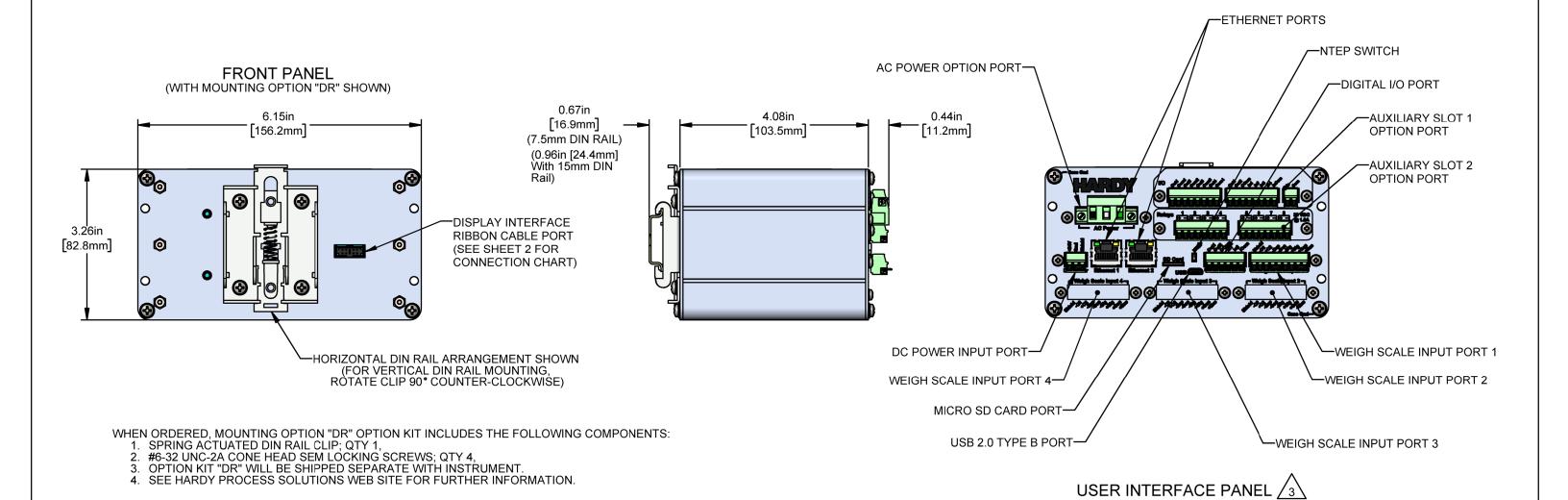
REV.
 ECO/DDC
 DESCRIPTION
 DATE
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 A
 ---- RELEASED.
 10-12-23
 V.J.C.
 L.N.
 V.J.C.



- 5. OPTION CONTENT SHOWN WITHIN THIS DOCUMENT MAY NOT NECESSARILY BE AVAILABLE ON EVERY HI 6850 INSTRUMENT APPLICATION SOFTWARE VARIANT. SEE HARDY PROCESS SOLUTIONS WEB SITE FOR INSTRUMENT SPECIFIC APPLICATION SOFTWARE VARIANTS.
- 4. IF THE HI 6850 INSTRUMENT IS USED IN A MANNER NOT SPECIFIED BY HARDY PROCESS SOLUTIONS, THE PROTECTION PROVIDED BY THE INSTRUMENT MAY BE IMPAIRED.

SEE SHEETS 4 THROUGH 6 FOR USER INTERFACE CONNECTIONS.

- 2. SEE SHEETS 2 AND 3 FOR PANEL MOUNT DISPLAY OPTIONS.
- 1. SEE HARDY PROCESS SOLUTIONS WEB SITE FOR ADDITIONAL MOUNTING AND WIRING INFORMATION.

## NOTES: UNLESS OTHERWISE SPECIFIED

PROPRIETARY NOTICE
ALL DATA AND INFORMATION CONTAINED IN OR DISCLOSED BY THIS DOCUMENT IS CONFIDENTIAL AND PROPRIETARY INFORMATION OF HARDY PROCESS SOLUTIONS AND ALL RIGHTS THEREIN ARE EXPRESSLY RESERVED. BY ACCEPTING THIS MATERIAL THE RECIPIENT AGREES THAT THIS MATERIAL AND THE INFORMATION CONTAINED THEREIN IS HELD IN CONFIDENCE AND IN TRUST AND SHALL NOT BE USED, COPIED, REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO OTHERS, EXCEPT TO MEET THE SPECIFIC PURPOSE FOR WHICH IT WAS DELIVERED.

