



# Certificate of Compliance

**Certificate:** 70005762

**Master Contract:** 153247

**Project:** 80059796


**Date Issued:** December 22, 2020

**Issued to:** Rotork Controls  
675 Mile Crossing Blvd  
Rochester  
NY 14624  
USA

**Attention:** Matt Cogill

*The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only*



**Issued by:**   
Carlos Garcia

**CLASS 2258-02** PROCESS CONTROL EQUIPMENT- For Hazardous Locations

**CLASS 2258-82** PROCESS CONTROL EQUIPMENT- For Hazardous Locations- Certified to US Standards

**Class I, Div. 1, Groups B, C and D; Class II, Div 1: Groups E, F and G; T4; Type 4X and 6:**

Electric Valve Actuators, IQT Range, Models, IQT125, IQT250, IQT500, IQT1000, IQT1500 and IQT2000, IQTF50, IQTF100, IQTF125, IQTF250, IQTF500, IQTF1000, IQTF1500 and IQTF2000, rated 24Vdc or < 600V three/single phase 50/60Hz. Customer control contact rated: 20-60 Vdc or 60-120 Vac, Actuator control contact rated: 24 Vdc; Output Torque up to 17700 lbf-in (2000 Nm). 15 Minutes rated based upon a nominal 75% of rated torque. Temperature Code T4;  $-40\text{ }^{\circ}\text{C} \leq T_{amb.} \leq +70\text{ }^{\circ}\text{C}$ . Shutdown Battery Module - 15 Minutes rated based upon a nominal 75% of rated torque. CSA - Temperature Code T4;  $-40\text{ }^{\circ}\text{C} \leq T_{amb.} \leq +70\text{ }^{\circ}\text{C}$ . CSAus - Temperature Code T4;  $-20\text{ }^{\circ}\text{C} \leq T_{amb.} \leq +70\text{ }^{\circ}\text{C}$ .

Electric Valve Actuators, IQT Range, Models, IQT3000 and IQTF3000, rated 24Vdc or < 600V three/single phase 50/60Hz. Customer control contact rated: 20-60 Vdc or 60-120 Vac, Actuator control contact rated: 24 Vdc; Output Torque up to 17700 lbf-in (3000 Nm). 15 Minutes rated based upon a nominal 50% of rated torque. Temperature Code T4;  $-40\text{ }^{\circ}\text{C} \leq T_{amb.} \leq +70\text{ }^{\circ}\text{C}$ .

Electric Valve Actuators, IQTM Range, Models, IQTM125, IQTM250, IQTM500, IQTM1000, IQTM1500 and IQTM2000, IQTFM125, IQTFM250, IQTFM500, IQTFM1000, IQTFM1500 and IQTFM2000, rated 24Vdc or <



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600V three/single phase 50/60Hz. Customer control contact rated: 20-60 Vdc or 60-120 Vac, Actuator control contact rated: 24 Vdc; Output Torque up to 8850 lbf-in (1000 Nm). 50% duty cycle based upon 50% of modulating rated torque. Temperature Code T4;  $-40\text{ }^{\circ}\text{C} \leq \text{Tamb.} \leq +70\text{ }^{\circ}\text{C}$  Shutdown Battery Module - 15 Minutes rated based upon a nominal 75% of rated torque. CSA - Temperature Code T4;  $-40\text{ }^{\circ}\text{C} \leq \text{Tamb.} \leq +70\text{ }^{\circ}\text{C}$ . CSAus - Temperature Code T4;  $-20\text{ }^{\circ}\text{C} \leq \text{Tamb.} \leq +70\text{ }^{\circ}\text{C}$ .

Electric Valve Actuators, IQTM Range, Models, IQTM3000 and IQTFM3000, rated 24Vdc or < 600V three/single phase 50/60Hz. Customer control contact rated: 20-60 Vdc or 60-120 Vac, Actuator control contact rated: 24 Vdc; Output Torque up to 8850 lbf-in (1000 Nm). 50% duty cycle based upon 33% of modulating rated torque. Temperature Code T4;  $-40\text{ }^{\circ}\text{C} \leq \text{Tamb.} \leq +70\text{ }^{\circ}\text{C}$ .

