

(1) **EU-Type Examination Certificate**  
(2) **Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres**

**Directive 2014/34/EU**

(3) EU – Type Examination Certificate Number: **IEP 20 ATEX 0750 X**

(4) Product: **EXO Series Cable Gland**

(5) Firm Name: **Ortaçlar Elektrik Sanayi ve Ticaret Limited Şirketi**

(6) Firm Address: **Hadımköy Mah. İbni Sina Cad. No: 9 Arnavutköy / İSTANBUL – TURKEY**

(7) This product any of acceptable variation there to be specified in the schedule to this certificate and the documents therein referred to.

(8) The IEP Uluslararası Enerji Petrol Gözetim, Sertifikasyon ve Teknik Hizmetler Organizasyonu Tic. Ltd. Sti., notified body number 2284 in accordance with Article 17 of the Directive 2014/34/EU of European Parliament and of the Council, dated 26 February 2014, certifies that this 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 Report Nr : IEP.Rp.Ex.10-1590 date 20.01.2020.

(9) Compliance with Essential Health and safety requirements has been assured by compliance with ;

**EN 60079-0:2013 , EN 60079-7:2015 , EN 60079-31:2014**

(10) If the sign “ X “ is placed after the certificate number, it indicates that the product is subject to Specified 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 in accordance to the directive 2014/34/EU. 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 equipment or protective system shall include the following:



**II 2G Ex eb IIC Gb**

**II 2D Ex tb IIC Db**

**Responsible Person :**

**Date of Issue : 24.01.2020**

Nurettin Terzioglu  
Head of Certification Body

(13) Schedule

(14) Certificate Nr : **IEP 20 ATEX 0750 X**

(15) Technical Details: **EXO Series Cable Gland**

EXO series cable gland is made of polyamide PA6 V0, V1 and V2. The polyamide cable glands series EXO are used to introduce permanently circular cables into the enclosure. Gasket (cable clamping apparatus) is made of TPE-V, NBR and Silicon.

Cable glands are suitable for electrical equipment either with type of protection Ex eb or type of protection Ex tb. Cable glands should be also used for intrinsically safe circuits Ex i. The cap nut is optionally made in black resp. blue for the distinction of Ex-e and Ex-i circuits.

EXO series cable glands are intended to terminate cables into enclosures without compromising the explosion protection provided by the enclosures by relevant codes of practice. The cable entry consists of an adapter with connection thread; cap nut, elastomeric sealing insert and gasket at the connection thread. The cable gland is installed in enclosures with threaded holes and through-holes. The seals are compressed onto the cable when the body component and actuating nut are tightened.

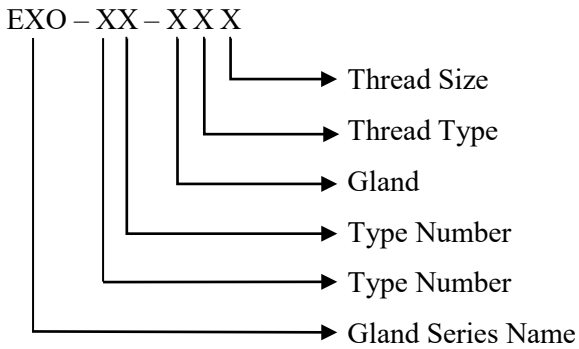
The cable entry consists of an adapter with connection thread; cap nut, elastomeric sealing insert and gasket at the connection thread. The cable gland is installed in enclosures with threaded holes and through-holes.

EXO series cable gland has been evaluating in the contents of IP 66/68 with cable.

**Temperature of isolation:**

|                       |                      |
|-----------------------|----------------------|
| TPE-V Sealing ring    | : ( -20 ; + 100 ) °C |
| NBR Sealing ring      | : ( -40 ; + 100 ) °C |
| Silicon Clamping ring | : ( -60 ; + 100 ) °C |

