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 19.0072X**	Page 1 of 5	Certificate history:
Status:	**Current**	Issue No: 1	Issue 0 (2019-12-05)
Date of Issue:	2020-05-06		
Applicant:	**PHOENIX CONTACT GmbH & Co. KG** Flachsmarktstr. 8 32825 Blomberg **Germany**		
Equipment:	**Transmitter type MINI MCR-2-***-***-****-**-*-***		
Optional accessory:			
Type of Protection:	**Increased Safety "e"**		
Marking:	**Ex ec IIC T4 Gc**		

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

Position: **Deputy Head of Certification Body**

Signature: (for printed version)

Date: 2020-05-06

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:

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

DEKRA
On the safe side.

IECEx Certificate of Conformity

Manufacturer: **PHOENIX CONTACT GmbH & Co. KG**
Flachsmarktstr. 8
32825 Blomberg
Germany

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 60079-7:2015 Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
Edition:5.0

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/ExTR19.0076/01

Quality Assessment Report:

NL/DEK/QAR11.0009/07

IECEx Certificate of Conformity

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

Subject and Type

Transmitter type MINI MCR-2-***-***-****-**-*-***

Listing of all possible types

- MINI MCR-2-UI-FRO
- MINI MCR-2-UI-FRO-PT
- MINI MCR-2-UI-FRO-C
- MINI MCR-2-UI-FRO-PT-C
- MINI MCR-2-UI-FRO-xxx
- MINI MCR-2-UI-FRO-PT-xxx
- MINI MCR-2-UI-FRO-C-xxx
- MINI MCR-2-UI-FRO-PT-C-xxx

- MINI MCR-2-UNI-UI-UIRO
- MINI MCR-2-UNI-UI-UIRO-PT
- MINI MCR-2-UNI-UI-UIRO-C
- MINI MCR-2-UNI-UI-UIRO-PT-C
- MINI MCR-2-UNI-UI-UIRO-xxx
- MINI MCR-2-UNI-UI-UIRO-PT-xxx
- MINI MCR-2-UNI-UI-UIRO-C-xxx
- MINI MCR-2-UNI-UI-UIRO-PT-C-xxx

- MINI MCR-2-UNI-UI-2UI
- MINI MCR-2-UNI-UI-2UI-PT
- MINI MCR-2-UNI-UI-2UI-C
- MINI MCR-2-UNI-UI-2UI-PT-C
- MINI MCR-2-UNI-UI-2UI-xxx
- MINI MCR-2-UNI-UI-2UI-PT-xxx
- MINI MCR-2-UNI-UI-2UI-C-xxx
- MINI MCR-2-UNI-UI-2UI-PT-C-xxx

Commentary

UI	Voltage or current value
FRO	Frequency signal
2UI	Normsignal duplicator
UNI-UI-UIRO	Signal conditioner with limit switch
PT	Connection via Push-Technology instead of screwed connection
C	Threshold values preset for customer, identical to non-"C" equipment in all other aspects
-xxx	Customer-specific adaptations without influence on explosion protection

SPECIFIC CONDITIONS OF USE: YES as shown below:
The MINI MCR-2 transmitters must be installed in an enclosure with a minimum degree of protection of IP54 according to IEC 60079-0.

The ambient temperature range specified here of -40 °C ≤ T_{amb} ≤ +70 °C refers to the internal temperature in the enclosure.

IECEx Certificate of Conformity

Equipment (continued):

Description

The transmitter types MINI MCR-2 are designed in the type of protection Increased Safety "ec".

The connection is made either via screw terminals or spring terminals, which can be plugged into the transmitter.

The transmitters must either be installed in a housing with a minimum degree of protection IP54 according to IEC 60079-0 or in a housing with an approved type of protection according to IEC 60079-0 section 1.

The transmitters can be supplied either via the lateral terminal interfaces or via the separately tested pluggable bus system type ME 6.2 TBUS (BVS PP 18.2120 EU and DE/BVS/ExTR18.0055/00), which is mounted in the DIN rail.

Parameters

Electrical parameters (supply)

Supply voltage (all types)	9.6 up to 30	VDC
Supply current (MINI MCR-2-UI-FRO-*-*)	37 up to 10	mA
Rated power (MINI MCR-2-UI-FRO-*-*)	350	mW
Supply current (MINI MCR-2-UNI-UI-2UI-*-*)	145 up to 20	mA
Rated power (MINI MCR-2-UNI-UI-2UI -*-*)	1400	mW
Supply current (MINI MCR-2-UNI-UI-UIRO-*-*)	81 up to 24	mA
Rated power (MINI MCR-2-UNI-UI-UIRO -*-*)	770	mW

Electrical parameters (input) [1]

Voltage range	0 up to 12	V
Current range	0 up to 24	mA

Electrical parameters (output) [1]

Voltage range	0 up to 10.5	V
Current range	0 up to 21	mA
Frequency range	0 up to 15.6	Hz

[1] Depending on the type of transmitter and the configuration set via the DIP switches, the electrical parameters can be used to a limited extent in the respective areas. Detailed information is given in the operating and installation instructions supplied with the product.

Thermal parameters

Ambient temperature range at point of installation	-40 °C ≤ T_{amb} ≤ 70 °C

IECEx Certificate of Conformity

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- Correction of the type code for type MINI MCR-2-UNI-UI-2UI-***

- Update of the related QAR