



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx EPS 18.0125X** Page 1 of 5 Certificate history:
Status: **Current** Issue No: 2 [Issue 1 \(2019-12-20\)](#)
[Issue 0 \(2019-05-22\)](#)
Date of Issue: 2020-08-03
Applicant: **Librestream Technologies Inc**
895 Waverley Street, Suite 110
Winnipeg MB R3T 5P4
Canada
Equipment: **Camera Cube 800**
Optional accessory: Monopod, Hard hat mount Ex, Climbing helmet mount Ex
Type of Protection: **Intrinsic Safety "ib", inherently safe optical radiation "op is"**
Marking: Ex ib op is IIC T4 Gb IP64
Ex ib op is IIIC T135°C Db IP64

Approved for issue on behalf of the IECEx
Certification Body:

Holger Schaffer

Position:

Certification Manager

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 www.iecex.com or use of this QR Code.



Certificate issued by:

Bureau Veritas Consumer Products Services Germany GmbH
Businesspark A96
86842 Türkheim
Germany





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Manufacturer: **Librestream Technologies Inc**
895 Waverley Street, Suite 110
Winnipeg MB R3T 5P4
Canada

Additional
manufacturing
locations:

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 equipment 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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

IEC 60079-28:2015 Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
Edition:2

This Certificate **does not** indicate compliance with 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:

[DE/EPS/ExTR18.0128/02](#)

Quality Assessment Report:

[GB/FME/QAR08.0004/11](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Cube is an intrinsically safe camera with dual cameras, HD optics and thermal imaging. The device captures live video, HD pictures and thermal imaging for remote collaboration. The multi-purpose design of the Cube allows hands-free, handheld and monopod use. The magnetic auto-latch mount provides an easy and secure way to attach the Cube to hardhat mount and climbing helmet mount accessories.

Ambient temperature $-20^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$

Permitted accessories :

- Monopod
- Hard hat mount, Ex
- Climbing helmet mount, Ex

SPECIFIC CONDITIONS OF USE: YES as shown below:

Special conditions for safe use revision 1:

1. Do not charge the device inside the Ex-area.
2. Do not open the device inside the Ex-area.
3. It must be ensured that the maximum input voltage (U_m) for the device from the charger is 6 V.
4. The device must be protected against strong impacts.
5. The device must be protected against high electrostatic charge generating processes. The capacitance of the device is $\leq 10\text{pF}$. The device must be provided with an electrically dissipative connection to earth during operation in IIC gas environments. This can be achieved by using the device handheld, or by mounting the device in the approved accessories. An alternate dissipative connection to earth must be provided when operating the device in IIC gas environments without any contact to the user or accessories.

Special conditions for safe use revision 2:

1. Do not charge the device inside the Ex-area.
2. Do not open the device inside the Ex-area.
3. It must be ensured that the maximum input voltage (U_m) for the device from the charger is 6 V.
4. The device must be protected against strong impacts.
5. The device must be protected against high electrostatic charge generating processes. The device must be connected to earth via an electrostatically dissipative connection. This can also be achieved by direct contact with the user via the associated accessories. Another suitable method must be used if the device does not have any direct or indirect (via the accessories) contact with the user.



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Equipment (continued):

Electrical data:

Power supply: via internal rechargeable Li-Ion Battery
Nominal capacity 2200 mAh, output: $U_o = 3.7\text{ V}$ (nominal) and $U_o = 4.2\text{ V}$ (free wheeling)

The battery pack is built in the device and is not accessible and replaceable by the user.
Charging of the device is only allowed outside the hazardous area.

WLAN/Bluetooth: WLAN: 18 dBm = 63 mW, BT: 11.7 dBm = 15 mW

USB-Interface: type of protection intrinsic safety Ex ib IIC
maximum values:

$U_o = 4.2\text{ V}$
 $I_o = 3.75\text{ A}$
linear characteristic

or Ex ib IIIC

$U_o = 4.2\text{ V}$
 $I_o = 170\text{ mA}$
 $P_o = 646\text{ mW}$

The USB interface is used for charging and data transfer to and from the device.
This is allowed in ordinary (non-hazardous) locations only

Maximum r.m.s. a.c. or d.c. voltage $U_m = 6\text{ V}$



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Tiny modifications of the revision 1 not relevant concerning Ex protection "i" as follows:

1. Usage of an alternative loudspeaker
2. Accessory Monopod with an optional D-Ring and a lanyard
3. Optional lanyard is a restraining device for the Cube 800

The kind of protection "intrinsic safety" is not affected by these modifications. The "Electrical Data" as well as the "Special conditions for safe use" remain unchanged and are valid further on.

Tiny modifications of the revision 2 not relevant concerning Ex protection "i" as follows:

Removal of the capacitance value (≤ 10 pF) under the specific conditions of use due to the additional finish on the surface of the camera heatsink and the frame heatsink.

The kind of protection "intrinsic safety" is not affected by these modifications. The "Electrical Data" remain unchanged. The "Special conditions for safe use" are listed above for revision 2.