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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

## EC-TYPE EXAMINATION CERTIFICATE

[1]

[2] **Equipment or Protective System intended for use in potentially explosive atmospheres Directive 94/9/EC**

[3] EC-Type Examination Certificate number:

**CESI 02 ATEX 014**

[4] Equipment: Explosion proof solenoid type OA-..; OZA-.-.; MZA-A-.

[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-A2/005935.

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

**EN 50014: 1997 + A1..A2 EN 50018: 2000**

[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:

**Ex II 2 G EEx d IIC T6, T4, T3**



**Date** 27 February 2002 – Translation issued the [SB1]27 February 2002

| **Prepared** | **Verified** | **Approved** |
|---|---|---|
| Enrico Radaelli | Damiano Cavanna | Ulisse Colombo |

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[13] **Schedule**

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 02 ATEX 014**

[15] **Description of equipment**

The explosion proof solenoids subject of this certificate are use to drive direction control, flow control and pressure control valves; they are identified by a code as follows:

**OA - ..**

- explosion proof ON/OFF solenoid
- options supply voltage

**OZA - .- .**

- explosion proof proportional solenoid
- **A**: for open loop application,
  **T**: for closed loop application with position transducer type ETHA-4/*
- option supply voltage for type **A**

**MZA -A - .**

- explosion proof proportional solenoid without manual operation
- options supply voltage

**Electrical characteristics**

Solenoid type OA- ..

| | | |
|---|---|---|
| - Rated voltage supply : | 12 ÷220 Vdc ; | 12 ÷220 Vca |
| - Rated power: | 8 W | 8 W |
| - Frequency: | | 50/60 Hz |





Prot. A2/005945 P: 4 + 13
Keywords 13010R 21635I 48010M 54250O 66540E

Solenoid type OZA- .-.. and type MZA- .-..

- Rated voltage supply: 12 Vdc ; 24 Vdc
- Input current max: 2.5 A; 1.1 A
- Rated power max: 35 W

Power limitation is achievied by means of electronic regulator feeding the solenoid with a current of 2500 mA for the type OZA-A-12DC and MZA-A-12DC and with a current of 1100 mA for the type OZA-A-24DC and MZA-A-24DC.
The supply of the solenoid type OZA-T is made by means of electronic regulator type E-ME-T-0*H (ATOS).

**Temperature classes and temperature on the supply cables related to the ambient temperature.**

| type | ambient temperature max. | temperature class | operating temperature of the cables |
|---|---|---|---|
| OA | 70 °C | T4 | ≥ 90 °C |
| OA | 45 °C | T6 | -- |
| OZA-A | 70 °C | T3 | ≥ 120 °C |
| OZA-A | 40 °C | T4 | ≥ 90 °C |
| MZA-A | 70 °C | T3 | ≥ 120 °C |
| MZA-A | 40 °C | T4 | ≥ 90 °C |
| OZA-T | 70 °C | T3 | ≥ 120 °C |
| OZA-T | 40 °C | T4 | ≥ 90 °C |

A label shall be provided on the outside of the electrical apparatus as a guide for the selection of the cable by the user (par. 16.8 of EN 50014 Standard).

**Installation conditions**

The accessories used for cable entries shall be suitable for the indicated cables temperature and shall be certified according to EN 50014 and EN 50018 Standards.

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

[13] **Schedule**

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 02 ATEX 014**

[16] **Report n.**
CESI nr. EX-A2/005935.

**Routine tests**
The manufacturer shall carry out the routine tests prescribed at paragraph 24 of the EN 50014 Standard.
The manufacturer is exempted from the overpressure test since the solenoids in subject have been submitted to an overpressure test at 33 bar, corresponding to four times the reference pressure.
The actuators are submitted to an individual overpressure test to verify the functionally suitability at the rated operating pressure.

**Descriptive documents** (prot. EX-A2/005938)

| | | | |
|---|---|---|---|
| - n. SAS-211-D/1 | (4 pg.) | dated | 15.01.2002 |
| - n. t189 | (4 pg.) | dated | 15.01.2002 |
| - n. 6-OA-201000-I Rev. 6 | | dated | 10.01.2002 |
| - n. 6-OZA-101000-I Rev. 6 | | dated | 10.01.2002 |
| - n. 6-MZA-220000-I Rev. 1 | | dated | 10.01.2002 |
| - n. 6-OA-201051-I Rev. 1 | | dated | 10.01.2002 |
| - n. t186 | | dated | 10.01.2002 |

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 indicated at page 1.

# EXTENSION n. 01/03

**to EC-Type Examination Certificate CESI 02ATEX014**

Equipment: Explosion proof solenoid type OA-..; OZA-.-.; MZA-A-.

Manufacturer: ATOS S.p.A.

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

**Admitted variation**
New models named **OA/WP-*** and **OZA-A-*/WP** and constructional modifications.
* = options supply voltage

The constructional modifications are specified in the descriptive documents annexed to this extension.

Report n. EX-A2/005935

Descriptive documents (prot. EX-A3/021451)

| | | | |
|---|---|---|---|
| - n. SAS-262-D/0 | (pg. 2) | dated | 28.05.2003 |
| - n. 6-OA-201000-I Rev. 7 | | dated | 09.05.2003 |
| - n. 6-OZA-101000-I Rev.7 | | dated | 12.05.2003 |
| - n. 6-MZA-220000-I Rev.2 | | dated | 12.05.2003 |
| - n. 6-OZA-102000-I Rev.1 | | dated | 25.03.2003 |
| - n. 6-OA-202000-I Rev.1 | | dated | 25.03.2003 |

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 02ATEX014.



**date** 14 June 2003 - translation issued the 14th June 2003

**prepared** CERT – Enrico Radaelli

**verified** CERT – Mirko Balaz

**approved** CERT – Ulisse Colombo

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Prot. A3/021454 P: 2
Keywords 13010R 21635I 48010M 54250O 66540E

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# EXTENSION n. 02/05

**to EC-Type Examination Certificate CESI 02ATEX 014**

Equipment: Explosion proof solenoid series OA-; OZA; MZA-A

Manufacturer: ATOS S.p.A.

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

**Admitted variation**
Constructional modifications, new electrical characteristics, new models named **OAX/WP-***, **OAKX/WP-***, **OZAX-A-*/WP** e **MZAX-A-***, (* = options supply voltage).

The admitted variation are specified in the descriptive documents annexed to the extension and are mainly related to:
- little cable to keep the back cover on the solenoid type OA/WP-* e OZA-A-*/WP;
- new coil supplied with 48Vdc for the solenoid type OA-* e OA/WP-*;
- new material (stainless steel) for solenoid type OA/WP-* , OZA-A-*/WP e MZA-A-* with the insertion of letter "**X**" in the code (**OAX/WP-*** , **OZAX-A-*/WP** e **MZAX-A-***);
- new coil types for solenoid OAX/WP* with the insertion of letter "**K**" in the code (**OAKX/WP***).

**Electrical characteristics**

Solenoid type OA-48 DC and OA/WP-48DC

| | |
|---|---|
| - Rated voltage supply : | 48 Vdc |
| - Rated power: | 8 W |

Solenoid type OAKX/WP-*

| | | |
|---|---|---|
| - Rated voltage supply : | 12 ÷220 Vdc ; | 12 ÷240 Vca |
| - Rated power: | 25 W | 25 W |
| - Frequency: | | 50/60 Hz |

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 02 ATEX 014.



| | |
|---|---|
| **date** | 12 February 2005 - translation issued the 12 February 2005 |
| **prepared** | CERT – Enrico Radaelli |
| **verified** | CERT – Damiano Cavanna |
| **approved** | CERT – Ulisse Colombo |

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# EXTENSION n. 02/05

**to EC-Type Examination Certificate CESI 02 ATEX 014**

**Temperature classes and temperature on the supply cables related to the ambient temperature for the new types OAKX/WP.***

| type | ambient temperature max. | temperature class | operating temperature of the cables |
|---|---|---|---|
| OAKX/WP-* | 70 °C | T3 | ≥ 130 °C |
| | 60 °C | T3 | ≥ 120 °C |
| | 50 °C | T3 | ≥ 110 °C |
| | 40 °C | T4 | ≥ 100 °C |

**Installation conditions**
The solenoids shall be installed on a metallic block with a minimum volume of 0,2 $dm^3$ for each valve.

**Report** n. EX-A5005177

**Descriptive documents** (prot. EX A5005181)

| | | | |
|---|---|---|---|
| - n. SAS-064-D/0 | (pg. 4) | dated | 11.02.2005 |
| - n. t189/2 | (pg. 5) | dated | 11.02.2005 |
| - n. 6-OA-202000-I Rev. 3 | | dated | 01.12.2004 |
| - n. 6-OZA-102000-I Rev.3 | | dated | 01.12.2004 |
| - n. 6-OZAX-102000-I Rev.3 | | dated | 01.12.2004 |
| - n. 6-OAX-202000-I Rev. 3 | | dated | 01.12.2004 |
| - n. 6-MZAX-220000-I Rev.1 | | dated | 03.08.2004 |
| - n. T-665/BT-I Rev.2 | | dated | 11.02.2005 |
| - n. t186-1 | | dated | 11.02.2005 |

One copy of all documents is kept in CESI files.

# EXTENSION n. 03/07

**to EC-Type Examination Certificate CESI 02ATEX014**

Equipment: Explosion proof solenoid series OA-; OZA; MZA-A

Manufacturer: **ATOS S.p.A.**

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

**Admitted variation**
Constructional modifications:
materials for enclosure suitable to be used at a minimum ambient temperature up to –40°C.
The admitted variation are specified in the descriptive documents annexed to the extension.

**Installation conditions**
The characteristic of the cables and of the accessories used for cable entries shall be suitable to be used in the range of the ambient/operating temperature of the transducer.

**Report** n. EX-A7013683.

**Routine tests**
The manufacturer shall carry out the routine tests prescribed at par. 24 of the EN 50014 standard and at par. 16 of the EN 50018 standard. 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 –40 °C.

**Descriptive documents** (prot. EX-A7013706)

| | | | |
|---|---|---|---|
| - n. SAS-312-D/1 | | dated | 02.02.2007 |
| - n. 6-OA-201000-I Rev.9 | | dated | 02.02.2007 |
| - n. 6-OA-202000-I Rev.5 | | dated | 02.02.2007 |
| - n. 6-OZA-101000-I Rev.9 | | dated | 02.02.2007 |
| - n. 6-OZA-102000-I Rev.5 | | dated | 02.02.2007 |
| - n. 6-MZA-220000-I Rev.4 | | dated | 02.02.2007 |
| - n. 6-MZAX-220000-I Rev.3 | | dated | 01.02.2007 |
| - n. 6-OAX-202000-I Rev.5 | | dated | 01.02.2007 |
| - n. 6-OZAX-102000-I Rev.5 | | dated | 01.02.2007 |
| - n. 6-OA-201051-I Rev.4 | | dated | 01.02.2007 |
| - n. T-665/BT-I Rev. 5 | | dated | 01.02.2007 |
| - n. TT189/3 | (pg. 5) | dated | 30.01.2007 |

One copy of all documents is kept in CESI files.

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**date** 07 February 2007 - translation issued the 07th February 2007

**prepared** Enrico Radaelli

**verified** Mirko Balaz

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**approved** Fiorenzo Bregani



Prot. A7013704 P: 1

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# EXTENSION n. 04/07

**to EC-Type Examination Certificate CESI 02ATEX014**

Equipment: Explosion proof solenoid series OA-; OZA; MZA-A

Manufacturer: **ATOS S.p.A.**

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

**Admitted variation**
Constructional modifications: horizontal cable entry instead of vertical cable entry. This constructional version is identified by the letter "O" in the identification code as specified in the descriptive documents annexed to the extension.

**Installation conditions**
The characteristic of the cables and of the accessories used for cable entries shall be suitable to be used in the range of the ambient/operating temperature of the transducer.

**Report** n. EX-A7016227.

**Routine tests**
The manufacturer shall carry out the routine tests prescribed at par. 24 of the EN 50014 standard and at par. 16 of the EN 50018 standard. 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 –40 °C.

**Descriptive documents** (prot. EX-A7016232)

| | | | |
|---|---|---|---|
| - n. SAS-413-D/O | (pg.2) | dated | 12.02.2007 |
| - n. 6-OA-201100-I Rev.1 | | dated | 15.02.2007 |
| - n. 6-OA-202100-I Rev.1 | | dated | 15.02.2007 |
| - n. 6-OZA-101100-I Rev.1 | | dated | 14.02.2007 |
| - n. 6-OZA-102100-I Rev.1 | | dated | 14.02.2007 |
| - n. 6-MZA-220100-I Rev.1 | | dated | 15.02.2007 |
| - n. 6-MZAX-220100-I Rev.1 | | dated | 15.02.2007 |
| - n. 6-OAX-202100-I Rev.1 | | dated | 14.02.2007 |
| - n. 6-OZAX-102100-I Rev.1 | | dated | 14.02.2007 |
| - n. 6-OA-201051-I Rev.6 | | dated | 15.02.2007 |
| - n. T-665/BT-I Rev. 7 | | dated | 15.02.2007 |
| - n. TT189/4 | (pg. 5) | dated | 12.02.2007 |

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 02ATEX014.

