

(1) TYPE EXAMINATION CERTIFICATE



- (2) Equipment and Protective Systems intended for use in Potentially Explosive Atmosphere - **Directive 2014/34/EU**
- (3) Type-Examination Certificate Number

TÜV 14 ATEX 7556 X

Issue: 03

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

- (7) This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- (8) The TÜV Rheinland Zertifizierungsstelle für Explosionsschutz of TÜV Rheinland Industrie Service GmbH, in accordance with Article 21 of the Council Directive 2014/34/EU of 26th February 2014, certifies this product which 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/Ex7556.03/14

- (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 IEC 60079-0: 2018

EN IEC 60079-7: 2015 / A1: 2018

EN IEC 60079-15: 2019

- (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 ec nC IIC T4 Gc

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TÜV Rheinland Zertifizierungsstelle für Explosionsschutz

Cologne, 2023-11-21

Dipl.-Ing. Christian Menhoff



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Tel. +49 (0) 221 806-0 Fax. +49 (0) 221 806 114

(13)

Annex

(14)

Type Examination Certificate

TÜV 14 ATEX 7556 X

issue 03

(15)

Description of equipment

15.1 Equipment and type:

HIMax System

Type	Description
X-BASE PLATE	Base Plate
X-FAN nn 01/02	System Fan for Base Plate
X-FAN nn 03/04	System Fan for Base Plate
X-SB 01	System Bus Module (SIL3)
X-CPU 01	Processor Module for high performance requirements and critical control applications (4 x RJ-45, SIL 3)
X-CPU 31	Processor module for small and midsize safety applications (2x RJ-45, SIL 3)
X-COM 01	Communication Module (4 x RJ-45, 2 x 9-pole D-Sub, up to 6 different Protocols)
X-COM 01 E	Communication Module (4 x RJ-45, 1 x 9-pole D-Sub, up to 6 different Protocols)
X-AI 16 51	Analog Input/ Temperature Module (16 Channels, galvanically isolated channels, TC, Pt100, 4...20 mA, +/-280 mV, SIL 1)
X-AI 32 01	Analog Input Module (32 Channels, 4...20 mA, Line Monitoring, SIL 3)
X-AI 32 02	Analog Input Module (32 Channels, 4...20 mA, SOE, Line Monitoring, SIL 3)
X-AI 32 51	Analog Input Module (32 Channels, 4...20 mA, Line Monitoring)
X-AO 16 01	Analog Output Module (16 Channels, 4...20 mA, pairwise galvanically isolated, SIL 3)
X-AO 16 51	Analog Output Module (16 Channels, 4...20 mA)
X-CI 24 01	Counter Module (24 Channels, 0...20 kHz, SIL 3)
X-CI 24 51	Counter Module (24 Channels, 0...20 kHz)
X-DI 16 01	Digital Input Module (16 Channels, 120 VAC, SIL 3)
X-DI 32 01	Digital Input Module (32 Channels, 24 VDC, SIL 3)
X-DI 32 02	Digital Input Module (32 Channels, 8.2 VDC, Proximity Switch, Line Monitoring, SIL 3)
X-DI 32 03	Digital Input Module (32 Channels, 48 VDC, SIL 3)
X-DI 32 04	Digital Input Module (32 Channels, 24 VDC, SOE, SIL 3)
X-DI 32 05	Digital Input Module (32 Channels, 8.2 VDC, Proximity Switch, Line Monitoring, SOE, SIL 3)
X-DI 32 51	Digital Input Module (32 Channels, 24 VDC)
X-DI 32 52	Digital Input Module (32 Channels, 8.2 VDC, Proximity Switch)
X-DI 64 01	Digital Input Module (64 Channels, 24 VDC, SIL 3)
X-DI 64 51	Digital Input Module (64 Channels, 24 VDC)
X-DO 12 01	Relay Output Module (12 Channels, 230 VAC/DC, Current Measurement, Cycle Counting, SIL 3)
X-DO 12 02	Digital Output Module (12 Channels, 24 VDC, 2 A, Short-Circuit Monitoring LS, Individual Channel Shut-Off, SIL 3)
X-DO 12 51	Relay Output Module (12 Channels, 230 VAC/DC)

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X-DO 24 01	Digital Output Module (24 Channels, 24 VDC, 0.5 A, Line Monitoring LS/LB, SIL 3)
X-DO 24 02	Digital Output Module (24 Channels, 48 VDC, 0.5 A, Line Monitoring LS/LB, SIL 3)
X-DO 32 01	Digital Output Module (32 Channels, 24 VDC, 0.5 A, Short-Circuit Monitoring LS, Individual Channel Shut-Off, SIL 3)
X-DO 32 51	Digital Output Module (32 Channels, 24 VDC, 0.5 A, Protected Outputs, Group Shut-Off)
X-HART 32 01	HART Interface Module (32 Modems, SIL 3)
X-MIO 7/6 01	Over Speed Trip Module (3 Counter, 4 digital Input, 5 digital Output, 1 Relay Channels, SIL 3)
X-DI 32 01 A	Digital Input Module (32 Channels, 24 VDC, SIL 3)
X-DI 32 02 A	Digital Input Module (32 Channels, 8.2 VDC, Proximity Switch, Line Monitoring, SIL 3)
X-AI 32 01 A	Analog Input Module (32 Channels, 4...20 mA, Line Monitoring, SIL 3)
X-DI 64 01 A	Digital Input Module (64 Channels, 24 VDC, SIL 3)
X-DO 24 01 A	Digital Output Module (24 Channels, 24 VDC, 0.5 A, Line Monitoring LS/LB, SIL 3)
X-DO 32 01 A	Digital Output Module (32 Channels, 24 VDC, 0.5 A, Short-Circuit Monitoring LS, Individual Channel Shut-Off, SIL 3)

Accessories:

- communication modules CM-***
- connector boards X-CB-*** **
- field termination assemblies X-FTA *** **

15.2 Description

HIMax is a safety-related control system and is intended for continuous operation. HIMax is a modular system. Functions such as processing, input and output, and communication are distributed on plug-in modules. These modules must be inserted in one or multiple base plates. A controller specific to the concrete application can be created by selecting appropriate modules. Ethernet cables are used to interconnect the base plates.

Details of Change:

Minor hardware changes to some modules.

Technical Data

Rated voltage: 20.4 ... 28.8 V DC

Ambient temperature: $0^{\circ} \leq T_a \leq 60^{\circ}\text{C}$

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(16) **Test-Report No.** 557/Ex7556.03/14

(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 EN IEC 60079-0.
4. The information of the HIMax safety manual concerning the selection criteria for the enclosure (ability of heat dissipation) has to be considered.

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

Covered by afore mentioned standard

TÜV Rheinland Zertifizierungsstelle für Explosionsschutz

Cologne, 2023-11-21

Dipl.-Ing. Christian Mehrhoff



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