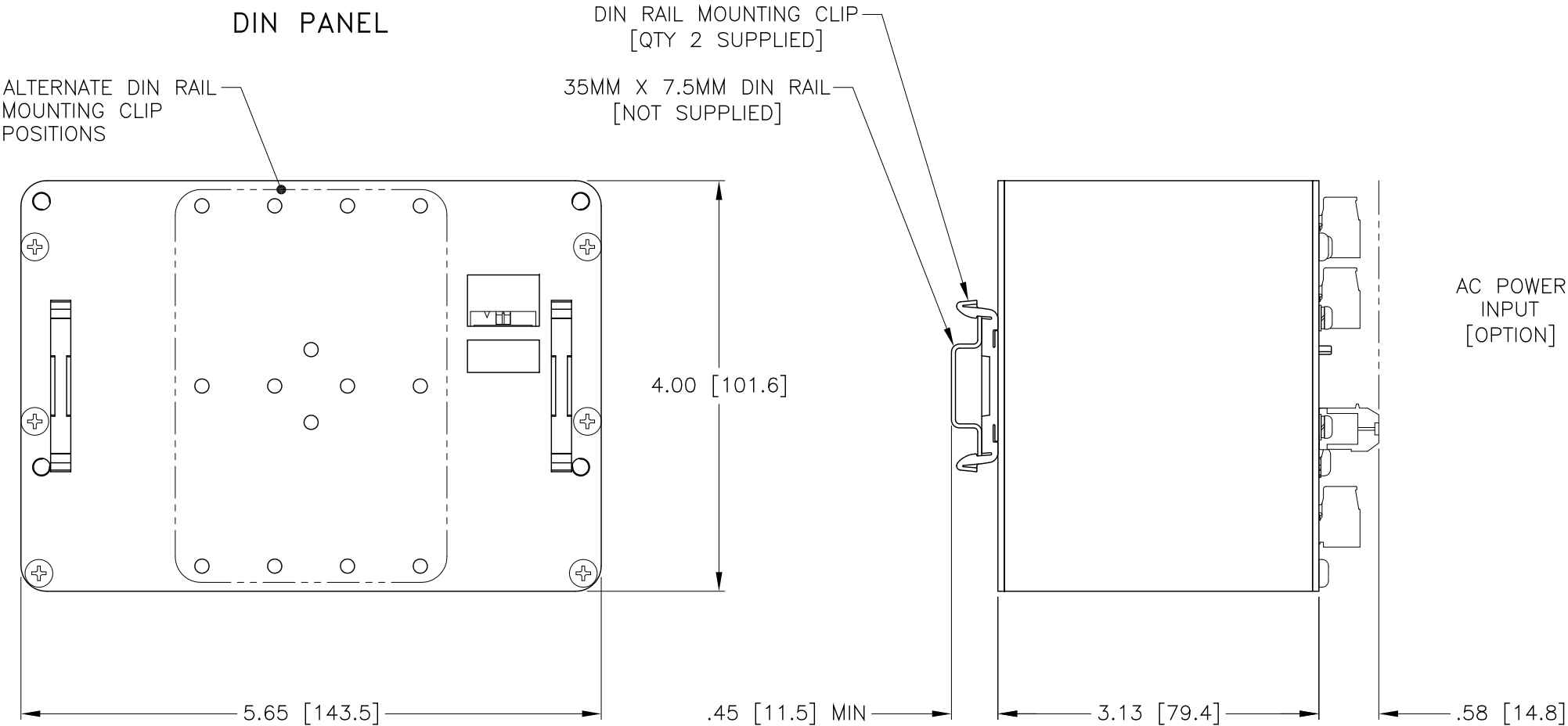
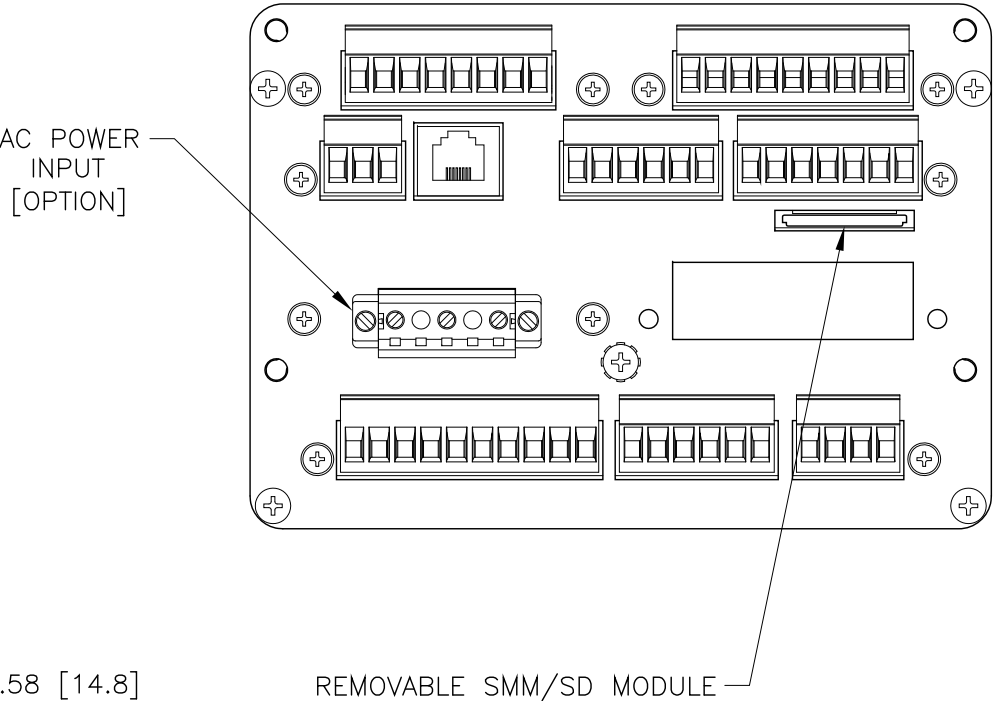


REV.	ECO/DDC	DESCRIPTION	DATE	DRAFT	CHECK	APV'D
A	----	RELEASED FOR PUBLICATION.	12-23-08	V.J.C.	D.H.	C.M.
B	10591	REVISED PER ECN.	03-02-09	V.J.C.	C.M.	V.J.C.
C	10200	REVISED PER ECN.	11-17-10	V.J.C.	C.B.	V.J.C.
D	11139	REVISED PER ECN.	08-23-13	V.J.C.	L.E.G.	V.J.C.
E	11688	REVISED PER ECN.	04-27-15	V.J.C.	L.E.G.	V.J.C.
F	11787	REVISED PER ECN.	01-11-16	V.J.C.	E.B.	V.J.C.

