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 HARDY PROCESS SOLUTIONS
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Subject: **Procedure And/Or Report Material**

The following material resulting from the investigation under the above numbers is enclosed.

Issue

<u>Date</u>	<u>Vol</u>	<u>Sec</u>	<u>Pages</u>	<u>Revised Date</u>
	1		Index Page(s)	
2019/09/27	1	6	Cert of Compliance	
2019/09/27	1	6	New Description Page(s) 6	2019/11/25
2019/09/27	1	6	Revised Description Page(s) 1,2,3,4,5	2019/11/25
2019/09/27	1	6	Revised Figure(s) 6	2019/11/25
2019/09/27	1	6	New Test Record 2	2019/11/25

Please file revised pages and illustrations in place of material of like identity. New material should be filed in its proper numerical order.

NOTE: Follow-Up Service Procedure revisions DO NOT include Cover Pages, Test Records and Conclusion Pages. Report revisions DO NOT include Authorization Pages, Indices, Section General Pages and Appendixes.

Please review this material and report any inaccuracies to UL's Customer Service Professionals. Contact information for all of UL's global offices can be found at <http://ul.com/aboutul/locations>.

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NBK File

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Models	Section	Report Date
Model HI-3601 followed by -A1, or -A2, followed by -B1, or -B3, followed by -J4, followed by -C2, followed by -D2, followed by -E2, followed by -F2	1	2004-05-15
Models HI 1769, followed by -WS or -2WS	2	2005-02-14
HI5501, may be followed by additional numbers or letters	3	2006-06-07
Weight Processor Instrument Models HI 6300, HI 6310, HI 6500 and HI 6510 followed by -WP, -XP, or -XX; may be followed by -00, -10 or -20; may be followed by -00, -EIP, -PB; may be followed by -00, -PMWS, -SME may be followed by -00, -IT1, IT2, JB1, or JB2; followed by -DC or -AC. Accessory Display: Model HI 6120 and HI 6110. Load Cell Summing Boxes: Model HI6010JB, HI6010IT, may be followed by alphanumeric characters to indicate enclosure and calibration hardware options. Load Cell Summing Boxes: Model HI6020, followed by IT or JB, Followed by -SC1, SC2, -PC1, -PC2, -FG1, -FG2, -PS1, or -PS2.	4	2014-06-30
Load Cell Summing Box Model HI6011IT-SS, HI6020IT-SS, HI6020JB-SS followed by 1 or 2	5	2017-04-18
Weight Processor Instrument Models HI 6200, followed by -WT, -WP or any two alphanumeric characters , followed by 00 or -10 , followed by -ANA, -EIP, PFN or any three alphanumeric characters , followed by -000.	6	2019-09-27

CERTIFICATE OF COMPLIANCE

Certificate Number E243588
Report Reference E243588-20190927
Issue Date 2019-DECEMBER-02

Issued to: HARDY PROCESS SOLUTIONS
SUITE 150 9440 CARROLL PARK DR
SAN DIEGO CA 92121

This certificate confirms that representative samples of PROCESS CONTROL EQUIPMENT FOR USE IN HAZARDOUS LOCATIONS
SEE ADDENDUM PAGE FOR MODELS

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

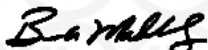
Standard(s) for Safety: UL 121201 Standard for Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
CAN/CSA C22.2 No. 213-17 Standard for Non-incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations

Additional Information: See the UL Online Certifications Directory at <https://iq.ulprospector.com> for additional information.

This *Certificate of Compliance* does not provide authorization to apply the UL Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program
UL LLC

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CERTIFICATE OF COMPLIANCE

Certificate Number E243588
Report Reference E243588-20190927
Issue Date 2019-DECEMBER-02

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Models/Product

USL, CNL – Class I, Division 2, Groups A, B, C and D Hazardous Locations.

Weight Processor Instrument Models HI 6200, followed by -WT, -WP or any two alphanumeric characters, followed by 00 or -10, followed by -ANA, -EIP, PFN or any three alphanumeric characters, followed by -000.



