



Ordinary Location VEGADIF 85

Certificate FM23NUS0021



Document ID: 1032363



VEGA

CERTIFICATE OF CONFORMITY

1. ELECTRICAL EQUIPMENT PER US REQUIREMENTS

2. **Certificate No:** FM23NUS0021
3. **Equipment:** VEGADIF DF85 Differential Pressure Measuring Device
(Type Reference and Name)
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:

PR463285 dated 24th April 2023

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

FM 3810:2021, ANSI/IEC 60529:2020, ANSI/UL 61010-1:2019, ANSI/UL 50E:2020

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:**

Type 4X/6P, IP66/67/68 (2m@30minutes)

10. **Description of Equipment:**

General - The differential pressure measuring device type VEGADIF 85 is used for differential pressure measurement of liquids and gases. It consists of an electronics housing, a differential pressure measuring element and the process connections. Optionally, an indication and operation module may be installed. Typical application areas are level measurement in pressurized vessels as well as flow measurement in combination with effective pressure transmitters. Further applications are pressure monitorings on filters as well as density and interface measurements.

Certificate issued by:



J.E. Marquardt
VP, Manager - Electrical Systems

7 December 2023

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@fmapprovals.com www.fmapprovals.com

F 332 (Apr 21)



Page 1 of 3



SCHEDULE
to US Certificate Of Conformity No: FM23NUS0021

Electrical Ratings -

<u>Electronics Type</u>	<u>Supply Voltage*</u>
Z - 4...20mA	+11 to +35Vdc
H - 4...20mA HART	+11 to +35Vdc
P - Profibus PA	+9 to +32Vdc
F - Foundation Fieldbus	+9 to +32Vdc
A - 4...20mA HART SIL	+11 to +35Vdc
U - Modbus	+8 to +30Vdc

*See Operating Instructions for information on Power Supply selection

VEGADIF DF85(*)*.ab**hijk*m*** Differential Pressure Measuring Device

- a = Scope: F
- b = Approval: X or M
- h = Electronics: Z, H, U, A, P or F
- i = Supplementary Electronics: X or Z
- j = Housing: A, D, V, 8 or W
- k = Housing Version/Protection: I, D, M, A, S, K or L
- m = Display/Adjustment Module PLICSCOM: X, A, F, B, K or L

11. Specific Conditions of Use:

1. The relationship between version and ambient temperature is as follows:

<u>Version</u>	<u>Ambient Temperature</u>
Standard Version	-40°C to +80°C
Version IP66/IP68 (1 bar)	-20°C to +80°C
Version IP68 (25 bar), with connection to cable PUR	-20°C to +80°C
Version IP68 (25 bar), connection cable PE	-20°C to +60°C

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@fmapprovals.com www.fmapprovals.com



SCHEDULE

to US Certificate Of Conformity No: FM23NUS0021



2. FOR INFORMATION ONLY: The limits of the permissible temperature range may be restricted by the used seal material and the filling oil type. The permissible temperature limits in dependence of the material and filling oil type have to be taken from the manufacturer's instructions:

Material Seal	Filling Oil	Temperature Limits
FKM (ERIKS 514531)	Silicone Oil	-20°C to +105°C
	Halocarbon oil for oxygen applications	-10°C to +60°C
PTFE	Silicone Oil	-40°C to +105°C
	Halocarbon oil for oxygen applications	-10°C to +60°C
Copper	Silicone Oil	-40°C to +105°C
	Halocarbon oil for oxygen applications	-10°C to +60°C
EPDM (ERIKS 55914)	Silicone Oil	-40°C to +105°C
	Halocarbon oil for oxygen applications	-10°C to +60°C

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:

Date	Description
7 December 2023	Original Issue. Report Reference: RR239157 dated 7 December 2023. Description of Change: Issuance of Ordinary Location Certificate based on Hazardous Location Certificate (FM22US0052X) created under PR463285

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@fmapprovals.com www.fmapprovals.com

F 332 (Apr 21)



Page 3 of 3

Printing date:

VEGA

All statements concerning scope of delivery, application, practical use and operating conditions of the sensors and processing systems correspond to the information available at the time of printing.

Subject to change without prior notice

© VEGA Grieshaber KG, Schiltach/Germany 2023

1032363-EN-231219

VEGA Grieshaber KG
Am Hohenstein 113
77761 Schiltach
Germany

Phone +49 7836 50-0
E-mail: info.de@vega.com
www.vega.com