

1 **EC - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC**

3 EC - Type Examination Certificate Number: **Baseefa12ATEX0247 – Issue 4**

4 Equipment or Protective System: **VSP02A Accelerometer**

5 This Certificate is held by: **ifm electronic GmbH**

6 Address: **Friedrichstrasse 1, 45128 Essen, Germany**

7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Baseefa, Notified Body number 1180, in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems 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's. **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 equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment or protective system shall include the following :

 **I M1 Ex ia I Ma (-55°C ≤ Ta ≤ +90°C)**

Baseefa Customer Reference No. **7032**

Project File No. **16/0137**

This document is issued by the Company subject to its General Conditions for Certification Services accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and the Supplementary Terms and Conditions accessible at <http://www.baseefa.com/terms-and-conditions.asp>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. It does not necessarily indicate that the equipment may be used in particular industries or circumstances. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, schedule included, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Baseefa Limited

Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ

Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601
e-mail info@baseefa.com web site www.baseefa.com

Registered in England No. 4305578.

Registered address: Rossmore Business Park, Ellesmere Port, Cheshire, CH65 3EN



R S SINCLAIR
GENERAL MANAGER

On behalf of SGS Baseefa Limited

13 **Schedule**

14 **Certificate Number Baseefa12ATEX0247 – Issue 4**

15 **Description of Equipment or Protective System**

The VSP02A Accelerometer is designed to measure acceleration, shock or vibration by converting the signal generated by the compression of a piezo electric crystal by a given seismic mass and outputting a broadband ac signal to the monitoring equipment.

The accelerometer comprises a piezo electric crystal connected to a signal conditioning board, all contained within a stainless steel enclosure of various shapes measuring approximately 25cm³. The enclosure is a fully welded construction.

Electrical connections are made to the apparatus either via an IP65 rated connector or via an integral cable which is encapsulated in the end of the apparatus.

The apparatus has the following terminal parameters:

Connector only	10m of Cable	92m of Cable
Ui = 28V Ii = 93mA Pi = 0.65W Ci = 1.0nF Li = negligible	Ui = 28V Ii = 93mA Pi = 0.65W Ci = 9.9nF Li = 7μH or Li/Ri = 15.4μH/Ω	Ui = 28V Ii = 93mA Pi = 0.65W Ci = 83nF Li/Ri = 15.4μH/Ω

16 **Report Number**

See Certificate History

17 **Specific Conditions of Use**

None

18 **Essential Health and Safety Requirements**

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

As follows, in addition to those covered by the standards at item 9.

Clause	Subject	Compliance
1.2.7	LVD type requirements	Standards require manufacturer's declaration, supplied.
1.2.8	Overloading of equipment (protection relays, etc.)	Covered by installation rules and manufacturer's instructions
1.4.1	External effects	The Purchaser should make the manufacturer aware of such issues. Covered in Instructions
1.4.2	Aggressive substances, etc.	The Purchaser should make the manufacturer aware of such issues. Covered in Instructions

19 **Drawings and Documents**

New drawings submitted for this issue of certificate.

None.

Current drawings also associated with this certificate.

Number	Sheet	Issue	Date	Description
Documents as listed in Certificate Baseefa07ATEX0144X				
M06-044-B	2 of 2	B	18/11/13	VSP01A Series Product Information For Group II Accelerometer

This drawing is also associated and held with IECEx BAS 12.0132.

20 Certificate History

Certificate No.	Date	Comments
Baseefa12ATEX0247	10 January 2013	The release of the prime certificate. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR12.0319/00 held on technical file IECEx BAS 12.0132.
Baseefa12ATEX0247X Issue 1	23 April 2013	This issue of the certificate incorporates previously issued primary certificate into one certificate and permits the accelerometer to be supplied with 10m of cable with a resultant change to the entity parameters. Intrinsic safety is not affected. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR13.0102/00 held on technical file IECEx BAS 12.0132.
Baseefa12ATEX0247X Issue 2	25 November 2013	To permit the maximum operating ambient temperature range to be reduced from 110°C to 90°C. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR13.0280/00 held on technical file IECEx BAS 12.0132.
Baseefa12ATEX0247X Issue 3	9 January 2015	To permit additional terminal parameters to be added for connector only variants (no cable included). A test and assessment report was not required for this change.
Baseefa12ATEX0247X Issue 4	22 March 2016	To permit the use of an alternative cable type and the use of an alternative catalyst with the encapsulant. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR16.0099/00 held on technical file IECEx BAS 12.0132
For drawings applicable to each issue, see original of that issue.		

