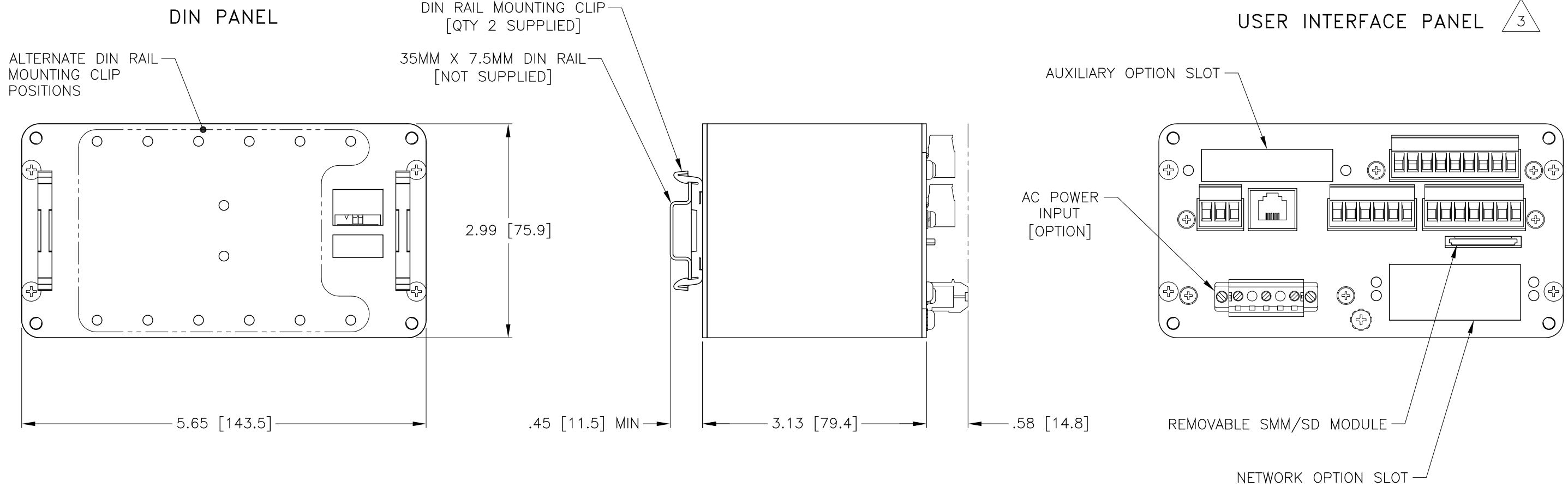


REV.	ECO/DDC	DESCRIPTION	DATE	DRAFT	CHECK	APV'D
A	----	RELEASED FOR PUBLICATION.	02-26-09	V.J.C.	D.H.	V.J.C.
B	10752	REVISED PER ECN.	11-09-09	V.J.C.	D.H.	V.J.C.
C	11139	REVISED PER ECN.	08-23-13	V.J.C.	L.E.G.	V.J.C.
D	11688	REVISED PER ECN.	04-27-15	V.J.C.	L.E.G.	V.J.C.
E	11787	REVISED PER ECN.	01-11-16	V.J.C.	E.B.	V.J.C.

HI 4050 WEIGHT CONTROLLER CONTROLLER MAIN UNIT



7. SEE SHEET 5 FOR WALL MOUNT ENCLOSURE INTERNAL COMPONENTS.
6. EXERCISE CAUTION WHEN ADDING OR ENLARGING HOLES IN WALL MOUNT ENCLOSURE. METAL PARTICLES COULD SERIOUSLY DAMAGE ELECTRONICS. COVER ELECTRONICS BEFORE DRILLING OR PUNCHING. WALL MOUNT ENCLOSURE DOOR TO REMAIN FREE OF HOLES.

