

CERTIFICATE



Italia

[1] EU-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use
in potentially explosive atmospheres
Directive 2014/34/EU**

[3] EU-Type Examination Certificate number:

TÜV IT 18 ATEX 068 X

[4] Equipment or Protective System: Proportional valve with integrated electronics
mod. OZA-***-*

[5] Manufacturer: ATOS S.p.a.

[6] Address: Via Alla Piana, 57
I-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] TÜV Italia, notified body no. 0948 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report no. R 18 EX 049

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

EN 60079-0:2012+A11:2013; EN 60079-1:2014; EN 60079-31:2014

[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 EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

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



**II 2G Ex db IIC T6...T4 Gb
II 2D Ex tb IIIC T85°C...T135°C Db**

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

Issue date: 02nd April 2019



PRD N° 081B

Membro degli Accordi di Mutuo Riconoscimento
EA, IAF e ILAC
Signatory of EA, IAF and ILAC Mutual
Recognition Agreements



**TÜV Italia S.r.l.
Notified body N° 0948**

Alberto Carelli
Alberto Carelli

**Industry Service - Real Estate & Infrastructure
Managing Director**

TÜV Italia has been authorized by Italian government to operate as notified body for the certification of equipment or protective system intended for use in potentially explosive atmospheres. This document is not valid without official signature and logo. The internal reference code is 722161806.

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PEX-01-M002_r07 del 29/03/2018

[13]

SCHEDULE

[14]

EU-TYPE EXAMINATION CERTIFICATE
No. TÜV IT 18 ATEX 068 X



Certificate History

Revision	Description	Report Revision	Issue Date
-	First emission	-	02/04/2019

[15] Description of equipment

The equipment is a proportional solenoid with integrated digital electronics used to operate directional control, flow control and pressure control valves, swash plate control of variable displacement pump.
The following versions with the relevant model code of equipment are available:
(see instruction manual for detailed description of option codes below listed)

The solenoids have types of codes: **OZA-(1)-(2)-(3)/(4)**

- (1) **OZA-AES-*** used for open loop valves, without transducer
OZA-RES-* used for closed loop valves, predisposed to be coupled with an external pressure transducer external to the solenoid for pressure control
OZA-TES-* used for closed loop valves with position transducer
OZA-LES-* used for closed loop two stages valves with position transducer and predisposed to be coupled with an external position transducer external to the solenoid
OZA-TEZ-* used for closed loop valves with position transducer for axis control
OZA-LEZ-* used for closed loop two stages valves with position transducer and predisposed to be coupled with an external position transducer external to the solenoid for axis control
OZA-PES-* used for closed loop valves with position transducer for pump control
- (2) **-NP** with USB connection only
-BC additional CAN-Bus communication interface
-BP additional PROFIBUS DP communication interface
-EH additional EtherCAT communication interface
-EI additional EtherNet/IP communication interface
-EP additional PROFINET IRT communication interface
-EW additional POWERLINK communication interface
- (3) **-01** for single solenoid valve
-05 for double solenoid valve
- (4) **-** output with thread M20 x 1,5 UNI 4535
/NPT output with thread 1/2" NPT ANSI B2.1 (ANSI/ASME B1.20.1)
/GK output with thread GK-1/2" (Annex 1 CEI EN 60079-1 2008-11) only for national market
/M18 output with thread M18 x 0,75 ISO 261

For the OZA-RES, OZA-LES, OZA-LEZ and OZA-PES versions, the external position transducer and the external pressure transducer are not included in this certification.

Additional communication interfaces could be introduced, maintaining the same mechanical and electrical features.

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[13]

SCHEDULE

[14]

EU-TYPE EXAMINATION CERTIFICATE
No. TÜV IT 18 ATEX 068 X



Italia

Rated characteristics

Operating ambient temperature range	-40°C to +70°C (* see Table 2)
Protection degree	IP66 / IP67
Power supply / Consumption	24V _{DC} +/- 10% stabilized 35W, I _{max} = 2.75A PWM square wave type
Output protection	Against short circuit
Insulation class of the coil	class H
Electrical connection	36 poles terminal block, threaded cable entrance is provided with cylindrical thread M20x1,5. (other optional threads available).

