



# Certificate of Compliance

**Certificate:** 1145207 (95764) **Master Contract:** 155943  
**Project:** 2192792 **Date Issued:** 2009/08/21  
**Issued to:** **Delta M Corporation**  
**Bethel Valley Industrial Park**  
**1003 Larsen Dr.**  
**Oak Ridge, TN 37830**  
**USA**  
**Attention: Julie Hebble**

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



**Issued by:** Scott Wallace

**Authorized by:** Patricia Pasemko, Operations Manager

**PRODUCTS**

**CLASS 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations**

**Class I, Div 1, Groups B, C and D; Class II, Div 1, Groups E, F and G; Class III, Div 1; Type 4:**

- Microtuf Series Thermal Differential Point Level Switch, Models LS32CS-aaa-bb-ccc.cc-ddd-LE-ee (with integral Probe); or Remote version, Model LS32CS-000-00-000.00-ddd-RE-ee with Remote Probe, Model LS32CS-aaa-bb-ccc.cc-000-RP-ee; input rated 24/110/220V ac, 50/60Hz, 200/85/42mA; 24V dc, 100mA; relay contact rating 250V ac, 5A max; Temp Code T4A @ Max ambient 40 Deg C; MWP 3000 psi.

Model Code:

LS32CS - Level Switch series

aaa= Mounting/Process fitting (any alpha/numeric character, not relevant to certification)

WORLEY CANADA INC SUPPLIER DOCUMENT REVIEW	
<input type="checkbox"/>	Work May Proceed
<input checked="" type="checkbox"/>	Review & Resubmit: Work may proceed subject to transcription of changes indicated
<input type="checkbox"/>	REVIEW & RESUBMIT: Do Not Proceed with Manufacturing
<input type="checkbox"/>	Stop Work per attached written instructions
<input type="checkbox"/>	Review Not Required: Work may proceed
SUPPLIER PLEASE NOTE: Permission to proceed does not constitute acceptance or approval of design details, calculations, analysis, test methods or materials developed or selected by the supplier and does not relieve supplier from full compliance with contractual obligations.	
BY	DATE 17/12/2019
yuk	

<b>WORLEY CANADA ULC</b>	
JOB #	009706
CLIENT #	009706-RA004-0001
JPI REV #	NA - 1
DOC. CAT	RA004
TAG #	73-FSH-702, 73-FSH-715, 73-FSH-723, 73-FSH-742



**Certificate:** 1145207 (95764)

**Master Contract:** 155943

**Project:** 2192792

**Date Issued:** 2009/08/21

---

bb= Wetted Process Material (S4=304 stainless steel, SL=304L stainless steel, S6=316L stainless steel, A2=alloy 20, HB=hastelloy B, HC=hastelloy C, IO=inconel 600, MN=monel, SM=special material, or TI=titanium)

ccc.cc= Insertion Length (from 000.50 (12.7mm) to 120.00 (3048mm))

ddd= Electronics input power (24D=24Vdc, 24A=24Vac, 110=110Vac or 220=220Vac)

ee= Special Options (HT= high temperature sensor, LT= live tap, MT, medium temperature sensor, RT= RTD output, SW= stainless steel housing w/window, TO thermocouple output, XW= explosion proof window cover; other allowed markings but not relevant to certification: CA, CB, CE, CO, EN, SH, SHF, SPL, TC, TEE, TG and VI).

Zeros in the part number are just place holders with no options available

- Microtuf Series Thermal Differential Mass Flow Switch, Models FS42CS-aaa-bb-ccc.cc-ddd-LE-ee (with integral Probe); or Remote version, Model FS42CS-000-00-000.00-ddd-RE-ee with Remote Probe, Model FS42CS- aaa-bb-ccc.cc -000-RP-ee; input rated 24/110/220V ac, 50/60Hz, 200/85/42mA; 24V dc, 100mA; relay contact rating 250V ac, 5A max; Temp Code T4A @ Max ambient 40 Deg C; MWP 3000 psi.

