)
 STYLE 7 (RING) WIRING DIAGRAM
 DRAWING No: 1976-181 SHEET 603 of N
 A2 | ISS/REV C | PART No:

604: Fiber-optic Modem (4100-6072/6073) - Style 4 (Spur)



- NOTES:
- DIP SWITCH SETTINGS ON ALL FIBREOPTIC MODEM CARDS AS FOLLOWS:
 - SW1-6 ON FOR 8 BIT, OR OFF FOR 9 BIT OPERATION.
 - SW1-7 ON FOR 9600 BPS, OR OFF FOR 57.6 KBPS OPERATION.
 - ALL OTHER DIP SWITCHES ON THE MODEMS ARE OFF.
 - OPTIC CONNECTORS ARE ST TYPE.
 - SEE PRODUCT BULLETIN PBS0038 FOR DETAILED SPECIFICATIONS.

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3rd ANGLE PROJECTION

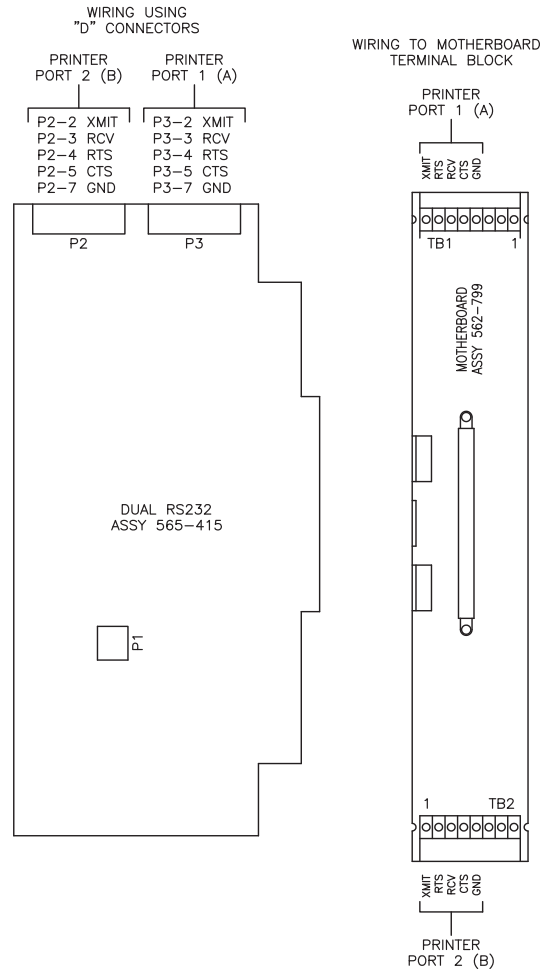
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A	ORIGINAL	4615	KJS	LSC	RC	DP	24-7-15
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15
C	NOTE 1b UPDATED. BPS WAS KBPS.	4977	KJS	LSC	RC	DP	2-11-16

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4100Esi
 FIBREOPTIC MODEM (4100-6072/6073)
 STYLE 4 (SPUR) WIRING DIAGRAM
 DRAWING No: 1976-181 SHEET 604 of N

A2	ISS/REV	C	PART No:
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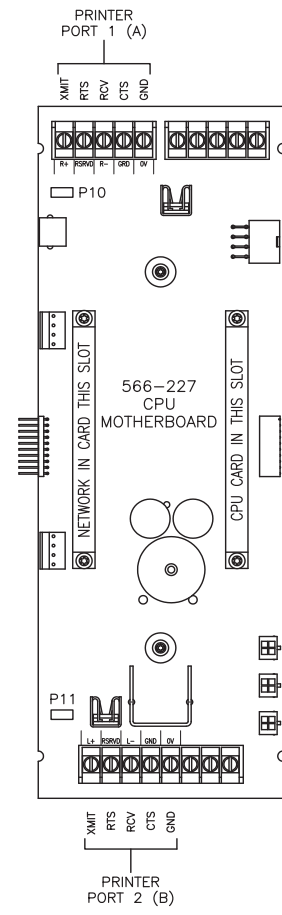
605: Dual RS232 Card (4100-0113K legacy)



- NOTES:
1. DUAL RS232 BRD 565-415 CAN BE FITTED TO 562-799 OR 566-227 MOTHERBOARD.
 2. WIRING FOR RS232 SERIAL PORT CAN BE TO SCREW TERMINALS ON MOTHERBOARD OR TO D25 MALE/FEMALE CONNECTOR (P3 OR P2) ON DUAL RS232 ASSY (565-415).
 3. CTS INPUT NEEDS TO BE ASSERTED (>2V) FOR TRANSMIT.
 4. SERIAL DEFINITIONS:

SIGNAL	NAME	INPUT/OUTPUT
XMIT	TRANSMIT DATA	OUTPUT FROM 4100
RCV	RECEIVE DATA	INPUT TO 4100
RTS	REQUEST TO SEND	OUTPUT FROM 4100
CTS	CLEAR TO SEND	INPUT TO 4100
GND	GROUND (0V)	REFERENCE (0V)

5. FIT JUMPERS TO RS232 POSITION OF P7, P8, P9, P10 ON RS232 CARD.
6. CPU MOTHERBOARD P10 AND P11, FIT LINKS TO 2-3 FOR RS232.
7. PORTS ARE ELECTRICALLY ISOLATED FROM EACH OTHER AND FROM THE 4100 SYSTEM.



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4615	KJS	LSC	RC	DP	9-7-15
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

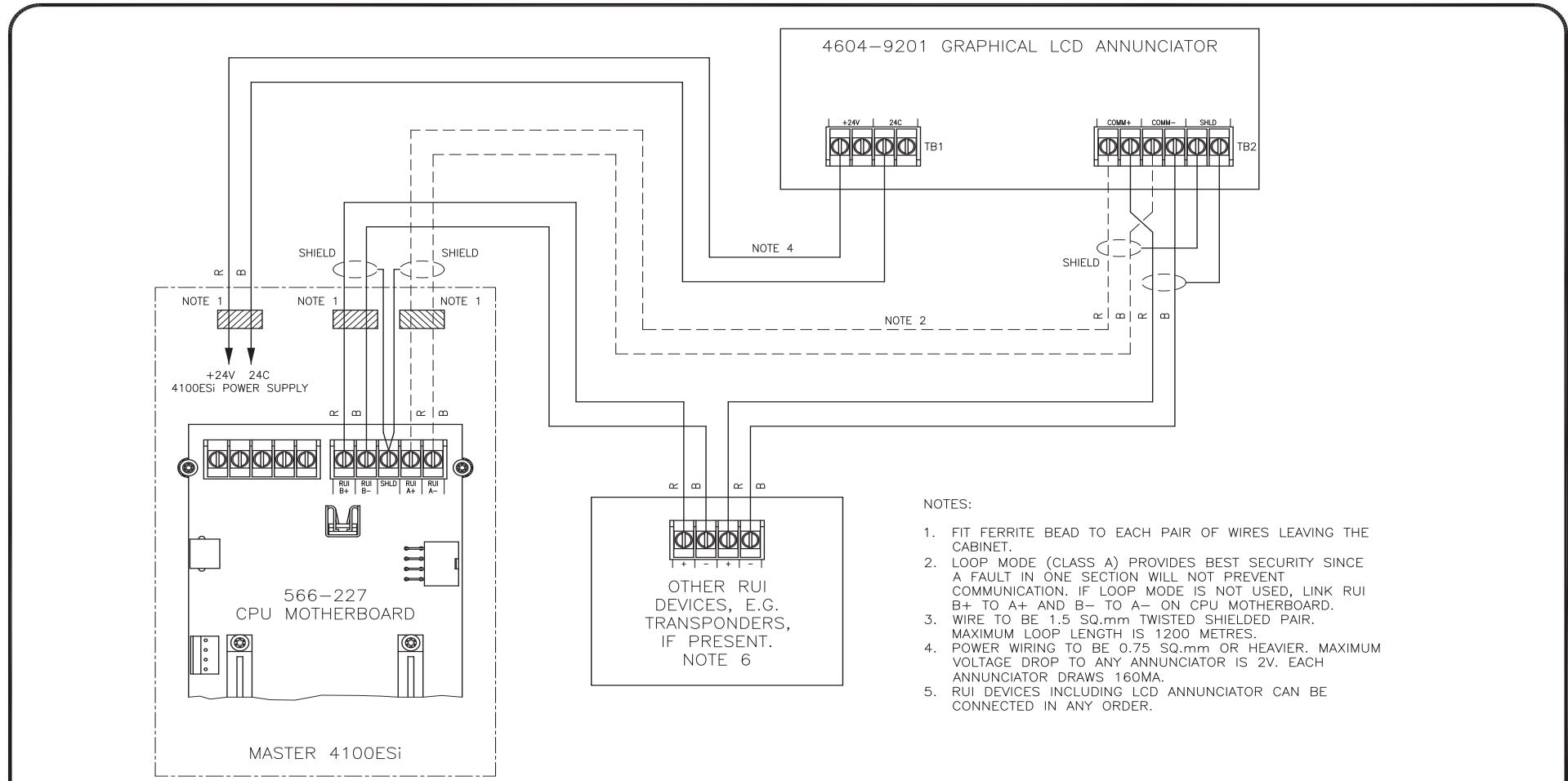
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4100ES
DUAL RS232 CARD (4100-0113K)
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **605** of **N**

A3	ISS/REV B	PART No:	
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606: LCD Annunciator (4604-9201)



