



[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 00 ATEX 048 U

[4] Component: Flexible conduits series SP...

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

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

[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-A0/030758.

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

EN 50014: 1997 + A1..A2 EN 50018: 1994

[10] The sign "U" placed after the certificate number indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.

[11] 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.

[12] The marking of the component shall include the following:

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

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date October 10th, 2000 - translation issued on October 10th, 2000

prepared CERT - M. Balaz

CESI

CENTRO ELETTROTECNICO SPERIMENTALE ITALIANO
Responsabile Area Certificazione

approved CERT - U. Colombo

page 1/3

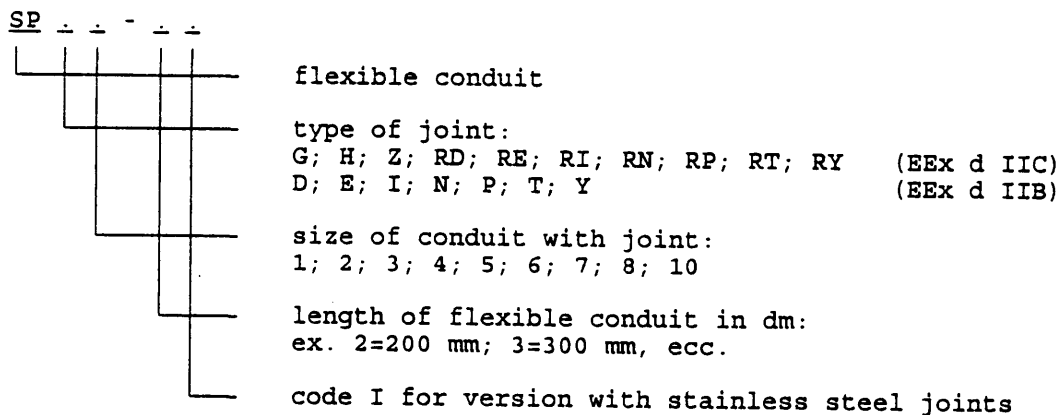
[13]

Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE N° CESI 00 ATEX 048 U

[15] Description of component

The flexible conduits series SP... are identified by a code as follows:



For further details on the designation codes see drawing A1-012 annexed to this certificate.

Electrical characteristics

None.

Plate warnings

None.

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[13]

Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE N° CESI 00 ATEX 048 U**

[16] Report N° EX-A0/030758

Routine tests

The manufacturer shall carry out the routine tests prescribed at clause 24 of EN 50014 standard.
The routine overpressure test shall be carried out at 30 bar with the static method (clause 15.1.3.1 of EN 50018 standard).

Descriptive documents (prot. EX-A0/030756)

- Technical note n° A4-769 rev. 0 (2 p.)	dated 15.02.2000
- Annexe A/13 rev. 0 (Instructions for use in ital.) (3 p.)	dated 14.02.2000
- Annexe A/14 rev. 0 (Instructions for use) (3 p.)	dated 14.02.2000
- Drawing n° A4-768 rev. 0	dated 15.02.2000
- Drawing n° A4-770 rev. 0	dated 15.00.2000
- Drawing n° A3-219 rev. 0	dated 11.02.2000
- Drawing n° A3-220 rev. 0	dated 15.02.2000
- Drawing n° A1-012 rev. 0	dated 08.02.2000
- attestation of conformity for components	dated 07.04.2000

One copy of the above mentioned documents is kept in CESI files.

[17] Schedule of limitations

None.

[18] Essential Health and Safety Requirements

Covered by standards.

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EXTENSION n. 01/05

to EC-Type Examination Certificate CESI 00 ATEX 048U

Component: Flexible conduits series SP...
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-A5060439.

Identification and description of the equipment

The marking of the flexible conduits series SP (category 2 GD) shall include the following:

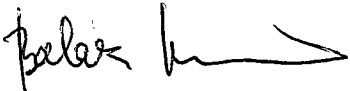
 II 2 GD EEx d IIB IP 66/67 or EEx d IIC IP 66/67

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 00ATEX048U.

