EU TYPE-EXAMINATION CERTIFICATE

1. **EU type-examination Certificate (Module B)**

2. **Equipment or Protective System intended for use in potentially explosive atmospheres (Directive 2014/34/EU)**

3. **EU type examination certificate Nr** **ITS16ATEX101335X R.1**

4. **Product:** Types CB, CF, CK, CQ, CQM, CY, PD-E4, PD-U, PH-E, PA-D/PA-U, PB-U/PB-D Stopping plugs.

5. **Manufacturer:** EATON ELECTRICAL SYSTEMS Ltd Trading as Eaton, Raxton, Redapt and Capri

6. **Address:** Kingsway South
Westgate, Aldridge, West Midlands
WS9 8FS, United Kingdom

7. This product and any acceptable variation thereto are specified in the schedule to this certificate and therein referred to.

8. INTERTEK ITALIA S.p.A., Notified Body n° 2575 in accordance with article 17 of the Directive 2014/34/EU of the European Parliament and Council of the 26 February 2014, certifies that the equipment or protective system has been found to comply with the essential Health and Safety Requirements relating to the design and construction of equipment and protective system intended for use in potentially explosive atmosphere, given in Annex II of the Directive.

   The examination and tests results are recorded in confidential technical evaluation Intertek Report Nr. G102174344A Issue 1 dated December 2016, Nr. G103326724 Issue 1 dated April 2018, Nr. 103717291LHD-001d dated June 2019 and Nr. 104039337LHD-001a dated September 2019.

9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2012+A1:2013, EN 60079-1:2014, EN 60079-7:2015/A1:2018 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 Special Conditions for 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:

I M2 Ex db I Mb
I M2 Ex eb I Mb

II 2G Ex db IIC Gb
II 2G Ex eb IIC Gb
II 2D Ex tb IIIC Db IP66

(Group I marking does not apply to CY or PD-E4 Stopping Plugs) (Ex db marking does not apply to CQM or PD-E4 or PH-E)
Ta = -60°C to +200°C (Dependant on construction material and O-ring fitted).
See specific conditions for particular model

Certificate issue date

4 december 2020

Fabrizio Massei
Certification Officer
Intertek Italia S.p.A. (NB 2575)

PDR N° 277B

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC

Signatory of EA, IAF and ILAC Mutual Recognition Agreements

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13. **DESCRIPTION OF THE EQUIPMENT OR PROTECTIVE SYSTEM**

The stopping plugs are threaded and are used to fill unused entries in associated apparatus. They have thread forms between M12 and M120 (M16 to M75 for Nylon CQM type plugs; M16 to M110 for Nylon PD-E-4 type plugs) and are briefly described as follows:

Type CF: Round/hexagon socket/internal mounting

Type CB: Round/hexagon socket/external mounting

Type CK: Hexagon head

Type CQ: 'Mushroom' head

Type CQM: 'Mushroom' head made from Glass Filled Nylon

Type CY: Similar to Type CK with a hollow threaded section

The PD-U series stopping plugs comprise of metallic round bodies with a dome head having a hexagonal key-way recess for tightening. They may optionally be machined with a groove to fit an 'o' ring seal. Coded: Ex db I/IIC Mb/Gb, Ex eb I/IIC Mb/Gb, Ex tb IIIC Db IP6X

The PA-D /PA-U, PB-D/PB-U Series stopping plugs comprise of metallic round bodies with a thread run out to shoulder having a hexagonal key-way recess for internal or external tightening. Coded: Ex db I/IIC Mb/Gb, Ex eb I/IIC Mb/ Gb Ex tb IIIC Db IP6X

The PH-E Series are ranges of 'Ex eb' threaded stopping plugs each comprising a threaded body with either a hexagonal head or socket for tightening.

PD-E4 Stopping Plugs: these are a range of threaded stopping plugs that are used to fill unused entries in the associated apparatus.

PD-E4 has a 'mushroom' head, there is also a version made from 30% Glass Filled Nylon which are intended for Ex eb and tb only.