Table 1

Solenoid type	T amb. max	Temperature class
OZA-AES-** OZA-RES-** OZA-TES-**	+40°C	T6
OZA-LES-** OZA-TEZ-**	+55°C	T5
OZA-LEZ-** OZA-PES-**	+70°C	T4

Table 2

Warning label

DO NOT OPEN WHEN ENERGIZED
USE FASTERENRS WITH QUALITY 8.8 ISO 898-1
FOR CABLE SELECTION: SEE INSTRUCTIONS

[16] Report no. R 18 EX 049

Routine tests

None.

[17] Special conditions for safe use

The device intended for use with ambient temperature up to 40°C and 55°C shall be feed with cable whose thermal stability is not less than 80°C and 90°C respectively.
The device intended for use with ambient temperature up to 70°C shall be feed with cable whose thermal stability is not less than 110°C

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[13]

SCHEDULE

[14]

EU-TYPE EXAMINATION CERTIFICATE
No. TÜV IT 18 ATEX 068 X



[18] Essential Health and Safety Requirements

Assured by compliance with the standards set out in the [9].

[19] Drawings and Documents

Listed documents (prot. 722161806)

Title:	Description:	Pages:	Rev:	Date:
SAS-593-D-0	Technical note ATEX	04	0	05/03/2019
TT-373	Safety instructions	06	0	05/03/2019
TT-374	Example of Declaration of conformity ATEX	01	0	-
21396	DWG: Wirings layout and connection interfaces	05	-	-
A6-OZAAES-200000-I-EN	DWG: Solenoid	01	3	04/03/2019
A6-OZAAES-200001-I-EN	DWG: Solenoid (with dimensional joints table)	01	1	21/12/2018
A6-OZAAES-200010-I-EN	DWG: Shell	01	1	21/12/2018
A6-OZATES-200000-I-EN	DWG: Solenoid	01	4	04/03/2019
A6-OZATES-200001-I-EN	DWG: Solenoid (with dimensional joints table)	01	1	02/01/2019
A6-OZATES-200010-I-EN	DWG: Shell	01	2	02/01/2019
A10-ERITEA-200011-I-EN	DWG: Housing	01	3	04/03/2019
A10-ERITEA-200013-I-EN	DWG: Cover (6 holes)	01	2	04/03/2019
A10-ERITEA-201013-I	DWG: Cover (3 holes)	01	4	04/03/2019
AT-1190	DWG: Nameplate	01	2	05/03/2019

One copy of all documents is kept in TÜV Italia files.

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IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx TPS 19.0004X

Issue No: 0

Certificate history:

[Issue No. 0 \(2019-05-15\)](#)

Status: **Current**

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Date of Issue: **2019-05-15**

Applicant: **ATOS S.p.a.**
Via Alla Piana, 57
I-21018 Sesto Calende (VA)
Italy

Equipment: **Proportional valve with integrated electronics**

Optional accessory:

Type of Protection: **flameproof enclosure "d"; dust ignition protection by enclosure "t"**

Marking:

Ex db IIC T6/T5/T4 Gb

Ex tb IIIC T85°C/T100°C/T135°C Db

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

Ing. Kristof De Gersem MSc.

Position:

Technical Certifier

*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 the [Official IECEx Website](#).

Certificate issued by:

TÜV SÜD Product Service GmbH
Ridlerstr. 65
D-80339 Munich
Germany



Product Service



IECEx Certificate of Conformity

Certificate No: IECEx TPS 19.0004X

Issue No: 0

Date of Issue: 2019-05-15

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Manufacturer: **ATOS S.p.a.**
Via Alla Piana, 57
I-21018 Sesto Calende (VA)
Italy

Additional Manufacturing location(s):

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 apparatus 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 : 2011 Explosive atmospheres - Part 0: General requirements

Edition:6.0

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 electrical 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 Report:

[GB/CML/ExTR19.0085/00](#)

Quality Assessment Report:

[IT/CES/QAR10.0003/00](#)



IECEx Certificate of Conformity

Certificate No: IECEx TPS 19.0004X

Issue No: 0

Date of Issue: 2019-05-15

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The equipment is a proportional solenoid with integrated digital electronics used to operate directional control, flow control and pressure control valves, swash plate control of variable displacement pump.

