CERTIFICATE OF CONFORMITY



HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS 1.

2. **Certificate No:**

3. **Equipment:** (Type Reference and Name) FM18CA0130X

Listing - 1

H11, H41, H51 Automation System Modules

Listing - 2

H41, H51, H41q, H51q, Automation Systems Modules

Listing - 3

H41, H51, H41q, H51q, H41q, H51q, Automation Systems Modules

Listing - 4

HIMAtrix F60, Safety Related System

Listing – 5

HIMatrix F60 Modular PLC, Safety Related System

Listing - 6

HIMatrix Compact PES, Safety Related System

Listing - 7

HIMatrix Compact PES, Safety Related System

GuardPLC 2000

Listing - 9

GuardPLC 1200

Listing - 10

K7916, Feeding Decoupling Diode

Listing - 11

H6200, Analog Isolator / Power Supply

Certificate issued by:

J.Æ. Marguedant

VP, Manager - Electrical Systems

24 February 2019

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

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Canadian Certificate Of Conformity No: FM18CA0130X

Listing - 12 **H6210, HART Multiplexer**

4. Name of Listing Company:

HIMA Paul Hildebrandt GmbH

5. Address of Listing Company:

Albert-Bassermann-Strabe 28 68782 Bruehl near Mannheim Germany

6. The examination and test results are recorded in confidential report number:

3015309 dated 24th February 2019

7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

CSA-C22.2 No. 213:2015, CAN/CSA-C22.2 No. 61010-1:2012

- 8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
- 9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.
- 10. Equipment Ratings:

Listing - 1, Listing - 3, Listing 5, Listing 7

Non-incendive for Class I, Division 2, Groups A, B, C and D providing Non-incendive Circuits for Class I, Division 2, Groups A, B, C and D; T* hazardous locations with an ambient temperature rating of -25°C up to 70°C.

Listing – 2, Listing – 4, Listing – 6, Listing – 8, Listing – 9, Listing – 10, Listing – 11, Listing – 12

Non-incendive for Class I, Division 2, Groups A, B, C and D; T* hazardous locations with an ambient temperature rating of -25°C to 60°C.

11. The marking of the equipment shall include:

isting – 1

Class I Division 2, Groups A, B, C, D;

Provides Non-Incendive Circuits for Class I Division 2, Group A, B, C, D - HAl96426-001 / A

T* Ta = 60°C

Listing – 2, Listing – 4, Listing – 6, Listing – 8, Listing – 9, Listing – 10, Listing – 11, Listing – 12

Class I Division 2, Groups A, B, C, D;

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 $T^* Ta = 60^{\circ}C$

Listing - 3, Listing - 5, Listing - 7

Class I Division 2, Groups A, B, C, D; T* Ta = 50°C, 60°C, or 70°C

Provides Non-Incendive Circuits for Class I Division 2, Group A, B, C, D - 99001, 99002

T* Ta = 50°C, 60°C, or 70°C

12. Description of Equipment:

General - The safety-related HIMatrix compact controller is a compact system that is powered with 24VDC.It offers digital input, outputs and analog inputs, outputs and counter and relays additional with remote I/O's. Communication over Safeethernet, Modbus, Profibus DP, OPC and other.

The modular safety-related HIMatrix F60 system is composed of a rack and various modules inserted in the rack 6 slots. The HIMatrix F60 modules is powered 24VDC. It offers digital input, outputs and analog inputs, outputs and counter and relays additional with remote I/O's. Communication over Safeethernet, Modbus, Profibus DP, OPC and other.

The modular safety-related H41, H51 (HIQuad) is 19 inches system with CPU and I/O (sub)racks. The modular safety-related H41, H51 is powered 24VDC. It offers digital input, outputs and analog inputs, outputs and counter and relays. Communication over Safeethernet, Modbus, Profibus DP, OPC and other.

Construction - The safety-related HIMatrix compact controller is designed for an ambient temperature: 0...+60 °C, or -25...+70 °C, IP20, Pollution degree II, Protection class III in accordance with IEC/EN 61131-2 and UL508 and FM Class I Devision 2 and Safety Applications according the Safety Standards see above. Offered Communication interfaces are RS232, RS422, RS485, Profibus DP, CAN, SSI and Ethernet, PADT interface (Programming abnd Debugging tool) is available for SILworX or ELOP II Factory. The dimensions of the DIN rail mounted device are: width 257mm, height 114mm, depth 97mm or smaller. For details see the manuals.