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS				8-9-06
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15
C	DRG BORDER UPDATED TO JCI, NOTES UPDATED.	5053	KJS	SC	SC	DC	11-9-17

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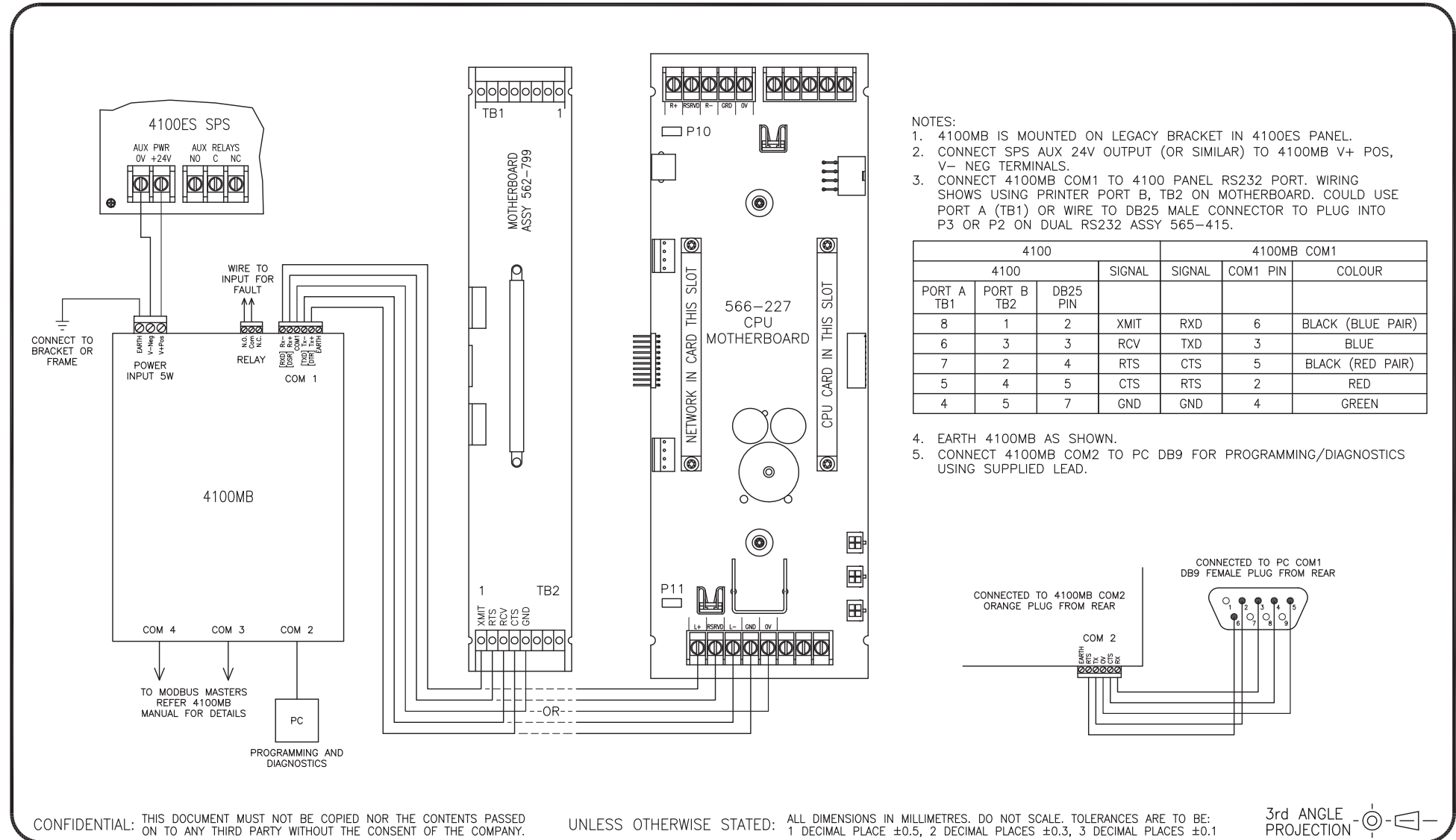
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**4100ESi
 LCD ANNUNCIATOR (4604-9201)
 WIRING DIAGRAM**

DRAWING No: **1976-181** SHEET **606** of **N**

A3	ISS/REV C	PART No:	
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607: 4100MB Modbus Interface (4100-0113K legacy)



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4615	KJS	LSC	RC	DP	9-7-15

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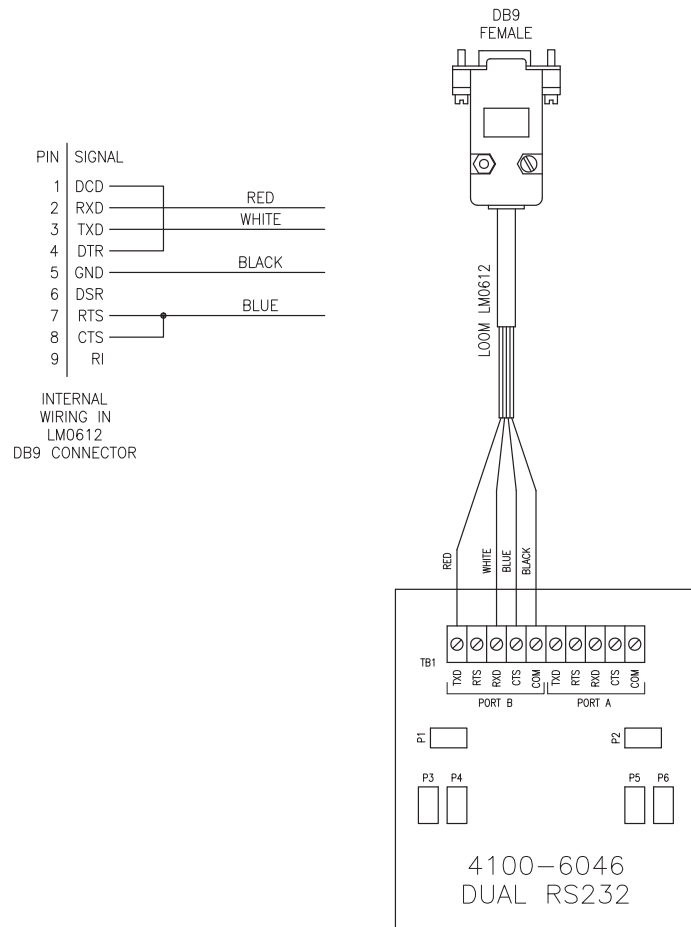
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4100ES
4100MB MODBUS INTERFACE
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **607** of **N**

A3	ISS/REV	A	PART No:
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608: Dual RS232 PDI Card (4100-6046)



4100-6046 SIGNAL	LM0612 COLOUR	DESCRIPTION
TXD	RED	DATA OUTPUT FROM 4100ESi
RXD	WHITE	DATA INPUT TO 4100ESi
RTS		
CTS	BLUE	STATUS SIGNAL TO 4100ESi
COM	BLACK	COMMON REFERENCE

NOTES:

1. LM0612 ALLOWS THE 4100-6046 PORT TO BE CONNECTED DIRECTLY TO A DTE (PC, PRINTER, ETC) WITH DB9 MALE CONNECTOR.
2. LM0612 CAN BE USED WITH EITHER PORT A OR B.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4977	KJS	LSC	RC	DP	2-11-16

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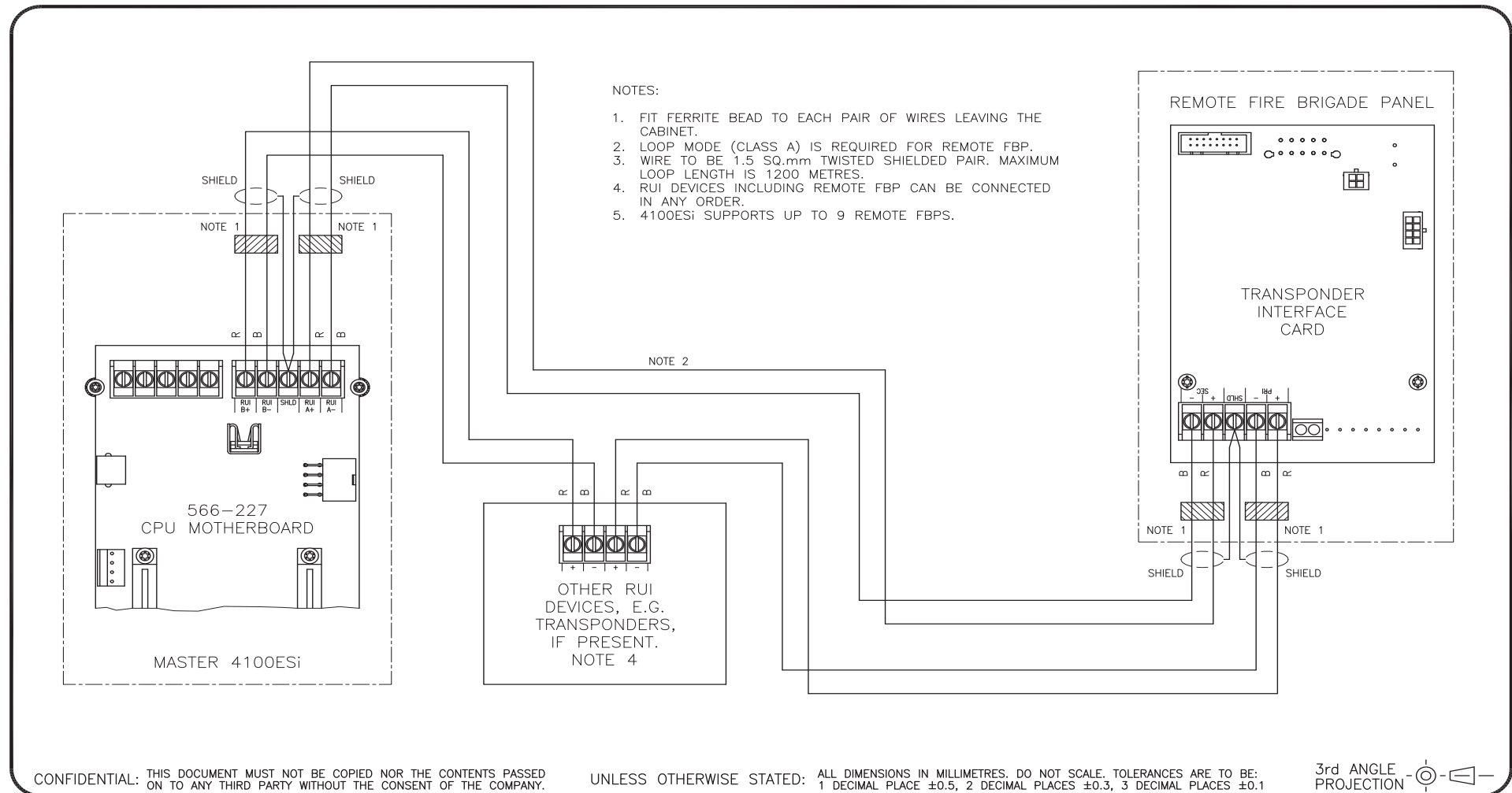
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**4100ESi
DUAL RS232 PDI CARD (4100-6046)
WIRING DIAGRAM**

