



Certificate of Compliance

Certificate: 70193271

Master Contract: 273325

Project: 70193271

Date Issued: August 13, 2018

Issued to: Innovative Actuation Incorporated
1-215 Traders Boulevard East
Mississauga, Ontario, L4Z 3K5
CANADA
Attention: Frank Thormeyer

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



Issued by:


Eddie Lee

PRODUCTS

CLASS - 3228 02 VALVES-Actuators - For Hazardous Locations

CLASS - 3228 82 VALVES-Actuators - For Hazardous Locations-Certified to U.S. Standard

Class I, Division 1, Groups C, D T4

Class II, Division 1, Groups E, F, G T130°C

Type 4X

Ex db IIB T4 Gb (For Canada)

Class I, Zone 1, AEx db IIB T4 Gb (For US)

Ex tb IIIC T130°C Db (For Canada)

Zone 21, AEx tb IIIC T130°C Db (For US)

IP68 (72h, 7m)



Certificate: 70193271

Master Contract: 273325

Project: 70193271

Date Issued: August 13, 2018

iVQ Model Series Explosion-proof Quarter-Turn Actuators, rated 240 Vac max, 7.5 A max, $-30^{\circ}\text{C} \leq T_{\text{amb}} \leq 70^{\circ}\text{C}$, T4, Enclosure Type 4X, IP 68 (72h, 7m).

Where:

iVQ-abcd-ef

iV: iV stands for iVact

Q: Q stands for Quarter-Turn Actuator.

a: Size (C stands for 35Nm; D stands for 50Nm; F stands for 90Nm; H stands for 150Nm; J stands for 400Nm; K stands for 500 Nm; L stands for 650Nm; M stands for 1000Nm; N stands for 1500Nm).

b: Manual Override (N stands for None; H stands for Handwheel).

c: Enclosure Type (W stands for Watertight to CSA and NEMA 4X;

E stands for Watertight & Explosion-proof to CSA and NEMA 4X, 7 & 9).

d: Local Controls (N stands for None).

e: Voltage

(A stands for 24VAC;

B stands for 24VDC;

C stands for 110VAC or 120VAC;

D stands for 220VAC or 240VAC).

f: Service / Duty

(A stands for ON/OFF / 30% Duty;

B stands for Modulating / 30% Duty;

C stands for ON/OFF / 50% Duty;

D stands for Modulating / 50% Duty;

E stands for ON/OFF / 75% Duty;

F stands for Modulating / 75% Duty).



Certificate: 70193271

Master Contract: 273325

Project: 70193271

Date Issued: August 13, 2018

iVS Model Series Explosion-Proof Spring Return Valve Actuators, rated 220 Vac max, 11.3 A max, $-30^{\circ}\text{C} \leq T_{\text{amb}} \leq 70^{\circ}\text{C}$, T4, Enclosure Type 4X, IP 68 (72h, 7m).

Where

iVS-abcd-ef

iV: iV stands for iVact

S: S stands for Spring Return Actuator.

a: Size (A stands for 50Nm; B stands for 130Nm; C stands for 200Nm; D stands for 260Nm).

b: Manual Override (N stands for None, H stands for Handwheel).

c: Enclosure Type (W stands for Watertight to CSA and NEMA 4X;

E stands for Watertight & Explosion-proof to CSA and NEMA 4X, 7, 9).

d: Local Controls (N stands for None).

e: Voltage / Action on Main Power Loss

(A stands for 24V AC / Fail Clockwise on Main Power Loss;

B stands for 24V DC / Fail Clockwise on Main Power Loss;

C stands for 110V AC / Fail Clockwise on Main Power Loss;

D stands for 220V AC / Fail Clockwise on Main Power Loss;

E stands for 24V AC / Fail CounterClockwise on Main Power Loss;

F stands for 24V DC / Fail CounterClockwise on Main Power Loss;

G stands for 110V AC / Fail CounterClockwise on Main Power Loss;

H stands for 220V AC / Fail CounterClockwise on Main Power Loss).

f: Service / Duty

(A stands for TWO POSITION / 50% Duty;

B stands for ON/OFF / 50% Duty;

C stands for Modulating / 50% Duty)