**EXO Series Cable Gland Coding, IP 66/68**



**Responsible Person :**

Nurettin Terzioglu  
Head of Certification Body

(16) Certificate Nr : IEP 20 ATEX 0750 X

(17) Technical Details: EXO Series Cable Gland

| METRIC SERIES |                   |                   |                    |    |    |    |                      |        |
|---------------|-------------------|-------------------|--------------------|----|----|----|----------------------|--------|
| AG            | Black Code        | Blue Code         | Body - RAL 9005    | H  | GL | SW | Cable outer sheath Ø |        |
| Thread        | RAL 9005          | RAL 5012          | Cover - RAL 5012   | mm | mm | mm | Min mm               | Max mm |
| M 12 x 1,5    | ExOXXOMRB 01      | ExOXXOMRM 01      | ExOXXOMRMB 01      | 24 | 8  | 15 | 3                    | 6,5    |
| M 16 x 1,5    | ExOXXOMRB 02      | ExOXXOMRM 02      | ExOXXOMRMB 02      | 28 | 8  | 19 | 4                    | 8      |
| M 16 x 1,5    | ExOXXOMRB 03      | ExOXXOMRM 03      | ExOXXOMRMB 03      | 29 | 10 | 22 | 5                    | 10     |
| M 20 x 1,5    | ExOXXOMRB 04RS    | ExOXXOMRM 04RS    | ExOXXOMRMB 04RS    | 29 | 10 | 24 | 4                    | 10     |
| M 20 x 1,5    | ExOXXOMRB 04      | ExOXXOMRM 04      | ExOXXOMRMB 04      | 29 | 10 | 24 | 6                    | 12     |
| M 20 x 1,5    | ExOXXOMRB 05      | ExOXXOMRM 05      | ExOXXOMRMB 05      | 33 | 10 | 27 | 10                   | 14     |
| M 25 x 1,5    | ExOXXOMRB 06      | ExOXXOMRM 06      | ExOXXOMRMB 06      | 38 | 10 | 33 | 13                   | 18     |
| M 25 x 1,5    | ExOXXOMRB 06/9-17 | ExOXXOMRM 06/9-17 | ExOXXOMRMB 06/9-17 | 38 | 10 | 33 | 9                    | 17     |
| M 32 x 1,5    | ExOXXOMRB 07      | ExOXXOMRM 07      | ExOXXOMRMB 07      | 41 | 10 | 42 | 18                   | 25     |
| M 40 x 1,5    | ExOXXOMRB 08      | ExOXXOMRM 08      | ExOXXOMRMB 08      | 51 | 10 | 53 | 22                   | 32     |
| M 50 x 1,5    | ExOXXOMRB 09      | ExOXXOMRM 09      | ExOXXOMRMB 09      | 53 | 18 | 60 | 30                   | 38     |
| M 63 x 1,5    | ExOXXOMRB 10      | ExOXXOMRM 10      | ExOXXOMRMB 10      | 55 | 18 | 70 | 34                   | 44     |
| M 25 x 1,5    | ExOXXOMRB E6      | ExOXXOMRM E6      | ExOXXOMRMB E6      | 35 | 10 | 29 | 11                   | 17     |
| M 25 x 1,5    | ExOXXOMRB E6-9    | ExOXXOMRM E6-9    | ExOXXOMRMB E6-9    | 35 | 10 | 29 | 9                    | 14     |
| M 32 x 1,5    | ExOXXOMRB E7      | ExOXXOMRM E7      | ExOXXOMRMB E7      | 40 | 10 | 36 | 15                   | 21     |
| M 40 x 1,5    | ExOXXOMRB E8      | ExOXXOMRM E8      | ExOXXOMRMB E8      | 43 | 10 | 46 | 19                   | 28     |
| M 25 x 1,5    | ExOXXOMRB ES4     | ExOXXOMRM ES4     | ExOXXOMRMB ES4     | 32 | 10 | 29 | 4                    | 10     |
| M 25 x 1,5    | ExOXXOMRB ES6     | ExOXXOMRM ES6     | ExOXXOMRMB ES6     | 32 | 10 | 29 | 6                    | 12     |
| G3/4"         | ExOXXOGRB 06      | ExOXXOGRM 06      | ExOXXOMRMB 06      | 38 | 10 | 33 | 13                   | 18     |