DRAWING No: **1976-181** SHEET **608** of **N**

A3	ISS/REV A	PART No:	
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609: Remote Fire Brigade Panel (4100-FP1048)



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4809	KJS	LSC	RC	DK	23-12-15
B	DRG BORDER UPDATED TO JCI, NOTES UPDATED.	5053	KJS	SC	SC	DC	11-9-17

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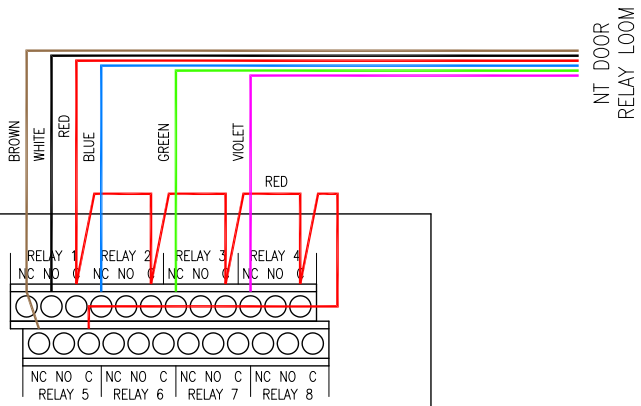
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4100ESi
REMOTE FIRE BRIGADE PANEL (FP1048)
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **609** of **N**

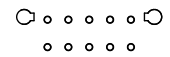
A3	ISS/REV B	PART No:
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610: NT Brigade Door (FP1093) wiring to APS/LPS



8 POINT / 3A

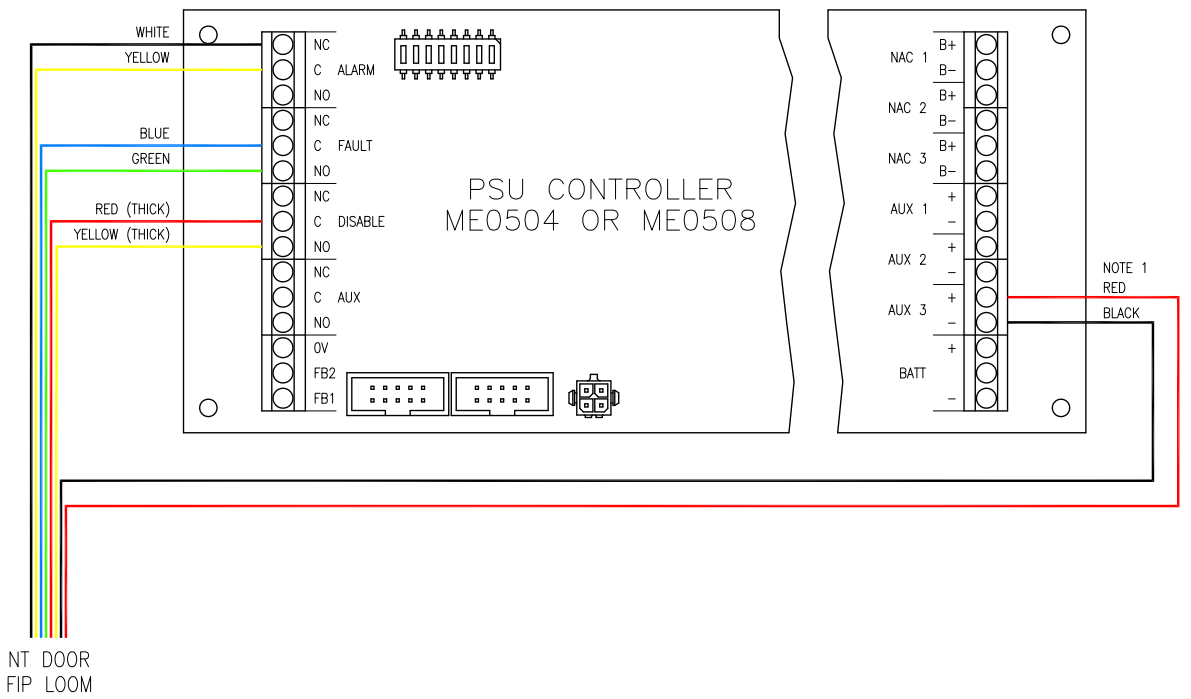
8 POINT RELAY
4100-3206



NOTES:

- 1. DO NOT CONNECT FIELD WIRING TO SAME AUX POWER AS THE NTFast UNIT.

RELAY	FUNCTION	MIRI INPUT	WIRE COLOUR
RLY 1 (NO)	SPRINKLER PUMP RUNNING	9	WHITE
RLY 2 (NC)	MCP	11	BLUE
RLY 3 (NC)	TAMPER SWT 1 (FIP DOOR)	12	GREEN
RLY 4 (NC)	TAMPER SWT 2 (SPRINKLER TAMPER)	13	VIOLET
RLY 5 (NC)	FIP AC POWER FAILURE	14	BROWN
COMMON	12 VOLTS	+12V	RED



NT DOOR
FIP LOOM

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ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4856	KJS	RC	RC	DP	14-12-15

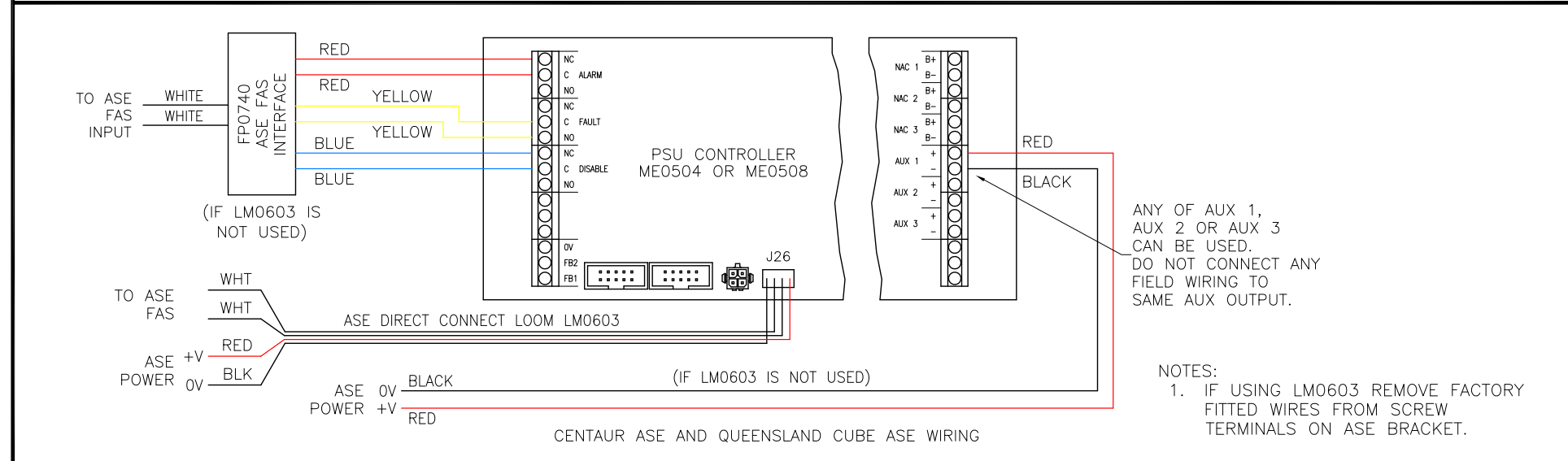
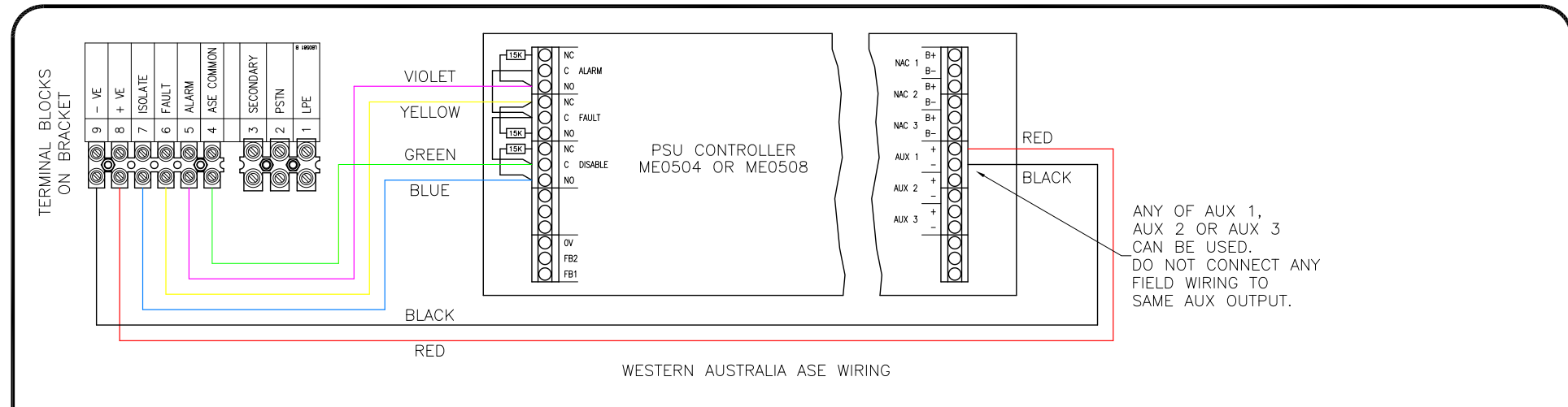
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4100ESi
NT BRIGADE DOOR TO APS
WIRING DETAILS

