ISTITUTO DI RICERCHE E COLLAUDI
M. MASINI S.r.l.

Sede amministrativa e laboratori: Via Moscova, 11 - 20017 RHO (MI) – ITALIA – Sede Legale: Via S. Eufemia, 2 – CF e P.IVA 00862210150
Tel. +39.02.93.01.517 r.a. - Fax +39.02.93.08.176 – www.istitutomasini.it - istitutomasini@istitutomasini.it

Organismo Notificato n° 0068 - *Notified Body n° 0068*

DICHIARAZIONE DI RICEZIONE
DECLARATION OF RECEIPT

N. DI REGISTRAZIONE / *REGISTRATION No.*
DCH-003-2008

Rinnovo del - *Renewal of* 20/12/2013

L'Istituto di Ricerche e Collaudi M. Masini, Organismo Notificato con no. 0068 per la Direttiva 94/9/CE (Atex), dichiara di aver ricevuto in data 24/11/2008 dalla società:
The Istituto di Ricerche e Collaudi M. Masini, Notified Body with identification number 0068 for the 94/9/EC directive (Atex), hereby declares to have received on 11/24/2008 from the manufacturer:

DVG AUTOMATION S.p.A.
Via G. Rossetti, 2 – 29016 CORTEMAGGIORE (PC) – ITALIA

il fascicolo tecnico "FT 07-08-002-REV. 1" (emissione del 10/10/2008) relativo al prodotto
the technical file "FT 07-08-002-REV. 1" (issue of 10/10/2008) related to the product

Attuatore BY SERIES

Il Fascicolo Tecnico consegnato é composto da / *The submitted technical file consists of*:

- manuale d'uso e manutenzione / *operating instructions and maintenance*;
- disegni e calcoli di progetto/*design drawings and calculations*;
- analisi del rischio / *risk analysis*;
- distinta componenti e relativi datasheet / *components list and relating datasheet*;

Il produttore si impegna ad informare l'Istituto Ricerche e Collaudi M. Masini di ogni modifica, anche insignificante, fatta o pianificata sul prodotto sopradescritto.
The manufacturer has to inform the Istituto Ricerche e Collaudi M. Masini about any modification, even insignificant one, made or planned to be made to the above mentioned product.

Il fascicolo tecnico sarà conservato fino al: **20/12/2023**
The technical file will be kept until:

Su richiesta del costruttore potrà essere ulteriormente conservato, ritornato o distrutto.
On request of the applicant, it will then further kept, returned or destroyed.

ISTITUTO DI RICERCHE M. MASINI 0068

Il Direttore Tecnico / *Technical Manager*
Dr. Ing. Sergio Tosi

ISTITUTO DI RICERCHE E COLLAUDI
M. MASINI S.r.l.

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Organismo Notificato n° 0068 - *Notified Body n° 0068*

DICHIARAZIONE DI RICEZIONE
DECLARATION OF RECEIPT

N. DI REGISTRAZIONE / *REGISTRATION No.*
DCH-004-2008

Rinnovo del - *Renewal of* 20/12/2013

L'Istituto di Ricerche e Collaudi M. Masini, Organismo Notificato con no. 0068 per la Direttiva 94/9/CE (Atex), dichiara di aver ricevuto in data 24/11/2008 dalla società:
The Istituto di Ricerche e Collaudi M. Masini, Notified Body with identification number 0068 for the 94/9/EC directive (Atex), hereby declares to have received on 11/24/2008 from the manufacturer:

DVG AUTOMATION S.p.A.
Via G. Rossetti, 2 – 29016 CORTEMAGGIORE (PC) – ITALIA

il fascicolo tecnico "FT 07-08-003-REV. 0" (emissione del 10/10/2008) relativo al prodotto
the technical file "FT 07-08-003-REV. 0" (issue of 10/10/2008) related to the product

Attuatore LA SERIES

Il Fascicolo Tecnico consegnato é composto da / *The submitted technical file consists of*:

- manuale d'uso e manutenzione / *operating instructions and maintenance*;
- disegni e calcoli di progetto/*design drawings and calculations*;
- analisi del rischio / *risk analysis*;
- distinta componenti e relativi datasheet / *components list and relating datasheet*;

Il produttore si impegna ad informare l'Istituto Ricerche e Collaudi M. Masini di ogni modifica, anche insignificante, fatta o pianificata sul prodotto sopradescritto.
The manufacturer has to inform the Istituto Ricerche e Collaudi M. Masini about any modification, even insignificant one, made or planned to be made to the above mentioned product.

