



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

[2] **Component intended for use on/in equipment or protective system  
intended for use in potentially explosive atmospheres  
Directive 94/9/EC**

[3] EC-Type Examination Certificate number:

**CESI 99 ATEX 034 U**

- [4] Component: Three-piece connection fittings series R and B
- [5] Manufacturer: **ELFTT S.p.A.**
- [6] Address: via Aquileia n° 8 Villesse (GO) - Italia
- [7] This component 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 component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of components 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-99/011367.

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

**EN 50014: 1997      EN 50018: 1994**

[10] The sign "U" placed after the certificate number indicates that this certificate must not be mistaken for a

This EC-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified component. If applicable, further requirements of this Directive apply to the manufacture and supply of this component.

The marking of the component shall include the following:

 **II 2G EEx d IIB or EEx d IIC**

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

30 April 1999

date

CERT - M. Ballo

en

**CESI**

TTROTECNICO SPERIMENTALE ITALIANO  
Responsabile Area Certificazione

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verified CERT - D. Cavanna

approved CERT - U. Colombo

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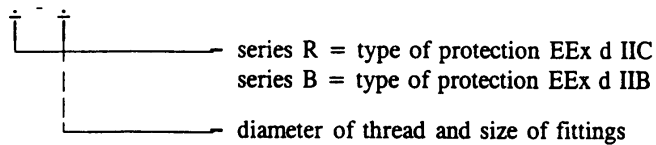
[13]

## Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE N° CESI 99 ATEX 034 U

[15] Description of component

The three-piece connection fittings series R and B are identified by a code as follows:



Electrical characteristics

None.

Warning label

None.

[16] Report N° EX-99/011367

Descriptive documents (prot. EX-99/011370)

|                                                           |      |            |
|-----------------------------------------------------------|------|------------|
| - Technical Note n° A4-743 (sh. 3)                        | date | 03.12.1998 |
| - Annex A/1 Mounting instructions italians Rev. 0 (sh. 3) | date | 03.12.1998 |
| - Annex A/2 Mounting instruction Rev. 0 (sh. 3)           | date | 03.12.1998 |
| - Drawing n° A4-744 Rev. 0                                | date | 03.12.1998 |
| - Drawing n° A4-745 Rev. 0                                | date | 03.12.1998 |
| - Drawing n° A4-746 Rev. 0                                | date | 03.12.1998 |
| - Drawing n° A4-747 Rev. 0                                | date | 03.12.1998 |
| - Drawing n° A4-748 Rev. 0                                | date | 03.12.1998 |
| - Drawing n° A4-749 Rev. 0                                | date | 03.12.1998 |
| - Drawing n° A4-750 Rev. 0                                | date | 03.12.1998 |
| - Drawing n° A4-751 Rev. 0                                | date | 03.12.1998 |
| - Drawing n° A3-196 Rev. 0                                | date | 03.12.1998 |
| - Drawing n° A3-197 Rev. 0                                | date | 03.12.1998 |
| - Drawing n° A3-200 Rev. 0                                | date | 03.12.1998 |
| - Drawing n° A3-201 Rev. 0                                | date | 03.12.1998 |
| - Drawing n° A1-006 Rev. 0                                | date | 03.12.1998 |
| - Drawing n° A1-007 Rev. 0                                | date | 03.12.1998 |

One copy of all documents is kept in CESI files.

[13]

**Schedule**

[14] **EC-TYPE EXAMINATION CERTIFICATE N° CESI 99 ATEX 034 U**

[17] Schedule of limitations

None.

[18] Essential Health and Safety Requirements

None.

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



**EXTENSION n° 01/00**

**to EC-Type Examination Certificate CESI 99 ATEX 034 U**

Manufacturer: EL.FIT S.p.A.

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

Equipment: Three-piece connection fittings series R and B

**Admitted variation**

- constructional modification: new material for models R1, R2, R3, B1, B2, B3.