HI 4060 RATE CONTROLLER CONTROLLER MAIN UNIT



USER INTERFACE PANEL 3



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.

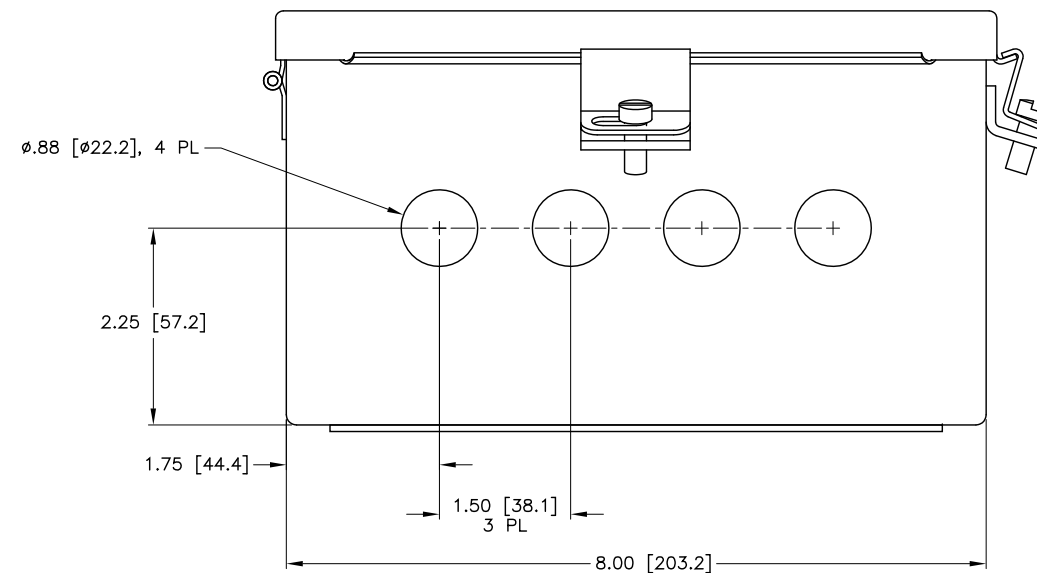
