

CERTIFICATE OF CONFORMITY




- HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS**
- Certificate No:** FM18CA0085X
- Equipment:** ICOT 5000 Series Digital Positioner
(Type Reference and Name)
- Name of Listing Company:** Westlock Controls Corporation
- Address of Listing Company:** 280 N Midland Ave, Ste 258
Saddle Brook NJ 07663
United States
- The examination and test results are recorded in confidential report number:

3024191 dated 1st August 2005
- FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

CSA-C22.2 No. 94:R2011, CSA C22.2 No 142-M1987:R2014, CSA C22.2 No. 60079-0: 2015, CSA C22.2 No. 60079-11:2014, CSA C22.2 No. 213:2017 and CSA C22.2 No. 61010-1:2012
- 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.
- 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.
- Equipment Ratings:**

Intrinsically Safe for Class I, II, III, Division 1, Groups A, B, C, D, E, F and G, T4 Ta ≤ 85°C, with entity Parameters and FISCO Parameters; Intrinsically Safe for Zone 0, Ex ia IIC T4 Ga Ta = 80°C, with entity parameters, Nonincendive for Class I, II, III, Division 2, Groups A, B, C, D, E, F and G T4 Ta = 85°C Type 4 and Type 4X indoor and outdoor Hazardous Locations.

Certificate issued by:



J.E. Marquedant
VP, Manager - Electrical Systems

8th November 2022

Date

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

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11. The marking of the equipment shall include:

ICOT 5 a b c d E e f g h i j. Valve Positioner.

Class I, II, III, Division 1, Groups A, B, C, D, E, F and G, T4 Ta = +80°C – WD-11704; Entity; FISCO; Type 4X;
Zone 0, Ex ia IIC, T4 Ga Ta = +80°C – WD-11704; Entity; FISCO; Type 4X;
Class I, II, III, Division 2, Groups A, B, C, D, E, F, G; T4 Ta = 80°C; Type 4X

ICOT 5 a b c IS E d e f g h i - 110. Valve Positioner.

Class I, II, III, Division 1, Groups C, D, E, F and G, T4 Ta = +85°C – WD-10836; Entity; Type 4

ICOT 5 a b c IS E d e f g h i. Valve Positioner.

Class I, II, III, Division 1, Groups A, B, C, D, E, F and G, T4 Ta = 85°C – WD-10836; Entity; Type 4

ICOT 5 a b c NI E d e f g h i. Valve Positioner.

Class I, II, III, Division 2, Groups A, B, C, D, E, F and G, T4 Ta = 85°C; Type 4

12. **Description of Equipment:**

General: The ICOT 5000 Series Valve Positioner is an electro-pneumatic servo system that continuously controls the position of a valve based on a 4 to 20 mA input signal. The Valve Positioner is a loop powered device that derives its power directly from the input current loop. The instrument measures valve position via a noncontact Hall Effect sensor and controls the valve through a current to pressure transducer. The ICOT Series Series outputs a 4 to 20 mA signal proportional to the position measured.

Electrical Ratings: The nominal equipment ratings for the device are the following, V input = 9 to 32 Vdc, I input = 25 mA current loop, maximum operating pressure = 120 psi.

ICOT 5 a b c IS E d e f g h i. Valve Positioner.

- a = Base Model 4, 5
- b = Actuator types: 1, 3
- c = Mounting Style: 0, 5, 7, 8
- d = Supply Pressures: H, L, V
- e = Calibration/Communication: 4, P
- f = Conduit entries: A, B
- g = Limit Switch Option: 0, 2
- h = Position Transmitter Output: A
- j = Pneumatic Connection: B, F, N

Entity Parameters:

Ui = 30 V, li = 100 mA, Pi = 0.75 W, Ci = 120 pF, Li = 0.

FISCO Parameters:

Ui = 17.5V, li = 380mA, Pi = 5.32W, Ci = 5nF, Li = 10µH

ICOT 5 a b c IS E d e f g h i - 110. Valve Positioner.

