(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 7554 X

(4) **Equipment:** Planar4 System Modules

(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/Ex554.00/14

(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

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TÜV Rheinland ExNB for explosion protected equipment

Cologne, 2015-01-22

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
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Precisely Right.

(13) Annex to

(14) # Type Examination Certificate
TÜV 14 ATEX 7554 X

(15) **Description of equipment**

15.1 Equipment and type:

Planar 4 System Modules
12100, 13110, 22100, 22120, 22121, 32100, 32101, 32102, 32103, 32110, 42100, 42110, 42200, 42300, 42400, 42500, 52100, 52110, 62100, 80105, 80106, 80107, 80110, 90100, 90300, 90900, 90901, 90902, 90910, 90911, 90912, K9203A

The type designation of the modules consists of five digits. It is defined according to the following code:

Digit					Allocation
1	2	3	4	5	
1					Input modules
2					Output modules
3					Relay modules
4					Logic function modules
5					Timer function modules
6					Analogue modules
7					
8					Communication modules
9					Power supply, accessories
	0				No certification
	1				(Ex)i certificate
	2				TÜV certificate fs, safety-related
	3				(Ex)i and TÜV certificate fs
	4				
		0...9	0...9		Sequential numbers 00...99
				0	Base version
				1...9	Versions

Additionally the ventilation module K9203A is available as an option

15.2 Description

Planar4-System with assemblies type ** ***
The HIMA Planar4 System represents a modular electronic system featuring Euro modules for designing hard-wired safety-related control and monitoring systems. It operates with a system voltage of 24 V DC. A list of all available modules and power supplies and accessories can be seen in the user manual.

15.3 Technical Data

Rated voltage 20.4 ... 28.8 V
Ambient temperature range -25 °C ≤ Ta ≤ +70 °C
The relay modules have a switching voltage of up to 250V:

Module		Inputs		Output			
Type	Functions per module	1-signal	with pre-logic	Fuse	Fuse with monitoring	Switching voltage	SIL
32 100	2	•	•		•	24 VDC, 24 VAC	4
32 101	2	•	•		•	48/60 VDC, 60 VAC	4
32 102	2	•	•		•	110 VDC, 127 VAC	4
32 103	2	•	•		•	220 VDC, 230 VAC	4
32 110	4	•	•	•		≤ 250 VDC / VAC	2

(16) **Test-Report No.** 557/Ex554.00/14

Parts of the device, which already fullfill 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 equipment shall only be used in an area of not more than pollution degree 2, as defined in IEC 60664-1

2. 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.

3. The information of the Planar Ex manual concerning the selection criteria for the enclosure (cabinet) and the special installation instructions have to be considered

4. The pins of the contact loop (EC) for the fault signal (available on each module) shall solely be supplied with the 24V supply voltage of the system.

5. The switching current of the relay module 32110 has to be limited to max 2A if the slot at the right side of the module is not used. Otherwise it has to be limited to 1A.
   The switching current of the relay modules 3210x has to be limited to max 3A. if the slot at the right side of the module is not used. Otherwise it has to be limited to 2A

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

Covered by afore mentioned standard

TÜV Rheinland ExNB für explosion protected equipment

Cologne, 2015-01-22

Dipl.-Ing. Klauspeter Graffi