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**date** 16 February 2007 - translation issued the 16th February 2007

**prepared** Enrico Radaelli

**verified** Mirko Balaz

**approved** Fiorenzo Bregani

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Prot. A7016231 P: 1

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# EXTENSION n. 05/07

**to EC-Type Examination Certificate CESI 02 ATEX 014**

Equipment: Explosion proof solenoid series OA-; OZA; MZA-A-

Manufacturer: **ATOS S.p.A.**

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

**Admitted variation**

- Constructional modifications and updating of the documentation for conformity to **EN60079-0 (2006)**, **EN60079-1 (2004)** Standards.
- Change of the code for the types **OA/*/*-220**, **OAX/*/WP-220** and **OAKX/*/WP-220** in the new code **OA/*/*-230**, **OAX/*/WP-230** and **OAKX/*/WP-230.**

**Marking**

The equipment shall be marked as follows:

**II 2G Ex d IIC T6** *or* **T4** *or* **T3**

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 02 ATEX 014.



**date** 7 September 2007 - translation issued the 7th September 2007

**prepared** Enrico Radaelli

**verified** Mirko Balaz

**approved** Fiorenzo Bregani

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Divisione Energia
"Area Tecnica Certificazione"
Il Responsabile



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# EXTENSION n. 05/07

**to EC-Type Examination Certificate CESI 02 ATEX 014**

**Identification and description of equipment**
The explosion proof solenoids subject of this certificate are use to drive direction control, flow control and pressure control valves.

In the following table are resumed the types of the series and the relevant description.

| Model | Description |
|---|---|
| **OA-*** | on-off solenoid |
| **OA/WP-*** | on-off solenoid with protected manual override |
| **OA/O-*** | on-off solenoid with horizontal cable output |
| **OA/O/WP-*** | on-off solenoid with protected manual override and with horizontal cable output |
| **OAX/WP-*** | stainless steel on-off solenoid with protected manual override |
| **OAKX/WP-*** | stainless steel on-off solenoid with protected manual override (power 25 W) |
| **OAX/O/WP-*** | stainless steel on-off solenoid with protected manual override and with horizontal cable output |
| **OAKX/O/WP-*** | stainless steel on-off solenoid with protected manual override and with horizontal cable output (power 25 W) |
| **OZA-A-*** | proportional solenoid without position transducer |
| **OZA-T** | proportional solenoid with position transducer |
| **OZA-A-*/WP** | proportional solenoid without position transducer and with protected manual override |
| **OZA-A-*/O** | proportional solenoid without position transducer and with horizontal cable output |
| **OZA-A-*/O/WP** | proportional solenoid without position transducer, with horizontal cable output and with protected manual override |
| **OZAX-A-*/WP** | stainless steel proportional solenoid without position transducer and with protected manual override |
| **OZAX-A-*/O/WP** | stainless steel proportional solenoid without position transducer, with horizontal cable output and with protected manual override |
| **MZA-A-*** | proportional solenoid without position transducer and without manual override |
| **MZA-A-*/O** | proportional solenoid without position transducer, without manual override and with horizontal cable output |
| **MZAX-A-*** | stainless steel proportional solenoid without position transducer and without manual override |
| **MZAX-A-*/O** | stainless steel proportional solenoid without position transducer, without manual override and with horizontal cable output |

* Rated supply voltage

# EXTENSION n. 05/07

**to EC-Type Examination Certificate CESI 02 ATEX 014**

**Electrical characteristics**

| | | |
|---|---|---|
| ***Solenoid type OA-*** | | |
| - Rated voltage supply: | 12 ÷220 Vdc | 12 ÷240 Vca |
| - Rated power: | 8 W | 8 W |
| - Frequency: | | 50/60 Hz |
| ***Solenoid type OAKX -*** | | |
| - Rated voltage supply: | 12 ÷220 Vdc | 12 ÷240 Vca |
| - Rated power: | 25 W | 25 W |
| - Frequency: | | 50/60 Hz |
| ***Solenoid type OZA-.. and type MZA-A-.*** | | |
| - Rated voltage supply: | 12 Vdc | 24 Vdc |
| - Input current max: | 2.5 A; | 1.1 A |
| - Rated power max: | 35 W | 35 W |

Power limitation is achieved by means of electronic regulator feeding the solenoid with a current of 2500 mA for the type OZA-A-12DC and MZA-A-12DC and with a current of 1100 mA for the type OZA-A-24DC and MZA-A-24DC.
The supply of the solenoid type OZA-T is made by means of electronic regulator type E-ME-T-0*H (ATOS).

For each type detailed electrical characteristics are reported in the descriptive documents annexed to the certificate.

**Ambient temperature**
The solenoids in subject are suitable to operate with a minimum ambient temperature of – 40°C.

**Temperature classes and temperature on the supply cables related to the maximum ambient temperature**

| type | ambient temperature max. | temperature class | operating temperature of the cables |
|---|---|---|---|
| **OA; OA/O; OA/WP; OA/O/WP; OAX/WP; OAX/O/WP** | 70 °C | T4 | ≥ 90 °C |
| | 45 °C | T6 | -- |
| **OAKX/WP; OAKX/O/WP** | 70 °C | T3 | ≥ 130 °C |
| | 60 °C | T3 | ≥ 120 °C |
| | 50 °C | T3 | ≥ 110 °C |
| | 40° C | T4 | ≥ 100 °C |
| **OZA-A; OZA-A /O; OZA-A /WP; OZA-A /O/WP; OZAX-A/WP; OZAX-A/O/WP** | 70 °C | T3 | ≥ 120 °C |
| | 40 °C | T4 | ≥ 90 °C |
| **MZA-A ; MZA-A/O; MZAX-A; MZAX-A/O** | 70 °C | T3 | ≥ 120 °C |
| | 40 °C | T4 | ≥ 90 °C |
| **OZA-T** | 70 °C | T3 | ≥ 120 °C |
| | 40 °C | T4 | ≥ 90 °C |

A label shall be provided on the outside of the electrical apparatus as a guide for the selection of the cable by the user (par. 16.5 of EN 60079-0 Standard).

# EXTENSION n. 05/07

**to EC-Type Examination Certificate CESI 02 ATEX 014**

**Installation conditions**

- The solenoids shall be installed on a metallic base with a volume of minimum 0.2 $dm^3$ for each valve.
- The characteristics of the cables and of the accessories used for cable entries shall be suitable for the use in the ambient/operating temperature of the solenoid. The accessories used for cable entries shall 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 loosing.

**Report n**. EX-A7023245

**Routine tests**

The manufacturer shall carried out the routine tests prescribed at par. 27 of EN60079-0 Standard and at par. 16 of EN60079-0 Standard.

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 –40 °C. The actuators are submitted to an individual overpressure test to verify the functionally suitability at the rated operating pressure.

**Descriptive documents** (prot. EX-A7023261)

| | | | |
|---|---|---|---|
| - n. SAS-422-D/0 | (pg. 2) | dated | 29.08.2007 |
| - n. TT189/5 | (pg. 5) | dated | 30.08.2007 |
| - n. 6-OA-201000-I Rev.10 | | dated | 05.09.2007 |
| - n. 6-OA-201100-I Rev.2 | | dated | 06.09.2007 |
| - n. 6-OA-202000-I Rev.6 | | dated | 05.09.2007 |
| - n. 6-OA-202100-I Rev.2 | | dated | 06.09.2007 |
| - n. 6-OAX-202000-I Rev.6 | | dated | 05.09.2007 |
| - n. 6-OAX-202100-I Rev.2 | | dated | 05.09.2007 |
| - n. 6-OZA-101000-I Rev.10 | | dated | 05.09.2007 |
| - n. 6-OZA-101100-I Rev.2 | | dated | 06.09.2007 |
| - n. 6-OZA-102000-I Rev.6 | | dated | 05.09.2007 |
| - n. 6-OZA-102100-I Rev.2 | | dated | 06.09.2007 |
| - n. 6-OZAX-102000-I Rev.6 | | dated | 05.09.2007 |
| - n. 6-OZAX-102100-I Rev.2 | | dated | 06.09.2007 |
| - n. 6-MZA-220000-I Rev.5 | | dated | 05.09.2007 |
| - n. 6-MZA-220100-I Rev.2 | | dated | 06.09.2007 |
| - n. 6-MZAX-220000-I Rev.4 | | dated | 05.09.2007 |
| - n. 6-MZAX-220100-I Rev.2 | | dated | 06.09.2007 |
| - n. 6-OA-201051-I Rev.8 | | dated | 06.09.2007 |
| - n. T-665/BT-I Rev.8 | | dated | 30.08.2007 |
| - Declaration of conformity TT186/3 | | dated | 30.08.2007 |

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: 2006 – Electrical apparatus for explosive gas atmosphere -General requirements.
- EN 60079-1: 2004 – Flameproof enclosure "d".

# EXTENSION n. 06/08

**to EC-Type Examination Certificate CESI 02 ATEX 014**

Equipment: Explosion proof solenoid series OA-; OZA; MZA-A-

Manufacturer: **ATOS S.p.A.**

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

**Admitted variation**

- New types ***XS...** and ***XW...** :

| *XS version | *XW version |
|---|---|
| OA**XS**/WP-* | OA**XW**/WP-*\ |
| OA**XS**/O/WP-*/ | OA**XW**/O/WP-*/ |
| OAK**XS**/WP-* | OAK**XW**/WP-* |
| OAK**XS**/O/WP-*/ | OAK**XW**/O/WP-*/ |
| OZA**XS**-A/WP-* | OZA**XW**-A/WP-* |
| OZA**XS**-A-*/O/WP | OZA**XW**-A-*/O/WP |
| MZA**XS**-A-*<br>MZA**XS**-A-*/O | MZA**XW**-A-*<br>MZA**XW**-A-*/O |

All detailed constructional modifications for types ***XS...** ed ***XW...** are reported in the descriptive documents annexed to the certificate.

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 02 ATEX 014.

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**date** 4 June 2008 - translation issued the 4th June 2008

**prepared** Maurizio Toninelli

**verified** Mirko Balaz

**approved** Fiorenzo Bregani

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P.I. IT00793580150

# EXTENSION n. 06/08

**to EC-Type Examination Certificate CESI 02 ATEX 014**

**Marking**
The equipment shall be marked as follows:

 **II 2G Ex d IIC T6** *or* **T4** *or* **T3**

**Electrical characteristics**
Electrical characteristics are unchanged.

**Ambient temperature**
The solenoids in subject are suitable to operate with a minimum ambient temperature of – 40°C.

***Temperature classes and temperature on the supply cables related to the maximum ambient temperature***

| Type | | Maximum ambient temperature | Cables operating temperature | Temperature class |
|---|---|---|---|---|
| OA<br>OA/O<br>OA/WP<br>OA/O/WP | OAX/WP<br>OAX/O/WP<br>OAXS/WP<br>OAXS/O/WP<br>OAXW/WP<br>OAXW/O/WP | 70 | 90 | T4 |
| | | 45 | - | T6 |
| - | OAKX/WP<br>OAKX/O/WP<br>OAKXS/WP<br>OAKXS/O/WP<br>OAKXW/WP<br>OAKXW/O/WP | 70 | 130 | T3 |
| | | 60 | 120 | |
| | | 50 | 110 | |
| | | 40 | 100 | T4 |
| OZA-A<br>OZA-A/O<br>OZA-A/WP<br>OZA-A/O/WP | OZAX-A/WP<br>OZAX-A/O/WP<br>OZAXS-A/WP<br>OZAXS-A/O/WP<br>OZAXW-A/WP<br>OZAXW-A/O/WP | 70 | 120 | T3 |
| | | 40 | 90 | T4 |
| MZA-A<br>MZA-A/O | MZAX-A, MZAX-A/O,<br>MZAXS-A, MZAXS-A/O,<br>MZAXW-A, MZAXW-A/O | 70 | 120 | T3 |
| | | 40 | 90 | T4 |
| OZA-T | - | 70 | 120 | T3 |

A label shall be provided on the outside of the electrical apparatus as a guide for the selection of the cable by the user (par. 16.5 of EN 60079-0 Standard).

**Report n**. EX-A8016227

# EXTENSION n. 06/08

**to EC-Type Examination Certificate CESI 02 ATEX 014**

**Routine tests**

The manufacturer shall carried out the routine tests prescribed at par. 27 of EN60079-0 Standard and at par. 16 of EN60079-0 Standard.

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 –40 °C. The actuators are submitted to an individual overpressure test to verify the functionally suitability at the rated operating pressure.