Certificate: 70193271

Master Contract: 273325

Project: 70193271

Date Issued: August 13, 2018

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-10 <i>August 2011</i>	General requirements — Canadian Electrical Code, Part II
CSA C22.2 No. 30-M1986 <i>(Reaffirmed 2012)</i>	Explosion-Proof Enclosures for Use in Class I Hazardous Locations
CSA C22.2 No. 25-17 <i>July 2017</i>	Enclosures for Use in Class II, Division 1, Groups E, F, and G Hazardous Locations
CSA C22.2 No. 94.2-07	Enclosures for Electrical Equipment, Environmental Considerations
CSA C22.2 No. 139-10	Electrically Operated Valves
CAN/CSA-C22.2 No. 60079-0:15 <i>October 2015</i>	Explosive atmospheres – Part 0: Equipment – General requirements
CAN/CSA-C22.2 No. 60079-1:16 <i>May 2016</i>	Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures “d”
CAN/CSA-C22.2 No. 60079-31:15 <i>Second Edition (October 2015)</i>	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure “t”
CAN/CSA C22.2 No. 60529:16	Degrees of Protection Provided By Enclosures (IP Code)
FM 3600 <i>December 2011</i>	Approval Standard for Electrical Equipment for Use in Hazardous (Classified) Locations – General Requirements
FM 3615 <i>August 2006</i>	Approval Standard for Explosionproof Electrical Equipment General Requirements
FM 3616 <i>December 2011</i>	Approval Standard for Dust ignition proof Electrical Equipment General Requirements
IEC 60529-2004 <i>(Reaffirmed 2011)</i>	Degrees of Protection Provided By Enclosures (IP Code)
UL 50E <i>First Edition (September 4, 2007)</i>	Enclosures for Electrical Equipment, Environmental Considerations
UL 429 <i>Sixth Edition (November 11, 2009)</i>	Electrically Operated Valves
UL 60079-0 <i>Six Edition (July 26, 2013)</i>	Explosive atmospheres – Part 0: Equipment – General requirements
UL 60079-1 <i>Seventh Edition (September 18, 2016)</i>	Explosive Atmospheres – Part 1: Equipment Protection by Flameproof Enclosures “d”
UL 60079-31 <i>Second Edition (2015.06.12)</i>	UL Standard for Safety Explosive Atmospheres – Part 31: Equipment Dust Ignition Protection by Enclosure “t”



Certificate: 70193271

Master Contract: 273325

Project: 70193271

Date Issued: August 13, 2018

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.

Marking is silk-screened on a rivet secured metal plate(s)

The label description is as follows:

- Manufacturer's name: "Innovative Actuation", or CSA Master Contract Number "273325", adjacent to the CSA Mark in lieu of manufacturer's name.
- Model number: As specified in the PRODUCTS section, above.
- Electrical ratings: As specified in the PRODUCTS section, above.
- Ambient temperature rating: As specified in the PRODUCTS section, above.
- Manufacturing date in MMY format, or serial number, traceable to year and month of manufacture.
- Enclosure ratings: As specified in the PRODUCTS section, above.
- The CSA Mark, as shown on the Certificate of Conformity.
- Hazardous Location designation: As specified in the PRODUCTS section, above.
- Method of Protection markings: As specified in the PRODUCTS section, above.
- Temperature code: As specified in the PRODUCTS section, above.
- The characters "CSA 18.70156877X" or "18.70156877X" when located adjacent to the CSA mark, designating the certification body, followed by the last two digits of the year of report issue, followed by a period, followed by the original report number, followed by the letter "X".
- The following or technically equivalent words:
 - "OPEN CIRCUIT BEFORE REMOVING COVER" or "KEEP COVER TIGHT WHILE CIRCUITS ARE ALIVE" or equivalent.
 - "SEAL REQUIRED WITHIN 18 INCHES(450 mm) OF ENCLOSURE" (for Divisions only)
 - "SEAL REQUIRED WITHIN 2 INCHES (50 mm) OF ENCLOSURE" (for Zones only)
 - "WARNING – AFTER DE-ENERGIZING, DELAY 10 MINUTES BEFORE OPENING"
 - "CAUTION- USE FASTENERS WITH YIELD STRESS \geq 700MPa."