Il fascicolo tecnico sarà conservato fino al: **20/12/2023**
The technical file will be kept until:

Su richiesta del costruttore potrà essere ulteriormente conservato, ritornato o distrutto.
On request of the applicant, it will then further kept, returned or destroyed.

ISTITUTO DI RICERCHE M. MASINI 0068

Il Direttore Tecnico / *Technical Manager*
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ISTITUTO DI RICERCHE E COLLAUDI
M. MASINI S.r.l.

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Organismo Notificato n° 0068 - *Notified Body n° 0068*

DICHIARAZIONE DI RICEZIONE
DECLARATION OF RECEIPT

N. DI REGISTRAZIONE / *REGISTRATION No.*
DCH-002-2008

Rinnovo del - *Renewal of* 20/12/2013

L'Istituto di Ricerche e Collaudi M. Masini, Organismo Notificato con no. 0068 per la Direttiva 94/9/CE (Atex), dichiara di aver ricevuto in data 24/11/2008 dalla società:
The Istituto di Ricerche e Collaudi M. Masini, Notified Body with identification number 0068 for the 94/9/EC directive (Atex), hereby declares to have received on 11/24/2008 from the manufacturer:

DVG AUTOMATION S.p.A.
Via G. Rossetti, 2 – 29016 CORTEMAGGIORE (PC) – ITALIA

il fascicolo tecnico "FT 07-08-001-REV. 1" (emissione del 10/10/2008) relativo al prodotto
the technical file "FT 07-08-001-REV. 1" (issue of 10/10/2008) related to the product

Attuatore QT SERIES

Il Fascicolo Tecnico consegnato é composto da / *The submitted technical file consists of*:

- manuale d'uso e manutenzione / *operating instructions and maintenance*;
- disegni e calcoli di progetto/*design drawings and calculations*;
- analisi del rischio / *risk analysis*;
- distinta componenti e relativi datasheet / *components list and relating datasheet*;

Il produttore si impegna ad informare l'Istituto Ricerche e Collaudi M. Masini di ogni modifica, anche insignificante, fatta o pianificata sul prodotto sopradescritto.
The manufacturer has to inform the Istituto Ricerche e Collaudi M. Masini about any modification, even insignificant one, made or planned to be made to the above mentioned product.

Il fascicolo tecnico sarà conservato fino al: **20/12/2023**
The technical file will be kept until:

Su richiesta del costruttore potrà essere ulteriormente conservato, ritornato o distrutto.
On request of the applicant, it will then further kept, returned or destroyed.

ISTITUTO DI RICERCHE M. MASINI 0068

Il Direttore Tecnico / *Technical Manager*
Dr. Ing. Sergio Tosi

eurofins | Product Testing

[1] # EU-TYPE EXAMINATION CERTIFICATE

[2] **Equipment and Protective System intended for use in potentially explosive atmospheres Directive 2014/34/EU – Annex III**

[3] Certificate Number: **EPT 17 ATEX 2622 X** **Issue 0**

[4] Equipment: **Smart diagnostic control unit**

Series: **SDCU-20**

[5] Manufacturer: **DVG AUTOMATION S.p.A.**

[6] Address: Via G. Rossetti, 2 – 29016 Cortemaggiore (PC) - Italia

[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 26 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.17.REL.02/54814

[9] Compliance with the essential health and safety requirements is assured through the verification of them and by compliance with the standards:

EN 60079-0:2012+A11:2013, EN 60079-1:2014

[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 Ex and the following string:

II 2G Ex db IIC T5 Gb **-40°C ≤ Ta ≤ +85°C**

Place and date of issue:
Torino, 2017-04-28

CE

Dionisio Bucchieri
Directive Responsible

Paolo Trisoglio
Managing Director

Eurofins Product Testing Italy
eurofins
Notified Body N. 0477

ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

SGQ N° 133A
PRD N° 119B
Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC Mutual Recognition Agreements

This Certificate has 6 pages and it is reproducible only in its entirely. Conditions of validity are reported below.