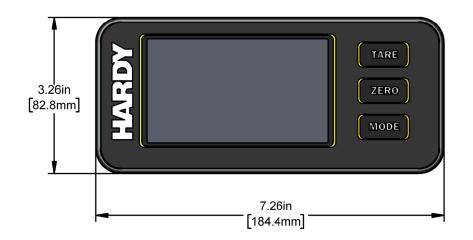
	_		0584-01	13 INSTALLATIO	N/INTERCONNEC	CTION DI	AGRAM, HI 6850	SERIES	SEE NOTES
	ITEM QTY PART NUMI		IBER	DESCRIPTION				COMMENTS	
						PAF	RTS LIST		
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		CONTRACT NO.				HARD	7	
				APPF	APPROVALS				<u>[</u>
		TOLERANCES ARE: FRACTIONS: N/A DECIMALS: .XX = ±.03		DRAWN	DATE			PROCESS SOLUTION	<u>NS</u>
				V. CHULA	10-12-23	TITLE			
			CHECKED L. NICDAO	DATE 10-12-23	INSTALLATION/INTERCONNECTION DIAGRAM, HI 6850 SERIES				
			APPROVED V. CHULA	DATE 10-12-23					
				ISSUED	DATE	SIZE	FSCM	DRAWING NO.	REV.
	FINISH			V. CHULA	10-12-23	l D	21316	0584-0113	l A
				PRODUCTION	DATE				
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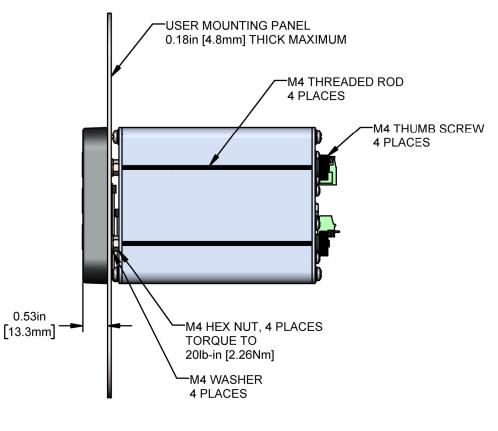
## HI 6850 SERIES INSTRUMENT WITH OPTION "PM1" FRONT PANEL DISPLAY

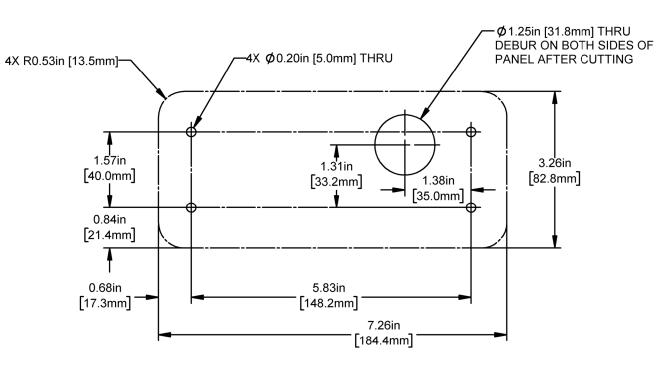
WHEN ORDERED, MOUNTING OPTION "PM1" OPTION KIT INCLUDES THE FOLLOWING COMPONENTS:

1. MODEL HI 6130 - 4.3 INCH TOUCH SCREEN LCD DISPLAY (SEALING GASKET INCLUDED); QTY 1.

- 4.00 INCH [101.6mm] LONG 10 POSITION DISPLAY INTERFACE RIBBON CABLE: QTY 1.
- M4 X 0.7, 126mm LONG THREADED RODS, QTY 4. M4 FLAT WASHERS; QTY 4.
- M4 X 0.7 HEX NUTS; QTY 4
- M4 X 0.7 THREADED THUMB NUTS; QTY 4.
  DISPLAY MOUNTING HOLE DRILL TEMPLATE; QTY 1.
- OPTION KIT "PM1" WILL BE SHIPPED SEPARATE WITH INSTRUMENT.
- SEE HARDY PROCESS SOLUTIONS WEB SITE FOR FURTHER INFORMATION.