5. SEE SHEET 4 FOR WALL MOUNT ENCLOSURE WITH DISPLAY DIMENSIONS.

4. SEE SHEET 3 FOR WALL MOUNT ENCLOSURE WITHOUT DISPLAY DIMENSIONS.

3. GENERIC USER INTERFACE PANEL SHOWN ONLY. SEE SHEETS 6 THROUGH 9 FOR USER INTERFACE PANEL CONNECTIONS.

2. SEE SHEET 2 FOR FRONT PANEL DISPLAY DIMENSIONS.

1. SEE CD RESOURCE GUIDE FOR ADDITIONAL MOUNTING AND WIRING INFORMATION.

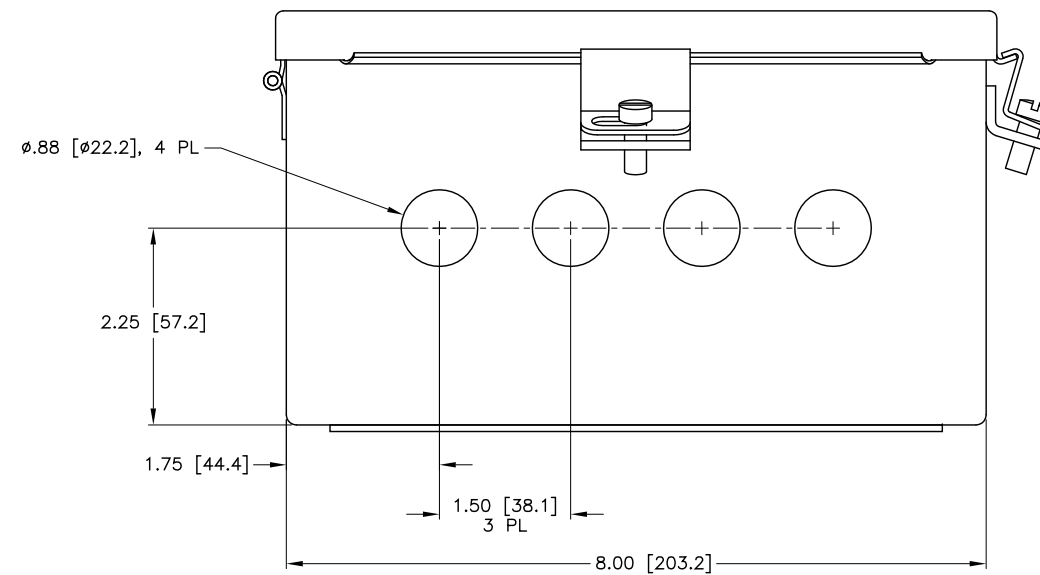
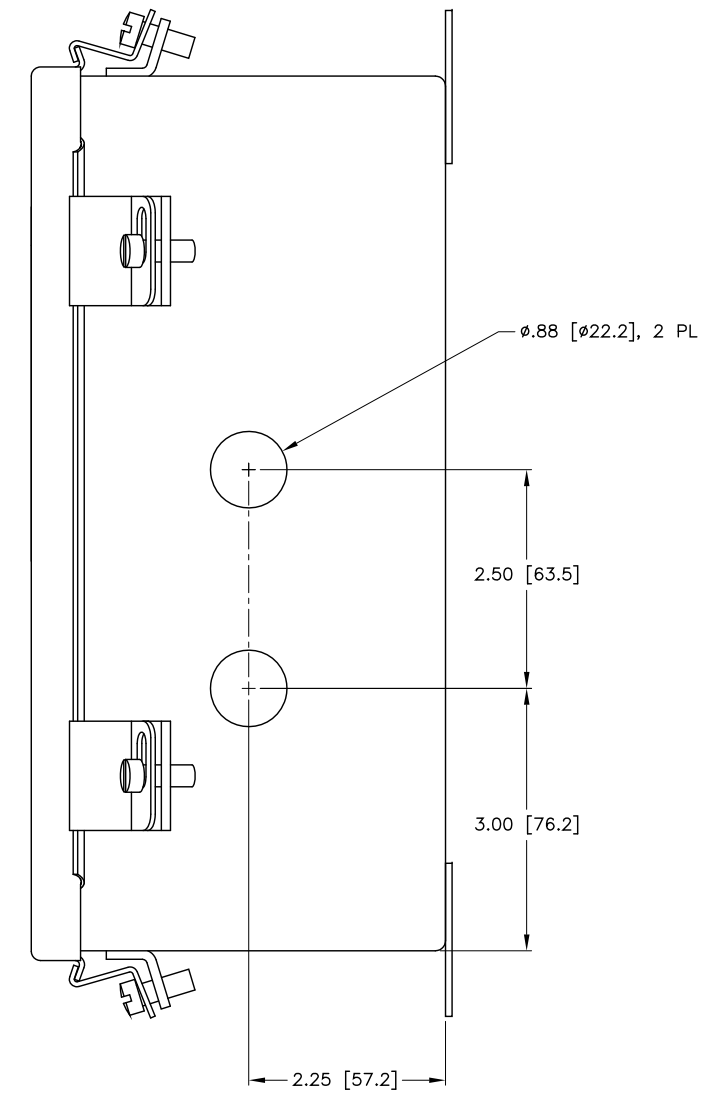
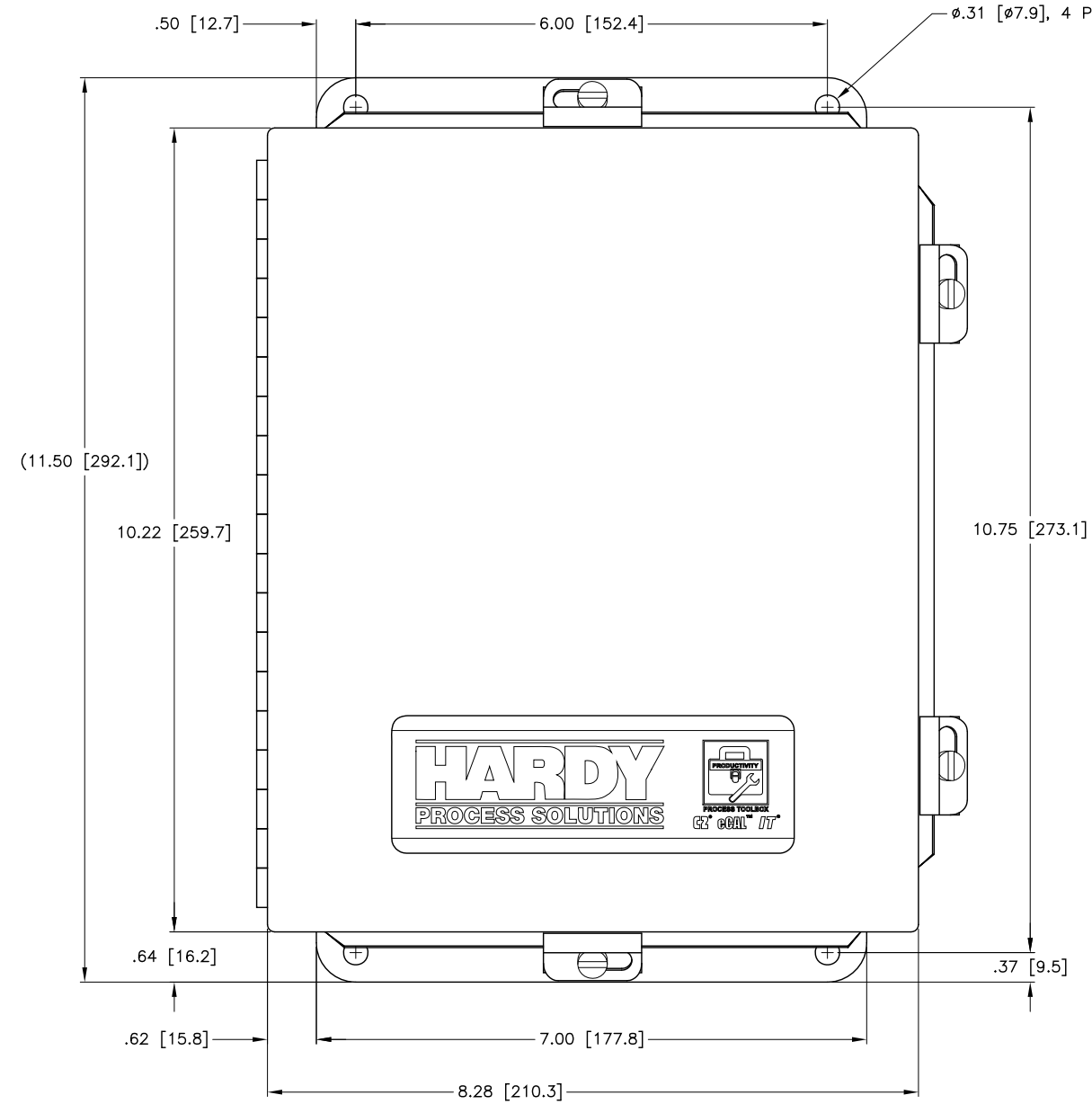
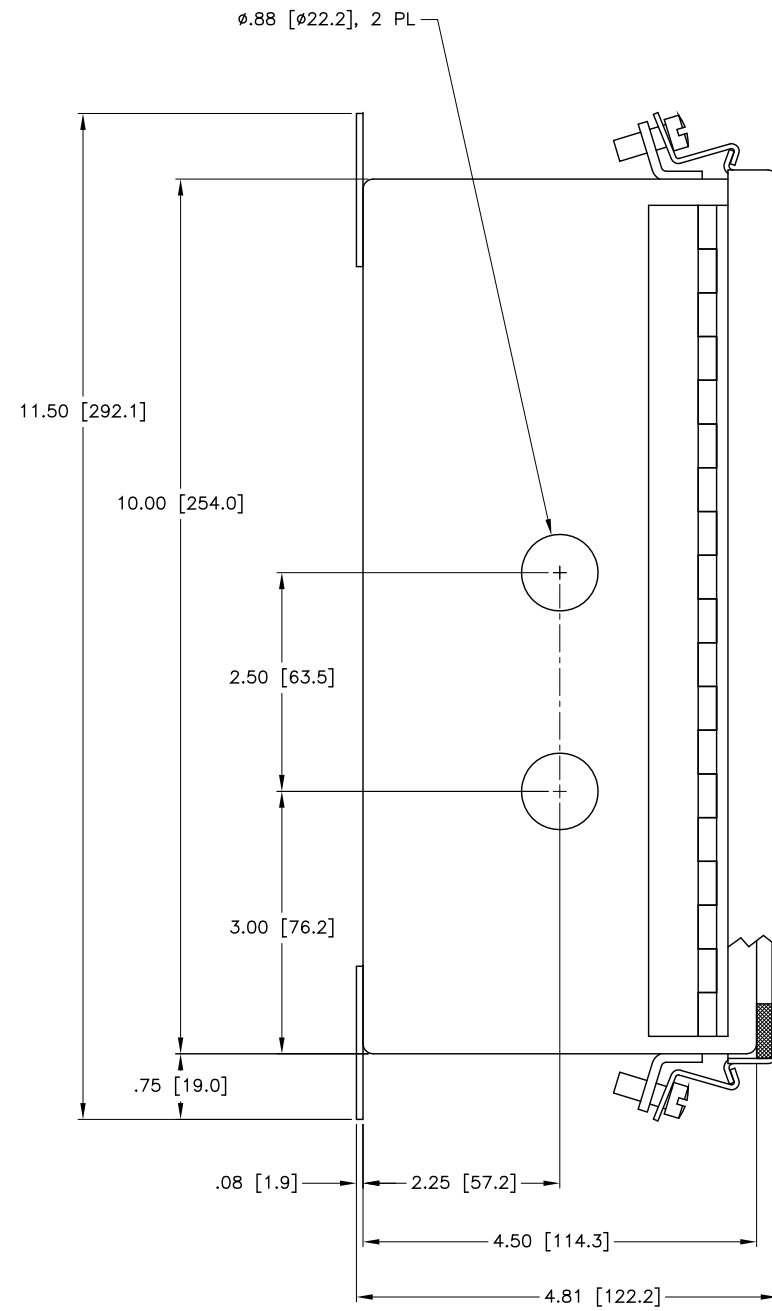
NOTES: UNLESS OTHERWISE SPECIFIED

