

CESI

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interamente versato
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iscrizione CCIAA 00793580150

Registro Imprese di Milano
Sezione Ordinaria
N. R.E.A. 429222
P.I. IT00793580150

Schema di certificazione

CESI-ATEX

Il CESI è stato autorizzato
dal governo italiano ad
operare quale organismo di
certificazione di apparecchi
e sistemi destinati a essere
utilizzati in atmosfera
potenzialmente esplosiva
con D.M. 1/3/1983, D.M.
19/6/1990, D.M. 20/7/1998
e D.M. 27/9/2000

CERTIFICATE



[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 04 ATEX 128 U

[4] Component: Ammeter type B-0140A and voltmeter type B-0140V

[5] Manufacturer: **COR.TEM S.p.A.**

[6] Address: Via Aquileia 10, 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-A4/517239.

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

EN 50014: 1997 + A1..A2 EN 50019:2000 EN 50281-1-1:1998 + A1

[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, examination and tests of the specified component in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this component. These are not covered by this certificate.

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



II 2GD EEx e II IP 66

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

Date 27th October 2004

Translation issued the 27th October 2004

Prepared
Mirko Balaz

Approved
Ulisse Colombo

CESI

CENTRO ELETTROTECNICO SPERIMENTALE ITALIANO
Business Unit Certificazione
Il Responsabile

[13]

Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 04 ATEX 128 U**

[15] **Description of component**

The ammeter type B-0140A and the voltmeter type B-0140V are components suitable to be mounted on the increased safety boxes.

The ammeter type B-0140A and the voltmeter type B-0140V are also protected against the risk of explosion for the presence of combustible dusts according to the standard EN 50281-1-1.

Electrical characteristics

Maximum voltage:	600 V	
Rated frequency:	40 Hz ÷ 60 Hz	
Accuracy class:	1,5	
Power consumption:	1,1 VA (ammeter) 3,0 VA (voltmeter)	
Ambient temperature:	-20°C ÷ +55°C	
Maximal operating temperature:	+80°C	
Measuring range - Direct measures:	0 ÷ 40 mA	0 ÷ 1 A
	0 ÷ 60 mA	0 ÷ 1,5 A
	0 ÷ 100 mA	0 ÷ 2,5 A
	0 ÷ 250 mA	0 ÷ 5 A
	0 ÷ 400 mA	0 ÷ 6 A
	0 ÷ 600 mA	0 ÷ 10 A
		0 ÷ 15 A
Measuring range – With current transformer:	0 ÷ 2,5 A	0 ÷ 50 A
	0 ÷ 5 A	0 ÷ 60 A
	0 ÷ 10 A	0 ÷ 75 A
	0 ÷ 15 A	0 ÷ 100 A
	0 ÷ 20 A	0 ÷ 150 A
	0 ÷ 25 A	0 ÷ 200 A
	0 ÷ 30 A	0 ÷ 300 A
	0 ÷ 40 A	0 ÷ 400 A

[16] **Report n. EX-A4/517239**

Routine tests

The manufacturer shall carried out the routine tests prescribed at paragraph 24 of EN50014 Standard and at paragraph 7.1 of EN50019 Standard

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

[13]

Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 04 ATEX 128 U**

Descriptive documents (prot. EX-A4/517281)

- Technical note n. A4-4679 Rev. 0	dated	27.09.2004
- Drawing n. A3-4678 Rev. 0	dated	27.09.2004
- Data sheets of Lexan 943A polycarbonate (2 p.)	dated	27.09.2004
- Data sheets of Makrolon 3103 polycarbonate (4 p.)	dated	27.09.2004
- Safety instructions n. F-294 Rev. 0 (3 pg.)	dated	27.09.2004
- Attestation of conformity for components 0051	dated	27.09.2004

One copy of all documents is kept in CESI files.

[17] **Schedule of limitations**

- The ammeter type B-0140A and the voltmeter type B-0140V shall be installed onto the enclosure having a minimum degree of protection of IP 66. The degree of protection IP 66 (EN 60529 – 1991) is guaranteed for the ammeter/voltmeter if they are mounted according to the indications given in the documents annexed to this certificate.
- The precautions to avoid risk from electrostatic discharge, must be taken.
- The service temperature of the ammeter/voltmeter is $-20 \div +80$ °C.

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

Assured by compliance to the Standards.

EXTENSION n. 01/07



to EC-Type Examination Certificate CESI CESI 04ATEX 128U

Component: Ammeter type B-0140A and volmeter type B-0140V

Manufacturer: **COR.TEM S.p.A.**

Address: Via Aquileia 10, Villesse (GO)

Admitted variation

- Updating to new standards EN 60079-0 (2004), EN 60079-7 (2003), EN 61241-0 (2006), EN 61241-1 (2004)
- Updating of nameplate

Component identification

The component shall include the following marking:



II 2GD

Ex e II ; Ex tD A21 IP66

Electrical characteristics

Unchanged

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI CESI 04ATEX128U.