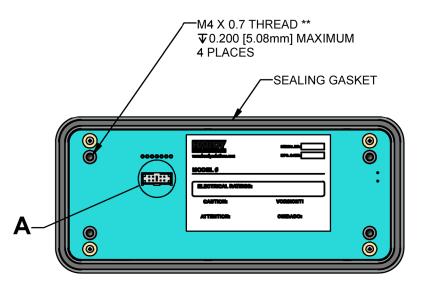






## HI 6130 SERIES FRONT PANEL DISPLAY MOUNTING DIMENSIONS (VIEWED FROM THE FRONT OF THE INSTRUMENT)

J9 CONNECTION CHART			
PIN NUMBER	SIGNAL NAME		
1	V+		
2	V+		
3	CHASSIS GND TXD- TXD+		
4			
5			
6	NO CONNECTION		
7	RXD+		
8	RXD-		
9	GND		
10	GND		
RIBBON CABLE CONNECTOR			

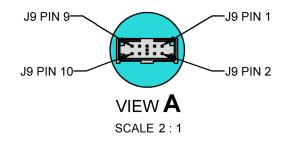


\*\* IF THE DISPLAY IS TO BE MOUNTED REMOTELY FROM THE INSTRUMENT, USE M4 X 0.7 THREADED SCREW LENGTH OF 0.300 INCH [7.62mm] MAXIMUM PLUS THE MOUNTING PANEL THICKNESS

## FRONT PANEL DISPLAY TERMINATIONS

#### NOTES:

- 1. INPUT VOLTAGE RATING: 12-24 VDC, 1.4 WATTS MAXIMUM.
- 2. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON FRONT PANEL DISPLAY TERMINATIONS. USER'S GUIDE IS LOCATED ON HARDY PROCESS SOLUTIONS WEB SITE.
- 3. CONNECTOR J9 UTILIZES A 4.00 INCH [101.6mm] LONG 10 POSITION DISPLAY INTERFACE RIBBON CABLE THAT IS SHIPPED WITH THE HI 6850 SERIES INSTRUMENT WHEN OPTION "PM1" IS ORDERED.







DRAWING NO. 0584-0113 SHEET 2 OF 6

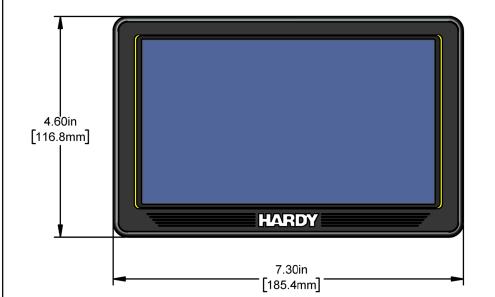
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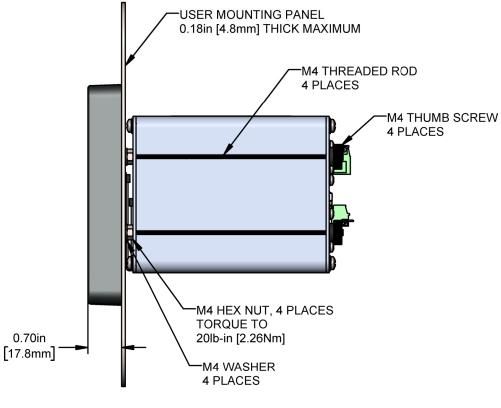
## HI 6850 SERIES INSTRUMENT WITH OPTION "PM2" FRONT PANEL DISPLAY

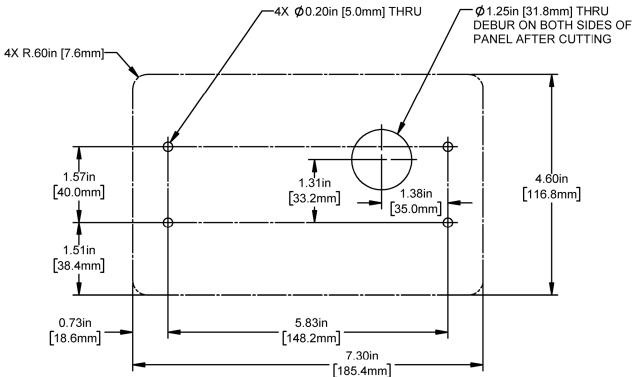
WHEN ORDERED, MOUNTING OPTION "PM2" OPTION KIT INCLUDES THE FOLLOWING COMPONENTS:

1. MODEL HI 6150 - 7.0 INCH TOUCH SCREEN LCD DISPLAY (SEALING GASKET INCLUDED); QTY 1.

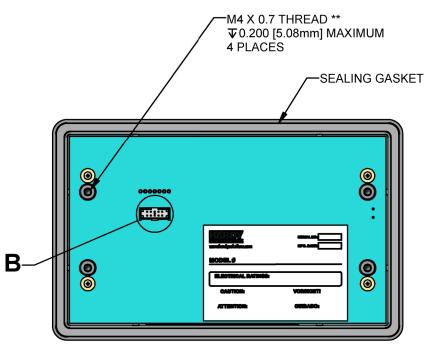
- 4.00 INCH [101.6mm] LONG 10 POSITION DISPLAY INTERFACE RIBBON CABLE: QTY 1.
- M4 X 0.7, 126mm LONG THREADED RODS, QTY 4. M4 FLAT WASHERS; QTY 4.
- M4 X 0.7 HEX NUTS; QTY 4
- M4 X 0.7 THREADED THUMB NUTS; QTY 4.
  DISPLAY MOUNTING HOLE DRILL TEMPLATE; QTY 1.
- OPTION KIT "PM2" WILL BE SHIPPED SEPARATE WITH INSTRUMENT.
- SEE HARDY PROCESS SOLUTIONS WEB SITE FOR FURTHER INFORMATION.







J9 CONNECTION CHART				
PIN NUMBER	SIGNAL NAME			
1	V+			
2	V+			
3	CHASSIS GND			
4	TXD-			
5	TXD+			
6	NO CONNECTION			
7	RXD+			
8	RXD-			
9	GND			
10	GND			
RIBBON CABLE CONNECTOR				

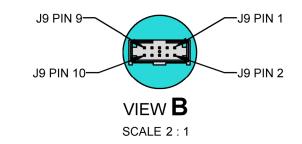


\*\* IF THE DISPLAY IS TO BE MOUNTED REMOTELY FROM THE INSTRUMENT, USE M4 X 0.7 THREADED SCREW LENGTH OF 0.300 INCH [7.62mm] MAXIMUM PLUS THE MOUNTING PANEL THICKNESS

## FRONT PANEL DISPLAY TERMINATIONS

#### NOTES:

- 1. INPUT VOLTAGE RATING: 12-24 VDC, 2.4 WATTS MAXIMUM.
- 2. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON FRONT PANEL DISPLAY TERMINATIONS. USER'S GUIDE IS LOCATED ON HARDY PROCESS SOLUTIONS WEB SITE.
- 3. CONNECTOR J9 UTILIZES A 4.00 INCH [101.6mm] LONG 10 POSITION DISPLAY INTERFACE RIBBON CABLE THAT IS SHIPPED WITH THE HI 6850 SERIES INSTRUMENT WHEN OPTION "PM2" IS ORDERED.





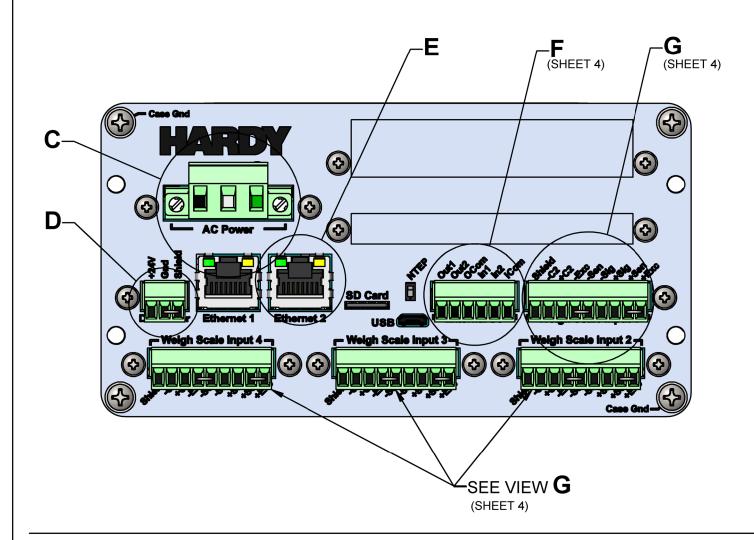
SHEET 3 OF 6

FILE NAME: 0584-0113A1.SLDDRW | SCALE: NONE

## HI 6150 SERIES FRONT PANEL DISPLAY MOUNTING DIMENSIONS

(VIEWED FROM THE FRONT OF THE INSTRUMENT)

