

# UK-TYPE EXAMINATION CERTIFICATE

Component Intended for use on/in a Product and Protective Systems Intended for Use in Potentially Explosive Atmospheres

UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

- UK-Type Examination Certificate Number:** ITS21UKEX0052U Issue 00
- Product:** Right angle 90° AR-D and AR-U Series of Adaptors / Reducers, Swivel Adaptor/ Reducers. Male-Female TPU and TAU, Female-Female TQU and TCU, Male to Male TRU and TDU, Twin or Single Inlet Fixed or Swivel Adaptor / Reducer types AYU, ATU, ASU
- Manufacturer:** Eaton Electrical Systems Ltd – trading as Redapt or Raxton
- Address:** Unit 1, 1 Kingsway South, Westgate, Aldridge, West Midlands, WS9 8FS, United Kingdom
- This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- Intertek Testing and Certification Limited, Approved Body number 0359, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), certifies that the product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of the product intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.  
The examination and test results are recorded in the confidential report G102174344F dated November 2016 and 103717291fLHD-001 dated April 2019.
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2012/A11:2013, EN 60079-1:2014, EN 60079-7:2015 and EN 60079-31:2014 except in respect of those requirements referred within item 14 of the Schedule.
- The sign “U” is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for equipment or a protective system. This partial certification may be used as a basis for certification of a product or a protective system.
- This UK-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- The marking of the product shall include the following:



I M2 Ex db I Mb (Not aluminium, AR-U or AR-D products) II 2 G Ex db IIC Gb II 2 D Ex tb IIIC Db IP66  
I M2 Ex eb I Mb (Not aluminium, AR-U or AR-D products) II 2 G Ex eb IIC Gb

Certification Officer:

P Moss

Date:

22 June 2021

This Certificate is for the exclusive use of Intertek's client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Certificate. Only the Client is authorized to permit copying or distribution of this Certificate and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. This Certificate is accredited under UKAS schedule 0010.

Intertek Testing & Certification Limited, Cleeve Road, Leatherhead, Surrey, KT22 7SA  
Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.

## SCHEDULE:

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### 11. Description of Component

The **AR-D, AR-U** series range of 90 ° thread adaptors and reducers each comprise a body with either male/ female or female/ female threads machined into the body at 90°C to the male thread. The components are designed to provide cable entry options where space is limited to avoid cable damage. Additionally, they may be used to convert an existing cable entry aperture thread to a different thread form and/ or size. Thread forms are between M16 and M75 inclusive. Coded Ex d IIC Gb, Ex e IIC Gb, Ex tb III C Db.

The TAU, TCU, TDU, TPU, TQU, TRU, AYU, ATU, and ASU range Twin or Single Inlet Fixed or Swivel adaptors and reducers are designed to convert existing cable entries to different thread forms and/or sizes where space may be limited as to avoid cable damage. Threads available are between M20 to M75.

Each device comprises of two or three threaded entry parts and a 'spinning' internal component. The components are assembled such that flamepaths are formed at both entry threads and around the spinning components (this flamepath is not required for Exe applications only) and such that connection at both ends is achieved without twisting the cable.

The range of 90° swivel adapters can be fitted within an Ex d IIC Gb, Ex e IIC Gb, Ex tb III C Db enclosure or any combination provided the applicable Code of Practice is complied with.

Material options:

Brass to BS 2874:1985

Brass to BS 2872:1989

Stainless steel to BS 970: part 4:1970

Mild steel to BS 970: Part 1: 1983

Aluminium (Not for Group I options)

Entry thread options:

Metric to BS 3643:1981

ET Conduit to BS 31:1940

PG to DIN 40430:1971

BSPP to BS 2779:1985

BSPT to BS 21:1985

NPT to ANSI/ASME B1.20.1-1983

Or alternative thread forms complying with IEC 60079-1.

The following special points for noting apply:

Service Temperature -60°C to +200°C unless fitted with an interface sealing O-ring with lower properties, temperatures shall then be limited as per the manufacturer's instructions.

## SCHEDULE:

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The Manufacturer shall comply with the following:

These products shall be marked in accordance with the information as specified in this certificate and related reports.

The adaptors, when installed in accordance with the manufacturer's instructions, are capable of providing, with an enclosure on which they are fixed, an ingress protection rating of IP 66.

### 12. Report Number

Intertek Report: G102174344F dated November 2016 and report Nr. 103717291fLHD-001 dated April 2019.

### 13. Conditions of Certification

(a). Schedule of Limitations

- The flame non transmission tests of the cylindrical flame path provided by the swivel adaptors have not been conducted. This shall be considered by the issuing body of the apparatus certificate. (Swivel type only).
- In flameproof applications, only one adaptor or reducer shall be used with any single cable entry on the associated equipment.
- 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.
- At their point of mounting, these devices are suitable for use at -50°C to +150°C for devices which rely on a non-metallic sealing material such as the swivel adaptors or -60°C to +200°C for solid metallic adaptors.

(b). Conditions of Manufacture - Routine Tests

- None.

### 14. Essential Health and Safety Requirements (EHSRs)

The relevant Essential Health and Safety Requirements (EHSRs) have been identified and assessed in Intertek Report: 104601581CHE-005 Dated: 24 March 2021.

## SCHEDULE:

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### 15. Drawings and Documents

Title:	Drawing No.:	Rev. Level:	Date:
Exd/Exe IIC 90° ADAPTOR/REDUCER	AR-D, AR-U	2	11-01-18
TWIN INLET SWIVEL/INTEGRAL ADAPTOR	SWIVEL & TWIN INLET	1	10-11-16
MALE – MALE/ FEMALE – FEMALE ADAPTORS	AR-AU-AX SERIES	1	05-04-16
SWIVEL 90 DEG	TYPE TP-TQ-TR	1	29-03-16
Accessories marking specification AR-U, AS-U, AT-U, AY-U, TA-U, TC-U, TD-U, TP-U, TQ-U, TR-U	DF 2210035 A	A	19/03/21
Ex accessories Regulatory Instruction	CAP184267	-	As stamped

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