



[1] **EC-TYPE EXAMINATION CERTIFICATE**

[2] **Equipment or Protective Systems or Component Intended for use
in Potentially explosive atmospheres
Directive 94/9/EC**

[3] EC-Type Examination Certificate number:

CESI 00 ATEX 052

[4] Equipment: Cable glands for armoured cables series FAL.; FALD. and EFAL.; EFALD. and for unarmoured cables series FL. and EFL.

[5] Manufacturer: **EL.FIT S.p.A.**

[6] Address: Via Aquileia 8, Villesse (Gorizia), Italy

[7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] CESI, notified body n° 0722 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this 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 systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report n° EX-A0/033305.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014: 1997 + A1..A2 EN 50018: 1994 EN 50019:2000 EN 50281-1-1:1999

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This EC-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment or protective system.

[12] The marking of the equipment or protective system shall include the following:

 **II 2 GD EEx d IIC EEx e II IP 66/67**

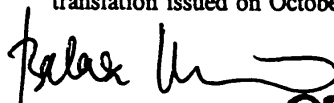


This certificate may only be reproduced in its entirety and without any change, schedule included.

date October 12th, 2000 translation issued on October 13th, 2000

prepared CERT - M. Balaz

verified

approved CERT - U. Colombo



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Responsabile Area Certificazione


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[13]

Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE N° CESI 00 ATEX 052**

[15] Description of equipment

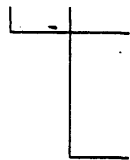
The cable glands for armoured cable series FAL. and FALD. and the cable glands for unarmoured cables series FL. are designed for the type of protection EEx d IIC.

The cable glands for armoured cable series EFAL. and EFALD. and the cable glands for unarmoured cable series EFL. are designed for the type of protection EEx e II.

The cable glands of all the series above-mentioned are protected against the risk of explosion for the presence of combustible dusts according to the standard EN 50281-1-1.

The above-mentioned cable glands are identified by a code as follows:

.F.. -



type of cable gland

FAL; EFAL - cable gland for armoured cables with double seal

FALD; EFALD - cable gland for armoured cable with single seal

FL; EFL - cable gland for unarmoured cable

size

(01; 1; 2; 3; 4; 5; 6)

Operating temperature range of cable glands:

- with elastomeric sealing ring of SINCRON IP55/1: - 20 °C ÷ 80 °C

- with elastomeric sealing ring of FORPRENE: - 25 °C ÷ 100 °C

Degree of protection

The cable glands subject of this certificate, when coupled with the enclosures as indicated in the documents annexed to this certificate, resulted in conformity with the specifications of the standard EN 60529 (1991) for the degree of protection IP 66 and IP 67.

The cable glands EEx d IIC and EEx e II can be used in EEx i intrinsic safety circuits.

In this case the cable glands have a part painted light blue.

The cable glands shall be coupled with the enclosures as indicated by the manufacturer in the documents annexed to this certificate in order not to jeopardize the type of protection of the electrical apparatus on which the cable glands are installed.

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[13]

Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE N° CESI 00 ATEX 052

[16] Report N° EX-A0/033305

Routine tests

The manufacturer shall carry out the routine tests prescribed at clause 24 of the EN 50014 standard.

Descriptive documents (prot. EX-A0/033306)