DRAWING No: 1976-181 SHEET 610 of N

A2	ISS/REV	A	PART No: FP1093
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611: Centaur/WA/Cube ASE to APS/LSP



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ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL, FROM 1976-286 SHT 3.	4809	KJS	LSC	RC	DK	18-12-15

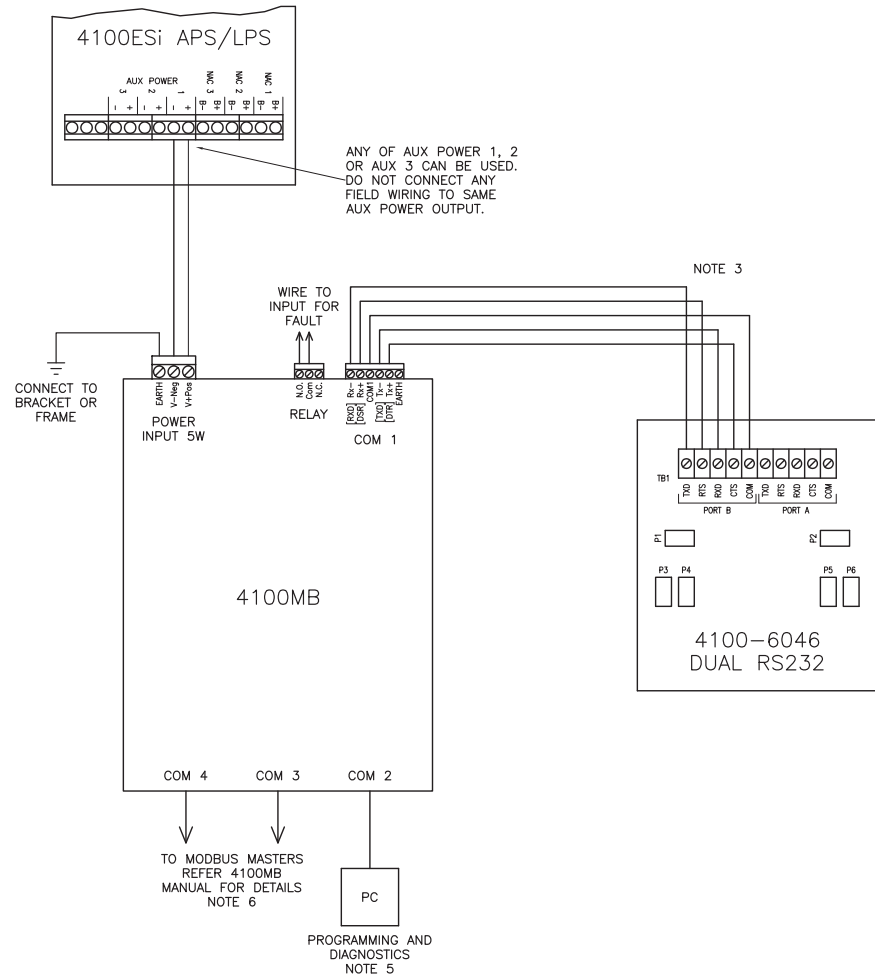
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4100ESi
CENTAUR / WA / CUBE ASE TO APS / LPS
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **611** of **N**

A3 | ISS/REV **A** | PART No:

612: 4100MB Modbus Interface (4100-6046 PDI)

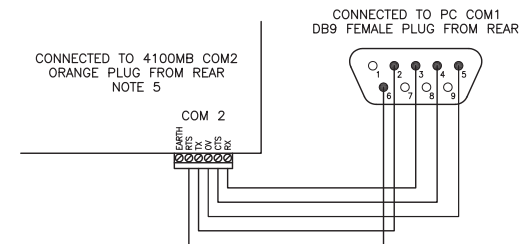


NOTES:

1. 4100MB IS MOUNTED ON LEGACY BRACKET IN 4100ES AND 4100ESi PANEL.
2. CONNECT APS/LPS AUX 24V OUTPUT (ANY) TO 4100MB V+ POS, V- NEG TERMINALS. DO NOT CONNECT ANY OTHER FIELD WIRING TO THIS 24V OUTPUT.
3. CONNECT 4100MB COM1 PORT TO 4100-6046 RS232 PORT. WIRING FOR PORT B IS SHOWN, BUT PORT A CAN BE USED INSTEAD. SET P1 OR P2 TO SUPV, AND P3/P4 OR P5/P6 TO ISO, DEPENDING ON WHICH PORT IS USED.

4100-6046	4100MB COM1		
SIGNAL	SIGNAL	COM1 PIN	COLOUR
XMIT	RXD	6	BLACK (BLUE PAIR)
RCV	TXD	3	BLUE
RTS	DSR	5	BLACK (RED PAIR)
CTS	DTR	2	RED
GND	GND	4	GREEN

4. EARTH 4100MB AS SHOWN.
5. CONNECT 4100MB COM2 TO PC DB9 FOR PROGRAMMING/DIAGNOSTICS USING SUPPLIED LEAD.
6. REFER TO 4100MB INSTALLATION AND CONFIGURATION MANUAL FOR 4100MB AND 4100ESi SETUP.



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4809	KJS	LSC	RC	DK	23-12-15

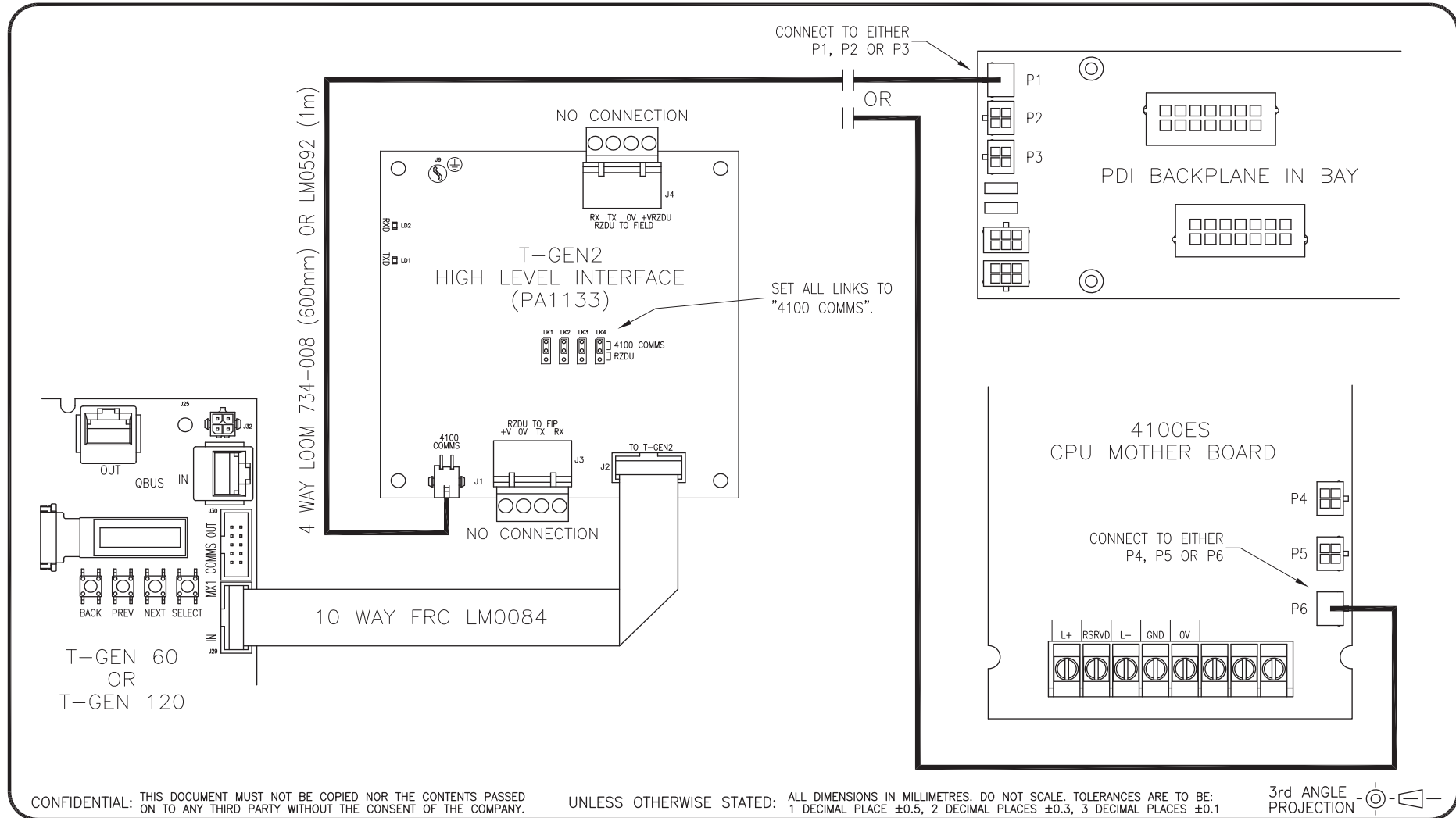
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**4100ESi
 4100MB MODBUS INTERFACE (PDI)
 WIRING DIAGRAM**

