



# 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](http://www.iecex.com)

Certificate No.: IECEX EPS 19.0016X Issue No: 0 Certificate history:  
Issue No. 0 (2019-06-04)

Status: **Current**

Date of Issue: **2019-06-04** Page 1 of 3

Applicant: **Rotork YTC Limited**  
81, Hwanggeum-ro 89 beon-gil, Yangchon-eup, Gimpo-si, Gyeonggi-do  
**Korea, Republic of**

Equipment: **Smart positioner Type YT-3100**  
*Optional accessory:*

Type of Protection: **intrinsic safety**

Marking: Ex ia IIC T5/T6 Gb

*Approved for issue on behalf of the IECEX  
Certification Body:*

Holger Schaffer

*Position:*

Certification Manager

*Signature:  
(for printed version)*

*Date:*

2019-06-04



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](http://www.iecex.com).

Certificate issued by:

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





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Manufacturer: **Rotork YTC Limited**  
81, Hwanggeum-ro 89 beon-gil, Yangchon-eup, Gimpo-si, Gyeonggi-do  
**Korea, Republic of**

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

**IEC 60079-11 : 2011** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

*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/EXTR19.0015/00](#)

Quality Assessment Report:

[DE/EPS/QAR11.0002/08](#)



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## Schedule

### EQUIPMENT:

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

The Smart Positioners YT-3100 controls the position of a linear or rotary valve according to the input signal 4 – 20 mA-DC. The output is a pneumatic pressure – single or double acting - regulated by an inductive actuator called torque motor. The supply pressure is 0,14 to 0,7 MPa. The pressure unit is a compact block built in into the housing of the positioner with air supply and air output connectors in the bottom of the housing. The electronic circuit supplied by the minimal supply current 3,2 mA works digitally supported by a microprocessor. The signal current is 4 – 20 mA. Special current values < 4 mA and > 20 mA serve for the signaling of states. The microprocessor serves for many additional tasks as Auto Calibration or PID-control and also for the control of the signal current. The position is measured by a contactless NCS-magnetic potentiometer. The device can be manually parameterized and adjusted by push buttons when the cover is removed. As an option only the feedback of the valve position "PTM" is available. The current output signal 4 -20 mA signalizes the actual position to a control unit (position feedback signal). These signal is galvanically isolated against the supply circuit. The status information can be displayed by a LCD – Display.

### Electrical data:

The positioner is supplied by intrinsically safe power supply units (or by Safety Barriers) with the maximum values

For the main-circuit (Exi\_in: IN+, IN-):

$U_i = 28 \text{ V DC}$

$I_i = 93 \text{ mA DC}$

$P_i = 651 \text{ mW}$

Linear characteristic with  $R_i = 301 \text{ Ohm}$

For PTM (Exi\_Tr: OUT+, Out-):

$U_i = 28 \text{ V DC}$

$I_i = 93 \text{ mA DC}$

$P_i = 651 \text{ mW}$

Linear characteristic with  $R_i = 301 \text{ Ohm}$

### **SPECIFIC CONDITIONS OF USE: YES as shown below:**

The ambient temperature range deviates from the standard temperature range and amounts to:

Temperature class T5: -30 °C to +60 °C

Temperature class T6: -30 °C to +40 °C.

Equipment must be protected from high electrostatic charge hazards and placed with a warning marking to be cleaned only with damp cloth.