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 14.0008	Issue No: 0	Certificate history: Issue No. 0 (2014-11-25)
Status:	**Current**	Page 1 of 3	
Date of Issue:	**2014-11-25**		
Applicant:	**DVG Automation S.p.A.** Via G. Rossetti, 2 – 29016 Cortemaggiore (PC) **Italy**		
Electrical Apparatus:	**Intelligent total valve control**		
Optional accessory:			
Type of Protection:	**Flameproof enclosures "d"; Equipment dust ignition protection by enclosure "t"**		
Marking:	Ex db IIB+H_2 T5 Ex tb IIIC T88°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/ExTR14.0008/00

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 I.T.V.C. is a control system for actuators. It has a luminium/AISI 316L enclosure (the paint used can have s thickness lower than 0.2 mm or of 1 mm)

It can be equipped (only -20°C÷+85°C ITVC version) with a rechargeable lithium-ion battery and/or with bluetooth module type "Optional".

The equipment is suitable for group IIB+H_2 and group IIIC.

It can be sold alone or with another equipment manufactured by DVG Automation called “HPU”.

Rated voltage: 22-60 Vdc or 90-260 Vac

Rated Power: from 5 to 45W max

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

A more detailed description is given in the annex

CONDITIONS OF CERTIFICATION: NO

Annex:

EUT.14.REL.02.52305.pdf

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Annex to certificate: IECEx EUT 14.0008 Issue N. 0 of 2014-11-25

General product information:

The I.T.V.C. is a control system for hydraulic, electro-hydraulic, pneumatic or electrical actuators. It consists of the following parts:

- Power board which is made of power supply stage, terminal blocks, cables support, conditioning board for the signals coming from outside
- Control board where there are the management algorithms and bus interfaces
- Panel board with three capacitive push-buttons
- Display board
- Aluminium/AISI 316L enclosure to accommodate the boards (the paint used can have s thickness lower than 0.2 mm or of 1 mm)
- Aluminium/AISI 316L enclosure to accommodate the batteries (optional)
- Bluetooth Antenna

The ITVC can be equipped (only -20°C÷+85°C ITVC version) with a rechargeable lithium-ion battery, which in case of power failure, keeps the ITVC functional. In particular:

- Standard Battery pack: capacity 53Wh which is placed in an enclosure with the dimensions of 118 x 205 x 38 mm

The ITVC can be equipped with a bluetooth module. There are two version:

- Default: PAN1321-SPP Series, manufactured by Panasonic; the module is placed inside the main enclosure and is coupled with an internal passive antenna ;
- Optional (only -20°C÷+85°C ITVC version): BT730 Series, manufactured by Laird; the module is placed inside the main enclosure and is coupled with an external passive antenna through the use of Type “AXN3S2408-S” antenna coupler manufactured by Solexy (This component is already IEC Ex certificate);

The equipment is suitable for group IIB+H_2 and group IIIC and it has respectively the type of protection “Ex d” and “Ex t”.

The ITVC can be placed on the market alone or with another equipment manufactured by DVG Automation which is called “HPU”. In the second case : it is provided with one or two bushings which have been already evaluated in the ExTR n. IT/EUT/ExTR14.0009/00.

Rated voltage: 22-60 Vdc or 90-260 Vac

Rated Power: from 5 to 45W max

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

Ambient temperature -20°C ÷ +85 °C (only this version can be equipped with battery and/or Bluetooth module type “Optional”)
-45°C ÷ +85 °C
-60°C ÷ +85 °C

Cable entries

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

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

Screws

The used screws comply with quality 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” (only for paint thickness of 1mm)

Routine tests, if any:

When the equipment is constructed for the range of ambient temperature different from between -20°C and +85°C, in compliance with the clause 16.3.1 of IEC 60079-1, the manufacturer must perform the individual pressure test on the enclosures with a minimum pressure of:

Enclosure	Pressure test -45°C≤Ta≤+85°C [bar]	Pressure test -60°C≤Ta≤+85°C [bar]
Main	8	12.2