The modular safety-related HIMatrix F60 system Ambient temperature: 0...+60 °C, or -25...+70 °C, IP20, Pollution degree II, Protection class III in accordance with IEC/EN 61131-2. Connections RS232, RS422, RS485, Modbus, Profibus, Interbus, CAN, ComUSERTask, Ethernet, Safeethernet and other. PADT Interface (programming and debugging tool) is for SILworX or ELOP II Factory. For wall mounting. Dimensions: 260mm x 312mm x 245mm (WxHxD). For details see the manuals.

The modular safety-related HIQuad – System. Ambient temperature: 0...+60 °C H41q 1 subrack 482.6 mm (19-inches technology), 5 HU for central modules and 13 I/O modules. H51q subracks 482.6 mm (19-inches technology), 1 central subrack 5 HU, max. 16 I/O subracks 4 HU I/O subrack with 16 slots. IP20, Pollution degree II, Protection class II in accordance with IEC/EN 61131-2. Modbus, Modbus TCP, PROFIBUS DP and 3964R, OPC, Ethernet, HIPRO and other. PADT Interface (programming and debugging tool) is for SILworX or ELOP II.

Ratings - The HIMA safety-related PLC's up to SIL 3 or up to Cat.4 and PL e or up to SIL 4 for safety application are available for many safety and Ex (hazardous) applications. PLC, modules are available for example: Digital 24VDC I/O, 110VDC/127VAC, Analog I/O 10VDC/0-4..20mA, Relays up to 250V and other for details

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please see the manuals.

The 2-pole outputs one switching to L+ and the other switching to L-.

Listing – 1

H11, H41, H51 Automation System Modules

| Model No. F8620/11 (H51) F8640 (H41) | <i>T-Cod</i> e T4 T4 | Description Central Module Central Module | |
|--|----------------------------|--|--|
| F9430 (H11) | T4 | 24 Binary or Digital Inputs 24 V dc; 24 Binary or Digital Outputs 24 V dc, 12 W | |

Nonincendive Field Wiring Parameters:

Input:

 $V_{max} = 15V$, $I_{max} = 500mA$, $C_i = 0$, $L_i = 0$

Output:

 $V_{oc} = 6V, I_{sc} = 500mA$

Groups A/B - C_a = 1uF, L_a = .15mH Groups C/D - C_a = 2 uF, L_a = .5mH

Listing - 2

H41, H51, H41q, H51q, Automation Systems Modules

| Module Name | T-Code | Description |
|--------------|--------|---|
| F3221 | T4 | 16 Fold Input Module |
| F3236 | T4 | 16 Fold Input Module, Safety related |
| F3237 | T4 | 8 Fold Input Module for Prox. Sw., Safety related |
| F3240 | T4 | 16 Fold Input Module, Testable, 120 V ac/dc |
| F3248 | T4 | 16 Fold Input Module, Safety related, 48 V ac/dc |
| F3322 | T4 | 16 Fold Output Module |
| F3330 | T4 | 8 Fold Output Module, Safety related |
| F3331 | T4 | 8 Fold Output Module, Safety related |
| F3333 | T4 | 4 Fold Output Module, Safety related |
| F3334 | T4 | 4 Fold Output Module, Safety related |
| F3422 | T4 | 8 Fold Relay Module |
| F3430 | T4 | 4 Fold Relay Module, Safety related |
| F5220 | T4 | 2 Fold Counter Module, Safety related |
| F6214 | T4 | 4 Fold Analog Input Module, Safety related |
| F6215 | T4 | 8 Fold Analog Input Module |
| F6216A | T4 | 8 Fold Analog Input Module w/Transmitter Supply |
| F6220 | T4 | 8 Fold Thermocouple Input Module, Safety related |
| F6221 | T4 | 8 Fold Analog Input Module, Safety Related |
| F6705 | T4 | 2 Fold Analog Output Module, Safety related |
| F6706 | T4 | 2 Fold Analog Output Module |
| F7126 (H51) | T4 | Power Supply Module |
| F7130A (H41) | T4 | Power Supply Module |
| | | |

