Certificate of Compliance

Certificate: 2198587 **Master Contract:** 153247

Project: 80026273 **Date Issued:** April 20, 2020

Issued to: **Rotork Controls Inc.**
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 (indicating that products have been manufactured to the requirements of both Canadian and US Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only

US C US

Issued by: Stewart Finch IEng

PRODUCTS

CLASS 3228 02 - VALVES – Actuators - For Hazardous Locations
CLASS 3228 82 - VALVES – Actuators - For Hazardous Locations – Certified to US Standards

Explosion proof for Class I, Div. 1, Groups B, C, D; Class II, Div 1, Groups E, F and G; Temperature Code T4; Type 4X and 6; Optional Associated Apparatus, Class I, Div 1, Groups A,B,C,D in accordance with Control Drawings No WD08798, WD08799, WD08800 WD08801, WD08852, WD08853, WD08854 or WD08855

CVA Series Electric Valve Actuators, Model CVL500 Linear Electric Control Valve Actuator and Model CVQ1200 Quarter Turn Electric Control Valve Actuator; supply input rated 110-240 Vac, 50Hz, 2A max; 100-240 Vac, 60Hz, 2A max; 26.4 Vdc or less, 7.0 A max.; Relay Contact rated: 120 Vac, 24 Vdc, 3A Inductive; Signal Circuit Rated 24 Vdc, 4-20 mA; Input thrust up to 500 lbsf (2224 N); Output Torque up to 1200 lbsf-in (135.5 Nm) continuously rated; Temperature Code T4; –40 ºC ≤ Tamb. ≤ +60ºC.Optional-Intrinsically Safe Terminals 1,2,3 - Vmax/Ui =

30V, Imax/Ii =250 mA, Pmax/Pi = 700mW, Ci = 0.12µF, Li = 0, Voc/Uo = 0, Isc/Io = 0, Po = 0, terminals 6,7 and 8 - Vmax/Ui = 30V, Imax/Ii =250 mA, Pmax/Pi = 700mW, Ci = 0.12µF, Li = 0, Voc/Uo = 0, Isc/Io = 0, Po = 0.

CVA Series Electric Valve Actuators, Model CVL1000 Linear Electric Control Valve Actuator, Model CVL1500 Linear Electric Control Valve Actuator and Model CVQ2400 Quarter Turn Electric Control Valve Actuator; supply input rated 110-240 Vac, 50Hz, 2A max; 100-240 Vac, 60Hz, 2A max; 26.4 Vdc or less, 7.0 A max.; Relay Contact rated: 120 Vac, 24 Vdc, 3A Inductive; Signal Circuit Rated 24 Vdc, 4-20 mA; Input thrust up to 1500 lbsf (6672 N); Output Torque up to 2400 lbsf-in (271 Nm) continuously rated; Temperature Code T4; –40 ºC ≤ Tamb. ≤ +60ºC. Optional-Intrinsically Safe Terminals 1,2,3 - Vmax/Ui = 30V, Imax/Ii =250 mA, Pmax/Pi = 700mW, Ci = 0.12µF, Li = 0, Voc/Uo = 0, Isc/Io = 0, Po = 0, terminals 6,7 and 8 - Vmax/Ui = 30V, Imax/Ii =250 mA, Pmax/Pi = 700mW, Ci = 0.12µF, Li = 0, Voc/Uo = 0, Isc/Io = 0, Po = 0.

CVA Series Electric Valve Actuators, Model CVL5000 Linear Electric Control Valve Actuator; supply input rated 110-240 Vac, 50Hz, 2A max; 100-240 Vac, 60Hz, 2A max; 26.4 Vdc or less, 7.0 A max; Relay Contact rated: 120 Vac, 24 Vdc, 3A Inductive; Signal Circuit Rated 24 Vdc, 4-20 mA; Output thrust up to 5000 lbsf (22 241 N); Temperature Code T4; –40 ºC ≤ Tamb. ≤ +60ºC.Optional-Intrinsically Safe Terminals 1,2,3 - Vmax/Ui = 30V, Imax/Ii =250 mA, Pmax/Pi = 700mW, Ci = 0.12µF, Li = 0, Voc/Uo = 0, Isc/Io = 0, Po = 0, terminals 6,7 and 8 - Vmax/Ui = 30V, Imax/Ii =250 mA, Pmax/Pi = 700mW, Ci = 0.12µF, Li = 0, Voc/Uo = 0, Isc/Io = 0, Po = 0.