**Class I, Div. 1, Groups B, C and D; Class II, Div 1: Groups E, F and G; T4; Type 4X and 6:**

Electric Valve Actuators, IQT Range, Models, IQT125, IQT250, IQT500, IQT1000, IQT1500 and IQT2000, IQTF50, IQTF100, IQTF125, IQTF250, IQTF500, IQTF1000, IQTF1500 and IQTF2000, rated 24Vdc or < 600V three/single phase 50/60Hz. Customer control contact rated: 20-60 Vdc or 60-120 Vac, Actuator control contact rated: 24 Vdc; Output Torque up to 17700 lbf-in (2000 Nm). 15 Minutes rated based upon a nominal 75% of rated torque. Temperature Code T4;  $-50\text{ }^{\circ}\text{C} \leq \text{Tamb.} \leq +40\text{ }^{\circ}\text{C}$ .

Electric Valve Actuators, IQT Range, Models, IQT3000 and IQTF3000, rated 24Vdc or < 600V three/single phase 50/60Hz. Customer control contact rated: 20-60 Vdc or 60-120 Vac, Actuator control contact rated: 24 Vdc; Output Torque up to 17700 lbf-in (3000 Nm). 15 Minutes rated based upon a nominal 50% of rated torque. Temperature Code T4;  $-50\text{ }^{\circ}\text{C} \leq \text{Tamb.} \leq +40\text{ }^{\circ}\text{C}$ .

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Electric Valve Actuators, IQT Range, Models, IQT3000 and IQTF3000, rated 24Vdc or < 600V three/single phase 50/60Hz. Customer control contact rated: 20-60 Vdc or 60-120 Vac, Actuator control contact rated: 24 Vdc; Output



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Torque up to 17700 lbf-in (3000 Nm). 15 Minutes rated based upon a nominal 50% of rated torque. Temperature Code T4;  $-40\text{ }^{\circ}\text{C} \leq \text{Tamb.} \leq +70\text{ }^{\circ}\text{C}$ .

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**CONDITIONS OF ACCEPTABILITY**

1. Thermal protection devices are installed within the motor windings. There is a facility to override these devices should the user find it necessary. The overriding of the thermal protection devices is not covered by the scope of this approval.
2. The scope of this approval does not include any safety related function or reliability of the equipment.
3. The ambient temperature in the field wiring enclosure may exceed 85°C when the equipment is utilized in a 70°C local ambient. This must be considered when selecting field wiring conductors.
4. For safety reasons the same voltage level must be connected to all of the actuators indication relay terminals, remote input relay terminals and digital I/O terminals (if applicable). All external circuits must be provided with insulation suitable for the rated voltage whilst considering National Regulations and Statutory Provisions. In the event that this is not possible or you are in any doubt of how to comply the user must contact the manufacturer.
5. If at any time there is a conflict between the system safety provisions and any relevant local (national or regional) requirements, the local requirements always take precedence.
6. **Plug and Socket Cover/ Plug and Socket connection/ Non-Explosionproof Terminal Bung option** – gas group C and D only, all sizes, ambient temperature range -25°C to +70°C.
7. **Shutdown Battery Option**

If the actuator has a Shutdown Battery Pack installed, the actuator can only operate certain number of strokes when battery is in use or during mains power loss. Below is the number of strokes the battery pack can be sustained and time to recharge in reference to utilized strokes. The Shutdown Battery Pack is used only to either open or close the end-application valve once even during manual adjustment.

Size	IQT - Number of strokes	Discharging Duration (mins)	IQT Time to recharge per Stroke (mins)
IQTF 50	80	4	2
IQTF 100	72	4	2
IQT 125*	30	4	5
IQT 250*	14	4	11
IQT 500*	8	4	19
IQT 1000*	4	4	38
IQT 1500*	4	4	38
IQT 2000*	2	4	75
* These models can have the prefix IQT, IQTF, IQTM or IQTFM			

When the shutdown Battery Pack is installed, the actuator, powered from mains, shall operate as follows:  
 IQT125-2000/IQTF50-2000:

- 15 minutes rated (25% duty cycle) based upon a nominal 75% of rated torque at 60°C ambient temperature; or
- 6 minutes rated (10% duty cycle) based upon a nominal 75% of rated torque at 70°C ambient temperature.