[13] [14] **ANNEX**
EU-TYPE EXAMINATION CERTIFICATE N. EPT 17 ATEX 2622 X Issue 0

[15] **Equipment description**

The smart diagnostic control unit is an electronic device designed to test and control process valves in oil and gas industry.

The enclosure can be made of aluminium or stainless steel.
The equipment has the type of protection Ex d (EPL Gb) and it is suitable for group IIC.

Although the internal components are already protected by a flameproof enclosure, up to six intrinsically safe limit switches can be additionally provided. In this case, each switch must be connected separately to an already ATEX certified intrinsically safe associated apparatus with suitable safety related parameters.

The equipment can be equipped with up to six separated limit switches.

The accessories used for cable entries and for unused holes must be subjected to a separate certification according to the applicable standards.
Degree of protection: IP66 / IP 68 (2h submersed at a depth of 1m).

The SDCU-20 code is 18 characters long, each character from 0 to 9 and from A to Z.
The table below shows the options of each character:

CODE	ADC	4	A	-	-	-	-	-	-	-	-	-	-	-	-
SDCU-20 DEVICE: XDC															
SDCU-20-LS (LIMIT SWITCH KIT) :															
WITHOUT SW KIT		0													
WITH MECHANICAL SW, 1+1 SPDT, ITW 19N SERIES		1													
WITH MECHANICAL SW, 2+2 SPDT, ITW 19N SERIES		2													
WITH MECHANICAL SWITCH 22-304		3													
WITH MAGNETIC REED SWITCH BMSD-22-30		4													
WITH NAMUR INDUCTIVE SWITCH IB-1000		5													
WITH MAGNETIC REED SWITCH BMSD-21-30		6													
WITH NAMUR INDUCTIVE SWITCH NJ2-12GK-SN		7													
WITH MAGNETIC SWITCH GO 11		8													
WITH MAGNETIC SWITCH GO 81		9													
WITH MAGNETIC SWITCH GO 21		A													
WITH MAGNETIC SWITCH GO 31		B													
WITH MAGNETIC SWITCH NOVA V3 N1		C													
WITH MAGNETIC SWITCH NOVA V3, N3		D													
SPARE		-													
ENCLOSURE:															
DIE-CAST ALUMINIUM – NBR ELASTOMERS			A												
DIE-CAST ALUMINIUM – FLUOROSILICONE ELASTOMERS			C												
STAINLESS STEEL – NBR ELASTOMERS			X												
STAINLESS STEEL – FLUOROSILICONE ELASTOMERS			Y												

[13] [14] **ANNEX**
EU-TYPE EXAMINATION CERTIFICATE N. EPT 17 ATEX 2622 X Issue 0

CODE	ADC	4	A	2	1	4	0	0	-	-	-	-	-	-	-
SDCU-20 DEVICE: XDC															
CABLE ENTRIES:															
No. 2 ISO M20x1.5				2											
No. 3 ISO M20x1.5				3											
No. 4 ISO M20x1.5				4											
No. 5 ISO M20x1.5				5											
No. 6 ISO M20x1.5				6											
No. 2 ½" NPT				A											
No. 3 ½" NPT				B											
No. 4 ½" NPT				C											
No. 5 ½" NPT				D											
No. 6 ½" NPT				E											
No. 2 ¾" NPT				V											
No. 3 ¾" NPT				W											
No. 4 ¾" NPT				X											
No. 5 ¾" NPT				Y											
No. 6 ¾" NPT				Z											
4-20 MA I/O + HART COMM. CHANNEL:															
NOT USED					0										
24VDC / 4-20MA POSITION FEEDBACK					1										
24VDC / 4-20MA POSITION FEEDBACK + HART COMM.					2										
4-20MA INPUT					3										
4-20MA INPUT + HART COMM.					4										
DIGITAL INPUT DI1:															
NOT USED						0									
OPEN CMD						1									
CLOSE CMD						2									
PST CMD						3									
LOCAL PST PUSHBUTTON						4									
GENERAL I/O:															
NOT USED							0								
IF CONFIGURED AS 4-20MA OUT:															
PRESSURE RETRANSMISSION							1								
POSITION RETRANSMISSION							2								
IF CONFIGURED AS DIGITAL INPUT DI2:															
OPEN CMD							3								
CLOSE CMD							4								
PST CMD							5								
OUTPUT RELAY AND PRESSURE TRANSMITTER:															
OUT RELAY = NOT USED, PRESSURE TRANSM. = NOT PRESENT								0							
OUT RELAY = NOT USED, PRESSURE TRANSM. = PRESENT								1							
OUT RELAY = ALARM CONTACT, PRESSURE TRANSM. = NOT PRESENT								3							
OUT RELAY = ALARM CONTACT, PRESSURE TRANSM. = PRESENT								4							
OUT RELAY = REDUNDANT SIS, PRESSURE TRANSM. = NOT PRESENT								5							
OUT RELAY = REDUNDANT SIS, PRESSURE TRANSM. = NOT PRESENT								6							

