GOST R CERTIFICATION SYSTEM GOSSTANDRAT OF RUSSIA

CERTIFICATE OF CONFORMITY

No. POCC GB.ГБ06.В00276

Period of validity from 16.10.2006 until 16.10.2009

No. 7178466

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BODY FOR CERTIFICATION OF EXPLOSION PROOF MEASURING, CONTROL, AND AUTOMATIC INSTRUMENTS FGUP «VNIIFTRI» OS VSI «VNIIFTRI» Russia,, 141570, Moscow region, Solnechnogorsk district, PO "Mendeleyevo", FGUP «VNIIFTRI, tel./fax 535-0871

PRODUCTS Ex-proof Components REDAPT, series A*/R*/P*/D*/U*

serial production as per Ex-annex

OK 005 (ОКП) code: 35 9900

CONFORMITY WITH NORMATIVE DOCUMENTS REQUIREMENTS

GOST R 51330.0, GOST R 51330.1, GOST R 51330.8

Customs code: 8536 90 100 0

MANUFACTURER

Redapt Engineering Company Limited (UK)

Units 46 & 47, Darlaston Central Trading Estate, Darlaston, West Midlands, WS10 8XB, UK

CERTIFICATE IS ISSUED TO

Redapt Engineering Company Limited (UK)

Units 46 & 47, Darlaston Central Trading Estate, Darlaston, West Midlands, WS10 8XB, UK tel. +44 (0) 121 526 7058, fax +44 (0) 121 5265076

ON THE BASIS OF

Test report No. 06.321 dated 05.10.2006 issued by Test laboratory of VSI «VNIIFTRI» (license No. POCC RU.0001.21ИП09 dated 05.04.2004 г.)

ADDITIONAL INFORMATION

Head of certification body	<u>signature</u>	Y u.N. Teryaev
Stamp		
Expert	<u>signature</u>	N.Yu. Miroshnikova

Certificate is legally valid for the whole territory of Russian Federation

FGUP «VNIIFTRI»

Certification Centre of explosion proof measuring, control and automatic devices, SC VSI «VNIIFTRI» Accreditation License OS No. POCC RU.0001.11ΓБ06 dated 05.04.04 Accreditation License TL No. POCC RU.0001.21ИΠ09 dated 05.04.04 141570, Moscow region, PO "Mendeleyevo", tel./fax 535-0871



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Ex-ANNEX

to Certificate of Conformity

No. POCC GB.ГБ06.В00276

Period of Validity

from 16.10.2006 until 16.10.2009

Ex-proof Components REDAPT, series A*/R*/P*/D*/U* or (Ex-proof adaptors, reducers, plugs, breather drains, unions, types: A*/R*/P*/D*/U*)

Russian Customs code 8536 90 100 0

OK 005 (OKP) code 35 9900

2 Explosion proof mark

Explosion proof mark of Ex-proof Components is stated in Section 5

3 Manufacturer

Redapt Engineering Company Limited (UK)

Units 46 & 47, Darlaston Central Trading Estate, Darlaston, West Midlands, WS10 8XB, UK

4 Conditions of use

- 4.1 The explosion proof components are to be used in accordance with explosion proof mark, requirements of GOST R 51330.13, current "Electrical plant arrangement rules" (PUE, art. 7.3), "Technical maintenance rules for electrical plants" (PTEEP, art. 3.4), other normative documents regulating application of electrical equipment in explosive areas, and manufacturer's instruction manual.
- 4.2 Applicable explosive areas and condition of use, categories and groups of explosive air mixtures with gases and vapors are in accordance with GOST R 51330.9, GOST R 51330.11 and requirements of "Electrical plants arrangement rules" (PUE, art.7.3).
- 4.3 Explosion proof components are certified for use in hazardous areas where combustible dust can be ignited. Characteristics of hazardous area are stated in technical documentation of Manufacturer.
- 4.4 The design modification related to explosion proof method is to be coordinated with licensed test laboratory.

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5 Structure, design and specification of the products

List of explosion-proof components covered by this Certificate of Conformity and their explosion proof mark are stated in table 1.

Table 1

Explosion proof com	ponent	Explosion proof mark
Adaptors	series AD-U	Exde I/IICU or ExdeIICU
	series AD-E-4, AE-E	Exe IIU
	series AR-D, AI-D, AM-D	Exd IICU
Reducers	series RD-U	Exde I/IICU or ExdeIICU
	series RD-E-4	Exe IIU
Plugs	series PD-U	Exde I/IICU or ExdeIICU (Al)
	series PA-D,PB-D	Exd IICU
	series PH-E, PD-E-4	Exe IIU
Breather drain	series DP-E	Exe I/ IICU or ExeIIU (Al+ N)
Unions	series UN-D, UF-D	Exd IICU

6 Destination and field of application

Explosion proof components are destined for use in hazardous area.

The explosion proof components listed in table 1 belong to explosion proof electrical equipment of groups I or II as per GOST R 51330.0, and according to assigned explosion proof mark and depending on design are destined for use in mines, mines' ground constructions, or in explosive indoor and outdoor areas.