Material Options:
- Brass BS 2872 (CZ121)
- Mild Steel to BS970 (EN1A)
- Stainless Steel to BS970 (316)
- Aluminium BS1474, 6082T6
- 30% Glass Filled Nylon
- 40% Glass Filled Nylon

Surface Coating: Nickel, Zinc, Electroless Nickel

Entry threads options:
- Metric to BS3463
- ET Conduit to BS 31
- PG to DIN 40430
- BSP to BS 2779
- BSPT to BS 21
- NPT to ANSI/ASME B1.20.1

Or Any thread forms conforming with Table 3 of EN 60079-1

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At their point of mounting, these devices are suitable for use at the following temperatures dependent on the type of 'o'-ring:

O-ring Service temperature:

- None fitted -60°C to 200°C *
- EPDM -50°C to +100°C
- Nitrile -30°C to +80°C
- Neoprene -40°C to +80°C
- Viton -20°C to +180°C *
- Silicone -60°C to +180°C *
- Fluorosilicone -60°C to +130°C

Note: The limiting temperatures specified above are de-rated by 20K according to Clause 7.2.2 'Material Selection' of EN 60079-0:2012+A11:2013.
Note: The maximum temperature is limited to 150°C in Group I application (Coal dust, Mining) O-ring materials affect marked with '*' above.

CE Marking shall be accompanied by the identification number of the Notified Body responsible for surveillance of production.

14. **DRAWINGS AND DOCUMENTS**

TITLE	DOCUMENT Nr	LEVEL	DATE
Stopping Plugs (CB& CF Tapered)	CB-CF	1	05/04/16
Stopping Plugs (CQ, CK & CY)	CQ-CK-CY	1	18/04/11
*Exe Glass Filled Nylon Stopping Plugs	CQ-M	2	08/07/18
*Ex d / Exe I & IIC Certified Tapered Stopping Plugs	PA-U, PB-U	1	08/03/16
*Exd/ Exe I&IIC Certified Parallel Stopping Plugs	PA-U, PB-U	1	08/03/16
*EExe II Dome Head Stopping Plugs	PD-E	2	09/07/19
Exd I&IIC & Exe IIC Domehead Stopping Plugs	PD-U	1	28/03/16
Exe II Hex Head Stopping Plugs	PH-E	1	04/04/16
Marking Drawing	IECExITS16.0012X, ITS16ATEX101335X	1	15/11/16

Note: An * is included before the title of documents that are new or revised.

Copies of the above listed documents are kept at Intertek Italia S.p.A. archive.

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15. **SPECIAL CONDITIONS FOR SAFE USE**

1. If a stopping plug is machined with an undercut and is used for an Ex db application, then the wall of the enclosure into which it is fitted shall be such as to maintain five full threads engagement.
2. When used for increased safety or Ex eb or protection by enclosure Ex tb applications, a suitable method of sealing to the associated enclosure shall be fitted
3. 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.
4. The stopping plugs, when manufactured from non-metallic material, are only suitable for installation in areas considered to be a low risk from mechanical impact
5. The stopping plugs, when manufactured from non-metallic material 40% Glass Filled Nylon, shall be adequately protected from direct exposure to sunlight
6. The stopping plugs, when construction from non-metallic material, shall only be cleaned with a damp cloth.
7. When manufactured in 30% Glass Filled Nylon material, the entry devices are suitable for a service temperature range of -30°C to +90°C.
8. When manufactured in 40% Glass Filled Nylon material, the entry devices are suitable for a service temperature range of -20°C to +45°C; Items made from this material are marked with '40% Glass Filled Nylon'.
9. The clearance holes for metric male threaded products, suitable for clearance hole applications of increased safety enclosures are to have a diameter of 0.3 to 0.5mm larger than the major diameter of the make thread.
10. 'Ex db' stopping plugs employing parallel threads without seals shall have at least 5 full threads of engagement, with a minimum tolerance according to ISO 965-1 and ISO 965-3.
11. 'Ex db' Stopping plugs are not to be used with any form of adaptors or reducers.
12. At their point of mounting, these devices are suitable for use at -60°C to +200°C for Group II applications and -50°C to +150°C for Group I applications.

16. **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS**

The relevant essential Health and Safety Requirements have been identified and assessed in Intertek Report Nr. G102174344A Issue 1 dated December 2016, Nr. G103326724 Issue 1 dated April 2018, Nr. 103717291LHD-001d dated June 2019 and Nr. 104039337LHD-001a dated September 2019.

17. **ROUTINE (FACTORY) TESTS**

None

18. **DETAIL OF CERTIFICATE CHANGES**

4 October 2019: First Issue

4 December 2020 (R.1): Designation '-U' re-introduced as a universal type certified Ex eb, Ex db and Ex tb. Intertek Project G103717291.
Nylon material reference revised. Drawings CQ-M and PD-E revised to Issue 2. Intertek Project G104039337 dated September 2019.