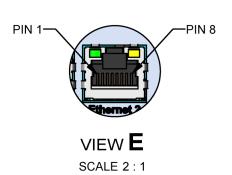
## HI 6850 SERIES INSTRUMENT USER INTERFACE PANEL CONNECTIONS



## ETHERNET TERMINATIONS (BOTH PORTS)

## NOTES:

- 1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON ETHERNET TERMINATIONS. USER'S GUIDE IS LOCATED ON HARDY PROCESS SOLUTIONS WEB SITE.
- 2. CONNECTOR TYPE: RJ-45, 8 PIN; QTY 2.

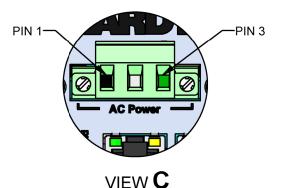


CONNECTION CHART				
PIN NUMBER	SIGNAL NAME			
1	TX+			
2	TX-			
3	V+			
4	GND GND			
5				
6	V+			
7	RX+			
8	RX-			

## OPTION "AC" POWER INPUT TERMINATIONS

#### NOTES:

- 1. INPUT VOLTAGE RANGE: 100-240 VAC, 50/60 Hz, 0.75-0.50 AMP.
- 2. TERMINAL BLOCK WIRE SIZE RANGE: 12 AWG MAXIMUM / 24 AWG MINIMUM.
- 3. WIRE TEMPERATURE RATING TO BE 90°C.
- 4. WIRE TIGHTENING TORQUE: 5.0 LB-IN / 7.0 LB-IN [0.56 Nm / 0.79 Nm].
- 5. USE COPPER CONDUCTORS ONLY.



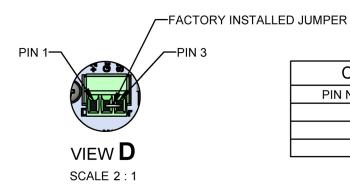
CONNECTION CHART			
PIN NUMBER SIGNAL NAME			
1	LINE		
2	NEUTRAL		
3	EARTH		

SCALE 2:1

## OPTION "DC" POWER INPUT TERMINATIONS

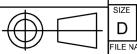
#### NOTES

- 1. CLASS 2 INPUT VOLTAGE RANGE [24VDC NOMINAL]: 12-24 VDC, 3 WATTS NOMINAL.
- 2. TERMINAL BLOCK WIRE SIZE RANGE: 16 AWG MAXIMUM / 28 AWG MINIMUM.
- 3. WIRE TEMPERATURE RATING TO BE 90° C.
- 4. WIRE TIGHTENING TORQUE: 2.0 LB-IN / 2.2 LB-IN [0.23 Nm / 0.25 Nm].
- 5. USE COPPER CONDUCTORS ONLY.



CONNECTION CHART			
PIN NUMBER SIGNAL NAME			
1	+24V IN		
2	GND		
3	SHIELD		





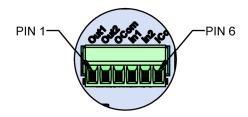
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## HI 6850 SERIES INSTRUMENT USER INTERFACE PANEL CONNECTIONS

## DIGITAL I/O TERMINATIONS

#### NOTES:

- 1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON DIGITAL I/O TERMINATIONS. USER'S GUIDE IS LOCATED ON HARDY PROCESS SOLUTIONS WEB SITE.
- 2. DO NOT BUNDLE DIGITAL I/O WIRING WITH POWER WIRING, RELAY CABLE OR ANY OTHER HIGH ENERGY CABLES.
- 3. TERMINAL BLOCK WIRE SIZE RANGE: 16 AWG MAXIMUM / 28 AWG MINIMUM.
- 4. WIRE TEMPERATURE RATING TO BE 90° C.
- 5. WIRE TIGHTENING TORQUE: 2.0 LB-IN / 2.2 LB-IN [0.23 Nm / 0.25 Nm].
- 6. USE COPPER CONDUCTORS ONLY.