1 **EC - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC**

3 EC - Type Examination Certificate Number: **Baseefa12ATEX0247 – Issue 3**

4 Equipment or Protective System: **VSP02A Accelerometer**

5 This Certificate is held by: **ifm electronic GmbH**

6 Address: **Friedrichstrasse 1, 45128 Essen, Germany**

7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Baseefa, Notified Body number 1180, in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems 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's. **See Certificate History**

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

EN 60079-0: 2012 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 equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment or protective system shall include the following :

 **I M1 Ex ia I Ma (-55°C ≤ Ta ≤ +90°C)**

Baseefa Customer Reference No. **7032**

Project File No. **14/1001**

This document is issued by the Company subject to its General Conditions for Certification Services accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and the Supplementary Terms and Conditions accessible at <http://www.baseefa.com/terms-and-conditions.asp>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. It does not necessarily indicate that the equipment may be used in particular industries or circumstances. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, schedule included, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Baseefa Limited

Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ

Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601

e-mail info@baseefa.com web site www.baseefa.com

Registered in England No. 4305578.

Registered address: Rossmore Business Park, Ellesmere Port, Cheshire, CH65 3EN



R S SINCLAIR

GENERAL MANAGER

On behalf of SGS Baseefa Limited

13

Schedule

14

Certificate Number Baseefa12ATEX0247 – Issue 3

15 Description of Equipment or Protective System

The VSP02A Accelerometer is designed to measure acceleration, shock or vibration by converting the signal generated by the compression of a piezo electric crystal by a given seismic mass and outputting a broadband ac signal to the monitoring equipment.

The accelerometer comprises a piezo electric crystal connected to a signal conditioning board, all contained within a stainless steel enclosure of various shapes measuring approximately 25cm³. The enclosure is a fully welded construction.

Electrical connections are made to the apparatus either via an IP65 rated connector or via an integral cable which is encapsulated in the end of the apparatus.

The apparatus has the following terminal parameters:

Connector only	10m of Cable	92m of Cable
U _i = 28V	U _i = 28V	U _i = 28V
I _i = 93mA	I _i = 93mA	I _i = 93mA
P _i = 0.65W	P _i = 0.65W	P _i = 0.65W
C _i = 1.0nF	C _i = 9.9nF	C _i = 83nF
Li = negligible	Li = 6μH or Li/Ri = 15.4μH/Ω	Li/Ri = 15.4μH/Ω

16 Report Number

See Certificate History

17 Specific Conditions of Use

None

18 Essential Health and Safety Requirements

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

19 Drawings and Documents

New drawings submitted for this issue of certificate.

None.

Current drawings also associated with this certificate.

Number	Sheet	Issue	Date	Description
Documents as listed in Certificate Baseefa07ATEX0144X				
M06-044-B	2 of 2	B	18/11/13	VSP01A Series Product Information For Group II Accelerometer

This drawing is also associated and held with IECEx BAS 12.0132.

20 Certificate History

Certificate No.	Date	Comments
Baseefa12ATEX0247	10 January 2013	The release of the prime certificate. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR12.0319/00 held on technical file IECEx BAS 12.0132.

Certificate No.	Date	Comments
Baseefa12ATEX0247X Issue 1	23 April 2013	This issue of the certificate incorporates previously issued primary certificate into one certificate and permits the accelerometer to be supplied with 10m of cable with a resultant change to the entity parameters. Intrinsic safety is not affected. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR13.0102/00 held on technical file IECEX BAS 12.0132.
Baseefa12ATEX0247X Issue 2	25 November 2013	To permit the maximum operating ambient temperature range to be reduced from 110°C to 90°C. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR13.0280/00 held on technical file IECEX BAS 12.0132.
Baseefa12ATEX0247X Issue 3	9 January 2015	To permit additional terminal parameters to be added for connector only variants (no cable included). A test and assessment report was not required for this change.
For drawings applicable to each issue, see original of that issue.		

1 **EC - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC**

3 EC - Type Examination Certificate Number: **Baseefa12ATEX0247 – Issue 2**

4 Equipment or Protective System: **VSP02A Accelerometer**

5 This Certificate is held by: **ifm electronic GmbH**

6 Address: **Friedrichstrasse 1, 45128 Essen, Germany**

7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Baseefa, Notified Body number 1180, in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems 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's. **See Certificate History**

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

EN 60079-0: 2012 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 equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment or protective system shall include the following :

 **I M1 Ex ia I Ma (-55°C ≤ Ta ≤ +90°C)**

Baseefa Customer Reference No. **7032**

Project File No. **13/0954**

This document is issued by the Company subject to its General Conditions for Certification Services accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and the Supplementary Terms and Conditions accessible at <http://www.baseefa.com/terms-and-conditions.asp>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. It does not necessarily indicate that the equipment may be used in particular industries or circumstances. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, schedule included, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Baseefa Limited

Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ

Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601

e-mail info@baseefa.com web site www.baseefa.com

Registered in England No. 4305578.