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| F7131 (H51) F7133 | T4 T4 | Power Supply Monitoring w/Buffer Batteries 4 Fold Power Distribution |
|----------------------|----------|--|
| F7553 (H51) | T4 | Coupling Module |
| F9430 (H11) | T4 | 24 Binary or Digital Inputs 24 V dc; |
| | 200 | 24 Binary or Digital Outputs 24 V dc, 12 W |
| F8621A | T4 | Coprocessor Module |
| F8627X | T4 | Communication Module for Ethernet 10/100Mbit |
| F8628X | T4 | Communication Module for Profibus-DP |
| H4135 | T4 | Relay Module in Terminal Case, Safety related |
| H4135A | T4 | Relay Module in Terminal Case, Safety related |
| H7505 | T4 | Multifunctional Interface Module |
| H7506 | T4 | Bus Terminal |
| K7915 | T4 | Decoupling, Feeding, and Fusing Subrack |
| K9202 | T4 | Cabinet Fan Module |
| K9203 | T4 | Fan Module/19-inch Subrack |
| Z6015 | T4 | EMC Filter |

Listing - 3

H41, H51, H41q, H51q, H41q, H51q, Automation Systems Modules

| Model No. F8650X | <i>T-Code</i> T4 | Description Central Module [H51q] |
|---------------------|---------------------|-----------------------------------|
| F8652X | T4 | Central Module [H41q] |
| F6217 | T4 | 8 Fold Analog Input Module |

Nonincendive Field Wiring Parameters:

Input:

 $V_{max} = 15V$, $I_{max} = 500mA$, $C_i = 0$, $L_i = 0$

Output:

 $V_{oc} = 6V$, $I_{sc} = 500mA$

Groups A/B - C_a = 1uF, L_a = .15mH Groups C/D - C_a = 2 uF, L_a = .5mH

Drawing 99001 for non-incendivefield circuits and Nonincendive Field Wiring Parameters

Listing - 4

HIMAtrix F60, Safety Related System

| Module Names | T-Code | Description |
|--------------|--------|---|
| BUS 01 | T6 | System Bus Board |
| PSU 01 | T6 | Power Supply Module |
| PSU 014 | T4A | Power Supply Module |
| CPU 01 | T6 | Central Module with Profibus-DP, Safety related |
| AI 8 01 | T6 | |
| AO 8 01 | T6 | Analog Out Module, Safety related |
| CIO 2/4 01 | T6 | Counter Module, Safety related |
| DI 24 01 | T6 | Digital Input Module, Safety related |
| DIO 24/16 01 | T6 | Digital I/O Module, Safety related |

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| DI 32 01 | T6 | Digital Input Module, Safety related |
|----------------|-----|---|
| MI 24 01 | T5 | Module PES system rack |
| DO 8 01 | T6 | Relay Output Module, Safety related |
| GEH 01 | T6 | 6 Slot HIMatrix F60 Chassis |
| GEH 014 | T6 | 6 Slot HIMatrix F60 Chassis |
| CM-Profibus DP | T6 | 11 / / / / / / / / / / / / / / / / / / |
| CM-RS485 | T6 | |
| CM-RS232 | T6 | IVII AVIIIIIIIIIIIIII |
| CM-RS232A | T6 | |
| | | |
| F1 DI 16 01 | T4A | Digital Input Module, Safety related 16 channels |
| F2 DO 16 01 | T4A | Digital Output Module, Safety related 16 channels |
| F2 DO 08 01 | T5 | Digital Output Module, Safety related 8 channels |
| F2 DO 04 01 | T5 | Digital Output Module, Safety related 4 channels |
| F3 AIO 8/4/01 | T4A | Analog I/O Module, 8 channel Safety related, 4 channel not Safety |
| | | related |
| F3 DIO 20/8/02 | T5 | Digital I/O Module Safety related, 20 channel Input, 8 channel |
| | | output |
| F60 MI 24 01 | T5 | Module PES system rack |
| | | • |

Listing – 5

HIMatrix F60 Modular PLC, Safety Related System

| CPU 03 | T5 | Central Module with Profibus-DP, Safety related |
|---------|----|---|
| CPU 034 | T5 | Central Module with Profibus-DP, Safety related |

Drawing 99001 for non-incendivefield circuits and Nonincendive Field Wiring Parameters

