

# CERTIFICATE OF CONFORMITY



- HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
- Certificate No:** FM22US0076
- Equipment:** Unical 9000, Uniclean 900 Automated Measurement, Cleaning and Calibration Control System  
**(Type Reference and Name)**
- Name of Listing Company:** Knick Elektronische Messgeräte GmbH & Co. KG
- Address of Listing Company:** Beuckestrasse 22  
Berlin D-14163  
Germany
- The examination and test results are recorded in confidential report number:  
3024483 dated 22<sup>nd</sup> June 2006
- FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:  
FM Class 3600:2022, FM Class 3610:2021, FM Class 3611:2021, FM Class 3810:2021,  
ANSI/ISA 60079-0:2020, ANSI/UL 60079-11:2018, ANSI/UL 121201:2019, ANSI/UL 61010-1:2018,  
NEMA 250:1991, ANSI/IEC 60529:2020
- 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.

**Certificate issued by:**

J.E. Marquedant  
VP, Manager - Electrical Systems

8 December 2022  
Date

To verify the availability of the Approved product, please refer to [www.approvalguide.com](http://www.approvalguide.com)

**THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE**

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# SCHEDULE



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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:

Intrinsically Safe for Class I, II, III Division 1, Groups A, B, C, D, E, F, and G, T4 in accordance with drawing 207.011-066; Type 4X, IP65; Ta = -20°C to +50°C
Intrinsically Safe for Class I, Zone 1, AEx ia [ia Ga] IIC T4 Gb with Intrinsically Safe connections to Zone 0, in accordance with drawing 207.011-066; Type 4X, IP65; Ta = -20°C to +50°C
Intrinsically Safe for Zone 21, AEx ia [ia Da] IIIC T130°C Db with Intrinsically Safe connections to Zone 20 in accordance with drawing 207.011-066; Type 4X, IP65; Ta = -20°C to +50°C
Nonincendive for Class I, II, III, Division 2, Groups A, B, C, D, F and G in accordance with drawing 207.011-066; Type 4X, IP65; Ta = -20°C to +50°C; NIFW

11. The marking of the equipment shall include:

Class I, II, III Division 1, Groups A, B, C, D, E, F and G; T4 Ta = -20°C to +50°C; Type 4X, IP65 - 207.011-066

Class I, II, III, Division 2, Groups A, B, C, D, F and G, T4 Ta = -20°C to +50°C; Type 4X, IP65 – 207.011-066

Class I, Zone 1, AEx ia [ia Ga] IIC T4 Gb; Ta = -20°C to +50°C, Type 4X, IP65 - 207.011-066

Zone 21, AEx ia [ia Da] IIIC T130°C Db; Ta = -20°C to +50°C, Type 4X, IP65 - 207.011-066

12. **Description of Equipment:**

**General** – The Unical 9000-X is an automated measurement, cleaning and calibration control system which consists of the following:

- enclosure with integrated control electronics and the corresponding pneumatic/hydraulic connections,
- Media Connection for operating the retractable probe,
- external Media Adapter for up to three metering pumps with reservoirs for buffer and cleaning solutions and
- external Service Switch for service and measurement

The Uniclean 900-X is identical to the Unical 9000-X but with simplified software and pneumatics, without an external service switch and with only one metering pump and reservoir.

The Unical 9000-X and Uniclean 900-X utilize the same electrical data and ambient temperature range.

**Construction** - The stainless-steel enclosure is either electro polished or coated with plastic. The front cover is connected to the cabinet by four screws. A flat gasket is located between cover and cabinet.

The control electronics are arranged on one pcb together with the electrical terminals. The electronics is encapsulated and connected to the equipotential bonding. The pneumatic and hydraulic connections consist of intrinsically safe piezo valves, pressure gauges, pressure regulators, filters, pressure switches, and the required tubing. The cable glands for the intrinsically safe circuits, the equipotential bonding connection, the air filter, and the media connections for water and air, for example, are located at the bottom side of the enclosure.

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## **Ratings –**

The Unical 9000-X and the Uniclean 900-X are rated for use in an ambient temperature range of -20°C to +50°C.

## **Electrical Ratings –**

See control drawing – 207.001-066 for Electrical Ratings

## ***Unical 9000-Xabcdefghij 00 klm Control System***

- a = Housing: C, S
- b = Media connection: 1, 2, 3, 4, 5, 6, 7, A, B, C, D, E, F, G
- c = Media interface: 0, 1
- d = Media adapter: 0, 1, A
- e = Equipment for Port I: 0, 2
- f = Equipment for Port II: 0, 2
- g = Equipment for Port III: 0, 2, B
- h = Supplementary air purging kit: C, N
- i = Supplementary ext. valve kit: E, N,
- j = Protective cabinet: 0, 1, 2, 3, 4
- k,l,m = for additional accessories such as material certificates.  
possible values 0 ... 9 omitted if not requested

## ***Uniclean 900-Xabcdefgh 00 ijk Control System***

- a = Housing: C, S
- b = Media connection: 1, 2, 3, 4, 5, 6, 7, C, D, F, G
- c = Media interface: 0, 1
- d = Media adapter: 0, 1, A
- e = Equipment for Port: 0, 2, B
- f = Supplementary air purging kit: C, N
- g = Supplementary ext. valve kit: E, N,
- h = Protective cabinet: 0, 1, 2, 3, 4
- i,j,k = for additional accessories such as material certificates.  
possible values 0 ... 9 omitted if not requested.

## 13. **Specific Conditions of Use:**

None

## 14. **Test and Assessment Procedure and Conditions:**

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

## 15. **Schedule Drawings**

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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
22 <sup>nd</sup> June 2006	Original Issue.
8 <sup>th</sup> December 2022	<u>Supplement 2:</u> Report Reference: – PR463748 dated 8 <sup>th</sup> December 2022. Description of the Change: <ol style="list-style-type: none"><li>1) FM3600 updated to the latest edition (2022)</li><li>2) FM3610, FM3611 and FM3810 updated to the latest edition (2021)</li><li>3) ANSI/UL 61010-1:2018 added to Standards list</li><li>4) ANSI/UL 121201:2019 added to Standards list</li><li>5) ANSI/UL 60079-0:2020 added to Standards list</li><li>6) ANSI/UL 60079-11:2018 added to Standards list</li><li>7) ANSI/IEC 60529:2020 added to Standards list</li><li>8) Certificate updated to latest format</li></ol>

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