[13] [14]

ANNEX
EU-TYPE EXAMINATION CERTIFICATE N. EPT 17 ATEX 2622 X Issue 0

CODE	ADC	4	A	2	1	4	0	0	0	1	0	0	X	X	X
OUTPUTS TO DRIVE SOV'S A AND B AND MOTOR OF PUMP:															
WITHOUT SOV A AND SOV B AND PUMP									0						
WITH ONLY SOV A, OPEN / CLOSE CMD									1						
WITH ONLY SOV B, OPEN / CLOSE CMD									2						
WITH SOV A AND SOV B, SOV A OPENS AND SOV B CLOSES									3						
WITH SOV A AND SOV B, SOV A CLOSES AND SOV B OPENS									4						
WITH PUMP COMMAND (OUT SOV A)									5						
WITH PUMP COMMAND (OUT SOV B)									6						
PST CMD:															
PST CMD DISABLED										0					
PST CMD OPERATES ESD SOV										1					
PST CMD OPERATES SOV A										2					
PST CMD OPERATES SOV B										3					
PST CMD OPERATES SOV A AND SOV B										4					
24VDC POWER:															
WITHOUT 24VDC POWER											0				
WITH 24VDC POWER											1				
WITH 24VDC POWER, SAME OF 24VDC HART											2				
WITH 24VDC POWER, SAME OF 24VDC SIS											3				
WITH 24VDC POWER, SAME OF 24VDC HART AND 24VDC SIS											4				
OPTIONS:															
WITHOUT ANY OPTION												0			
WITH SDCU-20-LOI												1			
WITH NCF ADAPTER												2			
WITH SDCU-20-LOI + NCF ADAPTER												3			
COMPACT ELECTRO-HYDRAULIC ACTUATOR												4			
WITH LCP A												5			
WITH LCP B												6			
WITH LCP A + NCF ADAPTER												7			
WITH LCP B + NCF ADAPTER												8			
SPARE												9			
WIRING DIAGRAM:													X	X	X

Electrical characteristics

Maximum voltage: 250 Vac/Vdc

Maximum Limit Switch current: 16 A

Maximum power dissipation: 5 W

For intrinsically safe limit switches, the safe input parameters are:

Ui=30V; Ii=120 mA; Pi=0.9W; Li≈0 µH; Ci≈0µF;

Cable entries

The equipment can be provided with maximum 6 entries type ¾" NPT or ½" NPT or M20x1.5.

The cable entry devices used on the enclosures have to be suitably IEC Ex certified. They have to be chosen according to the type of protection, the type of thread and the degree of protection of the equipment.

The accessories used for cable entries and for unused holes have to be subjected to a separate certification according to IEC 60079-1.

Screws

The used screws comply with quality A4-70.

[13] [14] **ANNEX**
EU-TYPE EXAMINATION CERTIFICATE N. EPT 17 ATEX 2622 X **Issue 0**

Warning label

WARNING – Do not open in presence of explosive atmosphere.
WARNING – Do not open while energized
WARNING – Potential electrostatic charging hazard - clean with dump cloth or antistatic products
WARNING – Flameproof joints cannot be repaired
WARNING - Use n°6 screws quality A4-70

Routine tests

N/A

[16] **Assessment Report n° EPT.17.REL.02/54814**

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**

Use screws quality A4-70

[18] **Essential Health and Safety Requirements**

Assured by compliance with harmonized standards.

[19] **Descriptive documents**

The equipment objects of this Certificate is described by the following documents.
Scheduled documents are indicated with the symbol "✓" . They cannot be modified without the explicit authorization of the Notified Body.

