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 15.0099X**

Page 1 of 4

Certificate history:

Issue 3 (2022-02-14)
Issue 2 (2018-07-30)
Issue 1 (2017-06-06)
Issue 0 (2015-11-26)

Status: **Current**

Issue No: 4

Date of Issue: 2025-05-05

Applicant: **Contrec Ltd**
Unit G8
Lowfields Business Park
Elland HX5 9HB
United Kingdom

Equipment: **Instrument type *.**M.***

Optional accessory:

Type of Protection: **Intrinsic Safety "i"**

Marking: Ex ia IIB 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) 2025-05-05

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

IECEx Certificate of Conformity

Certificate No.: **IECEx BVS 15.0099X**

Date of issue: 2025-05-05

Manufacturer: **Contrec Ltd**
Unit G8
Lowfields Business Park
Elland HX5 9HB
United Kingdom

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 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

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/ExTR15.0098/04

Quality Assessment Report:

GB/SIR/QAR15.0002/07

IECEx Certificate of Conformity

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

Type Designation

See Annex

Description

See Annex

Parameters

See Annex

SPECIFIC CONDITIONS OF USE: YES as shown below:
The equipment with plastic enclosure type *.**M shall be mounted in areas where electrostatic charge / discharge will be avoided.

IECEx Certificate of Conformity

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- Change of company address
- Update of documentation
- Update of parameters

Annex:

IECEx BVS 15.0099X_Contrec_Annex_Issue4.pdf

IECEx Certificate of Conformity

Certificate No.: **IECEx BVS 15.0099X issue No: 4**
Annex

General product information:

Type Designation

Instrument type *.**M.*

Instead of the asterisks in the complete designation letters and numerals will be inserted which characterise different variations.

Instrument type [*] . [*] [*] **M** [.*]

Model Type
202Di - Rate totaliser
214Di - Batch controller

Mounting Option - not Ex relevant
1 Panel Mounting
2 Wall Mounting
4 Turbine Stem Attachment
6 Pipe Mounting

Power / Input / Output
0 Battery powered, No Output
3 DC powered & Alarms (pulse out)
4 Loop powered, 4-20 mA OUT & Alarms

M ATEX / IECEx Approval

Enclosure
- Plastic
A Aluminum
S Stainless steel

Example: 202Di.24M.A

Instrument type [*] . [*] [*] **M** [.*]

Model Type
220i Level monitor
250i Process monitor
202Ai Rate totaliser

Mounting Option - not Ex relevant
1 Panel Mounting
2 Wall Mounting
4 Turbine Stem Attachment
6 Pipe Mounting

Power / Input / Output
0 Loop powered

M ATEX / IECEx Approval

Enclosure
- Plastic
A Aluminium
S Stainless steel

Example: 220i.20M.

IECEx Certificate of Conformity

Certificate No.: **IECEx BVS 15.0099X issue No: 4**
Annex

Description

The 200 Series instruments offer display, control, and alarm functions. Depending on the model, they accept either a frequency or 4-20 mA current input or digital input circuits.

- The Model 202Ai Rate-Totaliser is a microprocessor-based device designed to measure a 4-20 mA signal. It is powered directly by the 4-20 mA input signal and therefore requires no external power supply.
- The Model 202Di Rate-Totaliser is a microprocessor-based device that accepts frequency or pulse inputs from a wide range of flowmeters. It is available in three different versions:
    1. Battery-powered version (no external power required).
    2. DC-powered version with either high/low flow alarms or a low flow alarm and pulse output. A backup battery pack maintains operation if the DC power supply is interrupted.
    3. Loop-powered version with 4-20 mA signal processing and alarms, similar to the DC-powered version. This model is powered directly by the 4-20 mA loop and includes a battery backup for loop failures.
- The Model 214Di operates from an external power source (9-28 VDC). In case of a power failure, the built-in battery pack ensures continued operation.
- The Model 220i is fully powered by the 4-20 mA loop and does not require an external power source.
- The Model 250i is identical to the Model 220i, except for differences in software.

List of all components used with reference to older standards

None

Parameters

1 Type 202Di.**M.*, 214Di.**M.*

1.1 Supply and Frequency / Pulse input circuit:
terminals 8 (+) - 7 (-)

Maximum input voltage	U_i	DC	24	V
Maximum input current	I_i		20	mA
Maximum input power	P_i		320	mW
Maximum internal capacitance	C_i		2.4	nF
Maximum internal inductance	L_i		negligible	

1.2 Frequency / Pulse output circuit:
terminals 8 (+) - 7 (-)

Maximum output voltage	U_o	DC	5.36	V
Maximum output current	I_o		5.9	mA
Maximum output power	P_o		7.8	mW
Maximum external capacitance	C_o		1000	µF
Maximum external inductance	L_o		100	mH

1.3 Supply and Signal circuit 4 - 20 mA Current loop:
terminals 2 (+) - 1 (-)

Maximum input voltage	U_i	DC	28	V
Maximum input current	I_i		93	mA
Maximum input power	P_i		653	mW
Maximum internal capacitance	C_i		2.4	nF
Maximum internal inductance	L_i			negligible

1.4 Optocoupler-Isolated Supply and Digital Input Circuits:
terminals 4 (+) - 3 (-) and 6 (+) -5 (-)

Maximum input voltage	U_i	DC	28	V
Maximum input current	I_i		93	mA
Maximum input power	P_i		490	mW
Maximum internal capacitance	C_i		2.4	nF
Maximum internal inductance	L_i			negligible

2 Type 202Ai.**M.*, 220i.**M.* and 250i.**M.*

2.1 Supply and Signal circuit (4 - 20 mA Current loop):
terminals 4 (+) - 3 (-)

Maximum input voltage	U_i	DC	28	V
Maximum input current	I_i		93	mA
Maximum input power	P_i		653	mW
Maximum internal capacitance	C_i		24	nF
Maximum internal inductance	L_i			negligible

2.2 Optocoupler-Isolated Supply and Digital Input Circuits:
Type 202Ai.**M.*:
terminals 6 (+) -5 (-) and 8 (+) - 7 (-)

Types 220i.**M.* and 250i.**M.*:
terminals 2 (+) - 1 (-), 6 (+) -5 (-), 8 (+) - 7 (-) and 11 (+) -10 (-)

Maximum input voltage	U_i	DC	28	V
Maximum input current	I_i		93	mA
Maximum input power	P_i		490	mW
Maximum internal capacitance	C_i		2.4	nF
Maximum internal inductance	L_i			negligible

3 Ambient temperature range T_a -20 °C up to +60 °C