



# 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](http://www.iecex.com)

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Issue 0 (2019-05-15)

Status: **Current** Issue No: 1

Date of Issue: 2020-05-07

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...T4 Gb  
Ex tb IIIC T85°C...T135°C Db

Approved for issue on behalf of the IECEx  
Certification Body:

**Frank Zhu, MSc.**

Position:

**Technical Certifier**

Signature:  
(for printed version)

Date:

2020.05.09

1. This certificate and schedule may only be reproduced in full.
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Certificate issued by:

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



Product Service



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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:

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

[GB/CML/ExTR20.0087/00](#)

Quality Assessment Report:

[IT/CES/QAR10.0003/09](#)



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## **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 more details relevant model code of equipment please refer the attachment.

## **Rated characteristics**

See attachment

## **Warning label**

See attachment

## **Routine tests**

None

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

1. 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
2. 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.



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

1. Minor changes on drawings.
2. Update standard version.

**Annex:**

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



## IECEX Certificate of Conformity



Product Service

**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)

- Z-RA-T(L)EZ-\*\*-0\*H

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.



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**Applicant:** ATOS S.p.A.  
 Via Alla Piana, 57 I-21018 Sesto Calende (VA), ITALY.  
**Apparatus:** Proportional valve with integrated electronics  
**Type(s):** OZA-\*\*\*\_\*

## Rated characteristics

Operating ambient temperature range	-40°C to +40°C/+55°C/+70°C (* see Table 2)
Protection degree	IP66 / IP67
Power supply / Consumption	24V <sub>DC</sub> +/- 10% stabilized 35W, I <sub>max</sub> = 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-RES-**		
OZA-LES-**	+55°C	T5
OZA-LES-**		
OZA-TEZ-**	+70°C	T4
OZA-LEZ-**		
OZA-PES-**		

Table 2

## Warning label

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

## Routine tests

None.