Registered address: Rossmore Business Park, Ellesmere Port, Cheshire, CH65 3EN



R S SINCLAIR

GENERAL MANAGER

On behalf of SGS Baseefa Limited

13 **Schedule**

14 **Certificate Number Baseefa12ATEX0247 – Issue 2**

15 **Description of Equipment or Protective System**

The VSP02A Accelerometer is designed to measure acceleration, shock or vibration by converting the signal generated by the compression of a piezo electric crystal by a given seismic mass and outputting a broadband ac signal to the monitoring equipment.

The accelerometer comprises a piezo electric crystal connected to a signal conditioning board, all contained within a stainless steel enclosure of various shapes measuring approximately 25cm³. The enclosure is a fully welded construction.

Electrical connections are made to the apparatus either via an IP65 rated connector or via an integral cable which is encapsulated in the end of the apparatus.

The apparatus with 92m of integral cable has the following terminal parameters:

$$\begin{aligned}U_i &= 28V \\I_i &= 93mA \\P_i &= 0.65W \\C_i &= 83nF \\L_i/R_i &= 15.4\mu H/\Omega\end{aligned}$$

The apparatus with 10m of integral cable has the following terminal parameters:

$$\begin{aligned}U_i &= 28V \\I_i &= 93mA \\P_i &= 0.65W \\C_i &= 9.9nF \\L_i/R_i &= 15.4\mu H/\Omega \quad \text{OR} \quad L_i = 6\mu H\end{aligned}$$

16 **Report Number**

See Certificate History

17 **Specific Conditions of Use**

None

18 **Essential Health and Safety Requirements**

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

19 **Drawings and Documents**

New drawings submitted for this issue of certificate.

Number	Sheet	Issue	Date	Description
Documents as listed in Certificate Baseefa07ATEX0144X				
M06-044-B	2 of 2	B	18/11/13	VSP01A Series Product Information For Group II Accelerometer

This drawing is also associated and held with IECEx BAS 12.0132.

Current drawings also associated with this certificate.

None.

20 Certificate History

Certificate No.	Date	Comments
Baseefa12ATEX0247	10 January 2013	The release of the prime certificate. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR12.0319/00 held on technical file IECEX BAS 12.0132.
Baseefa12ATEX0247X Issue 1	23 April 2013	This issue of the certificate incorporates previously issued primary certificate into one certificate and permits the accelerometer to be supplied with 10m of cable with a resultant change to the entity parameters. Intrinsic safety is not affected. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR13.0102/00 held on technical file IECEX BAS 12.0132.
Baseefa12ATEX0247X Issue 2	25 November 2013	To permit the maximum operating ambient temperature range to be reduced from 110°C to 90°C. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR13.0280/00 held on technical file IECEX BAS 12.0132.
For drawings applicable to each issue, see original of that issue.		

1 **EC - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC**

3 EC - Type Examination Certificate Number: **Baseefa12ATEX0247 – Issue 1**

4 Equipment or Protective System: **VSP02A Accelerometer**

5 This Certificate is held by: **ifm electronic GmbH**

6 Address: **Friedrichstrasse 1, 45128 Essen, Germany**

7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Baseefa, Notified Body number 1180, in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems 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's. **GB/BAS/ExTR13.0102/00**

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

EN 60079-0: 2012 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 equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment or protective system shall include the following :

 **II 1G Ex ia I Ma (-55°C ≤ Ta ≤ +110°C)**

Baseefa Customer Reference No. **7032**

Project File No. **13/0342**

This document is issued by the Company subject to its General Conditions for Certification Services accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and the Supplementary Terms and Conditions accessible at <http://www.baseefa.com/terms-and-conditions.asp>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. It does not necessarily indicate that the equipment may be used in particular industries or circumstances. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, schedule included, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Baseefa Limited

Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ

Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601

e-mail info@baseefa.com web site www.baseefa.com

Registered in England No. 4305578.

Registered address: Rossmore Business Park, Ellesmere Port, Cheshire, CH65 3EN



R S SINCLAIR

GENERAL MANAGER

On behalf of SGS Baseefa Limited

13 **Schedule**

14 **Certificate Number Baseefa12ATEX0247 – Issue 1**

15 **Description of Equipment or Protective System**

The VSP02A Accelerometer is designed to measure acceleration, shock or vibration by converting the signal generated by the compression of a piezo electric crystal by a given seismic mass and outputting a broadband ac signal to the monitoring equipment.