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DIMENSIONS = IN [MM]

ITEM	QTY	0584-0064	I/I DIAGRAM, HI 4050 WEIGHT CONTROLLER		COMMENTS
PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES [MM]		CONTRACT NO.		I/I DIAGRAM, HI 4050 WEIGHT CONTROLLER	
TOLERANCES ARE: DECIMALS: .XX = N/A .XXX = N/A ANGLES: N/A		APPROVALS			
MATERIAL		DRAWN V. CHULA	DATE 02-26-09		
FINISH		CHECKED D. HOLT	DATE 02-26-09		
DO NOT SCALE DRAWING		APPROVED V. CHULA	DATE 02-26-09	SIZE D	FSCM 21316
		ISSUED V. CHULA	DATE 02-26-09	DRAWING NO. 0584-0064	REV. E
		PRODUCTION	DATE	FILE NAME: 584064E1.DWG	SCALE: NONE
				SHEET 1 OF 10	

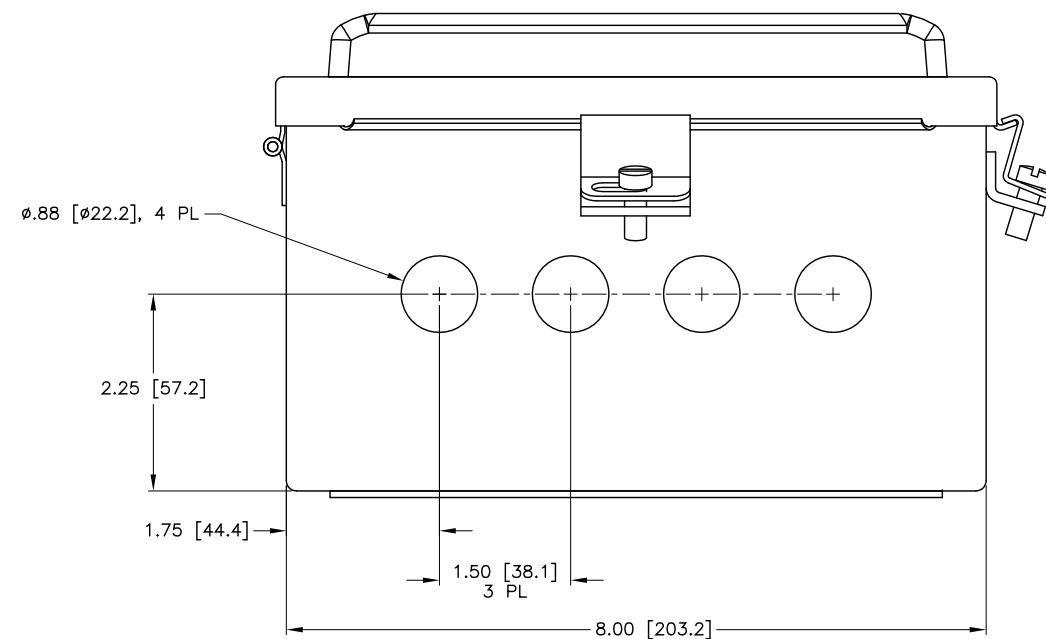
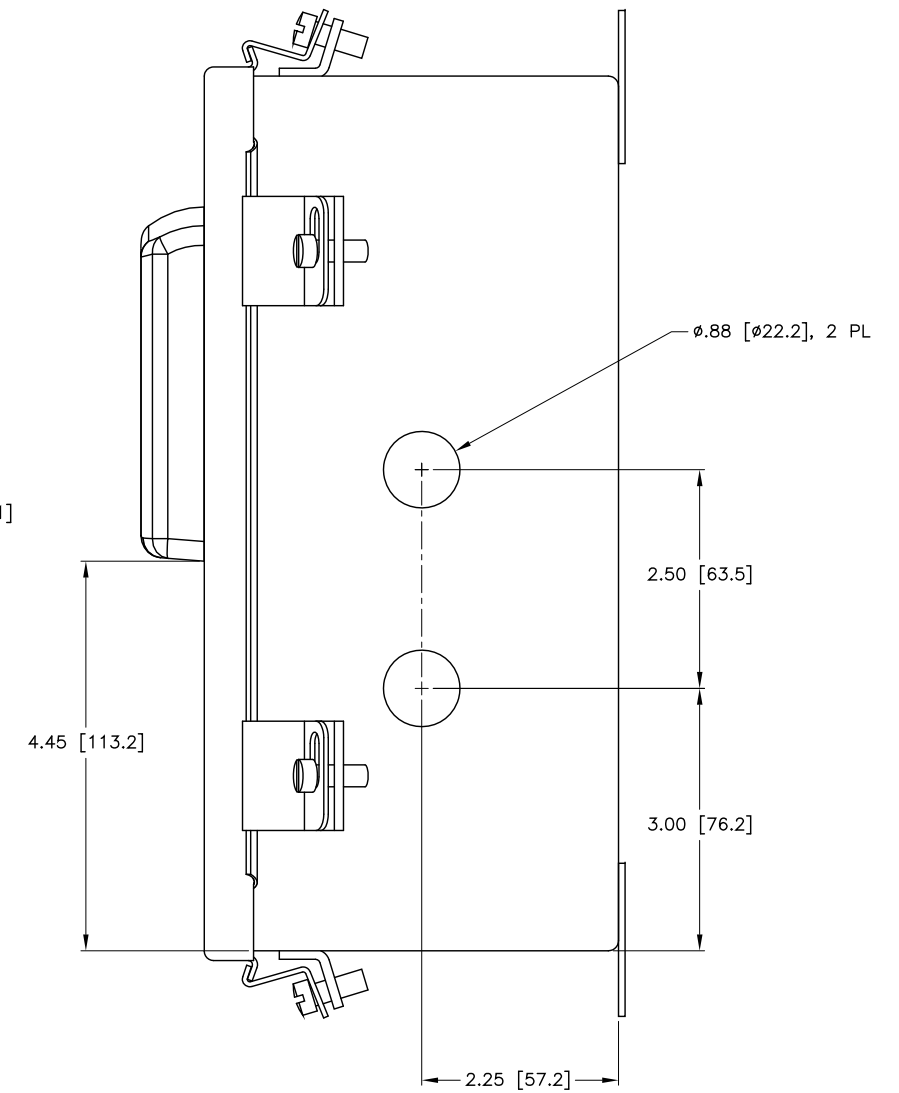
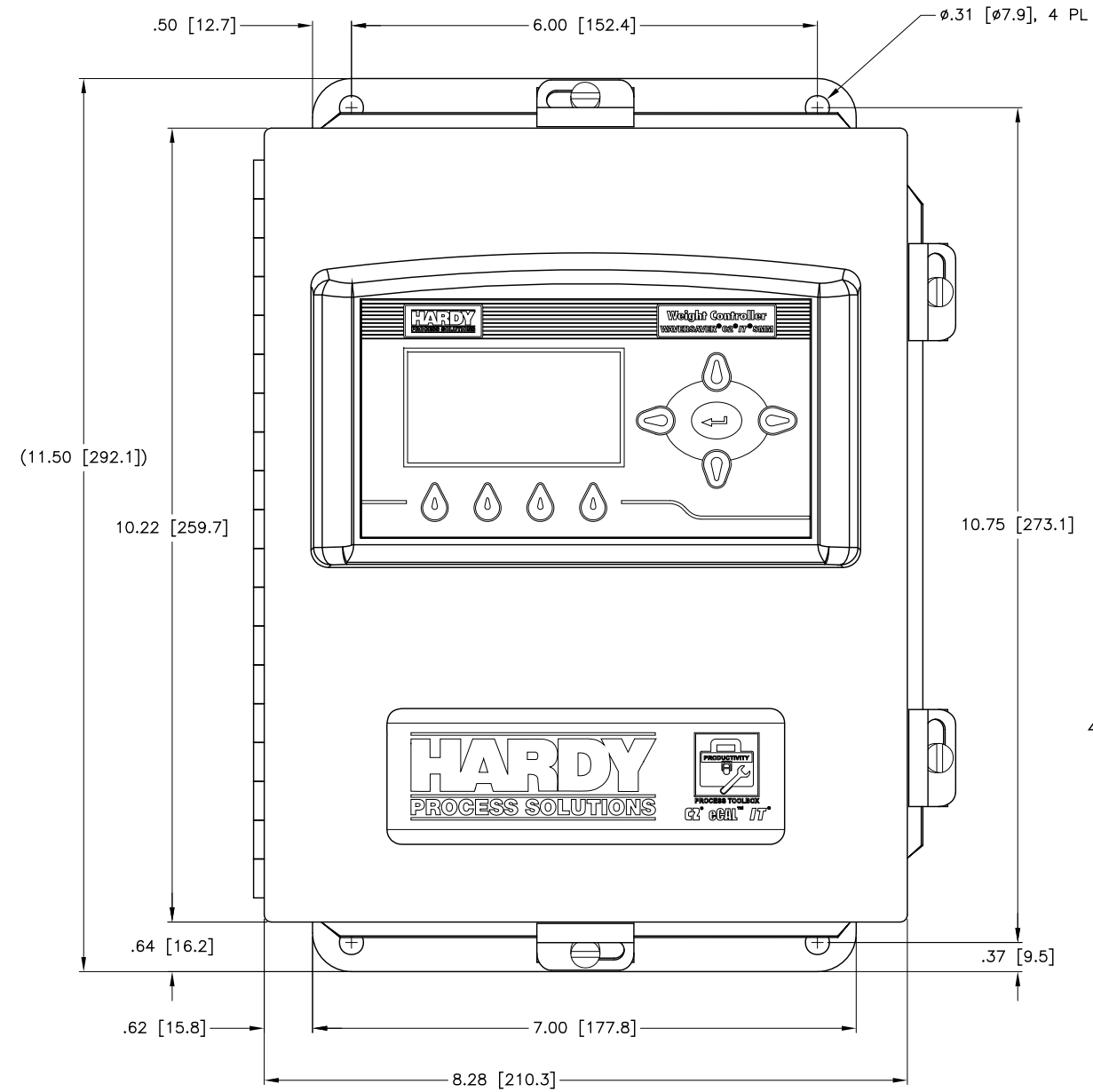
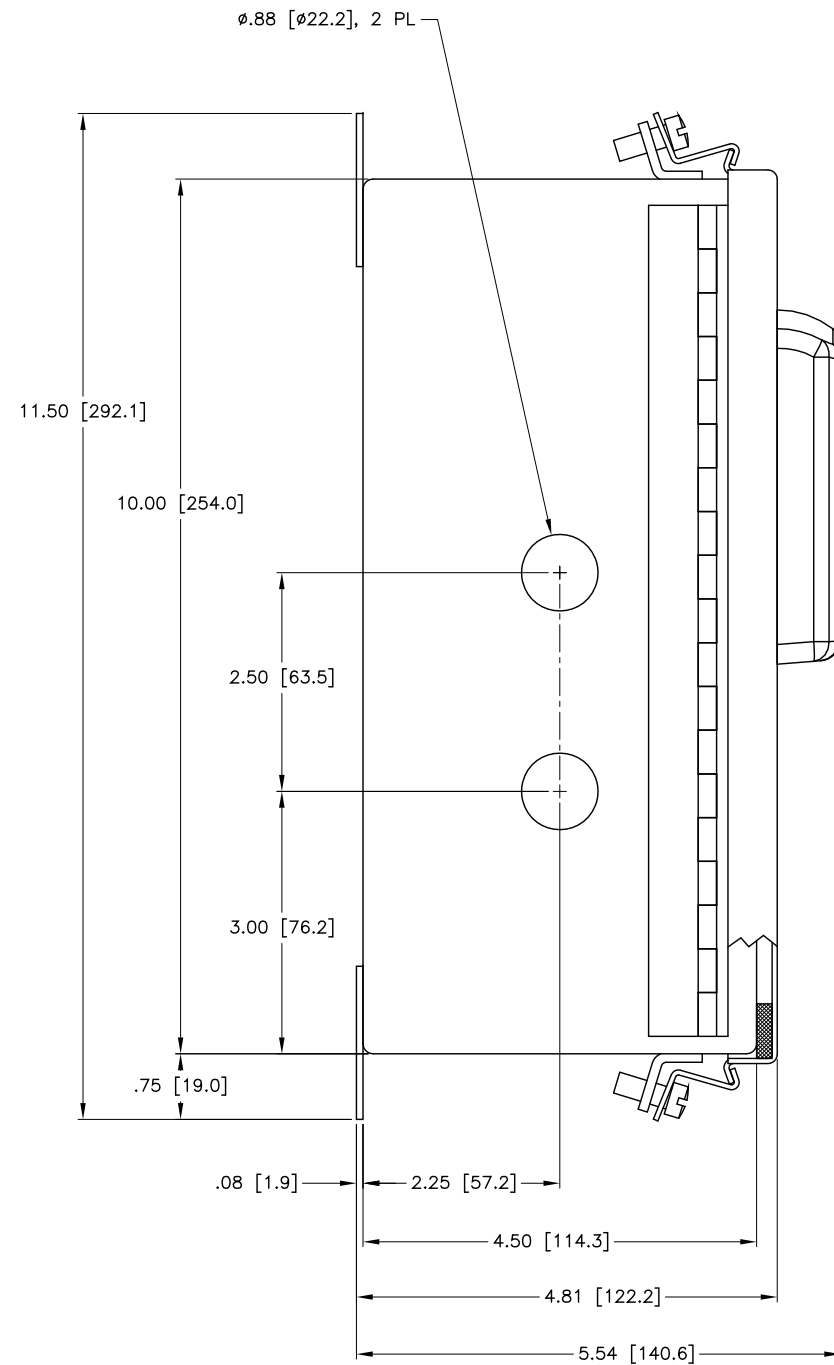
NEMA 4/4X WALL MOUNT HI 4050 WEIGHT CONTROLLER – WITHOUT DISPLAY



DIMENSIONS = IN [MM]

HARDY PROCESS SOLUTIONS			
TITLE I/I DIAGRAM, HI 4050 WEIGHT CONTROLLER			
SIZE	FSCM	DRAWING NO.	REV.
D	21316	0584-0064	E
FILE NAME: 584064E1.DWG		SCALE: NONE	SHEET 3 OF 10

