

CESI

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Capitale sociale 8 550 000 €
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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 e D.M. 02/02/2006

CERTIFICATE



EC-TYPE EXAMINATION CERTIFICATE

- [1] **EC-TYPE EXAMINATION CERTIFICATE**
- [2] **Equipment or Protective System intended for use
in potentially explosive atmospheres
Directive 94/9/EC**
- [3] EC-Type Examination Certificate number:
CESI 08 ATEX 035
- [4] Equipment: Flameproof solenoids series OZA with integrated electronics
- [5] Manufacturer: **ATOS S.p.A.**
- [6] Address: Via alla Piana, 57 – 21018 Sesto Calende (VA) - 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-A8022811.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN 60079-0: 2006 EN 60079-1: 2007**
- [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, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.
- [12] The marking of the equipment or protective system shall include the following:

II 2G Ex d IIC T6 or T5

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

Date 4 August 2008 - Translation issued the 4th August 2008

Prepared
Enrico Radaelli

Verified
Mirko Balaz

Approved
Fiorenzo Bregani

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

[13]

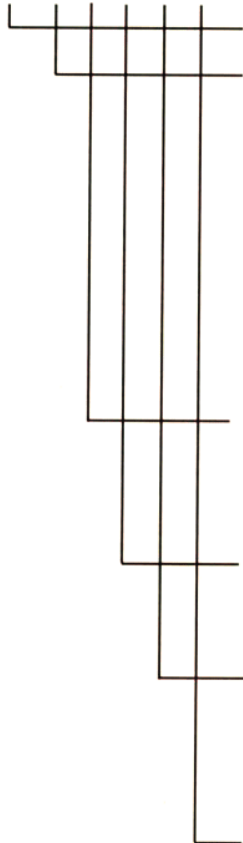
Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 08 ATEX 035**

[15] **Description of equipment**

The flameproof solenoids series OZA with integrated electronics are used to drive direction control, flow control and pressure control valves; they are identified by a code as follows:

OZA - * - * - * / * / *



Series of proportional flameproof solenoids with integrated electronics

Type identification:

AES: for open loop valves, without transducer;

AERS: for open loop valves, arranged for external pressure transducer installed on the plant;

TERS: for closed loop valves, arranged for external pressure transducer installed on the valve;

TES: for closed loop valves, with position transducer;

LES: for two stage valves in closed loop, with position transducer and arranged for external position transducer;

PES: for closed loop pumps, with pressure transducer and arranged for external pressure transducer.

Communication interface:

PS: RS232;

BC: CAN-Bus (excluding PES type);

BP: PROFIBUS-DP (excluding PES type).

Valves type:

01: single solenoid valve;

05: double solenoid valve (excluding AERS, TERS, LES and PES types);

Resolution of transducer (only for TES, LES and PES types):

1: 3,3 V/mm

2: 2,5 V/mm

4: 1,25 V/mm

8: 0,6 V/mm

Cable entries:

- : thread M20 x 1,5 UNI-4535

C5: arranged with 5m cable length

C10: arranged with 10m cable length

NPT: thread 1/2" NPT

GK: thread GK-1/2" UNI6125

M18: thread M18 x 0,75 ISO-261

Electrical characteristics

Rated voltage supply: 24 Vdc \pm 10% 21 \div 33 V_{RMS}

Rated power: 35 W[*]

Ambient temperature: -20 \div +45°C (for solenoids with temperature class T6)

-20 \div +60°C (for solenoids with temperature class T5)

[*] The power limitation is obtained by means of the integrated electronic regulator inside the equipment..

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[13]

Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 08 ATEX 035**

[15] **Description of equipment** (*follows*)

Cable entries

The accessories used for cable entries and for unused holes be certified according to EN60079-0 and EN60079-1 Standards.

If cylindrical threads are used, the coupling between the cable gland and the enclosure shall be provided by block to prevent loosening.

Installation conditions

The solenoids shall be installed on a metallic base with a volume of minimum 0.2 dm³ for each valve.

[16] **Report n. CESI EX-A8022811.**

Routine tests

The manufacturer shall carry out the routine tests prescribed at clause 27 of the EN 60079-0 standard and at clause 16 of the EN 60079-1 Standard.

The solenoids in subject are exempted from overpressure routine test since they have been submitted, with the static method and favourable result, to an overpressure test at a pressure corresponding to 4 times the reference pressure related to an ambient temperature of -20 °C.

Descriptive documents (prot. EX-A8022828)

- Technical Note n. SAS-245-D/0	(pg. 4)	dated	18.05.2008
- Safety Instruction n.TT256/0	(pg. 5)	dated	11.03.2008
- n. 6-OZAAES-100000-I rev. 2		dated	01.08.2008
- n. 6-OZATES-100000-I rev. 2		dated	01.08.2008
- n. 6-OZAAES-100001-I rev. 1		dated	01.08.2008
- n. 6-OZATES-100001-I		dated	01.08.2008
- n. 6-OZAAES-100010-I rev. 1		dated	01.08.2008
- n. 6-OZATES-100010-I rev. 1		dated	01.08.2008
- n. 10-ERITEA-100011-I rev. 2		dated	01.08.2008
- n. 10-ERITEA-100013-I		dated	04.07.2008
- n. 10-ERITEA-1000113-I rev. 1		dated	01.08.2008
- n. 10-ERITEA-1000213-I rev. 1		dated	01.08.2008
- n. 10-ERITEA-1000313-I rev. 1		dated	01.08.2008
- n. 6-OZAAES-100051-I rev. 2		dated	01.08.2008
- n. 20445-I		dated	04.07.2008
- n. 6-OZAAES-100002-I		dated	01.08.2008
- EC Declaration of conformity n. TT255/0		dated	01.08.2008

One copy of all documents is kept in CESI files.