DRAWING No: **1976-181** SHEET **612** of **N**

A3	ISS/REV A	PART No:
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614: T-GEN2 High Level Interface



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ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	5140	KJS	RC	RC	DC	30-4-18

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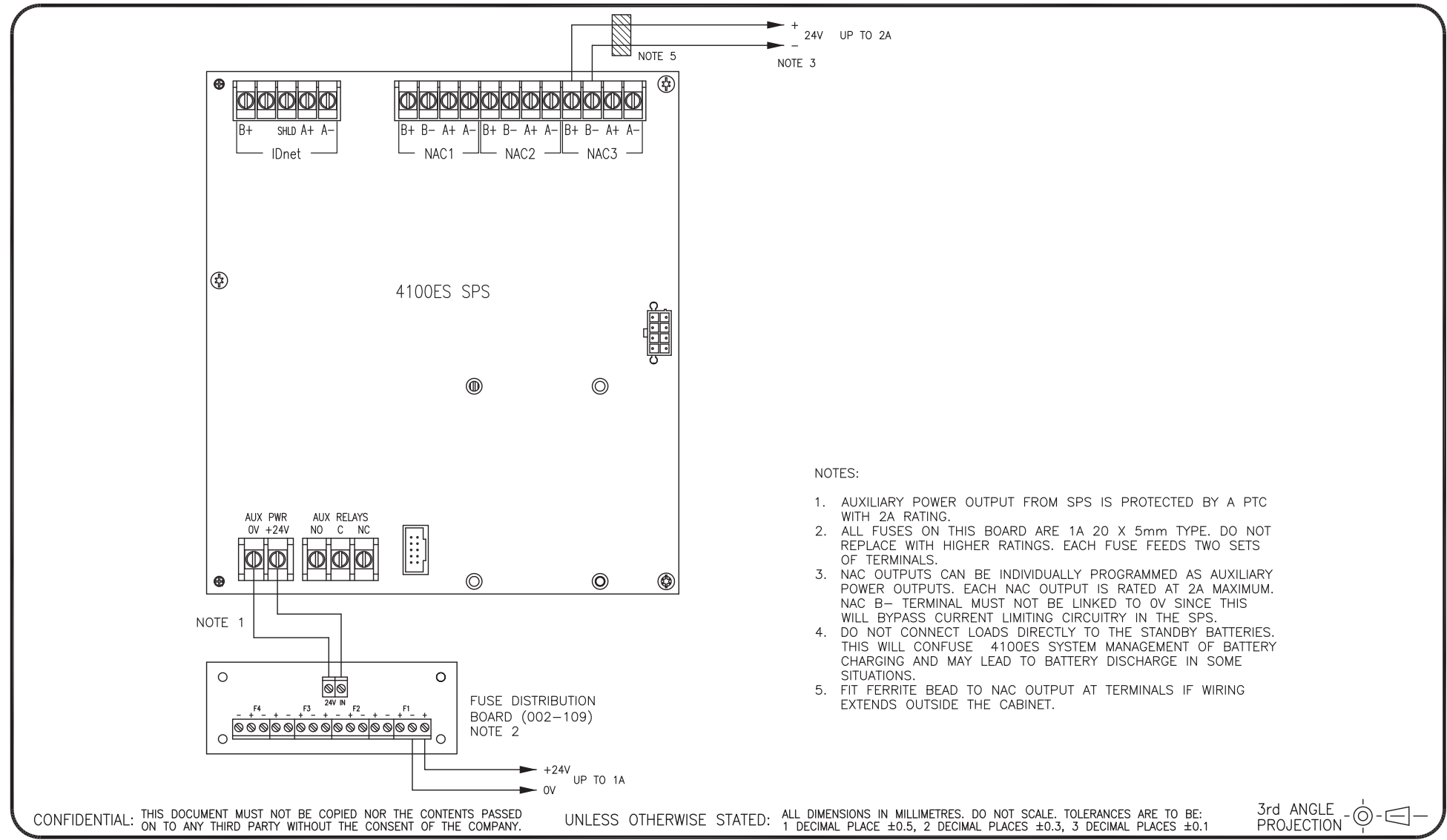
**4100ESi
 T-GEN2 HLI MODULE
 WIRING DIAGRAM**

DRAWING No: **1976-181** SHEET **614** of **N**

A3	ISS/REV A	PART No:	
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Power supplies

700: SPS Power Outputs (4100-9848AU)



NOTES:

1. AUXILIARY POWER OUTPUT FROM SPS IS PROTECTED BY A PTC WITH 2A RATING.
2. ALL FUSES ON THIS BOARD ARE 1A 20 X 5mm TYPE. DO NOT REPLACE WITH HIGHER RATINGS. EACH FUSE FEEDS TWO SETS OF TERMINALS.
3. NAC OUTPUTS CAN BE INDIVIDUALLY PROGRAMMED AS AUXILIARY POWER OUTPUTS. EACH NAC OUTPUT IS RATED AT 2A MAXIMUM. NAC B- TERMINAL MUST NOT BE LINKED TO 0V SINCE THIS WILL BYPASS CURRENT LIMITING CIRCUITRY IN THE SPS.
4. DO NOT CONNECT LOADS DIRECTLY TO THE STANDBY BATTERIES. THIS WILL CONFUSE 4100ES SYSTEM MANAGEMENT OF BATTERY CHARGING AND MAY LEAD TO BATTERY DISCHARGE IN SOME SITUATIONS.
5. FIT FERRITE BEAD TO NAC OUTPUT AT TERMINALS IF WIRING EXTENDS OUTSIDE THE CABINET.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	-	KJS	SC			20-9-06
B	NOTE 2 CHANGED.	-	KJS				5-10-06
C	FERRITE ADDED TO NAC OUTPUT	4352	KJS	LSC	RC	DP	16-4-12
D	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	12-1-16

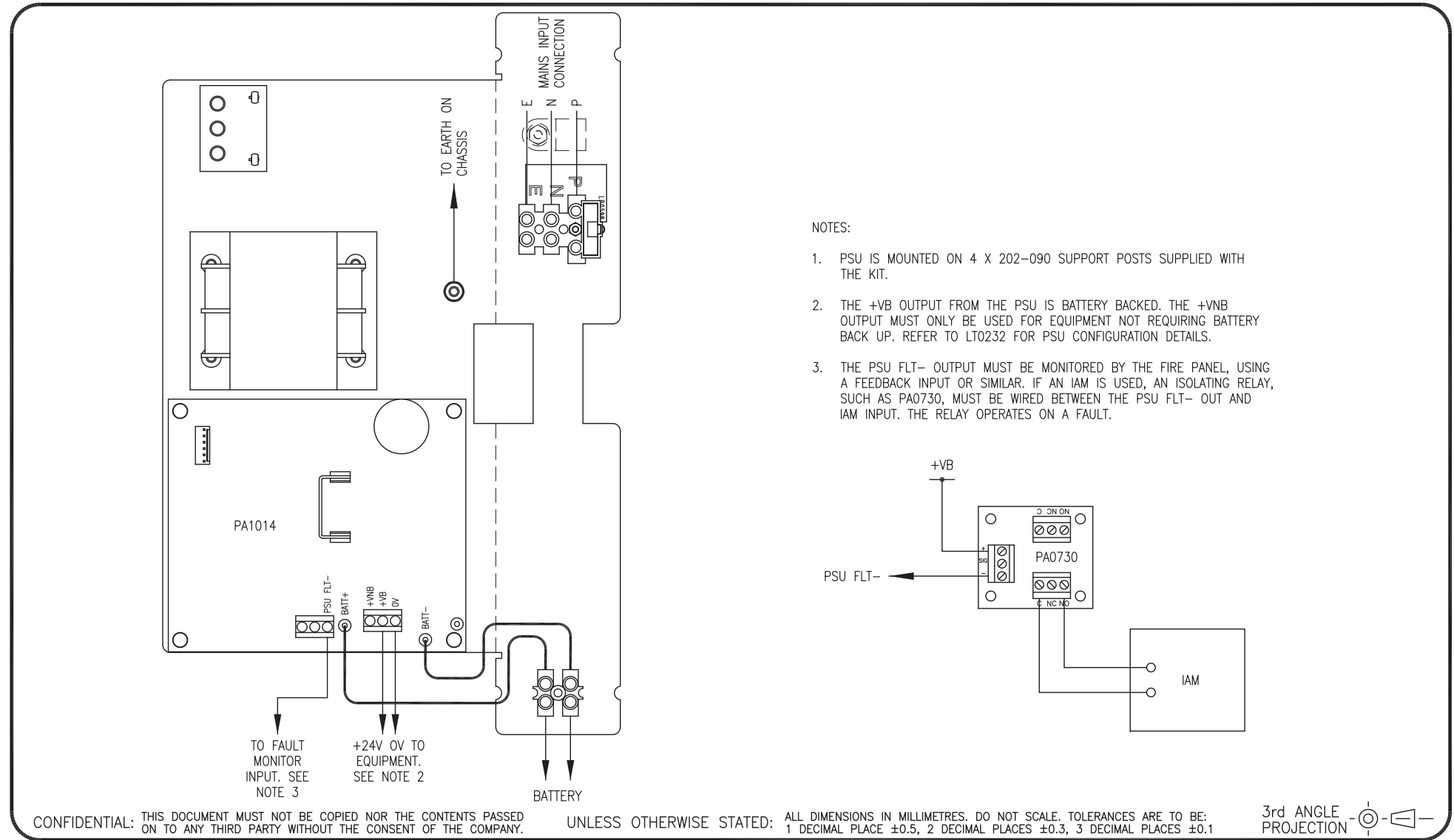
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**4100ES
 SPS POWER OUTPUTS
 WIRING DIAGRAM**