Report EX-A0/042616

Descriptive documents (prot. A0/042617)

|                                |                  |
|--------------------------------|------------------|
| Technical note A4-743/1 (3 p.) | dated 31.03.2000 |
| Drawing A4-744 Rev.1           | dated 31.03.2000 |
| Drawing A4-771 Rev.0           | dated 31.03.2000 |
| Drawing A4-772 Rev.0           | dated 31.03.2000 |

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 99 ATEX 034 U.

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date 22<sup>nd</sup> December, 2000 translation issued on 22<sup>nd</sup> December, 2000

prepared CERT - M. Balaz 

approved CERT - U. Colombo

**CESI**  
CENTRO ELETTROTECNICO SPERIMENTALE ITALIANO  
Responsabile Area Certificazione



Prot. A0/042620 P: 1  
keywords: 13010R 24030K 48010M 54250O 66540E

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## EXTENSION n. 02/05

to EC-Type Examination Certificate CESI 99 ATEX 034U



Component: Three-piece connection fittings series R and B

Manufacturer: EL.FIT S. p. A.

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

### Admitted variation

- new category II 2 GD (added protection against the risk of explosion from combustible dusts in conformity with the standard EN 50281-1-1)

The results of verifications and tests are reported in the confidential report n. EX-A5060435.

### Identification and description of the equipment

The marking of the three-piece connection fittings series R and B shall include the following:

II 2 GD EEx d IIB IP 66/67 or EEx d IIC IP 66/67

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 99ATEX034U.

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date 22<sup>nd</sup> December, 2005 - translation issued on 22<sup>nd</sup> December, 2005

prepared

CERT - M. Balaz

approved

CERT - U. Colombo

### CESI

CENTRO ELETTROTECNICO SPERIMENTALE ITALIANO

Business Unit Certificazione

Il Responsabile

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## EXTENSION n. 02/05

to EC-Type Examination Certificate CESI 99 ATEX 034U

### Descriptive documents (prot. EX-A5060438)

|                                               |       |            |
|-----------------------------------------------|-------|------------|
| - n. A4-743 Rev. 2 (3 pg.)                    | dated | 10.03.2004 |
| - n. A4-807 Rev. 0                            | dated | 20.02.2004 |
| - n. A4-1011 Rev. 0                           | dated | 10.02.2004 |
| - n. A4-1012 Rev. 0                           | dated | 10.02.2004 |
| - n. A3-349 Rev. 0                            | dated | 08.03.2004 |
| - n. A3-234 Rev. 0                            | dated | 20.02.2004 |
| - Safety instructions Annexe A1 Rev. 1 (6 p.) | dated | 10.03.2004 |
| - Attestation of conformity for components    | dated | 10.03.2004 |

One copy of all documents is kept in CESI files.

### Schedule of limitations

The IP 66/67 mechanical protection is obtained by inserting an O-ring or plain gasket made of NBR, in-between the body and the ring as shown into the safety instruction..

The three-piece connection fittings series R and B above mentioned, when mounted on the enclosures as indicated in the documents annexed to this certificate, are in compliance with the prescriptions of the standard EN 60529 (1991) for the degree of protection IP 66/67.

The coupling of the three-piece connection fittings series R and B with the enclosures shall be made as indicated by the manufacturer in the documents annexed to this certificate, in order not to jeopardise the type of protection of the electrical apparatus on which they are mounted.

### Essential Health and Safety Requirements

Compliance with the Health and Safety Requirements has been assured by compliance with the following standards:

EN 50014: 1997 + A1..A2 – General requirements

EN 50018: 2000 + A1 - Flameproof enclosures "d"

EN50281-1-1: 1998 + A1 – Electrical apparatus for use in the presence of combustible dust. Part 1-1: Electrical apparatus protected by enclosures – Construction and testing.