Bruce Mahrenholz, Director North American Certification Program
UL LLC

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DESCRIPTION

PRODUCT COVERED:

USL, CNL - Class I, Division 2, Groups A, B, C and D Hazardous Locations.

Weight Processor Instrument Models HI 6200, followed by -WT, -WP **or any two alphanumeric characters, followed by 00 or -10**, followed by -ANA, -EIP, **PFN or any three alphanumeric characters**, followed by -000.

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Evaluation performed to the following Standards:

UL 121201, 9th Edition

CAN/CSA C22.2 No. 213-17

GENERAL:

The HI 6200 model series are open-type single channel instruments designed to process signals from analog load cells and output stable gross or net weight readings to a display, PLC or PC.

These products shall comply with all elements of ordinary locations File E233408-D1000-UL, issued date 2019-04-26, Process Control Equipment, Electrical, covering for this Applicant and with the following description. Should the above mentioned Procedure File be withdrawn, labeling under this Procedure must be discontinued until authorization to resume is received.

ELECTRICAL RATINGS:

Input: Class 2 Input - 24Vdc, 2.5W Nominal

Output: 5Vdc, 120mA

Analog Output: 4-20mA

ENVIRONMENTAL RATINGS:

The relation between ambient temperature and the assigned temperature class is as follows:

Ambient temperature range	Temperature class
-10 °C to +60 °C	T5 (optional)

Model Differences

Model HI 6200-WP-10-xxx-xxx is similar to HI 6200-WT-10-xxx-xxx; HI 6200-WP-10-xxx-xxx is a single channel weight processor, while HI 6200-WT-10-xxx-xxx is a single channel weight transmitter. Each are provided with either an EtherNet/ IP or Analog Out.

Product Series Configuration:

HI 6xxx - xx - xx - xx - xx
I II III IV V

- I: Series Designations
HI 6200
- II: Software Options
-WP = Weight Processor
-WT = Weight Transmitter
-XX = Any alphanumeric character representing different software options
- III: Display Options
-00 = No display
-10 = With display **and touch screen**
- IV: Network Options
-ANA = Analog output
-EIP = EthernetIP
-PFN = Profinet
-XXX = Any alphanumeric character representing different network software options
- V: Enclosure Options
-000 or Blank = Base Instrument Enclosure Only **(No I/O)**

MARKINGS:

The following markings shall appear on the device in addition to ordinary locations marking under File E233408-D1000-UL, issued date 2019-04-26. For C-UL Listed products, any warning/caution/safety warnings shall be provided in French.

1. Listee name
2. Catalog or Model number
3. Electrical ratings
4. Hazardous locations classes and groups as shown under "Product Covered".
5. Ambient Temperature **Range** : $-10^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$
6. Temperature code: T5 (optional)
7. Provided in a visible location: "WARNING - Do not connect or disconnect when the area is known to be hazardous."
8. The month and year of manufacture or another suitable method, such as date coding or serial numbers.

INSTALLATION INSTRUCTIONS:

The following items shall be included in the manual:

SUITABLE FOR USE IN Class I, Division 2, Groups A, B, C and D;
Hazardous Locations OR NONHAZARDOUS LOCATIONS ONLY.

THIS EQUIPMENT IS AN OPEN-TYPE DEVICE AND IS TO BE INSTALLED IN AN ENCLOSURE SUITABLE FOR THE ENVIRONMENT AND ACCESSIBLE ONLY WITH USE OF A TOOL.

WARNING - EXPLOSION HAZARD - DO NOT DISCONNECT EQUIPMENT WHILE THE CIRCUIT IS LIVE OR UNLESS THE AREA IS KNOWN TO BE FREE OF IGNITABLE CONCENTRATIONS.

Reiteration of information from "MARKINGS" section

DOCUMENTATION:

The devices are constructed in accordance with the following documentation:

FIG. No.	ILL. No.	Description:	Drawing No.	Rev.
1	-	External Enclosure - Bottom	-	-
2	-	External Enclosure - Top	-	-
3	-	External Enclosure - Front	-	-
4	-	External Enclosure - Side	-	-
5	-	Internal View	-	-
6	-	Profinet Daughter Board	-	-
-	1	HI 6200 EIP & ANA Series Assembly	0519-0616-0	C
-	2	HI 6200 Series Main Controller Schematics	0531-0582-0	B

CONSTRUCTION DETAILS:

General - Devices shall be constructed in accordance with the Section General and the following description.