- a = Base Model: 2, 3.
- b = Actuator types: 1, 3
- c = Mounting Style: 0, 5, 7, 8
- d = Supply Pressures: H, L, V

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e = Calibration/Communication: B, K
f = Conduit Entries: A, B
g = Limit Switch: 0, 2
h = Position Transmitter Output: A, B
i = Pneumatic Connection: B, F, N

Entity Parameters:

Inputs (+) and (-):

$U_i = 30\text{ V}$, $I_i = 100\text{ mA}$, $P_i = 0.75\text{ W}$, $C_i = 0$, $L_i = 17.25\mu\text{H}$

Outputs 5 and 6:

$U_i = 30\text{ V}$, $I_i = 100\text{ mA}$, $P_i = 0.75\text{ W}$, $C_i = 0$, $L_i = 17.25\mu\text{H}$

Auxiliary Outputs 3 and 4:

$U_i = 30\text{ V}$, $I_i = 200\text{ mA}$, $P_i = 1.5\text{ W}$, $C_i = 0$, $L_i = 0$.

Auxiliary Outputs 1 and 2:

$U_i = 30\text{ V}$, $I_i = 200\text{ mA}$, $P_i = 1.5\text{ W}$, $C_i = 0$, $L_i = 0$.

ICOT 5 a b c IS E d e f g h i. Valve Positioner.

a = Base Model: 2, 3

b = Actuator types: 1, 3

c = Mounting Style: 0, 5, 7, 8

d = Supply Pressures: H, L, V

e = Calibration/Communication: B, K

f = Conduit Entries: A, B

g = Limit Switch Option: 0, 2

h = Position Transmitter Output: A, B

i = Pneumatic Connection: B, F, N

Entity Parameters:

Inputs (+) and (-):

$U_i = 30\text{ V}$, $I_{\text{max}} = 100\text{ mA}$, $P_{\text{max}} = 0.75\text{ W}$, $C_i = 0$, $L_i = 17.25\mu\text{H}$

Outputs 5 and 6:

$U_i = 30\text{ V}$, $I_i = 100\text{ mA}$, $P_i = 0.75\text{ W}$, $C_i = 0$, $L_i = 17.25\mu\text{H}$

Auxiliary Outputs 3 and 4:

$U_i = 30\text{ V}$, $I_i = 200\text{ mA}$, $P_i = 1.5\text{ W}$, $C_i = 0$, $L_i = 0$.

Auxiliary Outputs 1 and 2:

$U_i = 30\text{ V}$, $I_i = 200\text{ mA}$, $P_i = 1.5\text{ W}$, $C_i = 0$, $L_i = 0$.

ICOT 5 a b c NI E d e f g h i. Valve Positioner.

a = Base Model: 2, 3

b = Actuator types: 1, 3

c = Mounting Style: 0, 5, 7, 8

d = Supply Pressures: H, L, V

e = Calibration/Communication: B, K

f = Conduit Entries: A, B

g = Limit Switch Option: 0, 2

h = Position Transmitter Output: A, B

i = Pneumatic Connection: B, F, N

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13. Specific Conditions of Use:

The powder coated surface of the Valve Positioner may store electrostatic charge and become a source of ignition in applications with a low relative humidity <~30% relative humidity where the painted surface is relatively free of surface contamination such as dirt, dust, or oil. Cleaning of the painted surface should only be done with a damp cloth.

14. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals Canadian Certification Scheme.

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
1 st August 2005	Original Issue.
24 th August 2018	<u>Supplement 4:</u> Report Reference: – RR214496 dated 24 th August 2018. Description of the Change: Minor changes to installation manual and conditions of use. Correction to product listing for the ICOT 5000 Series for Canada as displayed in the Approval Guide.
8 th November 2022	<u>Supplement 5:</u> Report Reference: – RR234138 dated 8 th November 2022. Description of the Change: Update certificate to latest template, update some standards to latest editions, update to model code, correction to Entity Parameters and FISCO Parameters, minor drawing updates.

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