**Descriptive documents** (prot. EX-A8016230)

| | | | |
|---|---|---|---|
| - n. SAS-426-D/0 | (pg. 2) | dated | 20.06.2007 |
| - n. TT189/6 | (pg. 8) | dated | 11.04.2008 |
| - n. 6-OAXS-202000-I Rev.1 | | dated | 10.04.2008 |
| - n. 6-OAXW-202000-I Rev.1 | | dated | 10.04.2008 |
| - n. 6-OAXS-202100-I Rev.0 | | dated | 10.04.2008 |
| - n. 6-OAXW-202100-I Rev.0 | | dated | 10.04.2008 |
| - n. 6-OZAXS-102000-I Rev.0 | | dated | 10.04.2008 |
| - n. 6-OZAXW-102000-I Rev.0 | | dated | 10.04.2008 |
| - n. 6-OZAXS-102100-I Rev.0 | | dated | 10.04.2008 |
| - n. 6-OZAXW-102100-I Rev.0 | | dated | 10.04.2008 |
| - n. 6-MZAXS-220000-I Rev.0 | | dated | 10.04.2008 |
| - n. 6-MZAXW-220000-I Rev.0 | | dated | 10.04.2008 |
| - n. 6-MZAXS-220100-I Rev.0 | | dated | 10.04.2008 |
| - n. 6-MZAXW-220100-I Rev.0 | | dated | 10.04.2008 |
| - n. 6-OA-201051-I Rev.9 | | dated | 10.04.2008 |
| - n. T-665/BT-I Rev.9 | | dated | 10.04.2008 |
| - Declaration of conformity TT186/4 | | dated | 10.04.2008 |

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: 2006 – Electrical apparatus for explosive gas atmosphere - General requirements.
- EN 60079-1: 2004 – Flameproof enclosure "d".

# EXTENSION n. 07/09

**to EC-Type Examination Certificate CESI 02 ATEX 014**

Equipment: Explosion proof solenoid series OA-; OZA; MZA-A-

Manufacturer: **ATOS S.p.A.**

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

**Admitted variation**

- Adding protection for dust (group II, category 1D).

**Marking**

The equipment shall be marked as follows:

**II 2GD Ex d IIC T6 *or* T4 *or* T3, Ex tD A21 IP67 T85°C *or* T135°C *or* T200°C**

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 02 ATEX 014.

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**date** 19 June 2009 - translation issued the 19th June 2009

**prepared** Maurizio Toninelli

**verified** Mirko Balaz

**approved** Fiorenzo Bregani

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P.I. IT00793580150

# EXTENSION n. 07/09

to EC-Type Examination Certificate CESI 02 ATEX 014

**Electrical characteristics**
Electrical characteristics are unchanged.

**Ambient temperature**
The solenoids in subject are suitable to operate with a minimum ambient temperature of – 40°C.

***Temperature classes / Maximum surface temperature and temperature on the supply cables related to the maximum ambient temperature***

| *Type* | | *Maximum ambient temperature* | *Cables operating temperature* | *Temperature class / Maximum surface temperature* |
|---|---|---|---|---|
| OA<br>OA/O<br>OA/WP<br>OA/O/WP | OAX/WP<br>OAX/O/WP<br>OAXS/WP<br>OAXS/O/WP<br>OAXW/WP<br>OAXW/O/WP | 70 | 90 | T4 / T135°C |
| | | 45 | - | T6 / T85°C |
| - | OAKX/WP<br>OAKX/O/WP<br>OAKXS/WP<br>OAKXS/O/WP<br>OAKXW/WP<br>OAKXW/O/WP | 70 | 130 | T3 / T200°C |
| | | 60 | 120 | |
| | | 50 | 110 | |
| | | 40 | 100 | T4 / T135°C |
| OZA-A<br>OZA-A/O<br>OZA-A/WP<br>OZA-A/O/WP | OZAX-A/WP<br>OZAX-A/O/WP<br>OZAXS-A/WP<br>OZAXS-A/O/WP<br>OZAXW-A/WP<br>OZAXW-A/O/WP | 70 | 120 | T3 / T200°C |
| | | 40 | 90 | T4 / T135°C |
| MZA-A<br>MZA-A/O | MZAX-A, MZAX-A/O,<br>MZAXS-A, MZAXS-A/O,<br>MZAXW-A, MZAXW-A/O | 70 | 120 | T3 / T200°C |
| | | 40 | 90 | T4 / T135°C |
| OZA-T | - | 70 | 120 | T3 / T200°C |

A label shall be provided on the outside of the electrical apparatus as a guide for the selection of the cable by the user (par. 16.5 of EN 60079-0 Standard and par.14.7 of EN 61241-0 Standard).

**Report n.** EX-A9018124

# EXTENSION n. 07/09

**to EC-Type Examination Certificate CESI 02 ATEX 014**

**Routine tests**

The manufacturer shall carried out the routine tests prescribed at par. 27 of EN60079-0 Standard, at par. 16 of EN60079-0 Standard and at par. 24 of EN61241.0 standard.

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 –40 °C. The actuators are submitted to an individual overpressure test to verify the functionally suitability at the rated operating pressure.

**Descriptive documents** (prot. EX-A9018143)

| | | | |
|---|---|---|---|
| - n. SAS-435-D/0 | (pages 2) | dated | 16.10.2008 |
| - n. TT189/7 | (pages 9) | dated | 20.10.2008 |
| - n. 6-OAXS-220000-I Rev.0 | | dated | 21.10.2008 |
| - n. 6-OAXW-220000-I Rev.0 | | dated | 21.10.2008 |
| - n. 6-OAX-220000-I Rev.0 | | dated | 21.10.2008 |
| - n. 6-OA-220000-I Rev.0 | | dated | 21.10.2008 |
| - n. 6-OZAXS-120000-I Rev.0 | | dated | 21.10.2008 |
| - n. 6-OZAXW-120000-I Rev.0 | | dated | 21.10.2008 |
| - n. 6-OZAX-120000-I Rev.0 | | dated | 21.10.2008 |
| - n. 6-OZA-220000-I Rev.0 | | dated | 21.10.2008 |
| - n. 6-MZA-230000-I Rev.0 | | dated | 21.10.2008 |
| - n. 6-MZAX-230000-I Rev.0 | | dated | 21.10.2008 |
| - n. 6-MZAXW-230000-I Rev.0 | | dated | 21.10.2008 |
| - n. 6-MZAXS-230000-I Rev.0 | | dated | 21.10.2008 |
| - n. 6-OA-221500-I Rev.1 | | dated | 21.10.2008 |
| - n. 6-OA-220050-I Rev.0 | | dated | 21.10.2008 |
| - Declaration of Conformity TT186/5 | | dated | 20.10.2008 |

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: 2006 - Electrical apparatus for explosive gas atmospheres - Part 0: general requirements.
- EN 60079-1: 2007 - Explosive atmosphere - Part 1: equipment protection by explosion proof "d".
- EN 61241-0: 2006 - Electrical apparatus for use in the presence of combustible dust - Part 0: general requirements.
- EN 61241-1: 2004 - Electrical apparatus for use in the presence of combustible dust - Part 1: protection by enclosures "tD".

# EXTENSION n. 08/09

**to EC-Type Examination Certificate CESI 02 ATEX 014**

Equipment: Explosion proof solenoid series OA-; OZA; MZA-A-

Manufacturer: **ATOS S.p.A.**

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

**Admitted variation**

- Adding models OA/3*, OAX/3*, OAXS/3* and OAXW/3* with maximum power limit to 3,5W

**Marking**

The equipment shall be marked as follows:

**II 2GD Ex d IIC T6** *or* **T4** *or* **T3, Ex tD A21 IP67 T85°C** *or* **T135°C** *or* **T200°C**

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 02 ATEX 014.

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**date** 06 July 2009 - translation issued the 06th July 2009

**prepared** Maurizio Toninelli

**verified** Mirko Balaz

**approved** Fiorenzo Bregani

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# EXTENSION n. 08/09

to EC-Type Examination Certificate CESI 02 ATEX 014

**Electrical characteristics**
Pmax = 3,5W

All others electrical characteristics are unchanged.

**Ambient temperature**
The solenoids in subject are suitable to operate with a minimum ambient temperature of – 40°C.

***Temperature classes / Maximum surface temperature and temperature on the supply cables related to the maximum ambient temperature***

| Type | | Maximum ambient temperature | Cables operating temperature | Temperature class / Maximum surface temperature |
|---|---|---|---|---|
| OA/3<br>OA/3/O<br>OA/3/WP<br>OA/3/O/WP | OAX/3/WP<br>OAX/3/O/WP<br>OAXS/3/WP<br>OAXS/3/O/WP<br>OAXW/3/WP<br>OAXW/3/O/WP | 70 | 90 | T4 / T135°C |
| | | 45 | - | T6 / T85°C |

A label shall be provided on the outside of the electrical apparatus as a guide for the selection of the cable by the user (par. 16.5 of EN 60079-0 Standard and par.14.7 of EN 61241-0 Standard).

**Report n.** EX-A9018144

**Routine tests**
The manufacturer shall carried out the routine tests prescribed at par. 27 of EN60079-0 Standard, at par. 16 of EN60079-0 Standard and at par. 24 of EN61241.0 standard.
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 –40 °C. The actuators are submitted to an individual overpressure test to verify the functionally suitability at the rated operating pressure.

# EXTENSION n. 08/09

**to EC-Type Examination Certificate CESI 02 ATEX 014**

**Descriptive documents** (prot. EX-A9018149)

| | | | |
|---|---|---|---|
| - n. SAS-464-D/0 | (pages 3) | dated | 27.05.2009 |
| - n. TT189/8 | (pages 10) | dated | 28.05.2009 |
| - n. 6-OA-223000-I Rev.0 | | dated | 03.06.2009 |
| - n. 6-OAX-223000-I Rev.0 | | dated | 03.06.2009 |
| - n. 6-OAXS-223000-I Rev.0 | | dated | 03.06.2009 |
| - n. 6-OAXW-223000-I Rev.0 | | dated | 03.06.2009 |
| - Declaration of conformity TT186/6 | | dated | 03.06.2009 |

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: 2006 - Electrical apparatus for explosive gas atmospheres - Part 0: general requirements.
- EN 60079-1: 2007 - Explosive atmosphere - Part 1: equipment protection by explosion proof "d".
- EN 61241-0: 2006 - Electrical apparatus for use in the presence of combustible dust - Part 0: general requirements.
- EN 61241-1: 2004 - Electrical apparatus for use in the presence of combustible dust - Part 1: protection by enclosures "tD".

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# EXTENSION n. 09/12

## to EC-Type Examination Certificate CESI 02ATEX014

Equipment: Explosion proof solenoid series OA-; OZA; MZA-A-

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, EN 60079-31:2009 upgrade.

**Marking**

The equipment shall be marked as follows:

**II 2G Ex d IIC T6, T4, T3 Gb**
**II 2D Ex tb IIIC T85°C, T135°C, T200°C Db IP67**

Temperature class and/or maximum surface temperature is related to ambient temperature range:
Tamb : -40°C / +40°C/+45°C/+50°C /+60°C/+70°C.

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 02ATEX014.



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

| prepared | verified | approved |
|---|---|---|
| M. T. | Mirko Balaz | Fiorenzo Bregani |

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Testing & Certification Division
Business Area Certification
*Il Responsabile*
Fiorenzo Bregani



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# EXTENSION n. 09/12

**to EC-Type Examination Certificate CESI 02ATEX014**

**Electrical characteristics**

All electrical characteristics are unchanged.

***Temperature classes / Maximum surface temperature and temperature on the supply cables related to the maximum ambient temperature***

| *Solenoid type* | | **T amb.** *Max ambient temperature* (°C) | *Connecting cable temperature* (°C) | *Temperature class* |
|---|---|---|---|---|
| OA, OA/3, OA/O, OA/3/O, OA/WP, OA/3/WP, OA/O/WP,OA/3/O/WP | OAX/WP, OAX/3/WP OAX/O/WP, OAX/3/O/WP OAXS/WP, OAXS/3/WP OAXS/O/WP, OAXS/3/O/WP OAXW/WP, OAXW/3/WP OAXW/O/WP, OAXW/3/O/WP | 70 | 90 | T4 |
| | | 45 | - | T6 |
| - | OAKX/WP OAKX/O/WP OAKXS/WP OAKXS/O/WP OAKXW/WP OAKXW/O/WP | 70 | 130 | T3 |
| | | 60 | 120 | |
| | | 50 | 110 | |
| | | 40 | 100 | T4 |
| OZA-A OZA-A/O OZA-A/WP OZA-A/O/WP | OZAX-A/WP OZAX-A/O/WP OZAXS-A/WP OZAXS-A/O/WP OZAXW-A/WP OZAXW-A/O/WP | 70 | 120 | T3 |
| | | 40 | 90 | T4 |
| MZA-A MZA-A/O | MZAX-A, MZAX-A/O, MZAXS-A, MZAXS-A/O, MZAXW-A, MZAXW-A/O | 70 | 120 | T3 |
| | | 40 | 90 | T4 |
| OZA-T | - | 70 | 120 | T3 |
| | | 40 | 90 | T4 |

A label shall be provided on the outside of the electrical apparatus as a guide for cable selection by the user (par. 16.5 of EN 60079-0 Standard).

The characteristics of the cables and of the accessories used for cable entries shall be suitable for the use in the ambient/operating temperature of the solenoid. 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 –40 °C. The actuators are submitted to an individual overpressure test to verify the functionally suitability at the rated operating pressure.