- Technical note n° A4-792 rev. 0 (4 p.)	dated 07.04.2000
- Drawing n° A4-773 rev. 0	dated 07.04.2000
- Drawing n° A4-774 rev. 0	dated 07.04.2000
- Drawing n° A4-775 rev. 0	dated 07.04.2000
- Drawing n° A4-776 rev. 0	dated 07.04.2000
- Drawing n° A4-777 rev. 0	dated 07.04.2000
- Drawing n° A4-778 rev. 0	dated 07.04.2000
- Drawing n° A4-779 rev. 0	dated 07.04.2000
- Drawing n° A4-780 rev. 0	dated 07.04.2000
- Drawing n° A4-781 rev. 0	dated 07.04.2000
- Drawing n° A4-782 rev. 0	dated 07.04.2000
- Drawing n° A4-783 rev. 0	dated 07.04.2000
- Drawing n° A4-784 rev. 0	dated 07.04.2000
- Drawing n° A4-785 rev. 0	dated 07.04.2000
- Drawing n° A4-786 rev. 0	dated 07.04.2000
- Drawing n° A4-787 rev. 0	dated 07.04.2000
- Drawing n° A4-788 rev. 0	dated 07.04.2000
- Drawing n° A4-789 rev. 0	dated 07.04.2000
- Drawing n° A4-790 rev. 0	dated 07.04.2000
- Drawing n° A4-791 rev. 0	dated 07.04.2000
- Drawing n° A4-793 rev. 0	dated 07.04.2000
- Drawing n° A4-795L rev. 0	dated 07.04.2000
- Drawing n° A3-221 rev. 0	dated 07.04.2000
- Drawing n° A3-222 rev. 0	dated 07.04.2000
- Drawing n° A3-223 rev. 0	dated 07.04.2000
- Drawing n° A3-224 rev. 0	dated 07.04.2000
- Drawing n° A2-185 rev. 0	dated 07.04.2000
- Drawing n° A2-186 rev. 0	dated 07.04.2000
- Drawing n° A2-187 rev. 0	dated 07.04.2000
- Drawing n° A2-188 rev. 0	dated 07.04.2000
- Drawing n° A2-189 rev. 0	dated 07.04.2000
- Mounting instructions (in Italian) rev. 0 (4 p.)	dated 07.04.2000
- Mounting instructions rev. 0 (4 p.)	dated 07.04.2000
- EC declaration of conformity	dated 07.04.2000

One copy of all documents is kept in CESI files.

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[13]

Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE N° CESI 00 ATEX 052**

[17] **Special conditions for safe use**

None.

[18] **Essential Health and Safety Requirements**

Covered by standards



EXTENSION n. 01/01

to EC-Type Examination Certificate CESI 00 ATEX 052

Equipment: Cable glands for armoured cables series FAL.; FALD. and EFAL.; EFALD. and for unarmoured cables series FL. and EFL.

Manufacturer: EL.FIT S.p.A.

Address: Via Aquileia 8, Villesse (Gorizia), Italy

Admitted variation

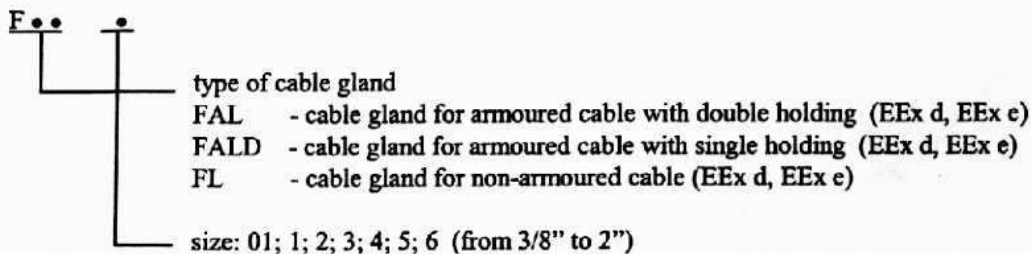
- new models
- change of identification code

Identification and description of the equipment

New models of cable glands size 1/2" have been introduced for flat and heating cables

The same code has been adopted for the cable glands with flameproof type of protection (EEx d) and for cable glands with increased safety type of protection (EEx e).

Therefore the cable glands subject of this extension are identified by a code as follows:



This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 00 ATEX 052.

This document may only be reproduced in its entirety and without any change.

date October 3rd, 2001 - translation issued on October 3rd, 2001

prepared CERT - M. Balaz

approved CERT - U. Colombo

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EXTENSION n. 01/01

to EC-Type Examination Certificate CESI 00 ATEX 052

Report n. EX-A1/029215

Descriptive documents (prot. EX-A1/029212)

