



Certificate of Compliance

Certificate: 1015765 (LR 44092)

Master Contract: 152450

Project: 2258798

Date Issued: 2010/04/20

Issued to: Micro Motion Incorporated

7070 Winchester Cir
Boulder, CO 80301
USA

Attention: Ray C. Stengl

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.



Ron Wachowicz, C.E.T.

Issued by: Ron Wachowicz, C.E.T.

PRODUCTS

CLASS 2258 03 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non - Incendive Systems - For Hazardous Locations

CLASS 2258 83 - PROCESS CONTROL EQUIPMENT-Intrinsically Safe and Non-Incendive - Systems-For Hazardous Locations-Certified to U.S. Standards

Class I, Division 1, Groups C and D; Class I, Division 2, Groups A, B, C and D; Class II, Division 1, Groups E, F and G

Models CMF200A, B, C or E, CMF300A, B, C or E, CMF400A B, C or E, CMFHC2A, B, C, or E and CMFHC3A, B, C or E and CMFHC4A, B, C, or E Flow Meters; Provides Intrinsically Safe Connections to Various Flow Transmitters as per Installation Instructions CSA-D-IS. Dual Seal, Model Series CMF200 and CMF300: MWP 1450 PSI; CMF400 A or C: MWP 1450 PSI; CMF400 B or E: MWP 2973 PSI; CMFHC2, CMFHC3 and CMFHC4A and C: MWP 1480 PSI.

Model CMF400 (Booster Amp Version) Flow Meter, rated 85-265 Vac, 500 mA, 50/60 Hz; Associated Equipment, Provides I.S. Outputs for Connection to Various Flow Transmitters as per Installation Instructions CSA-D-IS; Maximum Ambient temperature 60°C and Maximum Process temperature of 200°C, Temp. Code T3. The Booster Amp is marked with a T6 Temp. Code for Division 1 and a T4 Temp. Code for Division 2 use. Enclosure Type 4X (Booster Amp and CMF 400 Flow meter). Dual Seal, CMF400: MWP 1450 PSI.

Notes: 1) With Process temperature greater than 60°C but less than or equal to 200°C or Air Ambient of greater than 60°C, the Booster Amp enclosure must be remotely mounted. 2) Dual Seal Rating applies to the CMF400 Flow Meter only.



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BOOSTER AMP RETROFIT KIT, for use in Hazardous Locations when used and installed on Micro Motion Mass Flow Sensors Models CMF400M*** (N or P) * (1 or 2) or D600S***S* (1 or 2); Rated 85-265 Vac, 700 mA, 50/60 Hz, provides Intrinsically Safe circuits when installed in accordance with Retrofit Booster Amplifier Installation Instructions.

Model D600 Flow Meter, rated 85-265 Vac, 500 mA, 50/60 Hz; Associated Equipment, Provides I.S. Outputs for Connection to Various Flow Transmitters as per Installation Instructions CSA-D-IS. Maximum Ambient of 60°C and Maximum Process temperature of +200°C. The Booster Amp is marked with a T6 Temp. Code for Division 1 and a T4 Temp. Code for Division 2 use. Enclosure Type 4X (Booster Amp and D600 Flow meter). Dual Seal, Model D600: MWP 625 PSI.

Note: With Process temperature greater than 60°C but less than or equal to +200°C or Air Ambient of greater than 60°C, the Booster Amp enclosure must be remotely mounted.

APPLICABLE REQUIREMENTS

CSA Standard C22.2 No: 0-M91 - General Requirements - Canadian Electrical Code Part II.

CSA Standard C22.2 No: 0.4-04 - Bonding of Electrical Equipment.

CSA Standard C22.2 No: 0.5-1982 - Threaded Conduit Entries.

CSA Standard C22.2 No: 30-M1986 - Explosion-Proof Enclosures for Use in Class I Hazardous Locations.

CSA Standard C22.2 No: 94-M91 - Special Purpose Enclosures.