NEMA 4/4X WALL MOUNT HI 4050 WEIGHT CONTROLLER – WITH DISPLAY

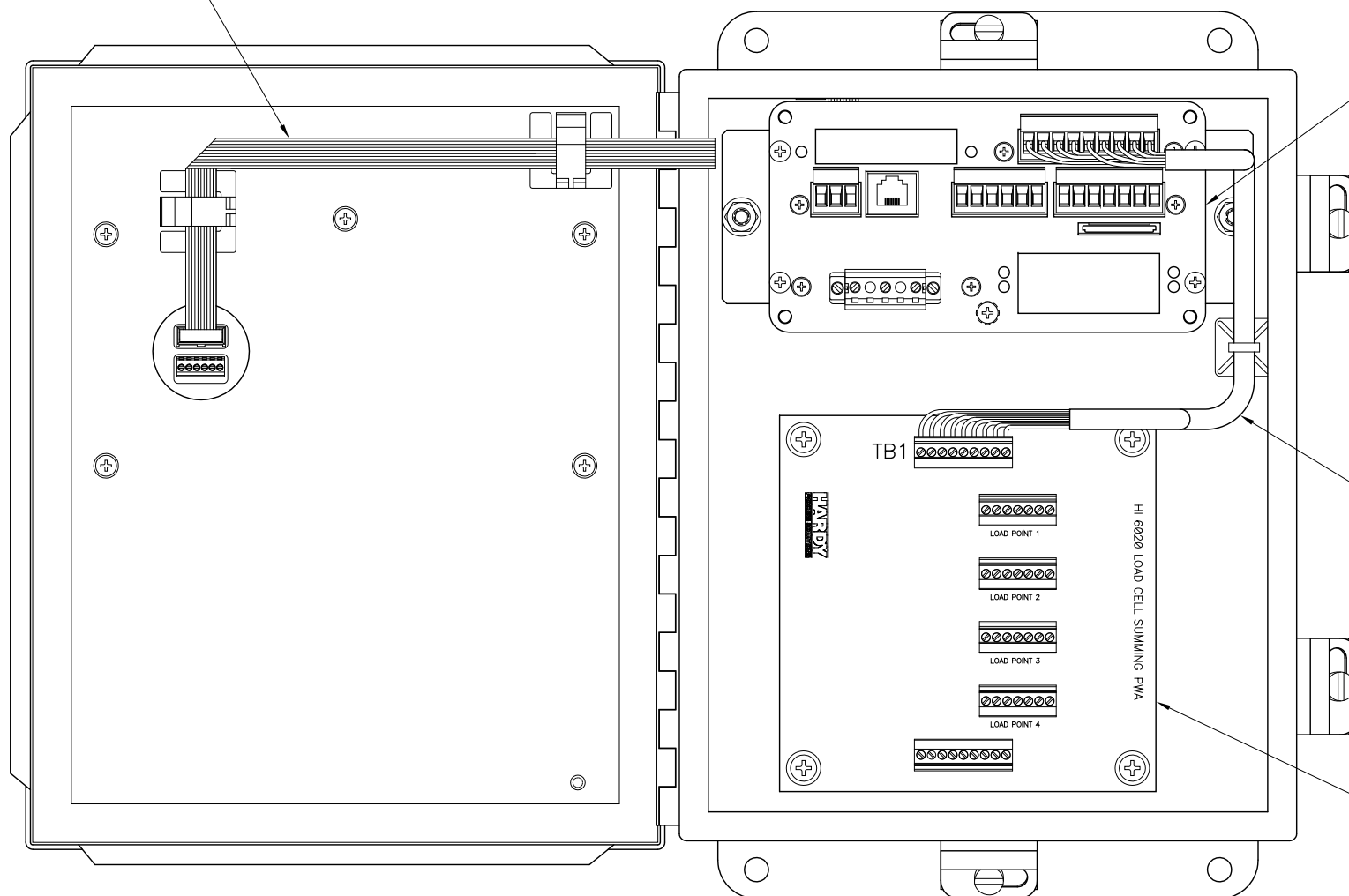


DIMENSIONS = IN [MM]

HARDY PROCESS SOLUTIONS			
TITLE I/I DIAGRAM, HI 4050 WEIGHT CONTROLLER			
SIZE	FSCM	DRAWING NO.	REV.
D	21316	0584-0064	E
FILE NAME: 584064E1.DWG		SCALE: NONE	SHEET 4 OF 10

NEMA 4/4X WALL MOUNT HI 4050 WEIGHT CONTROLLER – INTERNAL COMPONENTS

OPTION PMWP & PMWS DISPLAY CABLE



HI 4050 WEIGHT CONTROLLER MAIN UNIT

OPTION IT1, IT2, JB1 OR JB2 SUMMING CARD CABLE
[WIRED BY HARDY INSTRUMENTS]

OPTION IT1, IT2, JB1 OR JB2 SUMMING CARD
SEE SHEET 10 FOR IT SUMMING CARD OR
LOAD CELL SUMMING CARD CONNECTIONS.

CABLE GLAND FITTINGS AND/OR HOLE PLUG SEALS ARE PACKED SEPARATELY INSIDE ENCLOSURE

DIMENSIONS = IN [MM]

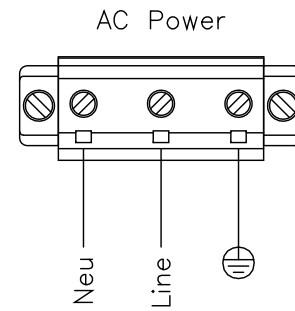
HARDY PROCESS SOLUTIONS			
TITLE I/I DIAGRAM, HI 4050 WEIGHT CONTROLLER			
SIZE	FSCM	DRAWING NO.	REV.
D	21316	0584-0064	E
FILE NAME: 584064E1.DWG		SCALE: NONE	SHEET 5 OF 10

POWER INPUT TERMINATIONS

OPTION CODE AC

NOTES:

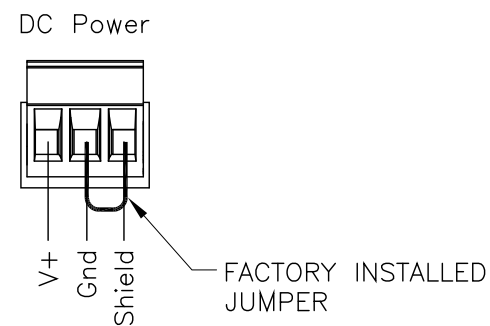
1. INPUT VOLTAGE: 120/240 VAC, 50/60 Hz, 0.5 AMP, 10 WATT.
2. OPTION AC OPERATING TEMPERATURE: -10°C TO $+40^{\circ}\text{C}$.
3. WIRE SIZE: 14 AWG MAXIMUM / 18 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.



OPTION CODE DC

NOTES:

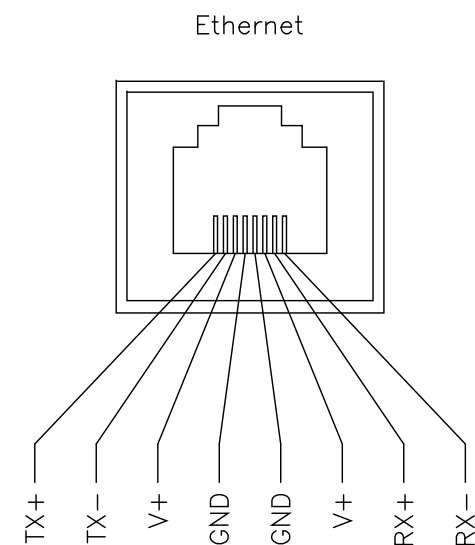
1. INPUT VOLTAGE: 24 VDC, 0.42 AMP, 10 WATT.
2. OPTION DC OPERATING TEMPERATURE: -10°C TO $+60^{\circ}\text{C}$.
3. WIRE SIZE: 12 AWG MAXIMUM / 22 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.



ETHERNET TERMINATION

NOTES:

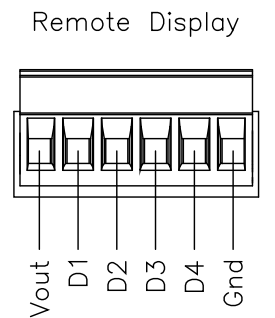
1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON ETHERNET TERMINATIONS.
2. CONNECTOR TYPE: RJ-45, 8 PIN
3. N.C. = NOT CONNECTED.



