

CERTIFICATE OF CONFORMITY



1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
2. **Certificate No:** FM16US0132X
3. **Equipment:** YT-3400, YT-3410 and YT-3450
(Type Reference and Name) Smart Valve Positioners
4. **Name of Listing Company:** Rotork YTC Limited
5. **Address of Listing Company:** 81, Hwanggeum-ro, 89 beon-gil
Gimpso-si
Gyeonggi-do
10048 Republic of Korea
6. The examination and test results are recorded in confidential report number:

3053561 dated 6th October 2015
7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

FM Class 3600:2018, FM Class 3615:2018, FM Class 3616:2011, FM Class 3810:2018,
ANSI/ISA 60079-0:2013, ANSI/ISA 60079-1:2013, ANSI/ISA 60079-31:2013, ANSI/ISA 61010-1:2004,
ANSI/IEC 60529:2004, ANSI/NEMA 250:2014
8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.

Certificate issued by:


J. E. Marquedant

VP, Manager - Electrical Systems

22 November 2021

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
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10. Equipment Ratings:

Explosionproof for Class I, Division 1, Groups A, B, C and D; Dust-ignitionproof for Class II, Division 1, Groups E, F and G; Class III, Division 1; Flameproof for Class I, Zone 1, AEx db IIC T6/T5; and Protection by Enclosure for Zone 21 AEx tb IIIC T85°C/ T100°C hazardous (classified) locations, indoors and outdoors (Type 4X/IP66) with an ambient temperature rating of T6 Ta -40°C to +70°C, T5 Ta= -40°C to +80°C.

11. The marking of the equipment shall include:

Class I Division 1, Groups A, B, C, D; T6 Ta = -40°C to +70°C, T5 Ta= -40°C to +80°C; Type 4X/IP66

Class II, III Division 1, Groups E, F, G; T6 Ta = -40°C to +70°C, T5 Ta= -40°C to +80°C; Type 4X/IP66

Class I, Zone 1, AEx db IIC T6 Ta = -40°C to +70°C, T5 Ta= -40°C to +80°C; Type 4X/IP66

Zone 21 AEx tb IIIC T85°C Ta= -40°C to +70°C, T100°C Ta = -40°C to +80°C; Type 4X/IP66

12. Description of Equipment:

General - The YT-3400/3410/3450 Series Smart Valve Positioner controls valve stroke, according to an input signal of 4-20mA, which comes from a controller. The enclosure consists of a flameproof housing with electronics, display window and a pneumatic unit with a pilot valve inside. The process medium is allowable for the use of Group D gas at a pressure not exceeding 101 PSI (7 Bar). In the event of use for Group D gas as the process medium, the gas must be compatible with the wetted parts of the valve positioners.

YT-3400 abcdefghi. Smart Valve Positioner

a = Motion Type: L or R

b = Acting Type: S or D

c = Explosionproof: A or AG

d = Feedback Lever (YT-3400L): 1, 2, 3 or 4

e = Feedback Lever (YT-3400R): 1, 2, 3, 4, 5 or 6

f = Conduit – Air Connection Type: 4 or 5

g = Communication: 0, 2 or 5

h = Option: 0, 1, 2 or 3

i = Operating Temperature: S or L.

YT-3410 abcdefghi. Smart Valve Positioner

a = Motion Type: L or R

b = Acting Type: S or D

c = Explosionproof: A or AG

d = Feedback Lever (YT -3410L): 1, 2, 3 or 4

e = Feedback Lever (YT-3410R): 1, 2, 3, 4, 5 or 6

f = Conduit – Air Connection Type: 4 or 5

g = Communication: 0 or 2

h = Option: 0, 1, 2 or 3

i = Operating Temperature: S or L.

YT-3450 abcdefghi. Smart Valve Positioner

a = Motion Type: L or R

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- b = Acting Type: S or D
c = Explosionproof: A or AG
d = Feedback Lever (YT-3450L): 1, 2, 3 or 4
e = Feedback Lever (YT-3450R): 1, 2, 3, 4, 5 or 6
f = Conduit – Air Connection Type: 4 or 5
g = Communication: 0, 2 or 5
h = Option: 0, 1, 2 or 3
i = Operating Temperature: S or L.

13. Specific Conditions of Use:

1. Consult the manufacturer for dimensional information on the flameproof joint for repair.
2. Refer to the manufacturer's instructions to reduce the potential of an electrostatic charging hazard on the equipment enclosure.

14. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

15. Schedule Drawings

A copy of the technical documentation has been kept by FM Approvals.

16. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
6 th October 2015	Original Issue.
25 th May 2016	<u>Supplement 1:</u> Report Reference: – Revision Request RR205312 dated 25 th May 2016. Description of the Change: Addition of a second nameplate label with US and CSA certification information only.
9 th December 2016	<u>Supplement 2:</u> Report Reference: – Revision Request RR207641 dated 9 th December 2016. Description of the Change: Addition of Specific Conditions of Use to the certificate.
27 th December 2016	<u>Supplement 3:</u> Report Reference: – Revision Request RR207799 dated 27 th December 2016. Description of the Change: Addition of model code options for Connection Type and Feedback Lever, and address update.
7 th July 2019	<u>Supplement 4:</u> Report Reference: – RR218810 Dated 7 th July 2019. Description of the Change: Updated company name from Young Tech Co Ltd to Rotork YTC Limited along with labels and documentation, as well as updated FM

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	Class Standards 3600, 3615, and 3810 to latest editions
28 th August 2021	<u>Supplement 5:</u> Report Reference: - RR229201 Dated 28 th August 2021. Description of Change: Addition of explosionproof option AG with threaded exhaust. Explosionproof option C was reconfigured as option A. Addition of Type 4X.
18 th October 2021	<u>Supplement 6:</u> Report Reference: - RR229777 Dated 18 th October 2021. Description of Change: Variable 'i' Operating Temperature options added to models.
22 nd November 2021	<u>Supplement 7:</u> Report Reference: - RR230331 Dated 22 nd November 2021. Description of Change: Variable "5" (+ HART with Enhanced Diagnostics & DI / DO) added to the Communication options for models YT-3400 and YT-3450.

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