1 # EU - TYPE EXAMINATION CERTIFICATE

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

3 EU - Type Examination Certificate Number: **Baseefa03ATEX0447X – Issue 11**

3.1 In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

4 Product: **Type HD1 Heat Detector Unit**

5 Manufacturer: **Eaton MEDC Limited**

6 Address: **Unit B, Sutton Parkway, Oddicroft Lane, Sutton-in-Ashfield, NG17 5FB United Kingdom**

7 This re-issued certificate extends EC Type Examination Certificate No. **Baseefa03ATEX0447X** 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 Fimko Oy, Notified Body number 0598, 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.

8.1 The original certificate was issued by SGS Baseefa Ltd (UK Notified Body 1180). It, and any supplements previously issued by SGS Baseefa Ltd have been transferred to the supervision of SGS Fimko Oy (EU Notified Body 0598). The original certificate number is retained.

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 IEC 60079-0: 2018 EN 60079-1: 2014 EN 60079-31: 2014 IEC 60079-33: 2012 Ed. 1

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.

11 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:

Ⓔx II 2 GD Ex db sb IIB+H_2 T6 Gb (Tamb -20°C to +55°C), Ex tb IIIC T85°C Db IP6X or,
Ex db sb IIB+H_2 T3 Gb (Tamb -20°C to +125°C), Ex tb IIIC T200°C Db IP6X

SGS Fimko Oy Customer Reference No. **0676** Project File No. **23/0556**

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13 # Schedule

14 ## Certificate Number Baseefa03ATEX0447X – Issue 11

15 Description of Product

Type HD1 Heat Detector Unit, rated at 5A, 125V ac (max.)

The main enclosure comprises an SM87 Enclosure in aluminium to certificate Baseefa03ATEX0345U. The cover is secured by four M6 x 12 mm long stainless-steel socket head cap screws of grade A4-80. A central ½" NPT aperture is fitted with a welded and cemented, thermostatic temperature detector assembly. Alternative thread sizes for the cover and corresponding detector are permissible.

The interior of the enclosure contains up to 6 terminals, and internal and external earth terminals are provided.

The equipment may be marked with one or more of the following alternative maximum contact ratings:

0.5A 125V dc

2A 24V dc

1A, 48V dc

The heat detector may optionally be fitted with up to two resistors, two diodes or four Zener diodes fitted in the terminal block.

Depending on the type of encapsulant used within the probe of the thermostatic temperature detector, the ambient temperature rating of the equipment may be marked as (-20°C to +55°C) or (-20°C to +125°C).

An internal arrangement comprising a 6-way terminal block and a Phoenix MCR-Cube Transducer may be fitted, dissipating a maximum of <0.4W. In this configuration, the total maximum rating of the equipment is unchanged and the type designation is the **Type HD1 with MCR-Cube Transducer**.

Cable entry holes are provided as specified on the schedule drawings for the accommodation of flameproof cable entry devices, with or without the interposition of a flameproof thread adapter. Unused entries are to be fitted with suitable certified flameproof stopping plugs.

The cable entry devices, thread adapters and stopping plugs shall be suitable for the equipment, the cable and the conditions of use and shall be certified as Equipment (not a Component).

When used in dust atmospheres the flameproof cable entries or stopping plugs shall be selected and installed so that the dust tight (IP6X) integrity of the enclosure is maintained.

16 Report Number

See Certificate History

17 Specific Conditions of Use

1. Cover screws of minimum grade A4-80 stainless steel shall be used.
2. Warning – Potential electrostatic charging hazard – See instructions.

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
1.4.1	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
465-107*	1 of 1	K	18-07-24	Certification G.A. IECEx / ATEX Heat detector HD1 IIB Versions
465-164**	1 of 1	C	26-06-24	IECEx / ATEX Certification Details Heat Detector
465-181*	1 of 1	C	19/07/24	Certification G.A. IECEx / ATEX Heat detector HD1 IIB Complete with MCR-Cube Transducer

* The above drawings are common to IECEx SGS 24.0013X and Baseefa03ATEX0447X

** The above drawing is common to IECEx SGS 24.0013X and Baseefa03ATEX0447X & IECEx SGS 24.0012X and Baseefa08ATEX0320X

Current drawings which remain unaffected by this issue:

None. The above drawings replace all those previously detailed.

20 Certificate History

Certificate No.	Date	Comments
Baseefa03ATEX0447	11 July 2003	The release of the prime certificate. The associated test and assessment against the requirements of EN 50014:1997 + Amendments 1 and 2 and EN 50018:2000 + Amendment 1 is documented in Test Report No. 03(C)0430.
Baseefa03ATEX0447/1	27 January 2004	This supplement permits the optional addition of up to two resistors or two diodes fitted in the terminal block. No report, project number 03/0804.
Baseefa03ATEX0447/2	24 June 2004	This supplement introduces an option for an elevated ambient temperature of +125°C with a Temperature Class of T3. The associated assessment is documented in test report 04(C)0247, project number 04/0247.
Baseefa03ATEX0447/3	15 December 2004	This supplement permits alternative resistor values. No report, project number 04/0885.
Baseefa03ATEX0447/4	25 July 2006	This supplement assessed the equipment against the requirements of EN 50281-1-1: 1998 including the revision of the equipment marking. The associated assessment is documented in test report 06(C)0482, project number 06/0482.
Baseefa03ATEX0447/5	23 September 2009	This supplement introduced alternative encapsulants for the detector assembly, suitable for a maximum temperature of +125°C. No report, project 09/0330
Baseefa03ATEX0447/6	17 May 2010	This supplement permits an alternative RIKO terminal block, type 2-402-2 or 2-403-3 or 2-424 with a maximum of six terminals. No report, project 10/0329.
Baseefa03ATEX0447/7	23 December 2010	This supplement permits a change in minimum resistor wattage from 2.5W to 0.6W. No report, project 10/1044.

Certificate No.	Date	Comments
Baseefa03ATEX0447/8	14 July 2011	This supplement permits alternative internal components comprising Weidmuller Type BK6 terminal block or RIKO Components type 2-402-2, 2-403-3 or 2-424-4 and a Phoenix MCR-Cube Transducer which has a total heat dissipation of <0.4. The unit so formed is designated as the Type HD1 with MCR-Cube Transducer. No report, project 11/0522.
Baseefa03ATEX0447/9	9 October 2014	This supplement introduced revised markings to permit the equipment to be used in a gas Group IIB+H2, along with revised marking details. The associated assessment is documented in test report 14(C)0747, project 14/0747.
Baseefa03ATEX0447/10	9 July 2015	This supplement permits the introduction of an optional Zener Diode, rated 24V maximum and 5W minimum. No report, project 15/0460.
Baseefa03ATEX0447X Issue 11	24 September 2024	This issue of the certificate incorporates previously issued primary & supplementary certificates into one certificate and confirms the current design meets the requirements of EN IEC 60079-0: 2018, EN 60079-1: 2014, EN 60079-31: 2014 and IEC 60079-33: 2012 Ed. 1 including the revision of the equipment marking in accordance with these standards. The associated assessment is documented in Test Report GB/BAS/ExTR24.0036/00, project number 23/0556.
For drawings applicable to each issue, see original of that issue.		