Translation

1 EU-Type Examination Certificate Supplement 1

Change to Directive 2014/34/EU

2 **Equipment intended for use in potentially explosive atmospheres Directive 2014/34/EU**

3 EU-Type Examination Certificate Number: **BVS 11 ATEX E 169**

4 Product: **Mikrowellenschranke type VEGAMIP MPR61(*).DXA***R/T*** and VEGAMIP MPT61(*).DXA***T***

5 Manufacturer: **VEGA Grieshaber KG**

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

7 This supplementary certificate extends EC-Type Examination Certificate No. BVS 11 ATEX E 169 to apply to products designed and constructed in accordance with the specification set out in the appendix of the said certificate but having any acceptable variations specified in the appendix to this certificate and the documents referred to therein.

8 DEKRA EXAM GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in the confidential Report No. BVS PP 11.2270 EU.

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2012 + A11:2013	**General requirements**
EN 60079-1:2014	**Flameproof enclosure "d"**
EN 60079-26:2015	**Equipment with equipment protection level (EPL) Ga**

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix 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 this certificate.

12 The marking of the product shall include the following:

II 1/2G Ex db IIC T6 Ga/Gb
II 2G Ex db IIC T6 Gb

DEKRA EXAM GmbH
Bochum, 2018-01-02

Signed: Dr Franz Eickhoff
Certifier

Signed: Dr Michael Wittler
Approver

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13 **Appendix**

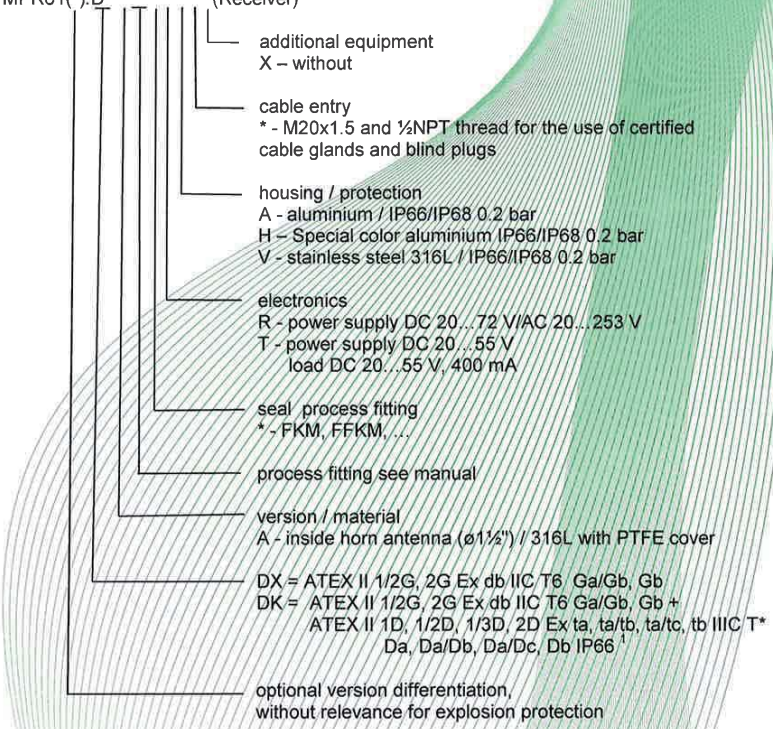
14 **EU-Type Examination Certificate**

BVS 11 ATEX E 169
Supplement 1

15 **Product description**

15.1 **Subject and type**

Microwave barrier type
VEGAMIP MPR61(*).D* * ** * * * * * (Receiver)



[1] The assessment for use in explosive dust atmospheres is not part of this test report.