## EXTENSION n. 03/07

to EC-Type Examination Certificate CESI 99 ATEX 034U

Component: Three-piece connection fittings series R and B

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

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

### Admitted variation

- Conformity to EN 60079-0 (2006), EN 60079-1 (2004), EN 61241-0 (2006), EN 61241-1 (2004) Standards
- Update of nameplate
- New size .9 with threads 3 1/2"
- New operative temperature range  $-55^{\circ}\text{C} \div +110^{\circ}\text{C}$

### Identification and description of the equipment

The marking of the three-piece connection fittings shall include the following:

a) operative temperature range  $-20^{\circ}\text{C} \div +60^{\circ}\text{C}$

series B.. II 2 GD Ex d IIB; Ex tD A21 IP66/67

series R.. II 2 GD Ex d IIC; Ex tD A21 IP66/67

b) operative temperature range  $-20^{\circ}\text{C} \div +110^{\circ}\text{C}$

series RB.. II 2 GD Ex d IIB; Ex tD A21 IP66/67

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 99ATEX034U.

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date 22 May 2007 - translation issued on 22 May 2007

prepared Nicoletta Penati

verified Mirko Balaz

approved Fiorenzo Bregani

*Nicoletta Penati*  
*Balaz*

**CESI**  
Centro Elettrotecnico Sperimentale Italiano  
Giacinto Motta SpA

*Bregani*

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## EXTENSION n. 03/07

to EC-Type Examination Certificate CESI 99 ATEX 034U

c) operative temperature range  $-55^{\circ}\text{C} \div +60^{\circ}\text{C}$

series Bt..  II 2 GD Ex d IIB; Ex tD A21 IP66/67

series Rt..  II 2 GD Ex d IIC; Ex tD A21 IP66/67

d) operative temperature range  $-55^{\circ}\text{C} \div +110^{\circ}\text{C}$

series RBt..  II 2 GD Ex d IIB; Ex tD A21 IP66/67

### gaskets

The operative temperature range depends on the gaskets used .

The three-piece connection fittings can be used for the following operative temperature range:

- from  $-20^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$  and from  $-20^{\circ}\text{C}$  to  $+110^{\circ}\text{C}$  provided with EPDM gaskets
- from  $-55^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$  and from  $-55^{\circ}\text{C}$  to  $+110^{\circ}\text{C}$  provided with silicon gaskets SI/50

Report No. EX-A7014033

### Descriptive documents (prot. EX-A7014034)

|                                                |       |            |
|------------------------------------------------|-------|------------|
| - n. A4-743 Rev. 3 (5 pag.)                    | dated | 06.04.2007 |
| - n. A4-807 Rev. 1                             | dated | 06.04.2007 |
| - n. A4-1011 Rev. 1                            | dated | 06.04.2007 |
| - n. A4-1012 Rev. 1                            | dated | 06.04.2007 |
| - n. A4-1130 Rev. 0                            | dated | 06.04.2007 |
| - n. A4- 1131 Rev. 0                           | dated | 06.04.2007 |
| - n. A4-1122 Rev 0                             | dated | 06.04.2007 |
| - n. A3-398 Rev. 0                             | dated | 06.04.2007 |
| - n. A4-750 Rev. 1                             | dated | 06.04.2007 |
| - n. A4-749 Rev. 1                             | dated | 06.04.2007 |
| - n. A4-746 Rev. 1                             | dated | 06.04.2007 |
| - n. A4-747 Rev. 1                             | dated | 06.04.2007 |
| - n. A3-200 Rev. 1                             | dated | 06.04.2007 |
| - n. A3-399 Rev. 0                             | dated | 06.04.2007 |
| - n. A4-751 Rev. 1                             | dated | 06.04.2007 |
| - n. A4-748 Rev. 1                             | dated | 06.04.2007 |
| - n. A3-201 Rev. 1                             | dated | 06.04.2007 |
| - n. A3-412 Rev. 0                             | dated | 06.04.2007 |
| - Annex "A" Data sheet steel (4 pag.)          | dated | 06.04.2007 |
| - Annex "B" gaskets (1 pag.)                   | dated | 06.04.2007 |
| - Safety instructions Annex A1 Rev. 2 (7 pag.) | dated | 06.04.2007 |
| - Attestation of conformity for components     | dated | 06.04.2007 |

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## EXTENSION n. 03/07

to EC-Type Examination Certificate CESI 99 ATEX 034U

### Schedule of limitations

The IP 66/67 mechanical protection is obtained by inserting an O-ring or plain gasket, in-between the body and the ring as shown into the safety instruction.