REMOTE DISPLAY TERMINATIONS

NOTES:

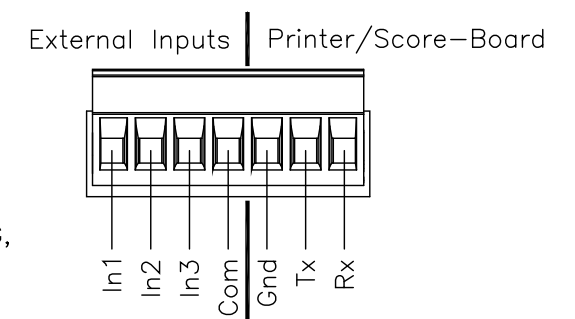
1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON REMOTE DISPLAY TERMINATIONS.
2. WIRE SIZE: 20 AWG MAXIMUM / 26 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.
3. SEE SHEET 2 FOR FRONT PANEL DISPLAY WIRE TERMINATIONS.
4. MAXIMUM CABLE LENGTH: 100 FEET [30.48 METERS]



EXTERNAL INPUT & PRINTER/SCOREBOARD TERMINATIONS

NOTES:

1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON EXTERNAL INPUT AND PRINTER/SCOREBOARD TERMINATIONS.
2. EXTERNAL INPUTS ARE NON-ISOLATED, ACTIVE LOW AND REFERENCED TO COMMON [COM].
3. DO NOT BUNDLE ANALOG INPUT WIRING WITH POWER WIRING, RELAY CABLE OR ANY OTHER HIGH ENERGY CABLES.
4. EXTERNAL INPUTS CAN BE CONFIGURED IN THE MAPPING SECTION OF THE INSTRUMENT'S WEB PAGE.
FACTORY DEFAULT EXTERNAL INPUT MAPPINGS: NONE
5. PRINTER/SCORE-BOARD TRANSMIT DATA [Tx] AND RECEIVE DATA [Rx] USE RS-232 SERIAL INTERFACE COMMUNICATION PROTOCOL.
6. WIRE SIZE: 12 AWG MAXIMUM / 22 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.

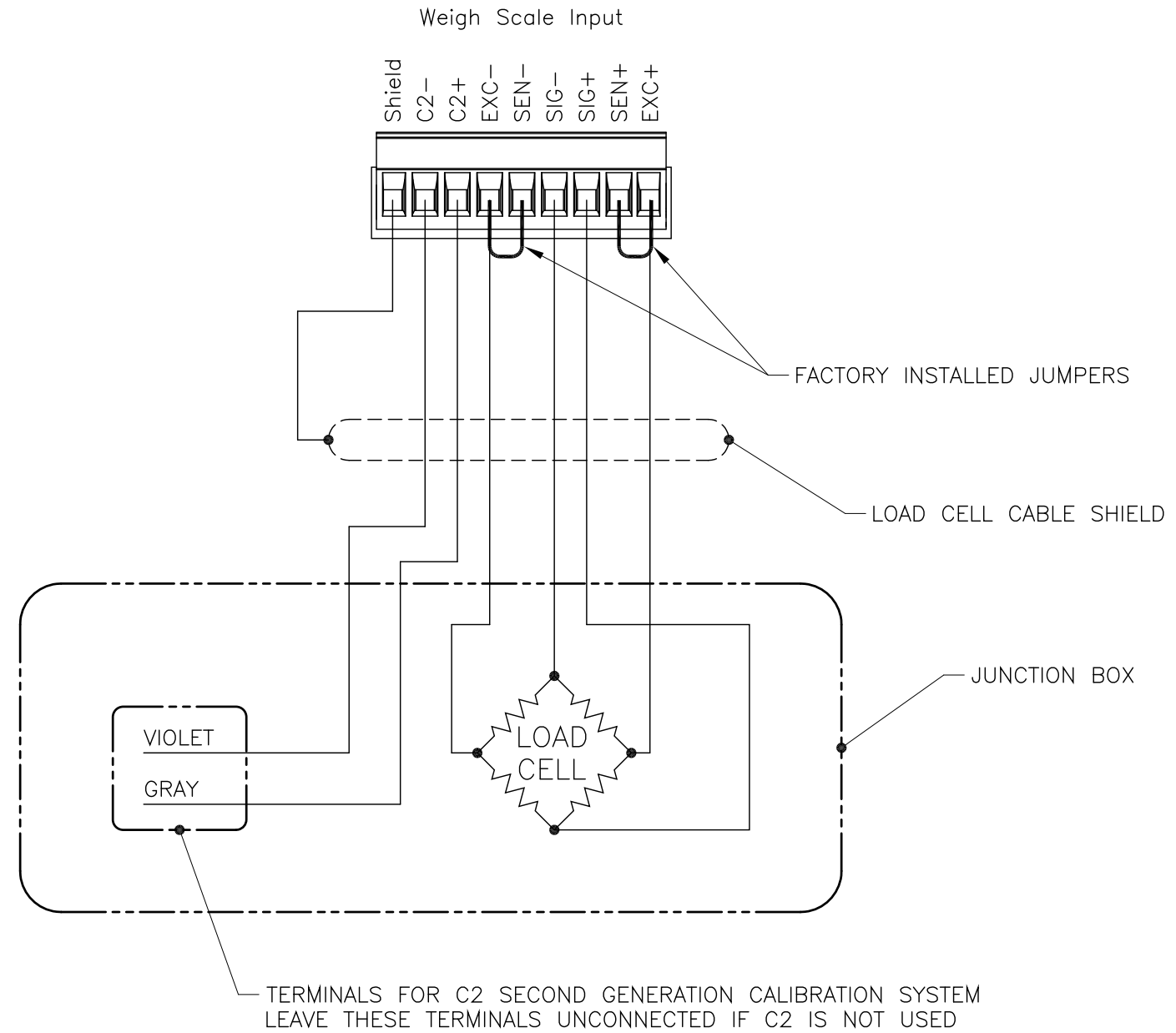


HARDY PROCESS SOLUTIONS			
TITLE I/I DIAGRAM, HI 4050 WEIGHT CONTROLLER			
SIZE	FSCM	DRAWING NO.	REV.
D	21316	0584-0064	E
FILE NAME: 584064E1.DWG		SCALE: NONE	SHEET 6 OF 10

WEIGH SCALE INPUT TERMINATIONS

NOTES:

1. DO NOT RUN LOAD CELL CABLE PARALLEL TO, OR IN THE SAME CONDUIT WITH POWER WIRING, RELAY CABLE OR OTHER HIGH ENERGY CABLES.
2. FACTORY INSTALLED JUMPERS TO REMAIN IN PLACE FOR FOUR WIRE LOAD CELL CONNECTION. JUMPERS TO BE REMOVED FOR SIX WIRE OR EIGHT WIRE [C2] LOAD CELL CONNECTIONS. EXCITATION AND SENSE WIRES TO BE CONNECTED TOGETHER IN JUNCTION BOX.
3. REQUIRED LOAD CELL CABLE FOR C2 SECOND GENERATION CALIBRATION SYSTEM: HARDY INSTRUMENTS PART NUMBER 6020-0001-0.
4. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON ANALOG WEIGH SCALE INPUT CONNECTIONS.
5. C2 WIRE PAIR MUST BE CONNECTED WHEN USING THE HARDY INTEGRATED TECHNICIAN SUMMING CARDS.
6. WIRE SIZE: 12 AWG MAXIMUM / 22 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.

