(Pty) Ltd

7 Spanner Rd / PO Box 467 Olifantsfontein 1665

Tel: +27 (11) 316 4601 Fax: +27 (11) 316 5670 E-mail: admin-mgr@explolabs.co.za

GOVERNMENT APPROVED TEST LABORATORY

IN TERMS OF ARP 0108: "REGULATORY REQUIREMENTS FOR EXPLOSION PROTECTED APPARATUS"

IA CERTIFICATE

Date Issued:

13 Sep 2024 *Expiry date: 13 Sep 2027

Page 1 of 5 Issue: 2

Ex - Type Examination Certificate

S-XPL/090937 X Certificate Number:

Vibrating level switch Equipment:

Model / Type: VEGASWING SG66(*).I E * ** * * * * and/or VEGASWING SG66(*).A E * **

Applicant: Vega Instruments (Pty) Ltd

> PO Box 692 Wilgeheuwels

1736

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 Instruments (Pty) Ltd Identified by Inspection Authority Number S-XPL/090937 X

And as described in the Explolabs file number XPL/10628/090937 is hereby certified "Explosion Protected (Refer to clause 1, for Ex Rating)", having been examined and inspected in accordance with the relevant requirements of the South African National Standards.

SANS 60079-0: 2019 Ed 6

Explosive atmospheres Part 0: Equipment — General requirements

IEC 60079-0: 2017 Ed 7 SANS 60079-1: 2015 Ed 5 IEC 60079-1: 2014 Ed 7

Explosive atmospheres Part 1: Equipment protection by flameproof

enclosures "d"

IEC/SANS 60079-26: 2021

Explosive atmospheres - Part 26: Equipment with equipment protection

level (EPL) Ga

Risk of ignition provided:

K					
Total trees have	Protection afforded	Equipment Protection Level (EPL) Group	Performance of protection	Conditions of operation	T class or Max Surface Temp (°C)
Column Terrator Service	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	T6 (85°C) T1 (450°C)
Colons Towns Servin	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	T6 (85°C) T1 (450°C)

This certificate supersedes all previous documents bearing the reference no XPL/10628/090937 Issue DOCUMENT No: XPL0213 RELEASE DATE: 30/01/2024 REV: 8 ent is an Explo

vision is applied as noted in the electronic s

Azgrouais Azgrouais

GENERAL

The marking of the Vibrating level switch shall include the following:

Ex db IIC T6...T1 Ga/Gb or

Ex db IIC T6...T1 Gb

Description

Vibrating level switch type VEGASWING is used for level monitoring or regulating in explosive atmospheres. It consists of a metal enclosure with built in electronics and a vibrating fork as sensor.

The Vibrating level switch for use as EPL Ga/Gb equipment is intended to be mounted in a forming part of the boundary wall to Zone 0. In such a case the sensor is situated in Zone 0 whereas the electronics enclosure is situated in Zone 1.

The thickness of the pipe and vibrating fork is > 1 mm and fulfils the mechanical requirements for an equipment which is mounted through the wall to an area requiring EPL Ga.

Subject and Type

Vibrating level switch type VEGASWING

SG66(*).* * * * * * * * *

Further criteria, without relevance for explosion protection Cable entry/connection Enclosure A = aluminium-enclosure V = stainless steel (precision casting) 316 L * = special color Electronics R = relay (2 x SPDT) 20...72 VDC / 20...253 VAC (5 A) S = relay (2 x SPDT) 20...72 VDC / 20...253 VAC (5 A) SIL-version T = transistor (NPN/PNP) 9.6...55 VDC I = transistor (NPN/PNP) 9.6...55 VDC SIL-version Z = two wire 8/16 mA 9.6...35 VDC L = two wire 8/16 mA 9.6...35 VDC SIL-version Second line of defense / process temperature A = with/ -196...450 °C Process connection see manual Version / material Certificate E = IEC/ATEX Ex db IIC T6 Ga/Gb, Gb more markings are possible in case the version is separately certified according to an additional certificate. The detailed encoding of the type code is part of the safety instructions. I = Worldwide and/or A = Europe * other for approvals in other markets without relevance for explosion protection

This certificate supersedes all previous documents bearing the reference no XPL/10628/090937 Issue 1

| DOCUMENT No: XPL0213 | RELEASE DATE: 300/12024 | REV: 8 |
| This document is an Explosible Sortfolied Document - Responsibility falls on personnel to

Inis document is an Exploiabs Controlled Document – Responsibility falls ensure correct revision is applied as noted in the electronic system. AZPIOLAIS AZPIOLAIS

Parameters

Electrical data

VEGASWING SWING SG66.(*). IE****R/S*** and/or SG66.(*). AE****R/S***

with built in electronics insert SG60HT-R/S

supply U = 20...253 V AC, 50/60 Hz

(terminals 1, 2) U = 20... 72 V DC

Power dissipation max. 3 VA, max. 1 W

Relay circuit Maximum values:
Set of contacts 1 (terminals 3, 4, 5) AC 253 V, 5A, 1250 VA
Set of contacts 2 (terminals 6, 7, 8) DC 253 V, 1A, 40 W

VEGASWING SWING SG66.(*). IE****T/I*** and/or SG66.(*). AE****T/I***

with built in electronics insert SG60HT-T/I

Supply U = 9.6...55 V DC

(terminals 1, 4)