IQTM/IQTFM125-2000:

- 50% duty cycle rated based upon a nominal 50% of rated torque at 60°C ambient temperature; or
- 20% duty cycle rated based upon a nominal 50% of rated torque at 70°C ambient temperature.

**Shutdown Battery Option** – **cannot** be used in Group B, -40°C ambient application under CSAus.



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### APPLICABLE REQUIREMENTS

C22.2 No. 25-1966(R2014)	- Enclosures for Use in Class II, Groups E, F and G Hazardous Locations
C22.2 No. 30-M1986(R2012)	- Explosion-Proof Enclosures for Use in Class I Hazardous Locations
CAN/CSA-C22.2 No. 94-M91(R2011)	- Enclosures for electrical equipment, environmental considerations.
CAN/CSA-C22.2 No. 61010-1-12	- Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements
FM 3600:2018	- Approval Standard for Electrical Equipment for Use in Hazardous (Classified) Locations – General Requirements.
FM 3615:2018	- Approval Standard for Explosionproof Electrical Equipment General Requirements.
FM 3616:2011	- Approval Standard for Dust-Ignitionproof Electrical Equipment General Requirements
UL 50E:2015	- Enclosure for Electrical Equipment, Environmental Considerations
ANSI/ISA-61010-1 (82.02.01) (Third Edition)	- Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements

### MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

There are three marking labels, one is applied to the side of the Gearcase, one is applied to the Terminal Compartment lid, and one on the Battery Cover, marking details are include on drawing AD1453.

#### **Location: Side of the Gearcase**

Laser etched onto a 0.5 mm thick aluminum sheet attached with screws contains the following marking details

- Company name; Rotork Controls Ltd or Rotork Controls Inc
- Company address; Bath England or 675 Mile Crossing Blvd Rochester, NY 14624
- Hazardous Location designation: “Class I, Div. 1, Groups B, C, D T4; Class II, Div. 1, Groups E, F, G T4;” or “Class I, Div. 1, Groups C, D T4; Class II, Div. 1, Groups E, F, G”;
- Serial number; as appropriate
- Wiring diagram number; as appropriate
- Actuator type
- Special Purpose Enclosure Ratings: “Type 4X, 6”

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- T-class; T4
- Electrical Input rating; as applicable
- Unit weight; kg, as appropriate
- Ambient Temperature Tamb -30 °C to +70 °C, or -40 °C to +70 °C” or Tamb -50 °C to +40 °C
- CSA Monogram.

(Note – Submitter hazardous location markings may also include reference to Class I, Zone 1, IIB or IIB + Hydrogen, based upon CSA TN -076).


#### **Location: Terminal Enclosure Lid/Deep Cover**

Acid etched onto a 0.5 mm thick stainless steel sheet attached with screws contains the following marking details


- Caution symbol  possibility of electric shock.
- The statement: “WARNING: Do not open when an energized” in English and French;
- The statement: “Wiring may exceed 85°C in a 70°C ambient” in English and French;
- The statement: “Conduit seals must be installed at the enclosure wall” in English and French.

#### **Location: Battery Cover**

Molded into the battery cover material are the following marking details:

Caution symbol  (ISO 3864, No. B.3.1), for direction of user to instruction manual;  
The statement: “Do not open while a flammable atmosphere is present” in English and French;

Additional marking to appear on the product

PROTECTIVE BONDING TERMINAL is identified by the IEC 60417 No 5019 symbol  , adjacent to the TERMINAL.

Neutral is identified by the letter "N" (for units with a non-detachable supply cord or PERMANENTLY CONNECTED EQUIPMENT). (This is indicated in the wiring diagram which accompanied each product)  
TERMINAL markings: The terminals are identified numerically, terminal number identification is supplied in the form of an inlay card included within the terminal enclosure which cross references with a wiring diagram supplied with each piece of equipment.