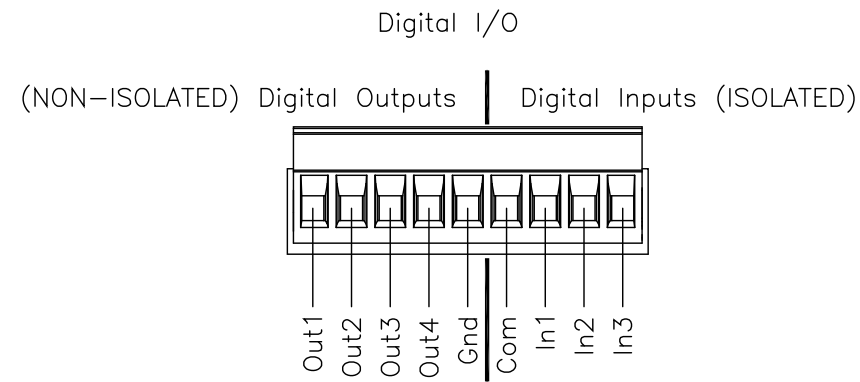


HARDY PROCESS SOLUTIONS			
TITLE I/I DIAGRAM, HI 4050 WEIGHT CONTROLLER			
SIZE	FSCM	DRAWING NO.	REV.
D	21316	0584-0064	E
FILE NAME: 584064E1.DWG		SCALE: NONE	SHEET 7 OF 10

OPTION CODE DIO – DIGITAL I/O

NOTES:

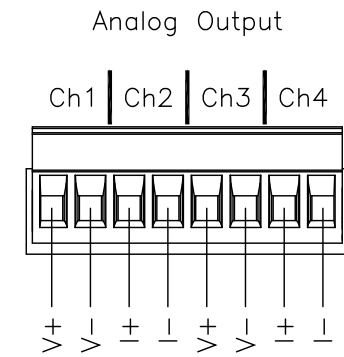
1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON DIGITAL I/O TERMINATIONS.
2. DIGITAL INPUTS & OUTPUTS ARE SOFTWARE CONFIGURABLE. SEE USER'S GUIDE FOR ADDITIONAL SETTING CONFIGURATIONS.
INPUTS: 5–24VDC, 6mA
OUTPUTS: SOURCE: 0–5VDC
SINK: 0–24VDC
3. OPTION DIO IS LOCATED IN THE AUXILIARY OPTION SLOT, WHEN ORDERED.
4. WIRE SIZE: 12 AWG MAXIMUM / 22 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.



OPTION CODES 4ANA & 4ANB – ANALOG OUTPUT TERMINATIONS

NOTES:

1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON ANALOG OUTPUT TERMINATIONS.
2. ANALOG OUTPUTS ARE SOFTWARE CONFIGURABLE. SEE USER'S GUIDE FOR ADDITIONAL SETTING CONFIGURATIONS.
FACTORY DEFAULT SETTINGS:
CURRENT [CH2 & CH4]: 4–20mA
VOLTAGE [CH1 & CH3]: 0–10VDC
3. OPTION 4ANA IS LOCATED IN THE NETWORK OPTION SLOT, WHEN ORDERED.
OPTION 4ANB IS LOCATED IN THE AUXILIARY OPTION SLOT, WHEN ORDERED.
4. ONLY ONE ANALOG OUTPUT OPTION CARD CAN RESIDE IN THE HI 4050 INSTRUMENT, WHEN ORDERED.
5. WIRE SIZE: 12 AWG MAXIMUM / 22 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.



HARDY
PROCESS SOLUTIONS

TITLE
I/I DIAGRAM,
HI 4050 WEIGHT CONTROLLER

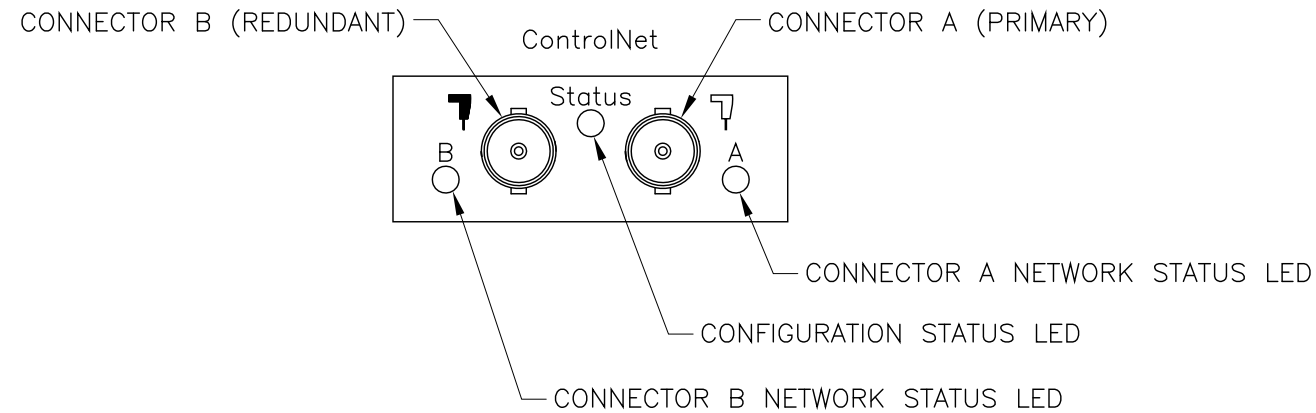
SIZE	FSCM	DRAWING NO.	REV.
D	21316	0584-0064	E

FILE NAME: 584064E1.DWG	SCALE: NONE	SHEET 8 OF 10
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OPTION CODE CN – CONTROLNET I/O INTERFACE

NOTES:

1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON CONTROLNET I/O INTERFACE TERMINATIONS.
2. OPTION CN IS LOCATED IN THE NETWORK OPTION SLOT, WHEN ORDERED.
3. THIS OPTION REQUIRES STANDARD BNC TYPE INTERFACE CONNECTORS. WHEN ORDERED WITH HI 4050-DRWS OR HI 4050-PMWS, RIGHT ANGLE BNC INTERFACE CONNECTORS MUST BE USED.
4. IF REDUNDANCY IS WANTED, BOTH CONNECTORS SHOULD BE USED.

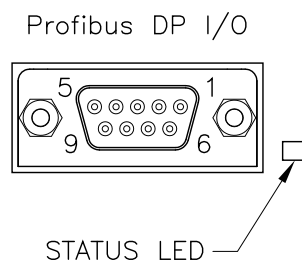


OPTION CODE PB – PROFIBUS DP I/O

NOTES:

1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON PROFIBUS DP I/O INTERFACE TERMINATIONS.
2. OPTION PB IS LOCATED IN THE NETWORK OPTION SLOT, WHEN ORDERED.
3. INTERFACE CONNECTOR TYPE ON THE INSTRUMENT:
9 PIN D-SUBMINIATURE [DE-9], FEMALE CONTACTS.

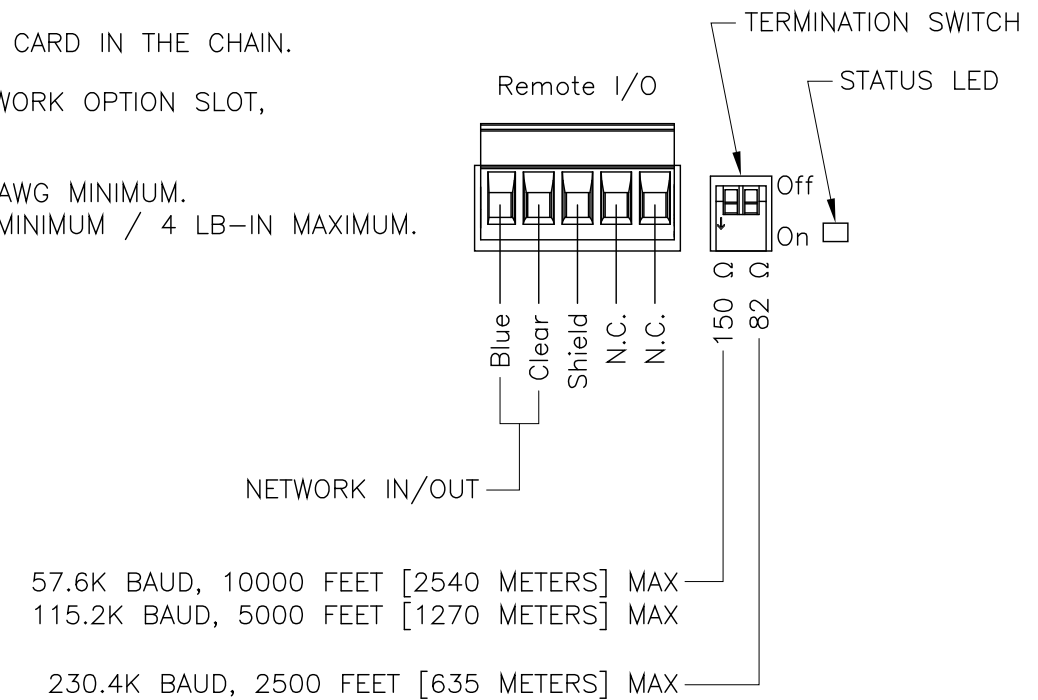
CONNECTOR TERMINATIONS	
PIN	SIGNAL
1	NO CONNECT
2	NO CONNECT
3	RXD/TXD +
4	RTS
5	GND BUS
6	+5V BUS
7	NO CONNECT
8	RXD/TXD -
9	NO CONNECT