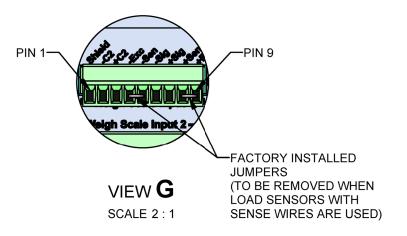
VIEW **F SCALE 2:1** 

CONNECTION CHART				
PIN NUMBER	SIGNAL NAME			
1	OUT1			
2	OUT2			
3	OUT COMMON			
4	IN1			
5	IN2			
6	IN COMMON			

## WEIGH SCALE INPUT TERMINATIONS TYPICAL FOR OPTIONS "NSA", "WS2", "WS3" AND "WS4"

#### NOTES:

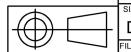
- 1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON LOAD CELL CONNECTIONS. USER'S GUIDE IS LOCATED ON HARDY PROCESS SOLUTIONS WEB SITE.
- 2. IF CONDUIT IS USED, DO NOT RUN LOAD CELL CABLE PARALLEL TO, OR IN SAME CONDUIT WITH, POWER WIRING, RELAY CABLE OR OTHER HIGH ENERGY CABLES.
- 3. FACTORY INSTALLED JUMPERS TO REMAIN IN PLACE ONLY FOR FOUR WIRE NON C2 LOAD CELL CONNECTION. JUMPERS TO BE REMOVED FOR SIX WIRE NON C2 OR EIGHT WIRE C2 LOAD CELL CONNECTIONS. EXCITATION AND SENSE WIRES TO BE CONNECTED TOGETHER IN JUNCTION BOX.
- 4. TERMINAL BLOCK WIRE SIZE RANGE: 16 AWG MAXIMUM / 28 AWG MINIMUM.
- 5. WIRE TEMPERATURE RATING TO BE 90°C.
- 6. WIRE TIGHTENING TORQUE: 2.0 LB-IN / 2.2 LB-IN [0.23 Nm / 0.25 Nm].
- 7. USE COPPER CONDUCTORS ONLY.



CONNECTION CHART			
SIGNAL NAME			
SHIELD			
-C2			
+C2			
-EXC			
-SEN			
-SIG			
+SIG			
+SEN			
+EXC			



INSTALLATION/INTERCONNECTION DIAGRAM, HI 6850 SERIES

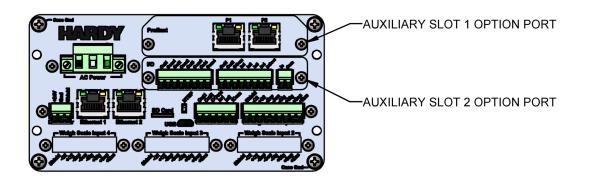


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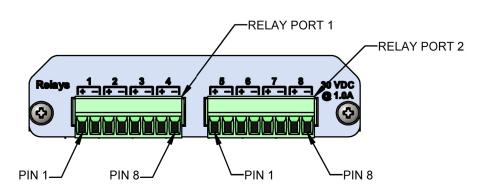
## HI 6850 SERIES INSTRUMENT USER INTERFACE PANEL CONNECTIONS



## OPTION "GPRC" GENERAL PURPOSE RELAY TERMINATIONS

#### NOTES:

- 1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON RELAY TERMINATIONS. USER'S GUIDE IS LOCATED ON HARDY PROCESS SOLUTIONS WEB SITE.
- 2. DC RELAY RATINGS: 30 VDC @ 1.0 AMP.
- 3. TERMINAL BLOCK WIRE SIZE RANGE: 16 AWG MAXIMUM / 28 AWG MINIMUM.
- 4. WIRE TEMPERATURE RATING TO BE 90° C.
- 5. WIRE TIGHTENING TORQUE: 2.0 LB-IN / 2.2 LB-IN [0.23 Nm / 0.25 Nm].
- 6. USE COPPER CONDUCTORS ONLY.
- 7. WHEN ORDERED, THIS OPTION CAN BE INSTALLED IN EITHER ONE OR BOTH OF THE AUXILIARY SLOT OPTION PORTS.