Power dissipation max. 2 W

Load current, transistor-output (NPN/PNP)

(terminals 2, 3) max. 400 mA and 55 V DC

VEGASWING SWING SG66.(*). IE****Z/L*** and/or SG66.(*). AE****Z/L***

with built in electronics insert SG60HT-Z/L
Supply U = 9.6...35 V DC

(terminals 1, 2)

Thermal data

Process- and ambient temperature range

Equipment in Zone 1

Temperature class	Permitted process temperature	Permitted ambient temperature	
remperature class	range at the sensor	range at the electronics enclosure	
T6	-196 °C +85 °C	-50 °C+60 °C	
T5	-196 °C+100 °C	-50 °C+60 °C	
T4	-196 °C+135 °C	-50 °C+60 °C	
T3	-196 °C+200 °C	-50 °C+60 °C	
T2	-196 °C+300 °C	-50 °C+60 °C	
T1	-196 °C+450 °C	-50 °C+60 °C	

Equipment mounted in a boundary wall (electronics enclosure in Zone 1, sensor in Zone 0)

Equipment meanted in a beandary wan (electronice enclosure in Zene 1, echeer in Zene e							
Temperature class	Permitted process temperature range at the sensor	Permitted ambient temperature range at the electronics enclosure					
T6	-20 °C+60 °C						
T5		-50 °C+60 °C					
T4							
T3		-50 C+60 C					
T2							
T1							

Degree of protection according to IEC/SANS 60529

IP66

This certificate supersedes all previous documents bearing the reference no XPL/10628/090937 Issue 1

| DOCUMENT No: XPL0213 | RELEASE DATE: 30/01/2024 | REV: 8

DOCUMENT No: XPL0213 RELEASE DATE: 30/01/2024 REV: 8
This document is an Explolabs Controlled Document - Responsibility falls on personnel is ensure correct revision is applied as noted in the electronic system.

PERSONAL PER

Azgrouais Azgrouais

Mechanical modifications without impact on explosion protection

Slight modification of the type code

Changes to the special conditions of use

Remarks and additional information

Drawings and documents are listed in the confidential report.

Based on the following documentation:

IECEx BVS 13.0022X Issue No. 3 and/or BVS 12 ATEX E 154 X Issue 1

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.

SPECIAL CONDITIONS FOR SAFE USE (denoted by "X" after certificate number) Intensive electrostatic charging, for example through the process, must be avoided.

The capacity of the metallic measuring point identification plates is to be taken from the safety instructions and a suitability is to be checked.

SCHEDULE OF LIMITATIONS (denoted by "U" after certificate number) 4. 5. Not applicable.

CONDITIONS OF CERTIFICATION

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

> This certificate sup es all previous documents bearing the refe

DOCUMENT No: XPL0213 | RELEASE DATE: 30/01/2024 | REV: 8
This document is an Explolabs Controlled Document – Responsibility falls on personnel is

APPLOURS APPLOURS

ANNEX TO CERTIFICATE NO S-XPL/090937 X

PAGE 5 OF 5

6. MARKING

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

: Vega Instruments (Pty) Ltd Supplier : VEGA Grieshaber KG Manufacturer Equipment : Vibrating level switch

Model/Type : VEGASWING SG66(*).I E * ** * * * and/or VEGASWING SG66(*).A E * ** * * * *

Serial No.

: Ex db IIC T6...T1 Ga/Gb or Ex Rating

Ex db IIC T6...T1 Gb IA Certificate No : S-XPL/090937 X

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:

SANS 10086 and IEC/SANS 61241-14 requirements as applicable:

Any conditions mentioned in the above report; jiii)

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.

A revision certificate replaces all previous version of the certificate.

* - Only covers equipment Imported between the "Issued" and "Expire" dates

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 (Ptv) Ltd

Reviewed by:

JUNENS C Lourens

Technical Specialist

EXPLOLABS EXPLOSION PREVENTION SERVICES

This report/certificate shall not be reproduced except in full without the written approval of the company Exploiabs (Pty) Ltd shall not be liable for an obsess or damages sustained on account of any failure or omission to properly perform our duties in terms of any contract undertaken by us. This disclaimer is immutable and automatically incorporated in any contract undertaken by us, notwithstanding anything to the contrary, save for a contract undertaken by the contract und Insignation is initiative and outcommon and incorporated in any contact undertaken by us, incumisationing any and a contract to the express written waiver of our managing director. By marking the equipment in accordance with the documentation/standard, the manufacturer attests on his own responsibility that the equipment has been constructed in accordance with the applicable requirements of the relevant standards and that the routine verifications and tests have been successfully completed and that the product complies with the documentation and standard(s). The contents of electronic reports/certificates cannot be guaranteed. Original certification documents will be kept on file at Explolabs (Pty) Ltd

> This certificate sup es all previous documents bearing the refe rence no XPL/10628/090937 Issue 1

DOCUMENT No: XPL0213 | RELEASE DATE: 30/01/2024 | REV: 8
This document is an Explolabs Controlled Document – Responsibility falls on personnel to ensure correct revision is applied as noted in the electronic system

APPLOURS APPLOURS