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

prepared

CERT - M. Balaz 

approved

CERT - U. Colombo

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CENTRO ELETTROTECNICO SPERIMENTALE ITALIANO
Business Unit Certificazione
Il Responsabile



page 1/2

EXTENSION n. 01/05

to EC-Type Examination Certificate CESI 00 ATEX 048U

Descriptive documents (prot. EX-A5060442)

- n. A4-769 Rev. 1 (2 pg.)	dated	16.04.2003
- n. A4-968 Rev. 0	dated	16.04.2003
- n. A3-329 Rev. 0	dated	16.04.2003
- Technical data 3M ad. plate (10 pg.)	dated	16.04.2003
- Safety instructions Annexe A13 Rev. 1 (4 pg.)	dated	16.04.2003
- Attestation of conformity for components APQ-8	dated	16.04.2003

One copy of all documents is kept in CESI files.

Schedule of limitations

The flexible conduits 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.

On the flexible conduits with revolving fittings 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 of fittings as shown into the safety instruction..

The coupling of the flexible conduits 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. 02/08



to EC-Type Examination Certificate CESI 00ATEX 048U


Component: Flexible conduits type SP...
Manufacturer: **EL.FIT S.p.A.**
Address: Via Aquileia 12, Villesse (GO)

Admitted variation


- Updating to new standards EN 60079-0, EN 60079-1, EN 61241-0, EN 61241-1, EN ISO 10807
- Upgrade of nameplate
- Constructional modifications
- New size 9 with threads 3 1/2 "
- New ambient temperature range Ta da -55 °C a +150 °C

Components identification


The marking of the flexible conduits with fixed fittings type SPH-SPG-SPZ shall include the following:

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


The marking of the flexible conduits with fixed fittings type SPHt-SPGt-SPZt shall include the following:

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

The marking of the flexible conduits with revolving fittings type SPN-SPI-SPY-SPD-SPP-SPE-SPT shall include the following:

 **II 2GD** **Ex d II B , Ex tD A21 IP66/67 Ta -20° +60°**

The marking of the flexible conduits with revolving fittings type SPNt-SPIt-SPYt-SPDt-SPPt-SPEt-SPTt shall include the following:

 **II 2GD** **Ex d II B , Ex tD A21 IP66/67 Ta -55° +60°**

(continues)

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 00ATEX048U.

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date 12 June 2008 - Translation issued 12 June 2008

prepared Giorgio Chinnici

verified Mirko Balaz

approved Fiorenzo Bregani

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


page 1/3

EXTENSION n. 02/08


to EC-Type Examination Certificate CESI 00ATEX 048U

Components identification (continues)


The marking of the flexible conduits with revolving fittings type SPRN-SPRI-SPRY-SPRD-SPRP-SPRE-SPRT shall include the following:

 II 2GD Ex d II C , Ex tD A21 IP66/67 Ta -20° +60°

The marking of the flexible conduits with revolving fittings type SPRNt-SPRI-SPRYt-SPRDt-SPRPt-SPREt-SPRTt shall include the following for the execution IIC:

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

The marking of the flexible conduits with revolving fittings type SPRNt-SPRI-SPRYt-SPRDt-SPRPt-SPREt-SPRTt shall include the following for the execution IIB:

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

Report no. EX-A8017100

Type tests

The flexible conduits type SP... have passed the type tests according to the Standard EN ISO 10807 (1996).

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.

The overpressure routine tests shall be carried out using the static method (paragraph 15.1.3.1 of the Standard EN 60079-1) at a pressure of 40 bar.

Descriptive documents (prot. EX-A8017106)

- Technical Note A4-769 (4 pg.)	Rev. 02	dated	19/06/2007
- Drawing n° TMF CE	Rev. 14	dated	27/03/2008
- Drawing n° A4-770	Rev. 01	dated	19/06/2007
- Drawing n° A3-220	Rev. 01	dated	19/06/2007
- Drawing n° A1-012	Rev. 01	dated	19/06/2007
- Safety Instructions (5 pg.)	Rev. 02	dated	19/06/2007
- EC Declaration of Conformity (5 pg.)		dated	19/06/2007

One copy of all documents is kept in CESI files.

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EXTENSION n. 02/08

to EC-Type Examination Certificate CESI 00ATEX 048U

Schedule of limitations

The flexible conduits series SP... 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.

On the flexible conduits with revolving fittings 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 chosen gaskets shall be able to work properly with the maximum operating temperature.

The maximum operating temperature can go up to +80 °C taking into account the condition that the maximum ambient temperature is limited to +60 °C; it can reach +150 °C for an ambient temperature up to +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"
- EN ISO 10807 : 1996 Corrugated flexible metallic hose assemblies for the protection of electrical cables in explosive atmospheres.