CSA Standard C22.2 No: 142-M1987 - Process Control Equipment.

CSA Standard C22.2 No: 157-92 - Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations.

CSA Standard C22.2 No: 213-M1987 - Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations.

ANSI/ISA 12.27.01-2003 - Requirements for Process Sealing between Electrical Systems and Flammable or Combustible Process Fluids.

UL 50, 11th Edition - Enclosures for Electrical Equipment.

UL 508, 17th Edition - Industrial Control Equipment.

UL 913, 7th Edition - Intrinsically Safe Apparatus and Associated Apparatus for use in Class I, II, III, Division 1, Hazardous (Classified) Locations.

UL 1203, 4th Edition - Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations.

UL 1604, 3rd Edition - Safety Electrical Equipment for Use in Class I and II, Division 2, and Class III Hazardous (Classified) Locations.



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
2258798	2010/04/20	Perform Dual Seal witness testing for the models CMFHC3Y and CMFHC4x sensors and update report 1015765 to include process seal certification for the model CMFHC4A and C sensors.
2243075	2009/11/26	Update of report 1015765 to include alternate model number (CMFHC4A,B,C or E) for CMFHC3A, B,C or E.
2153930	2009/05/12	Update report 1015765 to include Dual Seal testing and evaluation to ANSI/ISA 12.27.01-2003 for the model series CMFHC2 as per testing conducted under project 152450-2155186.
2115754	2008/12/05	Update of report 1015765 to remove CMFXL3A, add CMFHC2A (Same as CMFHC3A)
1966172	2007/11/21	Update report 1015765 to include new Dual Seal rating based on testing and evaluation performed in CSA Project 1919215.
1954960	2007/11/02	Update report 1015765 to include new Drive and Pick-Off Coils for Sensor Model Series CMF.
1911095	2007/06/22	Update report 1015765 to include new Drive and Pick-Off Coils for Sensor Model Series CMF.
1745648	2006/01/03	Update report 1015765 with addition of suffixes B, C and E for CMF200, CMF300 and CMF400 models.
1694818	2005/10/13	Update to report 1015765 to include alternate components.
1685870	2005/07/19	Update to report 1015765 to change maximum process temperature from 130°C to 200°C for the D600.
1685876	2005/06/30	Update to report 1015765 to include new sensors (CMF200A, CMF400A) and revised drive and pick off coils for CMF300A.
1630568	2005/02/02	Update to report 1015765 to include revised process temperature ratings for the D600.

History

LR 44092-128	1998/01/30	Original Certification of Model D600 flowmeter for Hazardous Locations.
LR 44092-130	1998/04/30	Add Model CMF400 Flow meter
LR 44092-132	1998/08/10	Add Model CMF300A Flow meter
LR 44092-136	1999/03/31	Revise CMF400 Flow meter Construction



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Product Certification History

LR 44092-145	1999/05/07	Revise CMF300A Drive Coil Parameters.
LR 44092-146	1999/07/16	Update -128 report to include revised trace layouts for Barrier Board.
1015765	1999/11/22	Supersedes LR 44092-128. Originally issued as 2500001204. Re-perform explosion pressure tests on the CMF 400 at manufacturer's request.
1184081	2001/03/31	Update to 1015765 to include US Certification and Remote Booster Amp configuration for use with CMF 400 and D600 Sensors.
1090285	2001/05/11	Update to include New Booster Amp Enclosure and Electronics Assembly and Remote Booster Amp for use with CMF400 and D600 Sensors.
1242044	2002/04/26	Update to include BOOSTER AMP RETROFIT KIT.
1347387	2002/08/09	Update to Report 1015765 to include corrections.
1362328	2002/09/27	Update to file 1015765 to include optional Aluminum 700 processor enclosure.
1368989	2002/11/22	Update to file 1015765 for Revisions to Booster Amp Retrofit Documentation.