

# **IECEx Certificate** of Conformity

### INTERNATIONAL ELECTROTECHNICAL COMMISSION **IEC Certification System for Explosive Atmospheres**

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx KSCP 25.0038X** Page 1 of 3 Certificate history:

Issue No: 0 Status: Current

2025-09-23 Date of Issue:

Applicant: **Rotork YTC Limited** 

81 Hwanggeum-ro 89 beon-gil Yangchon-eup, Gimpo-si

Gyeonggi-do Korea, Republic of

**Smart positioner RTP-4400 Type** Equipment:

Optional accessory:

flameproof enclosure "d", intrinsic safety "i", dust protection by enclosure "t" Type of Protection:

Marking: Ex db IIC T6/T5/T4 Gb

Ex tb IIIC T85°C/100°C/T135°C Db

Ex ia IIC T6/T5/T4 Ga

Ex ia IIIC  $T_{200}85^{\circ}\text{C}/100^{\circ}\text{C}/\text{T}135^{\circ}\text{C}$  Da

Ta: -55 °C to +85 °C

Approved for issue on behalf of the IECEx

Certification Body:

Sang He Kim

President of the Board

Position: Signature:

(for printed version)

(for printed version)

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Date of issue: 2025-09-23 Issue No: 0

**Rotork YTC Limited** Manufacturer:

81, Hwanggeum-ro, 89 Beon-gil, Yangchon-eup, Gimpo-si, Gyeonggi-do,

Korea, Republic of

Manufacturing

**Rotork YTC Limited** 

locations: 81, Hwanggeum-ro, 89 Beon-gil,

Yangchon-eup, Gimpo-si, Gyeonggi-

Korea, Republic of

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 equipment 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 60079-1:2014 Edition:7.0

Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

IEC 60079-11:2011 Edition:6.0

Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

IEC 60079-31:2022

Edition:3.0

This Certificate does not indicate compliance with 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:

PL/KSCP/ExTR25.0035/00

**Quality Assessment Report:** 

DE/EPS/QAR11.0002/15



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#### **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The smart positioner RTP-4400 accurately controls valve stroke in response to an input signal of 4-20 mA from an external controller. More information can be found in the certificate addendum. The enclosure fulfills ingress protection IP66 requirements.

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

- Parts of the enclosure are made of non-conductive materials The user should ensure that the equipment is not installed in a location where it may be subjected to external conditions (such as high-pressure steam) which might cause a build-up of electrostatic charges on non-conducting surfaces. Additionally, cleaning of the equipment should be done only with a damp cloth.
- Enclosure is made in aluminium when the RTP-4400 is installed in areas requiring equipment EPL Ga, the enclosure shall be protected from vertically falling objects, rubbing or friction by other parts.
- In accordance with clause 5.1 of IEC 60079-1 the flamepaths shall not to be repaired by the end user.
- The flameproof enclosure must be equipped with fasteners with a strength class of A2-70 or higher.
- The temperature at the cable entry and cable branching points of the equipment may exceed +70°C and +80°C respectively. A suitable cable shall be used for installation.

#### Annex:

Addendum\_IECEx KSCP 25.0038X\_0\_1.pdf



# **Addendum to IECEx Certificate**

Reference Number:	IECEx KSCP 25.0038X
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#### **Description**

The smart positioner RTP-4400 accurately controls valve stroke in response to an input signal of 4-20 mA from an external controller. The unit comprise an enclosure made in aluminium where the electronic and pneumatic parts are installed. The enclosure includes two compartments that can be accessed by the end user. The first is the compartment with the block terminals. The second is the compartment with the display and push buttons. Equipment is designed to be considered as multi-type of protection equipment that can be used in high risk areas requiring EPL Ga/Da, provided by Ex ia type of protection, or less hazardous zones requiring EPL Gb/Db provided by Ex db and Ex tb type of protection. The enclosure fulfills ingress protection IP66 requirements.

