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 EUT 14.0006	Issue No: 0	Certificate history: Issue No. 0 (2014-06-30)
Status:	**Current**	Page 1 of 3	
Date of Issue:	**2014-06-30**		
Applicant:	**DVG Automation S.p.A.** Via G. Rossetti, 2 – 29016 Cortemaggiore (PC) **Italy**		
Electrical Apparatus:	**Electro-hydraulic actuator controller**		
Optional accessory:			
Type of Protection:	**Flameproof enclosures "d"; Equipment dust ignition protection by enclosure "t"**		
Marking:	Ex db IIB T5 Ex tb IIIC T86°C		

Approved for issue on behalf of the IECEx Certification Body: Dionisio Bucchieri

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 the Official IECEx Website.

Certificate issued by:

Eurofins TECH S.r.l.
Via Cuorgnè,
n.21 - 10156 Torino
Italy

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Manufacturer:	**DVG Automation S.p.A.** Via G. Rossetti, 2 – 29016 Cortemaggiore (PC) **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 electrical 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 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition:6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2008 Edition:1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'

*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:

IT/EUT/ExTR14.0009/00

Quality Assessment Report:

IT/EUT/QAR14.0003/00

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The electro-hydraulic actuator controller can command electric motors.The electro-hydraulic actuator controller can be made of aluminium or stainless steel (the paint used has a maximum thickness of 1050 µm). The equipment of group IIB and group IIIC have respectively the type of protection “Ex d” and “Ex t”.
A more detailed description is given in the annex

CONDITIONS OF CERTIFICATION: NO

Annex:

EUT.14.REL.01_52305.pdf

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Annex to certificate: IECEx EUT 14.0006 Issue N. 0 of 2014-06-30

General product information:

The electro-hydraulic actuator controller can command four types of electric motors:

- Three phase motor (standard 400 Vac, other voltages available), the power of the motor is determined by the characteristics of the associated HPU; this type of controller checks the phase sequence, missing phase and motor power consumption.
- Single phase motor (standard 230 Vac, other voltages available), the power of the motor is determined by the characteristics of the associated HPU, this type of controller checks missing phase and motor power consumption.
- Three phase motor controlled by an inverter. This technical solution is adopted when the supply voltage is 24 Vdc.
- Direct current electric motor (standard 24Vdc)

The electro-hydraulic actuator controller can receive and transmit many signal types, by means of internally installed discrete components.

The electro-hydraulic actuator controller can be made of aluminium or stainless steel (the paint used has a maximum thickness of 1050 µm).

The equipment of group IIB and group IIIC have respectively the type of protection “Ex d” and “Ex t”.

Electrical characteristics

Maximum rated voltage: 460 Vac
Maximum rated current: 55 A
Maximum power dissipation: 10 W

Degree of protection: IP 68 (1 m 2 hour)

Ambient temperature: -20 ÷ +85 °C (or -45 ÷ +85 °C or -60 ÷ +85 °C)

Temperature class and Maximum surface temperature: T5 and 86°C.

Cable entries

The cable entry devices used on the enclosures must be suitably IEC Ex certified.

The accessories used for cable entries and for unused holes must be subjected to a separate certification according to the applicable standards IEC 60079-1 and IEC 60079-31.

Screws

The used screws comply with quality A4-70, or superior (i.e. A4-80).

Warning label

“Do not open when energized”

“Do not open in presence of explosive atmosphere”

“Potential electrostatic charging hazard - clean with damp cloth or antistatic products”

Routine tests:

In compliance with IEC 60079-1, the manufacturer must perform the individual pressure test on each enclosure with a minimum pressure of:

15 bar for at least 10s in case of range of ambient temperature between -45°C and +85°C;
16.8 bar for at least 10s in case of range of ambient temperature between -60°C and +85°C;