Document	Name	Rev.	Date	Scheduled
CORPO LSB LAVORATO	DSBE0A01030	3	2017-04-28	✓
COPERCHIO LAVORATO LSB	DSBE0A02010	3	2014-05-28	✓
Boccola stelo	DSBE0B00010	0	2013-03-06	✓
Stelo cassetta micro SDCU-20	DSBE0X03014	0	2016-09-28	✓
VTC UNI5931(ISO 4762)-M8X30 A4-70 0	DVTC008030A0S0	0	2013-09-03	✓
Drawing of pcb	LSB2	0	2015-11-01	✓
Drawing of pcb	LSB4	0	2015-11-01	✓
Drawing of pcb	LSB5	0	2015-11-01	✓
Drawing of pcb	LSB6	0	2015-11-01	✓
Drawing of pcb	ITW22PCB	0	2015-11-01	✓
Marking label "db"	DTRG00000781	0	2017-03-10	✓
Warning label	DTRG00000506	1	2017-03-14	✓
Installation set-up operating & service manual	IOM-SDCU-20-01	01	2017-04-28	✓

[13] [14] **ANNEX**
EU-TYPE EXAMINATION CERTIFICATE N. EPT 17 ATEX 2622 X Issue 0

Document	Name	Rev.	Date	Scheduled
Assembly drawing	SDCU-20	0	2016-12-07	-
Coperchio indicatore	DSBE0P05210	0	2013-03-25	-
Indicatore di posizione open verde	DSBE0P05111	2	2016-02-24	-
Indicatore di posizione close rosso	DSBE0P05112	2	2016-02-24	-
Oscuratore	DSBE0P05310	0	2013-03-19	-
Anello di spinta coperchio	DSBE0X07010	0	2016-04-20	-
Forcella di sostegno	DSBEFOR0001	0	2016-09-09	-
OR 2325 W=1.78 Di=82.27-FLR 70 Shore	COR0A02325C0	0	2016-12-07	-
OR 2562 W=1.78 Di=142.11-FLR 70 Shore	COR0A02562C0	0	2016-12-06	-
OR incollato W=1.78 Di=150 FLR 70 Shore	COR0ADIS09C0	0	2016-12-06	-
SDCU-20 I/O interface card	DLSBPC000001	0	2017-02-06	-
SDCU-20 Main card	MSBI0R0PC0001	0	2017-02-06	-
Limit sw. card with 2+2 spdt magnetic reed switches and terminals	MSBE0R0PC1061	0	2016-12-07	-
Assieme sensore di posizione	MSBE0P06000	0	2017-02-07	-
Assieme stelo SDCU-20	MSBE0P04091	0	2017-02-07	-
Assieme camma micro PST 2 DPDT JET reed DVG AUTOMATION	MSBE0P04020	0	2017-02-07	-

[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 2014/34/EU 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] **Certificate History**

This Certificate is at its first issue.

EUROFINS – MODULO UNO S.P.A. - VIA CUORGNÈ, 21 – 10156 TORINO - ITALY
ORGANISMO NOTIFICATO N. 2049

[1] # EC TYPE EXAMINATION CERTIFICATE

[2] **Equipment or protective systems or components intended for use in potentially explosive atmospheres Directive 94/9/EC**

[3] Number of EC Type examination certificate:

EUM1 12 ATEX 0789

[4] Equipment: **I.T.V.C. Intelligent Total Valve Control**

[5] Manufacturer: **DVG Automation S.p.A.**

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

[7] This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documents reported in it.

[8] EUROFINS-MODULO UNO S.p.A., notified body n. 2049 in accordance with Article 9 of the Council Directive 94/9/CE of 23th March 1994, certifies that this component have been found to comply with the Essential Health and Safety Requirements relating to the design and construction of component 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.M1.12.REL.01/48078

[9] Compliance with the essential health and safety is assured by compliance with:

EN 60079-0:2009; EN 60079-1:2007; EN 60079-31:2009;

[10] The sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the annex to this certificate.

[11] This EC-TYPE EXAMINATION CERTIFICATE relates only to the design , the exam and and the tests of the equipment specified, in accordance with the Directive 94/9/CE.
Further requirements of this Directive apply to the manufacture and supply of this equipment.
These requirements are not object of this certificate.

