



BUREAU
VERITAS



EU - Type Examination Certificate

(1)

(2) Equipment and protective systems intended for use in potentially explosive atmospheres – Directive 2014/34/EU

(3) EU - Type Examination Certificate Number

EPS 19 ATEX 1 039 X

Revision 0

(4) Equipment: Smart positioner Type YT-3100

(5) Manufacturer: Rotork YTC Limited

(6) Address: 81, Hwanggeum-ro 89 beon-gil, Yangchon-eup, Gimpo-si, Gyeonggi-do,
Republic of Korea

(7) This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documentation therein referred to.

(8) Bureau Veritas Consumer Products Services Germany GmbH, notified body No. 2004 in accordance with Article 21 given in the Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014, certifies that this equipment has been found to comply with the essential health and safety requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II of the Directive. The examination and test results are recorded in the confidential documentation under the reference number 19TH0144.

(9) Compliance with the essential health and safety requirements has been assured by compliance with:

EN 60079-0:2012+A11:2013


EN 60079-11:2012

EN/IEC 60079-0:2018

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the annex to this certificate.

(11) This EU - Type Examination Certificate relates only to the design and examination of the specified equipment in accordance with Directive 2014/34/EU. Further requirements of this Directive apply to the manufacture of this equipment and its placing on the market. Those requirements are not covered by this certificate.

(12) The marking of the equipment shall include the following:

 II 2G Ex ia IIC T5/T6 Gb

Certification department of explosion protection

Hamburg, 2019-06-04



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(13)

Annex

(14) EU - Type Examination Certificate EPS 19 ATEX 1 039 X

Revision 0

(15) Description of equipment:

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 V DC
I_i = 93 mA DC
P_i = 651 mW
Linear characteristic with R_i = 301 Ohm

For PTM (Exi_Tr: OUT+, Out-):

U_i = 28 V DC
I_i = 93 mA DC
P_i = 651 mW
Linear characteristic with R_i = 301 Ohm

(16) Reference number: 19TH0144

(17) Special conditions for safe use:

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.

(18) Essential health and safety requirements:

Met by compliance with standards.

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Hamburg, 2019-06-04



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