



# 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](http://www.iecex.com)

Certificate No.: **IECEX FTZU 23.0023X** Page 1 of 3 [Certificate history:](#)  
Status: **Current** Issue No: 0  
Date of Issue: 2023-12-22  
Applicant: **FOCUS-ON VoF**  
Kerkeplaat 12  
3313 LC Dordrecht  
**Netherlands**  
Equipment: **Flow Control Instrument, type FOCUS-1\_Ex**  
Optional accessory:  
Type of Protection: **Flameproof enclosure "d", Increased safety "e", Intrinsic safety "i", optical radiation "op is"**  
Marking: **Ex db eb ia [ia Ga] op is IIB+H<sub>2</sub> T3 ... T4 Gb**

Approved for issue on behalf of the IECEx  
Certification Body:

**Dipl. Ing. Lukáš Martinák**

Position:

**Head of the Certification Body**

Signature:  
(for printed version)

Date:  
(for printed version)

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](http://www.iecex.com) or use of this QR Code.



Certificate issued by:

**Fyzikálne technický zkusební ústav**  
**(Physical -Technical Testing Institute)**  
**Pikartská 7, 71607 Ostrava - Radvanice**  
**Czech Republic**





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Manufacturer: **FOCUS-ON VoF**  
Kerkeplaat 12  
3313 LC Dordrecht  
**Netherlands**

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 60079-1:2014](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
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

[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 Report:

[CZ/FTZU/ExTR23.0023/00](#)

Quality Assessment Report:

[CA/QPS/QAR23.0011/00](#)



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## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The equipment FOCUS-1 Ex is flow control instrument with the measurement of the flow, pressure and the temperature at the inlet and at the outlet of the valve. User communication with the FOCUS-1 is over Wi Fi. Flow is measured by ultrasonic transducer which is connected to the Ex certified signal converter UFC 400 (IECEX KIWA 15.0009U) located inside Ex "eb db" enclosure. UFC 400 is supplied from "eb" terminals and sends data to the second compartment of Ex "db" enclosure with the electronics with the intrinsically safe input/output terminals to which are connected three LED modules, button, Wi-Fi coupler ( IECEX MSC 19.0001X ) + antenna, Ex certified PT sensors (IECEX FTZU 20.0018U), positioner Trovis 3793-110 ( IECEX BVS 16.0084X ) and terminals for user current loop.

Technical parameters:

Ambient temperature:  $-20\text{ °C} \leq T_a \leq +55\text{ °C}$

Process media temperature:  $-40\text{ °C} \leq T_m \leq +180\text{ °C}$

Power supply:

Mains Power:

AC model:  $U = 100 \div 250\text{ VAC}$ , 50/60 Hz, 30 VA;  $U_n = 230\text{ VAC}$

DC model:  $U = 18 \div 32\text{ VDC}$ , 30 W;  $U_n = 24\text{ VDC}$ , 500 mA

Input current:

AC model: 0.2A VRMS @230 VAC

DC model: 0.5A @24 VDC

Intrinsically safe parameters:

Power supply:

AC model (terminals L and N):  $U_m = 250\text{ VAC}$ ,  $I_{sc} = 1500\text{ A}$

DC model (terminals L+ and L-):  $U_m = 30\text{ VDC}$

Input or Output:

User IO current loop (terminals X1001, X1002 and X1003)

$U_i = 26\text{V}$ ,  $I_i = 100\text{ mA}$ ,  $P_i = 700\text{ mW}$ ,  $C_i = 0\text{ F}$ ,  $L_i = 0\text{ H}$ ;

## SPECIFIC CONDITIONS OF USE: YES as shown below:

1. For information about dimension of flameproof joints it is necessary to contact manufacturer.
2. The Ex eb enclosure may be equipped with Ex-equipment cable glands or Ex- equipment blanking elements with type of Ex-protection according to Ex marking in certificate.
3. The product enclosure includes accessible non-metallic parts. Due to the possibility of the electrostatic charging while subjected to a prolific charge generating mechanism, the end user shall determine suitability in the specific application.
4. Temperature class depends on the ambient temperature  $T_a$  and process media temperature  $T_m$ :

Temperature class	$T_m\text{ [°C]}$	
	$-20\text{ °C} \leq T_a \leq +50\text{ °C}$	$-20\text{ °C} \leq T_a \leq +55\text{ °C}$
T4	121 °C	121 °C
T3	180 °C	140 °C