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 BVS 25.0016X**

Certificate history:

Status: **Current**

Issue No: 0

Date of Issue: 2025-06-12

Applicant: **Gönnheimer Elektronic GmbH**
Dr. Julius-Leber-Straße 2
67433 Neustadt an der Weinstraße
Germany

Equipment: **Pressurization system type FS880**

Optional accessory:

Type of Protection: **Intrinsically safety "i", Pressurized enclosure "p"; Encapsulation "m"; Increased Safety "e";**

Marking: **Control unit type FS880C.***
Ex eb mb ib [pxb] IIC T4 Gb

Sensor block FS880S.n and FS880T.m
Ex ib [pxb] IIC T4 Gb

Operator panel type BT871*
Ex ib IIC T4 Gb
Ex ib IIIC T135°C Db

Configuration module type CM883.*
Ex ib IIC T4 Gb

Approved for issue on behalf of the IECEx Certification Body: **Dr Franz Eickhoff**

Position: **Senior Lead Auditor, Certification Manager and officially recognised expert**

Signature:
(for printed version)

Date:
(for printed version) 2025-06-12

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2. This certificate is not transferable and remains the property of the issuing body.
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Certificate issued by:

DEKRA Testing and Certification GmbH
Certification Body
Dinnendahlstrasse 9
44809 Bochum
Germany

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Manufacturer: **Gönnheimer Elektronic GmbH**
Dr. Julius-Leber-Straße 2
67433 Neustadt an der Weinstraße
Germany

Manufacturing locations: **Gönnheimer Elektronic GmbH**
Dr. Julius-Leber-Straße 2
67433 Neustadt an der Weinstraße
Germany

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 60079-11:2023 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:7.0

IEC 60079-18:2017 Explosive atmospheres - Part 18: Protection by encapsulation "m"
Edition:4.1

IEC 60079-2:2014 Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure "p"
Edition:6

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:

DE/BVS/ExTR25.0016/00

Quality Assessment Report:

DE/TUR/QAR24.0010/00

IECEx Certificate of Conformity

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

General product information:

See Annex

Parameters

See Annex

List of all components used with reference to older standards

See Annex

SPECIFIC CONDITIONS OF USE: YES as shown below:
The housing of the BT871 control unit must be protected against electrostatic charge.

Annex:

BVS_25_0016X_Gönnheimer _Annex.pdf

IECEx Certificate of Conformity

Certificate No.: **IECEx BVS 25.0016X issue No: 0**
Annex

General product information:

The pressurization system type FS880 is used for construction of electrical apparatus type of protection pressurized enclosure in acc. with IEC 60079-2.

The system consists of:

Control unit type FS880C.*
(instead of * in the complete denomination letters and numerals will be inserted which characterize modifications)

Main voltage 110 – 230 V AC		.8
Main voltage	24 V DC	.6
in type of protection		Ex eb mb ib [pxb] IIC T4 Gb

Sensor block FS880S.n and FS880T.m
n for different pressure and flow measurement sensors inside
m for different housings

in type of protection	Ex ib [pxb] IIC T4 Gb

Operator panel type BT871*
instead of * the numeral
0 = panel mounted or
5 = field housing

in type of protection	Ex ib IIC T4 Gb Ex ib IIIC T135°C Db

Configuration module type CM883.*
* number for parameter settings

in type of protection	Ex ib IIC T4 Gb

The 8 sensor blocks can be connected to the terminals 1 – 32, the operator panel can be connected to terminals 33 – 36 and the passive inputs to terminals 37 – 48. The configuration module is part of the internal circuit. The FS880C provides connection terminals for two external fuses SI880 in type of protection mb, which can be used to protect the digital valve and the proportional valve.

Parameters

1	Control unit				
1.1	Mains circuit (terminals 62, 63 – 64, 65)				
	Type FS880C.6				
	Nominal voltage		DC	24	V
	Max. voltage	U_m	AC/DC	63	V
	Type FS880C.8				
	Nominal voltage		AC	100 - 230	V
	Max. voltage	U_m	AC	253	V
1.2	Relay contact-circuits Power 1 (terminals 60 - 61) and Power 2 (terminals 74 - 75) and signal contact (terminals 71 - 72)				
	Switching voltage		AC	253	V
	Max. voltage	U_m	AC	253	V
	Switching current			5	A
1.3	Ethernet circuit (terminals 81 – 84)				
	Max. voltage	U_m	AC/DC	63	V
1.4	Proportional valve output (terminals 78 - 79)				
	Nominal voltage		DC	24	V
1.5	Digital valve output (terminals 71 - 72)				
	Nominal voltage	DC 24V, AC 115V or AC 230V same as power supply			
	Switching current			5	A

IECEx Certificate of Conformity

Certificate No.: **IECEx BVS 25.0016X issue No: 0**

Annex

1.6	Associated valve fuse type SI880 terminals 69 – 70, 76 -77				
1.7	Intrinsically safe input/output circuits level of protection Ex ib				
1.7.1	Digital inputs (terminals 37 - 38, 39 - 40, 41 - 42, 43 - 44, 45 - 46, 47 - 48)				
	Values for each circuit:				
	Voltage	U_o	DC	5.0	V
	Current	I_o		0.51	mA
	Power	P_o		0.64	mW
	Max. external inductance	L_o		0.5	mH
	Max. external capacitance	C_o		100	nF
1.7.2	Terminals 33 – 36 Only for connection of operator panel type BT871 with maximum cable length of 20 m (see manufacturer instructions)				
1.7.3	Terminals 1 – 32 Only for connection of the 1 to 8 sensor blocks type FS880S/T with a maximum cable length of 50 m (see manufacturer instructions)				
2	Ambient temperature range	T_a		-20 °C up to +60 °C	
3	Surface temperature	T4			
4	Degree of protection in acc. with IEC 60529 for the control unit	IP65			

List of all components used with reference to older standards

Subject and type	Certificate	Standards
Empty Enclosure	IECEx PTB 08.0005U	IEC 60079-0, Ed. 6.0[1] IEC 60079-7, Ed. 5.0[1]
Empty Enclosure	IECEx IBE 14.0020U	IEC 60079-0, Ed. 6.0[1] IEC 60079-7, Ed. 4.0[1]

[1] No applicable technical differences

[2] ~~Technical differences evaluated and found satisfactory~~