- Technical note n° A4-792 rev. 1 (4 p.)	dated 11.09.2001
- Drawing n° A4-773 rev. 1	dated 11.09.2001
- Drawing n° A4-774 rev. 1	dated 11.09.2001
- Drawing n° A4-775 rev. 1	dated 11.09.2001
- Drawing n° A4-776 rev. 1	dated 11.09.2001
- Drawing n° A4-777 rev. 1	dated 11.09.2001
- Drawing n° A4-778 rev. 1	dated 11.09.2001
- Drawing n° A4-779 rev. 1	dated 11.09.2001
- Drawing n° A4-780 rev. 1	dated 11.09.2001
- Drawing n° A4-781 rev. 1	dated 11.09.2001
- Drawing n° A4-782 rev. 1	dated 11.09.2001
- Drawing n° A4-783 rev. 1	dated 11.09.2001
- Drawing n° A4-784 rev. 1	dated 11.09.2001
- Drawing n° A4-785 rev. 1	dated 11.09.2001
- Drawing n° A4-786 rev. 1	dated 11.09.2001
- Drawing n° A4-787 rev. 1	dated 11.09.2001
- Drawing n° A4-790 rev. 1	dated 11.09.2001
- Drawing n° A4-791 rev. 1	dated 11.09.2001
- Drawing n° A4-793 rev. 1	dated 11.09.2001
- Drawing n° A4-814 rev. 1	dated 11.09.2001
- Drawing n° A4-815 rev. 1	dated 11.09.2001
- Drawing n° A3-221 rev. 1	dated 11.09.2001
- Drawing n° A3-222 rev. 1	dated 11.09.2001
- Drawing n° A3-223 rev. 1	dated 11.09.2001
- Drawing n° A3-237 rev. 1	dated 11.09.2001
- Drawing n° A2-185 rev. 1	dated 11.09.2001
- Drawing n° A2-186 rev. 1	dated 11.09.2001
- Drawing n° A2-187 rev. 1	dated 11.09.2001
- Drawing n° A2-188 rev. 1	dated 11.09.2001
- Drawing n° A2-189 rev. 1	dated 11.09.2001
- Mounting instructions (in ital.) All.A/15 rev.1 (4 p.)	dated 11.09.2001
- Mounting instructions Encl. A/16 rev. 1 (4 p.)	dated 11.09.2001
- EC declaration of conformity CE/001	dated 11.09.2001

One copy of all documents is kept in CESI files.

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EXTENSION n. 02/02



to EC-Type Examination Certificate CESI 00 ATEX 052

Equipment: Cable glands series FAL. and FALD. for armoured cables, and series FL. for unarmoured cables

Manufacturer: **EL.FIT S.p.A.**

Address: Via Aquileia 12, Villesse (Gorizia), Italy

Admitted variation

- modification of the conditions of installation of the cable glands on increased safety enclosures

Report n. EX-A2/011339

Descriptive documents (prot. EX-A2/011335)

- Technical note n° A4-792 rev. 2 (4 p.) dated 29.11.2001
- Drawing n° A4-790 rev. 2 dated 29.11.2001
- Drawing n° A4-791 rev. 2 dated 29.11.2001

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 00 ATEX 052.

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date April 11th, 2002 - translation issued on April 11th, 2002

prepared CERT - M. Balaz 

approved CERT - U. Colombo

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Prot. A2/011355 P: 1
Keywords 13010R 24030K 48010M 48020T 66540E

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EXTENSION n. 03/05



to EC-Type Examination Certificate CESI 00 ATEX 052

Equipment: Cable glands series FAL. and FALD. for armoured cables, and series FL. for unarmoured cables

Manufacturer: **EL.FIT S.p.A.**

Address: Via Aquileia 12, Villesse (Gorizia), Italy

Admitted variation

- Use new type of sealing ring for the service temperature from -40°C up to $+110^{\circ}\text{C}$

Report n. EX-A5/060549

Operating temperature range of cable glands:

With elastomeric sealing ring of SANTOPRENE $-40^{\circ}\text{C} \div +110^{\circ}\text{C}$.

Descriptive documents (prot. EX-A5/060552)

- Technical note n° A4-792 rev. 4 (4 p.) dated 02.08.2005
- Data sheet Santoprene dated 02.08.2005

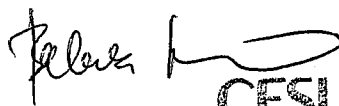
One copy of all documents is kept in CESI files.

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 00ATEX052.