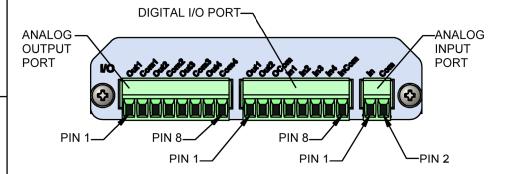
RELAY PORT 1 CONNECTION CHART		
SIGNAL NAME		
OUT 1 +		
OUT 1 -		
OUT 2 +		
OUT 2 -		
OUT 3 +		
OUT 3 -		
OUT 4 +		
OUT 4 -		

RELAY PORT 2 CONNECTION CHART		
PIN NUMBER	SIGNAL NAME	
1	OUT 5 +	
2	OUT 5 -	
3	OUT 6 +	
4	OUT 6 -	
5	OUT 7 +	
6	OUT 7 -	
7	OUT 8 +	
8	OUT 8 -	

## OPTION "GPIO" GENERAL PURPOSE INPUT/OUTPUT TERMINATIONS

#### NOTES:

- 1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON ANALOG AND DIGITAL I/O TERMINATIONS. USER'S GUIDE IS LOCATED ON HARDY PROCESS SOLUTIONS WEB SITE.
- 2. DO NOT BUNDLE ANALOG AND DIGITAL I/O WIRING WITH POWER WIRING, RELAY CABLE OR ANY OTHER HIGH ENERGY CABLES.
- 3. TERMINAL BLOCK WIRE SIZE RANGE: 16 AWG MAXIMUM / 28 AWG MINIMUM.
- 4. WIRE TEMPERATURE RATING TO BE 90° C.
- 5. WIRE TIGHTENING TORQUE: 2.0 LB-IN / 2.2 LB-IN [0.23 Nm / 0.25 Nm].
- 6. USE COPPER CONDUCTORS ONLY.
- 7. WHEN ORDERED, THIS OPTION CAN BE INSTALLED IN EITHER ONE OR BOTH OF THE AUXILIARY SLOT OPTION PORTS.



ANALOG IN CONNECTION CHART				
PIN NUMBER	SIGNAL NAME			
1	4-20MA INPUT			
2	COMMON			

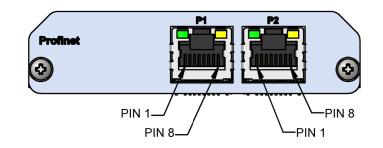
ANALOG OUT CONNECTION CHART			
PIN NUMBER	SIGNAL NAME		
1	ANALOG OUT 1		
2	ANALOG OUT 1 COMMON		
3	ANALOG OUT 2		
4	ANALOG OUT 2 COMMON		
5	ANALOG OUT 3		
6	ANALOG OUT 3 COMMON		
7	ANALOG OUT 4		
8	ANALOG OUT 4 COMMON		

DIGITAL I/O CONNECTION CHART				
DIGITAL I/O CONNECTION CHART				
PIN NUMBER	SIGNAL NAME			
1	DIGITAL OUT 1			
2	DIGITAL OUT 2			
3	DIGITAL OUT COMMON			
4	DIGITAL IN 1			
5	DIGITAL IN 2			
6	DIGITAL IN 3			
7	DIGITAL IN 4			
8	DIGITAL IN COMMON			

# OPTION "PFNC" - PROFINET COMMUNICATIONS TERMINATIONS

#### NOTES

- 1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON PROFINET TERMINATIONS. USER'S GUIDE IS LOCATED ON HARDY PROCESS SOLUTIONS WEB SITE.
- 2. CONNECTOR TYPE: RJ-45, 8 PIN; QTY 2.
- WHEN ORDERED, THIS OPTION CAN ONLY BE INSTALLED IN THE AUXILIARY SLOT 1 OPTION PORT.



CONNECTION CHART					
PIN NUMBER	SIGNAL NAME				
1	TX+				
2	TX-				
3	V+				
4	GND				
5	GND				
6	V+				
7	RX+				
8	RX-				



TITLE

INSTALLATION/INTERCONNECTION DIAGRAM, HI 6850 SERIES

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		21010	000	7 0110		
$\mathcal{L}$	FILE N	AME: 0584-0113A1	.SLDDRW	SCALE: NONE	SHEET 6	OF