



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx EUT 19.0014X**

Status: **Current**

Date of Issue: 2020-11-23

Applicant: **Comhas S.r.l.**
Via Matteotti, 66
Cinisello Balsamo (MI) I-20092
Italy

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[Certificate history:](#)

[Issue 0 \(2019-10-25\)](#)

Issue No: 1

Equipment: **Pressure switches & gauges Series AT-10***

Optional accessory:

Type of Protection: **Equipment protection by flameproof enclosures "d", Equipment dust ignition protection by enclosure "t"**

Marking:

Marking	Ambient Temperature Range
Ex db IIC T6 Gb	-60 °C ≤ T_a ≤ +50 °C
Ex db IIC T5 Gb	-60 °C ≤ T_a ≤ +60 °C
Ex tb IIIC T75 °C Db	-60 °C ≤ T_a ≤ +60 °C

Approved for issue on behalf of the IECEx
Certification Body:

Dionisio Bucchieri

Position:

Head of Certification Body

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 www.iecex.com or use of this QR Code.



Certificate issued by:

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

eurofins

Product Testing



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Date of issue: 2020-11-23

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Manufacturer: **Comhas S.r.l.**
Via Matteotti, 66
Cinisello Balsamo (MI) I-20092
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Additional
manufacturing
locations:

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 equipment 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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

This Certificate **does not** indicate compliance with 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/ExTR19.0015/01](#)

Quality Assessment Report:

[IT/EUT/QAR19.0001/01](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The AT-10* series equipment are electrical devices protected by Ex db or / and Ex tb enclosures, suitable for use in presence of gas and dust explosive atmospheres.

The equipment is composed of a flameproof / dust tight enclosure with different dimensions (eventually with extensions), that contains instruments that may be connected to the external pressure sources (process connection) by two types of breathing devices, LD or STD.

These breathing devices can be installed on the pressure ports that are connected with the internal instrument, or coupled to the internal volume of enclosure, in order to maintain the internal pressure value within the limits of IEC 60079-1 standard in presence of failure of containment system.

The instruments installed inside the enclosure are pressure switches, differential pressure switches, gauges and transmitters of series 2000, 1900, 616KD, 616KD-LR, 668B/D, ADPS, BYDS, EDPS, 607D, MS2, DM-2000, DM-2100, MS, 1800, DH3, DHC, 3000MR/MRS, 605, 607 and A3000, manufactured by Dwyer Instruments Inc.

The maximum permitted process fluid pressure, in relation to the breathing devices configuration, is detailed in safety parameters section in the certificate annex.

Full specifications of the apparatus characteristics are described in the annex of this certificate.

SPECIFIC CONDITIONS OF USE: YES as shown below:

The flameproof joints are not intended to be repaired.

Potential electrostatic charge risk –See instructions (applicable only for the device with EPL Db).



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

This version has been issued only due to editorial changes in the manufacturer documentation.

Annex:

[EPT.20.REL.02_2013102_0_1.pdf](#)

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Annex to certificate: IECEx EUT 19.0014 X Issue 1

Model Reference

The characteristics of the apparatus are codified according to the following schema:

[a]	[b]	[c]	[d]	[e] or [e _i]	[f]	[g]	[h]	[i]
■ ■	- ■ ■ ■ ■	■	■ -	* -	- ■	■ ■ ■ ■ ■	■ ■	■ ... ■

Number of digits (■)

Instrument identification code installed inside enclosure (* _)

[a]	Equipment Type:	AT	: Explosion proof version
[b]	Enclosure dimension:	100	: Type GUB-100 enclosure
		101	: Type GUB-101 enclosure
		102	: Type GUB-102 enclosure
[c]	Enclosure extension:	N	: Without extension
		P	: Enclosure with extension
[d]	Materials	A	: Enclosure manufactured in aluminum alloy
		S	: Enclosure manufactured in stainless steel
[e]	Instrument identification code:(With no influences on type of protection)	*	: Instrument code (manufactured by Dwyer Instruments Inc.)
		These instruments types shall not be connected to a process that contains a flammable fluid or explosive atmospheres.	
[e _i]	Instrument identification code: (With influences on type of protection)	-	: 20 ■ ■ - ■ ■ ■ BUNA IC
		-	: 182 ■ - ■ ■ BUNA
		The instruments listed above can be connected to a process that contains a flammable fluid or explosive atmospheres.	
[f]	Top cover type:	B	: Blind top cover
		W	: Top cover with cemented glass window

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Model Reference

(continue)

[g] Breathing device:	Identification:	1 : Brass made breathing device.
		2 : Stainless steel made breathing device.
	Configuration:	VS0 : Two identical STD breathing valves installed at measure pressure ports with no additional breathing device, connected to the enclosure internal volume.
		VL0 : Two identical LD breathing valves installed at measure pressure ports with no additional breathing device, connected to the enclosure internal volume.
		VS1 : Two identical STD breathing valves installed at measure pressure ports with an additional breathing device type STD, connected to the enclosure internal volume.
		VS2 : Two identical STD breathing valves installed at measure pressure ports with an additional breathing device type LD, connected to the enclosure internal volume.
		VL1 : Two identical LD breathing valves installed at measure pressure ports, with an additional breathing device type LD, connected to the enclosure internal volume.
The maximum process pressures permitted for these configurations are detailed as safety parameters.		
[h] Cable entry:	12 : ½" NPT ANSI/ASME B1.20.1.	
	34 : ¾" NPT ANSI/ASME B1.20.1.	
	20 : ISO M 20 x 1,5 mm	
	25 : ISO M 25 x 1,5 mm	
[i] Supplementary digits :	...	: Other digits of <u>equipment</u> code with no influences on type of protection.

Safety parameters

In the table below are detailed the maximum process pressure values, applicable to a measure ports, in relation to the breathing elements type installed and their configurations:

Breathing device defined configurations	Simplified scheme of breathing devices						Maximum pressure value with:	
	Pressure port 1 breathing device type		Pressure port 2 breathing device type		Enclosure breathing device type	only one pressure port connected	both pressure ports connected	
VS0	STD	STD	STD	STD	none	10 kPa	10 kPa	
VL0	LD	LD	LD	LD	none	10 kPa	10 kPa	
VS1	STD	STD	STD	STD	STD	20 kPa	15 kPa	
VS2	STD	STD	STD	STD	LD	40 kPa	20 kPa	
VL1	LD	LD	LD	LD	LD	20 kPa	15 kPa	



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Annex to certificate: **IECEX EUT 19.0014 X Issue 1**

Warning label

- "WARNING – DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT"

Routine tests

The equipment having a threaded cover with cemented window (identified by the **W** letter, as indicated in **[f]** field of the key code), shall be submitted at the batch overpressure routine test, as prescribed at § 16.6 of the IEC 60079-1 standard, at the pressure value of **1800 kPa** for at least 10 s, since the devices have passed the type overpressure test, carried out applying static method, at a pressure value equal to **3** times the reference pressure recorded.

The equipment having a blind threaded cover (identified by the **B** letter, as indicated in **[f]** field of the key code), **are exempted** to the routine overpressure test, since the devices have passed the type overpressure test, carried out applying static method, at a pressure value equal to **4** times the reference pressure recorded.

The instruments listed in the **[e₁]** field of the key code, that are the only suitable for use with a flammable process fluids, shall be submitted to the routine overpressure test, as prescribed in the § G.4.1 of the IEC 60079-1 standard, at a pressure value of **60 kPa**, for at least 2 min.

Detail of changes

Editorial changes (the key code of product has been modified as required by the manufacturer).