



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**

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Certificate history:

Status: **Current**

Issue No: 3

Issue 2 (2018-07-30)

Issue 1 (2017-06-06)

Issue 0 (2015-11-26)

Date of Issue: **2022-02-14**

Applicant: **Contrec Ltd.**
Riverside, Canal Road
Sowerby Bridge
HX6 2AY
West Yorkshire
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:

Ralf Leiendecker

Position:

Deputy Head of Certification Body

Signature:
(for printed version)

Date:

14.02.2022

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.



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Manufacturer: **Contrec Ltd.**
Riverside, Canal Road
Sowerby Bridge
HX6 2AY
West Yorkshire
United Kingdom

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 60079-11:2011 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/ExTR15.0098/03

Quality Assessment Report:

GB/SIR/QAR15.0002/04



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Type Designation

See Annex

Description

The instruments of the range 200 Series provide display, control and alarm functions. Depending on the model, the apparatus have a frequency or 4-20 mA current input, 2 or 4 floating output circuits and a 4-20 mA current output.

The Model 202Ai Rate-Totaliser is a microprocessor based equipment designed to measure a 4-20 mA signal. The Model 202Ai is powered from a 4-20 mA input signal and therefore, requires no external power.

The Model 202Di Rate Totaliser is a microprocessor based equipment which accepts a frequency or pulse input from a wide range of flowmeters. Three different versions of the Model 202Di are available:

- 1 A Battery powered version with no output.
- 2 A DC powered version with either high and low flow alarms or a low flow alarm and pulse output. The instrument uses a battery pack for backup if the DC power is interrupted.
- 3 A Loop Powered Version with 4-20 mA output and alarms as above.
The equipment draws its operating power from the 4-20 mA loop and uses a battery pack for backup if the 4-20 mA loop is interrupted.

The equipment draws its operating power from the 4-20 mA loop and uses a battery pack for backup if the 4-20 mA loop is interrupted. The Model 214Di will operate from an external power source between 9-28 VDC. As the equipment has a battery pack it will power the instrument if DC power is interrupted.

The Model 220i is powered entirely from the 4-20 mA loop and, therefore, does not require an external power source.

The Model 250i is the same as the Model 220i apart from the software.

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.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- One new material (stainless steel) can be used for the enclosure.
- Minor modifications of the aluminium and stainless enclosure design.
- New alternative to some components have been added.
- Updating of the name plate (as part of Revision Report from 2020-10-16).

Annex:

[BVS_15_0099X_Conctrec_Annex_issue3.pdf](#)



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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

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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, Battery Backup, Alarms

4 Loop powered, Alarms

M ATEX / IECEx Certification

Enclosure

- Plastic

A Aluminium

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 Certification

Enclosure

- Plastic

A Aluminium

S Stainless steel

Example: 220i.20M



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Parameters

1 Type 202Di.*0M.*, 202Di.*3M.* and 214Di.**M.*

1.1 Supply and frequency input circuit terminals 7 – 8: input

Only for connection of an intrinsically safe circuit with the following maximum values

Voltage	U_i	DC	24	V
Current	I_i		20	mA
Power	P_i		320	mW
Effective internal capacitance	C_i		20	nF
Effective internal inductance	L_i			negligible

Or for connection of a passive circuit

Voltage	U_o	DC	10	V
Current	I_o		9	mA
Power	P_o		23	mW
Max. external capacitance	C_o		20	μ F
Max. external inductance	L_o		1.5	H

1.2 Terminals 1 – 2: supply and analog output circuit

Terminals 3 – 4 and 5 – 6: digital output circuits

Only for connection of an intrinsically safe circuit with the following maximum values

Voltage	U_i	DC	28	V
Current	I_i		93	mA
Power	P_i		653	mW
Effective internal capacitance	C_i		100	nF
Effective internal inductance	L_i			negligible

2 Type 202Di.*4M.*

2.1 Terminals 7 – 8: supply and frequency input circuit

Only for connection of an intrinsically safe circuit with the following maximum values

Voltage	U_i	DC	24	V
Current	I_i		20	mA
Power	P_i		320	mW
Effective internal capacitance	C_i		20	nF
Effective internal inductance	L_i			negligible

Or for connection of a passive circuit

Voltage	U_o	DC	10	V
Current	I_o		9	mA
Power	P_o		23mW	Max. external
capacitance	C_o		20	μ F
Max. external inductance	L_o		1.5	H

2.2 Terminals 1 – 2: supply and analog input circuit

Only for connection of an intrinsically safe circuit with the following maximum values

Voltage	U_i	DC	28	V
Current	I_i		93	mA
Power	P_i		653	mW
Effective internal capacitance	C_i		2	nF
Effective internal inductance	L_i			negligible



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2.3 Terminals 3 – 4 and 5 – 6: digital output circuits

Only for connection of an intrinsically safe circuit with the following maximum values

Voltage	U_i	DC	28	V
Current	I_i		93	mA
Power	P_i		653	mW
Effective internal capacitance	C_i		100	nF
Effective internal inductance	L_i			negligible

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

3.1 Terminals 3 – 4: supply and analog input circuit

Only for connection of an intrinsically safe circuit with the following maximum values

Voltage	U_i	DC	28	V
Current	I_i		93	mA
Power	P_i		653	mW
Effective internal capacitance	C_i		20	nF
Effective internal inductance	L_i			negligible

3.2 Terminals 5 – 6 and 7 – 8 (all models), 1 -2 and
10 – 11 (for types 220i and 250i): digital output circuits

Only for connection of an intrinsically safe circuit with the following maximum values

Voltage	U_i	DC	28	V
Current	I_i		93	mA
Power	P_i		653	mW
Effective internal capacitance	C_i		100	nF
Effective internal inductance	L_i			negligible

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