

Certificate of Compliance

Certificate: 1515313 (LR 105802)

Master Contract: 162767

Project: 2144660

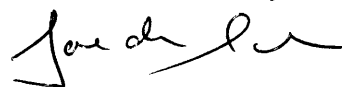
Date Issued: 2009/02/23

Issued to: **KROHNE, Inc.**
7 Dearborn Rd
Peabody, MA 01960
USA
Attention: Rick Loiselle

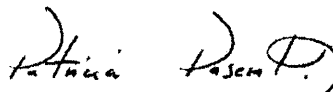
The products listed below are eligible to bear the CSA Mark shown



Issued by: Joe da Silva, C.E.T.



Authorized by: Patricia Pasemko, Operations Manager



PRODUCTS

CLASS 2252 03 - PROCESS CONTROL EQUIPMENT

Class I, Groups B, C, D; Class II, Groups E, F, G; Class III:

- Ultrasonic Compact Flowmeter, models UFM 3030 C, UFM 530 C, and ALTOSONIC III/C-DIV1/DIV2, supply rated 100-240Vac, 15VA, 48-63Hz or 24Vac/dc, 15VA/10W. Explosion-proof with Intrinsically Safe output per Control Dwg. 8.30675.15. Temp. Code T3 at Tamb = - 40°C to +60°C. Encl. Type 4X and 6. DUAL SEAL; MWP 25 MPa (250 bar).

- Ultrasonic Compact Flowmeter, model UFM 530 C/HP, supply rated 100-240Vac, 15VA, 48-63Hz or 24Vac/dc, 15VA/10W. Explosion-proof with Intrinsically Safe output per Control Dwg. 8.30703.16. Temp. Code T3 at Tamb = - 40°C to +60°C. Encl. Type 4X and 6. DUAL SEAL; MWP 25 MPa (250 bar).



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- Ultrasonic Signal Converter, models UFC 030 F and UFC-III/F-DIV1/DIV2, supply rated 100-240Vac, 15VA, 48-63Hz or 24Vac/dc, 15VA/10W. Explosion-proof with Intrinsically Safe output having Entity Parameters Voc = 8.15V; Isc = 220mA; Ca = 1.3uF; La = 0.5mH. Installation per Control Dwg 8.30675.15. Temp. Code T3 at Tamb = -40°C to +60°C. Encl. Type 4X and 6.

- Ultrasonic Primary Head, models UFS 3000 F, UFS3000 F/XT, UFS-III/F-DIV1/DIV2 and UFS-III/F/XT-DIV1/DIV2, Intrinsically Safe per Control Dwg 8.30675.15 with Entity Parameters Vmax = 13.1; Imax = 600mA; Ci = 11.6nF; Li ≤ 134uH. Temp. Code T2 for UFS 3000 F/XT and T3 for UFS 3000 F at Tamb = -40 to +60°C. Encl. Type 4X and 6. DUAL SEAL; MWP 25 MPa (250 bar).

- Ultrasonic Primary Head, models UFS 500 F/HP-DIV1/2, UFS 500 F/HT-DIV1/2, UFS 500 F/LT-DIV1/2, UFS 500 F/HP/HT-DIV1/2, and UFS 500 F/HP/LT-DIV1/2, Intrinsically Safe per Control Dwg 8.30703.16 with Entity Parameters Vmax = 13.1; Imax = 600mA; Ci = 11.6nF; Li ≤ 134uH. Temp. Code T3 for UFS 500 F/HP, UFS 500 F/LT, UFS 500 F/HP/LT and T1 for UFS 500 F/HT and UFS 500 F/HP/HT at Tamb -40 to +60°C. Encl. Type 4X and 6. DUAL SEAL; MWP 25 MPa (250 bar).

APPLICABLE REQUIREMENTS

CAN/CSA C22.2 No. 0-M91 (R2001) - General Requirements - Canadian Electrical Code, Part II

CSA Std C22.2 No. 0.4-M1982 - Bonding and Grounding of Electrical Equipment (Protective Grounding)

CSA Std C22.2 No. 25-1966 - Enclosures for Use in Class II, Groups E, F and GHazardous Locations

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

CAN/CSA-C22.2 No. 94-M91 - Special Purpose Enclosures

CSA Std C22.2 No. 142-M1987- Process Control Equipment

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

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

MARKINGS

General:

- Submitter's name, tradename and/or CSA File No. LR 105802;
- Model designation;
- Hazardous Location designation;



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- Serial no.;
 - CSA Monogram;
 - Temperature Code with Tamb.;
 - The words "DUAL SEAL" (except on converter models)
 - The maximum working pressure (MWP) rating, in Pascal, (except on converter models), as specified in the PRODUCTS section, above.
 - Reference to Installation Drawing;
 - Markings, "Warning: Substitution of components may impair intrinsic safety" and "Avertissement: La substitution de composants peut compromettre la Sécurité Intrinsèque";

Models UFM 3030 C, UFM 530 C, UFM 530 C/HP, ALTOSONIC III/C-DIV1/DIV2, UFC 030 F and UFC-III/F-DIV1/DIV2:

- The symbol, [Exi] adjacent to CSA logo;
- Markings, "Open circuit before removing cover" and "Ouvrir le circuit avant d'enlever le couvercle";
- Markings, "Cover joints must be cleaned before replacing cover" and "Nettoyer les surfaces de contact de couvercle avant de le remettre en place";

Models UFS 3000 F, UFS 3000 F/XT, UFS-III/F-DIV1/DIV2 and UFS-III/F/XT-DIV1/DIV2; UFS 500 F/HP-DIV1/2, UFS 500 F/HT-DIV1/2, UFS 500 F/LT-DIV1/2, UFS 500 F/HP/HT-DIV1/2, and UFS 500 F/HP/LT-DIV1/2:

- Markings, "Intrinsically Safe" and "Sécurité Intrinsèque";
- The symbol, "Exi" adjacent to CSA logo;

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".