# EXTENSION n. 09/12

**to EC-Type Examination Certificate CESI 02ATEX014**

**Report n. EX-B2008533**

**Descriptive documents** (prot. EX-B2008549)

| | | | |
|---|---|---|---|
| - n. SAS-526-D/0 | (pages 2) | dated | 14.02.2012 |
| - n. TT189/9 | (pages 10) | dated | 15.02.2012 |
| - n. 6-OA-220050-I | | dated | 15.02.2012 |
| - n. 6-OA-223050-I | | dated | 15.02.2012 |
| - Declaration of conformity TT186/7 | | 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".
- EN 60079-31: 2009 - Electrical apparatus for use in the presence of combustible dust - Part 31: protection by enclosures "t"

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# EXTENSION n. 10/15

## to EC-Type Examination Certificate CESI 02ATEX014X

**Equipment**: Explosion proof solenoid series OA-*;OAB-*; OZA-A*; OZAB-A*; MZA-A-*; MZAB-A-*

**Manufacturer:** **ATOS S.p.A.**

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

**Admitted variation**

- Updating to **EN60079-0 (2012)** and **EN60079-31 (2014)** standards.
- Constructional modifications.
- New models suitable for minimum Tamb – 60°C.
- Updating nameplate for multi-certification ATEX / IEC EX /...
- Updating of the documentation.

The details of the admitted variations are specified in the descriptive documents annexed to this extension.

**Marking**

The equipment shall be marked as follows:

**II 2G Ex d IIC T6, T4, T3 Gb**

**II 2D Ex tb IIIC T85°C, T135°C, T200°C Db IP66/67**

The temperature class and/or the maximum surface temperature are function of the ambient temperature:
Tamb: -60°C/-40°C / +40°C/+45°C/+50°C /+55°C/+60°C/+70°C.

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 02ATEX014X.

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**Date** 30 January 2015 - Translation issued the 30 January 2015

| **Prepared** | **Verified** | **Approved** |
|---|---|---|
| Enrico Radaelli | Mirko Balaz | Fiorenzo Bregani |

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



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PRD N. 018B
Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
*Signatory of EA, IAF and ILAC Mutual Recognition Agreements*

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Capitale sociale € 8.550.000 interamente versato
C.F. e numero iscrizione Reg. Imprese di Milano 00793580150
P.I. IT00793580150
N. R.E.A. 429222

# EXTENSION n. 10/15

to EC-Type Examination Certificate CESI 02ATEX014X

**Description and identification of the equipment**
Beginning from this extension solenoids suitable for installation with minimum Tamb of -60°C are introduced.
These new models are differentiated from those previously certified, suitable for minimum Tamb -40 ° C, introducing the letter "B" in the code.

**Electrical characteristics**
All electrical characteristics remain unchanged.
The characteristics for each model are detailed in the descriptive documents annexed to the certificate.

***Temperature class / Maximum surface temperature and operating temperature of the supply cables related to the maximum ambient temperature.***

| Solenoid type (minimum Tamb -40°C) | | Max Tamb temperature (°C) | Connecting cable temperature (°C) | Temperature Class / Surface Temperature |
|---|---|---|---|---|
| OA, OA/3, OA/O, OA/3/O, OA/WP, OA/3/WP, OA/O/WP, OA/3/O/WP | OAX/WP, OAX/3/WP OAX/O/WP, OAX/3/O/WP OAXS/WP, OAXS/3/WP OAXS/O/WP, OAXS/3/O/WP OAXW/WP, OAXW/3/WP OAXW/O/WP, OAXW/3/O/WP | 70 | 90 | T4 / T135°C |
| | | 45 | - | T6 / T85°C |
| - | OAKX/WP OAKX/O/WP OAKXS/WP OAKXS/O/WP OAKXW/WP OAKXW/O/WP | 70 | 130 | T3 / T200°C |
| | | 60 | 120 | |
| | | 50 | 110 | |
| | | 45 | 100 | T4 / T135°C |
| OZA-A OZA-A/O OZA-A/WP OZA-A/O/WP | OZAX-A/WP OZAX-A/O/WP OZAXS-A/WP OZAXS-A/O/WP OZAXW-A/WP OZAXW-A/O/WP | 70 | 120 | T3 / T200°C |
| | | 55 | 110 | |
| | | 45 | 95 | T4 / T135°C |
| | | 40 | 90 | |
| MZA-A MZA-A/O | MZAX-A, MZAX-A/O, MZAXS-A, MZAXS-A/O, MZAXW-A, MZAXW-A/O | 70 | 120 | T3 / T200°C |
| | | 45 | 90 | T4 / T135°C |
| | | 55 | 110 | T3 / T200°C |

*(follows)*

# EXTENSION n. 10/15

to EC-Type Examination Certificate CESI 02ATEX014X

*(follows)*

***Temperature class / Maximum surface temperature and operating temperature of the supply cables related to the maximum ambient temperature.***

| Solenoid type (minimum Tamb -60°C) | | Max Tamb temperature (°C) | Connecting cable temperature (°C) | Temperature Class / Surface Temperature |
|---|---|---|---|---|
| OAB, OAB/3, OAB/O, OAB/3/O, OAB/WP, OAB/3/WP, OAB/O/WP, OAB/3/O/WP | OABX/WP, OABX/3/WP OABX/O/WP, OABX/3/O/WP OABXS/WP, OABXS/3/WP OABXS/O/WP, OABXS/3/O/WP OABXW/WP, OABXW/3/WP OABXW/O/WP, OABXW/3/O/WP | 70 | 90 | T4 / T135°C |
| | | 45 | - | T6 / T85°C |
| - | OABKX/WP OABKX/O/WP OABKXS/WP OABKXS/O/WP OABKXW/WP OABKXW/O/WP | 70 | 130 | T3 / T200°C |
| | | 60 | 120 | |
| | | 50 | 110 | |
| | | 45 | 100 | T4 / T135°C |
| OZAB-A OZAB-A/O OZAB-A/WP OZAB-A/O/WP | OZABX-A/WP OZABX-A/O/WP OZABXS-A/WP OZABXS-A/O/WP OZABXW-A/WP OZABXW-A/O/WP | 70 | 120 | T3 / T200°C |
| | | 55 | 110 | |
| | | 45 | 95 | T4 / T135°C |
| | | 40 | 90 | |
| MZAB-A MZAB-A/O | MZABX-A, MZABX-A/O, MZABXS-A, MZABXS-A/O, MZABXW-A, MZABXW-A/O | 70 | 120 | T3 / T200°C |
| | | 45 | 90 | T4 / T135°C |
| | | 55 | 110 | T3 / T200°C |

The characteristics of the cables and of the accessories used for cable entries shall be suitable for the use in the ambient/operating temperature of the solenoid. The accessories used for cable entries shall be certified separately and suitable for the installation hazardous area.

**Report n.** EX-B5002589.

**Routine test**

The manufacturer shall carried out the routine tests prescribed at clause 27 of EN 60079-0 Standard and at clause 16 of EN 60079-1 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 –40 °C or -60°C (function of the model).

The actuators are submitted to an individual overpressure test to verify the functionally suitability at the rated operating pressure.

# EXTENSION n. 10/15

## to EC-Type Examination Certificate CESI 02ATEX014X

**Descriptive documents** (prot. EX-B5002605)

| | | | |
|---|---|---|---|
| - Technical Note n. SAS-555-D/0 | (pg. 4) | dated | 03.12.2014 |
| - Safety Instructions n. TT291-2 | (pg. 14) | dated | 03.12.2014 |
| - n. 6 -OAB-100050- I rev. 2 | | dated | 13.10.2014 |
| - n. 6 -OA-220000-I rev. 1 | | dated | 14.05.2014 |
| - n. 6 -OAB-100000-I | | dated | 14.05.2014 |
| - n. 6 -OA-223000-I rev. 1 | | dated | 20.05.2014 |
| - n. 6 -OAB-103000- I | | dated | 20.05.2014 |
| - n. 6 -OZA-220000- I rev. 1 | | dated | 20.05.2014 |
| - n. 6 -OZAB-100000- I | | dated | 20.05.2014 |
| - n. 6 -MZA-230000- I rev. 1 | | dated | 20.05.2014 |
| - n. 6 -MZAB-100000- I | | dated | 20.05.2014 |
| - n. 6 -OAX-220000- I rev. 1 | | dated | 18.06.2014 |
| - n. 6 -OABX-100000- I | | dated | 18.06.2014 |
| - n. 6 -OAX-223000- I rev. 1 | | dated | 18.06.2014 |
| - n. 6 -OABX-103000- I | | dated | 18.06.2014 |
| - n. 6 -OZAX-120000- I rev. 1 | | dated | 18.06.2014 |
| - n. 6 -OZABX-100000- I | | dated | 18.06.2014 |
| - n. 6 -MZAX-230000- I rev. 1 | | dated | 18.06.2014 |
| - n. 6 -MZABX-100000- I | | dated | 18.06.2014 |
| - n. 6 -OAXS-220000- I rev. 1 | | dated | 19.06.2014 |
| - n. 6 -OABXS-100000- I | | dated | 18.06.2014 |
| - n. 6 -OAXS-223000- I rev. 1 | | dated | 19.06.2014 |
| - n. 6 -OABXS-103000- I | | dated | 18.06.2014 |
| - n. 6 -OZAXS-120000- I rev. 1 | | dated | 19.06.2014 |
| - n. 6 -OZABXS-100000- I | | dated | 18.06.2014 |
| - n. 6 -MZAXS-230000- I rev. 1 | | dated | 19.06.2014 |
| - n. 6 -MZABXS-100000- I | | dated | 18.06.2014 |
| - n. 6 -OAXW-220000- I.. rev. 1 | | dated | 19.06.2014 |
| - n. 6 -OABXW-100000- I | | dated | 18.06.2014 |
| - n. 6 -OAXW-223000- I rev. 1 | | dated | 19.06.2014 |
| - n. 6 -OABXW-103000- I | | dated | 18.06.2014 |
| - n. 6 -OZAXW-120000- I rev. 1 | | dated | 19.06.2014 |
| - n. 6 -OZABXW-100000- I | | dated | 18.06.2014 |
| - n. 6 -MZAXW-230000- I rev. 1 | | dated | 19.06.2014 |
| - n. 6 -MZABXW-100000- I | | dated | 18.06.2014 |
| - n. 6 -OA-220100- I | | dated | 26.05.2014 |
| - n. 6 -OAB-100100- I | | dated | 21.05.2014 |
| - n. 6 -OAX-220100- I | | dated | 04.12.2014 |
| - n. 6 -OABX-100100- I | | dated | 18.06.2014 |
| - n. 6 -OA-221500- I rev. 2 | | dated | 20.05.2014 |
| - Declaration of conformity nr TT186/8 *(fac simile)* | | dated | 03.12.2014 |

One copy of all documents is kept in CESI files.

# EXTENSION n. 10/15

**to EC-Type Examination Certificate CESI 02ATEX014X**

**Special conditions for safe use (X)**

*Beginning from this extension the "X" suffix is added to the CESI 02ATEX014 certificate numbert and it becomes* ***CESI 02ATEX014X*** *for the insertion of the following special condition for safe use:*

- The flamepaths are specified in the manufacturer drawings. For information regarding the dimensions of the flameproof joints the manufacturer shall be contacted.

- The characteristics of the connecting cables and of the accessories used for cable entries shall be suitable for the use in the ambient/operating temperature of the solenoid. For the selection of the operating temperature of the cable depending on the model of the solenoid and the relevant installation and / or operation temperatures, refer to the Safety Instructions provided by the Manufacturer.

- Information relating to use, installation, repair and maintenance of the equipment are included within the safety instructions.

**Essential Health and Safety Requirements**

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

- EN 60079-0: 2012 – Explosive atmospheres - Equipment - General requirements.
- EN 60079-1: 2007 – Explosive atmospheres - Equipment protection by flameproof enclosures "d".
- CEI EN 60079-1: 2008 (annex 1) – Explosive atmospheres – Equipment protection by flameproof enclosures "d".
- EN 60079-31: 2014 – Explosive atmospheres – Equipment dust ignition protection by enclosures "t".

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# EXTENSION n. 10/15

## to EC-Type Examination Certificate CESI 02ATEX014X

**Equipment:** Explosion proof solenoid series OA-*;OAB-*; OZA-A*; OZAB-A*; MZA-A-*; MZAB-A-*

**Manufacturer:** **ATOS S.p.A.**

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

**Admitted variation**

- Updating to **EN60079-0 (2012)** and **EN60079-31 (2014)** standards.
- Constructional modifications.
- New models suitable for minimum Tamb – 60°C.
- Updating nameplate for multi-certification ATEX / IEC EX /...
- Updating of the documentation.

The details of the admitted variations are specified in the descriptive documents annexed to this extension.

**Marking**

The equipment shall be marked as follows:

**II 2G Ex d IIC T6, T4, T3 Gb**

**II 2D Ex tb IIIC T85°C, T135°C, T200°C Db IP66/67**

The temperature class and/or the maximum surface temperature are function of the ambient temperature:
Tamb: -60°C/-40°C / +40°C/+45°C/+50°C /+55°C/+60°C/+70°C.