Spacings - Spacings were evaluated in accordance with UL 61010-1 Third Edition.

Tolerances - Unless specified otherwise, all indicated dimensions are nominal.

Corrosion Protection - All parts are of corrosion resistant material or are plated or painted as corrosion protection.

Connectors - All used connectors are described in the Description area of the Report. Connectors not described are not to be used in the construction of the Models evaluated.

- * Printed Wiring Boards - Any R/C (ZPMV2), rated 130°C unless otherwise noted, flammability rating of 94V-1 minimum, whose solder time and temperature can be confirmed in the Recognized Component Directory.

There are no make/ break components besides those specifically described in this description. Examples of make/ break devices are switches, potentiometers and electro-mechanical relays.

Fuses - There are no fuses.

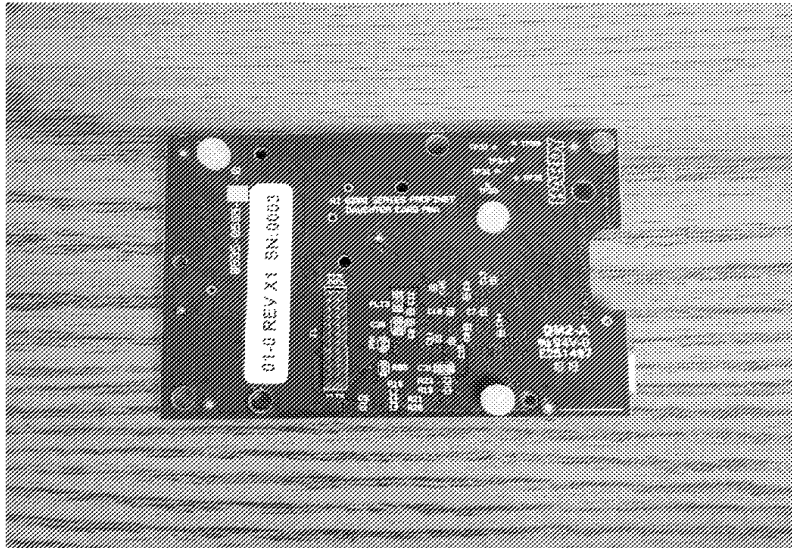
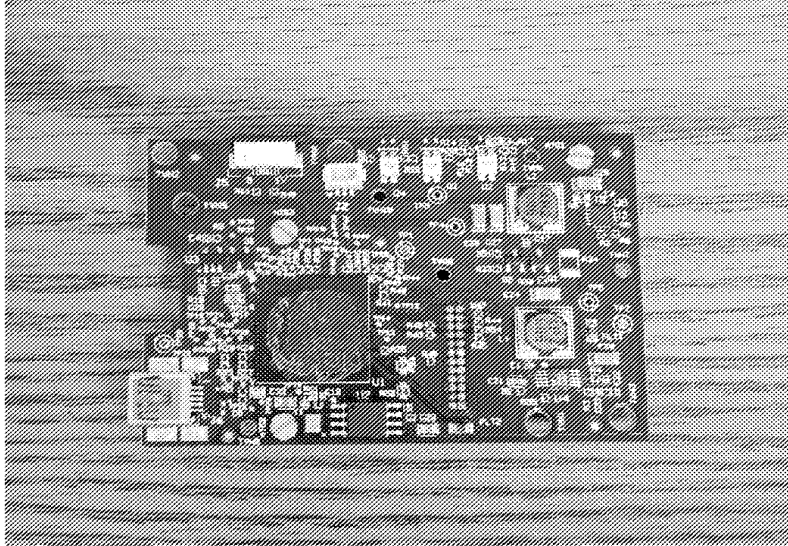
Model No. HI 6200-WT-10-ANA-000 - FIGS. 1-6

General - Figures 1 to 4 shows the external construction, and Figures 5 and 6 show the internal construction of the HI 6200-WT-10-ANA-000, which is representative of all models. See Ill. 1 for assembly details and Ill. 2 for schematics.