OPTION CODE RIO – ALLEN-BRADLEY REMOTE I/O INTERFACE

NOTES:

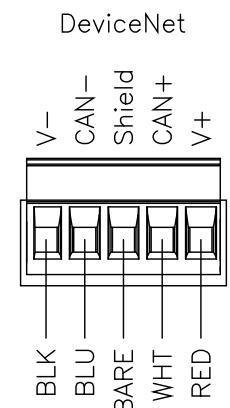
1. SEE HI 4000 SERIES REMOTE I/O USER'S GUIDE FOR ADDITIONAL INFORMATION ON ALLEN-BRADLEY REMOTE I/O INTERFACE TERMINATIONS.
2. N.C. = NOT CONNECTED.
3. ONLY TERMINATE THE LAST NETWORK CARD IN THE CHAIN.
4. OPTION RIO IS LOCATED IN THE NETWORK OPTION SLOT, WHEN ORDERED.
5. WIRE SIZE: 12 AWG MAXIMUM / 22 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.



OPTION CODE DN – DEVICENET COMMUNICATIONS

NOTES:

1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON DEVICENET TERMINATIONS.
2. OPTION DN IS LOCATED IN THE NETWORK OPTION SLOT, WHEN ORDERED.
3. WIRE SIZE: 12 AWG MAXIMUM / 22 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.



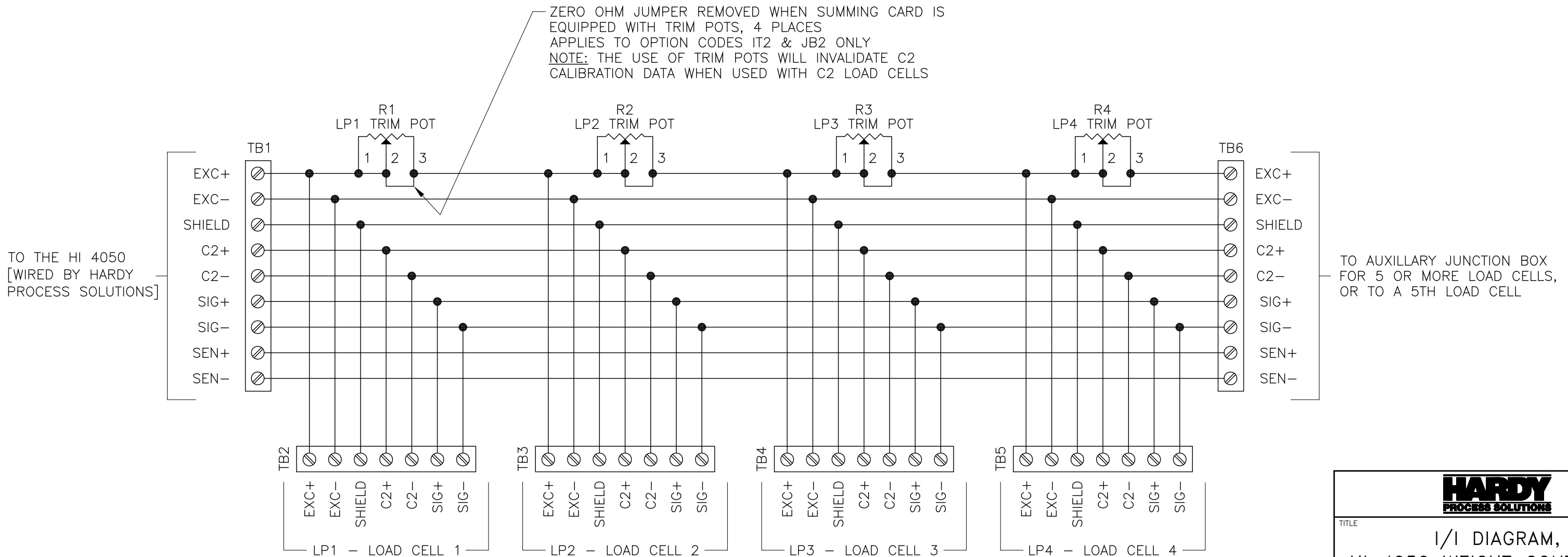
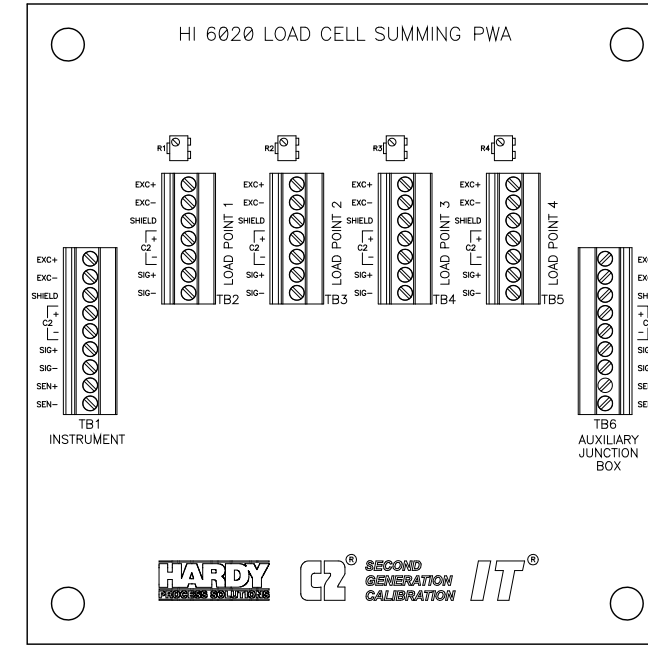
HARDY PROCESS SOLUTIONS			
TITLE I/I DIAGRAM, HI 4050 WEIGHT CONTROLLER			
SIZE	FSCM	DRAWING NO.	REV.
D	21316	0584-0064	E
FILE NAME: 584064E1.DWG		SCALE: NONE	SHEET 9 OF 10

OPTION CODES IT1 & IT2 – IT SUMMING CARD
 OPTION CODES JB1 & JB2 – LOAD CELL SUMMING CARD

NOTES:

- DO NOT RUN LOAD CELL CABLES PARALLEL TO, OR IN THE SAME CONDUIT WITH POWER WIRING, RELAY CABLE OR OTHER HIGH ENERGY CABLES.
- REQUIRED LOAD CELL CABLE FOR C2 SECOND GENERATION CALIBRATION SYSTEM: HARDY PROCESS SOLUTIONS PART NUMBER 6020-0001-0.
- SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON IT SUMMING/LOAD CELL SUMMING CARD CONNECTIONS.
- WIRE SIZE: 12 AWG MAXIMUM / 22 AWG MINIMUM.
 WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.

IT SUMMING/LOAD CELL SUMMING CARD



IT SUMMING/LOAD CELL SUMMING CARD WIRING DIAGRAM

HARDY PROCESS SOLUTIONS			
TITLE I/I DIAGRAM, HI 4050 WEIGHT CONTROLLER			
SIZE	FSCM	DRAWING NO.	REV.
D	21316	0584-0064	E
FILE NAME: 584064E1.DWG		SCALE: NONE	SHEET 10 OF 10