



Mining And Surface Certification (Pty) Ltd

2015/021934/07

THIS CERTIFICATE IS ISSUED AS AN I.A. CERTIFICATE IN TERMS OF THE RELEVANT REGULATIONS OF THE MINERALS ACT (INCORPORATING THE MINE HEALTH AND SAFETY ACT) AND THE ELECTRICAL MACHINERY REGULATIONS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT.

IA CERTIFICATE	MASC S/20-9002X	Issue	0
Issue Date	24 February 2020	Expiry Date	24 February 2023
** Based on Certificate No	IECEX ULD 19.0013X	Issue / Variations / Amendment	0
Requested by	VEGA Grieshaber KG, Am Hohenstein 113, Schiltach, 77761, Germany		
Manufacturer	VEGA Grieshaber KG, Am Hohenstein 113, Schiltach, 77761, Germany		
Additional Manufacturing site	VEGA Americas, Inc, 4241 Allendorf Drive, Cincinnati, Ohio 45209, United States of America		
Description	<p>The VEGABAR 28 (*)/ 29 (*)/ 38 (*)/ 39 (*) pressure transmitters with ceramic or metallic measuring sensor cell. Measured products are gases, vapours and liquids. The equipment must be connected to an external intrinsic safety barrier with consider to the electrical ratings.</p> <p>The output is performing as a 0/4-20 mA two-wire current output. The enclosures are manufactured of stainless steel type AISI316.</p> <p>Sensors can be mounted on reservoirs, pipelines and other units, at any position indoors and outdoors in wide range of environmental conditions. The sensors have no moving parts.</p> <p>See Annex A for additional information.</p>		
Equipment	VEGABAR 28 (*)/ 29 (*)/ 38 (*)/ 39 (*) (Pressure Transmitter)	Type	VEGABAR 28 (*)/ 29 (*)/ 38 (*)/ 39 (*)
MARKING: Original marking as per certificate * remains applicable. IA number must be added.	Type: VEGABAR 28 (*)/ 29 (*)/ 38 (*)/ 39 (*) Ex Marking: Ex ia IIC T4 Ga Ex ia IIC T4 Ga/ Gb Ex ia IIC T4 Gb -40°C ≤ Ta ≤ +70°C IA Number: MASC S/20-9002X (To be additionally marked on equipment) Warnings: See Base Certificate ** (original marking must be applied)		
Quality Assurance report (QAR) / Notification (QAN) Expiry date:	DE/TUN/QAR06.0002/09		

Compliance:

The equipment as described above has been allocated the rating Explosion Protected Ex ia IIC T4 Ga, Ex ia IIC T4 Ga/ Gb and Ex ia IIC T4 Gb, -40°C ≤ Ta ≤ +70°C utilizing the SANS/IEC Standards:

- SANS (IEC) 60079-0: 2019 (2017) Equipment - General requirements
- SANS (IEC) 60079-11: 2012 (2011) Equipment protection by Intrinsic Safety 'i'
- SANS (IEC) 60079-26: 2016 (2014) Equipment with Equipment Protection Level (ELP) Ga

Special conditions of safe use "X":

- Effective earthing of the equipment shall be secured through the mounting on the process equipment.
- The equipment should not be mounted on process equipment, in which pressure can exceed the range of 0.8 – 1.1 bar.
- For installation and operation of the equipment, the specifications given to the process media temperatures in the operating instructions shall be complied with.

Conditions of manufacture:

- No additional conditions as may be applicable for the base certificate **

Terine Orsmond
PROJECT MANAGER

Regardt Zeelie
TECHNICAL SPECIALIST

This certificate covers all units sold as long as the QAR/QAN remains valid.
According to the relevant requirements of the MHS Act and the OHS Act, production units of explosion protected equipment are required to comply with third party quality assurance (an approved mark scheme or batch testing by an accredited test laboratory).

Apparatus in hazardous locations is subject to the following provisions as applicable, which shall be adhered to:
SANS 10086 requirements;
Any conditions mentioned in the above report
Any restrictions and conditions enforced by the chief inspector of mines or chief inspector of factories
Any relevant requirements of the MHS Act.

