

[1]

EU-TYPE EXAMINATION CERTIFICATE

[2]

**Equipment intended for use in potentially explosive atmospheres
Directive 2014/34/EU – Annex III**

[3]

Certificate Number: **EUM1 12 ATEX 0789 X** issue 4

[4]

Equipment: **Control system for actuators
Intelligence Total Valve Control (I.T.V.C.)**

[5]

Manufacturer: **DVG AUTOMATION S.P.A.**

[6]

Address: **Via Rossetti, n. 2 - 29016 Cortemaggiore (PC)**

[7]

This equipment and its accepted variations are specified in the annex to this Certificate.

[8]

Eurofins Product Testing Italy S.r.l., Notified Body n. 0477 in accordance with Article 21 of the Directive 2014/34/EU of the European Parliament and of the Council of 26th February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II of the Directive. The examination and test results are recorded in the confidential Report N°EPT.18.REL.03/55667.

[9]

Compliance with the essential health and safety is assured through the verification of them and by compliance with the standard:

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 is subject to the special conditions for safe use specified in the annex to this Certificate.

[11]

This EU -TYPE EXAMINATION CERTIFICATE relates only to the design, the exam and the tests of the specified equipment.

Further requirements of the Directive 2014/34/EU apply to the manufacture and supply of this equipment. These requirements are not object of this Certificate.

[12]

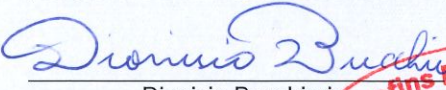
The equipment shall include the sign  and the following strings:

**II 2G Ex db IIB+H2 T5 Gb
II 2D Ex tb IIIC Txx°C Db**

Ambient temperature ranges and limit temperatures are reported in the equipment description.



Place and date of issue:

Torino, 2019-02-22
Dionisio Bucchieri
Directive Responsible
Paolo Trisoglio
Managing Director**Notified Body N. 0477****ACCREDIA**
L'ENTE ITALIANO DI ACCREDITAMENTO**PRD N° 119B**Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
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This Certificate has 5 pages and it is reproducible only in its entirety. Conditions of validity are reported below.



[13]

ANNEX

[14]

EU-TYPE EXAMINATION CERTIFICATE N. EUM1 12 ATEX 0789 X issue 4
[15] Equipment description

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.
- 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 connected in series, which in case of power failure, keeps the ITVC functional. The battery pack has got a capacity equals to 53Wh and is placed in a dedicated enclosure provided on the top side of the ITVC.

The ITVC can be equipped with the following optional devices:

- Bluetooth module PAN1321-SPP series, manufactured by Panasonic.

The module is placed inside the main enclosure and is coupled with an internal passive antenna:

- Pressure transmitter component type ATRD, manufactured by DVG Automation.

This Ex component is used to measure the pressure of oil or air inside the actuator cylinder on which the ITVC is installed.

The equipment is suitable for group IIB+H2 and group IIIC and it has respectively the type of protection "Ex db" and "Ex tb". 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 "HPU" assessment.

Electrical parameters and allowed optional accessories:

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

Rated Power: from 5 to 45W max

Relationship between ambient temperature, maximum surface temperature and allowed optional accessories						
Accessory	T. amb.				Temperature limits	
	-20°C ÷ +85 °C	-40°C ÷ +85 °C	-45°C ÷ +85 °C	-60°C ÷ +85 °C	Temperature class	Maximum surf. temperature
Battery compartment	√	X	X	X	T5	T88°C
Pressure transmitter ATRD	√	√	X	X	T5	T95°C




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Page 2 of 5
2019-02-22

PRD N° 119B
Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC Mutual Recognition Agreements



[13]

ANNEX

[14]

EU-TYPE EXAMINATION CERTIFICATE N. EUM1 12 ATEX 0789 X issue 4
Warning label

- Do not open while energized
- Do not open in presence of explosive atmosphere
- Potential electrostatic charging hazard - clean with damp cloth or antistatic products
- Flameproof joints cannot be repaired
- Use screws quality A4-70
- Warning – It contains battery – Don't open in presence of explosive atmosphere

Routine tests

When the equipment is manufactured for ambient temperature range different than -20°C and $+85^{\circ}\text{C}$, the manufacturer shall perform the individual pressure test on the enclosures according the following minimum values in compliance with the clause 16.3.1 of EN 60079-1:

Enclosure	Pressure test $-45^{\circ}\text{C} \leq T_a \leq +85^{\circ}\text{C}$ [bar]	Pressure test $-60^{\circ}\text{C} \leq T_a \leq +85^{\circ}\text{C}$ [bar]
Main	8	12.15
Battery box (118 x 205 x 38 mm)	15	14.55
Battery box (118 x 205 x 78 mm)	19.8	20.95

[16] Assessment Report n° EPT.18.REL.03/55667

This EU-Type Examination Certificate is released after the positive result of the conformity assessment of the Council Directive 2014/34/EU and to harmonized technical standards listed in this certificate performed by the Notified Body Eurofins Product Testing Italy S.r.l., and reported in the Assessment Report above cited.