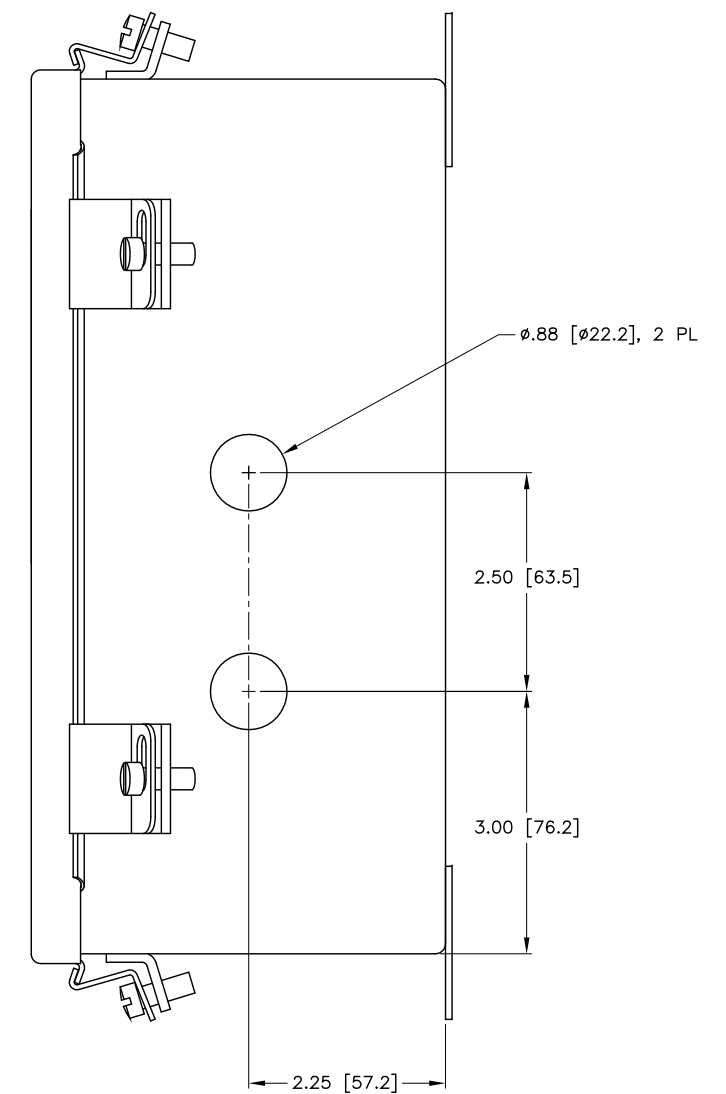
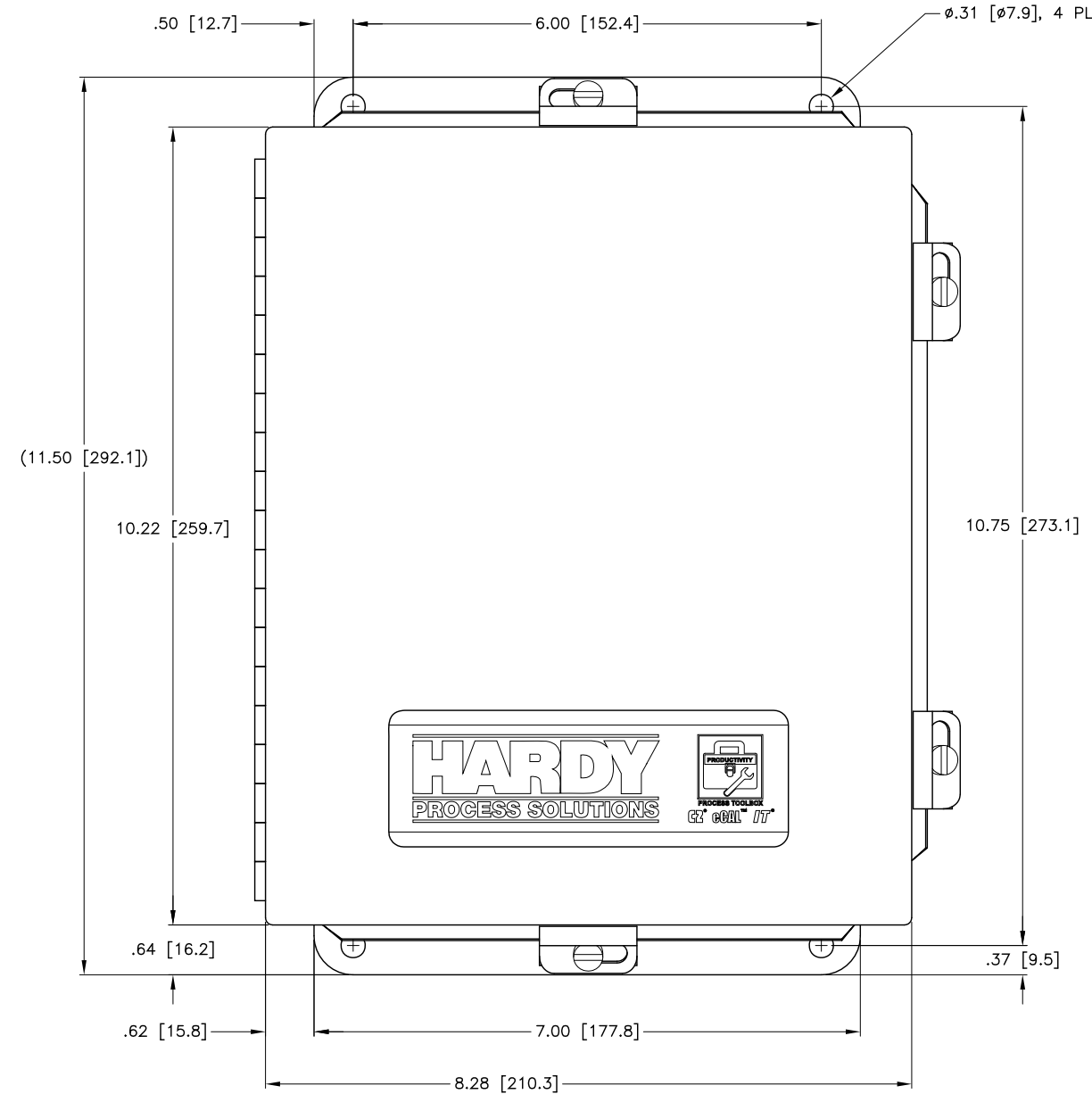
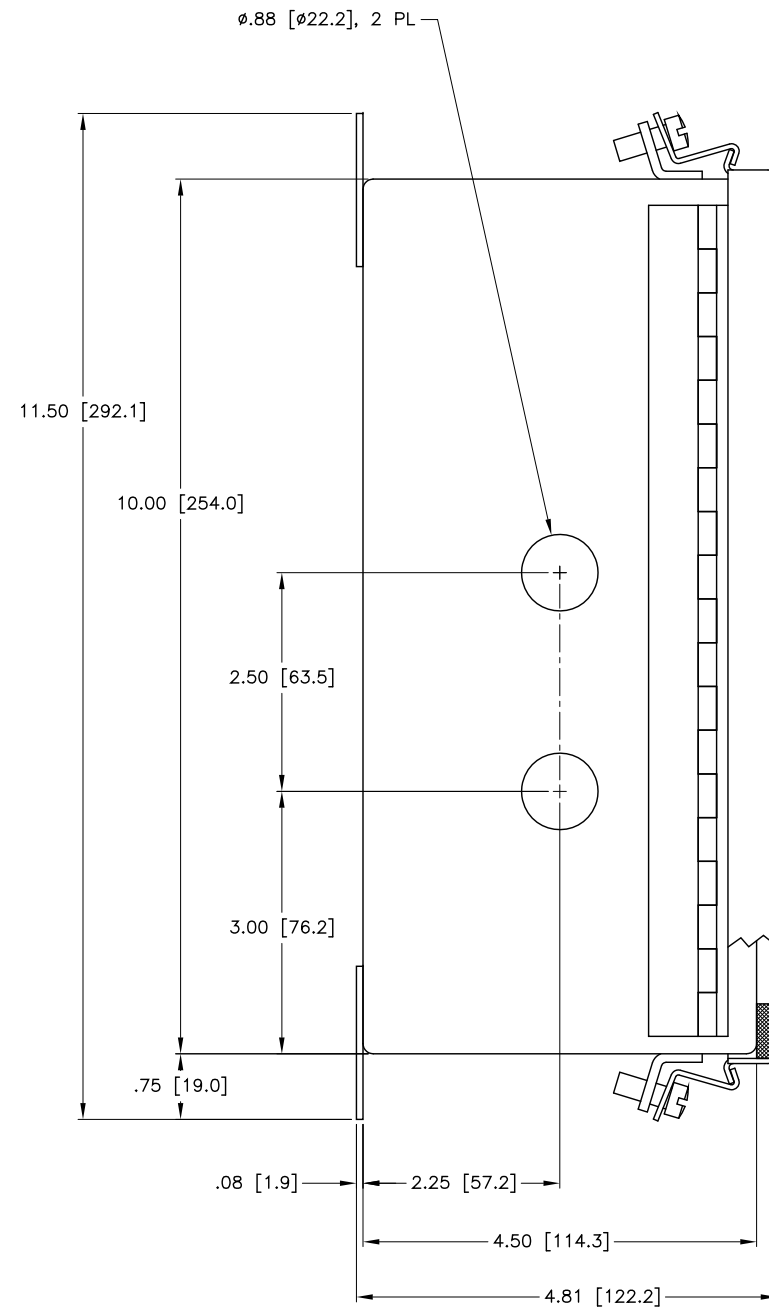
NOTES: UNLESS OTHERWISE SPECIFIED