Explosion proof for Class I, Div. 1, Groups C, D; Class II, Div 1, Groups E, F and G; Temperature Code T4; Type 4X and 6: Optional Associated Apparatus, Class I, Div 1, Groups A,B,C,D in accordance with Control Drawings No WD08798, WD08799, WD08800 WD08801, WD08852, WD08853, WD08854 or WD08855

CVA Series Electric Valve Actuators, Model CVL500 Linear Electric Control Valve Actuator and Model CVQ1200 Quarter Turn Electric Control Valve Actuator; supply input rated 110-240 Vac, 50Hz, 2A max; 100-240 Vac, 60Hz, 2A max; 26.4 Vdc or less, 7.0 A max.; Relay Contact rated: 120 Vac, 24 Vdc, 3A Inductive; Signal Circuit Rated 24 Vdc, 4-20 mA; Input thrust up to 500 lbsf (2224 N); Output Torque up to 1200 lbsf-in (135.5 Nm) continuously rated; Temperature Code T4; –40 ºC ≤ Tamb. ≤ +60ºC.Optional-Intrinsically Safe Terminals 1,2,3 - Vmax/Ui = 30V, Imax/Ii =250 mA, Pmax/Pi = 700mW, Ci = 0.12µF, Li = 0, Voc/Uo = 0, Isc/Io = 0, Po = 0, terminals 6,7 and 8 - Vmax/Ui = 30V, Imax/Ii =250 mA, Pmax/Pi = 700mW, Ci = 0.12µF, Li = 0, Voc/Uo = 0, Isc/Io = 0, Po = 0.

CVA Series Electric Valve Actuators, Model CVL1000 Linear Electric Control Valve Actuator, Model CVL1500 Linear Electric Control Valve Actuator and Model CVQ2400 Quarter Turn Electric Control Valve Actuator; supply input rated 110-240 Vac, 50Hz, 2A max; 100-240 Vac, 60Hz, 2A max; 26.4 Vdc or less, 7.0 A max.; Relay Contact rated: 120 Vac, 24 Vdc, 3A Inductive; Signal Circuit Rated 24 Vdc, 4-20 mA; Input thrust up to 1500 lbsf (6672 N); Output Torque up to 2400 lbsf-in (271 Nm) continuously rated; Temperature Code T4; –40 ºC ≤ Tamb. ≤ +60ºC. Optional-Intrinsically Safe Terminals 1,2,3 - Vmax/Ui = 30V, Imax/Ii =250 mA, Pmax/Pi = 700mW, Ci = 0.12µF, Li = 0, Voc/Uo = 0, Isc/Io = 0, Po = 0, terminals 6,7 and 8 - Vmax/Ui = 30V, Imax/Ii =250 mA, Pmax/Pi = 700mW, Ci = 0.12µF, Li = 0, Voc/Uo = 0, Isc/Io = 0, Po = 0.

CVA Series Electric Valve Actuators, Model CVL5000 Linear Electric Control Valve Actuator; supply input rated 110-240 Vac, 50Hz, 2A max; 100-240 Vac, 60Hz, 2A max; 26.4 Vdc or less, 7.0 A max; Relay Contact rated: 120 Vac, 24 Vdc, 3A Inductive; Signal Circuit Rated 24 Vdc, 4-20 mA; Output thrust up to 5000 lbsf (22 241 N); Temperature Code T4; –40 ºC ≤ Tamb. ≤ +60ºC.Optional-Intrinsically Safe Terminals 1,2,3 - Vmax/Ui = 30V,

Imax/Ii =250 mA, Pmax/Pi = 700mW, Ci = 0.12µF, Li = 0, Voc/Uo = 0, Isc/Io = 0, Po = 0, terminals 6,7 and 8 - Vmax/Ui = 30V, Imax/Ii =250 mA, Pmax/Pi = 700mW, Ci = 0.12µF, Li = 0, Voc/Uo = 0, Isc/Io = 0, Po = 0.