The accelerometer comprises a piezo electric crystal connected to a signal conditioning board, all contained within a stainless steel enclosure of various shapes measuring approximately 25cm³. The enclosure is a fully welded construction.

Electrical connections are made to the apparatus either via an IP65 rated connector or via an integral cable which is encapsulated in the end of the apparatus.

The apparatus with 92m of integral cable has the following terminal parameters:

$$\begin{aligned}U_i &= 28V \\I_i &= 93mA \\P_i &= 0.65W \\C_i &= 83nF \\L_i/R_i &= 15.4\mu H/\Omega\end{aligned}$$

The apparatus with 10m of integral cable has the following terminal parameters:

$$\begin{aligned}U_i &= 28V \\I_i &= 93mA \\P_i &= 0.65W \\C_i &= 9.9nF \\L_i/R_i &= 15.4\mu H/\Omega \quad \text{OR} \quad L_i = 6\mu H\end{aligned}$$

16 **Report Number**

GB/BAS/ExTR13.0102/00

17 **Specific Conditions of Use**

None

18 **Essential Health and Safety Requirements**

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

19 **Drawings and Documents**

New drawings submitted for this issue of certificate.

None.

Current drawings also associated with this certificate.

Number	Sheet	Issue	Date	Description
Documents as listed in Certificate Baseefa07ATEX0144X				
M06-044-A	2 of 2	A	27/11/12	VSP01A Series Product Information For Group II Accelerometer

This drawing is also associated and held with IECEx BAS 12.0132.

20 Certificate History

Certificate No.	Date	Comments
Baseefa12ATEX0247	10 January 2013	The release of the prime certificate. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR12.0319/00 held on technical file IECEX BAS 12.0132.
Baseefa12ATEX0247X Issue 1	23 April 2013	This issue of the certificate incorporates previously issued primary certificate into one certificate and permits the accelerometer to be supplied with 10m of cable with a resultant change to the entity parameters. Intrinsic safety is not affected. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR13.0102/00 held on technical file IECEX BAS 12.0132.
For drawings applicable to each issue, see original of that issue.		



EC - TYPE EXAMINATION CERTIFICATE

**Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC**

- 1
2
3 EC - Type Examination Certificate Number: **Baseefa12ATEX0247**
4 Equipment or Protective System: **VSP02A Accelerometer**
5 This certificate is held by: **ifm electronic GmbH**
6 Address: **Friedrichstrasse 1, 45128 Essen, Germany**
7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
8 Baseefa, Notified Body number 1180, in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems 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. **GB/BAS/ExTR12.0319/00**
9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0: 2012 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 equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.
11 This EC - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.
12 The marking of the equipment or protective system shall include the following :

Ex I M1 Ex ia I Ma (-55°C ≤ Ta ≤ +110°C)

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa Customer Reference No. **7032**

Project File No. **12/0978**

This certificate is granted subject to the general terms and conditions of Baseefa. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

Baseefa

Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ
Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601
e-mail info@baseefa.com web site www.baseefa.com
Baseefa is a trading name of Baseefa Ltd
Registered in England No. 4305578. Registered address as above.

DBREARLEY
R S SINCLAIR

R S SINCLAIR
DIRECTOR
On behalf of
Baseefa



13

Schedule

14

Certificate Number Baseefa12ATEX0247

15 Description of Equipment or Protective System

The VSP02A Accelerometer is designed to measure acceleration, shock or vibration by converting the signal generated by the compression of a piezo electric crystal by a given seismic mass and outputting a broadband ac signal to the monitoring equipment.

The accelerometer comprises a piezo electric crystal connected to a signal conditioning board, all contained within a stainless steel enclosure of various shapes measuring approximately 25cm³. The enclosure is a fully welded construction.

Electrical connections are made to the apparatus either via an IP65 rated connector or via an integral cable which is encapsulated in the end of the apparatus.

The apparatus with 92m of integral cable has the following terminal parameters:

$$U_i = 28V$$

$$I_i = 93mA$$

$$P_i = 0.65W$$

$$C_i = 83nF$$

$$L_i/R_i = 15.4\mu H/\Omega$$

16 Report Number

GB/BAS/ExTR12.0319/00

17 Specific Conditions of Use

None

18 Essential Health and Safety Requirements

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
Documents as listed in Certificate Baseefa07ATEX0149X				
M06-044-A	2 of 2	A	27/11/12	VSP02A Series Product Information For Group I Accelerometer

This drawing is also associated and held with IECEx BAS 12.0132.