



EC TYPE EXAMINATION CERTIFICATE

Equipment or Protected System Intended for use in Potentially Explosive Atmospheres
Directive 2014/34/EU

Certificate No. **ATEX20XA883X**

Description of Equipment: **Air Flow Sensor**

Manufacture: **A.YITE TECHNOLOGY GROUP**

Address: **No.116, KWOK SHUI ROAD, Kwai Chung Industry Center, Hong Kong**

This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and documents therein referred to.

Hong Kong Quality Certificate Center, According with Article 17 of Directive 2014/34/EU of European Parliament and the Council, dated 26 February 2014, certifies that the above mentioned product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potential explosive atmospheres given in Annex II to the Directive

The examination and test results are recorded in confidential Report No. **HKQC-ATEX-2020158851**

Compliance with Essential Health and safety Requirements has been assured by compliance with:
EN 60079-0: 2012 + A11:2013 EN 60079-1: 2014 EN 60079-31: 2014

If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate

The EC - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system, These are not covered by this certificate.

The marking of the products shall include the following:

 II 3GD Ex dc IIC T6 Gc (-20°C ≤ Ta ≤ +80°C)

Ex tc IIC T85°C Dc (-20°C ≤ Ta ≤ +80°C) IP65



For and on behalf of

HONG KONG QUALITY CERTIFICATE CENTER

Signature: *Helle Olsen*

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15 **Description of Equipment or Protective System**

The GE-374-EX air flow sensor is a equipment for detecting the air flow velocity by a differential pressure gauge with Pitot Tube. The differential pressure gauge is connected with two pressure pipes, and the measured pressure is the dynamic pressure. According to Bernoulli's theorem, the dynamic pressure is directly proportional to the square of the velocity. Therefore, the velocity of fluid can be measured by pitot tube. After improving the structure, it becomes a combined pitot tube, namely Pitot static pressure tube. It is a doublelayer pipe bent at right angles. The outer sleeve is sealed with the inner sleeve, and there are several small holes around the outer sleeve. When measuring, insert the sleeve into the middle of the pipe under test. The orifice of the inner casing is facing the direction of the flow beam, and the orifice of the small hole around the outer casing is just perpendicular to the direction of the flow beam.

The housing of differential pressure gauge is made of aluminum alloy or stainless steel and is provided with top cover either blind or with tempered glass. The Pitot tube is made of stainless steel. There will be a soft tube to connect the pressure gauge with the Pitot tube, the material could be rubber or stainless steel.

The enclosure can be equipped with different breathing or draining device made in 304/316 grade stainless steel or brass

Part Number Options:

Code	Description
GE-374-EX	Explosion Proof Air Flow Sensor
*	Output signal MA=4-20mA V=0-5V RS=RS-485
**	Measure range, 10m means the measure range 0-10m/s; 30m means the measure range 0-30m/s
***	Connection of Pitot tube, F means DN15 flange type; Thread means G1/2" connection
****	Other option

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The unit is available with a flow range (10m/s to 70m/s), the voltage rating is 24Vdc, max power is 2.5W, frequency is 50/60Hz, IP degree of protection is IP65.

Temperature Class and Ambient Temperature:

Temperature Class		T_{amb}
Gas	Dust	
T6	T8 C	-20°C/+80°C

Ambient temperature range -20°C/+80°C is based on the test results report n.2020158851

Ambient temperature range, depending on the options and the pressure instrument installed into the flameproof enclosure, is reported on the plate

16. **Report Number**

HKQC-ATEX-2020158851

17. **Specific Condition of Use**

In presence of explosive atmosphere raised by acetylene the breathing and draining devices or flame arrester made in stainless steel must be used. Suitable cable glands and blanking elements in compliance with EN 60079-1 and EN 60079-31 must be used on cable entries. Thread engagement shall be at least five full thread for the installation of breathing and draining devices or flame arrester devices on the enclosure body.

In Presence of heavy conditions as high vibrations or high temperature (-10°C/+140°C) the multifunctional grease Vanguard BSM/L is indicated for lubrication of thread joint.

The installation of the equipment shall be in compliance with EN 60079-14.

The electrical continuity between the enclosure and the structure on which the equipment is installed shall be verified.

All the inspection and maintenance operations of explosion-proof housing must be carried out in order to comply with to standard EN 60079-17

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18 Essential Health and Safety Requirements
Covered by standers in [9]

19 Reference Documents:

Technical documentation of reference for the EC type-examination certificate is listed below:

Document	Description	Date
TS-GE-374EX-ATEX-EN	Technical Note EC Type-examination	April 2020
ISSeP09ATEX046U	Certificate for empty flame-proof enclosure model GUB*S/W	10-09-2009
25690/1 Rev.E	Flame Arrestor and drain valve FT/VS 6190	09-06-2009
007260 Rev.E	Extension for GUB	08-02-2009
GE-374EX-ZZ001	Standards of Enterprise	05-09-2020
GE-374EX-SMS	User Manual	05-09-2020
GE-374EX-PT-F	Drawing of Flange Pitot tube	05-09-2020
GE-374EX-PT-T	Drawing of thread type Pitot tube	05-09-2020
GE-374EX-ZZT	Assembly drawing	05-09-2020
GE-374EX-SHL	Drawing of shell	05-09-2020
GE-374EX-YLT	Schematic diagram	05-09-2020
GE-374EX-MPT	Name plate drawing	05-09-2020
GE-374EX-PCB	Circuit diagram of PCB	05-09-2020
GE-374EX-LBJ	Parts drawing	05-09-2020

Copies of the above mentioned documents are kept at HKQC archive

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Date: 14th,AUG,2020

EU DECLARATION OF CONFORMITY (No.20A251)

1. Equipment: Air Flow Sensor

2. Model No.: GE-374-EX

3. Marking:

 **II 3GD Ex dc IIC T6 Gc (-20°C ≤ Ta ≤ +80°C)**
Ex tc IIC T85°C Dc (-20°C ≤ Ta ≤ +80°C) IP65

4. The objection of the declaration is in conformity with the relevant EU harmonization legislation: ATEX directive 2014/34/EU, Machinery directive 2006/42/EC.

5. Satisfy to the requirement of the ATEX Directive 2014/34/EU from 15th, AUG, 2020, by compliance with harmonized standards:

EN IEC 60079-0:2018 EN 60079-1: 2014 EN 60079-31: 2014

6. We declare under our sole responsibility that the above products fulfill the relevant directives ATEX directive 2014/34/EU.

7. This declaration of conformity is issued under our sole responsibility.

Signed for and on behalf of manufacturer:

Name:

Company name: A.YITE TECHNOLOGY GROUP

Address: No.116, KWOK SHUI ROAD, Kwai Chung Industry Center, Hong Kong

Signature: Jack Smith Place & Date: Sep-30-2020

Name + Function: Jack Smith + Qualify Manager

Signed for and on behalf of EU-representative in Europe

Name: David Lamb

Address: (EUROPE) Wheatfield Works, Ashton Road, Oldham, OL8 3HX. UK

Signature: David Lamb Place & Date: Sep-30-2020

Name + Function: Representative

Document no.: 20A251

Version: 5.21

Date: Sep-30-2020