



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx ITS 16.0015U Issue No: 0 Certificate history:
Issue No. 0 (2016-12-05)

Status: **Current** Page 1 of 5

Date of Issue: **2016-12-05**

Applicant: **Eaton Electrical Systems Ltd Trading as Redapt or Raxton**
Kingsway South
Westgate
Aldridge
West Midlands
WS9 8FS
United Kingdom

Equipment: **Right angle 90° AR-D 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 AYU, ATU ASU**

Optional accessory:

Type of Protection: **Ex db, eb and tb**

Marking:
IECEX ITS 16.0015U
Ex db I Mb (not Aluminium or AR-D products)
Ex eb I Mb (not Aluminium or AR-D products)
Ex db IIC Gb
Ex eb IIC Gb
Ex tb IIIC Db IP 6X

Approved for issue on behalf of the IECEx
Certification Body:

V K Varma

Position:

Certification Officer

Signature:
(for printed version)

Date:

Vijay K. Varma
2016-12-05

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).



IECEX Certificate of Conformity

Certificate No: IECEX ITS 16.0015U

Issue No: 0

Date of issue: 2016-12-05

Page 2 of 5

Certificate issued by:

Intertek Testing & Certification Limited
ITS House, Cleeve Road,
Leatherhead,
Surrey, KT22 7SB
United Kingdom





IECEX Certificate of Conformity

Certificate No: IECEx ITS 16.0015U

Issue No: 0

Date of Issue: 2016-12-05

Page 3 of 5

Manufacturer: **Eaton Electrical Systems Ltd Trading as Raxton or Redapt**
Kingsway South
Westgate
Aldridge
West Midlands
WS9 8FS
United Kingdom

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

[GB/ITS/ExTR16.0017/00](#)

Quality Assessment Report:

[GB/SIR/QAR06.0014/07](#)



IECEX Certificate of Conformity

Certificate No: IECEx ITS 16.0015U

Issue No: 0

Date of Issue: 2016-12-05

Page 4 of 5

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The **AR-D** 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 IIIC Db.

The **TAU, TCU, TDU, TPU, TQU, TRU, AYU, ATU, and ASU** range Twin or Single Inlet Fixed or Swivel adapters 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 M16 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 IIIC 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)

[see Additional page following for additional Equipment Description details]

CONDITIONS OF CERTIFICATION: NO



IECEx Certificate of Conformity

Certificate No: IECEx ITS 16.0015U

Issue No: 0

Date of Issue: 2016-12-05

Page 5 of 5

EQUIPMENT (continued):

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

The following special points for noting apply:

Service Temperature -50°C to +150°C* Unless fitted with an interface sealing O-ring with lower properties, temperatures shall then be limited as per the manufacturer's instructions

The manufacturer shall comply with the following:

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

The adaptors, when installed in accordance with the manufacturer's instructions are capable of providing, with an enclosure to which they are fixed, an ingress protection rating of IP66

Schedule of limitations:

1. 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.
2. Only one adaptor or reducer shall 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. At their point on 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 in flameproof Exd applications only