IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx BAS 15.0125X**

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Certificate history:

Status: **Current**

Issue No: 3

Issue 2 (2020-01-09)
Issue 1 (2018-07-03)
Issue 0 (2015-09-29)

Date of Issue: 2021-12-06

Applicant: **Longvale Limited**
Lancaster Park
Needwood
Burton-upon-Trent
Staffordshire
DE13 9PD
United Kingdom

Equipment: **Euroswitch Vibration Sensors – VS Series**

Optional accessory:

Type of Protection: **Flameproof & Dust (by Enclosure)**

Marking: **Ex db IIC T6* Gb**
Ex tb IIIC T85°C* Db (Ta -40°C to +70°C)* IP66/67/68

***alternative temperature class/ambient markings is permitted – see schedule**

Approved for issue on behalf of the IECEx Certification Body: **R S Sinclair**

Position: **Technical Manager**

Signature: (for printed version)

Date: 6/12/21

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

SGS Baseefa Limited
Rockhead Business Park
Staden Lane
Buxton, Derbyshire, SK17 9RZ
United Kingdom

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Manufacturer: **Longvale Limited**
Lancaster Park
Needwood
Burton-upon-Trent
Staffordshire
DE13 9PD
United Kingdom

Additional manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

GB/BAS/ExTR15.0273/00 GB/BAS/ExTR18.0164/00 GB/BAS/ExTR19.0344/00
GB/BAS/ExTR21.0180/00

Quality Assessment Report:

GB/SIR/QAR07.0013/12

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The accelerometer units are all manufactured from stainless steel and comprise either:-

A cylindrical enclosure with a circular mounting plate, and a threaded cover locked by a M4 x 6mm long socket head screw.

The Model VS-10GAR1-321-P1R1000020 enclosure houses a single accelerometer module in a stainless steel mounting insert, and a two way terminal assembly.

The Model VS-10GAR3-321-P1R1000267 enclosure houses three separate accelerometers in a stainless steel mounting insert, and three individual two way terminal assemblies.

An M20 or 1/2" NPT cable entry is provided to accommodate a suitably certified flameproof cable entry device. Internal and external earth connection facilities are provided.

These units may have a variety of Temperature Class/ambient combinations as follows:

T6/T85°C, Ta = -40°C to +70°C

T5/T100°C, Ta = -40°C to +85°C

T4/T135°C, Ta = -40°C to +90°C

T3/T200°C, Ta = -40°C to +90°C

or

The model VS-W has an alternative body consists of a cylindrical enclosure that is directly mounted via a threaded hole in the base, and a threaded cover. This model houses a single accelerometer potted into the bottom of the enclosure along with a 4 way terminal block for electrical connection to the accelerometer. The W series of bodies come with either a side entry point, designated WL, or a cover (back) entry point, designated W, either entry can be M20 or 1/2” NPT

These units may have a variety of Temperature Class/ambient combinations as follows:-

T6/T85°C, Ta = -55°C to +70°C

T6/T85°C, Ta = -20°C to +70°C

T5/T100°C, Ta = -55°C to +85°C

T4/T135°C, Ta = -55°C to +90°C

T3/T200°C, Ta = -55°C to +90°C

The accelerometer modules are rated 12-30Vdc with a 4-20mA output.

See Annex for Part Number Matrix

SPECIFIC CONDITIONS OF USE: YES as shown below:
1. When used in dust atmospheres the installer shall ensure that the cable entry threads are sealed to maintain the IP66/67 rating.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Variation 3.1

To assess the equipment against IEC 60079-0:2017 Edition 7.0.

Variation 3.2

To assess the equipment for the degree of protection IP68 at 30m for 24 hours.

ExTR: **GB/BAS/ExTR21.0180/00**	File Reference: **21/0380**

Annex:

IECEx BAS15.0125X Annex Iss 1.pdf

Vibration Sensor - Part Number Matrix

	VSE	-	X	X	X	X	-	X	-	X
Stud Mount	M6x1.0	-	A				-		-	
	1/4"-28 UNF	-	B				-		-	
	M8x1.25	-	C				-		-	
	3/8"-24 UNF	-	D				-		-	
	1/4" NPT	-	E				-		-	
	M16x2.0 Quick Fit	-	F				-		-	
Certification	IECEx & ATEX Markings	-		3			-		-	
	ATEX/IECEx & UL/CSA Markings	-		B			-		-	
	Multiple Certification Markings (Exd only)	-		D			-		-	
	Other regional Exd certification			F - Z			-		-	
Housing Material	Stainless Steel 316L	-			2		-		-	
Certified Temp.	T6/T85°C = -20°C to +70°C	-				1	-		-	
	T4/T135°C = -55°C to +90°C	-				2	-		-	
Output	ICP Voltage - Acceleration Output - 10mV/g	-					-	1	-	
	ICP Voltage - Acceleration Output - 50mV/g	-					-	2	-	
	ICP Voltage - Acceleration Output - 100mV/g	-					-	3	-	
	ICP Voltage - Acceleration Output - 500mV/g	-					-	4	-	
	ICP Voltage - Velocity Output - 100 mV/ips (4mV/mm/s)	-					-	6	-	
	4-20mA - Acceleration Output - 5g RMS	-					-	A	-	
	4-20mA - Acceleration Output - 10g RMS	-					-	B	-	
	4-20mA - Acceleration Output - 20g RMS	-					-	C	-	
	4-20mA - Acceleration Output - 50g RMS	-					-	D	-	
	4-20mA - Acceleration Output - 5g Peak	-					-	E	-	
	4-20mA - Acceleration Output - 10g Peak	-					-	F	-	
	4-20mA - Acceleration Output - 20g Peak	-					-	G	-	
	4-20mA - Acceleration Output - 50g Peak	-					-	H	-	
	4-20mA - Velocity Output - 10mm/s RMS	-					-	J	-	
	4-20mA - Velocity Output - 20mm/s RMS	-					-	K	-	
	4-20mA - Velocity Output - 100mm/s RMS	-					-	L	-	
	4-20mA - Velocity Output - 0.5 ips RMS	-					-	M	-	
	4-20mA - Velocity Output - 1 ips RMS	-					-	N	-	
	4-20mA - Velocity Output - 2 ips RMS	-					-	O	-	
	4-20mA - Velocity Output - 10mm/s Peak	-					-	P	-	
	4-20mA - Velocity Output - 20mm/s Peak	-					-	Q	-	
	4-20mA - Velocity Output - 100mm/s Peak	-					-	R	-	
	4-20mA - Velocity Output - 0.5 ips Peak	-					-	S	-	
	4-20mA - Velocity Output - 1 ips Peak	-					-	T	-	
	4-20mA - Velocity Output - 2 ips Peak	-					-	U	-	
Connection Options	Wireable Connection Head - Top Entry 1/2" NPT	-					-		-	W
	Wireable Connection Head - Side Entry 1/2" NPT	-					-		-	WL
	Wireable Connection Head - Top Entry M20x1.5	-					-		-	W-M20
	Wireable Connection Head - Side Entry M20x1.5	-					-		-	WL-M20
	Customer specific (not affecting certification)						-		-	(X...)