[12] The equipment shall include the sign Ex and the following string:

II 2GD Ex db IIB+H_2 T5 Ex tb IIIC T88°C **-45°C ≤ T_{amb} ≤ +85°C**

Turin, 25 October 2012

CE
2049

Dionisio Bucchieri
Directive Responsible

Paolo Dettis
Notified Body Manager

ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

PRD N° 119B
ISP N° 030E
Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC Mutual Recognition Agreements

[13] ANNEX

[14] EC TYPE EXAMINATION CERTIFCATE N. EUM1 12 ATEX 0789

[15] **Equipment description**

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

- Power board which consists in the power supply stage, terminal blocks of support cables, conditionings of the signals coming from the customer or from the actuator
- Control board where there are the management algorithms and bus interfaces
- Panel board with three capacitive buttons
- Display board
- Aluminium/AISI 316 enclosure to accommodate the boards

Power supply: 22-60 Vdc or 90-260 Vac

Degree of protection IP68 with the following meanings:

- First number 6: the equipment is dust tight.
- Second number 8: the equipment is resistant to the submersion; test conditions depth 1 m, duration of the test 2 hours

The screws used for joint of lamination have hexagonal head and they are of the type A4-70.

Warning label

Do not open while energized
Do not open in presence of explosive atmosphere

[16] **Special condition for a safe use**
None

[17] **Assessment report n° M1.12.REL.01/48078**

This EC Type certificate is released after the positive result of the conformity assessment of the Council Directive 94/9/CE and to harmonized technical standard EN 60079-0:2009; EN 60079-1:2007; EN 60079-31:2009 performed by the notified body Eurofins-Modulo Uno SpA, and reported in the assessment report above cited.

Individual test

In compliance with the clause 16.3.1 od EN 60079-1, the manufacturer must carried out the individual pressure test on the enclosure with a minimum pressure of:

Pressure test [bar]	Enclosure
8	Main
15	Upper

[13] ANNEX

[14] EC TYPE EXAMINATION CERTIFCATE N. EUM1 12 ATEX 0789

[18] Descriptive Documents

Document	Name	Rev.	Date	Scheduled
Cable glands Datasheet	Ex cable glands	--	-	-
Loctite Datasheet	3M VHB 4611	-	06/2011	-
Glass Datasheet	Eurofloat	-	-	-
Battery Datasheet	MP 174565 Integration	-	-	-
Gasket Datasheet	Datasheet guarnizione	-	-	-
Paint Datasheet	Alesta AP AE80015500220	-	10/04/2012	-
	CPS-ITVC- 01	0	16/10/2012	-
Mechanical drawings	AITVC000HE0	1	11/102012	-
	AITVCCPBS02	0	04/10/2012	-
	DITVCCP0EH0	1	10/10/2012	Y
	DITVCCP0010	2	04/10/2012	Y
	DITVCCP0020	1	12/07/2012	-
	DITVCCP0040	4	04/10/2012	-
	DITVCCPGN10	2	04/10/2012	-
	DITVCCPGN20	2	04/10/2012	-
	DITVCCPGN40	1	04/10/2012	-
	DITVCGC0000	1	04/10/2012	-
	DITVCGD0000	1	03/09/2012	-
	DITVCGP0000	1	03/09/2012	-
	DITVCMV0000	1	04/10/2012	-
	DITVCMV0010	1	04/10/2012	-
	DITVCPI0000	1	04/10/2012	-
	DITVCVD0000	0	18/04/2012	-
	DITVCVP0000	0	18/04/2012	-
	DVTC006016A0S0	1	04/10/2012	-
Wiring diagrams	PowerCard Schemi	0	25/09/2012	-
	LogicCard_schemi elettrici	0	25/09/2012	-
	DisplayCard	0	25/09/2012	-
List of electrical component	Bom_preserie_Assemblatore_1	-	-	-
	Control_card_Produzione	-	-	-
	display_card_Assemblatore	-	-	-
Marking label	DITVCTRG0000	1	10/10/2012	-
Warning labels	DITVCTRG0001	0	05/10/2012	-
	DITVCTRG0002	1	11/10/2012	-
Technical note	Certificazione_Eurofin	0	-	-
Operation and Maintenance manual	Manuale_3	0	27/09/2012	

[13] ANNEX

[14] EC TYPE EXAMINATION CERTIFCATE N. EUM1 12 ATEX 0789

[19] **Essential Health and Safety Requirements**

Assured by compliance with harmonized standards; the evaluations of "protections against other hazards" in paragraph1.2.7 of the annex n. II of the directive 94/9/CE is not covered by this certificate. Requirement 1.5 is not applicable because there are not ATEX protective system installed on the equipment covered by this EC type examination certificate.