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

None.

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

Assured by compliance to the Standards.

EXTENSION n. 01/12

to EC-Type Examination Certificate CESI 08ATEX035

Equipment: Explosion proof solenoid series OZA-AES-*, OZA-AERS-*, OZA-TERS-*, OZA-TES-*, OZA-LES-* and OZA-PES-*

Manufacturer: ATOS S.p.A.

Address: Via alla Piana, 57 – 21018 Sesto Calende (Varese) - Italy

Admitted variation

- Standard EN 60079-0: 2009, EN 60079-1:2007 upgrade.

Marking

The equipment shall be marked as follows:

 II 2G Ex d IIC T6, T5 Gb

Temperature class is related to ambient temperature range:

Tamb : -20°C / +45°C/+60°C.

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 08ATEX035.

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Date 15th March 2012- translation issued the 15th March 2012

prepared

M. T.



verified

Mirko Balaz



approved

Fiorenzo Bregani

CESI S.p.A.

Testing & Certification Division

Business Area Certification

Il Responsabile

Fiorenzo Bregani



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EXTENSION n. 01/12

to EC-Type Examination Certificate CESI 08ATEX035

Electrical characteristics

All electrical characteristics are unchanged.

Temperature classes related to the maximum ambient temperature

Solenoid type	T amb. Max ambient temperature(°C)	Temperature class
OZA-AES-PS-*, OZA-AES-BC-*, OZA-AES-PS-*	60	T5
	45	T6
OZA-AERS-PS-*, OZA-AERS-BC-*, OZA-AERS-PS-*, OZA-TERS-PS-*, OZA-TERS-BC-*, OZA-TERS-PS-*	60	T5
	45	T6
OZA-TES-PS-*, OZA-TES-BC-*, OZA-TES-PS-*	60	T5
	45	T6
OZA-LES-PS-*, OZA-LES-BC-*, OZA-LES-PS-*	60	T5
	45	T6
OZA-PES-PS-*	60	T5
	45	T6

The accessories used for cable entries shall be certified separately and suitable for the installation hazardous area.

Routine test

The manufacturer shall carried out the routine tests prescribed at clause 27 of EN60079-0 Standard, at clause 16 of EN60079-0 Standard and clause. 6 of EN60079-31 standard.

Solenoids in subject are exempted from overpressure routine test since they have been submitted, with the static method and positive result, to an overpressure test at a pressure corresponding to 4 times reference pressure related to an ambient temperature of -20 °C.

Report n. EX-B2008532

Descriptive documents (prot. EX-B2008548)

- n. SAS-529-D/0	dated	14.02.2012
- n. TT256/1 (pages 5)	dated	15.02.2012
- n. 6-OZAAES-100051-I	dated	15.02.2012
- Declaration of conformity TT225/1	dated	15.02.2012

One copy of all documents is kept in CESI files.

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 60079-1: 2007 - Explosive atmosphere - Part 1: equipment protection by explosion proof "d".

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fac simile

La Ditta / The Company

ATOS s.p.a.
21018 Sesto Calende / Italia
via alla Piana 57

Dichiara con la presente la conformità al Prodotto / *herewith declares conformity of the Products*

Prodotto / Product	Tipo / Type
SOLENIODI ANTIDEFAGRANTI EXPLOSION-PROOF SOLENOIDS	OZA-AES-PS-*, OZA-AES-BC-*, OZA-AES-BP-* OZA-AERS-PS-*, OZA-AERS-BC-*, OZA-AERS-BP-* OZA-TES-PS-*, OZA-TES-BC-*, OZA-TES-BP-* OZA-TERS-PS-*, OZA-TERS-BC-*, OZA-TERS-BP-* OZA-LES-PS-*, OZA-LES-BC-*, OZA-LES-BP-* OZA-PES-PS-*

* = Tensione di alimentazione nominale / *Nominal supply voltage*

Modo di protezione / *Protection mode*

 II 2 G Ex d IIC T6, T5 Gb

Certificato / *Certificate* **CESI 08 ATEX 035**

In accordo alle norme sottostanti / *in accordance with the below applicable regulations*

Direttive CEE applicabili / *applicable EC Directive*

2004/108/CE

94/9/CE

In quanto conforme alle Norme Europee Armonizzate / *As in accordance to the European Armonized Standards*

EN 61000-6-1

EN 60079-0 (2009)

EN 61000-6-3

EN 60079-1 (2007)

Organismo Notificato / Notified body n° 0722

Notifica / Notification **CESI 02 ATEX 034 Q**

CESI

protocollo

B2008548

allegato al certificato

CESI 08 ATEX 035



firma



data

15/03/2012

Data
Date:

Firma
Signature: