



Certificate of Compliance

Certificate: 80094113 **Master Contract:** 215681
Project: 80151727 **Date Issued:** 01/25/2023
Issued to: **Bifold Fluidpower Limited**
Broadgate
Oldham Broadway Business Park
Chadderton, Manchester OL9 9XA
United Kingdom

Attention: Andy Gillespie

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: *Thao Cao*
Thao Cao, C.E.T.

PRODUCTS

C322102 VALVES - General purpose Actuators
C322182 VALVES - Actuators - Certified to US Standards

Solenoid Valve Operators, Type FP Series

Models	Rated Voltage (VDC)	Rated Voltage (VAC)	Power (W)	Ambient Temp (°C)
FP-87L	24, 50, 110, 120, 220, 240	110, 120, 220, 240	14	-60 to +40
FP-87A	24, 50, 110, 120, 220, 240	110, 120, 220, 240	8	-60 to +40
FP-87D	24, 50, 110, 120, 220, 240	110, 120, 220, 240	5.7	-60 to +40
FP-87C	24, 50, 110, 120, 220, 240	110, 120, 220, 240	3.5	-60 to +40
FP-97C	24, 50, 110, 120, 220, 240	110, 120, 220, 240	3	-60 to +40
FP-97D	24, 50, 110, 120, 220, 240	110, 120, 220, 240	5.7	-60 to +40



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FP-97E	24, 50, 110, 120, 220, 240	110, 120, 220, 240	2	-60 to +40
FP-97F	24, 50, 110, 120, 220, 240	110, 120, 220, 240	1.5	-60 to +40

Solenoid Valve Operators, Type 77 Series

Models	Rated Voltage (VDC)	Rated Voltage (VAC)	Power (W)	Ambient Temp (°C)
Type 77 Series	24, 110	120 (rectified)	14	-60 to +40

Notes:

1. All models above are used for water-based, mineral and synthetic oil based hydraulic fluids and pneumatic.
2. Certified as electrical solenoid component models for general purpose application where suitable of combination in final valve assembly is to be determined by the Authority that certifies the end product.
3. The above models have not been investigated for safety applications.
4. The combination of solenoid coil assemblies with any other end use valve bodies shall be evaluated in accordance with the applicable performance tests of Standard CSA C22.2. No.139 and UL 429 with regards to the electrical, pressure, temperature ratings, fluid types and the product type designations.
5. This device is not acceptable for field wiring connection. The acceptability of connections to these terminals, including temperature, secureness, and strain relief means, and grounding must be investigated in the end use application.



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APPLICABLE REQUIREMENTS

CSA C22.2 No. 139-19 (Fifth Edition) - Electrically operated valves

UL 429 (Seventh Edition) - Electrically Operated Valves - Reprint with revisions through and including March 19, 2021



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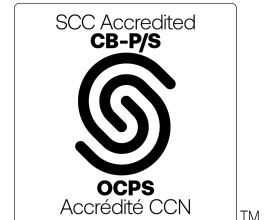
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Notes:

Products certified under Class C322102 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
80151727	January 25, 2023	Update Report 80094113 for new replacement of AC rectifier component recognized by UL.
80094113	February 22, 2022	Issue new report covers Original Ord-Loc evaluation per CSA Notice No. 30 to the latest CSA Std. C22.2 No. 139-19 using the previous evaluation under the Haz-Loc report 1398692 and including new construction for encapsulant material option and new manual override option. Detail of changes described as; – Inclusion of new Encapsulant material option. – Inclusion of new manual override option. – To update report to reflect additional component options. - Inclusion of Type 27 [aluminium] solenoid operator.