

EU-Type Examination Certificate



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: ITS16ATEX101339X Issue 1**
4. **Product:** AD-U, AM-D, AF-U, AD-E-4 Thread Adapters, RD-U, RD-E-4, Reducers and AE-E Earthlead Adaptors and Reducers, UN-D, UF-D, FB and FL Unions
5. **Manufacturer:** Eaton Electrical Systems Ltd Trading as Redapt or Raxton
6. **Address:** Kingsway South
Westgate
Aldridge
West Midlands
WS9 8FS
7. This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
8. Intertek Testing and Certification Limited, Notified Body number 0359 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council dated 26 February 2014, certifies that the 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 Intertek Report Ref G102174344E Issue 1 dated September 2016 and G103326730 Issue 1 dated April 2018
9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2012, EN 60079-1:2014, EN 60079-7:2015 and EN 60079-31:2014 except in respect of those requirements referred to at item 16 of the Schedule.
10. If the sign "X" is placed after the certificate number, it indicates that the product is subject to Specific Conditions of Safe 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:



II 2 GD / Ex db I/IIC Mb/Gb (Ex db not applicable to type AE-E and to type AD-E-4 or RD-E-4)
I M2 Ex eb I/IIC Mb/ Gb
Ex tb IIIC Db IP6X
Mining not applicable to AD-E-4 or RD-E-4 and Aluminium version

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V K Varma
Certification Officer
07 June 2018



SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE NUMBER ITS16ATEX101339X

13. Description of Equipment or Protective System

Adaptors and Reducers

The ranges of thread adaptors and reducers each comprise a hollow body with an external male thread and an internal female thread. The devices are used to convert an existing cable entry aperture thread to a different thread form and / or size. The adaptors and reducers may optionally be machined with a groove to fit an 'o' ring seal. An increase of up to two step thread sizes is permitted on the AD-U series AD-U and RD-U Series – Metallic hexagonal bodied adaptors (AD-U) or reducers (RD-U)

Coded: Ex d I/IIC Mb/Gb, Ex e I/IIC Mb/ Gb Ex tb IIIC Db IP6X

M16 TO M120 (or equivalent thread forms)

The AM-D Series range of Male to Male thread adaptors each comprises a hexagon body with a male thread form at each end. The devices are used to convert an existing cable entry aperture thread to a different thread form and/or size. Coded: Ex d I/IIC Mb/Gb, Ex e I/IIC Mb/ Gb Ex tb IIIC Db IP6X

M16 TO M75 (or equivalent thread forms)

The AF-U Series range of Female to Female thread adaptors each comprises a hexagon body with a female thread form at each end. The devices are used to convert an existing cable entry aperture thread to a different thread form and/or size. Coded: Ex d I/IIC Mb/Gb, Ex e I/IIC Mb/ Gb Ex tb IIIC Db IP6X

M16 TO M75 (or equivalent thread forms)

Types AD-E-4 Adaptors and Types RD-E-4 Reducers are glass fibre nylon versions, BKV30 is the standard material type and BKV140 is a specific type. They are designed to convert an existing cable entry aperture in the associated apparatus to a different threadform and/or size. Each device comprises a hollow body with a male thread at one end and a female thread at the other. The AD-E-4 is a hexagon type adaptor. The RD-E-4 is a hexagon type reducer. Coded: Ex e IIC Gb, Ex tb IIIC Db IP6X

M16 TO M75 (or equivalent thread forms)

The AE-E Series range of earth lead adaptors and reducers each comprise a hexagon body with a male thread at one end and a female thread machined into the other. The devices are designed to provide a connection from a cable gland or termination to earth via a 300mm long earth lead cable riveted and soldered to the body and additionally may be used to convert an existing cable entry aperture thread to a different thread form and/or size. Coded Ex e IIC Gb Ex tb IIIC Db IP6X

M16 TO M75 (or equivalent thread forms)

Type UN-D and FB Male to Female Unions and UF-D and FL Female to Female Unions each comprise a hexagon body, an internally threaded cone and an external nut. The devices are designed for connection when a conventional adaptor is impractical. Additionally, they may be used to convert an existing cable entry to a different threadform and/or size. Threadforms are between M20 and M75

Coded: Ex d I/IIC Mb/Gb, Ex e I/IIC Mb/ Gb Ex tb IIIC Db IP6X

M16 TO M75 (or equivalent thread forms) Thread forms Options:

ISO Metric (to BS3463), PG to DIN40430, NPT (ANSI/ASME B1.20.1), NPS (ANSI/ASME B1.20.1), ISO Pipe Thread (BS21) BSPP/BSPT, Imperial conduit ET BS31BSP to BS21

14. Report Number

Intertek Report Ref: G102174344E Issue: 1 Dated: September 2016 and G103326730 Issue 1 dated April 2018

15. Special Conditions of Certification

(a). Specific Conditions of Safe Use



SCHEDULE

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General:

1. Only one adaptor or reducer is to be used with any single cable entry on the associated equipment.
2. The interfaces between these devices and the associated enclosure cannot be defined; therefore, it is the user's responsibility to ensure that the appropriate ingress protection level is maintained at these interfaces.
3. Aluminium versions are not permitted for Group I applications

Conditions specific to type:

AD-U Adaptors, RD-U Reducers

1. When installed in Group I applications, the ADU M16 (M) to M20 (F) adaptors manufactured in brass shall be installed where the risk of impact is low
2. At their point of mounting, these devices are suitable for use at the following temperatures dependant on the type of 'o'-ring:

BKV30 glass fibre nylon: -20°C to +65°C

O-ring Service temperature

None fitted -60°C to 200°C *

EPDM -30°C to +125°C

Nitrile -20°C to +80°C

Neoprene -20°C to +100°C

Viton -5°C to +180°C *

Silicone -30°C to +180°C *

Fluorosilicone -50°C to +150°C

*: Note: The maximum temperature is limited to 150°C in Group I application (Coal dust, Mining)

AE-E Earth Lead Adaptors and Reducers

At their point of mounting, these devices are suitable for use at -20°C to +40°C

AM-D Thread Adaptors

1. These adaptors shall not be used for the direct inter-connection of enclosures
2. At their point of mounting, these devices are suitable for use at -60°C to +200°C

AF-U Thread Adaptors , UN-D, FB, UF-D and FL Unions

At their point of mounting, these devices are suitable for use at -60°C to +200°C

The Manufacturer shall comply with the following:

1. The female threads of adaptors shall be restricted to two sizes larger than the male thread size.
2. When these entry devices are manufactured in Type BKV 140 material, they shall be to be marked with BKV 140 as applicable.
3. These products shall be marked in accordance with the information as specified in this certificate and related reports.
4. Aluminium variants, where applicable, are not permitted for Group I applications. The manufacturer shall ensure that the equipment is marked appropriately
5. In accordance with IEC 60079-1, the coating on joint surfaces of metallic devices that are electroplated shall be no more than 0.008mm thick.

