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 LCIE 21.0002X**

Certificate history:
Issue 0 (2021-06-24)

Status: **Current**

Issue No: 1

Date of Issue: 2023-01-11

Applicant: **BÜRKERT SAS**
Rue du Giessen
67220 TRIEMBACH AU VAL
France

Equipment: **Flowmeter - Type: 8098 series**

Optional accessory:

Type of Protection: **Ex ec and Ex tc**

Marking: Ex ec IIC T4 Gc

Ex tc IIIC T110°C Dc or T130°C Dc

(Refer to attachment for full marking).

Approved for issue on behalf of the IECEx Certification Body: **Julien GAUTHIER**

Position: **Certification Officer**

Signature: (for printed version)

LABORATOIRE CENTRAL DES INDUSTRIES ELECTRIQUES
S.A.S au capital de 15.745.984 €
RCS Nanterre B 408 363 174
33 avenue du Général Leclerc
F - 92266 FONTENAY AUX ROSES

Date: (for printed version) 2023-01-11

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:

Laboratoire Central des Industries Electriques (LCIE)
33 Avenue du General Leclerc
FR-92260 Fontenay-aux-Roses
France

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Manufacturer: **Bürkert Werke GmbH & Co KG**
Christian Bürkert-Straße 13-17
74653 Ingelfingen
Germany

Manufacturing locations: **BÜRKERT SAS**
Rue du Giessen
67220 TRIEMBACH AU VAL
France

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 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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 Reports:

FR/LCIE/ExTR21.0004/00 FR/LCIE/ExTR22.0059/00

Quality Assessment Report:

DE/PTB/QAR07.0002/11

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The device is used to measure the flow of liquids.
It consists of a pipe in which a fluid circulates, an enclosure and a display.

(Refer to attachment for more details).

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC 60664-1 standard.
- Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value at the supply terminals to the equipment.
- All entries in the enclosure shall be equipped with cable glands, connectors or blanking elements certified with a protection mode and an IP compatible for the intended use.
- Any parallel threaded entry with less than five full threads engaged shall be used with an additional seal or gasket.
- Potential electrostatic charging hazard. Clean only with a wet cloth (see instructions).

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Issue 01:
Update to include pipe diameter up to DN 100/4"
Modification of the electronic board (remove relay function on ME39 board)
Update of the technical file accordingly

Annex:

Annex to Certificate IECEx LCIE 21.0002X - Issue 01.pdf

Annex to Certificate
IECEx LCIE 21.0002X issue 01

FULL EQUIPMENT DESCRIPTION

The device is used to measure the flow of liquids.
It consists of a pipe in which a fluid circulates, an enclosure and a display.
The flowmeter type 8098 series is a product of the FLOWave range. It uses the SAW (Surface Acoustic Waves) technology and is at first designed for the use in applications requiring that all hygienic conditions are fulfilled. The main use focus is on hygienic applications and for the measurement or monitoring of water similar liquids.
As an example low conductivity or nonconductive water is a very preferred area of usage as FLOWave flow measurement is independent from conductivity.
No parts in the measurement tube.

The housing enclosure is equipped with an already certified Ex component, see table below:

Component	Manufacturer	Type	Certificate	Ex marking	Operating temperature	Applied standards
Protective Vent type Gore® PolyVent	W. L. Gore & Associates GmbH	PMF200400	IECEx IBE 17.0013U Date of Issue: 2020-11-16	Ex eb IIC Gb Ex tb IIIC Db	- 40°C up to +125°C	IEC 60079-0, Ed.7.0 IEC 60079-7, Ed.5.1 IEC 60079-31, Ed.2.0

MARKING

bürkert
Address: …
Year of construction: …
Serial N°: …
Type: 8098*****
Ex ec IIC T4 Gc
Ex tc IIIC T110°C Dc or T130°C Dc
IECEx LCIE 21.0002X

-10°C ≤ T_{amb} ≤ +40°C according to the process fluid temperature and the operation time.
Fluid temperature: -20°C … +130°C (See table below)

Ratings: 35V DC, 5W.

WARNINGS –
DO NOT CONNECT OR DISCONNECT WHEN ENERGIZED
DO NOT OPEN WHEN ENERGIZED
POTENTIAL ELECTROSTATIC CHARGING HAZARD - SEE INSTRUCTION (only in dust atmosphere)

	Process fluid temperature (°C)	Ambient temperature (°C)	Temperature class No product orientation restriction	
			Gas	Dust
Continuous operation allowed	-20 -10 0 10 20 30 40 50 60 70 80 90 100 110	40 40 40 40 40 40 40 40 40 40 40 38 36 34	T4	T110°C
Operation allowed for maximum 1 hour	120 130	32 30	T4	T130°C

RANGE DETAILS

(1) TYPE	(2) DN	(10) DG	(12) TTYP	(13) ELEA	(14) ELEW	(15) ERM1	(16) ERM2	(17) ERM3	(18) ERM4	(24) IO	(31) IEC

	Product range		
	Description	Allowed value	Signification
(1) TYPE	Product type	8098	FLOWave flowmeter
(2) DN	Orifice size	8.0 10.0 15.0 20.0 25.0 40.0 50.0 65.0 80.0 100.0 ⅜”-½”-¾”-1”-1 ½”-2”-2 ½”-3”-4”	Measurement pipe diameter
(10) DG	Display size	0 1	0: no display 1: 2.4” display
(12) TTYP	Transmitter type	02	SE98
(13) ELEA	Electrical connection	RB	2 cable glands, 1xM12
(14) ELEW	Electrical connection material	2	Stainless steel
(15) ERM1	Extension module 1	0	Not applied for an Ex using
(16) ERM2	Extension module 2	0	Not applied for an Ex using
(17) ERM3	Extension module 3	0	Not applied for an Ex using
(18) ERM4	Extension module 4	0	Not applied for an Ex using
(24) IO	Input / Outputs	S	1 AO + 1 DO + 1 AO/DO
(31) IEC	IECEx approval	0001	IECEx 3GD

RATINGS

U:35V DC, P:5W, with electronic charge 700mA

ROUTINE TESTS

None.

APPARATUS OVERVIEW: example