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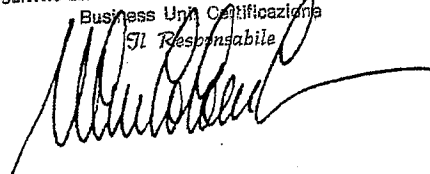
date 22nd December, 2005 - translation issued on 22nd December, 2005

prepared CERT - M. Balaz


CESI

approved CERT - U. Colombo

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Prot.A5/060551 P: 1

EXTENSION n. 04/07



to EC-Type Examination Certificate CESI 00ATEX 052

Equipment: Cable glands for armoured cables series: FAL, FALD, EFAL, EFALD;
and for unarmoured cables series: FL, EFL.

Manufacturer: ELFIT S.p.A.

Address: Via Aquileia 12, Villesse (GO)

Admitted variation

- Upgrade to EN 60079-0 (2006), EN 60079-1 (2004), EN 60079-7 (2003), EN 61241-0 (2006), EN 61241-1 (2004) Standards
- Upgrade of nameplate

Equipments identification

The equipments shall include the following markings:



II 2GD

Ex d IIC, Ex e II, Ex tD A21 IP66/67

Operating temperature range of cables glands

With elastomeric sealing ring of SANTOPRENE: - 40 °C ÷ + 110 °C

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 00ATEX052.

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date 16/05/2007 - translation issued the 16/05/2007

prepared Sergio Mezzetti

verified Mirko Balaz

approved Fiorenzo Bregani

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Centro Elettrotecnico Sperimentale Italiano
Giacinto Motta SpA

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EXTENSION n. 04/07

to EC-Type Examination Certificate CESI 00ATEX 052

Report n. EX-A7013423

Routine tests

The manufacturer shall carry out the routine tests prescribed at par. 27 of the EN 60079-0 (2006) and at par. 24 of the EN 61241-0 (2006) Standards.

Descriptive documents (prot. EX-A7013425)

- Technical Note A4-792	Rev. 05	dated	25/01/2007
- Drawing n°. A4-794	Rev. 03	dated	06/04/2007
- Drawing n°. A3-237	Rev. 01	dated	06/04/2007
- Drawing n°. A4-1130	Rev. 00	dated	06/04/2007
- Drawing n°. A4-1131	Rev. 00	dated	06/04/2007
- EC Declaration of Conformity		dated	06/04/2007
- Safety Instruction A16 (12 pg.)	Rev. 02	dated	06/04/2007

One copy of all documents is kept in CESI files.

Essential Health and Safety Requirements

The Health and Safety Requirements are assured by compliance with the following Standards:

- EN 60079-0 : 2006: Electrical apparatus for explosive gas atmospheres.
General requirements
- EN 60079-1 : 2004 Flamoproof enclosures "d".
- EN 60079-7: 2003 Increased safety "e"
- EN 61241-0 : 2006 Electrical apparatus for use in the presence of combustible dust.
General requirements
- EN 61241-1 : 2004 Protection by enclosures "tD"

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EXTENSION n. 05/08

to EC-Type Examination Certificate CESI 00 ATEX 052

Equipment: Cable glands series FAL. and FALD. for armoured cables, and series FL for unarmoured cables

Manufacturer: **EL.FIT S.p.A.**

Address: Via Aquileia 12, Villesse (Gorizia), Italy

Admitted variation

- new maximum service temperature up to + 130 °C

Report n. EX-A8/017468

Operating temperature range of cable glands:

With elastomeric sealing ring of SANTOPRENE 251-70 W232: -40 °C ÷ +130 °C.

Descriptive documents (prot. EX-A8/017470)

- Technical note n° A4-792 rev. 6 (5 p.) dated 21.03.2008
- Data sheet SANTOPRENE dated 21.03.2008

One copy of all documents is kept in CESI files.

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 00ATEX052.

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date 16 June, 2008 - translation issued on 16th June, 2008

prepared Nicoletta Penati

verified Mirko Balaz

approved Fiorenzo Bregani

CESI S.p.A.
Divisione Energia
"Area Tecnica Certificazione"
Il Responsabile

Prot.A8/017480 P: 1

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