DRAWING No: **1976-181** SHEET **700** of **N**

A3	ISS/REV	D	PART No:
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701: 1948 2A PSU Outputs



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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4070	KJS	LSC	RC	DP	15-10-09
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	12-1-16

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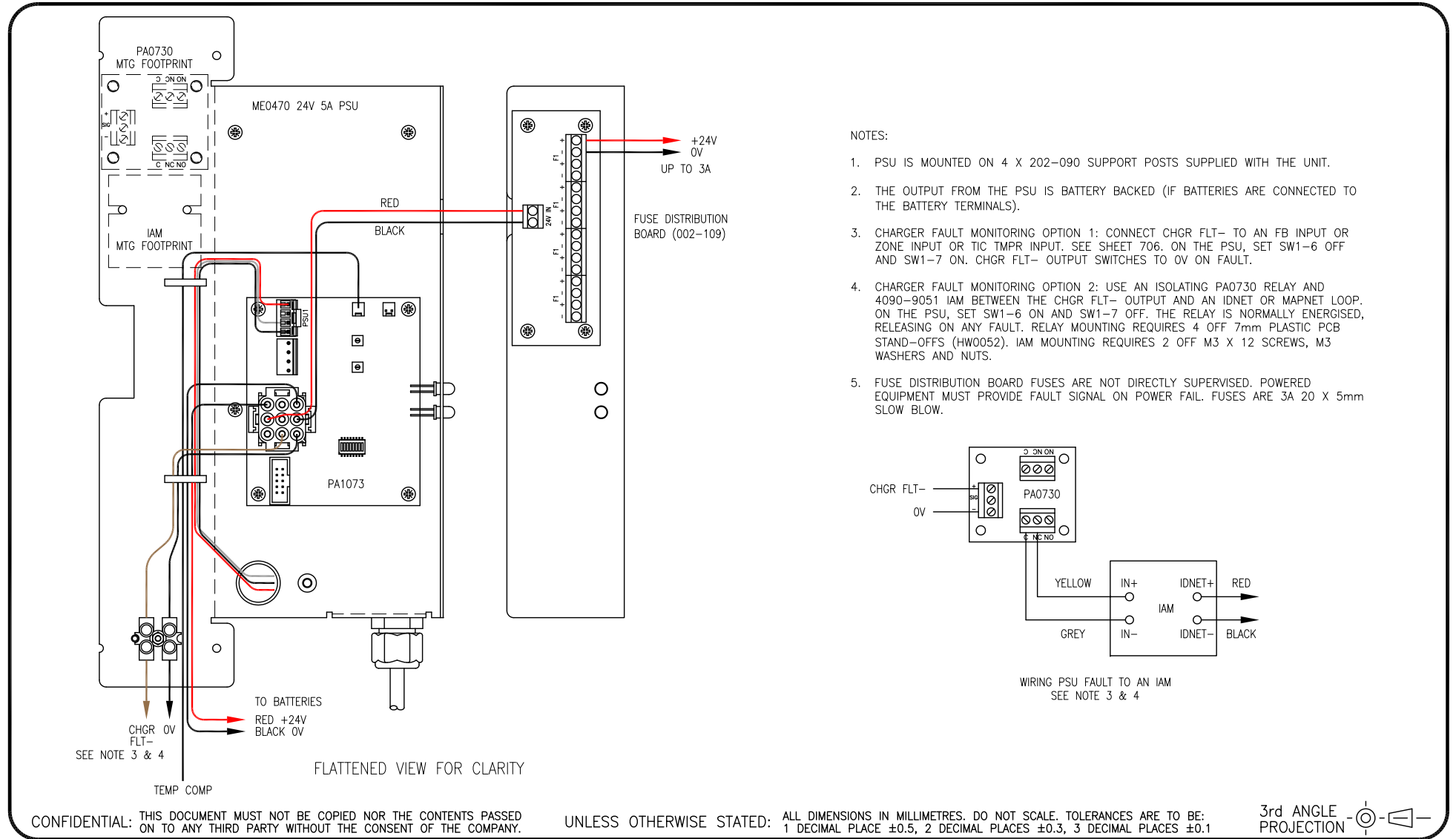
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4100ES
1948 2A PSU POWER OUTPUTS
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **701** of **N**

A3	ISS/REV	B	PART No:
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702: 4100U 5A PSU Outputs



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4391	KJS	GEL	LSC	DP	20-8-12
B	NOTE 4 UPDATED. IAM AND PA0730 LOCATION CHANGED.	4420	KJS	GEL	LSC	DP	20-12-12
C	NOTE 4 UPDATED. HW0052 WAS HW0131.	4651	KJS	LSC	RC	DP	24-7-15
D	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

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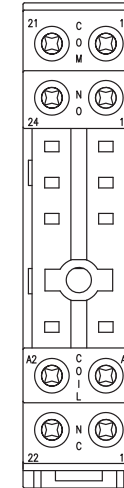
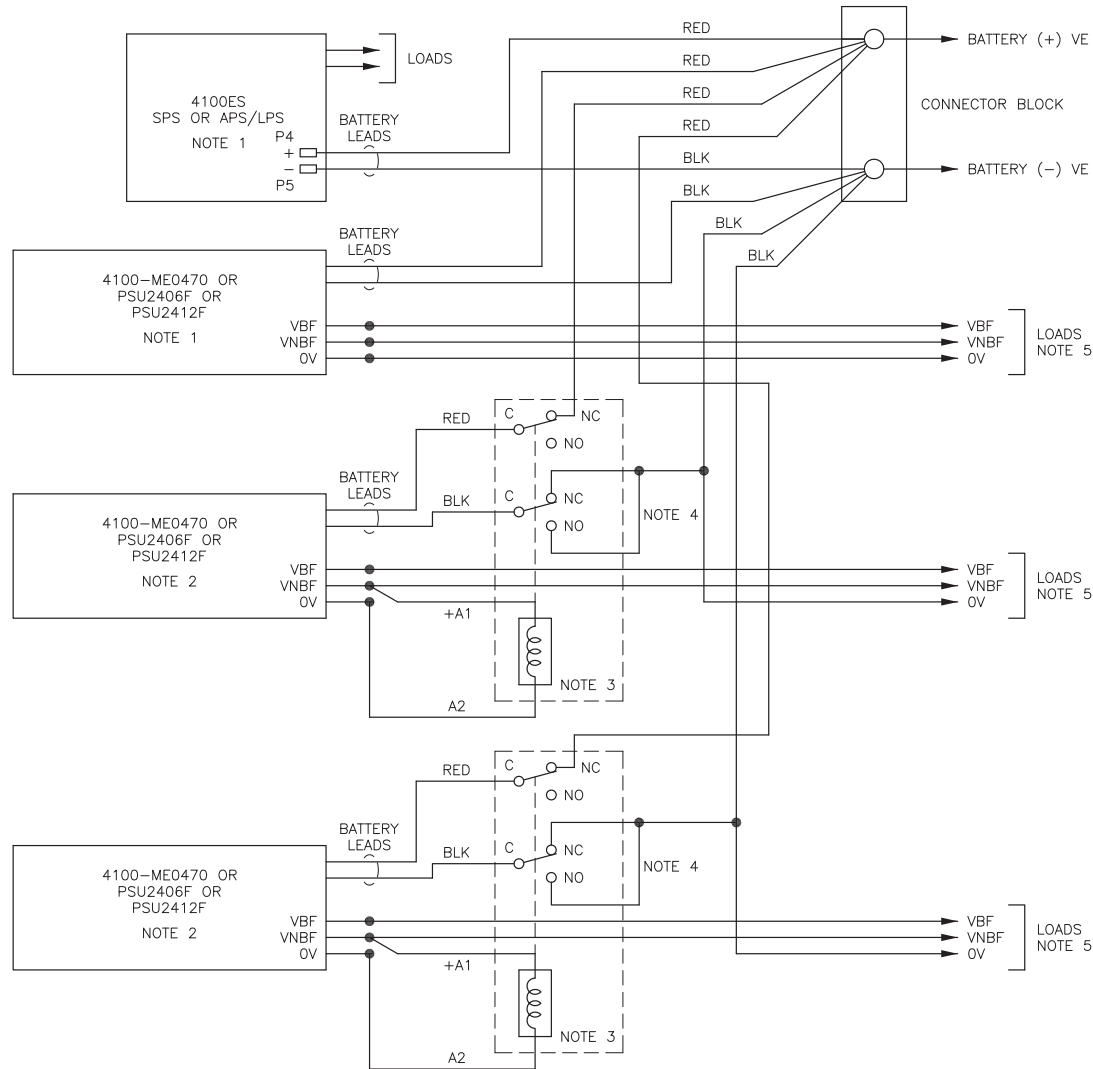
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**4100ESi
ME0470 24V 5A PSU
WIRING DIAGRAM**