The three-piece connection fittings series R and B above mentioned, when mounted on the enclosures as indicated in the documents annexed to this certificate, are in compliance with the prescriptions of the standard EN 60529 (1991) for the degree of protection IP 66/67.

The coupling of the three-piece connection fittings series R and B with the enclosures shall be made as indicated by the manufacturer in the documents annexed to this certificate, in order not to jeopardise the type of protection of the electrical apparatus on which they are mounted.

The connection fittings shall be mounted in such a way that the local temperatures will remain within the operating temperature range.

### 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 Flameproof enclosures "d".
- EN 61241-0 : 2006 Electrical apparatus for use in the presence of combustible dust.  
General requirements
- EN 61241-1 : 2004 Protection by enclosures "tD"

## EXTENSION n. 04/08



to EC-Type Examination Certificate CESI 99ATEX 034U

Component: Three-piece connection fittings type B, R, RB, Bt, Rt, RBt.

Manufacturer: EL.FIT S.p.A.

Address: Via Aquileia 12, Villesse (GO)

### Admitted variation

- Upgrade of nameplate
- New maximum operating temperature:  $T = +150^{\circ}\text{C}$

### Components identification

The marking of the three-piece connection fittings standard type B and R shall include the following :

 II 2GD      Ex d II B , Ex tD A21 IP66/67      (type B), or

 II 2GD      Ex d II C , Ex tD A21 IP66/67      (type R)

The marking of the three-piece connection fittings type RB shall include the following :

 II 2GD      Ex d II B , Ex tD A21 IP66/67 Ta -20° +150°

The marking of the three-piece connection fittings type Bt and Rt shall include the following :

 II 2GD      Ex d II B , Ex tD A21 IP66/67 Ta -55° +60°      (type Bt), or

 II 2GD      Ex d II C , Ex tD A21 IP66/67 Ta -55° +60°      (type Rt)

The marking of the three-piece connection fittings type RBt shall include the following :

 II 2GD      Ex d II B , Ex tD A21 IP66/67 Ta -55° +150°

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 99ATEX034U.

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date 15 January 2008 - Translation issued 15 January 2008

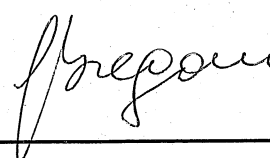
prepared Giorgio Chinnici

verified Mirko Balaz

approved Fiorenzo Bregani


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



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## EXTENSION n. 04/08

to EC-Type Examination Certificate CESI 99ATEX 034U

Report no. EX-A8001091

### 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-A8001121)

|                                 |         |       |            |
|---------------------------------|---------|-------|------------|
| - Technical Note A4-743 (5 pg.) | Rev. 04 | dated | 04/10/2007 |
| - Drawing no. A4-807            | Rev. 02 | dated | 04/10/2007 |
| - Drawing no. A3-412            | Rev. 01 | dated | 04/10/2007 |
| - Safety Instructions (7 pg.)   | Rev. 03 | dated | 04/10/2007 |

One copy of all documents is kept in CESI files.

### Schedule of limitations

The IP 66/67 mechanical protection is obtained by inserting an O-ring or plain gasket made of EPDM or SI/50, in-between the body and the ring as shown in the safety instructions.

The three-piece connection fittings series R and B above mentioned, when mounted on the enclosures as indicated in the documents annexed to this certificate, are in compliance with the prescriptions of the standard EN 60529 (1991) for the degree of protection IP 66/67.

The limit operating temperatures are listed in the following table:

| Type   | Materials                                                       | Gasket | T min  | T max   |
|--------|-----------------------------------------------------------------|--------|--------|---------|
| R, B   | Galvanized steel; on request stainless steel, brass, aluminium. | EPDM   | -20 °C | + 60 °C |
| RB     | Galvanized steel; on request stainless steel, brass, aluminium. | SI/50  | -20 °C | +150 °C |
| Rt, Bt | Stainless steel                                                 | SI/50  | -55 °C | +60 °C  |
| RBt    | Stainless steel                                                 | SI/50  | -55 °C | +150 °C |

### 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 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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