

(1) TYPE-EXAMINATION CERTIFICATE



- (2) Equipment and Protective Systems intended for use in Potentially Explosive Atmosphere - **Directive 94/9/EC**
- (3) Type-Examination Certificate Number

TÜV 14 ATEX 7555 X

- (4) **Equipment:** HIMatrix Systems
- (5) **Manufacturer:** HIMA Paul Hildebrandt GmbH
- (6) **Address:** Albert-Bassermann-Str. 28, 68782 Brühl
Germany

- (7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- (8) The TÜV Rheinland Notified Body for ex-protected products of TÜV Rheinland Industrie Service GmbH, Notified Body No. 0035 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmosphere, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report 557/Ex7555.00/14

- (9) Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule of this certificate, has been assessed by reference to:

EN 60079-0: 2012

EN 60079-15: 2010

except the requirements, which are listed under item (18).

- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.
- (11) This Type-Examination Certificate relates only to the design and specification for construction of the equipment or protective system. It does not cover the process for actual manufacture or supply of the equipment or protective system, for which further requirements of the directive are applicable.
- (12) The marking of the equipment shall include the following



II 3 G Ex nA nC IIC T4 Gc
II 3 G Ex nA IIC T4 Gc

TÜV Rheinland ExNB for explosion protected equipment

Cologne, 2015-11-18

Dipl.-Ing. Klauspeter Graffi

This Type-Examination Certificate without signature and stamp shall not be valid.

This Type-Examination Certificate may be circulated only without alteration. Extracts or alterations are subject to approval by the TÜV Rheinland Notified Body of TÜV Rheinland Industrie Service GmbH, Am Grauen Stein 51105 Köln
Tel. +49 (0) 221 806-0 Fax. + 49 (0) 221 806 114

(13) Annex to

(14) **Type Examination Certificate**
TÜV 14 ATEX 7555 X

(15) **Description of equipment**

15.1 Equipment and type:

Compact systems:

F35 03, F30 03, F3 DIO 20/8 02, F3 DIO 16/8 01, F3 DIO 8/8 01, F3 AIO 8/4 01, F2 DO 16 01, F2 DO 16 02, F2 DO 8 01, F2 DO 4 01, F1 DI 16 01

Modular systems:

F60 and its modules

F60 GEH 01, F60 PS 01, F60 CPU 03, F60 AI8 01, F60 AO8 01, F60 CIO 2/4 01, F60 DI24 01, F60 DI32 01, F60 DIO 24/16 01, F60 MI24 01

Accessories:

H 7032, H 7033, Z73**, CM-***

15.2 Description

General product information

The safety-related HIMatrix controllers can be used in process controllers, protective systems, burner controllers, and machine controllers. Dependent on the application several systems in different configurations are available. All of them were assessed separately and in connection to each other.

Compact systems:

F35 03, F30 03, F3 DIO 20/8 02, F3 DIO 16/8 01, F3 DIO 8/8 01, F3 AIO 8/4 01, F2 DO 16 01, F2 DO 16 02, F2 DO 8 01, F2 DO 4 01, F1 DI 16 01

Modular systems (mounted into subracks):

F60 and its modules

F60 GEH 01, F60 PS 01, F60 CPU 03, F60 AI8 01, F60 AO8 01, F60 CIO 2/4 01, F60 DI24 01, F60 DI32 01, F60 DIO 24/16 01, F60 MI24 01

Accessories:

H 7032, H 7033 (filter and protection for the connection of transmitters)

Z73** (Shunt adaptors for input modules)

CM-*** (plug on modules for communication)

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Rated voltage 20.4 ... 28.8 V
 Ambient temperature:

Type / order ID	0°C ≤ Ta ≤ 50°C	0°C ≤ Ta ≤ 60°C	-25°C ≤ Ta ≤ 70°C
F35 03		98 22XY497	98 22XY006
F30 03		98 22XY496	98 22XY005
F3 DIO 20/8 02		98 2200484	98 2400401 98 2200512
F3 DIO 16/8 01		98 2200486	98 2400007
F3 DIO 8/8 01		98 2200487	98 2400400
F3 AIO 8/4 01		98 2200483 98 2200493	98 2200514
F2 DO 16 01		98 2200480	98 2200516
F2 DO 16 02	98 2200485		
F2 DO 8 01	98 2200481 98 2400011		
F2 DO 4 01		98 2200482	
F1 DI 16 01		98 2200479	98 2400010
F60 GEH 01		98 2200103	98 2400000
F60 PS 01		98 2200096	98 2400001
F60 CPU 03		98 22XY139	98 22XY004
F60 AI8 01		98 2200214	98 2400002
F60 AO8 01		98 2200215	
F60 CIO 2/4 01		98 2200099	98 2400003
F60 DI24 01		98 2200113	98 2400008
F60 DI32 01		98 2200114	98 2400004
F60 DIO 24/16 01		98 2200100	98 2400005
F60 MI24 01		98 2200115	98 2400006
H 7032			99 4703202
H 7033			99 4703302
Z 7301			98 2220059
Z 7302			98 2220067
Z 7303			98 2220077
Z 7306			98 2220115
Z 7307			98 2220127
Z 7308			98 2220137
Z 7309			98 2220177
Z 7310			98 2200518

The 98** numbers indicate the order id. If a module has an option for two ambient temperatures, they differ in the coating and/or temperature class for integral components only. The function is always identical. XY stands for optional plugged communication interfaces on listed devices

The plug on modules for the communication interfaces can be plugged onto some of the listed base modules.

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(16) **Test-Report No.** 557/Ex7555.00/14

Parts of the device, which already fulfill the requirements for the category, were not approved and assessed by TÜV Rheinland Industrie Service.

The applicability and assembly of mechanical and electrical parts and components were assessed and approved by TÜV Rheinland Industrie Service with respect to the requirements of explosion protection.

(17) **Special Conditions for safe use**

1. The system shall be supplied with a SELV or PELV supply only.
2. The equipment shall only be used in an area of not more than pollution degree 2, as defined in IEC 60664-1.
3. The equipment shall be installed in an enclosure that provides a degree of protection not less than IP 54 in accordance with IEC 60079-15.
4. The information of the HIMatrix safety manual concerning the selection criteria for the enclosure (cabinet) and the special installation instructions have to be considered.
5. The maximum ambient temperature has to be considered for each module.
6. The pins of the contact loop for the fault signal (available on F60 PS 01) shall solely be supplied with the 24V supply voltage of the system.
7. Only voltages of up to 60VDC/30VAC of the same potential are allowed to be connected to the I/O s of the module F2 DO 16 02. If they are connected to different sources, only voltages of up to 40VDC/30VAC are allowed.
8. The switching current of remote modules F2 DO 8 01 and F2 DO 16 02 has to be limited to max. 2A.

(18) **Basic Safety and Health Requirements**

Covered by afore mentioned standard

TÜV Rheinland ExNB für explosion protected equipment

Cologne, 2015-11-20



Dipl.-Ing. Klauspeter Graffi

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