DRAWING No: **1976-181** SHEET **702** of **N**

A3	ISS/REV D	PART No:	
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705: Vigilant PSUs in 4100U



FINDER RELAY BASE 95.65
SOCKET TERMINALS (NOTE 3)

NOTES

1. 4100U SPS OR 4100ESi APS/LPS MUST BE CONFIGURED TO DISABLE BATTERY CHARGING. THE FIRST VIGILANT PSU DOES ALL THE BATTERY CHARGING.
2. THE SECOND AND SUBSEQUENT VIGILANT PSUS CANNOT CONTRIBUTE TO THE BATTERY CHARGING. IF MAINS FAILS THE VBF LOADS ARE SWITCHED OVER TO THE SYSTEM BATTERY.
3. RELAY IS 24V DC DPDT TYPE WITH CONTACT RATING AT LEAST 10A. A SUITABLE TYPE IS FINDER 44.62.7.024.4000 IN A 95.65 OR 95.75 DIN RAIL SOCKET (SEE ABOVE).
4. CONNECTING THE OV SUPPLY THROUGH A CONTACT IS A CHECK THAT THE RELAY IS ACTUALLY FITTED IN THE SOCKET. IF RELAY IS NOT PLUGGED IN, THE PSU OUTPUT IS INTERRUPTED.
5. FROM EACH PSU, VNBFB LOAD MUST NOT EXCEED 5A, AND TOTAL OF VBF AND VNBFB LOAD MUST NOT EXCEED 5A FOR PSU2406F OR 10A FOR PSU 2412F. 4100-ME0470 DOES NOT HAVE A VNBFB OUTPUT.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4352	KJS	LSC	RC	SP	16-06-11
B	ADDED ME0470	4615	SS	LSC	RC	DP	08-05-15
C	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15
D	NOTES 1 AND 5 UPDATED.	4977	KJS	LSC	RC	DP	2-11-16

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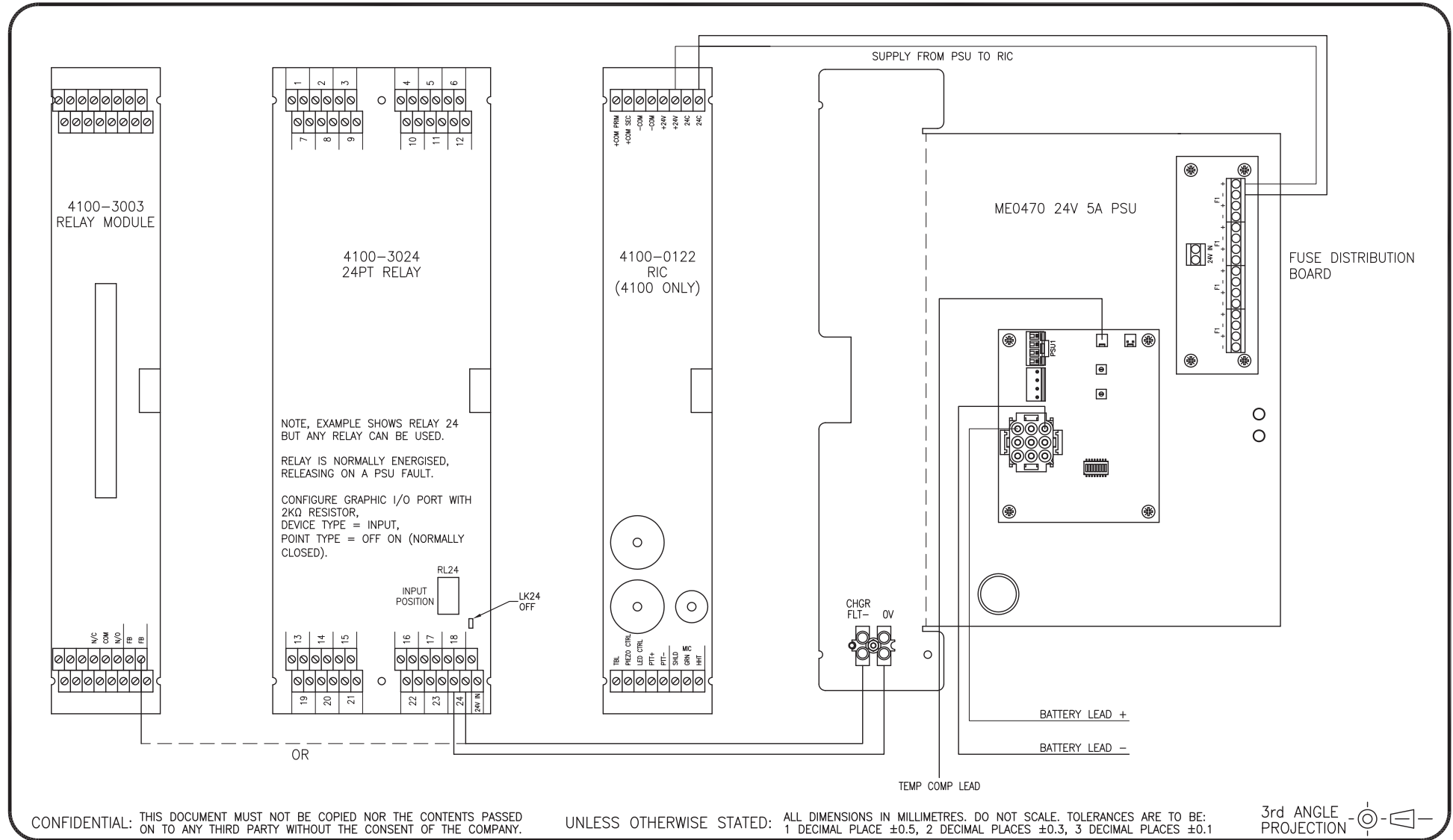
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**4100ES
VIGILANT PSUS INTERCONNECTION
WIRING DIAGRAM**

DRAWING No: **1976-181** SHEET **705** of **N**

A3	ISS/REV	D	PART No:
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706: 5A PSU (ME0470)



ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4409	KJS	GEL	LSC	DP	21-8-12
B	DRAWING BORDER UPDATED WITH NEW LAYERING.	4809	KJS	LSC	RC	DK	8-12-15