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date 1st October 2007 - translation issued the 1st October 2007

prepared Nicoletta Penati

verified Mirko Balaz

approved Fiorenzo Bregani

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

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EXTENSION n. 01/07
to EC-Type Examination Certificate CESI 04ATEX 128U

Report n. EX A7025597

Routine tests

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

Descriptive documents (prot. EX-A7025598)

- | | | | |
|---|---------|-------|------------|
| - Technical Note A4-4965 | Rev. 00 | dated | 06/10/2006 |
| - Attestation of Conformity | | dated | 06/10/2006 |
| - Safety Instruction mod. F-294 (3 pg.) | Rev. 01 | dated | 06/10/2006 |

One copy of all documents is kept in CESI files.

Schedule of limitation

Unchanged

Essential Health and Safety Requirements

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

- EN 60079-0 : 2004 Electrical apparatus for explosive gas atmospheres.
General requirements
- EN 60079-7 : 2003 Type of protection 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"




EXTENSION n. 02/13

to EC-Type Examination Certificate CESI 04ATEX128U

Equipment: Ammeter type B-0140A and voltmeter and type B-0140V

Manufacturer: **COR.TEM S.p.A.**


Address: Via Aquileia, 10 – Villesse (GO) – Italia

Admitted variation

- Upgrade to standards and EPL marking according to EN 60079-0:2012, EN 60079-7:2007, EN 60079-31:2009;
- Minimum ambient temperature -40°C
- Changed materials (gasket, polycarbonate, compound, rear cover)

Marking

The equipment shall be marked as follows:

 II 2G Ex e IIC Gb
 II 2D Ex tb IIC Db
 IP 66

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 04ATEX0128U.

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Date 12th June 2013 - translation issued the 12th June 2013

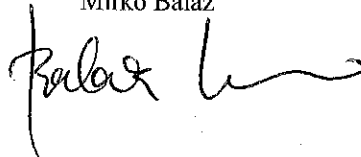
prepared

M. T.



verified

Mirko Balaz



approved

Fiorenzo Bregani



CESI S.p.A.
 Testing & Certification Division
 Business Area Certification
 Il Responsabile



EXTENSION n. 02/13

to EC-Type Examination Certificate CESI 04ATEX128U

Description of equipment

The instrument B-0140... (Ammeter type B-0140A and Voltmeter type B-0140V) is composed of an external body and cover that containing the ammeter or the voltmeter. The body is made of transparent polycarbonate glass fibre reinforced, the cover is made of the same polycarbonate but black colour. The internal construction is completely sealed and the connection is made by two screws (positive and negative pole).

The instruments are suitable for mounting on covers of the increased safety boxes, by means n°3 screws. The protection degree of Instruments is IP66, when are mounted on covers, must be guaranteed, at the least, the same protection degree of boxes.

Electrical characteristics

Ambient temperature range: -40 °C ÷ +55 °C

Service temperature range: -40 °C ÷ +80 °C

Maximum voltage:	600V ac/dc
Rated frequency:	from 40Hz up to 60Hz
Accuracy class:	1,5
Power consumption:	1,1 VA (ammeter) 3,0 VA (voltmeter)

The other electrical characteristics are unchanged

Routine test

For instrument type B-0140. dielectric test with applied voltage 2 KV shall be performed according the EN 60079-7 Standard.

Report n. EX-B3015842

Descriptive documents (prot. EX-B3015847)

- A4-5697	Technical note	rev. 1	(page 3)	date 23.05.2013
- F-294	Safety instructions	rev.2	(page 3)	date 23.05.2013
- 0136	Attestation of conformity	rev.0	(page 1)	date 23.05.2013
- A3-4678	Drawing instrument B-0140...	rev.1	(page 1)	date 23.05.2013
- C-134	Data sheet of materials	rev.0	(page 30)	date 23.05.2013

One copy of all documents is kept in CESI files.

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EXTENSION n. 02/13

to EC-Type Examination Certificate CESI 04ATEX128U

Schedule of limitations

Rated service temperature range: from -40°C to +80°C.

The instrument type B-0140.. must be assembled on the cover or walls of metallic and/or plastic enclosures, ATEX certified for group IIC, with increased safety protection mode (Ex e) and group IIIC (dust) with suitable degree of protection.

When instrument type B-0140.. are installed in an Ex e enclosure the clearances and creepage distances according to clause 4.3, 4.4 and table 1 of the EN 60079-7 standard have to be fulfilled.

When the component are installed into the electrical apparatus, care must be taken that the temperatures at the mounting place are within the service temperature range.

The safety instruction provided by Manufacturer shall be strictly respected.

Precaution to avoid electrostatic discharge must be taken.

Essential Health and Safety Requirements

The Essential Health and Safety Requirements are assured by compliance to the following standards:

- EN 60079-0: 2009 - Electrical apparatus for explosive atmospheres - Part 0: general requirements.
- EN 60079-7: 2007 - Explosive atmosphere - Part 7: equipment protection by increased safety "e"
- EN 60079-31: 2009 - Electrical apparatus for use in the presence of combustible dust - Part 31: protection by enclosures "t"