

CERTIFICATE OF CONFORMITY



1. ELECTRICAL EQUIPMENT PER US REQUIREMENTS

2. Certificate No: **FM16NUS0015**
3. Equipment:
(Type Reference and Name) **Polytron 8100 H2S Gas Detector**
4. Name of Listing Company: **Dräger Safety AG & Co. KGaA**
5. Address of Listing Company: **Revalstraße 1, Lübeck, Germany 23560**
6. The examination and test results are recorded in confidential report number:

3057511 dated 9th February 2017

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

FM 3810:2018, FM 6340:2022, ANSI/FM/UL 62990-1:2023

8. 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.

9. Equipment Ratings:

10 – 30 Vdc (24 volts nominal), 2.4 watts maximum.

10. Description of Equipment:

Stationary Single Channel Toxic Gas Detector.

The Polytron 8100 Gas Detector consists of a P8100 Transmitter and an EC Sensing Head in an integral configuration. The transmitter includes a backlit display and is either an aluminum or stainless housing. The EC Sensing head includes an electrochemical sensor within a polymeric housing. The transmitter includes two 3/4" NPT or M20 wiring entries.

The Polytron 8100 Gas Detector with EC sensors 6809610 (H2S LC) and 6810435 (H2S) measure 0-100 ppm hydrogen sulfide gas-in-air atmospheres.

The EC sensors can be plugged into the Polytron 8100 directly or via SensorAlive 6814014. The detector includes a 4-20 mA output, HART communication, two alarm relays and one fault relay.

The detector includes a 4-20 mA output, HART communication, two alarm relays and one fault relay.

Certificate issued by:

J.E. Marquedant
VP, Manager - Electrical Systems

27 February 2025

Date

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

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

FM Approvals LLC. One Technology Way, Norwood, MA 02062 USA

T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmaprovals.com www.fmaprovals.com



SCHEDULE

to US Certificate of Conformity No: FM16NUS0015

The operating temperature range is -40°C to +65°C (-20°C to +65°C for H2S LC sensor) and the operating voltage is 24 Vdc (nominal), 2.4 watts maximum. The detector complies with FM6340 and ANSI/ISA-92.00.01-2010 Performance Requirements for Toxic Gas Detectors.

Refer to the Polytron 8100 manual for a list of the FM Approved accessories.

Model Polytron 8100 EC, Type ETR 0a0b

SensorAlive, Type EDS 03ab

FM16NUS0015

a = Material: 4 (aluminium) or 5 (stainless steel)

b = Interface: 0 (4-20mA, HART) or 1 (4-20mA, HART, with relays)

Specifications – The manufacturer's specifications are as follows:

Range	0 – 100 PPM
Storage Temperature	-20°C to +40°C (0°C to +40°C for electrochemical sensors)
Operating Temperature	-40°C to +65°C (H2S 6810435)
Operating Temperature	-20°C to +65°C (H2S LC 6809610)
Relative Humidity	5 to 95% RH non-condensing
Supply Voltage	10 – 30 Vdc
Relay Rating (maximum)	5 A at 230 Vac, 5 A at 30 Vdc
Measurement Signal	4-20 mA
Calibration	Magnetic switch
Firmware	4.1.0

11. Specific Conditions of Use:

N/A

12. Test and Assessment Procedure and Conditions:

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

13. Schedule Drawings

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

14. Certificate History

Details of the supplements to this certificate are described below:

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

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

FM Approvals LLC. One Technology Way, Norwood, MA 02062 USA

T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmaprovals.com www.fmaprovals.com

SCHEDULE
to US Certificate of Conformity No: FM16NUS0015

Date	Description
9 February 2017	Original Issue.
6 December 2021	<u>Supplement 1:</u> Report Reference: – PR461105 dated 6 th December 2021. Description of the Change: Firmware update from Version 2.0 to Version 3.2.1
27 February 2025	<u>Supplement 2:</u> Report Reference: PR469994 dated 27 February 2025. Description of the Change(s): Added 62990-1 for SensorAlive sensors via DEKRA evaluation and added firmware reference to certificate.

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

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

FM Approvals LLC. One Technology Way, Norwood, MA 02062 USA

T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmaprovals.com www.fmaprovals.com