

Certificate of Compliance

Certificate: 2679647 Master Contract: 153247

Issued To: Rotork Controls Inc.

675 Mile Crossing Blvd Rochester, New York, 14624

United States

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

PRODUCTS

CLASS 322802 - VALVES Actuators - For Hazardous Locations
CLASS 322882 - VALVES Actuators - For Hazardous Locations-Certified to U.S. Standards

For details related to rating, size, configuration, etc. reference should be made to the CSA Certification Record or the descriptive report.

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

IQ Range Electric Valve Actuators, Models - 3 Phase - IQ10, IQ12, IQ18, IQ19, IQ20, IQH20, IQ25, IQH25, IQ35, IQH35, IQ40, IQH40, IQ70, IQ90, IQ95 and IQ91. 3 Phase modulating - IQM10, IQM12, IQM20, IQM25 and IQM35. Single Phase - IQS12, IQS20, IQS35; supply input rated 200 to 600 Vac, $3\emptyset$, 50 or 60 Hz or 110 to $240 \pm 10\%$ Vac, $1\emptyset$, 50 or 60 Hz. Customer control contact rated: 20-60 Vdc or 60-120 Vac, Actuator control contact rated: 24 Vdc; Output Torque up to 26400 lbsf-in (3000 Nm) continuously rated; Temperature Code T4; -40 °C \leq Tamb. \leq +70°C.

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

IQ Range Electric Valve Actuators, Models - 3 Phase - IQ10, IQ12, IQ18, IQ19, IQ20, IQ25, IQ35, IQ40, IQ70, IQ90, IQ95 and IQ91. 3 Phase modulating - IQM10, IQM12, IQM20, IQM25 and IQM35. Single Phase - IQS12,



IQS20, IQS35; supply input rated 200 to 600 Vac, $3\emptyset$, 50 or 60 Hz or 110 to $240 \pm 10\%$ Vac, $1\emptyset$, 50 or 60 Hz. Customer control contact rated: 20-60 Vdc or 60-120 Vac, Actuator control contact rated: 24 Vdc; Output Torque up to 26400 lbsf-in (3000 Nm) continuously rated; Temperature Code T4; -50 °C \leq Tamb. \leq +40°C.

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

IQ Range Electric Valve Actuators, Models - 3 Phase - IQ10, IQ12, IQ18, IQ19, IQ20, IQH20, IQ25, IQH25, IQ35, IQH35, IQ40, IQH40, IQ70, IQ90, IQ95 and IQ91. 3 Phase modulating - IQM10, IQM12, IQM20, IQM25 and IQM35. Single Phase - IQS12, IQS20, IQS35; supply input rated 200 to 600 Vac, $3\emptyset$, 50 or 60 Hz or 110 to $240 \pm 10\%$ Vac, $1\emptyset$, 50 or 60 Hz. Customer control contact rated: 20-60 Vdc or 60-120 Vac, Actuator control contact rated: 24 Vdc; Output Torque up to 26400 lbsf-in (3000 Nm) continuously rated; Temperature Code T4; -40 °C \leq Tamb. \leq +70°C.

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IQ Range Electric Valve Actuators, Models - 3 Phase - IQ10, IQ12, IQ18, IQ19, IQ20, IQ25, IQ35, IQ40, IQ70, IQ90, IQ95 and IQ91. 3 Phase modulating - IQM10, IQM12, IQM20, IQM25 and IQM35. Single Phase - IQS12, IQS20, IQS35; supply input rated 200 to 600 Vac, $3\emptyset$, 50 or 60 Hz or 110 to $240 \pm 10\%$ Vac, $1\emptyset$, 50 or 60 Hz. Customer control contact rated: 20-60 Vdc or 60-120 Vac, Actuator control contact rated: 24 Vdc; Output Torque up to 26400 lbsf-in (3000 Nm) continuously rated; Temperature Code T4; -50 °C \leq Tamb. \leq +40°C.

Note – As per the CEC/NEC, the above actuators may be marked/used in Class I, Zone 1, IIB or IIB + Hydrogen hazardous areas.