Listing - 6

HIMatrix Compact PES, Safety Related System

| CompactPES | T-Code | Description |
|------------|--------|--|
| F20 | T4 | 8 Digital Inputs/Outputs, 4 Pulsed Outputs, 2 Ethernet, 2 Field Bus Interfaces |
| F30 | T4 | 20 Digital Inputs, 8 Outputs (cross-circuit monitoring) Field bus Interfaces |
| F31 | T4 | 20 Digital Inputs, 8 Outputs (cross-circuit monitoring) |
| F35 | T4 | 24 Digital Inputs,8 Outputs, 8 Analog Inputs, 2 Counter Inputs, Field bus Interfaces |

Drawing 99001 for non-incendivefield circuits and Nonincendive Field Wiring Parameters

| Remote I/O | T-Code | Description | |
|--|--------|--|--|
| F1 DI 16 01 | T4A | 16 Digital Inputs, 4 pulsed outputs (cross-circuit monitoring) | |
| F2 DO 16 01 | T4A | 6 Digital Outputs | |
| F2 DO 08 01 | T5 | 8 Channel Relay Outputs | |
| F2 DO 04 01 | T5 | 4 Digital Outputs | |
| F3 AIO 8/4 01 | T4A | 8 Analog Inputs and 4 Outputs | |
| F3 DIO 20/8 01 | T4 | 20 Digital Inputs, 8 Outputs (cross-circuit monitoring) | |
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| F3 DIO 20/8 02 | T5 | 20 Digital Inputs, 8 Outputs (cross-circuit monitoring) |
|----------------|-----|---|
| F2 DO 16 02 | T5 | 16 Channel Relay Outputs |
| F3 DIO16/8 01 | T5 | 16 Digital Inputs |
| F3 DIO 8/8 01 | T3C | 8 Digital Inputs |

Listing - 7

HIMatrix Compact PES, Safety Related System

| F30 03 | T4 | 20 Digital Inputs, 8 Outputs (cross-circuit monitoring) Field bus Interfaces |
|---------|----|--|
| F30 034 | Т4 | 20 Digital Inputs, 8 Outputs (cross-circuit monitoring) Field bus Interfaces |
| F30 CSG | T4 | 20 Digital Inputs, 8 Outputs (cross-circuit monitoring) |
| F35 03 | T4 | 24 Digital Inputs,8 Outputs, 8 Analog Inputs, 2 Counter Inputs, Field bus Interfaces |
| F35 032 | T4 | 24 Digital Inputs,8 Outputs, 8 Analog Inputs, 2 Counter Inputs, Field bus Interfaces |
| F35 034 | T4 | 24 Digital Inputs,8 Outputs, 8 Analog Inputs, 2 Counter Inputs, Field bus Interfaces |

Drawing 99001 for non-incendivefield circuits and Nonincendive Field Wiring Parameters

Listing - 8

GuardPLC 2000

| Module Names | T-Code | Description |
|--------------|--------|-------------------------------|
| RA-GEH 01 | T4A | 6 Slot GuardPLC Chassis |
| RA-PS 0503 | T4A | Power Supply Module |
| RA-CPU | T4A | Safe GuardPLC 2000 CPU Module |
| RA-CO2 | T4A | Safe Counter Module |
| RA-DIO | T4A | 2416 Safe Digital I/O Module |
| RA-AO 08 | T4A | Safe Analog Out Module |
| RA-AI 08 | T4A | Safe Analog In Module |
| RA-BUS 2106 | T4A | System Bus Board |
| | | |

Listing - 9

GuardPLC 1200

Module Names
RA-MAXI T4A Safe GuardPLC 1200 28 I/O

Listing - 10

K7916, Feeding Decoupling Diode.

Т6

Listing - 11

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H6200, Analog Isolator / Power Supply

T5

Listing - 12

H6210, HART Multiplexer

FM Approvals

13. Specific Conditions of Use:

1. Shall be installed in compliance with the enclosure, mounting, spacing and segregation requirements of the ultimate application including provisions for Division 2 wiring method and access only by the use of a tool.

14. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals Canadian Certification Scheme.

15. Schedule Drawings

A copy of the technical documentation has been kept by FM Approvals.

16. Certificate History

Details of the supplements to this certificate are described below:

| Date | Description |
|--------------------------------|--|
| 24 th February 2019 | Supplement 7: Report Reference: — 3063890 dated 24 th February 2019 Description of the Change: Approved F30 03, F30 034, F30 CSG, F35 03, F35 032 F35 034, F60 PS 014, F60 GEH 014, F60 CPU 03, F60 CPU 034 models. |



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