[17] Special condition for a safe use

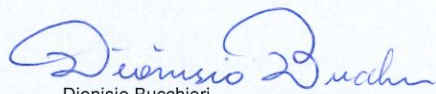
- Flameproof joints are not intended to be repaired.
- Potential electrostatic charging hazard - clean with damp cloth or antistatic products.

[18] Essential Health and Safety Requirements

Assured by compliance with harmonized standards.


PRD N° 119B

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Dionisio Bucchieri
Directive Responsible

Page 3 of 5
2019-02-22



[13]

ANNEX

[14]

EU-TYPE EXAMINATION CERTIFICATE N. EUM1 12 ATEX 0789 X issue 4
[19] Descriptive documents

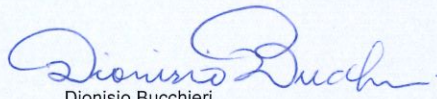
The equipment objects of this Certificate are described by the following documents.

Scheduled documents are indicated with the symbol "✓". They cannot be modified without the explicit authorization of the Notified Body.

Type of document	Document identification	Rev.	Date	Scheduled
Marking label	DITVCTRG0007	1	27/08/2018	✓
Warning label	DITVCTRG0001	0	05/10/2012	✓
Warning label	DITVCTRG0002	1	11/10/2012	✓
Warning label	DITVCTRG0004	1	27/07/2018	✓
Assembly drawing	AITVC00HE0	2	14/02/2014	✓
Enclosure drawing	DITVCCP0EH0	0	18/04/2012	✓
Enclosure drawing	DITVCCP0040	4	04/10/2012	✓
Enclosure drawing	DITVCCP0010	2	04/10/2012	✓
Enclosure drawing	DITVCPI0000	1	04/10/2012	✓
Battery enclosure (big)	DITVCCP0050	1	15/07/2014	✓
Battery enclosure (small)	DITVCCP0020	1	12/07/2012	✓
Gasket drawing	DITVCCPGN10	2	04/10/2012	✓
Gasket drawing	DITVCCPGN20	2	04/10/2012	✓
Gasket drawing	DITVCCPGN40	1	04/10/2012	✓
Gasket drawing	DITVCGC0000	1	04/10/2012	✓
Glass drawing	DITVCVD0000	0	18/04/2012	✓
Glass drawing	DITVCVP0000	0	18/04/2012	✓
Drawing of adhesive for glass	DITVCGP0000	1	03/09/2012	✓
Drawing of adhesive for glass	DITVCGD0000	1	03/09/2012	✓
Installation, operation and maintenance manual	IOM-ITVC	07	05/02/2019	✓


PRD N° 119B

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 Page 4 of 5
 2019-02-22



[13]

ANNEX

[14]

EU-TYPE EXAMINATION CERTIFICATE N. EUM1 12 ATEX 0789 X issue 4
[20] Terms and conditions

The product liability rests with the Manufacturer, his representative or, in the absence of a representative, with the importer, in accordance with the General Product Safety Directive 2001/95/EC.

The following conditions may render this certificate invalid:

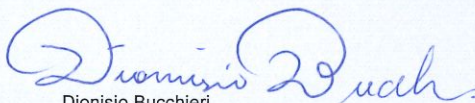
- changes in the design or construction of the product;
- changes or amendments to the Directive;
- changes or amendments in the standards which form the basis for documenting compliance with the essential requirements of the 2014/34/EU Directive.

[21] History

Issue	Description	Date
0	- First Emission.	2012-10-25
1	- Constructive changes have been applied. - An ambient temperature range has been included.	2014-02-24
2	- A battery box version has been included in the equipment.	2014-10-13
3	- A Bluetooth antenna mounted externally the enclosure has been included as accessory.	2014-12-13
4	- Standard editions have been updated. - Equipment marking has been updated. - Specific conditions for a safe use have been included. - The available optional accessories have been updated.	2019-02-22



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Page 5 of 5
2019-02-22

End of Certificate