[20] **Certificate History**

This Certificate is at its first issue.

[21] **Terms and conditions**

This certificate do not replace anyway the declaration of conformity nor exonerate the manufacturer from product liability. The technical documentation do not refers to others directives applicable to the equipment.

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 94/9/EC Directive.

This document is the English translation (made by the notified body) of the original document drawn in Italian; only the Italian text is legally valid.

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Eurofins Product Testing Italy S.r.l. - Via Cuorgnè, 21 - 10156 Turin - ITALY
Notified Body n. 0477

[1] SUPPLEMENT N.2 EC TYPE EXAMINATION CERTIFICATE

[2] **Equipment intended for use in potentially explosive atmospheres Directive 94/9/EC**

[3] Number of EC Type Examination Certificate:

EUT 14 ATEX 1161 X

[4] Equipment: **Limit Switch Box**

Series: : **ASB**

[5] Manufacturer: **DVG Automation S.p.A.**

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

[7] No changes

[8] Eurofins Product Testing Italy S.r.l., Notified Body n. *0477* in accordance with Article 9 of the Council Directive 94/9/CE of 23th March 1994, certifies that this equipment have 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.15.REL.02/53411

[9] Compliance with the essential health and safety is assured by compliance with:

EN 60079-0:2012; EN 60079-1:2007; EN 60079-31:2009; EN 60079-11:2012

[10] No changes

[11] No changes

[12] The equipment must include the symbol Ex and at least one of the following strings:

II 2G Ex d IIC TX Gb	**-XX°C ≤ Ta ≤ +XX°C**
II 2D Ex tb IIIC TX°C Db	**-XX°C ≤ Ta ≤ +XX°C**
II 1G Ex ia IIC T4 Ga	**-XX°C ≤ Ta ≤ +XX°C**
II 1D Ex ia IIIC T135°C Da	**-XX°C ≤ Ta ≤ +XX°C**
II 2G Ex ib IIC T4 Gb	**-XX°C ≤ Ta ≤ +XX°C**
II 2D Ex ib IIIC T135°C Db	**-XX°C ≤ Ta ≤ +XX°C**

Turin, 11 December 2015

CE

Dionisio Bucchieri
Directive Responsible

Paolo Trisoglio
Managing Director

Eurofins Product Testing Italy
eurofins
Notified Body N. 0477

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L'ENTE ITALIANO DI ACCREDITAMENTO

PRD N° 119B
ISP N° 030E
Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC Mutual Recognition Agreements

[13] **ANNEX**

[14] **SUPPLEMENT N.2 EC TYPE EXAMINATION CERTIFICATE N. EUT 14 ATEX 1161 X**

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[15] **Equipment description**

This point [15] replace the point [15] of the Supplement n.1 to EC TYPE examination Certificate n. EUT 14 ATEX 1161 of 23-06-2015.

ASB Series Limit Switch Box provides limit switch facility, along with 4÷20mA / position transmitter 4÷20mA / HART position transmitter and/or Partial Stroke Test capability.

The version with position transmitter is called "ASBE4AV0001".
The equipment can be made made of aluminium or stainless steel (the paint used has a maximum thickness of 100 µm).
The equipment is suitable for group IIC and group IIIC has respectively the type of protection "Ex d", "Ex t" and "Ex i".
For type of protection "i", each switch have to be connected to an already ATEX certified intrinsically safe barrier.

The equipment can be equipped with:

- maximum 6 separated mechanical SPDT limit switches manufactured by ITW or;
- maximum 6 separated DPDT model 22-304 limit switches manufactured by ITW or;
- maximum 6 separated magnetic limit switches manufactured by BDC or;
- maximum 3 separated inductive limit switches (Namur) model NJ2-12GK-SN manufactured by PEPPERL+FUCHS or;
- maximum 3 separated inductive limit switches (Namur) manufactured by BDC or;
- maximum 3 separated magnetic limit switches manufactured by SOLDO model Nova V3 or;
- maximum 3 separated limit go switches model 11, 21, 31 or 81 manufactured by Emerson;

The accessories used for cable entries and for unused holes have to be subjected of a separate certification according to the applicable standards.
Degree of protection: IP 68 (2h submersed at a depth of 1m).