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Mining And Surface Certification (Pty) Ltd
Unit 5 Lelyta Park, 45 Jurg Ave, Hennospark Ext 87
Centurion, 0157



IA CERTIFICATE: MASC S/20-9002X

Equipment: VEGABAR 28 (*)/ 29 (*)/ 38 (*)/ 39 (*) (Pressure Transmitter)

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ANNEX A

This document is based on and must be read in conjunction with certificate IECEX KIWA 19.0029X

Description cont. (According to Base Certificate **)

TYPE DESIGNATION AND PARAMETERS RELATING TO THE SAFETY

Safety relevant model coding of VEGABAR series:

The placeholder within brackets VEGABAR 28 (*)/ 29 (*)/ 38 (*)/ 39 (*) is reserved and considered as not safety relevant.

VEGABAR	a	b	(*)
	2		Housing with M12- or ISO4400- Connector or Cable outlet wire.
	3		Housing with Display Unit and M12- or S4400- Connector.
	8		Pressure transmitter with ceramic measuring cell
	9		Pressure transmitter with metallic measuring cell

Ambient temperature range
-40 °C to +70 °C

Temperature class
T4

VEGABAR 28 (*)/ 29 (*)/ 38 (*)/ 39 (*) are pressure transmitters evaluated under the entity concept.

ELECTRICAL RATINGS:

VEGABAR 28 (*)/ 29 (*)/ 38 (*)/ 39 (*)

Transmitter M12 (Pin 1, 3)- or ISO4400 (Pin 1, 2)- Plug or cable outlet wire:
4-20 mA two-wire superposed current output.

Ui : 30 V
Ii : 131 mA
Pi : 0,983 W
Li : 5 µH
Ci : 0

Ci and Li do not include the capacitance/ inductance of cables to and from VEGABAR 28 (*)/ 29 (*)/ 38 (*)/ 39 (*)

Maximum cable length must be considered based on cable parameters:

Li' = 0.55 µH/m,
Ci' wire/wire = 58 pF/m,
Ci' wires/shield = 270 pF/m

Standard compliance See Base Certificate **

Special conditions of safe use ("X")

- As above

Conditions of manufacture

- As above

Conditions of Certification

- This IA Certificate covers all units sold from the date of this document to the expiry date of this certificate.
- As per ARP 0108 a maximum three yearly review is required on this IA Certificate (expiry is determined as per the QAR/QAN/QMS expiry date).
- The apparatus must be additionally marked with the MASC marking details above.
- This approval only covers the equipment as certified above and does not include any scheduled additions or variations / amendments / new issues to the certificate(s), made after the above date.
- The equipment does not need to be re-tested when used on the conditions and with such restrictions as prescribed by the certificate on which this IA Certificate is based and any other conditions in this IA Certificate.
- The certification on which this IA Certificate is based must remain valid.
- The extent of the requirements in the ARP 0108 (or regulations), SANS 10108 and any other applicable regulations on the certification of the equipment must remain unchanged.
- The Ex quality assurance notification/report for the equipment must remain valid.

Conclusion:

- From the above and the selective examination of the documentation, nothing contrary to the requirements of the applicable standards was found, provided that the equipment / component is used as described in the above document / certificate and according to the MASC conditions below. A MASC IA certificate is issued based on the work done as per the Base Certificate **.
- The routine tests for production units according to the Base Certificate ** must be complied with (if applicable).

This document is issued based on Mining And Surface Certification's Standard Contract terms and conditions available on request.

While every endeavour is made to ensure that a test / assessment / inspection is representative and accurately performed, and that a report / certificate is accurate in the quoted results and conclusions drawn from the test / assessment / inspection, MASC or its directors/employees shall in no way be liable for any error made in carrying out the test / assessment or for any erroneous statement, whether in fact or in opinion, contained in a report / certificate issued pursuant to a test / assessment / inspection.

MASC takes no responsibility for any non-conformances, exclusions or any results / assessments / inspections not in compliance with the standards. By marking the equipment in accordance with the documentation / standard, the manufacturer / applicant attests on his own responsibility that the equipment / installation has been designed and constructed in accordance with the applicable requirements of the relevant standards and documentation, that the routine verifications / routine tests have been correctly completed and the equipment / installation complies with the documentation and standard(s).

This document is only for use and application in South Africa. It is issued based on National interpretations and accepted practices.

This document may only be reproduced in full.

This certificate is not transferable and remains the property of the issuing body.
This document will not be supported by MASC for certification purposes outside the borders of South Africa.

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