Model Code:

FS42CS - Flow Switch series

aaa= Mounting/Process fitting (any alpha/numeric character, not relevant to certification)

bb= Wetted Process Material (S4=304 stainless steel, SL=304L stainless steel, S6=316L stainless steel, A2=alloy 20, HB=hastelloy B, HC=hastelloy C, IO=inconel 600, MN=monel, SM=special material, or TI=titanium)

ccc.cc= Insertion Length (from 000.50 (12.7mm) to 120.00 (3048mm))

ddd= Electronics input power (24D=24Vdc, 24A=24Vac, 110=110Vac or 220=220Vac)

ee= Special Options (HT= high temperature sensor, LT= live tap, MT, medium temperature sensor, RT= RTD output, SW= stainless steel housing w/window, TO thermocouple output, XW= explosion proof window cover; other allowed markings but not relevant to certification; CA, CB, CE, CO, EN, SH, SHF, SPL, TC, TEE, TG and VI).

Zeros in the part number are just place holders with no options available

Notes:

1. If the process fluid temperature exceeds 40 °C, the device can not be used in a process atmosphere that has an ignition temperature of 120 °C increased by the difference of the fluid temperature and 40°C.



**Certificate:** 1145207 (95764)

**Master Contract:** 155943

**Project:** 2192792

**Date Issued:** 2009/08/21

---

### **APPLICABLE REQUIREMENTS**

CSA Std C22.2 No 25-1966 Locations	-	Enclosures for Use in Class II, Groups E, F and G Hazardous Locations
CSA Std C22.2 No 30-M1986 Locations	-	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

### **MARKINGS**

The Markings appear on painted and stamped aluminum nameplate, which is a min. of 0.02 in thick and secured to the enclosure with screws or drive pins, in bottomed holes. The Certified enclosure nameplate (Killark, Adalet, or Akron) which bears all of the hazardous locations designations will remain fastened to the enclosure.

- CSA Monogram
- Company name: "Delta M Corporation" and/or file number "LR95764"
- Model designation: per the product section
- Date code/serial number or equivalent;
- Electrical ratings: per the product section
- Hazardous locations designations: "Class I, Div 1, Groups BCD; Class II, Div 1, Groups EFG; Class III, Div 1"
- Temperature Code Rating: "T4A"
- Maximum process pressure; "3000psi"
- Enclosure: "Type 4"
- WARNINGS
  - "CONDUIT SEALS MUST BE INSTALLED WITHIN 18 INCHES OF THE ENCLOSURE" or equivalent and
  - "DISCONNECT ALL SUPPLY CIRCUITS, AND INSURE THE AREA IS NON-HAZARDOUS BEFORE OPENING", 'KEEP COVER TIGHTLY CLOSED WHEN IN OPERATION', or equivalent and
  -



CSA INTERNATIONAL

**Certificate:** 1145207 (95764)

**Master Contract:** 155943

**Project:** 2192792

**Date Issued:** 2009/08/21

---

The following warning may be located on the field wiring connector plate.

- "USE A SUPPLY WIRE SUITABLE FOR 10°C ABOVE AMBIENT"

*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".*



## CERTIFICATE ADDENDUM

Issued by :  
CSA INTERNATIONAL

**Note:** *This Addendum supplements the descriptive details pertaining to the following Certificate and is a part thereof. It is to be attached to the Certificate identified below.*

**SUBMITTOR :** Delta M Corporation

**MASTER CONTRACT :** 155943

**FACTORY CONTRACT :** 155944

**CERTIFICATE/REPORT NO. :** 1221835

**PROJECT NO. :** 2305603

**PRODUCT:** Versa Switch Series Switches

**MODEL:** ALL

**INITIATED BY:** **FIR DATE :** July 28, 2010

**ASSOCIATED  
INSPECTION OFFICE :** Nashville

**COPY TO :** A.D. White <awhite@deltamcorp.com>; J.A. Hebble<jhebble@deltamcorp.com>

**AUTHORIZED CHANGE :** Class 2258-02

Report may be modified to include Panasonic Relay Part Numbers - JW1FSN-DC24V and - JW2SN-DC24V.

**ISSUE DATE OF  
ADDENDUM :**

March 8, 2011

**FQPH NAME :**

**Note:** *Submittor is responsible for providing copies of this Addendum to the applicable factories.*