



Safety note
«Pressure and Differential Pressure switches, gauges and transmitters, COMHAS Series AT-10**»**

Rev 1

Via Matteotti 66 – 20092 – Cinisello Balsamo (MI) - Italy

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**Pressure and Differential Pressure switches,
gauges and transmitters, COMHAS Series
AT-10******

**Safety Note according to
ATEX Directive 2014/34/EU
EN 60079-0:2018
EN 60079-1:2014
EN 60079-31:2014**

**IECEx Scheme
IEC 60079-0:2017
IEC 60079-1:2014
IEC 60079-31:2013**

Revision: 1

Date: 16/07/2020

Prepared: F.Meyer

Approved: R.Hassan



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GENERAL DESCRIPTION

Pressure and Differential Pressure switches, gauges, temperature switches, transmitters, COMHAS Series AT-10**** are instruments for pressure control protected by Ex db/tb enclosure for IIC gas atmospheres and IIIC dust atmospheres.

COMHAS Series AT-10**** are suitable to be installed in hazardous area and complies with the requirements of:

- Directive ATEX 2014/34/EU
- IECEx Scheme

And applicable standards IEC/EN 60079-0, IEC/EN 60079-1 and IEC/EN 60079-31 as apparatus of group II, Category 2GD types of protection Ex db IIC T5, T6 Gb and Ex tb IIIC T85°C Db IP66, ambient temperature -60° / +60°C (or +50°C)

ATEX Marking:



II 2G Ex db IIC T5, T6 Gb



II 2D Ex tb IIIC T85°C Db IP66

IECEx Marking:

Ex db IIC T5, T6 Gb

Ex tb IIIC T85°C Db IP66

T6 with Ambient Temperature -60°C to +50°C

T5 with Ambient Temperature -60°C to +60°C



TECHNICAL CHARACTERISTICS

Electrical data

Maximum Nominal power: 6 W

Maximum Nominal current consumption : 0,5 A

Maximum Nominal Voltage: 230 V

Ambient temperature range: -60°C/+60°C (for T5) and -60°C/+50°C (for T6)

Max Process temperature ≤ Max ambient temperature

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Equipment Codification

[a]	[b]	[c]	[d]	-	[e] or [e1]	-	[f]	[g]	[h]	[i]
□□	□□□	□	□	-	*	-	□	□□□□	□□	*

[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 in Aluminum alloy	
	S	Enclosure in stainless steel	
[e] Instrument identification code (with no influences on type of protection)	-	Instrument identification code starting letter	
	*	Instrument code (manufactured by Dwyer Instruments Inc.)	
	-	Instrument identification code ending letter	
	*these instruments types shall not be connected to a process that contains a flammable fluid or explosive atmosphere		
[e1] Instrument identification code (with influences on type of protection)	*	20XX-XXX BUNA IC	
	*	182X-XX BUNA	
		*the instruments listed above can be connected to a process that contains a flammable fluid or explosive atmosphere	
[f] Top cover type	B	Blind top cover	
	W	Top cover with cemented glass window	
[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
		VLO*	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 M20x1.5mm	
	25	ISO M25x1.5mm	
[i] Other options	*	Digits describing other options of the equipment, not related to the safety of the equipment	

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Ports configurations

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



MARKING

Comhas AT series, are marked as required by:

- ATEX Directive 2014/34/UE:
Model : AT10X
SERIAL NUMBER : E.g. XXXXXX

CE 0477



II 2G Ex db IIC T5, T6 Gb



II 2D Ex tb IIIC T85°C Db IP66

EPT 19 ATEX 3192X

- 0477** = Notified Body identification number for quality production surveillance (Eurofins Product Testing Italy)
- II** = group II
- 2G** = category 2G, equipment for surface with the presence of gas
- 2D** = category 2D, equipment for surface with the presence of dust
- Ex db** = type of protection
- IIC** = Group of gas IIC
- Gb** = EPL (gas suitable for zone 1 and 2)
- Ex tb** = type of protection
- IIIC** = Group of dust IIIC
- Db** = EPL (dust suitable for zone 21 and 22)
- EPT 19 ATEX 3192X** = EU Type Certificate