Notes

1. The above model is permanently connected, Equipment Class I, Pollution Degree 2, Overvoltage Category II.
2. Maximum altitude: 2000 m.
3. Mode of Operation: S9 continuous

Conditions of Acceptability:

1. This actuator is for process or industrial control applications only. The scope of this approval **does not** include any safety related function or reliability of the equipment.
2. Protective Bonding Construction shall be in accordance to CSA 0.4 and to be considered at end-application. Equipment is provided external protective bonding kit and internal M6 screw and tagged with Protective Earthing Symbol.
3. A switch or circuit breaker must be included in the wiring installation to the actuator. The switch or circuit breaker shall be mounted as close to the actuator as possible and shall be marked to indicate that it is the disconnect device for that particular actuator
4. User Terminal Protection circuit shall be considered at end application.
5. CVL Size 4 has an output considered as non-Limited Energy Circuit. Output control wirings shall have suitable flammability rating and shall be considered at end-application.
6. Cable Glands to be used in the equipment shall be separately Type rated.
7. In transit blanking plug shall be removed during installation and shall be replaced with recognized blanking plug or cable gland according to enclosure type rating marked on the equipment.
8. Equipment is only to be installed by trained personnel.
9. Equipment may be weighing more than 18kgs. Handling/Lifting and moving these equipment shall be considered at end-application.
10. 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
11. WARNING - There is a potential electrostatic charging hazard associated with the operating knob, manual hand wheel assembly and outer case, depending on the model and the coating applied; see the user instructions.
12. When the optional intrinsically safe interface is fitted, terminal 3 and 6 are intended for the connection of cable screens only. These connection points are not isolated from the assembly enclosure and do not comply with the dielectric strength requirements of CSA C22.2 No. 60079-11:2014/ UL 60079-11:2013 clause 6.3.13. This should be taken in to account regarding the applicable installation code.
13. The Intrinsically Safe Interface, if fitted, is not user repairable.

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APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-M91	-	General Requirements – Canadian Electrical Code, Part II
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. 94.2 2nd Edition, October 2015	-	Enclosures for Electrical Equipment, Environmental Considerations
CAN/CSA-C22.2 No. 61010-1-12 Update 1 July 2015, and Update 2 April 2016	-	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 Std. No. 50E, 2nd Edition, October 2015	-	Enclosure for Electrical Equipment, Environmental Considerations
UL Std. No. 61010-1, 3rd Edition, 2012	-	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements

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, without any adjacent indicators, indicating that products have been manufactured to the requirements of Canadian Standards.

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).Markings are laser or chemical

etched onto a minimum 0.02 inch thick metal nameplate, secured to the enclosure cover with screws, drive pins or rivets, in bottomed holes.

Hazardous Locations versions:

The following marking details appear:

- CSA Monogram;
- Company name;
- Model number;
- Serial number or Date Code
- Electrical Input Rating
- Relay Contact Ratings
- Valve load parameters
- Hazardous Location designation: “Class I, Div. 1, Groups B, C, D T4; Class II, Div. 1, Groups E, F, G” or “Class I, Div. 1, Groups C, D T4; Class II, Div. 1, Groups E, F, G”
- Special Purpose Enclosure Ratings: “Type 4X, 6”
- Ambient Temperature (“Tamb -40 ºC to +60 ºC”)
- The statement: “WARNING – Do not open when an energized”
- The statement: “Conduit seals must be installed within 50 mm of enclosure”
- The statement: “Cable entry temperature can reach 67 Deg. C in a 60 Deg. C ambient temperature”
- A statement specifying the use of AMP “Pro Crimper III” crimp tool fitted with 58423-1 die set for connection of field wiring to field wiring ring terminals (appears in referenced installation manual)
- A statement specifying the use of maximum 16 AWG size field wiring (appears in referenced installation manual)
- International Caution symbol  (ISO 3864, No. B.3.1), for direction of user to instruction manual.

Note - Jurisdictions in Canada may require these markings to also be provided in French language. It is the responsibility of the manufacturer to provide bilingual marking, where applicable, in accordance with the requirements of the Provincial Regulatory Authorities. It is the responsibility of the manufacturer to determine this requirement and have bilingual wording added to the "Markings".