

GOVERNMENT APPROVED TEST LABORATORY
IN TERMS OF ARP 0108: "REGULATORY REQUIREMENTS FOR EXPLOSION PROTECTED APPARATUS"

IA CERTIFICATE

Date Issued: **24 May 2023**
*Expiry date: **24 May 2026**
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Issue: 1

Ex – Type Examination Certificate

Certificate Number: **S-XPL/20.0413 X**
Equipment: **Pressure Transmitter**
Model / Type: **VEGABAR 28 (*), VEGABAR 29 (*), VEGABAR 38 (*), VEGABAR 39 (*)**
Applicant: **VEGA Grieshaber KG**
Am Hohenstein 113, 77761 Schiltach,
Germany
Manufacturer: **VEGA Grieshaber KG**
Serial No: All serial numbers imported between issued- and expire date and all serial numbers covered by a valid report or acceptable product certification mark.

Supplied by
VEGA Grieshaber KG
Identified by Inspection Authority number
S-XPL/20.0413 X

And as described in the ExploLabs file number **XPL/21347/20.0413 Issue 1** is hereby certified "Explosion Protected (Refer to clause 1, for Ex Rating)", having been examined and inspected in accordance with the relevant requirements of South African Standards.

- SANS 60079-0: 2019 Ed 6** Explosive atmospheres Part 0: Equipment — General requirements
- IEC 60079-0: 2017 Ed 7**
- SANS 60079-11: 2012 Ed 4** Explosive atmospheres Part 11: Equipment protection by intrinsic safety "I"
- IEC 60079-11: 2011 Ed 6**
- IEC/SANS 60079-26: 2014** Explosive atmospheres – Part 26: Equipment with equipment protection level (EPL) Ga

Risk of ignition provided:

Protection afforded	Equipment Protection Level (EPL)	Performance of protection	Conditions of operation	T class or Max Surface Temp (°C)
	Group			
Very high	Ga Group II	Two independent means of protection or safe even when two faults occur independently of each other	Equipment remains functioning in zones 0, 1 and 2	T4 (135°C)
High	Gb Group II	Suitable for normal operation and frequently occurring disturbances or equipment where faults are normally taken into account	Equipment remains functioning in zones 1 and 2	T4 (135°C)

This certification indicates compliance with R10.1 of the Mines Health and Safety Act and/or EMR 9(2) of the Occupational Health and Safety Act, provided that the apparatus is used as relevant in accordance with:

- i) SANS 10086 and IEC/SANS 61241-14 requirements as applicable;
- ii) Any conditions mentioned in the above report;
- iii) Any relevant requirements and codes of practice enforced in terms of the Mine Health and Safety Act or Occupational Health and Safety Act; and
- iv) Any restrictions and conditions enforced by the Chief Inspector of Mines or the Principal Inspector or the Chief Inspector: Occupational Health and Safety.
- v) A revision certificate replaces all previous version of the certificate.
- vi) * - Only covers equipment imported between the "Issued" and "Expire" dates.
- vii) If and when your QAN (Quality Assurance Notification) Certificate for your equipment manufacturer expires during the valid period of the IA Certification (issued for your equipment) and a new certificate is not submitted the existing IA Certification will then be cancelled. It is thus the client's responsibility to always submit the updated and valid QAN certificate(s) to ExploLabs (Pty) Ltd

DOCUMENT No: XPL0213 | RELEASE DATE: 29/05/2018 | REV: 7

This certificate supersedes all previous documents bearing the reference no XPL/21347/20.0413.



1. GENERAL

The marking of the Pressure Transmitter shall include the following:

Ex ia IIC T4 Ga

Ex ia IIC T4 Ga/ Gb

Ex ia IIC T4 Gb

-40 °C ≤ Ta ≤ +70 °C

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. The output is performing as a 0/4-20 mA two-wire current output. The enclosures are manufactured of stainless steel type 316L/AISI316. 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.

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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.

U_i : 30 V
I_i : 131 mA
P_i : 0.983 W
L_i : 5 µH
C_i : 0

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

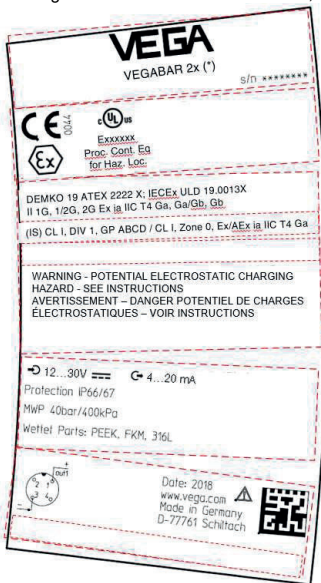
Maximum cable length must be considered based on cable parameters:

L_i¹ = 0.55 µH/m,
C_i^{1 wire/wire} = 58 pF/m,
C_i^{1 wires/shield} = 270 pF/m

The optical radiation output of the product with respect to explosion protection, according to Annex II clause 1.3.1 of Directive 2014/34/EU is based on Exception 1) to the scope of IEC 60079-28: 2015.

MARKING

Marking has to be readable and indelible; it has to include the following indications:



Based on the following documentation:

IECEx ULD 19.0013X Issue No.: 1 and/or DEMKO 19 ATEX 2222X Rev. 1

2. **INSTALLATION INSTRUCTIONS**

It is the manufacturer's responsibility to supply installation instructions with each unit offered for sale as required by IEC/SANS 60079-0 Clause 30.

3. **SPECIAL CONDITIONS FOR SAFE USE** (denoted by "X" after certificate number)

- 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.

4. **SCHEDULE OF LIMITATIONS** (denoted by "U" after certificate number)

None.

5. **CONDITIONS OF CERTIFICATION**

All production units must be covered by a QAN (Quality Assurance Notification), Product Mark Scheme or batch evaluation.

6.

MARKING

The following (or similar) information have to be clearly and permanently marked on all units:

Supplier : VEGA Grieshaber KG
Manufacturer : VEGA Grieshaber KG
Equipment : Pressure Transmitter
Model/Type : VEGABAR 28 (*), VEGABAR 29 (*), VEGABAR 38 (*), VEGABAR 39 (*)
Serial No. : ---
Ex Rating : Ex ia IIC T4 Ga
 Ex ia IIC T4 Ga/ Gb
 Ex ia IIC T4 Gb
 -40 °C ≤ Ta ≤ +70 °C
IA Certificate No : S-XPL/20.0413 X

Responsible Testing Officer:**D Maree****Technical Specialist****EXPLOLABS EXPLOSION PREVENTION SERVICES**

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