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Relation between hazardous areas, categories and EPL

<i>Hazardous area</i>	<i>ATEX categories 2014/34/EU</i>	<i>EPL</i>
ZONE 0	1G	Ga
ZONE 1	2G	Gb or Ga
ZONE 2	3G	Gc or Gb or Ga

- IECEx Marking:

Ex db IIC T5, T6 Gb

Ex tb IIIC T85°C Db IP66

IECEx EUT 19.NNNN

- Ex db* = type of protection
- IIC* = Group of gas IIC
- Gb* = EPL (gas suitable for zone 1 and 2)
- Ex tb* = type of protection
- IIIC* = Group of dust IIIC
- Db* = EPL (dust suitable for zone 21 and 22)
- IECEx EUT 19.NNNN** = IECEx Certificate

Warning label :

WARNING – DO NOT OPEN WHEN ENERGIZED

SAFETY INSTRUCTIONS FOR INSTALLATION IN HAZARDOUS AREAS

Before installing, carefully read the instruction manual provided with the AT10**** Series

The system can be used in environments with explosive gas group IIC and dust group IIIC , Ambient temperature = -60°C / +60°C (for T5) and -60°C/+50°C (for T6).

The **AT10**** series** shall be installed and maintained according to the applicable standards regarding electrical installations in hazardous area (EN 60079-14 and EN 60079-17 or other national standard).

After connection to the ground check PE cable to avoid rotation or twist of the cable.

The maximum fluid temperature at pneumatic connection shall be + 60°C and not greater than maximum ambient temperature.

Do not open when an explosive atmosphere is present.

This apparatus must be installed and put into operation in accordance with the provisions and regulations. Shall not be liable for damage caused by non-observance of the instructions and inappropriate use.

It is forbidden any technical modification. Any repair activity is not permitted without manufacturer Authorization. For any repair contact the manufacturer.


Prepared: F.Meyer **Approved:** R.Hassan

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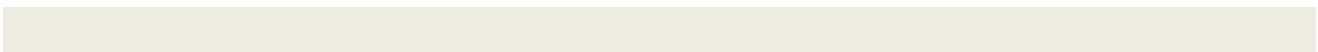
Periodic maintenance of the system in accordance with the instruction manual have to be performed regularly.

Additional residual risks present are:

- System maintenance not performed according to the manufacturer
- improperly Use and / or incorrect way of the system.

	The user shall perform a regular cleaning of the enclosure to avoid any dust layer on the equipment. Clean the equipment with a dumb cloth to avoid electrostatic charge risk.
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COMHAS is not responsible any damage caused by misuse and / or abuse of the system.



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Example of EU DECLARATION OF CONFORMITY

DICHIARAZIONE DI CONFORMITA' UE
EU DECLARATION OF CONFORMITY

We

Comhas.srl
Via Matteotti 66,
Cinisello Balsamo 20092 (MI) – ITALY

declare under our sole responsibility that the product

Pressure and Differential Pressure switches, gauges and transmitters, COMHAS Series AT-10****

to which this declaration refers, is in conformity with

Directive 2014/34/EU (ATEX)

The conformity are under observance of the following standards :

ATEX

EN 60079-0 : 2018

EN 60079-1 : 2014

EN 60079-31 : 2014

ATEX marking

CE 0477 Ex II 2G Ex db IIC T5, T6 Gb

Ex II 2D Ex tb IIIC T85°C Db IP66

Tamb: -60°C ÷ +60°C (T5)

Tamb: -60°C ÷ +60°C (T6)

ATEX EU type certificate
EPT 19 ATEX 3192X

ATEX/Q notify body: **EUROFINS Testing Product Italy (0477)**

Cinisello Balsamo, gg/mm/2019

Comhas
Il Legale Rappresentante

Prepared: F.Meyer

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