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 EPS 12.0017X issue No.:0

Certificate history:

Status: **Current**

Date of Issue: **2012-07-31**

Applicant: **Young Tech Co., Ltd**
#3022, Hagun-ri, Yangchon-myeon, Gimpo-si, Gyeonggi-do, Korea
Korea, Republic of

Electrical Apparatus: **YT-3300/YT-3350/YT-3301,YT-3300+LS(dry contact)/YT-3350+LS(dry contact)**
Optional accessory:

Type of Protection: **Ex ia**

Marking: Ex ia IIC T5/T6 Gb
Ex iaD IIIC T85°C/T100°C Db IP6X

Approved for issue on behalf of the IECEx Certification Body:

Position:

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:

Bureau Veritas Consumer Products Services Germany GmbH
Businesspark A96
86842 Türkheim
Germany

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Manufacturer: **Young Tech Co., Ltd**
#3022, Hagun-ri, Yangchon-myeon, Gimpo-si, Gyeonggi-do, Korea
Korea, Republic of

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 : 2007-10 Edition: 5	Explosive atmospheres - Part 0:Equipment - General requirements
IEC 60079-11 : 2006 Edition: 5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 61241-11 : 2005 Edition: 1	Electrical apparatus for use in the presence of combustible dusts - Part 11: Protection by intrinsic safety 'iD'

*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:
DE/EPS/ExTR12.0024/00

Quality Assessment Report:

DE/EPS/QAR11.0002/00

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Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

The YT-3300/YT-3350/YT-3301 and YT-3300+LS(dry contact)/YT-3350+LS(dry contact) are elec-tropneumatic positioners to control linear and rotary valves. The pressure is regulated by an induc-tive torque motor and the position of the pneumatic valve is measured by a potentiometer.
The YT-3300/YT-3350/YT-3301 and YT-3300+LS(dry contact)/YT-3350+LS(dry contact) have as an option a superimposed HART signal.
Additionally the PTM module as another option serves as feedback for the position of the valve. Two optional limit switches (contacts) can be built in.
All circuits are supplied by intrinsically safe power supplies with linear characteristic. The different intrinsically safe circuits are galvanically isolated against each other and against ground.
The version YT-3301 is equipped with an external potentiometer as position sensor. The isolation voltage is 500 V. Only the original units “Linear Feedback Module” and “Rotary Feedback Module”, manufactured by the company Youngtech may be connected via the “Cable Connector”.
Electrical data:
Supply circuit (versions YT-3300/YT-3350/YT-3301 and YT-3300+LS(dry contact)/YT-3350+LS(dry contact)) type of protection Intrinsic Safety Ex ia IIC/IIB maximum values:
Ui = 28 V
Ii = 93 mA
Pi = 651 mW
Linear characteristic
Ci = 0.6 nF differentially between the lines or 2.2 nF against ground
Li = 300 µH
The supply circuit is galvanically isolated against earth.
Option circuit “PTM” (versions YT-3300/3350/3301 and YT-3300+LS(dry contact)/ YT-3350+LS(dry contact)), type of protection Intrinsic safety Ex ia IIC/IIB maximum values:
Ui = 28 V
Ii = 93 mA
Pi = 651 mW
Linear characteristic
Ci = 0.6 nF differentially between the lines or 2.2 nF against ground
Li = 300 µH
The PTM circuit is galvanically isolated against earth.

YT-3301, Maximum supply values for the potentiometer:
Uo = 6,51 V
Io = 93 mA
Io_wiper = 6 mA
Po = 0,465 W
Ci = 13 µF
Li ~ 0 µH
Trapezoidal characteristic
Option circuits “Limit switches 1 and 2” (only version YT-3300+LS(dry contact)/ YT-3350+LS(dry contact)) type of protection Intrinsic Safety Ex ia IIC/IIB maximum values:
Ui = 28 V
Ii = 93 mA
Pi = 651 mW
Linear characteristic
Ci = 0 nF
Li = 0 µH
The limit switch circuits are galvanically isolated against earth. All circuits are galvanically isolated against each other.

CONDITIONS OF CERTIFICATION: YES as shown below:

The ambient temperature range deviates from the standard temperature range and amounts to:
Temperature class T5/T100°C: -40 °C to +60 °C
Temperature class T6/T85°C: -40 °C to +40 °C.