[1] # EU-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU**

[3] EU-Type Examination Certificate Number: **DEMKO 20 ATEX 2382X Rev. 0**

[4] Product: **Industrial Controllers, VEGAMET 341(*), VEGAMET 342(*)**

[5] Manufacturer: **VEGA Grieshaber KG**

[6] Address: **Am Hohenstein 113, 77761 Schiltach, Germany**

[7] This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

[8] UL International Demko A/S, notified body number 0539 in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

[9] The examination and test results are recorded in confidential report no. **DK/ULD/ExTR20.0029/00.** Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 **EN 60079-11:2012**

[10] If the sign "**X**" is placed after the certificate number, it indicates that the product is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by the certificate.

[12] The marking of the product shall include the following:

II (1) G [Ex ia Ga] IIC

II (1) D [Ex ia Da] IIIC

Certification Manager
Jan-Erik Storgaard

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2021-02-08

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[15] Description of Product

The controller VEGAMET 341(*)/ 342(*) series are industrial controllers designed for use in indoor applications as associated apparatus permitted to be installed in non-hazardous locations only.

The controller VEGAMET 340(*) series can be used for regulation and control tasks in industrial areas for Ex applications for one (VEGAMET 341(*)) or two (VEGAMET 342(*)) sensors (sensors with 4 ... 20 mA).

They are able to supply up to two sensors with an intrinsically safe circuit (Ex ia) and can process and display their measurement values through a 4…20 mA input.

Up to two current outputs can be used for data transmission to other control equipment or external indicating instruments and up to 3 relay outputs can be used to operate equipment.

The devices can be operated via turn-push button or remotely using smartphone/tablet and PC/Laptop using Bluetooth Smart (limited energy Bluetooth communication).

The measured value is shown on a display.

The devices are configured for panel mounting (e.g. in a control cabinet).

Safety relevant model coding of VEGAMET 340 model types:

VEGAMET	*a*	*b*	*c*	*(*)*
	3	Housing for the installation for panel mounting (indoor)		
		4	Basic functions, for simple control tasks	
			1	Single channel version, for use with one sensor
			2	Dual channel version, for use with one or two sensors

The placeholder within brackets (VEGAMET 34**x(*)**) is reserved and considered as not safety relevant. It is for internal production control without effect on the product construction.

Safety relevant features	VEGAMET 341(*)	VEGAMET 342(*)
Number of 4…20 mA sensor inputs Ex ia	1	2
Number of digital inputs	-	-
Number of 0/4…20 mA current outputs	1	2
Number of relay outputs	3	3
Bluetooth communication	Yes	Yes

Temperature range

The ambient temperature range is -20 °C to +60 °C.

Electrical data

Power supply: (terminals 91, 92)	Nominal range:	24 V ... 65 V DC; 4 W (341), 5 W (342) 100 V … 230 V AC; 50/60 Hz 13 VA (341), 15 VA (342) Um = 253V AC for [Ex ia] only
Protection rating:		IP20; Front IP40 (only enclosure front for panel mounting)
Relay output maximum values: (terminals 61 to 69)		1A AC (cos phi > 0.9), 250VAC, 250 VA 1A DC, 60V DC, 40 W Um = 253V AC for [Ex ia] only
Current output: (terminals 41, 42 [VEGAMET 341(*)]) (terminals 41 to 44 [VEGAMET 342(*)]) Um = 253V AC for [Ex ia] only		0/4…20 mA U ≤ 16 V Load = max. 500 Ω
Communication interface:		Bluetooth
Sensor input circuit: (terminals 1, 2 [VEGAMET 341(*)]) (terminals 1, 2, 4, 5 [VEGAMET 342(*)])		4…20 mA Maximum values of the intrinsically safe signal circuit: Uo ≦ 23.3 V Io ≦ 109.8 mA Po ≦ 639.6 mW characteristic: linear Ci is negligibly small Li is negligibly small

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The maximum values in the table may be used as concentrated capacitances and concentrated inductances.

Ex ia	IIC		IIB, IIIC		IIA
Permissible external inductance Lo	0.2 mH	0.5 mH	0.5 mH	2 mH	10 mH
Permissible external capacitance Co	120 nF	88 nF	580 nF	470 nF	770 nF
Permissible outer Lo/Ro ratio	55 µH/Ohm	55 µH/Ohm	221 µH/ Ohm	221 µH/ Ohm	443 µH/ Ohm

The intrinsically safe circuit is safely separated from the non-intrinsically safe circuits up to a peak value of the nominal voltage of 375V.

The maximum voltage at the non-intrinsically safe circuits must not exceed 253Vrms in the event of a fault.
VEGAMET 340(*) series have intrinsically safe circuits and non-intrinsically safe circuits.

Routine tests
Transformer TR101 and TR201 shall be subjected to a voltage of 2500 V rms between primary and secondary windings, for at least 60 seconds, in accordance with the requirements of Clause 11.2 of EN 60079-11. Alternatively, the test may be carried out at 1.2 times the test voltage, but with a reduced duration of at least 1 second.

[16] Descriptive Documents
The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this EU-Type Examination Certificate.

[17] Specific conditions of use:
The installer must also ensure that the rated ambient temperature range of the equipment is not exceeded when installed in an enclosure with other equipment and that sufficient separation is provided around the device.

[18] Essential Health and Safety Requirements
The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.