



Certificate of Compliance

Certificate: 70177249

Master Contract: 204450

Project: 80190146

Date Issued: 2024-02-29

Issued to: Sun Yeh Electrical Ind.Co.,Ltd.
No 68 Lane 854, Sec.1, Shatian Rd.
Dadu Dist., Taichung City 432403
Taiwan

Attention: Ms. Hsinhui Lin

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



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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)

SE Model Series Explosion-Proof Spring Return Valve Actuators, rated 440 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:

SE-X1-X2-X3-X4-X5

S stands for Spring return valve actuator.

E stands for Explosion-proof.

X1 stands for torque (N.m): 500 stands for 50N.m., 1300 stands for 130N.m., 2000 stands for 200N.m., 2600 stands for 260 N.m.

X2 stands for voltage (D24 stands for 24VDC, 24 stands for 24VAC, 100 stands for 100VAC, N=110 to 120 stands for one specific voltage among 110~120 VAC, 200 stands for 200VAC, N=220 to 240 stands for one specific voltage among 220~240 VAC, 380 stands for 380VAC, 440 stands for 440VAC.)

X3 stands for the direction of rotation (CW stands for clockwise, CCW stands for counterclockwise).

X4 stands for controlling method (T stands for Two position, M stands for Modulating, F stands for Floating)

X5 stands for with or without manual override (Y stands for with manual override, N stands for without manual override)

Duty cycle information

Models Series	Duty Cycle
SE-500	50% (12 sec Operation, 12 Sec Rest)
SE-1300	50% (15 sec Operation, 15 Sec Rest)
SE-2000, SE-2600	50% (26 sec Operation, 26 Sec Rest)
	or 50% (29 sec Operation, 29 Sec Rest)

CONDITIONS OF ACCEPTIBILITY

1. The manufacturer recommends that any cable entry device used must maintain the IP rating of the enclosure.
2. The end user must ensure that any cable and cable entry devices used with the equipment are suitable for use at temperatures above 90°C.
3. The flamepaths in this equipment are different to the standard dimensions given in IEC 60079-1. If specific flamepath dimensions are required then the manufacturer (OEM) must be contacted.



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APPLICABLE REQUIREMENTS

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”
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
ANSI/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
ANSI/UL 60079-0 <i>Six Edition (July 26, 2013)</i>	Explosive atmospheres – Part 0: Equipment – General requirements
ANSI/UL 60079-1 <i>Seventh Edition (September 18, 2016)</i>	Explosive Atmospheres – Part 1: Equipment Protection by Flameproof Enclosures “d”
ANSI/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”



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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.

For nameplate examples, see report excerpts for details.

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

The label description is as follows:

- Manufacturer's name: "Sun Yeh", or CSA Master Contract Number "204450", 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 18.70177249X" or "18.70177249X" 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 450MPa."



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Notes:

Products certified under Class C322802 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). www.scc.ca





Supplement to Certificate of Compliance

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The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
80190146	February 29, 2024	Based on IECEx ExTR package to update CSA report 70177149 to: i. Postal code change from 43244 to 432403. ii. Warning plate change YIELD STRESS value from “ $\geq 700\text{MPa}$ ” to “ $\geq 450\text{Mpa}$ ”. iii. For the middle plate, adjust the accuracy for outside dimension from $\text{Ø}166(-0.1 \text{ to } -0.05)$ into $\text{Ø}166(-0.15 \text{ to } +0.08)$ iv. Adjust the accuracy for the drive shaft from $\text{Ø}10(-0.02 \text{ to } +0)$ into $\text{Ø}10(-0.04 \text{ to } +0)$ v. Change the outer length for End Cap from 100 mm to 99 mm vi. To remove CAN/CSA C22.2 No.0 and CSA/UL 60529
80039652	July 10, 2020	Update report to: Expand voltage ratings. Change opening indicator and its cover. Change original manual base into with-position-indicator type. Update assembly drawings.
70190653	March 13, 2019	Update to report 70177249 for SE Model Series to add one alternate cement material: SAUEREISEN DW-30.
70177249	May 25, 2018	Original certification of SE Model Series explosion-proof spring return valve actuator models SE-500, SE-1300, SE-2000, SE-2600 series for use in Class I, Division 1, Groups C, D; Class II, Division 1, Group E, F, G; Ex db IIB; Ex tb IIIC; Class I, Zone 1, AEx db IIB; and Zone 21, AEx tb IIIC hazardous locations.