



# IECEx Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEx UL 13.0067X issue No.:1  
 Status: **Current** Certificate history:  
Issue No. 1 (2015-9-30)  
Issue No. 0 (2014-3-14)

Date of Issue: **2015-09-30** Page 1 of 4

Applicant: **Malema Engineering Corp.**  
1060 S. Rogers Circle  
Boca Raton, FL 33487  
**United States of America**

Electrical Apparatus: **Flow Switch**  
Optional accessory:

Type of Protection: **Encapsulation "mb"**

Marking: Ex mb IIC T6...T3 Gb  
Ex mb IIIC T80...T150°C Db  
-40°C to +145°C  
-40°C to +75°C

Approved for issue on behalf of the IECEx Certification Body: Paul T. Kelly  
 Position: Principal Engineer, Global Hazardous Locations

Signature: \_\_\_\_\_  
(for printed version)

Date: \_\_\_\_\_

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**UL LLC**  
333 Pfingsten Road  
Northbrook IL 60062-2096  
United States of America



# IECEx Certificate of Conformity

Certificate No.: IECEx UL 13.0067X  
 Date of Issue: **2015-09-30** Issue No.: 1  
 Page 2 of 4

Manufacturer: **Malema Engineering Corp.**  
1060 S. Rogers Circle  
Boca Raton, FL 33487  
**United States of America**

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

**STANDARDS:**  
The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

**IEC 60079-0 : 2011** Explosive atmospheres - Part 0: General requirements  
Edition: 6.0

**IEC 60079-18 : 2009** Explosive atmospheres Part 18: Equipment protection by encapsulation "m"  
Edition: 3

*This Certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

**TEST & ASSESSMENT REPORTS:**

*A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in*

Test Report:

US/UL/ExTR13.0070/01

Quality Assessment Report:

US/UL/QAR13.0006/00



## IECEx Certificate of Conformity

Certificate No.: IECEx UL 13.0067X

Date of Issue: **2015-09-30**

Issue No.: 1

Page 3 of 4

### Schedule

**EQUIPMENT:**

*Equipment and systems covered by this certificate are as follows:*

The Flow Switch Type M-50X, M-60X, M-100X and M-200X is composed of a reed relay encapsulated in a non-metallic capsule inside an enclosure. When fluid flows through the unit, it causes a magnetic piston to move against the spring force. As soon as the piston travels beyond the flow set point, the magnet piston actuates the encapsulated hermetically sealed reed switch. Decreasing the flow below the set point causes the reed switch to de-actuate. The reed switch can be either SPDT or SPST. The enclosure can be stainless steel 316, brass, Monel or Hasteloy.

**CONDITIONS OF CERTIFICATION: YES as shown below:**

The field wire leads shall only be installed with metallic conduit with the termination suitability protected with an Ex type of protection as appropriate.

A fuse rated not less than 1A, 250 VDC/VAC with a breaking capacity not less than 1500A shall be connected externally and suitability protected with an Ex type of protection as appropriate.

## IECEx Certificate



# of Conformity

Certificate No.: IECEx UL 13.0067X

Date of Issue: 2015-09-30

Issue No.: 1

Page 4 of 4

**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):**

Issue 1: Manufacturer is adding a new encapsulate material and raising the upper ambient temperature from +75°C to 145°C

**Annex:** [Annex to IECEx 13.0067X Issue 1.pdf](#)