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 02ATEX014X.

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

**Date** 30 January 2015 - Translation issued the 30 January 2015

| **Prepared** | **Verified** | **Approved** |
|---|---|---|
| Enrico Radaelli | Mirko Balaz | Fiorenzo Bregani |

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





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Capitale sociale € 8.550.000 interamente versato
C.F. e numero iscrizione Reg. Imprese di Milano 00793580150
P.I. IT00793580150
N. R.E.A. 429222

# EXTENSION n. 10/15

## to EC-Type Examination Certificate CESI 02ATEX014X

**Description and identification of the equipment**
Beginning from this extension solenoids suitable for installation with minimum Tamb of -60°C are introduced.
These new models are differentiated from those previously certified, suitable for minimum Tamb -40 ° C, introducing the letter "B" in the code.

**Electrical characteristics**
All electrical characteristics remain unchanged.
The characteristics for each model are detailed in the descriptive documents annexed to the certificate.

***Temperature class / Maximum surface temperature and operating temperature of the supply cables related to the maximum ambient temperature.***

| Solenoid type (minimum Tamb -40°C) | | Max Tamb temperature (°C) | Connecting cable temperature (°C) | Temperature Class / Surface Temperature |
|---|---|---|---|---|
| OA, OA/3, OA/O, OA/3/O, OA/WP, OA/3/WP, OA/O/WP, OA/3/O/WP | OAX/WP, OAX/3/WP OAX/O/WP, OAX/3/O/WP OAXS/WP, OAXS/3/WP OAXS/O/WP, OAXS/3/O/WP OAXW/WP, OAXW/3/WP OAXW/O/WP, OAXW/3/O/WP | 70 | 90 | T4 / T135°C |
| | | 45 | - | T6 / T85°C |
| - | OAKX/WP OAKX/O/WP OAKXS/WP OAKXS/O/WP OAKXW/WP OAKXW/O/WP | 70 | 130 | T3 / T200°C |
| | | 60 | 120 | |
| | | 50 | 110 | |
| | | 45 | 100 | T4 / T135°C |
| OZA-A OZA-A/O OZA-A/WP OZA-A/O/WP | OZAX-A/WP OZAX-A/O/WP OZAXS-A/WP OZAXS-A/O/WP OZAXW-A/WP OZAXW-A/O/WP | 70 | 120 | T3 / T200°C |
| | | 55 | 110 | |
| | | 45 | 95 | T4 / T135°C |
| | | 40 | 90 | |
| MZA-A MZA-A/O | MZAX-A, MZAX-A/O, MZAXS-A, MZAXS-A/O, MZAXW-A, MZAXW-A/O | 70 | 120 | T3 / T200°C |
| | | 45 | 90 | T4 / T135°C |
| | | 55 | 110 | T3 / T200°C |

*(follows)*

# EXTENSION n. 10/15

to EC-Type Examination Certificate CESI 02ATEX014X

*(follows)*

***Temperature class / Maximum surface temperature and operating temperature of the supply cables related to the maximum ambient temperature.***

| Solenoid type (minimum Tamb -60°C) | | Max Tamb temperature (°C) | Connecting cable temperature (°C) | Temperature Class / Surface Temperature |
|---|---|---|---|---|
| OAB, OAB/3, OAB/O, OAB/3/O, OAB/WP, OAB/3/WP, OAB/O/WP, OAB/3/O/WP | OABX/WP, OABX/3/WP OABX/O/WP, OABX/3/O/WP OABXS/WP, OABXS/3/WP OABXS/O/WP, OABXS/3/O/WP OABXW/WP, OABXW/3/WP OABXW/O/WP, OABXW/3/O/WP | 70 | 90 | T4 / T135°C |
| | | 45 | - | T6 / T85°C |
| - | OABKX/WP OABKX/O/WP OABKXS/WP OABKXS/O/WP OABKXW/WP OABKXW/O/WP | 70 | 130 | T3 / T200°C |
| | | 60 | 120 | |
| | | 50 | 110 | |
| | | 45 | 100 | T4 / T135°C |
| OZAB-A OZAB-A/O OZAB-A/WP OZAB-A/O/WP | OZABX-A/WP OZABX-A/O/WP OZABXS-A/WP OZABXS-A/O/WP OZABXW-A/WP OZABXW-A/O/WP | 70 | 120 | T3 / T200°C |
| | | 55 | 110 | |
| | | 45 | 95 | T4 / T135°C |
| | | 40 | 90 | |
| MZAB-A MZAB-A/O | MZABX-A, MZABX-A/O, MZABXS-A, MZABXS-A/O, MZABXW-A, MZABXW-A/O | 70 | 120 | T3 / T200°C |
| | | 45 | 90 | T4 / T135°C |
| | | 55 | 110 | T3 / T200°C |

The characteristics of the cables and of the accessories used for cable entries shall be suitable for the use in the ambient/operating temperature of the solenoid. The accessories used for cable entries shall be certified separately and suitable for the installation hazardous area.

**Report n.** EX-B5002589.

**Routine test**

The manufacturer shall carried out the routine tests prescribed at clause 27 of EN 60079-0 Standard and at clause 16 of EN 60079-1 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 –40 °C or -60°C (function of the model).

The actuators are submitted to an individual overpressure test to verify the functionally suitability at the rated operating pressure.

# EXTENSION n. 10/15

## to EC-Type Examination Certificate CESI 02ATEX014X

**Descriptive documents** (prot. EX-B5002605)

| | | |
|---|---|---|
| - Technical Note n. SAS-555-D/0 | (pg. 4) | dated 03.12.2014 |
| - Safety Instructions n. TT291-2 | (pg. 14) | dated 03.12.2014 |
| - n. 6 -OAB-100050- I rev. 2 | | dated 13.10.2014 |
| - n. 6 -OA-220000-I rev. 1 | | dated 14.05.2014 |
| - n. 6 -OAB-100000-I | | dated 14.05.2014 |
| - n. 6 -OA-223000-I rev. 1 | | dated 20.05.2014 |
| - n. 6 -OAB-103000- I | | dated 20.05.2014 |
| - n. 6 -OZA-220000- I rev. 1 | | dated 20.05.2014 |
| - n. 6 -OZAB-100000- I | | dated 20.05.2014 |
| - n. 6 -MZA-230000- I rev. 1 | | dated 20.05.2014 |
| - n. 6 -MZAB-100000- I | | dated 20.05.2014 |
| - n. 6 -OAX-220000- I rev. 1 | | dated 18.06.2014 |
| - n. 6 -OABX-100000- I | | dated 18.06.2014 |
| - n. 6 -OAX-223000- I rev. 1 | | dated 18.06.2014 |
| - n. 6 -OABX-103000- I | | dated 18.06.2014 |
| - n. 6 -OZAX-120000- I rev. 1 | | dated 18.06.2014 |
| - n. 6 -OZABX-100000- I | | dated 18.06.2014 |
| - n. 6 -MZAX-230000- I rev. 1 | | dated 18.06.2014 |
| - n. 6 -MZABX-100000- I | | dated 18.06.2014 |
| - n. 6 -OAXS-220000- I rev. 1 | | dated 19.06.2014 |
| - n. 6 -OABXS-100000- I | | dated 18.06.2014 |
| - n. 6 -OAXS-223000- I rev. 1 | | dated 19.06.2014 |
| - n. 6 -OABXS-103000- I | | dated 18.06.2014 |
| - n. 6 -OZAXS-120000- I rev. 1 | | dated 19.06.2014 |
| - n. 6 -OZABXS-100000- I | | dated 18.06.2014 |
| - n. 6 -MZAXS-230000- I rev. 1 | | dated 19.06.2014 |
| - n. 6 -MZABXS-100000- I | | dated 18.06.2014 |
| - n. 6 -OAXW-220000- I.. rev. 1 | | dated 19.06.2014 |
| - n. 6 -OABXW-100000- I | | dated 18.06.2014 |
| - n. 6 -OAXW-223000- I rev. 1 | | dated 19.06.2014 |
| - n. 6 -OABXW-103000- I | | dated 18.06.2014 |
| - n. 6 -OZAXW-120000- I rev. 1 | | dated 19.06.2014 |
| - n. 6 -OZABXW-100000- I | | dated 18.06.2014 |
| - n. 6 -MZAXW-230000- I rev. 1 | | dated 19.06.2014 |
| - n. 6 -MZABXW-100000- I | | dated 18.06.2014 |
| - n. 6 -OA-220100- I | | dated 26.05.2014 |
| - n. 6 -OAB-100100- I | | dated 21.05.2014 |
| - n. 6 -OAX-220100- I | | dated 04.12.2014 |
| - n. 6 -OABX-100100- I | | dated 18.06.2014 |
| - n. 6 -OA-221500- I rev. 2 | | dated 20.05.2014 |
| - Declaration of conformity nr TT186/8 *(fac simile)* | | dated 03.12.2014 |

One copy of all documents is kept in CESI files.

# EXTENSION n. 10/15

## to EC-Type Examination Certificate CESI 02ATEX014X

**Special conditions for safe use (X)**
*Beginning from this extension the "X" suffix is added to the CESI 02ATEX014 certificate numbert and it becomes* ***CESI 02ATEX014X*** *for the insertion of the following special condition for safe use:*

- The flamepaths are specified in the manufacturer drawings. For information regarding the dimensions of the flameproof joints the manufacturer shall be contacted.

- The characteristics of the connecting cables and of the accessories used for cable entries shall be suitable for the use in the ambient/operating temperature of the solenoid. For the selection of the operating temperature of the cable depending on the model of the solenoid and the relevant installation and / or operation temperatures, refer to the Safety Instructions provided by the Manufacturer.

- Information relating to use, installation, repair and maintenance of the equipment are included within the safety instructions.

**Essential Health and Safety Requirements**
The Essential Health and Safety Requirements are assured by compliance to the following standards:
- EN 60079-0: 2012 – Explosive atmospheres - Equipment - General requirements.
- EN 60079-1: 2007 – Explosive atmospheres - Equipment protection by flameproof enclosures "d".
- CEI EN 60079-1: 2008 (annex 1) – Explosive atmospheres – Equipment protection by flameproof enclosures "d".
- EN 60079-31: 2014 – Explosive atmospheres – Equipment dust ignition protection by enclosures "t".

CESI

| protocollo | firma |
|---|---|
| B5002605 | Modelli |
| **allegato al certificato** | **data** |
| CESI 02 ATEX 014 X | 30/01/2015 |

# Dichiarazione di conformità
## Declaration of conformity

TT186/8
Atos spa

CE

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* | |
|---|---|---|
| SOLENOIDI ANTIDEFLAGRANTI *EXPLOSION-PROOF SOLENOIDS* | OA-*, OA/O-*, OA/WP-*, OA/O/WP-*, OA/3-*, OA/3/O-*, OA/3/WP-*, OA/3/O/WP*, OZA-A-*, MZA-A-*, OZA-A-*/O, MZA-A-*/O, OZA-A-*/WP, OZA-A-*/O/WP, OAX/WP-*, OAKX/WP-*, OAX/O/WP-*, OAKX/O/WP-*,OAX/3/WP-*, OAX/3/O/WP-*,OZAX-A-*/WP, MZAX-A-*, OZAX-A-*/O/WP, MZAX-A-*/O, OAXS/WP-*, OAKXS/WP-*, OAXS/O/WP-*, OAKXS/O/WP-*, OAXS/3/WP-*, OAXS/3/O/WP-*, OZAXS-A-*/WP, MZAXS-A-*, OZAXS-A-*/O/WP, MZAXS-A-*/O,OAXW/WP-*, OAKXW/WP-*, OAXW/O/WP*, OAKXW/O/WP-*, OAXW/3/WP-*, OAXW/3/O/WP-*, OZAXW-A-*/WP, MZAXW-A-*, OZAXW-A-*/O/WP, MZAXW-A-*/O | OAB-*, OAB/O-*, OAB/WP-*, OAB/O/WP-*, OAB/3-*, OAB/3/O-*, OAB/3/WP-*, OAB/3/O/WP-*,OZAB-A-*, MZAB-A-*, OZAB-A-*/O, MZAB-A-*/O, OZAB-A-*/WP, OZAB-A-*/O/WP OABX/WP-*, OABKX/WP-*, OABX/O/WP-*, OABKX/O/WP-*,OABX/3/WP-*, OABX/3/O/WP-*, OZABX-A-*/WP, MZABX-A-*, OZABX-A-*/O/WP, MZABX-A-*/O, OABXS/WP-*, OABKXS/WP-*, OABXS/O/WP-*, OABKXS/O/WP-*, OABXS/3/WP-*, OABXS/3/O/WP-*, OZABXS-A-*/WP, MZABXS-A-*, OZABXS-A-*/O/WP, MZABXS-A-*/O, OABXW/WP-*, OABKXW/WP-*, OABXW/O/WP-*, OABKXW/O/WP-*, OABXW/3/WP-*, OABXW/3/O/WP-*, OZABXW-A-*/WP, MZABXW-A-*, OZABXW-A-*/O/WP, MZABXW-A-*/O |

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

Modo di protezione / *Protection mode*

Ex II 2 G Ex d IIC T6, T4, T3 Gb

Ex II 2 D Ex tb IIIC T85°C, T135°C, T200°C Db **IP66/67**

**Tamb = -40°C ÷ +45°C or Tamb = -40°C ÷ +70°C or Tamb = -60°C ÷ +45°C Tamb = -60°C ÷ +70°C**

Certificato / *Certificate* **CESI 02 ATEX 014 X**
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** | X | **EN 60079-0** (2012) | X | | |
| **EN 61000-6-3** | X | **EN 60079-1** (2007) | X | **EN 60079-31** (2014) | X |

**Organismo Notificato** / *Notified body* **n° 0722**

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

Data/*Date*: 03.12.2014 Firma/*Signature*: ..... 