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DIMENSIONS = IN [MM]

		0584-0065	I/I DIAGRAM, HI 4060 RATE CONTROLLER				
ITEM	QTY	PART NUMBER	DESCRIPTION		COMMENTS		
PARTS LIST							
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES [MM] TOLERANCES ARE: DECIMALS: .XX = N/A .XXX = N/A ANGLES: N/A MATERIAL		CONTRACT NO.		 TITLE I/I DIAGRAM, HI 4060 RATE CONTROLLER			
		APPROVALS					
		DRAWN V. CHULA	DATE 12-23-08				
		CHECKED D. HOLT	DATE 12-23-08				
		APPROVED C. MOYA	DATE 12-23-08				
FINISH		ISSUED V. CHULA	DATE 12-23-08	SIZE D	FSCM 21316	DRAWING NO. 0584-0065	REV. F
DO NOT SCALE DRAWING		PRODUCTION	DATE	FILE NAME: 584065F1.DWG		SCALE: NONE	SHEET 1 OF 10

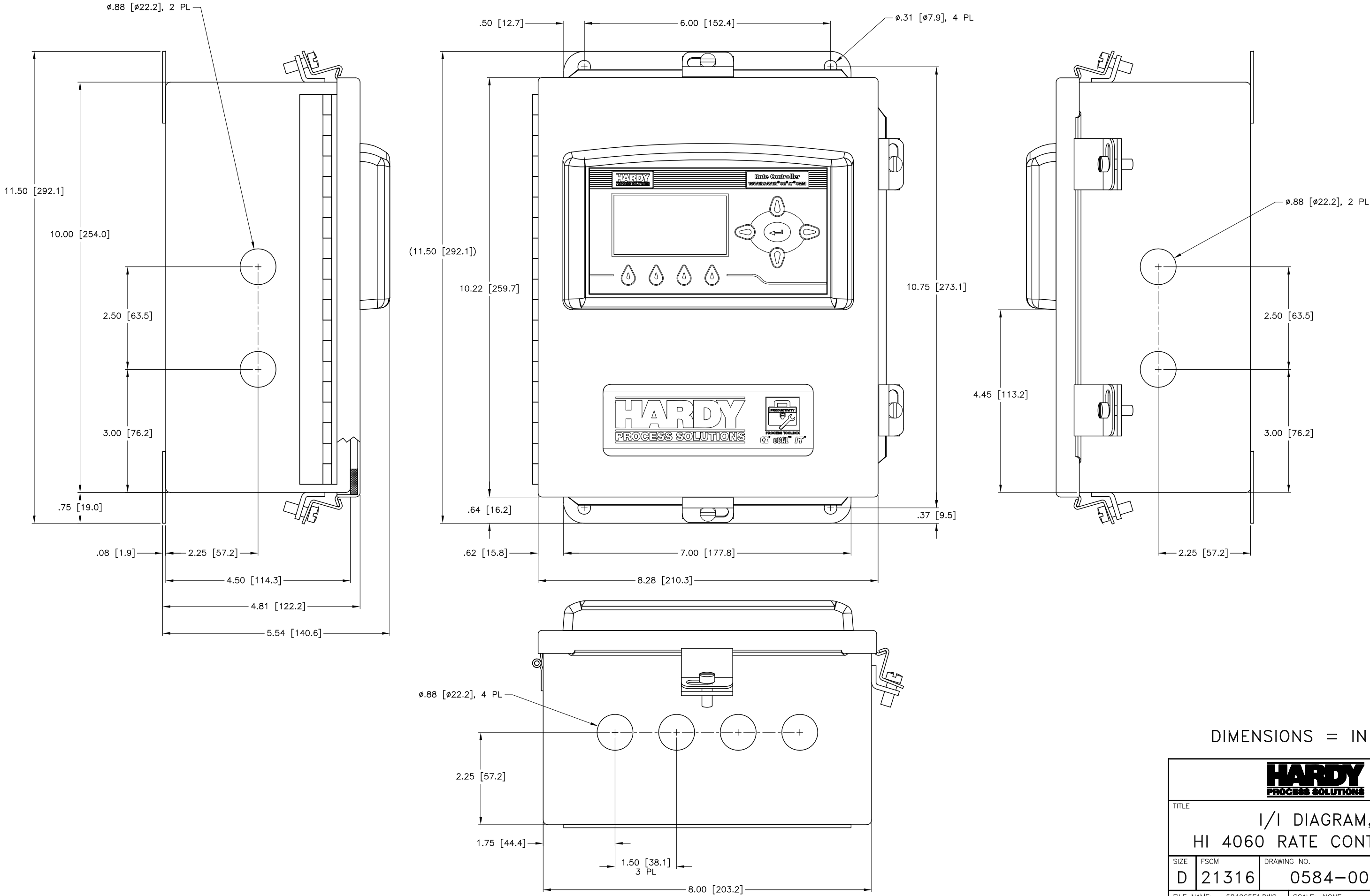
NEMA 4/4X WALL MOUNT HI 4060 RATE CONTROLLER – WITHOUT DISPLAY



DIMENSIONS = IN [MM]

			
TITLE			
I/I DIAGRAM, HI 4060 RATE CONTROLLER			
SIZE	FSCM	DRAWING NO.	REV.
D	21316	0584-0065	F
FILE NAME: 584065F1.DWG		SCALE: NONE	SHEET 3 OF 10