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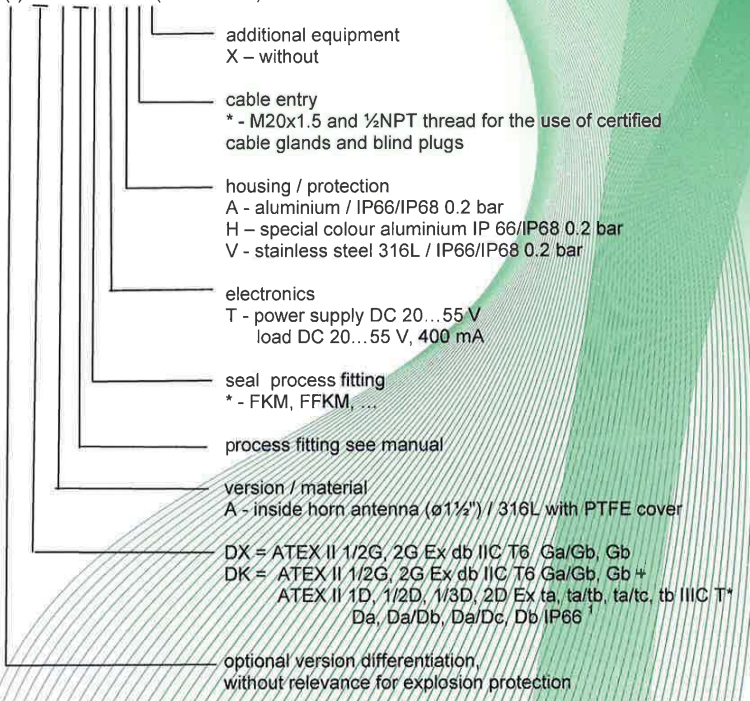
Microwave barrier type
VEGAMIP MPT61(*).D* * ** * T * * * (Transmitter)



[1] The assessment for use in explosive dust atmospheres is not part of this test report.

15.2 **Description**

With this supplement the certificate is changed to Directive 2014/34/EU.
(Annotation: In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.)

Reason for the supplement:

Updating to current version of standard
Adjustment of type code
Light revision of electronics
Mechanical changes

Description of Product

The microwave barrier type VEGAMIP MP*61(*).D********* is used to measure a level limit. It is based on radar and uses microwaves in GHz range.
It consists of a transmitting and a receiving unit which are mounted separately.
The electronics enclosure is identical to the 1-chamber housing which was separately tested and meets the requirements of the standards EN 60079-0:2012+A11:2013 and EN 60079-1:2014 (see DE/BVS/ExTR11.0095/02).

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The termination of the 1-chamber housing to the side of the process is built by welded construction in combination with a flameproof joint and a glass feedthrough which fulfils the requirements for flameproof enclosure as well as the mechanical requirements for an equipment which is mounted through the boundary wall to an area requiring EPL Ga.

15.3 Parameters

15.3.1 Electrical data

VEGAMIP MPT61(*).DXA***T***
Input
Supply voltage
(terminals 1, 2 in the terminal compartment)

	AC	20...	253	V, 50/60 Hz
	DC	20...	72	V
Power consumption	AC		1.8	VA
	DC	ca.	1.3	W

VEGAMIP MPR61(*).DXA*******
VEGAMIP MPR61(*).DXA***R***
Input
Supply voltage
(terminals 1, 2 in the terminal compartment)

	AC	20...	253	V, 50/60 Hz
	DC	20...	72	V
power consumption	AC		1.8	VA
	DC	ca.	1.6	W

Relay circuit (maximal data)
Contact set 1 (terminals 3, 4, 5)

	AC	253	V, 5 A

Contact set 2 (terminals 6, 7, 8)

	DC	30	V, 4 A
	DC	125	V, 0.2 A

VEGAMIP MPR61(*).DXA***T***
Input
Supply voltage
(terminals 1, 2 in the terminal compartment)

	DC	20...	55	V
Power consumption	<		1	W

Signal circuit (maximal data)
(terminals 4, 5 in the terminal compartment)

U_{Load} =	DC	20...	55	V
I_{Load}	≤		400	mA

High frequency parameters

Transmitting- / emitting frequency K-Band	ca.	24	GHz
Output radiating power (normal operation)	P_{EIRP}	0.1	W
Max. output radiating power (2 faults)	P_{EIRP}	0.2	W

15.3.2 Thermal data

Permitted ambient temperature range
at the sensor (in Zone 0)

VEGAMIP MPR/T6*(*).DXA***R/T*** -20 °C...+60 °C

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at the sensor (in Zone 1)

VEGAMIP MPR/T6*(*).DXA***R/T*** -40 °C...+80 °C

at the electronics enclosure (in Zone 1)

VEGAMIP MPR/T6*(*).DXA***R/T*** -50 °C...+60 °C
max. surface temperature T
The max. surface temperature is the higher one of the following:

at the sensor process temperature	+3	K
at the electronics enclosure limited by thermo fuse to	102	°C

15.3.3 Degrees of protection according to EN 60529 IP66/68 0.2 bar

16 **Report Number**

BVS PP 11.2270 EU, as of 2018-01-02

17 **Special Conditions for Use**

None

18 **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements are covered by the standards listed under item 9.

19 **Drawings and Documents**

Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA EXAM GmbH
Bochum, dated 2018-01-02
BVS-Hor/Ld/Mu A 20170327

Certifier

Approver

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