1. Enclosure - Model EH 52,5 F-C CS/ABS, manufactured by Phoenix Contact, constructed of black ABS plastic, rated RTI Electric - 90C, HB Flame Rating. Housing secured together with two clips on left and right side.
2. Display - 1.77" LCD, Resistive Touchscreen. Considered a non-arcing component due to installation in an enclosure accessible only with use of a tool. Ribbon cable soldered to Display, connects to P3 on mainboard via hinge locking mechanism.
3. Power Supply Terminal Block (J1) - Consists of the following:
 - a. Header - R/C (XCFR2/8), Model DMC 1,5/5-G1-3,5 P20THR manufactured by Phoenix Contact, 3 poles, rated 300V, 8A, 130C, suitable for Field and Factory Wiring. Soldered to board.
 - b. Plug - R/C (XCFR2/8), Model MC 1,5/3-ST-3,5 manufactured by Phoenix Contact, 3 poles, rated 300V, 8A, suitable for Field and Factory Wiring. Secured to Header by friction.
4. Load Cell Interface Terminal Block (J2) - Consists of the following:
 - a. Header - R/C (XCFR2/8), Model 1,5/9-G-3,5, manufactured by Phoenix Contact, 9 poles, rated 300V, 8A, 100C, suitable for Field and Factory Wiring.
 - b. Plug - R/C (XCFR2/8), Model MC 1,5/9-ST-3,5, manufactured by Phoenix Contact, 9 poles, rated 300V, 8A, suitable for Field and Factory Wiring. Secured to Header by friction.
5. I/O Terminal Block (J6 on HI 6200-WT-10-ANA-000 only) - consists of the following:
 - a. Header - R/C (XCFR2/8), Model 1,5/2-G-3,5, manufactured by Phoenix Contact, 2 poles, rated 300V, 8A, 100C, suitable for Field and Factory Wiring.
 - b. Plug - R/C (XCFR2/8), Model MC 1,5/2-ST-3,5, manufactured by Phoenix Contact, 2 poles, rated 300V, 8A, suitable for Field and Factory Wiring. Secured to Header by friction.
6. Ethernet Connector (J4) - RJ45 connector, provides mechanical securement of RJ45 plug by lever and 90° mating surface.
7. Ribbon Cable Connector (P3) - Connects to Display ribbon connector, mechanically secured by hinge locking mechanism.
8. Jumper (J3) - Jumper not fitted.
9. Resistor (R1) - 105KOhm resistor. Dimensions of 3mm x 1mm x .5mm with a surface area of 10mm².

HI 6200 Series Profinet Daughter Card - FIG 6

1. Connector (J1) - 24-pin connector that plugs into J7 on the Main Board. Mechanically secured using plastic mounting tabs on the PCB board.
2. Connector (J2) - Not utilized during normal use.
3. Ribbon Connector (J5) - Not utilized during normal use.
4. Mini-USB Connector (J6) - Not utilized during normal use.



N192027405

TEST RECORD NO. 2

INFORMATION:

A sample of the HI6200-WP-10-PFN-000 as indicated below and constructed as described herein, was submitted by the manufacturer for examination and test.

The above model was used for investigation purposes and was considered representative of the entire series.

The device is additionally covered for use in ordinary locations, as described in File E233408-D1000-1, issued on 2019-04-26.

GENERAL:

Temperature testing was conducted on the above model due to addition of Profinet board. Main board of the HI 6200 was not changed except for the addition of the Profinet board. Component R1 was controlled due to having a temperature over 100°C. Due to Small Component Clause 10.3, this component does not change the T-code of the device as its surface area is 10mm². No additional testing was necessary.

Test Record Summary:

The results of this investigation, including construction review and testing, indicate that the products evaluated comply with the applicable requirements shown in the below table and, therefore, such products are judged eligible to bear UL's Mark as described on the Conclusion Page of this Report.

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

Standard No. UL 121201, 9 th Edition, Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
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Standard No. CAN/CSA C22.2 No. 213-17, 3rd Ed., Non-incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations

Test Recorded by:

Reviewed by:

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