tyco
Fire Protection Products

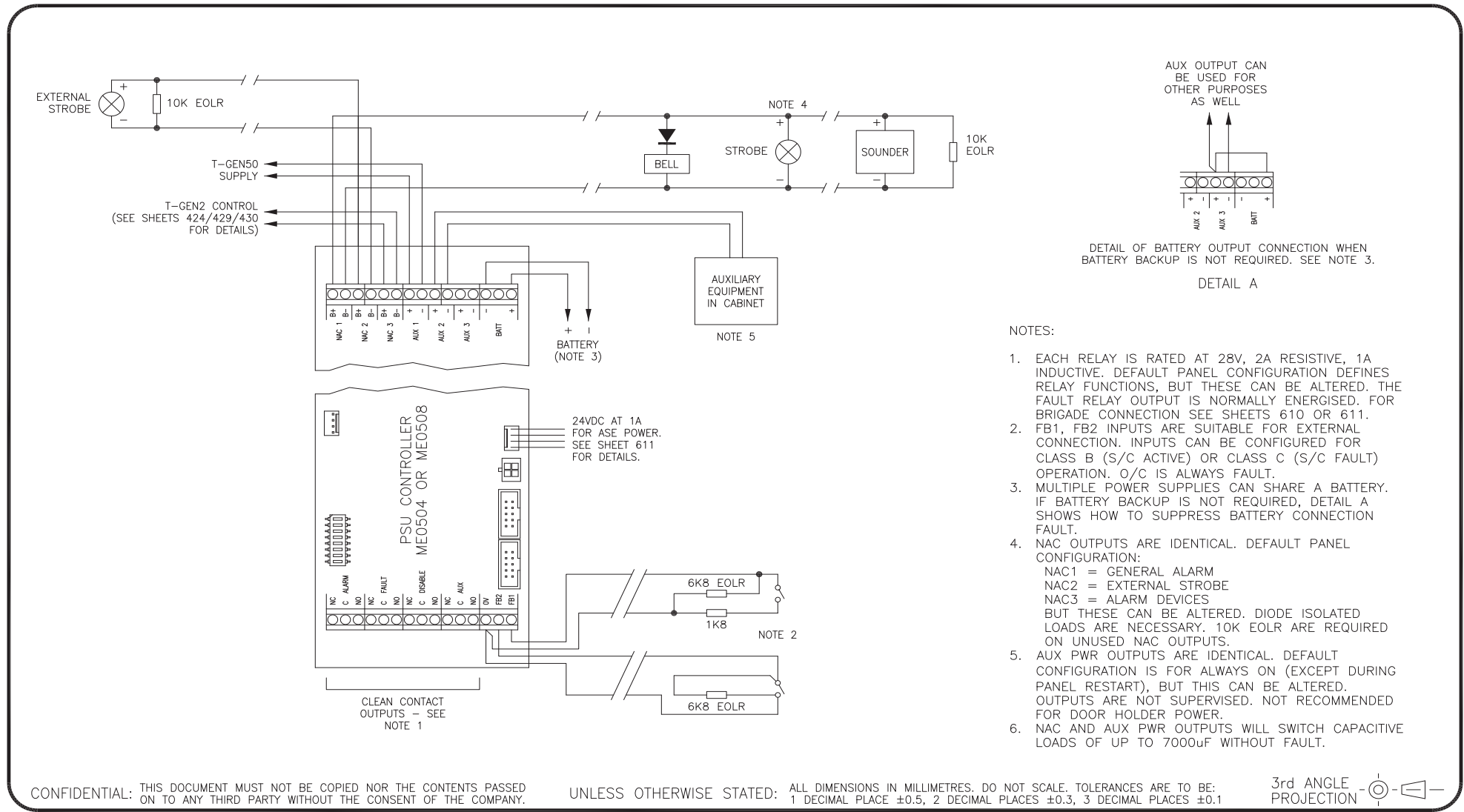
TYCO FIRE PROTECTION PRODUCTS
 17 MARY MULLER DRIVE
 P.O. BOX 19545
 CHRISTCHURCH, PH: +64 3 3895096
 NEW ZEALAND. FAX: +64 3 3895938

4100ESi
**ME0470 CONNECTION
 WIRING DETAILS**

DRAWING No: **1976-181** SHEET **706** of **N**

A3	ISS/REV	B	PART No:
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707: ME0504 APS/ME0508 LPS AS7240.4 PSU



- NOTES:**
- EACH RELAY IS RATED AT 28V, 2A RESISTIVE, 1A INDUCTIVE. DEFAULT PANEL CONFIGURATION DEFINES RELAY FUNCTIONS, BUT THESE CAN BE ALTERED. THE FAULT RELAY OUTPUT IS NORMALLY ENERGISED. FOR BRIGADE CONNECTION SEE SHEETS 610 OR 611.
 - FB1, FB2 INPUTS ARE SUITABLE FOR EXTERNAL CONNECTION. INPUTS CAN BE CONFIGURED FOR CLASS B (S/C ACTIVE) OR CLASS C (S/C FAULT) OPERATION. O/C IS ALWAYS FAULT.
 - MULTIPLE POWER SUPPLIES CAN SHARE A BATTERY. IF BATTERY BACKUP IS NOT REQUIRED, DETAIL A SHOWS HOW TO SUPPRESS BATTERY CONNECTION FAULT.
 - NAC OUTPUTS ARE IDENTICAL. DEFAULT PANEL CONFIGURATION:
 - NAC1 = GENERAL ALARM
 - NAC2 = EXTERNAL STROBE
 - NAC3 = ALARM DEVICES
 BUT THESE CAN BE ALTERED. DIODE ISOLATED LOADS ARE NECESSARY. 10K EOLR ARE REQUIRED ON UNUSED NAC OUTPUTS.
 - AUX PWR OUTPUTS ARE IDENTICAL. DEFAULT CONFIGURATION IS FOR ALWAYS ON (EXCEPT DURING PANEL RESTART), BUT THIS CAN BE ALTERED. OUTPUTS ARE NOT SUPERVISED. NOT RECOMMENDED FOR DOOR HOLDER POWER.
 - NAC AND AUX PWR OUTPUTS WILL SWITCH CAPACITIVE LOADS OF UP TO 7000uF WITHOUT FAULT.

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ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4809	KJS	LSC	RC	DP	4-4-16
B	UPDATED FOR T-GEN2 GRADE 2.	5142	KJS	PV	RC	DC	15-10-18

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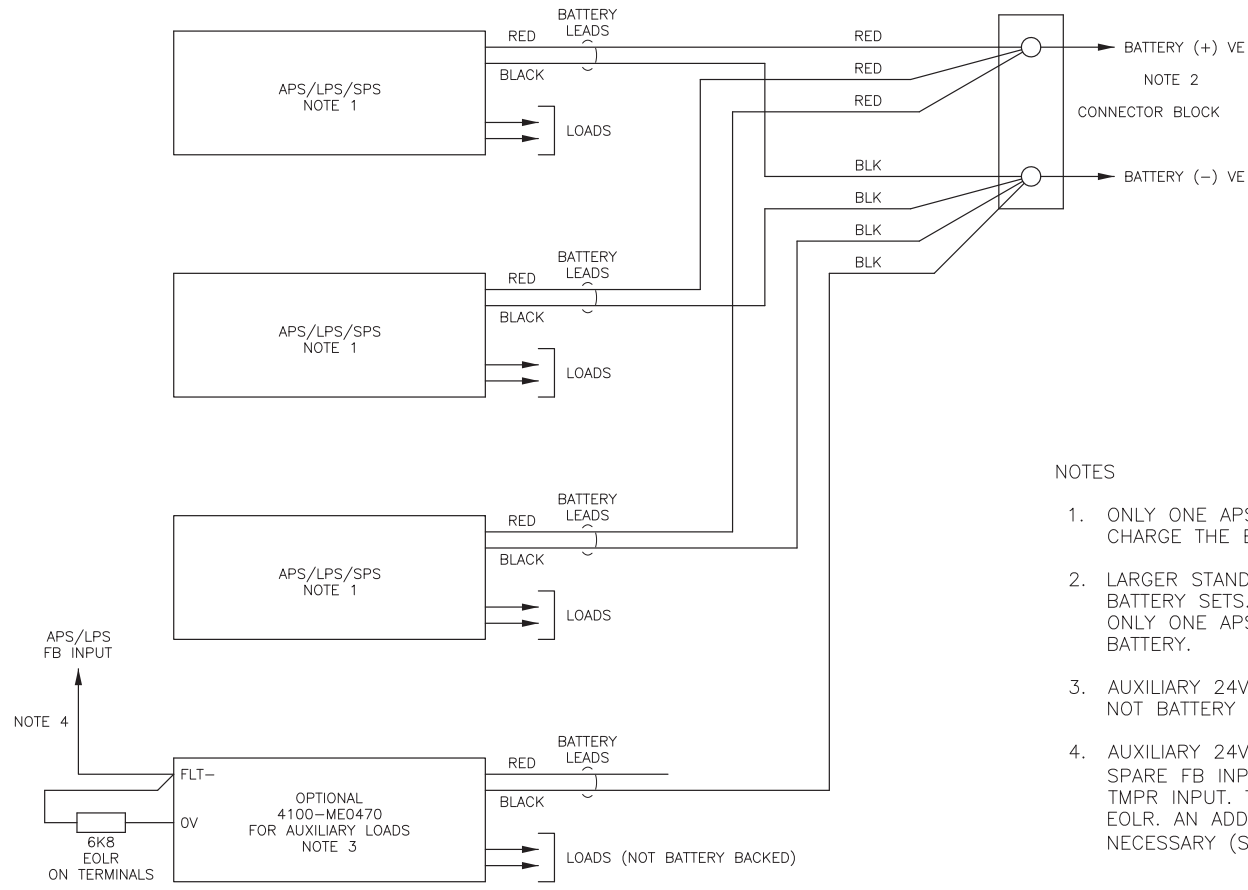
JOHNSON CONTROLS
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4100ESi
APS / LPS OUTPUTS
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **707** of **N**

A3	ISS/REV B	PART No:	
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708: APS/LPS/SPS battery sharing



NOTES

1. ONLY ONE APS, LPS OR SPS SHOULD BE CONFIGURED TO CHARGE THE BATTERY. BATTERY CAN BE UP TO 80AHR.
2. LARGER STANDBY CAPACITY REQUIRES MULTIPLE SYSTEM BATTERY SETS. CONNECT TO SEPARATE APS, LPS OR SPS. ONLY ONE APS, LPS OR SPS SHOULD CHARGE EACH BATTERY.
3. AUXILIARY 24V PSU DOES NOT SHARE THE BATTERY, AND IS NOT BATTERY BACKED.
4. AUXILIARY 24V PSU FAULT OUTPUT IS MONITORED BY A SPARE FB INPUT ON APS/LPS OR RELAY CARD, OR TIC TMRP INPUT. TIC TMRP INPUT DOES NOT REQUIRE THE 6K8 EOLR. AN ADDRESSABLE DEVICE CAN BE USED IF NECESSARY (SEE SHEET 702).

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	4977	KJS	LSC	RC	DP	2-11-16

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4100ESi
APS / LPS / SPS BATTERY SHARING
WIRING DIAGRAM

DRAWING No: **1976-181** SHEET **708** of **N**

A3	ISS/REV	A	PART No:
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LT0432
Issue 2.4