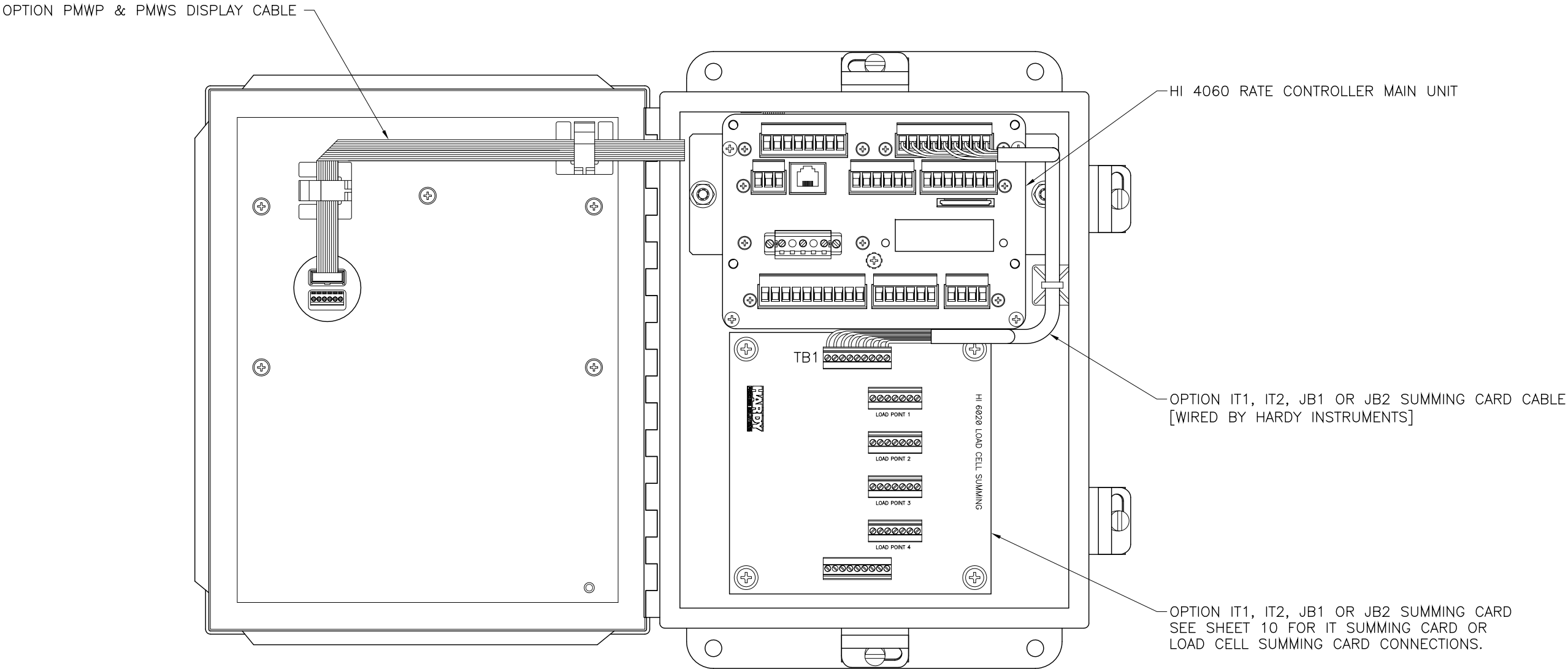
NEMA 4/4X WALL MOUNT HI 4060 RATE CONTROLLER – WITH DISPLAY



DIMENSIONS = IN [MM]

HARDY PROCESS SOLUTIONS			
TITLE I/I DIAGRAM, HI 4060 RATE CONTROLLER			
SIZE D	FSCM 21316	DRAWING NO. 0584-0065	REV. F
FILE NAME: 584065F1.DWG		SCALE: NONE	SHEET 4 OF 10

NEMA 4/4X WALL MOUNT HI 4060 RATE CONTROLLER – INTERNAL COMPONENTS



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

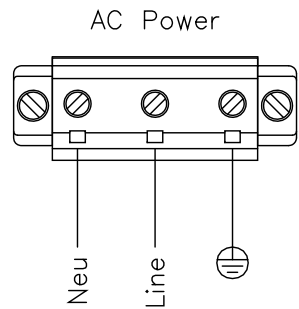
DIMENSIONS = IN [MM]

HARDY PROCESS SOLUTIONS			
TITLE I/I DIAGRAM, HI 4060 RATE CONTROLLER			
SIZE D	FSCM 21316	DRAWING NO. 0584-0065	REV. F
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POWER INPUT TERMINATIONS

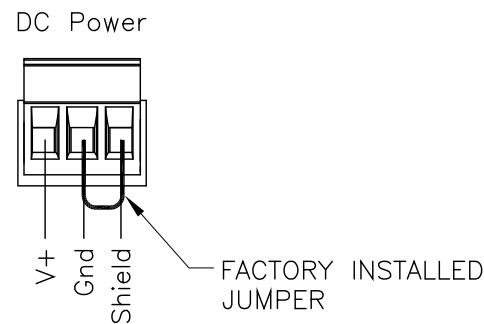
OPTION CODE AC

- NOTES:
- 1. INPUT VOLTAGE: 100–240 VAC, 50–60 Hz, 0.5 AMP, 10 WATT.
 - 2. OPTION AC OPERATING TEMPERATURE: –10°C TO + 40°C.
 - 3. WIRE SIZE: 14 AWG MAXIMUM / 18 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.



