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:

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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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IECEx Certificate of Conformity

Certificate No:	IECEx EUT 14.0006	Issue No: 0
Date of Issue:	**2014-06-30**	Page 2 of 3
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

IECEx Certificate of Conformity

Certificate No:	IECEx EUT 14.0006	Issue No: 0
Date of Issue:	2014-06-30	Page 3 of 3

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

IECEx Certificate of Conformity

EUT.14.REL.01/52305

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;

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INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

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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:

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Certificate issued by:

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Via Cuorgnè,
n.21 - 10156 Torino
Italy

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IECEx Certificate of Conformity

Certificate No:	IECEx EUT 14.0008	Issue No: 0
Date of Issue:	2014-11-25	Page 2 of 3
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

IECEx Certificate of Conformity

Certificate No: IECEx EUT 14.0008 Issue No: 0

Date of Issue: **2014-11-25**

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

IECEx Certificate of Conformity

EUT.14.REL.02/52305

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

IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

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Certificate No.: IECEx EUT 17.0009X

Issue No: 0

Certificate history:
Issue No. 0 (2017-04-28)

Status: **Current**

Date of Issue: **2017-04-28**

Applicant: **DVG Automation S.p.A.**
Via G. Rossetti, 2 – 29016 Cortemaggiore (PC)
Italy

Equipment: **Smart Diagnostic Control Unit, Series SDCU-20**
Optional accessory:

Type of Protection: **Flameproof enclosures "d"**

Marking:
Ex db IIC T5 Gb

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 Product Testing Italy S.r.l.
Via Cuorgnè,
n.21 - 10156 Torino
Italy

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IECEx Certificate of Conformity

Certificate No:	IECEx EUT 17.0009X	Issue No: 0
Date of Issue:	2017-04-28	Page 2 of 3
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 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

*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/ExTR17.0010/00

Quality Assessment Report:

IT/EUT/QAR14.0003/02

IECEx Certificate of Conformity

Certificate No: IECEx EUT 17.0009X Issue No: 0

Date of Issue: 2017-04-28

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

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 always the type of protection Ex d 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 has to be connected separately to an already IECEx certified intrinsically safe associated apparatus with suitable safety related parameters.

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;

A more detailed description is given in the annex.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Use screws quality A4-70

Annex:

EPT.17.REL.01_54814.pdf

Annex to certificate: IECEx EUT 17.0009 X Issue N. 0 of 2017-04-28

General product information:

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 has to be connected separately to an already IECEx 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 have to be subjected of a separate certification according to the applicable standards.

Degree of protection: IP66 / IP 68 (2h submersed at a depth of 1m).

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.

Identification code:

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	2	-	-	-	-	-	-	-	-	-	-
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											
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										

Code	ADC	4	A	2	1	4	0	0	0	1	0	0	x	x	x
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							
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

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

Specific Conditions of Use:
Use screws quality A4-70

Routine test:
N/A

IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

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Certificate No.:	IECEx EUT 14.0002	Issue No: 0	Certificate history: Issue No. 0 (2014-08-07)
Status:	**Current**	Page 1 of 3	
Date of Issue:	**2014-08-07**		
Applicant:	**DVG Automation S.p.A.** Via G. Rossetti, 2 – 29016 Cortemaggiore (PC) **Italy**		
Electrical Apparatus:	**Limit Switch Box**		
Optional accessory:			
Type of Protection:	**Flameproof enclosures "d"; Equipment dust ignition protection by enclosure "t"**		
Marking:	Ex d IIC TX Gb Ex tb IIIC TX°C Db		

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

Position: Head of IECEx CB

Signature:
(for printed version)

Date:

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Certificate issued by:

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

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IECEx Certificate of Conformity

Certificate No:	IECEx EUT 14.0002	Issue No: 0
Date of Issue:	2014-08-07	Page 2 of 3
Manufacturer:	**DVG Automation S.p.A.** Via G. Rossetti, 2 – 29016 Cortemaggiore (PC) **Italy**	
Additional Manufacturing location(s):		

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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/ExTR14.0002/00

Quality Assessment Report:

IT/EUT/QAR14.0003/00

IECEx Certificate of Conformity

Certificate No:	IECEx EUT 14.0002	Issue No: 0
Date of Issue:	2014-08-07	Page 3 of 3

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

ASB Series Limit Switch Box provides limit switch facility, along with 4÷20mA / HART position transmitter and/or Partial Stroke Test capability. The equipment can be made made of aluminium or stainless steel (the paint used has a maximum thickness of 100 µm). The equipment of group IIC and group IIIC has 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_52384.pdf

IECEx Certificate of Conformity

EUT.14.REL.01/52384

Annex to certificate: IECEx EUT 14.0002 Issue N. 0 of 2014-05-16

General product information:

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

The equipment can be made made of aluminium or stainless steel (the paint used has a maximum thickness of 100 µm).
The equipment of group IIC and group IIIC has respectively the type of protection "Ex d" and "Ex t".

Electrical characteristics

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

Degree of protection: IP 68 (2h submersed at a depth of 1m).

Ambient temperature. -60 ÷ +85 °C (or -60°C ÷ +80 °C or -20°C ÷ +85 °C or -20°C ÷ +80 °C)

Temperature class and Maximum surface temperature:
For maximum ambient temperature of 80°C: T6 and 80°C;
For maximum ambient temperature of 85°C: T5 and 85°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.

Warning label

"Do not open in presence of explosive atmosphere"

"Do not open while energized"

"Potential electrostatic charging hazard - clean with dump cloth or antistatic products"