#### EPL Ga/Da level of protection:

Terminal name	Signal	Entity parameters
IN+, IN-	Current input signal (+) (-)	Ui = 28 V, Ii = 100 mA, Pi = 0.656 W Li = 10 μH, Ci = 2.59 nF
AO+, AO-	Analog output signal (+), (-)	Ui = 28 V, Ii = 115 mA, Pi = 0.7 W Li = 10 μH, Ci = 0.55 nF
DO1+, DO1-	Digital output signal 1 (+), (-)	Ui = 30 V, Ii = 100 mA, Pi = 0.656 W Li = 0 µH, Ci = 0.55 nF
DO2+, DO2-	Digital output signal 2 (+), (-)	Ui = 30 V, Ii = 100 mA, Pi = 0.656 W Li = 0 µH, Ci = 0.55 nF
DI+, DI-	Digital input signal (+), (-)	Ui = 30 V, Ii = 100 mA, Pi = 0.656 W Li = 0 µH, Ci = 0.55 nF
	Safety earthing	N/A

#### EPL Gb/Db level of protection:

Specifications	Entity parameters	
Power Supply:	Loop powered from 4-20 mA control signal	
Minimum Operating Current	3.8 mA	
Load Voltage	11.0 VDC at 20 mA DC 10.0 VDC at 4 mA DC	
Control System Compliance Voltage	28 VDC max.	
Digital Communication	HART 7	
4-20 mA Analog Output (Optional)	One isolated output signal: 4-20mA Supply voltage: 9-28 VDC NAMUR NE43: Failure high (> 21 mA) or Failure low (< 3.6 mA).	
Discrete Switch Input (Optional)	One isolated input. Maximum supply voltage: 30 VDC, Max. 4 mA. OFF at 0-5 VDC, ON at 10-30 VDC	
Discrete Switch Output (Optional)	Two isolated outputs Maximum supply voltage: 30 VDC Max. ON state current ≤ 1A ON state voltage drop ≤ 1V	

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OFF state current: ≤ 0.2mA

The following table shall be used to define the equipment temperature class or suface temperature:

Temperature class for Group II	Surface temperature for Group III	Ambient temperature range
Т6	T <sub>200</sub> 85°C	-40 °C¹) to +70 °C
T5	T <sub>200</sub> 100°C	-40 °C¹) to +80 °C
T4	T <sub>200</sub> 135°C	-40 °C¹) to +85 °C

NOTE 1: When the model RTP-4400-\*-\*-\*-\*-L is selected (Extreme tempertature option), the minimum ambient temperature is -55 °C.

## Equipment model number definition is given below:

RTP-4400 (1)(2)(3)(4)(5)(6)(7)(8)		
(1) Acting type	S: Single D: Double	
(2) Ex Approval	D: ATEX, IECEx	
(3) Conduit - Air connection type	4: M20 x 1.5P – ¼ NPT 5: ½ NPT – ¼ NPT	
(4) Communication	2: HART Communication	
(5) Input/Output	0: None 1: 4-20 mA Analog Output 2: Discrete Switch Input and Outputs 3: 4-20 mA Analog Output + Discrete Switch Input and Outputs	
(6) Diagnostics	A: Advanced P: Premium	
(7) Pressure Gauge	0 : None 1 : Three Pressure Gauges	
(8) Ambient Temperature	S : -40°C to 85 °C (-40 to 185 °F)	
	L : -55°C to 85 °C (-67 to 185 °F)	

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# The equipment has the following marking:

Item	Detail	
Name of Manufacturer/Trade mark	Rotork YTC Limited	
Address of manufacturer	Address: 81, Hwanggeum-ro, 89 Beon-gil, Yangchon-eup, Gimpo-si, Gyeonggi-do, Postal code: 10048, South Korea	
Equipment name	Smart positioner	
Type identification	RTP-4400	
Serial No. and year of manufacture	MM.YYYY	
IECEx certificate number	IECEx KSCP 25.0038X	
	Ex db IIC T6/T5/T4 Gb	
	Ex tb IIIC T85°C/100°C/T135°C Db	
Code	or	
	Ex ia IIC T6/T5/T4 Ga	
	Ex ia IIIC T <sub>200</sub> 85°C/100°C/T135°C Da	
	-55* / - 40 °C to +70 °C(T6, T85 °C),	
Aughiant	-55* / - 40 °C to +80 °C(T5, T100°C),	
Ambient	-55* / - 40 °C to +85 °C,(T4, T135°C).	
	* With arctic silicone rubber	
Warnings	*KEEP COVER TIGHT WHILE CIRCUITS ARE ALIVE  *A SEAL SHALL BE INSTALLED AT WALL ENCLOSURE  *WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD  – SEE INSTRUCTIONS  *TO PREVENT IGNITION OF FLAMMABLE OR COMBUSTIBLE  ATMOSPHERES, DISCONNECT POWER BEFORE SERVICING.	
Rating	Refer to cover sheet "General product information".	

## **Conditions of manufacture:**

N/A

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