CONDITIONS OF ACCEPTABAILITY

- 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 <u>does not</u> include any safety related function or reliability of the equipment. There are variants covered by this certification that have been subjected to a separate functional safety evaluation to IEC 61508, as per report R70004934A, which is outside of the scope of this report/certification.
- 3. 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.
- 4. The user replaceable mains (line) fuse must be an approved type acceptable to the authorities where the equipment is sold.
- 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. Actuator Models IQ19, IQ20, IQ25, IQH20, IQH25, IQM20, IQM25, IQS20, IQ35, IQH35, IQM35, IQS35, IQ40, IQH40, IQ70, IQ90, IQ95 and IQ91 for Group B environments must be fitted with the Explosionproof Terminal Bung, when the Network Disconnect or Wireless Network Deep Cover option is fitted.



7. Actuator Models IQ40, IQH40, IQ70, IQ90, IQ95 & IQ91 for Group C and Group B environments, the Short Electrical Cover must not be fitted.

8. <u>Actuator Models Deep Cover variants between -40°C to -50°C _CCSA_{US} or CSA_{US} Approvals :</u> Gas Group C- IQ10, IQ12, IQ18, IQ19, IQ20, IQ25, and IQ35 – all variant Gas Group B - IQ40, IQ70, IQ90, IQ95 and IQ91- all variants

The following <u>Deep Cover variants between -40°C to -50°C</u> options are <u>NOT</u> permitted under either ${}_{C}CSA_{US}$ or CSA_{US} Approvals:

Gas Group C Gas Group B

Size 5 - IQ40, IQ70, IQ90, IQ95 and IQ91, all variants. Size 1, IQ10, IQ12 and IQ18 all variants.

Size 2, IQ19, IQ20 and IQ25 all variants.

Size 3, IQ35 all variants.

9. <u>Plug and Socket Cover/ Plug and Socket connection/ Non-Explosionproof Terminal Bung option</u> – gas group C & D only, all sizes, ambient temperature range -25°C to +70°C.

10. Where the end user connects locally to the actuator via a mobile app, the end user shall use a handheld device suitably certified for the classification of area in which the actuator is installed.

APPLICABLE REQUIREMENTS

C22.2 No. 25-1966	-	Enclosures for Use in Class II, Groups E, F and G Hazardous
		Locations
C22.2 No. 30-M1986	-	Explosion-Proof Enclosures for Use in Class I Hazardous Locations
CAN/CSA-C22.2 No. 94-M91	-	Special Purpose Enclosures
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)		Safety Requirements for Electrical Equipment for Measurement,
(Third Edition)		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.

The products listed are eligible to bear the CSA Mark shown without an indicator for Canada only (indicating that products have been manufactured to the requirements of Canadian Standards).

Nameplate adhesive label material approval information:

There are three marking labels. The main label is on the Gearcase casting and the secondary label is on the Terminal Cover and there is another small marking section on the battery cover. Refer to drawing AD1415.

Main

Acid etched onto a 0.5 mm thick aluminum sheet attached to the Gearcase with screws and contains the following marking details:

- Company name;
- Company address;
- Serial number:
- Wiring diagram number;
- Actuator Type/Model;
- Actuator Speed;
- Output Torque;
- Special Purpose Enclosure Ratings: "Type 4X, 6"
- T-class:
- Power and Time Rating;
- Electrical Input Rating;
- Indication Contact Ratings;
- Unit weight;
- Ambient Temperature ("Tamb -40 °C to +70 °C" or "Tamb -50 °C to +40 °C" or "Tamb -25 °C to +70 °C")
- CSA Monogram.

(Note – Submitter hazardous location markings may also include reference to Class I, Zone 1, IIB or IIB + Hydrogen).



Secondary

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

- Company name;
- CSA Monogram;
- Caution symbol possibility of electric shock.
- 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";
- Special Purpose Enclosure Ratings: "Type 4X, 6";
- The statement: "Max operating temperature 70°C";
- The statement: "WARNING: Do not open when energized" in English and French;
- The statement: "Conduit seals must be installed at the enclosure wall" in English and French.

Battery Cover

The following markings are chemically engraved onto a stainless steel label and attached to either the battery plug or the Intumescent coating using Technibond T567 double sided adhesive:

- 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.