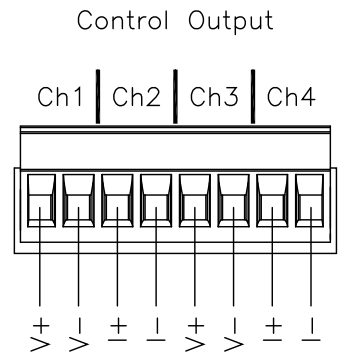
OPTION CODE DC

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



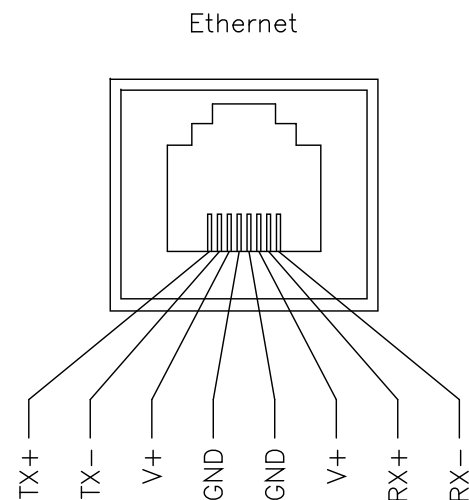
CONTROL OUTPUT TERMINATIONS

- NOTES:
- 1. SEE USER’S GUIDE FOR ADDITIONAL INFORMATION ON CONTROL OUTPUT TERMINATIONS.
 - 2. CONTROL OUTPUTS ARE SOFTWARE CONFIGURABLE. SEE USER’S GUIDE FOR ADDITIONAL SETTING CONFIGURATIONS.
FACTORY DEFAULT SETTINGS:
CURRENT & VOLTAGE: 4–20mA OUTPUT, 0–10 VDC
SOFTWARE CONFIGURATION [FOR ALL CHANNELS]: MOTOR CONTROL
 - 3. WIRE SIZE: 12 AWG MAXIMUM / 22 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.



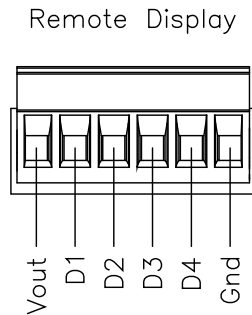
ETHERNET TERMINATION

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



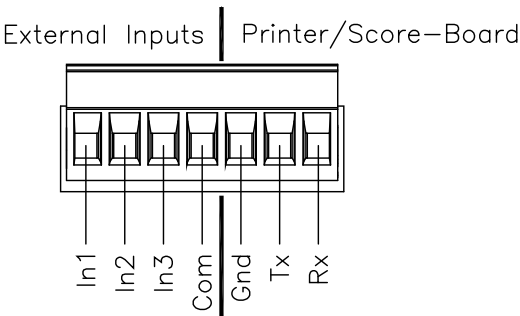
REMOTE DISPLAY TERMINATIONS

- 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.

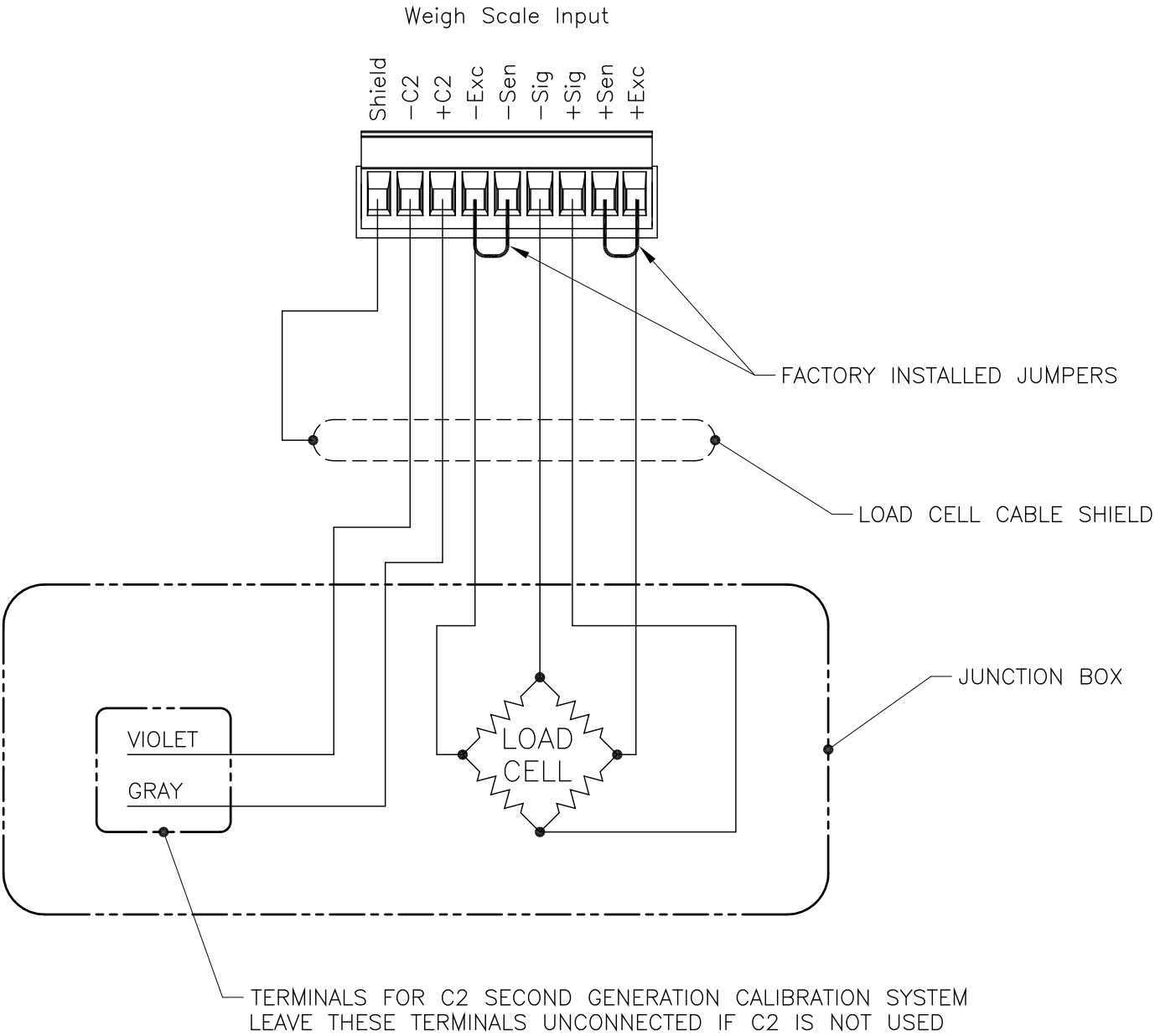


TITLE I/I DIAGRAM, HI 4060 RATE CONTROLLER			
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WEIGH SCALE INPUT TERMINATIONS

NOTES:

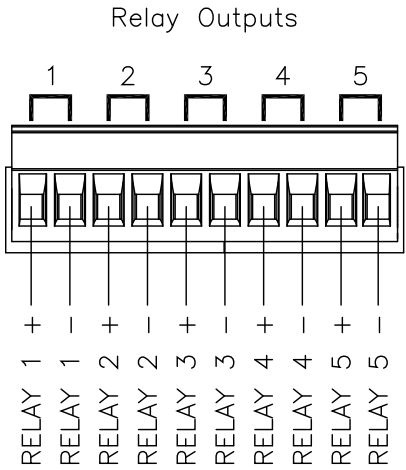
- 1. DO NOT RUN LOAD CELL CABLE PARALLEL TO, OR IN THE SAME CONDUIT WITH POWER WIRING, RELAY CABLE OR OTHER HIGH ENERGY CABLES.
- 2. FACTORY INSTALLED JUMPERS TO REMAIN IN PLACE FOR FOUR WIRE LOAD CELL CONNECTION. JUMPERS TO BE REMOVED FOR SIX WIRE OR EIGHT WIRE [C2] LOAD CELL CONNECTIONS. EXCITATION 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			
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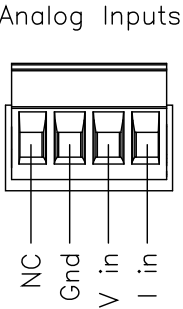
RELAY OUTPUT TERMINATIONS

- NOTES:
- 1. RELAY CONTACT RATINGS:
AC: 240 VAC, 4 AMP NOMINAL
DC: 30 VDC, 2 AMP NOMINAL [RESISTIVE LOAD]
 - 2. RELAY TYPE: MECHANICAL, NORMALLY OPEN, ALL MAPPABLE.
FACTORY DEFAULT RELAY MAPPING:
RELAY 1 – ON
RELAY 2 – SHUTOFF
RELAY 3 – REC [RATE EXCEPTION CONTROL]
RELAY 4 – ALARM
RELAY 5 – REFILL
ALTERNATE RELAY CONFIGURATIONS MAY BE OBTAINED IN THE MAPPING SECTION OF INSTRUMENT’S WEB PAGE.
 - 3. SEE USER’S GUIDE FOR ADDITIONAL INFORMATION ON RELAY OUTPUT TERMINATIONS.
 - 4. WIRE SIZE: 12 AWG MAXIMUM / 22 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.



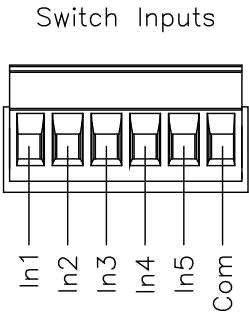
ANALOG INPUT TERMINATIONS

- NOTES:
- 1. SEE USER’S GUIDE FOR ADDITIONAL INFORMATION ON ANALOG INPUT TERMINATIONS.
 - 2. ANALOG INPUTS ARE NON-ISOLATED.
DO NOT BUNDLE ANALOG INPUT WIRING WITH POWER WIRING, RELAY CABLE OR ANY OTHER HIGH ENERGY CABLES.
 - 3. ANALOG INPUTS ACCEPT ONLY 1 OF THE 2 SIGNALS; EITHER VOLTAGE OR CURRENT, WHICH MUST BE CONFIGURED IN THE REMOTE SETPOINT SECTION IN THE INGREDIENT MENU.
THIS INPUT IS NOT MAPPABLE AND CAN ONLY BE CONFIGURED THROUGH THE INSTRUMENT’S REMOTE SETPOINT FEATURE.
 - 4. SELECTABLE ANALOG INPUT RANGES:
ANY VOLTAGE RANGE WITHIN 0–10 VOLTS
– OR –
ANY CURRENT RANGE WITHIN 0–20 mA
 - 5. WIRE SIZE: 12 AWG MAXIMUM / 22 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.



SWITCH INPUT TERMINATIONS

- NOTES:
- 1. SEE USER’S GUIDE FOR ADDITIONAL INFORMATION ON SWITCH INPUT TERMINATIONS.
 - 2. SWITCH INPUTS ARE NON-ISOLATED, ACTIVE LOW AND REFERENCED TO COMMON [COM].
 - 3. DO NOT BUNDLE SWITCH INPUT WIRING WITH POWER WIRING, RELAY CABLE OR ANY OTHER HIGHENERGY CABLES.
 - 4. SWITCH INPUTS ARE MAPPABLE.
FACTORY DEFAULT SWITCH INPUT MAPPING:
INPUT 1 – START
INPUT 2 – STOP
INPUT 3 – ESTOP
INPUT 4 – FORCE REFILL
INPUT 5 – CLEAR TOTAL
ALTERNATE SWITCH INPUT CONFIGURATIONS MAY BE OBTAINED IN THE MAPPING SECTION OF INSTRUMENT’S WEB PAGE.
 - 5. WIRE SIZE: 12 AWG MAXIMUM / 22 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.

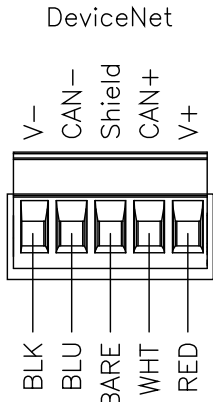


HARDY PROCESS SOLUTIONS			
TITLE I/I DIAGRAM, HI 4060 RATE CONTROLLER			
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OPTION CODE DN – DEVICENET COMMUNICATIONS

NOTES:

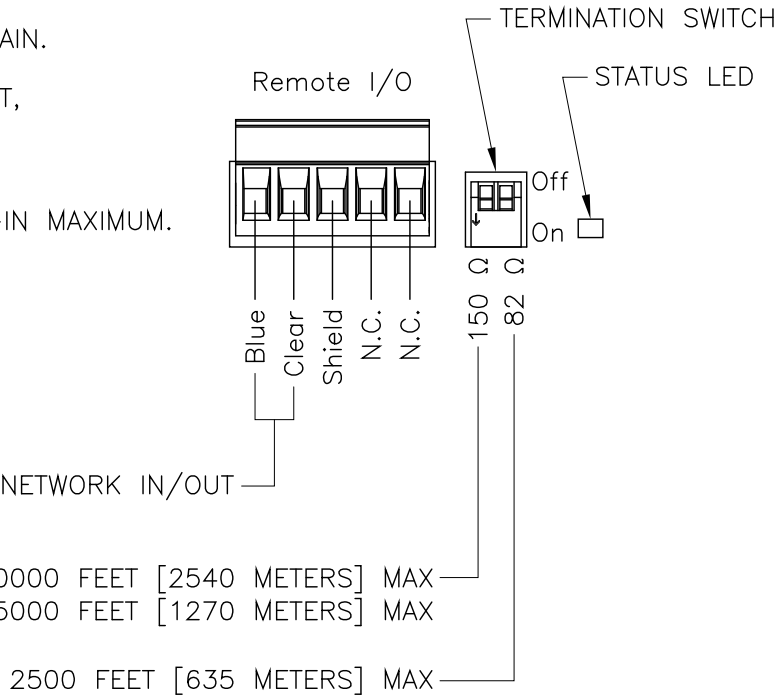
- 1. SEE USER’S GUIDE FOR ADDITIONAL INFORMATION ON DEVICENET TERMINATIONS.
- 2. OPTION DN IS LOCATED IN THE NETWORK OPTION SLOT, WHEN ORDERED.
- 3. WIRE SIZE: 12 AWG MAXIMUM / 22 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.



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.

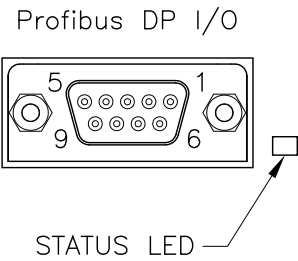


OPTION CODE PB – PROFIBUS DP I/O

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.

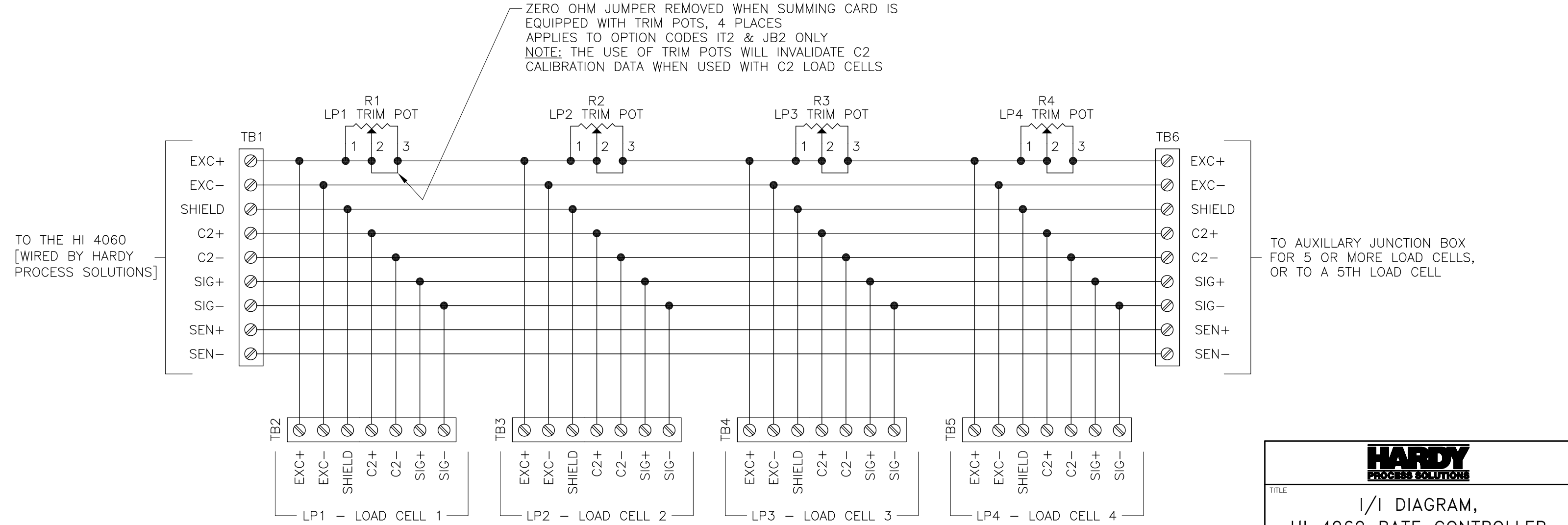
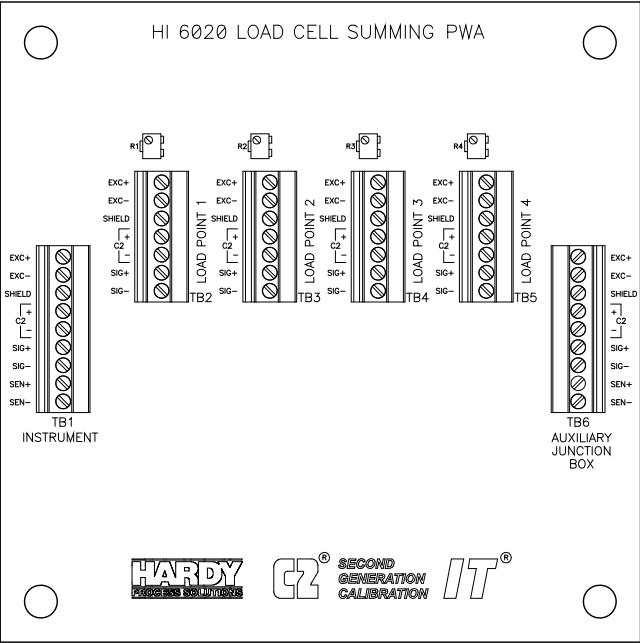
CONNECTOR TERMINATIONS	
PIN	SIGNAL
1	NO CONNECT
2	NO CONNECT
3	RXD/TXD +
4	RTS
5	GND BUS
6	+5V BUS
7	NO CONNECT
8	RXD/TXD –
9	NO CONNECT



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

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

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