

CERTIFICATE OF CONFORMITY



1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**

2. **Certificate No:** FM16US0057X
3. **Equipment:** VEGADIS DIS81 & DIS82
(Type Reference and Name) Display and Adjustment Unit
4. **Name of Listing Company:** Vega Grieshaber KG
5. **Address of Listing Company:** Am Hohenstein 113
Schiltach
D-77761
Germany

6. The examination and test results are recorded in confidential report number:

3056711 dated 26th July 2016

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

FM Class 3600:2011, FM Class 3615:2006, FM Class 3810:2005, ANSI/ISA 61010-1:2012
ANSI/ISA 60079-0:2013, ANSI/ISA 60079-1:2013, ANSI/NEMA 250:2014, ANSI/IEC 60529:2004

8. 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.

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:**

Explosionproof for Class I, Division 1, Groups A, B, C and D; Flameproof for Class I, Zone 1, AEx d IIC T6...T1 hazardous (classified) locations, indoors and outdoors (Type 4X/6P, IP66/IP68) with an ambient temperature rating of -40°C to +60°C.

Certificate issued by:


J.E. Marquedant
Manager, Electrical Systems

26 July 2016
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, 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
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SCHEDULE



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11. The marking of the equipment shall include:

Class I, Division 1, Groups A, B, C, D; T6...T1 Ta = -40°C to +60°C; Type 4X/6P, IP66/IP68

Class I, Zone 1, AEx d IIC T6...T1 Ta = -40°C to +60°C, Type 4X/6P, IP66/IP68

12. **Description of Equipment:**

General - The VEGADIS DIS81 Display and Adjustment Units are used for remote operation and visualization of measurement data via connection with the various VEGA sensors (e.g. VEGAPULS radar sensor, VEGAFLEX microwave sensor, VEGASON ultrasonic sensor, VEGABAR pressure sensor) using a BUS signal.

The VEGADIS DIS82 Display and Adjustment Units are used for remote operation and visualization of measurement data and are looped into the signal circuit of the sensor and work without an additional power supply.

Remote sensor adjustment is possible with the VEGADIS by using the display and adjustment module PLICSCOM with magnetic pen and Bluetooth options, or optionally with interface adapter VEGACONNECT and a computer. VEGACONNECT can only be used when it is ensured that no explosive atmosphere is present. Communications options include 4...20mA/HART (VEGADIS DIS82) and I2C digital (VEGADIS DIS81).

Construction - The VEGADIS DIS81 and DIS82 Display and Adjustment Unit consists of a single compartment Aluminum or Stainless Steel explosionproof/flameproof electronics housing with integrated electronics module and a threaded cover with optional glass display window. The electronics come optionally with PLICSCOM display and adjustment module. The housing has two (2) M20x1.5 or ½ inch NPT openings for electrical connections.

Ratings - The VEGADIS DIS81 Display and Adjustment Units operate at U ≤ 6.4V DC and P = 500mW. The VEGADIS DIS82 Display and Adjustment Units operate at U ≤ 35 V DC and I = 3.5 to 22.5 mA. The transmitters are rated for use in an ambient temperature range of -40°C to +60°C.

VEGADIS DIS81(*).abcdefghi. Display and Adjustment Unit

a = scope: F

b = approval: E

c = electronics: I

d = housing: A, V, H

e = protection: N

f = cable entry / connection: D, 1, N, Q or any certified connection or conduit system that is NRTL listed as suitable for the application

g = adjustment and indication unit PLICSCOM: X, A, F, K, U

h = kind of mounting: E, A, D

i = certificates: M, X

**Optional alphanumeric character not relevant to safety*

***IPX8 ratings based on a submersion depth of 2 meters for 30 minutes.*

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13. Specific Conditions of Use:

1. The flamepaths of the equipment are not intended to be repaired. Consult the manufacturer if repair of the flamepath joints is necessary.
2. Refer to the manufacturer's instructions to reduce the potential of an electrostatic charging hazard on the equipment enclosure.
3. T6...T1 is only based on Tambient of -40°C to +60°C. No other external sources of heating or cooling are applicable.

14. Test and Assessment Procedure and Conditions:

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

15. Schedule Drawings

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
26 th July 2016	Original Issue.

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