# IECEx Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION
## IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx CES 10.0010X**



Certificate history:

Issue 2 (2015-01-29)
Issue 1 (2012-09-10)
Issue 0 (2010-09-14)

Status: **Current**

Issue No: 3

Date of Issue: 2019-10-21

Applicant: **ATOS S.p.A.**
via alla Piana, 57
I - 21018 Sesto Calende (VA)
**Italy**

Equipment: **Explosion proof solenoid, series OA-*; OAB-*; OZA-A*; OZA-T*; OZAB-A*; MZA-A-*; MZAB-A-*; OA/O-*; OAB/O-*; OA/WP-*; OAB/WP-*; OA/O/WP-*; OAB/O/WP-***

Optional accessory:

Type of Protection: **Flameproof enclosures 'd'; Dust ignition protection 't'**

Marking: **Ex db IIC T6 or T4 or T3 Gb**

**Ex tb IIIC T85°C or T135°C or T200°C Db**

**IP 66/67**

Approved for issue on behalf of the IECEx Certification Body: **Mirko Balaz**

Position: **Head of IECEx CB**

Signature:
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

**CESI**
**Centro Elettrotecnico**
**Sperimentale Italiano S.p.A.**
**Via Rubattino 54**
**20134 Milano**
**Italy**

# IECEx Certificate of Conformity



Certificate No.: **IECEx CES 10.0010X**

Date of issue: 2019-10-21 Issue No: 3

Manufacturer: **ATOS S.p.A.**
via alla Piana, 57
I - 21018 Sesto Calende (VA)
**Italy**

Additional manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

**STANDARDS** :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

**IEC 60079-0:2017** Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

**IEC 60079-1:2014-06** Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

**IEC 60079-31:2013** Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

**TEST & ASSESSMENT REPORTS:**
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

IT/CES/ExTR10.0010/00 IT/CES/ExTR10.0010/01 IT/CES/ExTR10.0010/02
IT/CES/ExTR10.0010/03

Quality Assessment Report:

IT/CES/QAR10.0003/09

# IECEx Certificate of Conformity



**EQUIPMENT:**
Equipment and systems covered by this Certificate are as follows:

Explosion proof solenoids series OA-*; OAB-*; OZA-A*; OZA-T*; OZAB-A*; MZA-A-*; MZAB-A-*; OA/O-*; OAB/O-*; OA/WP-*; OAB/WP-*; OA/O/WP-*; OAB/O/WP-*.

The explosion proof solenoids in subject are used to drive direction control, flow control and pressure control valves.

**Electrical characteristics**

| | |
|---|---|
| Rated voltage: | 12 / 220 Vdc , 12/ 240 Vac (depending of the models). |
| Rated power: | 3,5 / 35 W (depending of the models). |
| Ambient temperature range: | from -60°C / -40°C to + 40° / +45°C / + 50°C / +55°C /+60°C / + 70°C *(depending of the model).* |
| Degree of protection: | IP 66/67 (IEC 60529). |

Details concerning version, model code, short description, min and max T amb, constructional materials, cable temperature, temperature class, surface temperatures and power supply are mentioned in Annexe.

**SPECIFIC CONDITIONS OF USE: YES as shown below:**

- The flame paths are specified in the manufacturer drawings. For information regarding the dimensions of the flameproof joints the manufacturer shall be contacted.
- For the selection of connecting cable with operating temperature suitable for the installation conditions of equipment refer to the manufacturer safety instruction.
- Use screws property class A4-70 UNI 5931 with yield stress ≥ 450MPa.

# IECEx Certificate of Conformity



**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

Variation 3.1:

The explosion proof solenoids, originally assessed in compliance with IEC 60079-0: 2011 and IEC 60079-1: 2007 have been re-assessed on the basis of the standard IEC 60079-0: 2017, 7th edition and IEC 60079-1:2014, 7th edition.

Variation 3.2:

Ex marking concerning the flameproof enclosure protection type has been updated to “db” for EPL Gb, according to latest edition of standard IEC 60079-1:2014, 7th edition. Ex marking on the nameplate has been updated.

Variation 3.3:

Integration of explosion proof solenoid with position transducer type E-THA-* certified separately by IECEx CES 12.0006X with type of protection “db” and “tb”.

The solenoid, where position transducer is integrated as accessory is called OZA*-T*:

OZA-T*: composed by standard materials and E-THA*-* transducer

OZAX-T*: composed by full stainless steel materials and E-THA*-* transducer

OZAXS-T*: composed by external stainless steel materials and E-THA*-* transducer

OZAXW-T*: composed by internal stainless steel materials and E-THA*-* transducer

The integration of the explosion proof inductive transducer devices in the solenoid enclosure does not introduce new flameproof joint. Each enclosure maintains its own flameproof joints.

The implementation of the new solenoid models with the inductive transducers ETHA-4/* provides a modification of the IP joint in the area of the coupling between both enclosures: An O-ring gasket interposed between the shell of the solenoid and the cap of the transducer, replaces the O-ring gasket used on the rotor shaft of the solenoid (used when it is not coupled to the transducer).

The temperature class of the solenoid takes into account the temperature class of the position transducer coupled.

The solenoid models with integrated the inductive transducer maintain the same technical characteristics and supply power than the same solenoid models without the transducer device.

**Annex:**

IECExCES10.0010X Issue 3 ANNEXE - ATOS solenoids.pdf

# IECEx Certificate of Conformity

Prot: B9020746

**Annex to certificate:** **IECEx CES 10.0010X_Issue No.3 of 2019-10-21**

**Applicant:** **ATOS S.p.A.**
**Via alla Piana, 57 – 21018 Sesto Calende (Varese) - Italy**

**Electrical Apparatus:** **Explosion proof solenoids series OA-*; OAB-*; OZA-A*; OZA-T*; OZAB-A*; MZA-A-*; MZAB-A-*; OA/O-*; OAB/O-*; OA/WP-*; OAB/WP-*; OA/O/WP-*; OAB/O/WP-***
**(standard version, see product information for complete model types)**

## Description of equipment

The explosion proof solenoids in subject are used to drive direction control, flow control and pressure control valves. In the following are summarized the models and the relevant description.

## Version, model code and short description

| Version | Code | Description |
|---|---|---|
| Standard | **OA-*** | on-off solenoid |
| | **OA/3-*** | on-off solenoid - power 3,5 W |
| | **OZA-A-*** | proportional solenoid without position transducer |
| | **MZA-A-*** | proportional solenoid without position transducer and without manual override |
| | **OZA-T** | proportional solenoid with position transducer |
| Standard<br><br>Temp. Amb. -60°C | **OAB-*** | on-off solenoid for Amb.T -60°C |
| | **OAB/3-*** | on-off solenoid -power 3,5 W for Amb.T -60°C |
| | **OZAB-A-*** | proportional solenoid without position transducer for Amb.T -60°C |
| | **MZAB-A-*** | proportional solenoid without position transducer and without manual override for Amb.T -60°C |
| with protected manual override | **OA/WP-*** | on-off solenoid with protected manual override |
| | **OA/3/WP-*** | on-off solenoid with protected manual override - power 3,5W |
| | **OZA-A-*/WP** | proportional solenoid without position transducer and with protected manual override |
| with protected manual override Temp. Amb. -60°C | **OAB/WP-*** | on-off solenoid with protected manual override for Amb.T -60°C |
| | **OAB/3/WP-*** | on-off solenoid with protected manual override - power 3,5 W for Amb.T -60°C |
| | **OZAB-A-*/WP** | proportional solenoid without position transducer and with protected manual override for Amb.T -60°C |
| with horizontal cable output | **OA/O-*** | on-off solenoid with horizontal cable output |
| | **OA/3/O-*** | on-off solenoid with horizontal cable output - power 3,5 W |
| | **OA/O/WP-*** | on-off solenoid with protected manual override and horizontal cable output |
| | **OA/3/O/WP-*** | on-off solenoid with protected manual override, horizontal cable output - power 3,5 W |
| | **OZA-A-*/O** | proportional solenoid without position transducer and with horizontal cable output |
| | **OZA-A-*/O/WP** | proportional solenoid without position transducer, with protected manual override and horizontal cable output |
| | **MZA-A-*/O** | proportional solenoid without position transducer, without manual override and with horizontal output cable |
| with horizontal cable output<br><br>Temp. Amb. -60°C | **OAB/O-*** | on-off solenoid with horizontal cable output for Amb.T -60°C |
| | **OAB/3/O-*** | on-off solenoid with horizontal cable output - power 3,5 W for Amb.T -60°C |
| | **OAB/O/WP-*** | on-off solenoid with protected manual override and horizontal cable output for Amb.T -60°C |
| | **OAB/3/O/WP-*** | on-off solenoid with protected manual override, horizontal cable output - power 3,5 W for Amb.T -60°C |
| | **OZAB-A-*/O** | proportional solenoid without position transducer and with horizontal cable output for Amb.T -60°C |
| | **OZAB-A-*/O/WP** | proportional solenoid without position transducer, with protected manual override and horizontal cable output for Amb.T -60°C |
| | **MZAB-A-*/O** | proportional solenoid without position transducer, without manual override and with horizontal output cable for Amb.T -60°C |
| stainless steel | **OAX/WP-*** | stainless steel on-off solenoid – power 8W |
| | **OAX/3/WP-*** | stainless steel on-off solenoid – power 3,5W |
| | **OAKX/WP-*** | stainless steel on-off solenoid – power 25W |
| | **OZAX-A-*/WP** | stainless steel proportional solenoid without position transducer |
| | **MZAX-A-*** | stainless steel proportional solenoid without position transducer and without manual override |
| | **OZAX-T-*** | stainless steel proportional solenoid without position transducer and without manual override |
| stainless steel<br><br>Temp. Amb. -60°C | **OABX/WP-*** | stainless steel on-off solenoid – power 8W for Amb.T -60°C |
| | **OABX/3/WP-*** | stainless steel on-off solenoid – power 3,5W for Amb.T -60°C |
| | **OABKX/WP-*** | stainless steel on-off solenoid – power 25W for Amb.T -60°C |
| | **OZABX-A-*/WP** | Stainless steel proportional solenoid without position transducer for Amb.T -60°C |

**Annex to certificate:** **IECEx CES 10.0010X_Issue No.3 of 2019-10-21**

**Applicant:** **ATOS S.p.A.**
**Via alla Piana, 57 – 21018 Sesto Calende (Varese) - Italy**

**Electrical Apparatus:** **Explosion proof solenoids series OA-*; OAB-*; OZA-A*; OZA-T*; OZAB-A*; MZA-A-*; MZAB-A-*; OA/O-*; OAB/O-*; OA/WP-*; OAB/WP-*; OA/O/WP-*; OAB/O/WP-***
**(standard version, see product information for complete model types)**