| METRIC SERIES LONG THREAD |                   |                   |                    |    |    |    |                      |        |
|---------------------------|-------------------|-------------------|--------------------|----|----|----|----------------------|--------|
| AG                        | Black Code        | Blue Code         | Body - RAL 9005    | H  | GL | SW | Cable outer sheath Ø |        |
| Thread                    | RAL 9005          | RAL 5012          | Cover - RAL 5012   | mm | mm | mm | Min mm               | Max mm |
| M 12 x 1,5                | ExOXXOMRB 01L     | ExOXXOMRM 01L     | ExOXXOMRMB 01L     | 24 | 15 | 15 | 3                    | 6,5    |
| M 16 x 1,5                | ExOXXOMRB 11S     | ExOXXOMRM 11S     | ExOXXOMRMB 11S     | 28 | 15 | 19 | 4                    | 8      |
| M 16 x 1,5                | ExOXXOMRB 11      | ExOXXOMRM 11      | ExOXXOMRMB 11      | 29 | 15 | 22 | 5                    | 10     |
| M 20 x 1,5                | ExOXXOMRB 12RS    | ExOXXOMRM 12RS    | ExOXXOMRMB 12RS    | 29 | 15 | 24 | 4                    | 10     |
| M 20 x 1,5                | ExOXXOMRB 12      | ExOXXOMRM 12      | ExOXXOMRMB 12      | 29 | 15 | 24 | 6                    | 12     |
| M 20 x 1,5                | ExOXXOMRB 13      | ExOXXOMRM 13      | ExOXXOMRMB 13      | 33 | 15 | 27 | 10                   | 14     |
| M 25 x 1,5                | ExOXXOMRB 14      | ExOXXOMRM 14      | ExOXXOMRMB 14      | 38 | 15 | 33 | 13                   | 18     |
| M 25 x 1,5                | ExOXXOMRB 14/9-17 | ExOXXOMRM 14/9-17 | ExOXXOMRMB 14/9-17 | 38 | 15 | 33 | 9                    | 17     |
| M 32 x 1,5                | ExOXXOMRB 15      | ExOXXOMRM 15      | ExOXXOMRMB 15      | 41 | 18 | 42 | 18                   | 25     |
| M 40 x 1,5                | ExOXXOMRB 16      | ExOXXOMRM 16      | ExOXXOMRMB 16      | 51 | 18 | 53 | 22                   | 32     |
| M 25 x 1,5                | ExOXXOMRB E14     | ExOXXOMRM E14     | ExOXXOMRMB E14     | 35 | 15 | 29 | 11                   | 17     |
| M 25 x 1,5                | ExOXXOMRB E14-9   | ExOXXOMRM E14-9   | ExOXXOMRMB E14-9   | 35 | 15 | 29 | 9                    | 14     |
| M 32 x 1,5                | ExOXXOMRB E15     | ExOXXOMRM E15     | ExOXXOMRMB E15     | 40 | 15 | 36 | 15                   | 21     |
| M 40 x 1,5                | ExOXXOMRB E16     | ExOXXOMRM E16     | ExOXXOMRMB E16     | 43 | 15 | 46 | 19                   | 28     |
| M 25 x 1,5                | ExOXXOMRB ES14    | ExOXXOMRM ES14    | ExOXXOMRMB ES14    | 32 | 15 | 29 | 4                    | 10     |
| M 25 x 1,5                | ExOXXOMRB ES16    | ExOXXOMRM ES16    | ExOXXOMRMB ES16    | 32 | 15 | 29 | 6                    | 12     |

**Responsible Person :**

Nurettin Terzioglu  
Head of Certification Body

**IEP Uluslararası Enerji Petrol Gözetim, Sertifikasyon ve Teknik Hizmetler Organizasyon Ticaret Limited Sirketi**

5746/1 Sk.No:9 K:2 Bornova - IZMIR / TURKEY Tel: +90 232 431 1745 – 46 Fax: +90 232 431 1730 E-mail: iep@iep.com.tr Fr: 45

This certificate is granted subject to the general conditions of the IEP Energy Petroleum Institute. This certificate may only be reproduced in its entirety and without any change, schedule included. You can check accuracy of this document by [www.iep.com.tr](http://www.iep.com.tr).

(18) Certificate Nr : IEP 20 ATEX 0750 X

(19) Technical Details: EXO Series Cable Gland

| PG SERIES |                  |                  |                   |    |    |    |                      |        |
|-----------|------------------|------------------|-------------------|----|----|----|----------------------|--------|
| AG        | Black Code       | Blue Code        | Body - RAL 9005   | H  | GL | SW | Cable outer sheath Ø |        |
| Thread    | RAL 9005         | RAL 5012         | Cover - RAL 5012  | mm | mm | mm | Min mm               | Max mm |
| PG-7      | ExOXXORB 01      | ExOXXORM 01      | ExOXXORMB 01      | 24 | 8  | 15 | 3                    | 6,5    |
| PG-9      | ExOXXORB 02      | ExOXXORM 02      | ExOXXORMB 02      | 28 | 8  | 19 | 4                    | 8      |
| PG-11     | ExOXXORB 03      | ExOXXORM 03      | ExOXXORMB 03      | 29 | 8  | 22 | 5                    | 10     |
| PG-13,5   | ExOXXORB 04RS    | ExOXXORM 04RS    | ExOXXORMB 04RS    | 29 | 9  | 24 | 4                    | 10     |
| PG-13,5   | ExOXXORB 04      | ExOXXORM 04      | ExOXXORMB 04      | 29 | 9  | 24 | 6                    | 12     |
| PG-16     | ExOXXORB 05      | ExOXXORM 05      | ExOXXORMB 05      | 33 | 9  | 27 | 10                   | 14     |
| PG-21     | ExOXXORB 06      | ExOXXORM 06      | ExOXXORMB 06      | 38 | 11 | 33 | 13                   | 18     |
| PG-21     | ExOXXORB 06/9-17 | ExOXXORM 06/9-17 | ExOXXORMB 06/9-17 | 38 | 11 | 33 | 9                    | 17     |
| PG-29     | ExOXXORB 07      | ExOXXORM 07      | ExOXXORMB 07      | 41 | 11 | 42 | 18                   | 25     |
| PG-36     | ExOXXORB 08      | ExOXXORM 08      | ExOXXORMB 08      | 51 | 13 | 53 | 22                   | 32     |
| PG-42     | ExOXXORB 09      | ExOXXORM 09      | ExOXXORMB 09      | 53 | 13 | 60 | 30                   | 38     |
| PG-48     | ExOXXORB 10      | ExOXXORM 10      | ExOXXORMB 10      | 55 | 14 | 65 | 34                   | 44     |

| PG SERIES LONG THREAD |                   |                   |                    |    |    |    |                      |        |
|-----------------------|-------------------|-------------------|--------------------|----|----|----|----------------------|--------|
| AG                    | Black Code        | Blue Code         | Body - RAL 9005    | H  | GL | SW | Cable outer sheath Ø |        |
| Thread                | RAL 9005          | RAL 5012          | Cover - RAL 5012   | mm | mm | mm | Min mm               | Max mm |
| PG-7                  | ExOXXORBL 01      | ExOXXORML 01      | ExOXXORMBL 01      | 24 | 15 | 15 | 3                    | 6,5    |
| PG-9                  | ExOXXORB 02       | ExOXXORML 02      | ExOXXORMB 02       | 28 | 15 | 19 | 4                    | 8      |
| PG-11                 | ExOXXORBL 03A     | ExOXXORML 03A     | ExOXXORMBL 03A     | 29 | 10 | 22 | 5                    | 10     |
| PG-11                 | ExOXXORBL 03      | ExOXXORML 03      | ExOXXORMBL 03      | 29 | 15 | 22 | 5                    | 10     |
| PG-13,5               | ExOXXORBL 04RS    | ExOXXORML 04RS    | ExOXXORMBL 04RS    | 29 | 15 | 24 | 4                    | 10     |
| PG-13,5               | ExOXXORBL 04      | ExOXXORML 04      | ExOXXORMBL 04      | 29 | 15 | 24 | 6                    | 12     |
| PG-16                 | ExOXXORBL 05      | ExOXXORML 05      | ExOXXORMBL 05      | 33 | 15 | 27 | 10                   | 14     |
| PG-21                 | ExOXXORBL 06      | ExOXXORML 06      | ExOXXORMBL 06      | 38 | 15 | 33 | 13                   | 18     |
| PG-21                 | ExOXXORBL 06/9-17 | ExOXXORML 06/9-17 | ExOXXORMBL 06/9-17 | 38 | 15 | 33 | 9                    | 17     |