The following versions with the relevant model code of equipment are available:
(see instruction manual for detailed description of option codes below listed)

The solenoids have types of codes: OZA-(1)-(2)-(3)/(4)

- (1) OZA-AES-* used for open loop valves, without transducer
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OZA-LES-* used for closed loop two stages valves with position transducer and predisposed to be coupled with an external position transducer external to the solenoid
OZA-TEZ-* used for closed loop valves with position transducer for axis control
OZA-LEZ-* used for closed loop two stages valves with position transducer and predisposed to be coupled with an external position transducer external to the solenoid for axis control
OZA-PES-* used for closed loop valves with position transducer for pump control
- (2) -NP with USB connection only
-BC additional CAN-Bus communication interface
-BP additional PROFIBUS DP communication interface
-EH additional EtherCAT communication interface
-EI additional EtherNet/IP communication interface
-EP additional PROFINET IRT communication interface
-EW additional POWERLINK communication interface
- (3) -01 for single solenoid valve
-05 for double solenoid valve
- (4) - output with thread M20 x 1,5 UNI 4535
/NPT output with thread 1/2" NPT ANSI B2.1 (ANSI/ASME B1.20.1)
/GK output with thread GK-1/2" (Annex 1 IEC 60079-1) only for national market
/M18 output with thread M18 x 0,75 ISO 261

For the OZA-RES, OZA-LES, OZA-LEZ and OZA-PES versions, the external position transducer and the external pressure transducer are not included in this certification.

Additional communication interfaces could be introduced, maintaining the same mechanical and electrical features.

Rated characteristics

See attachement

Warning label



IECEx Certificate of Conformity

Certificate No: IECEx TPS 19.0004X

Issue No: 0

Date of Issue: 2019-05-15

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See attachement

Routine tests

None

SPECIFIC CONDITIONS OF USE: YES as shown below:

The device intended for use with ambient temperature up to 40°C and 55°C shall be feed with cable of thermal stability not less than 80°C and 90°C respectively. The device intended for use with ambient temperature up to 70°C shall be feed with cable whose thermal stability is not less than 110°C.

The dimensions of the joints are different from those indicated in the reference standards. The flameproof joints are not intended to be repaired by the user.

Annex:

[Annex to COC IECEx TPS 19.0004.pdf](#)



IECEX Certificate of Conformity



Product Service

Order no. 64.105.19.30175.01 Client no.098529

Annex to certificate: IECEx TPS 19.0004X

Applicant: ATOS S.p.A.
Via Alla Piana, 57 I-21018 Sesto Calende (VA), ITALY

Apparatus: Proportional valve with integrated electronics

Type(s) OZA-***_*

Description of equipment

The equipment is a proportional solenoid with integrated digital electronics used to operate directional control, flow control and pressure control valves, swash plate control of variable displacement pump.

The following versions with the relevant model code of equipment are available:

(see instruction manual for detailed description of option codes below listed)

The solenoids have types of codes: OZA-(1)-(2)-(3)/(4)

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OZA-LEZ-* used for closed loop two stages valves with position transducer and predisposed to be coupled with an external position transducer external to the solenoid for axis control
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IECEx Certificate of Conformity



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Order no. 64.105.19.30175.01

Client no.098529

Annex to certificate: IECEx TPS 19.0004X

Applicant: ATOS S.p.A.

Via Alla Piana, 57 I-21018 Sesto Calende (VA), ITALY

Apparatus: Proportional valve with integrated electronics

Type(s) OZA-***-*

For the OZA-RES, OZA-LES, OZA-LEZ and OZA-PES versions, the external position transducer and the external pressure transducer are not included in this certification.

Rated characteristics

Operating ambient temperature range	-40°C to +40°C/+55°C/+70°C (* see Table 2)
Protection degree	IP66 / IP67 (test according to IEC 60079-0)
Power supply / Consumption	24V DC +/- 10% stabilized 35W, I _{max} = 2.75A PWM square wave type
Output protection	Against short circuit
Insulation class of the coil	Class H
Electrical connection	36 poles terminal block, threaded cable entrance is provided with cylindrical thread M20x1,5. (other optional threads available).

Table 1

Solenoid type	T _{amb. max}	Temperature class
OZA-AES-**	+40°C	T6
OZA-RES-**		
OZA-TES-**	+55°C	T5
OZA-LES-**		
OZA-TEZ-**	+70°C	T4
OZA-LEZ-**		
OZA-PES-**		

Table 2

Warning label

DO NOT OPEN WHEN ENERGIZED

SREW GRADE 8.8

FOR THE CORRECT SELECTION OF CONNECTING CABLE TEMPERATURE, SEE SAFETY INSTRUCTIONS

Routine tests

None.