| | | |
|---|---|---|
| | **MZABX-A-*** | Stainless steel proportional solenoid without position transducer and without manual override for Amb.T -60°C |
| Stainless steel with horizontal cable output | **OAX/O/WP-*** | Stainless steel on-off solenoid – power 8W with horizontal cable output |
| | **OAX/3/O/WP-*** | Stainless steel on-off solenoid – power 3,5W with horizontal cable output |
| | **OAKX/O/WP-*** | stainless steel on-off solenoid – power 25W with horizontal cable output |
| | **OZAX-A-*/O/WP** | Stainless steel proportional solenoid without position transducer and horizontal cable output |
| | **MZAX-A-*/O** | Stainless steel proportional solenoid without position transducer, without manual override and with horizontal cable output |
| Stainless steel with horizontal cable output<br><br>Temp. Amb. -60°C | **OABX/O/WP-*** | Stainless steel on-off solenoid – power 8W with horizontal cable output for Amb.T -60°C |
| | **OABX/3/O/WP-*** | Stainless steel on-off solenoid – power 3,5W with horizontal cable output for Amb.T -60°C |
| | **OABKX/O/WP-*** | stainless steel on-off solenoid – power 25W with horizontal cable output for Amb.T -60°C |
| | **MZABX-A-*/O** | Stainless steel proportional solenoid without position transducer, without manual override and with horizontal cable output for Amb.T -60°C. |
| External stainless steel, internal standard | **OAXS/WP-*** | External stainless steel and internal standard on-off solenoid – power 8W |
| | **OAXS/3/WP-*** | External stainless steel and internal standard on-off solenoid – power 3,5W |
| | **OAKXS/WP-*** | External stainless steel and internal standard on-off solenoid – power 25W |
| | **OZAXS-A-*/WP** | External stainless steel and internal standard proportional solenoid without position transducer |
| | **MZAXS-A-*** | External stainless steel and internal standard proportional solenoid without position transducer and without manual override |
| | **OZAXS-T-*** | External stainless steel and internal standard proportional solenoid with position transducer and without manual override |
| External stainless steel, internal standard<br><br>Temp. Amb. -60°C | **OABXS/WP-*** | External stainless steel and internal standard on-off solenoid – power 8W for Amb.T -60°C |
| | **OABXS/3/WP-*** | External stainless steel and internal standard on-off solenoid – power 3,5W for Amb.T -60°C |
| | **OABKXS/WP-*** | External stainless steel and internal standard on-off solenoid – power 25W for Amb.T -60°C |
| | **OZABXS-A-*/WP** | External stainless steel and internal standard proportional solenoid without position transducer for Amb.T -60°C |
| | **MZABXS-A-*** | External stainless steel and internal standard proportional solenoid without position transducer and without manual override for Amb.T -60°C |
| External stainless steel, internal standard with horizontal cable output | **OAXS/O/WP-*** | External stainless steel and internal standard on-off solenoid – power 8W with horizontal cable output |
| | **OAXS/3/O/WP-*** | External stainless steel and internal standard on-off solenoid – power 3,5W with horizontal cable output |
| | **OAKXS/O/WP-*** | external stainless steel and internal standard on-off solenoid – power 25W with horizontal cable output |
| | **OZAXS-A-*/O/WP** | external stainless steel and internal standard proportional solenoid without position transducer and with horizontal cable output |
| | **MZAXS-A-*/O** | external stainless steel and internal standard proportional solenoid without position transducer and without manual override and with horizontal cable output |
| External stainless steel, internal standard with horizontal cable output<br><br>Temp. Amb. -60°C | **OABXS/O/WP-*** | External stainless steel and internal standard on-off solenoid – power 8W with horizontal cable output for Amb.T -60°C |
| | **OABXS/3/O/WP-*** | External stainless steel and internal standard on-off solenoid – power 3,5W with horizontal cable output for Amb.T -60°C |
| | **OABKXS/O/WP-*** | external stainless steel and internal standard on-off solenoid – power 25W with horizontal cable output for Amb.T -60°C |
| | **OZABXS-A-*/O/WP** | external stainless steel and internal standard proportional solenoid without position transducer and with horizontal cable output for Amb.T -60°C |
| | **MZABXS-A-*/O** | external stainless steel and internal standard proportional solenoid without position transducer and without manual override and with horizontal cable output for Amb.T -60°C |
| Internal stainless steel, external standard | **OAXW/WP-*** | Internal stainless steel and external standard on-off solenoid – power 8W |
| | **OAXW/3/WP-*** | Internal stainless steel and external standard on-off solenoid – power 3,5W |
| | **OAKXW/WP-*** | Internal stainless steel and external standard on-off solenoid – power 25W |
| | **OZAXW-A-*/WP** | internal stainless steel and external standard proportional solenoid without position transducer |
| | **MZAXW-A-*** | internal stainless steel and external standard proportional solenoid without position transducer and without manual override |

**Annex to certificate:** **IECEx CES 10.0010X_Issue No.3 of 2019-10-21**

**Applicant:** **ATOS S.p.A.**
**Via alla Piana, 57 – 21018 Sesto Calende (Varese) - Italy**

**Electrical Apparatus:** **Explosion proof solenoids series OA-*; OAB-*; OZA-A*; OZA-T*; OZAB-A*; MZA-A-*; MZAB-A-*; OA/O-*; OAB/O-*; OA/WP-*; OAB/WP-*; OA/O/WP-*; OAB/O/WP-***
**(standard version, see product information for complete model types)**

| | | |
|---|---|---|
| | **OZAXW-T-*** | internal stainless steel and external standard proportional solenoid with position transducer and without manual override |
| Internal stainless steel, external standard<br><br>Temp. Amb. -60°C | **OABXW/WP-*** | Internal stainless steel and external standard on-off solenoid – power 8W for Amb.T -60°C |
| | **OABXW/3/WP-*** | Internal stainless steel and external standard on-off solenoid – power 3,5W for Amb.T -60°C |
| | **OABKXW/WP-*** | Internal stainless steel and external standard on-off solenoid – power 25W for Amb.T -60°C |
| | **OZABXW-A-*/WP** | internal stainless steel and external standard proportional solenoid without position transducer for Amb.T -60°C |
| | **MZABXW-A-*** | internal stainless steel and external standard proportional solenoid without position transducer and without manual override for Amb.T -60°C |
| Internal stainless steel, external standard with horizontal cable output | **OAXW/O/WP-*** | internal stainless steel and external standard on-off solenoid – power 8W with horizontal cable output |
| | **OAXW/3/O/WP-*** | Internal stainless steel and external standard on-off solenoid – power 3,5W with horizontal cable output |
| | **OAKXW/O/WP-*** | Internal stainless steel and external standard on-off solenoid – power 25W with horizontal cable output |
| | **OZAXW-A-*/O/WP** | Internal stainless steel and external standard proportional solenoid without position transducer and with horizontal cable output |
| | **MZAXW-A-*/O** | Internal stainless steel and external standard proportional solenoid without position transducer and without manual override and with horizontal cable output |
| Internal stainless steel, external standard with horizontal cable output<br><br>Temp. Amb. -60°C | **OABXW/O/WP-*** | internal stainless steel and external standard on-off solenoid – power 8W with horizontal cable output for Amb.T -60°C |
| | **OABXW/3/O/WP-*** | Internal stainless steel and external standard on-off solenoid – power 3,5W with horizontal cable output for Amb.T -60°C |
| | **OABKXW/O/WP-*** | Internal stainless steel and external standard on-off solenoid – power 25W with horizontal cable output for Amb.T -60°C |
| | **OZABXW-A-*/O/WP** | Internal stainless steel and external standard proportional solenoid without position transducer and with horizontal cable output for Amb.T -60°C |
| | **MZABXW-A-*/O** | Internal stainless steel and external standard proportional solenoid without position transducer and without manual override and with horizontal cable output for Amb.T -60°C |

**Electrical characteristics**

Rated voltage: 12 / 220 Vdc, 12/ 240 Vac (depending of the models)
Rated power: 3,5 / 35 W (depending of the models)

Ambient temperature range:
from -60°C / -40°C to + 40° / +45°C / + 50°C / +55°C /+60°C / + 70°C (depending of the model)

Degree of protection: IP 66/67 (IEC 60529)

**Max ambient temperature, temperature class, surface temperature, connecting cable temperature**

| Solenoid type (**for Min T.Amb -40°C**) | | **T amb.** Max ambient temperature (°C) | Connecting cable temperature (°C) | Temperature class / surface temperature |
|---|---|---|---|---|
| OA, OA/3, OA/O, OA/3/O, OA/WP, OA/3/WP, OA/O/WP, OA/3/O/WP | OAX/WP, OAX/3/WP<br>OAX/O/WP, OAX/3/O/WP<br>OAXS/WP, OAXS/3/WP<br>OAXS/O/WP, OAXS/3/O/WP<br>OAXW/WP, OAXW/3/WP<br>OAXW/O/WP, OAXW/3/O/WP | 70 | 90 | T4 / T135°C |
| | | 45 | - | T6 / T85°C |
| - | OAKX/WP<br>OAKX/O/WP<br>OAKXS/WP | 70 | 130 | T3 / 200°C |
| | | 60 | 120 | |
| | | 50 | 110 | |

**Annex to certificate:** **IECEx CES 10.0010X_Issue No.3 of 2019-10-21**

**Applicant:** **ATOS S.p.A.**
**Via alla Piana, 57 – 21018 Sesto Calende (Varese) - Italy**

**Electrical Apparatus:** **Explosion proof solenoids series OA-*; OAB-*; OZA-A*; OZA-T*; OZAB-A*; MZA-A-*; MZAB-A-*; OA/O-*; OAB/O-*; OA/WP-*; OAB/WP-*; OA/O/WP-*; OAB/O/WP-***
**(standard version, see product information for complete model types)**

| | | | | |
|---|---|---|---|---|
| | OAKXS/O/WP<br>OAKXW/WP<br>OAKXW/O/WP | 45 | 100 | T4 / T135°C |
| OZA-A<br>OZA-A/O<br>OZA-A/WP<br>OZA-A/O/WP | OZAX-A/WP<br>OZAX-A/O/WP<br>OZAXS-A/WP<br>OZAXS-A/O/WP<br>OZAXW-A/WP<br>OZAXW-A/O/WP | 70 | 120 | T3 / 200°C |
| | | 55 | 110 | |
| | | 45 | 95 | T4 / T135°C |
| | | 40 | 90 | |
| MZA-A<br>MZA-A/O | MZAX-A, MZAX-A/O,<br>MZAXS-A, MZAXS-A/O,<br>MZAXW-A, MZAXW-A/O | 70 | 120 | T3 / 200°C |
| | | 45 | 90 | T4 / T135°C |
| | | 55 | 110 | T3 / 200°C |
| OZA-T | OZAX-T, OZAXS-T, OZAXW-T | 70 | 120 | T3 / T200 °C |
| | | 40 | 90 | T4 / T135 °C |
| Solenoid type (**for Min T.Amb -60°C)** | | **T amb.** Max ambient temperature (°C) | Connecting cable temperature (°C) | Temperature class / surface temperature |
| OAB, OAB/3,<br>OAB/O, OAB/3/O,<br>OAB/WP, OAB/3/WP,<br>OAB/O/WP,<br>OAB/3/O/WP | OABX/WP, OABX/3/WP<br>OABX/O/WP, OABX/3/O/WP<br>OABXS/WP, OABXS/3/WP<br>OABXS/O/WP,<br>OABXS/3/O/WP<br>OABXW/WP, OABXW/3/WP<br>OABXW/O/WP,<br>OABXW/3/O/WP | 70 | 90 | T4 / T135°C |
| | | 45 | - | T6 / T85°C |
| - | OABKX/WP<br>OABKX/O/WP<br>OABKXS/WP<br>OABKXS/O/WP<br>OABKXW/WP<br>OABKXW/O/WP | 70 | 130 | T3 / 200°C |
| | | 60 | 120 | |
| | | 50 | 110 | |
| | | 45 | 100 | T4 / T135°C |
| OZAB-A<br>OZAB-A/O<br>OZAB-A/WP<br>OZAB-A/O/WP | OZABX-A/WP<br>OZABX-A/O/WP<br>OZABXS-A/WP<br>OZABXS-A/O/WP<br>OZABXW-A/WP<br>OZABXW-A/O/WP | 70 | 120 | T3 / 200°C |
| | | 55 | 110 | |
| | | 45 | 95 | T4 / T135°C |
| | | 40 | 90 | |
| MZAB-A<br>MZAB-A/O | MZABX-A, MZABX-A/O,<br>MZABXS-A, MZABXS-A/O,<br>MZABXW-A, MZABXW-A/O | 70 | 120 | T3 / 200°C |
| | | 45 | 90 | T4 / T135°C |
| | | 55 | 110 | T3 / 200°C |

**Cable entries**
The cable entry devices used on the enclosure shall be suitably certified according to the applicable standards. For the equipment with dust protection “tb” the accessories used for cable entries and for unused holes shall guarantee the degree of protection IP66/67 according to IEC 60529 standard.

**Warning label**

*“Warning – do not open when energized”*

*“For the correct selection of connecting cable temperatures see safety instructions”*

# ТАМОЖЕННЫЙ СОЮЗ

# СЕРТИФИКАТ СООТВЕТСТВИЯ

№ ТС RU C-IT.ГБ08.В.01784

Серия RU № 0408158

**ОРГАН ПО СЕРТИФИКАЦИИ** ВЗРЫВОЗАЩИЩЕННОГО ОБОРУДОВАНИЯ ЗАКРЫТОГО АКЦИОНЕРНОГО ОБЩЕСТВА ТЕХНИЧЕСКИХ ИЗМЕРЕНИЙ, БЕЗОПАСНОСТИ И РАЗРАБОТОК (ОС ВО ЗАО ТИБР). Адрес места нахождения органа по сертификации: 301668, Россия, Тульская область, город Новомосковск, улица Орджоникидзе, 8; 301760; Россия, Тульская область, город Донской, улица Горноспасательная, дом 1, строение А. Телефон/факс: 8 (495) 280-16-56, адрес электронной почты: pmv@tiber.ru, info@tiber.ru. Регистрационный номер RA.RU.11ГБ08, дата регистрации аттестата аккредитации органа по сертификации 01.04.2016. Орган по аккредитации, выдавший аттестат аккредитации - Федеральная служба по аккредитации (Росаккредитация)

**ЗАЯВИТЕЛЬ** ОБЩЕСТВО С ОГРАНИЧЕННОЙ ОТВЕТСТВЕННОСТЬЮ «ХЭЛПЭКС»
ОГРН 1097746296251. Место нахождения, в том числе фактический адрес: 125635, город Москва, улица Ангарская, дом 10, Россия. Телефон: +7495 7073366, факс: +7495 7073199.
Адрес электронной почты: отсутствует

**ИЗГОТОВИТЕЛЬ** Atos spa
Место нахождения, в том числе фактический адрес:
VIA ALLA PIANA 57, SESTO CALENDE, VA21018, Италия

**ПРОДУКЦИЯ** Клапаны соленоидные типов OA*-..., OZA*-...,MZA*-A-...,
изготовленные в соответствии с «Directive 94/9/EC».
Серийный выпуск.

