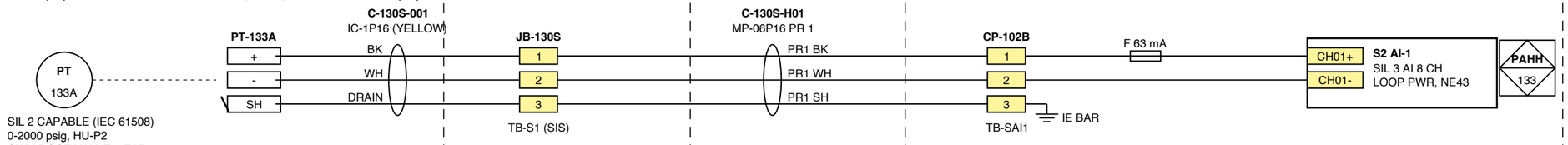
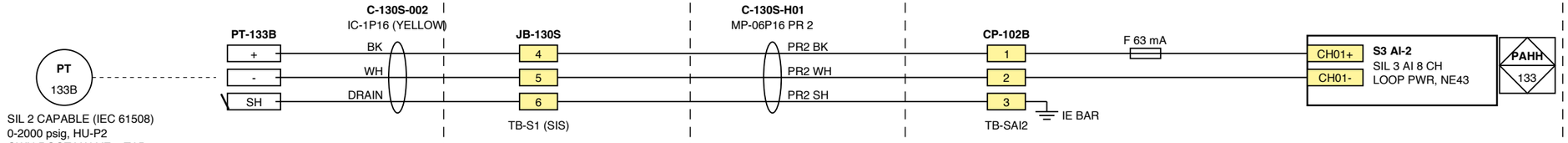
FIELD	FIELD JUNCTION BOX	HOMERUN	CONTROL BUILDING B-102 (PANEL)	POINT DATA

LOOP (b1) PT-133A OPSS PRESSURE A, 2oo3, SIS AI CARD AI-1 (S2) CH01



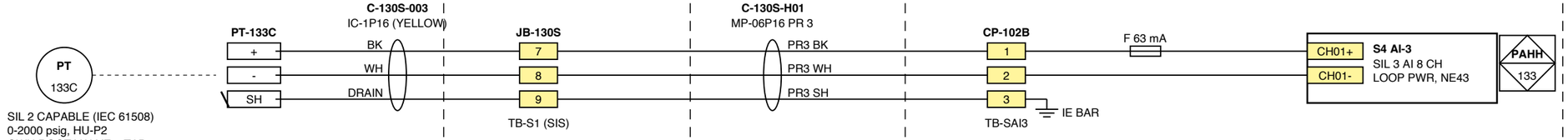
POINT: PT-133A (SIS AI)
RANGE 0-2000 psig = 4-20 mA
PAH 1210 psig (PRE-ALARM)
PAHH 1225 psig, VOTE 2oo3
DEVIATION 25 psi vs MEDIAN
< 3.6 / > 21.0 mA = FAULT,
FAULT VOTED AS TRIP
SIF-01 -> SY-102 (SHEET 3)

LOOP (b2) PT-133B OPSS PRESSURE B, 2oo3, SIS AI CARD AI-2 (S3) CH01



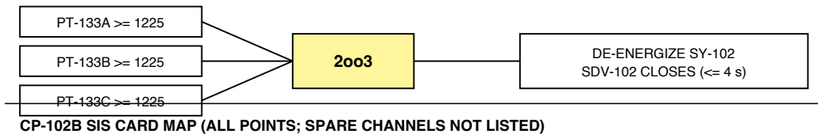
POINT: PT-133B (SIS AI)
RANGE 0-2000 psig = 4-20 mA
PAH 1210 psig (PRE-ALARM)
PAHH 1225 psig, VOTE 2oo3
DEVIATION 25 psi vs MEDIAN
< 3.6 / > 21.0 mA = FAULT,
FAULT VOTED AS TRIP
SIF-01 -> SY-102 (SHEET 3)

LOOP (b3) PT-133C OPSS PRESSURE C, 2oo3, SIS AI CARD AI-3 (S4) CH01



POINT: PT-133C (SIS AI)
RANGE 0-2000 psig = 4-20 mA
PAH 1210 psig (PRE-ALARM)
PAHH 1225 psig, VOTE 2oo3
DEVIATION 25 psi vs MEDIAN
< 3.6 / > 21.0 mA = FAULT,
FAULT VOTED AS TRIP
SIF-01 -> SY-102 (SHEET 3)

SIF-01 VOTING (SAFETY PLC APPLICATION, SEE [redacted]SAF-SRS-001)



CARD SEPARATION: PT-133A, B, C ON THREE SEPARATE SIS AI CARDS (S2, S3, S4) AND SEPARATE FIELD CABLES; A HOMERUN FAULT (OPEN) DRIVES < 3.6 mA = FAULT = VOTED TRIP (FAIL-SAFE). JB-130S AND CP-102B TERMINALS SEPARATED BY BARRIER FROM ANY BPCS WIRING.

CP-102B SIS CARD MAP (ALL POINTS; SPARE CHANNELS NOT LISTED)

SLOT	CARD	CH	POINT
S2	AI-1	01	PT-133A
S2	AI-1	02	GD-205
S2	AI-1	03	BE-213
S3	AI-2	01	PT-133B
S3	AI-2	02	GD-206
S4	AI-3	01	PT-133C
S4	AI-3	02	GD-207
S5	DI-1	01	ZSO-101
S5	DI-1	02	ZSC-101
S5	DI-1	03	HS-101C
S5	DI-1	04	HS-101R
S5	DI-1	05	LSHH-105
S5	DI-1	06	LSLL-106
S5	DI-1	07	ZSC-106
S5	DI-1	08	HS-106R

SLOT	CARD	CH	POINT
S5	DI-1	09	XS-150
S5	DI-1	10	ZSC-165
S5	DI-1	11	HS-165R
S5	DI-1	12	ZSO-102
S5	DI-1	13	ZSC-102
S5	DI-1	14	HS-102C
S5	DI-1	15	HS-102R
S5	DI-1	16	XS-103Q
S6	DI-2	01	ZSO-103
S6	DI-2	02	ZSC-103
S6	DI-2	03	HS-103C
S6	DI-2	04	HS-103R
S6	DI-2	05	LSHH-192
S6	DI-2	06	HS-201
S6	DI-2	07	HS-202

SLOT	CARD	CH	POINT
S6	DI-2	08	HS-203
S6	DI-2	09	HS-204
S6	DI-2	10	HS-200R
S6	DI-2	11	HS-200B
S6	DI-2	12	FSL-208
S6	DI-2	13	XS-212
S6	DI-2	14	HS-215
S8	DO-1	01	SY-101
S8	DO-1	02	HS-104T
S8	DO-1	03	SY-106
S8	DO-1	04	SY-141
S8	DO-1	05	HS-150T
S8	DO-1	06	SY-165
S8	DO-1	07	SY-102
S8	DO-1	08	SY-103

SLOT	CARD	CH	POINT
S9	DO-2	01	XY-214A
S9	DO-2	02	XY-214B
S9	DO-2	03	XY-214C
S9	DO-2	04	XY-214D
S9	DO-2	05	XS-WIL1
S9	DO-2	06	XS-WIL2

NOTES / REFERENCES

1. CABLE NOS: C-<JB>-NNN FIELD, C-<JB>-HNN HOMERUN, C-200-NNN DIRECT. FINAL NOS PER LST-002.
2. SHIELD GROUNDED AT PANEL IE BAR ONLY; FIELD END CUT AND TAPED (/); OWN TERMINAL IN JB.
3. SIS TERMINALS AND CABLES YELLOW, SEGREGATED FROM BPCS (IEC 61511-1 CL. 11.2).
4. CARD/CH PER CARD MAP ON SHEETS 1 AND 2. HOMERUN = USED PAIRS + 20 %, NEXT STD SIZE.
5. WIRE COLOURS: PAIR BK(+)/WH(-); TRIAD BK/WH/RD; MULTICORES NUMBERED; DRAIN SLEEVED.
6. TYPICALS: OTHER LOOPS OF THE SAME TYPE FOLLOW THESE SHEETS WITH TAGS PER LST-002.

REF: [redacted]INS-LST-002 I/O LIST
REF: [redacted]INS-DWG-005 PANEL LAYOUT

REVISIONS

REV	DATE	DESCRIPTION	BY	CHK	APP
A	2026-09-29	ISSUED FOR REVIEW (IFR)			

PRELIMINARY - ISSUED FOR REVIEW - NOT FOR CONSTRUCTION

ENGINEER OF RECORD SEAL

NOT SEALED
PRELIMINARY

[redacted] PE NO. _____

PROJECT

[redacted]
120 MMSCFD RECEIPT INTO [redacted]
[redacted]
[redacted] COUNTY, [redacted]

DISCIPLINE: INSTRUMENTATION
SCALE: NTS

TYPICAL LOOP DIAGRAMS

SIS 2oo3 INPUT, OPSS PT-133A/B/C

DRAWN: ____ CHECKED: ____ APPROVED: ____

DWG NO.
[redacted]**INS-DWG-002**

SHEET 2 OF 5 REV A