Translation

1 # EU-Type Examination Certificate Supplement 2

2 **Equipment intended for use in potentially explosive atmospheres Directive 2014/34/EU**

3 EU-Type Examination Certificate Number: **BVS 15 ATEX E 106 X**

4 Product: **Instrument type *.**M.***

5 Manufacturer: **Contrec Ltd.**

6 Address: **Riverside, Canal Road, Sowerby Bridge, HX6 2AY, West Yorkshire, United Kingdom**

7 This supplementary certificate extends EU-Type Examination Certificate No. BVS 15 ATEX E 106 X to apply to products designed and constructed in accordance with the specification set out in the appendix of the said certificate but having any acceptable variations specified in the appendix to this certificate and the documents referred to therein.

8 DEKRA EXAM GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in the confidential Report No. BVS PP 15.2187 EU.

9 The Essential Health and Safety Requirements are assured in consideration of:

IEC 60079-0:2017	**General requirements**
EN 60079-11:2012	**Intrinsic Safety "i"**

Except in respect of those requirements listed under item 18 of the appendix.

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following:

II 2G Ex ia IIB T4 Gb

DEKRA EXAM GmbH
Bochum, 2018-07-23

Signed: Ralf Leiendecker
Certifier

Signed: Dr Michael Wittler
Approver

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13 **Appendix**

14 **EU-Type Examination Certificate**

BVS 15 ATEX E 106 X
Supplement 2

15 **Product description**

15.1 **Subject and type**

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, Battery Backup, Alarms
4 Loop powered, Alarms

M ATEX/IECEX Certification

Enclosure
- Plastic
A Aluminium

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

Example:220i.20M

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15.2 **Description**

Reason for the supplement:

- Minor changes on enclosure type *.4*M.A
- Assessment of the Instrument in accordance with the current standard versions

Description of Product

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 Model 214Di will operate from an external power source between 9-28 VDC. A battery pack will power the instrument if DC power is interrupted.

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

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

15.3 **Parameters**

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

15.3.1.1. Supply and frequency input circuit terminals 7 – 8
Only for connection of an intrinsically safe circuit with the following maximum values:

Max input voltage	U_i	DC	24	V
Max input current	I_i		20	mA
Max input 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

Max output voltage	U_o	DC	10	V
Max output current	I_o		9	mA
Max output power	P_o		23	mW
Max external capacitance	C_o		20	µF
Max external inductance	L_o		1.5	H

15.3.1.2 Supply and analogue output circuit (terminals 1 – 2) and digital output circuits (terminals 3 – 4 and 5 – 6)
Only for connection of an intrinsically safe circuit with the following maximum values:

Max input voltage	U_i	DC	28	V
Max input current	I_i		93	mA
Max input power	P_i		653	mW
Effective internal capacitance	C_i		100	nF
Effective internal inductance	L_i		negligible	

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15.3.2 Type 202Di.*4M.*

15.3.2.1 Supply and frequency input circuit terminals 7 – 8

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

Max input voltage	U_i	DC	24	V
Max input current	I_i		20	mA
Max input 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

Max output voltage	U_o	DC	10	V
Max output current	I_o		9	mA
Max output power	P_o		23	mW
Max external capacitance	C_o		20	µF
Max external inductance	L_o		1.5	H

15.3.2.2 Supply and analogue input circuit terminals 1 – 2

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

Max input voltage	U_i	DC	28	V
Max input current	I_i		93	mA
Max input power	P_i		653	mW
Effective internal capacitance	C_i		2	nF
Effective internal inductance	L_i		negligible	

15.3.2.3 Digital output circuit terminals 3 – 4 and 5 – 6

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

Max input voltage	U_i	DC	28	V
Max input current	I_i		93	mA
Max input power	P_i		653	mW
Effective internal capacitance	C_i		100	nF
Effective internal inductance	L_i		negligible	

15.3.3 Type 202Ai.**M, 220i.**M und 250i.**M

15.3.3.1 Supply and analogue input circuit terminals 3 – 4

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

Max input voltage	U_i	DC	28	V
Max input current	I_i		93	mA
Max input power	P_i		653	mW
Effective internal capacitance	C_i		20	nF
Effective internal inductance	L_i		negligible	

15.3.3.2 Digital output circuit

Type 202Ai: Terminals 5 – 6 and 7 – 8

Types 220i and 250i: Terminals 1 – 2, 5 – 6, 7 – 8 and 10 – 11

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

Maximum input voltage	U_i	DC	28	V
Maximum input current	I_i		93	mA
Maximum input power	P_i		653	mW
Effective internal capacitance	C_i		100	nF
Effective internal inductance	L_i		negligible	

15.3.4 Ambient temperature range T_a -20 °C to +60 °C

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16 **Report Number**

BVS PP 15.2187 EU, as of 2018-07-23

17 **Special Conditions for Use**

The equipment with plastic enclosure type *.**M shall be mounted in areas where electrostatic charge / discharge will be avoided.

18 **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements are covered by the standards listed under item 9.

The standard IEC 60079-0:2017 is equivalent to the harmonized standard EN 60079-0:2012 + A11:2013 in terms of safety.

19 **Drawings and Documents**

Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA EXAM GmbH
Bochum, dated 2018-07-23
BVS-Hil/Nu A 20180578

Certifier

Approver

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