| NPT THREAD |                  |                   |                    |    |    |    |                      |        |
|------------|------------------|-------------------|--------------------|----|----|----|----------------------|--------|
| AG         | Black Code       | Blue Code         | Body - RAL 9005    | H  | GL | SW | Cable outer sheath Ø |        |
| Thread     | RAL 9005         | RAL 5012          | Cover - RAL 5012   | mm | mm | mm | Min mm               | Max mm |
| 1/4"       | ExOXXONRB 01     | ExOXXONRM 01      | ExOXXONRMB 01      | 24 | 15 | 15 | 3                    | 6,5    |
| 3/8"       | ExOXXONRB 02     | ExOXXONRM 02      | ExOXXONRMB 02      | 28 | 15 | 19 | 4                    | 8      |
| 3/8"       | ExOXXONRB 03     | ExOXXONRM 03      | ExOXXONRMB 03      | 29 | 15 | 22 | 5                    | 10     |
| 1/2"       | ExOXXONRB 04RS   | ExOXXONRM 04RS    | ExOXXONRMB 04RS    | 29 | 15 | 24 | 4                    | 10     |
| 1/2"       | ExOXXONRB 04     | ExOXXONRM 04      | ExOXXONRMB 04      | 29 | 15 | 24 | 6                    | 12     |
| 3/4"       | ExOXXONRB 05     | ExOXXONRM 05      | ExOXXONRMB 05      | 33 | 15 | 27 | 10                   | 14     |
| 3/4"       | ExOXXONRB 06     | ExOXXONRM 06      | ExOXXONRMB 06      | 38 | 15 | 33 | 13                   | 18     |
| 3/4"       | ExOXXONRB 06/9-7 | ExOXXONRM 06/9-17 | ExOXXONRMB 06/9-17 | 38 | 15 | 33 | 9                    | 17     |
| 1"         | ExOXXONRB 07     | ExOXXONRM 07      | ExOXXONRMB 07      | 41 | 15 | 42 | 18                   | 25     |
| 1 1/4"     | ExOXXONRB 08     | ExOXXONRM 08      | ExOXXONRMB 08      | 51 | 15 | 53 | 22                   | 32     |
| 1 1/2"     | ExOXXONRB 9      | ExOXXONRM 9       | ExOXXONRMB 9       | 55 | 15 | 70 | 34                   | 44     |

**Responsible Person :**

Nurettin Terzioglu  
Head of Certification Body

**IEP Uluslararası Enerji Petrol Güzetim, Sertifikasyon ve Teknik Hizmetler Organizasyon Ticaret Limited Sirketi**

5746/1 Sk. No:9 K:2 Bornova - IZMIR / TURKEY Tel: +90 232 431 1745 – 46 Fax: +90 232 431 1730 E-mail: iep@iep.com.tr Fr: 45

This certificate is granted subject to the general conditions of the IEP Energy Petroleum Institute. This certificate may only be reproduced in its entirety and without any change, schedule included. You can check accuracy of this document by [www.iep.com.tr](http://www.iep.com.tr).

