# EU - TYPE EXAMINATION CERTIFICATE

2 Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 2014/34/EU

3 EU - Type Examination

Baseefa16ATEX0182X - Issue 2

Certificate Number:

1

Product: Vib Meter Type 9080-Ex

5 Manufacturer:

Synatel Instrumentation Limited

6 Address: Walsall Road, Norton Canes, Cannock, Staffordshire, WS11 9TB

This re-issued certificate extends EU Type Examination Certificate No. Baseefa16ATEX0182X to apply to product designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

8 SGS Baseefa, Notified Body number 1180, 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 confidential Report No. See Certificate History

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

EN 60079-0:2012+A11: 2013 EN 60079-11: 2012

except in respect of those requirements listed at item 18 of the Schedule.

- 10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.
- 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:

k II 2G Ex ib IIC T4 Gb (-20°C  $\leq$  Ta  $\leq$  +40°C)

SGS Baseefa Customer Reference No. 1057

Project File No. 18/0274

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TECHNICAL MANAGER
On behalf of SGS Baseefa Limited

Issue 1

BAS-CERT-045

13 Schedule

## Certificate Number Baseefa16ATEX0182X – Issue 2

## 15 Description of Product

The Vib Meter Type 9080-Ex is a vibration meter that can be used to take measurements of vibration using a cable connected (intrinsically safe) accelerometer. The vibration meter is capable of displaying vibration in a variety of different formats such as overall values of acceleration, velocity or displacement, frequency spectra or vibration in various frequency bands centred on multiples of a machine's running speed for example.

The vibration meter comprises a handheld unit with processor PCB, Bluetooth® module, LCD display and keypad. The keypad is used to initiate readings and navigate through the various different vibration display formats.

The unit is battery powered using two Energizer L91 type AA cells, which may only be changed in the non-hazardous area, that are fitted via a battery compartment lid that is attached by 6 screws to the rear of the instrument.

The only electrical connection that can be made to the vibration meter is the connection of an intrinsically safe accelerometer via an integral BNC connector.

The accelerometer BNC connector has the entity parameters:

 $U_0 = 21.42V$ 

 $I_0 = 75 \text{mW}$ 

 $P_0 = 400 \text{mW}$ 

 $C_i = 0$ 

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 $L_i = 0$ 

 $C_o = 100nF$ 

 $L_0 = 3mH$ 

## 16 Report Number

See certificate history

#### 17 Specific Conditions of Use

1. The elastomeric boot shall be fitted to the instrument at all times when used in the hazardous area

#### 18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

| Clause | Subject  |  |  |
|--------|--|--|--|
| 1.2.7  | LVD type requirements                              |  |  |
| 1.2.8  | Overloading of equipment (protection relays, etc.) |  |  |
| 1.4.1  | External effects                                   |  |  |
| 1.4.2  | Aggressive substances, etc.                        |  |  |

#### 19 Drawings and Documents

New drawings submitted for this issue of certificate:

| Number             | Sheet     | Issue     | Date            | Description                 |
|--------------------|-----------|-----------|-----------------|-----------------------------|
| A4-15892A          | 1 of 1    | 0         | 06/04/2018      | Vib Mon AIN Boot Label      |
| A4-15893A          | 1 of 1    | 1         | 30/07/2018      | Vib Mon AIN Rear Label      |
| Drawings A4-15871A | and A4-30 | 1503A hav | ve been superce | eded by the above drawings. |

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Current drawings which remain unaffected by this issue:

| Number       | Sheet  | Issue | Date       | Description   |
|--------------|--------|-------|------------|---|
| M-200844A    | 1 of 1 | 0     | 23/02/2017 | I.S. Protection Circuit Assembly - Parts List             |
| A4-200844A   | 1 of 1 | 0     | 28/07/2015 | I.S. Protection Circuit Assembly - Schematic              |
| A3-200845A/1 | 1 of 1 | 0     | 24/01/2017 | I.S. Protection Circuit Assembly - Top Component Ident    |
| A4-200845A/2 | 1 of 1 | 0     | 24/01/2017 | I.S. Protection PCB - Component Side Copper               |
| A3-200845A/7 | 1 of 1 | 0     | 24/01/2017 | I.S. Protection Circuit Assembly – Bottom Component Ident |
| A4-200845A/8 | 1 of 1 | 0     | 24/01/2017 | I.S. Protection PCB – Non-component Side Copper           |
| A3-301491A   | 1 of 1 | 0     | 17/01/2017 | TPI Bottom Case Dimensions                                |
| A3-301492A   | 1 of 1 | 0     | 17/01/2017 | TPI Top Case Dimensions                                   |
| A4-301493A   | 1 of 1 | 0     | 17/01/2017 | TPI Battery Cover Dimensions                              |
| A4-301494A   | 1 of 1 | 0     | 17/01/2017 | TPI BNC Housing Dimensions                                |
| A4-301495A   | 1 of 1 | 0     | 17/01/2017 | TPI Lock Ring Dimensions                                  |
| A3-301496A   | 1 of 1 | 0     | 17/01/2017 | TPI Front Label and Keypad Dimensions                     |
| A3-301499A   | 1 of 1 | 0     | 17/01/2017 | TPI Boot Dimensions                                       |
| A4-301500A   | 1 of 1 | 0     | 03/02/2017 | TPI Base Machining  |
| A4-301501A   | 1 of 1 | 0     | 24/01/2017 | TPI Top Machining   |
| A3-301502A   | 1 of 1 | 0     | 01/02/2017 | ATEX TPI Vibration Monitor                                |
| 400026       | 1 of 1 | Α     | 31/01/2017 | BOM for Battery Protection                                |
| A4-400026A   | 1 of 1 | 0     | 12/01/2017 | Battery Protection - Schematic                            |
| A4-400027A/1 | 1 of 1 | 0     | 12/01/2017 | Battery Protection - Assy - Component layout              |
| A4-400027A/2 | 1 of 1 | 0     | 12/01/2017 | Battery Protection - Assy - Copper                        |

All the above drawings are also associated and held with IECEx BAS 16.0131X.

# 20 Certificate History

| Certificate No.  | Date           | Comments   |  |  |
|--|----------------|--|--|--|
| Baseefa06ATEX0182X   | 15 March 2017  | The release of the prime certificate. The associated test and assessment against the requirements of EN 60079-0:2012+A11:2013 and EN 60079-11:2013 are documented in Test Report No. GB/BAS/ExTR16.0397/00, Project Number 14/0312.  |  |  |
| Baseefa16ATEX0182X<br>Issue 1                                      | 18 July 2018   | To permit the fitting of a Bluetooth® module. The associated test and assessment against the requirements of EN 60079-0:2012+A11:2013 and EN 60079-11:2013 are documented in Test Report No. GB/BAS/ExTR16.0397/01, Project Number 18/0338   |  |  |
| Baseefa16ATEX0182X<br>Issue 2                                      | 15 August 2018 | To permit the fitting of alternative marking labels that detail the US/C marking in addition to the IECEx & ATEX marking. The associated test and assessment against the requirements of EN 60079-0:2012+A11:2013 and EN 60079-11:2013 are documented in Test Report No. GB/BAS/ExTR17.0201/00, Project Number 18/0274 |  |  |
| For drawings applicable to each issue, see original of that issue. |                |  |  |  |

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