

1 EU-TYPE EXAMINATION CERTIFICATE



2 **Equipment or Protective systems intended for use in Potentially
Explosive Atmospheres - Directive 2014/34/EU**

3 **EU-Type Examination Certificate No: FM17ATEX0096X**

4 **Equipment or protective system: EK-AEP Series, Compact Balance
(Type Reference and Name)**

5 **Name of Applicant: A&D Company, Limited**

6 **Address of Applicant: 1-243, Asahi, Kitamoto-shi, Saitama
Japan**

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

8 FM Approvals Ltd, notified body number 1725 in accordance with Article 17 of Directive 2014/34/EU of 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report number:

3063013 dated 16th February 2018

9 Compliance with the Essential Health and Safety Requirements, with the exception of those identified in item 15 of the schedule to this certificate, has been assessed by compliance with the following documents:

EN 60079-0:2012 + A11:2013, EN 60079-11:2012, EN 60079-28:2015

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.

11 This EU-Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 2014/34/EU. 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:

II 1 G Ex ia op is IIB T3 Ga Ta = -25°C to +40°C.



Mick Gower
Certification Manager, FM Approvals Ltd.

Issue date: 25th February 2018

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

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to EU-Type Examination Certificate No. FM17ATEX0096X

13 Description of Equipment or Protective System:

General – The EK-AEP electronic weighing balances are benchtop battery-powered weigh-scales. The model code variations account for the differences in the load cell spring material and parameters such as resolution and range.

Each model contains a load cell, an LCD, two PCBs, four internal AA 1.5-volt alkaline batteries, and a current-limiting resistor in the battery box.

Construction – The enclosures are constructed of plastic with a stainless steel weighing tray and plate.

Ratings - 6.6V maximum, 0.24A maximum.

EK-aAEP Series. Compact Balance.

a = Maximum capacity: 300 = 300 g;
3000 = 3000 g;
12K = 12 kg.

14 Specific Condition of Use:

A portion of the enclosure is non-conducting and, under certain extreme conditions, may generate an ignition-capable level of electrostatic charges. The user shall ensure that the equipment is not installed in a location where it may be subjected to external conditions (such as high-pressure steam) which might cause a build-up of electrostatic charges on non-conducting surfaces. Additionally, cleaning of the equipment should be done only with a damp cloth.

15 Essential Health and Safety Requirements:

The relevant EHSRs that have not been addressed by the standards listed in this certificate have been identified and assessed in the confidential report identified in item 8.

16 Test and Assessment Procedure and Conditions:

This EU-Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production.

Whilst this certificate may be used in support of a manufacturer's claim for CE Marking, FM Approvals Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

This Certificate has been issued in accordance with FM Approvals Ltd's ATEX Certification Scheme.

17 Schedule Drawings

A list of the significant parts of the technical documentation is annexed to this certificate and a copy has been kept by the Notified Body.

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18 **Certificate History**

Details of the supplements to this certificate are described below:

| Date | Description |
|--------------------------------|-----------------|
| 25 th February 2018 | Original Issue. |



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Blueprint Report

A&D Company Limited (151048)

Class No 3610

Original Project I.D. 3063013

Certificate I.D. FM17ATEX0096X

| <u>Drawing No.</u> | <u>Revision Level</u> | <u>Drawing Title</u> | <u>Last Report</u> | <u>Electronic Drawing</u> |
|-------------------------|-----------------------|---|--------------------|---------------------------|
| 1WMPD4003520 | 2018.01.31 | Instruction Manual EK-AEP Series | 3063013 | Yes (pdf) |
| EKAEP1001_00 | 00 | System configuration | 3063013 | Yes (pdf) |
| EKAEP1002_00 | 00 | Outline of safety features | 3063013 | Yes (pdf) |
| EKAEP1003_01 | 01 | Outline drawing (1) | 3063013 | Yes (pdf) |
| EKAEP1004_01 | 01 | Outline drawing (2) | 3063013 | Yes (pdf) |
| EKAEP1005_00 | 00 | Assembly drawing (1) | 3063013 | Yes (pdf) |
| EKAEP1006_00 | 00 | Assembly drawing (2) | 3063013 | Yes (pdf) |
| EKAEP1007_00 | 00 | Assembly drawing (3) | 3063013 | Yes (pdf) |
| EKAEP1008_00 | 00 | Detailed diagram of the structure of the load cell | 3063013 | Yes (pdf) |
| EKAEP1009_00 | 00 | Detailed diagram of the structure of the load cell | 3063013 | Yes (pdf) |
| EKAEP1010_00 | 00 | Detailed diagram of the structure of the strain gauge | 3063013 | Yes (pdf) |
| EKAEP1011_00 | 00 | Detailed diagram of the structure of the strain gauge | 3063013 | Yes (pdf) |
| EKAEP1012_00 | 00 | Detailed diagram of the PCB (1) | 3063013 | Yes (pdf) |
| EKAEP1013_00 | 00 | Detailed diagram of the PCB (2) | 3063013 | Yes (pdf) |
| EKAEP1014_00 | 00 | Detailed diagram of the PCB (3) | 3063013 | Yes (pdf) |
| EKAEP1015_00 | 00 | Parts layout diagram (1) | 3063013 | Yes (pdf) |
| EKAEP1016_00 | 00 | Parts layout diagram (2) | 3063013 | Yes (pdf) |
| EKAEP1017_00 | 00 | Circuit diagram (1) | 3063013 | Yes (pdf) |
| EKAEP1018_00 | 00 | Circuit diagram (2) | 3063013 | Yes (pdf) |
| EKAEP1019_00 | 00 | Parts List for 1PZ6977 and load cell (1) | 3063013 | Yes (pdf) |
| EKAEP1020_00 | 00 | Parts List for 1PZ6977 and load cell (2) | 3063013 | Yes (pdf) |
| EKAEP1021_01 | 01 | Parts List for 1PZ6977 and load cell (3) | 3063013 | Yes (pdf) |
| EKAEP1022_00 | 00 | Parts List for 1PZ6977 and load cell (4) | 3063013 | Yes (pdf) |
| EKAEP1023_00 | 00 | Parts List for 1PZ6977 and load cell (5) | 3063013 | Yes (pdf) |
| EKAEP1024_01 | 01 | Parts List for 1PZ6977 and load cell (6) | 3063013 | Yes (pdf) |
| EKAEP1025_00 | 00 | Parts List for 1PZ6937 | 3063013 | Yes (pdf) |
| EKAEP1026_00 | 00 | Details of cables on PCB | 3063013 | Yes (pdf) |
| EKAEP1027_00 | 00 | Details of safety parts | 3063013 | Yes (pdf) |
| EKAEP1028_03 | 03 | Hazardous location label drawing | 3063013 | Yes (pdf) |
| EKAEP1029_00 | 00 | Details of optical signal | 3063013 | Yes (pdf) |
| Statement of Compliance | 5th December 2017 | Statement of Compliance with Applicable european Directives | 3063013 | Yes (pdf) |