7 Major technical data

7.1. Explosive mixtures as per GOST R 51330.11 (d	epending on design)categories I
	IIA, IIB, IIC
7.2. Explosion proof type	explosion proof "d" enclosure
	type "e" protection
7.3. Explosion proof mark	according to table 1
7.4. Ambient temperature range, °C	from -50 to $+85$
7.5 Dimensions, mm and weight, kg	as per technical documentation

8 Description of design and explosion proof methods

Adaptors and Reducers (AD-U, RD-U, AD-E-4, and RD-E-4 Series) - A range of thread adaptors and reducers with an external male thread and an internal female thread. The devices are used to convert an existing entry thread to a different or same thread form and / or size. Depending on design the ingress protection of the enclosure is IP66/IP68/IP54 as per GOST 14254 when not used with any other sealing device. Materials: AD-U Series (Metallic brass, 316 stainless steel, mild steel and aluminium alloy); RD-U Series (Metallic brass, 316 stainless steel, mild steel and aluminium alloy); AD-E-4 Series (30% Glass Filled Nylon); and RD-E-4 Series (30% Glass Filled Nylon)

Insulated Adaptors (AI-D Series) - A range of insulating thread adaptors with an external male thread and an internal female thread. The devices are used to insulate a cable gland or connection device. They may also be used convert an existing entry thread to a different or same thread form and / or size. For normal execution, the ingress protection of the enclosure is IP54 as per GOST 14254 when not used with any other sealing device. Materials: AI-D Series (Metallic brass, 316 stainless steel, mild steel and aluminium alloy with nylon insulating insert.)

Earth Lead Adaptors and Reducers (AE-E Series) - A range of thread adaptors and reducers with an external male thread and an internal female thread used to provide a connection from a cable gland or termination to earth via a 300 mm long earth lead cable and additionally may be used to convert an existing cable entry thread to a different thread form and / or size. For normal execution, the ingress protection of the enclosure is IP54 as per GOST 14254 when not used with any other sealing device. Materials: AE-E Series (Metallic brass, 316 stainless steel, mild steel and aluminium alloy).

90° Adaptors and reducers (AR-D Series) - A range of 90° thread adaptors and reducers, with an external male thread and an internal female thread. The female thread is machined into the body at 90° to the male thread. The components are designed to provide cable entry options where space is limited or to avoid cable damage. Additionally, they may be used to convert an existing cable entry thread to a different thread form and / or size. For normal execution the ingress protection of the enclosure is IP54 as per GOST 14254 when not used with any other sealing device. Materials: AR-D Series (Metallic brass, 316 stainless steel, mild steel and aluminium alloy)

Male to Male Adapters (AM-D Series) - A range of thread adaptors each with a male thread form at each end. The devices are used to convert an existing cable entry thread to a different or same thread form and/or size. For normal execution the ingress protection of the enclosure is IP54 as per GOST 14254 when not used with any other sealing device. Materials: AM-D Series (Metallic brass, 316 stainless steel, mild steel and aluminium alloy).

Stopping Plugs (PD-U, PA-D, PB-D, PH-E, and PD-E-4 Series) - A range of threaded stopping plugs used to fill unused cable entries in associated apparatus. Depending on design the ingress protection of the enclosure is IP66/IP68/IP54 as per GOST 14254 when not used with any other sealing device. Materials: PD-U Series - metallic domehead stopping plugs (brass, 316 stainless steel, mild steel and aluminium alloy), PA-D Series - metallic stopping plug with external hexagon recess (brass, 316 stainless steel, mild steel and aluminium alloy), PB-D Series - metallic stopping plug with internal hexagon recess (brass, 316 stainless steel, mild steel and aluminium alloy), PH-E Series - metallic hexagon head stopping plug (brass, 316 stainless steel, mild steel and aluminium alloy), PD-E-4 Series - domehead stopping plugs (30% glass filled nylon).

Breather Drains (DP-E Series) - A range of breather drains designed for the effective removal and prevention of moisture from equipment and providing ventilation to the surrounding atmosphere. For normal execution the ingress protection of the enclosure is IP66 as per GOST 14254. Materials: DP-E Series (brass, 316 stainless steel, mild steel, aluminium and 30% Glass Filled Nylon).

Unions (UN-D and UF-D Series) - A range of unions designed for the connection of equipment where conventional connection is not possible, whilst protecting cables and electric conductors. For normal execution the ingress protection of the enclosure is IP54 as per GOST 14254 when not used with any other sealing method. Materials: UN-D Series - metallic Male x Female Unions (brass, 316 stainless steel, mild steel and aluminium alloy), UF-D Series - metallic Female x Female Unions (brass, 316 stainless steel, mild steel and aluminium alloy).

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- characteristics of explosion proof threaded connections (axial thread length and number of full threads) confirm to requirements of table 5 and section 5.3 of GOST R 51330.1.

9 Data of tests

Installation methods of the explosion proof components onto the enclosure and cable connection are in line with requirements of GOST R 51330.0, GOST R 51330.1, and GOST R 51330.8.

Constructional materials confirm to prescribed operating temperatures and requirements to frictional and electrostatic sparks-safety as per GOST R 51330.0.

Design check results, tests of the ex-proof components, and conformity of explosion proof parameters to requirements of GOST R 51330.0, GOST R 51330.1, GOST R 51330.8 are stated in Protocol No. 06.321.

Maintenance documentation of the explosion proof components contains all the necessary instructions related to installation and safe operation.

10 Explosion proof mark

As per design check results, explosion proof tests and according to requirements of GOST R 51330.0, GOST R 51330.1, and GOST R 51330.8, the explosion proof components Redapt, series A*/R*/P*/D*/U* are given the explosion proof mark stated in table 1.

11 List of documents containing explosion proof details

EC-type examination certificate SIRA 00ATEX 1094/3091/1098/3093/1096/3092

SIRA99ATEX 1115U/3116U/1195U/1117U/ SIRA99ATEX 1114X/3182U/3050U/1196U/1113

Technical documentation set no name
User manual no name
VNIIFTRI test report No. 06.321

Head of Certification Body

Expert, license No.POCC RU.0001.31010988 *signature* Yu.N.Teryaev

stamp

Expert, license No. POCC RU.0001.31011039 *signature* N.Yu. Miroshnikova