Electrical characteristics

In case of equipment with types of protection "Ex d" and "Ex tb":

Maximum voltage:	250 Vac/Vdc
Maximum Limit Switch current:	16 A
Maximum power dissipation:	720 mW

In case of equipment with types of protection "Ex i", the safe input parameters are:
Ui=30V; Ii=120 mA; Pi=0.9W; Li≈0 µH; Ci≈0µF

[13] **ANNEX**

[14] **SUPPLEMENT N.2 EC TYPE EXAMINATION CERTIFICATE N. EUT 14 ATEX 1161 X**

Temperature Class and Maximum surface temperature for types of protection "Ex d" and "Ex t":

Tamb	Temperature Class and Maximum surface temperature	Version	Gaskets
-20°C + 85°C	T5 and T85°C	Standard	NBR
-20°C + 80°C	T6 and T80°C	Standard	NBR
-60°C + 85°C	T5 and T85°C	Standard	Fluorosilicone
-60°C + 80°C	T6 and T80°C	Standard	Fluorosilicone
-20°C + 65°C	T5 and T85°C	ASBE4AV0001	NBR
-20°C + 60°C	T6 and T80°C	ASBE4AV0001	NBR
-25°C + 65°C	T5 and T85°C	ASBE4AV0001	Fluorosilicone
-25°C + 60°C	T6 and T80°C	ASBE4AV0001	Fluorosilicone

For the type of protection "Ex i", the ranges of ambient temperature can be -20°C≤Tamb≤ +85°C or -60°C≤Tamb≤ +85°C.

The used screws comply with quality A4-70.

Warning label

WARNING – Do not open in presence of explosive atmosphere.
WARNING – Do not open while energized
WARNING – Potential electrostatic charging hazard - clean with dump cloth or antistatic products

[16] **Special condition for a safe use**

Each switch have to be supplied from an already IEC Ex certified intrinsically safe barrier with suitable output parameters.
Aluminum equipment, where installed in zone 0, have to be installed in such way that it is eliminated the danger of ignition due to impact or friction.

[17] **Assessment Report n° EPT.15.REL.02/53473**

This EC Type Examination Certificate is released after the positive result of the conformity assessment of the Council Directive 94/9/CE, and to harmonized technical standards EN 60079-0:2012; EN 60079-1:2007; EN 60079-31:2009; EN 60079-11:2012performed by the Notified Body Eurofins Product Testing Italy S.r.l., and reported in the Assessment Report above cited.

Individual tests

No changes

[13] **ANNEX**

[14] **SUPPLEMENT N.2 EC TYPE EXAMINATION CERTIFICATE N. EUT 14 ATEX 1161 X**

[18] **Descriptive documents**

This point [18] integrate the point [18] of the Supplement n.1 to EC TYPE examination Certificate n. EUT 14 ATEX 1161 of 23-06-2015.

The equipment object of this certificate are described by the following documents.
Scheduled documents are indicated with the symbol "Y" and can not be modified without the explicit authorization of the notified body:

Document	Name	Rev.	Date	Scheduled
Marking label	DTRG00000505	1	2015/10/22	Y
Marking label	DTRG00000615	0	2015/12/03	Y
Drawing of pcb	LSB2	0	2015/11/01	Y
Drawing of pcb	LSB4	0	2015/11/01	Y
Drawing of pcb	LSB5	0	2015/11/01	Y
Drawing of pcb	LSB6	0	2015/11/01	Y
Drawing of pcb	ITW22PCB	0	2015/11/01	Y
Safety instructions – ASB Series	SM-ASB-ENG-01	3	2015/10/22	-
Safety instructions - ASBE4AV0001	SM-ASB-ENG-02	2	2015/10/29	-

[19] **Essential Health and Safety Requirements**

No changes

[20] **Supplement History**

This Supplement is at its first issue.
It intervenes as a result of an evaluation for the intrinsic safety type of protection as an alternative type of protection.
The evaluation is contained in the Assessment report n. EPT.15.REL.02/53411.

[21] **Terms and conditions**

No changes