**КОД ТН ВЭД ТС** 8481 80 599 0

**СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ** Технического регламента Таможенного союза «О безопасности оборудования для работы во взрывоопасных средах» (ТР ТС 012/2011)

**СЕРТИФИКАТ ВЫДАН НА ОСНОВАНИИ** Протокола испытаний № 843/836-Ex от 04.03.2015 Испытательная лаборатория взрывозащищенного оборудования Закрытого акционерного общества Испытательный Центр Технических Измерений, Безопасности и Разработок, регистрационного номера аттестата аккредитации РОСС RU.0001.21ГБ08 от 15.06.2011 по 15.06.2016. Акта анализа состояния производства изготовителя № 836/АСП от 06.02.2015. Технической документации изготовителя.

**ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ** Условия и сроки хранения, срок службы (годности) согласно эксплуатационной документации изготовителя. Сертификат действителен только с приложением (бланки № 0286318, 0286319).

**СРОК ДЕЙСТВИЯ С** 06.06.2016 **ПО** 24.03.2020 **ВКЛЮЧИТЕЛЬНО**

М.П.

**Руководитель (уполномоченное лицо) органа по сертификации** (подпись) Д.С.Подсевалов (инициалы, фамилия)

**Эксперт (эксперт-аудитор) (эксперты (эксперты-аудиторы))** (подпись) М.В. Пономарев (инициалы, фамилия)

# ПРИЛОЖЕНИЕ

## К СЕРТИФИКАТУ СООТВЕТСТВИЯ № ТС RU C-IT.ГБ08.В.01784

Серия RU № 0286318

**1. Назначение и область применения.**

Клапаны соленоидные типов OA*-…, OZA*-…,MZA*-A-… (далее по тексту клапаны) предназначены для использования в качестве элемента регулирования потоков для гидравлических и пневматических систем.

Блоки подготовки воздуха предназначены для подготовки воздуха для пневматических систем.

Клапаны, соленоиды и блоки подготовки воздуха предназначены для применения во взрывоопасных зонах в соответствии с присвоенной маркировкой взрывозащиты.

**2. Описание конструкции и средств обеспечения взрывозащиты.**

Клапаны представляют собой трубопроводную арматуру с электромагнитным приводом. Электромагнитный привод размещен во взрывонепроницаемой оболочке с установленным кабельным вводом питания (управления). Детали взрывонепроницаемых оболочек выполнены из стали.

Взрывозащита обеспечена соответствием оборудования требованиям ГОСТ Р МЭК 60079-0-2011, ГОСТ IEC 60079-1-2011, ГОСТ Р МЭК 60079-31-2010.

**3. Специальные условия применения (если в маркировке взрывозащиты указан знак «X»).**

3.1. Комплектующие электротехнические изделия, входящие в состав гидромуфт и преобразователей должны иметь действующие сертификаты соответствия на соответствие требованиям ТР ТС 012/2011 «О безопасности оборудования для работы во взрывоопасных средах», при комплектации гидромуфт данными электротехническими изделиями требуется выполнять все специальные условия указанные в сертификатах соответствия на данные изделия и руководствах по эксплуатации;

3.2. При монтаже и эксплуатации гидромуфт и преобразователей необходимо выполнять специальные условия на взрывозащищенные компоненты в составе гидромуфт и преобразователей, они должны быть изложенные в руководстве по эксплуатации.

3.3. Выполнение работ разрешается только после отключения изделия и панели управления от источника электрического питания и цепи управления во избежание непредвиденной подачи энергии.

3.4. Предел текучести крепежных деталей должен соответствовать значениям, указанным в исполнительном чертеже и спецификациях изделия.

3.5. При использовании при отрицательных температурах следует принять меры защиты от полного замораживания рабочей жидкости. Следует принять меры исключающие пуск при замораживании рабочей жидкости до твердого состояния.

**4. Маркировка.**

Маркировка, наносимая на оборудование, должна включать следующие данные:

4.1. Наименование предприятия-изготовителя или его зарегистрированный товарный знак;

4.2. Обозначение типа оборудования;

4.3. Порядковый номер оборудования по системе нумерации предприятия-изготовителя;

4.4. Наименование или знак органа по сертификации и номер сертификата соответствия;

4.5. Маркировку взрывозащиты для взрывоопасных газовых сред:

**1 Ex d IIC «T6, T4, T3» Gb X**

**Ex tb IIIC «T85°C, T135°C, T200°C» Db X**

4.6. Предупредительные надписи;

**"Внимание - не открывайте при подаче питания"**

**"Для правильного выбора соединительного кабеля см. инструкции по технике безопасности"**

4.7. Единый знак EAC обращения продукции на рынке государств - членов Таможенного союза;

4.8. Специальный знак Ex взрывобезопасности (приложение 2 к ТР ТС 012/2011);

4.9. Другие данные, которые должен отразить изготовитель, если это требуется технической документацией (температура окружающей среды, степень защиты оболочки и т.д.).

М.П.

**Руководитель (уполномоченное лицо) органа по сертификации** _____ (подпись) Д.С.Подсевалов (инициалы, фамилия)

**Эксперт (эксперт-аудитор) (эксперты (эксперты-аудиторы))** _____ (подпись) М.В. Пономарев (инициалы, фамилия)

# ПРИЛОЖЕНИЕ

## К СЕРТИФИКАТУ СООТВЕТСТВИЯ № ТС RU C-IT.ГБ08.В.01784

Серия RU № 0286319

**5. Основные технические данные.**

5.1. . Степень защиты по ГОСТ 14254 ..... IP66/IP67

5.2. . Электропитание, В ..... 12÷220

5.3. . Мощность, Вт ..... 8÷35

5.4. . Температуры окружающей среды, соединительного кабеля и температурный класс

| Тип соленоида | Температуры окружающей среды, °С | Температура соединяющего кабеля, °С | Температурный класс/ max температура поверхности |
|---|---|---|---|
| для min температуры окружающей среды минус 40°С | | | |
| OA*-… | 70 | 90 | T4 |
| | 45 | - | T6 |
| OZA*-… | 70 | 120 | T3 |
| | 55 | 110 | |
| | 45 | 95 | T4 |
| | 40 | 90 | |
| MZA*-A-… | 70 | 120 | T3 |
| | 45 | 90 | T4 |
| | 55 | 110 | T3 |
| для min температуры окружающей среды минус 60°С | | | |
| OA*-… | 70 | 90 | T4 |
| | 45 | - | T6 |
| OZA*-… | 70 | 130 | T3 |
| | 60 | 120 | |
| | 50 | 110 | T4 |
| | 45 | 100 | |
| MZA*-A-… | 70 | 120 | T3 |
| | 45 | 90 | T4 |
| | 55 | 110 | T3 |

Неэлектрические параметры клапанов и блоков подготовки воздуха не относятся к обеспечению взрывозащиты и указаны в эксплуатационной документации.

При внесении изготовителем в конструкцию и (или) техническую документацию, подтверждающую соответствие оборудования и (или) Ex-компонента требованиям ТР, изменений, влияющих на показатели взрывобезопасности оборудования, он должен предоставить в ОС ВО ЗАО ТИБР, описание изменений, техническую документацию (чертежи средств обеспечения взрывозащиты) с внесенными изменениями и образец для проведения дополнительных испытаний, если ОС ВО ЗАО ТИБР посчитает недостаточным проведение только экспертизы технической документации с внесенными изменениями для принятия решения о соответствии оборудования и (или) Ex-компонента ТР ТС 012/2011 с внесенными изменениями.

М.П.

Руководитель (уполномоченное лицо) органа по сертификации _____ (подпись) Д.С.Подсевалов (инициалы, фамилия)

Эксперт (эксперт-аудитор) (эксперты (эксперты-аудиторы)) _____ (подпись) М.В. Пономарев (инициалы, фамилия)

**Government of India**
**Ministry of Commerce & Industry**
**Petroleum & Explosives Safety Organisation (PESO)**
**5th Floor, A-Block, CGO Complex, Seminary Hills,**
**Nagpur - 440006**

E-mail : **explosives@explosives.gov.in**

Phone/Fax No : **0712 -2510248, Fax-2510577**

**Approval No : A/P/HQ/GJ/104/5709 (P446436)** Dated : **04/12/2019**

To,

**M/s. ATOS S.p.A,**
**via alla Piana, 57,Sesto Calende (VA)**
**I-21018**
**ITALY**

**Sub :** Approval of Flame Proof Type Solenoid under Petroleum Rules 2002- Regarding.

Sir(s),

Please refer to your letter No. **OIN412295** dated **03/12/2019** on the subject.

The following Ex electrical equipment(s) manufactured by you according to **IEC 60079-0 : 2017, IEC 60079-1 : 2014-06,** standards and covered under **Centro Elettrotecnico Sperimentale Italiano S.p.A.** Test reports mentioned below is/are approved for use in **Zone 1** of Gas **IIC** hazardous areas coming under the the Petroleum Rules, 2002 administered by this Organization.

| Sr. No | Description | Safety Protection | Equipment reference Number | Test Agency | | | Drawing no |
|---|---|---|---|---|---|---|---|
| | | | | Name | Certificate No. | Certificate Date | |
| 1 | Explosion Proof Solenoid Series OA-*, OAB-*, OZA-A*, OZA-T*, MZA-A-* | Ex d IIC T6/T4/T3 Gb | **P446436/1** | Centro Elettrotecnico Sperimentale Italiano S.p.A. | CESI 02ATEX014X Extension n. 10/15 | 30/01/2015 | 21473-1, 21473-2, 21473-3, 21473-4 |

This Approval is granted subject to observance of the following conditions:-

1)The design and construction of the equipment shall be strictly in accordance with description, condition and drawings as mentioned in the Centro Elettrotecnico Sperimentale Italiano S.p.A. Test Reports referred to above.

2)The equipment shall be used only with approved type of accessories and associated apparatus.

3)Each equipment shall be marked either by raised lettering cast integrally or by plate attached permanently to the main structure to indicate conspicuously:-
(a) Name of the manufacturer
(b) Name and number by which the equipment is identified.
(c) Number & date of the test report of the Centro Elettrotecnico Sperimentale Italiano S.p.A. applicable to the equipment.
(d) Equipment reference number of this letter by which use of apparatus is approved.
(e) Protection level.

4) A certificate to the effect that the equipment has been manufactured strictly in accordance with the drawing referred to in the Centro Elettrotecnico Sperimentale Italiano S.p.A. Test report and is identical with the one tested and certified at Centro Elettrotecnico Sperimentale Italiano S.p.A. shall be furnished with each equipment.
5) The customer shall be supplied with a copy of this letter, an extract of the conditions and maintenence schedule, if any, recommended by Centro Elettrotecnico Sperimentale Italiano S.p.A. in their test reports and copy of instructions booklet detailing operation & maintenance of the equipment so as to maintain its Flame Proof characterestics.
6) The After sales service and maintanance of subject equipment shall be looked after by your representative Atos India Hydraulics Private Limited, Block-I, Shivam Industrial Park-2, Vasna Chacharwadi Road, Changodar, Ahmedabad 382 213

**Conditions of the Approval:-**
The approval for above equipment is subject to validity of IECEx Quality Assessment Report No. IT/CES/QAR10.0003.

This approval also covers the permissible variations as approved under the Centro Elettrotecnico Sperimentale Italiano S.p.A. test reports referred above. This approval is liable to be cancelled if any of the conditions of the approval is violated or not complied with . The approval may also be amended or withdrawn at any time, if considered necessary in the interest of safety.

The field performance report from actual users/your customers of the subject equipment may please be collected and furnished to this office for verification and record on annual basis.

The Approval is Valid upto **31/12/2023**

Yours faithfully,

**(Ninad Dattaram Gawade)**
**Dy. Controller of Explosives**
**For Chief Controller of Explosives**
**Nagpur**

Copy to :
1. Jt. Chief Controller of Explosives, West Circle, MUMBAI
2. Atos India Hydraulics Private Limited,Block-I, Shivam Industrial Park-2, Vasna Chacharwadi Road, Changodar, Ahmedabad 382 213

**for Chief Controller of Explosives**
**Nagpur**

(For more information regarding status,fees and other details please visit our website http://peso.gov.in)

**Note:- Please submit the revalidation application one month before the date of Expiry of approval otherwise approval will be treated as cancelled and a fresh application for approval will be considered for the approval.**