



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

Certificate No.: IECEx BVS 18.0058X

Issue No: 0

Certificate history:

Issue No. 0 (2018-08-30)

Status: **Current**

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Date of Issue: **2018-08-30**

Applicant: **Rheonik Messtechnik GmbH**
Rudolf-Diesel-Straße 5
85235 Odelzhausen
Germany

Equipment: **Transmitter series RHE26 and RHE27**

Optional accessory:

Type of Protection: **Equipment protection by intrinsic safety "i"**

Marking:
[Ex ia Ga] IIC

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

Dr Franz Eickhoff

Position:

Deputy Head of Certification Body

*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:

DEKRA EXAM GmbH
Dinnendahlstrasse 9
44809 Bochum
Germany





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Manufacturer: **Rheonik Messtechnik GmbH**
Rudolf-Diesel-Straße 5
85235 Odelzhausen
Germany

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 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 : 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

*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:

[DE/BVS/ExTR18.0064/00](#)

Quality Assessment Report:

[DE/TUN/QAR08.0005/06](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Subject and Type

Transmitter type: Eaa-EEPP-SSOO-HHCC-OOO
with

Eaa RHE Version

E26 = RHE26

E27 = RHE27

EE Housing Options

E1 = Panel mount

E2 = Panel mount with plastic door

H1 = DIN rail mount (RHE26 only)

H2 = DIN rail mount with plastic door (RHE26 only)

PP Power supply options

D1 = 12 to 24 V
DC

A1 = 100 to 240 V
AC

U1 = DC plus AC

SS Marking without influence to type of protection
(SW Options)

OO Marking without influence to type of protection
(I/O Configuration Options)

HH Hazardous areas approvals

AS = ATEX / IECEx, RHE in safe area [Ex ia Ga] IIC

CC Marking without influence to type of protection (Measurement Certifications)

OOO Marking without influence to type of protection (Special Options)

Parameters

See Annex

SPECIFIC CONDITIONS OF USE: YES as shown below:

The intrinsically safe circuits are connected to earth; along the intrinsically safe circuits potential equalization must exist.



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EQUIPMENT (continued):

Description

The transmitter in combination with a separately certified Coriolis mass flow meter is used for flow measurement (fluid / gas). The transmitter is an associated apparatus installed outside the hazardous area and generates an intrinsically safe circuit for connecting the Coriolis mass flow meter. It measures the rough data from the sensor, calculates flow, density and temperature and gives out the values via analog or frequency signals or via interface and display.

Annex:

[BVS_18_0058X_Rheonik_Annex_1.pdf](#)



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Parameters

1	Non-intrinsically safe main power supply				
1.1	For type RHE*****A1/U1*****, terminals 23 - 24				
	Nominal voltage		AC	90 – 250	V
	Maximum voltage	U_m	AC	250	V
1.2	For Type RHE*****D1/U1*****, terminals 20 - 21				
	Nominal voltage		DC	10 – 28	V
	Maximum voltage	U_m	AC	250	V
2	Non-intrinsically safe input / output circuits (for all types)				
2.1	Terminals 31 - 34 (digital out)				
	Nominal voltage		DC	24	V
	Maximum voltage	U_m	AC	250	V
2.2	Terminals 35 - 36 (digital in)				
	Nominal voltage		DC	24	V
	Maximum voltage	U_m	AC	250	V
2.3	Terminals 51 - 56 (analog out)				
	Nominal voltage		DC	24	V
	Maximum voltage	U_m	AC	250	V
2.4	Terminals 70 - 71 (RS 485)				
	Nominal voltage			5	V
	Maximum voltage	U_m	AC	250	V
2.5	USB				
	Nominal voltage			5	V
	Maximum voltage	U_m	AC	250	V
2.6	Terminals 50 and 57 (24 V output)				
	Nominal voltage		DC	24	V
	Maximum voltage	U_m	AC	250	V
3	Intrinsically safe circuits (for all types)				
3.1	Drive circuit (terminals 1 - 2)				
	Maximum output voltage	U_o	DC	8.1	V
	Maximum output current	I_o		136	mA
	Maximum output power	P_o		275	mW
	Maximum external capacitance	C_o		2000	nF
	For Group IIC				
	Maximum external inductance	L_o		1.9	mH
	For Group IIB				
	Maximum external inductance	L_o		7.5	mH
3.2	Pickup circuits				
	Circuit 1: terminals 6 - 7				
	Circuit 2: terminals 9 - 8				
	Output values per circuit				
	Maximum output voltage	U_o	DC	2.4	V
	Maximum output current	I_o		9	mA
	Maximum output power	P_o		5.4	mW
	Maximum external capacitance	C_o		2000	nF
	Maximum external inductance	L_o		100	mH



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3.3	Temperature circuits Circuit 1: terminals 3 - 4 Circuit 2: terminals 5 - 4 Only for connecting temperature sensors. Output values per circuit			
	Maximum output voltage	U_o	DC	6.1 V
	Maximum output current	I_o		45.7 mA
	(Total current via GND (terminal 4))			91.4 mA)
	Maximum output power	P_o		69.7 mW
	Maximum external capacitance	C_o		2000 nF
	Maximum external inductance	L_o		1 mH
3.4	Analog 4-20 mA Signal (terminals 60 - 61)			
	Maximum output voltage	U_o	DC	24.7 V
	Maximum output current	I_o		91.5 mA
	Maximum output power	P_o		565 mW
	Maximum external capacitance	C_o		100 nF
	Maximum external inductance	L_o		4 mH
4	Thermal Data			
	Ambient temperature range			-20 °C up to +60 °C