(20) Certificate Nr : IEP 20 ATEX 0750 X

(21) Technical Details: EXO Series Cable Gland

| GAS THREAD |                   |                   |                    |    |    |    |                      |        |
|------------|-------------------|-------------------|--------------------|----|----|----|----------------------|--------|
| AG         | Black Code        | Blue Code         | Body - RAL 9005    | H  | GL | SW | Cable outer sheath Ø |        |
| Thread     | RAL 9005          | RAL 5012          | Cover - RAL 5012   | mm | mm | mm | Min mm               | Max mm |
| 1/4"       | ExOXXOGRB 01      | ExOXXOGRM 01      | ExOXXOGRMB 01      | 24 | 15 | 15 | 3                    | 6,5    |
| 3/8"       | ExOXXOGRB 02      | ExOXXOGRM 02      | ExOXXOGRMB 02      | 28 | 15 | 19 | 4                    | 8      |
| 3/8"       | ExOXXOGRB 03      | ExOXXOGRM 03      | ExOXXOGRMB 03      | 29 | 15 | 22 | 5                    | 10     |
| 1/2"       | ExOXXOGRB 04RS    | ExOXXOGRM 04RS    | ExOXXOGRMB 04RS    | 29 | 15 | 24 | 4                    | 10     |
| 1/2"       | ExOXXOGRB 04      | ExOXXOGRM 04      | ExOXXOGRMB 04      | 29 | 15 | 24 | 6                    | 12     |
| 3/4"       | ExOXXOGRB 05      | ExOXXOGRM 05      | ExOXXOGRMB 05      | 33 | 15 | 27 | 10                   | 14     |
| 3/4"       | ExOXXOGRB 06      | ExOXXOGRM 06      | ExOXXOGRMB 06      | 38 | 15 | 33 | 13                   | 18     |
| 3/4"       | ExOXXOGRB 06/9-17 | ExOXXOGRM 06/9-17 | ExOXXOGRMB 06/9-17 | 38 | 15 | 33 | 9                    | 17     |
| 1"         | ExOXXOGRB 07      | ExOXXOGRM 07      | ExOXXOGRMB 07      | 41 | 15 | 42 | 18                   | 25     |
| 1" 1/4     | ExOXXOGRB 08      | ExOXXOGRM 08      | ExOXXOGRMB 08      | 51 | 15 | 53 | 22                   | 32     |
| 1" 1/2     | ExOXXOGRB 9       | ExOXXOGRM 9       | ExOXXOGRMB 9       | 55 | 15 | 70 | 34                   | 44     |

(22) List of Documentation;

EXO series cable gland operating manual date 20.11.2019. [4 pages]

| Drawing Nr                            | Date    |
|---------------------------------------|---------|
| M 12x1,5 ... M63x1,5 series gland     | 09.2016 |
| M 12x1,5 ... M40x1,5 – L series gland | 09.2016 |
| PG-7 ... 48 series gland              | 09.2016 |
| PG-7 ... 21 series gland – L          | 09.2016 |

(23) Special Conditions for Safe Use:

**23.1** The cable glands are only suitable for fixed installations. Cables shall be effectively clamped to prevent pulling or twisting.

**23.2** The cable glands and the relevant cables, shall be used where a protection against risk of mechanical damage is provided, when they are suitable for low mechanical risk (4J) only.

**23.3** Warning. Potential electrostatic charging hazard - See instructions. Clean only with antistatic clothes.

**23.4** Degree of protection will be safeguarded only when sealing and cable entry fittings are properly fitted.

**23.5** The ambient temperature range of the cable glands is restricted to +15 °C up to +65 °C. Outside of this ambient temperature range these types must be mounted into an apparatus in such a way that they are adequately protected against mechanical hazards.

**23.6** For minimal and maximal diameters of permitted cables and torque values, see drawings and instructions manual.

(24) Essential Health and Safety Requirements:

**24.1** This certificate is in the contents of standards that mentioned in item (9). It has been accepted that EXO series cable gland is manufactured according to the producer instructions and the standards mentioned above.

**24.2** Information given at the user manuals of EXO series cable gland have been approved as 4 pages and date 20.11.2019.

(25) For the validity of analysis type certificate, the parts that are used in EXO series cable gland is determined in confirmed 14.11.2019 dated in the part list 1.

**Responsible Person :**

Nurettin Terzioglu  
Head of Certification Body

**Date of Issue : 24.01.2020**

**IEP Uluslararası Enerji Petrol Güzetim, Sertifikasyon ve Teknik Hizmetler Organizasyon Ticaret Limited Sirketi**

5746/1 Sk. No:9 K:2 Bornova - IZMIR / TURKEY Tel: +90 232 431 1745 – 46 Fax: +90 232 431 1730 E-mail: iep@iep.com.tr Fr: 45

This certificate is granted subject to the general conditions of the IEP Energy Petroleum Institute. This certificate may only be reproduced in its entirety and without any change, schedule included. You can check accuracy of this document by [www.iep.com.tr](http://www.iep.com.tr).