



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 TRC 10.0004X Issue No: 2 Certificate history:
Status: **Current** Page 1 of 4 Issue No. 2 (2016-03-31)
Date of Issue: **2016-03-31** Issue No. 1 (2012-08-20)
Applicant: **Circor Instrumentation Technologies** Issue No. 0 (2010-11-30)
405 Centura Court
PO Box 4866
Spartanburg
South Carolina
29305
United States of America

Electrical Apparatus: **Electrically Heated Adjustable Pressure Regulators, models CV, DHR,
HPR-2 & HPR-2XW**

Optional accessory:

Type of Protection: **Flameproof "d"**

Marking: Ex db IIC T1 or T3 Gb
Ta= -30°C to +55°C

Approved for issue on behalf of the IECEx
Certification Body:

Stephen Winsor

Position:

Certification Manager

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:

Element Materials Technology
Unit 1 Pendle Place
Skelmersdale
West Lancashire
WN8 9PN





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Manufacturer: **Circor Instrumentation Technologies**
405 Centura Court
PO Box 4866
Spartanburg
South Carolina
29305
United States of America

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 electrical 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 : 2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-1 : 2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

*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:

[GB/TRC/ExTR10.0005/00](#)

[GB/TRC/ExTR10.0005/01](#)

[GB/TRC/ExTR10.0005/02](#)

Quality Assessment Report:

[CA/CSA/QAR09.0009/04](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Electrically Heated Adjustable Pressure Regulators are designed to supply heat to samples entering instrumentation systems. They can be used to pre-heat liquids, to prevent condensation of gases, or to vaporise liquids prior to gas analysis. The equipment consists of a flameproof enclosure and pressure regulator. Electrical components, temperature controller, heater and thermal cut out (if fitted) are housed within the flameproof enclosure. The regulator itself has no electrical parts and is located outside of the flameproof enclosure.

A temperature class T3 is marked on models rated at 100W, 150W, 200W, 250W when equipped with an internal thermal cut out and the 40W, 50W models without a cut out. While T1 is marked on the 100W model when the thermal cut out is not fitted by the manufacturer.

All models are identified with the coding MODEL-XXXXXXXXXX where the 'MODEL' is shown as either CV, DHR or H2 (for both HPR models) and XXXXXXXXXXXX represents specific model variants (11, 14 or 15 digits dependent on model type). Both HPR models are pre-fixed by 'H2' and are the same specification except that the HPR-2XW allows the end user to remove the heat exchanger, to allow cleaning or replacement when used with dirty liquids or liquids that polymerize and clog the heat exchange screen.

CONDITIONS OF CERTIFICATION: YES as shown below:

1. A suitably rated and approved Ex d stopping box is to be fitted in accordance with IEC 60079-14.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Update to latest edition of IEC 60079-0 & IEC 60079-1 standards.

Annex:

[IECEX CoC Annex TRC 10.0004X is 2.pdf](#)



Element Materials Technology,
Unit 1, Pendle Place,
Skelmersdale,
West Lancashire, WN8 9PN,
United Kingdom

Annex to IECEx Certificate of Conformity

IECEx TRC 10.0004X issue No.:2

Routine Tests
1. Routine (100%) hydrostatic testing (at 250 to 275psi / 17.25 to 18.96Bar) as per Circle Seal test procedure 113109.

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IECEx TRC 10.0004X issue No.:2

Manufacturer's Documents			
Title:	Drawing No.:	Rev. Level:	Date:
Screw, Socket Set	018119	B	2010-06-11
HPR-2 Electric Condulet	034003	E	2009-04-03
Plug, Ground Leg, ATEX, IEC	046403-ATEX	A	2010-06-29
HPR-2 Series Condulet Reducer ¾NPT/½ NPT	046500-ATEX	B	2012-09-05
Fitting, Heat Exchanger	100422-ATEX	F	2003-09-03
Assy, Heater/Thermistor, 150 Watts, 120 VAC, ATEX	106695-ATEX	*	2003-09-02
Assy, Heater/Thermistor, 150 Watts, 240 VAC, ATEX	106696-ATEX	*	2003-09-02
Assy, Welded, Block, Electrical	106828-ATEX	*	2003-09-03
Assy, Heater/Thermistor, 100 Watts, 120 VAC, ATEX	106842-ATEX	*	2003-09-02
Assy, Heater/Thermistor, 100 Watts, 240 VAC, ATEX	106843-ATEX	*	2003-09-02
Assy, Heater/Thermistor, 50 Watts, 120 VAC, ATEX	106844-ATEX	*	2003-09-02
Assy, Heater/Thermistor, 50 Watts, 240 VAC, ATEX	106845-ATEX	*	2003-09-02
Assy, Heater/Thermistor, 40 Watts, 120 VAC, ATEX	106849-ATEX	*	2003-09-02
Assy, Heater/Thermistor, 40 Watts, 240 VAC, ATEX	106850-ATEX	*	2003-09-02
Label for HPR-2 Controller P/N 101870 120 VAC – Range A	106990	K	2010-04-06
Label for HPR-2 Controller P/N 101871 120 VAC – Range B	106991	K	2010-04-06
Label for HPR-2 Controller P/N 101872 120 VAC – Range C	106992	K	2010-04-06
Label for HPR-2 Controller P/N 101873 120 VAC – Range D	106993	K	2010-04-06
Label for HPR-2 Controller P/N 101874 240 VAC – Range A	106994	K	2010-04-06
Label for HPR-2 Controller P/N 101875 240 VAC – Range B	106995	K	2010-04-06
Label for HPR-2 Controller P/N 101876 240 VAC – Range C	106996	K	2010-04-06
Label for HPR-2 Controller P/N 101877 240 VAC – Range D	106997	K	2010-04-06
Fitting, Heat Exchanger	107834-ATEX	F	2003-09-03
Assembly, Regulator, Electric, HPR-2, ATEX	108067-ATEX	*	2003-08-02
Assembly, Regulator, Electric, HPR-2XW, ATEX	108069-ATEX	*	2003-09-02
Assembly, Regulator, Electric, CV, ATEX	108799-ATEX	*	2003-08-02
Cap, Condulet, ATEX	109323-ATEX	*	2003-09-03
Fitting, Heat Exchanger	109790-ATEX	F	2003-09-03



Annex to IECEx Certificate of Conformity

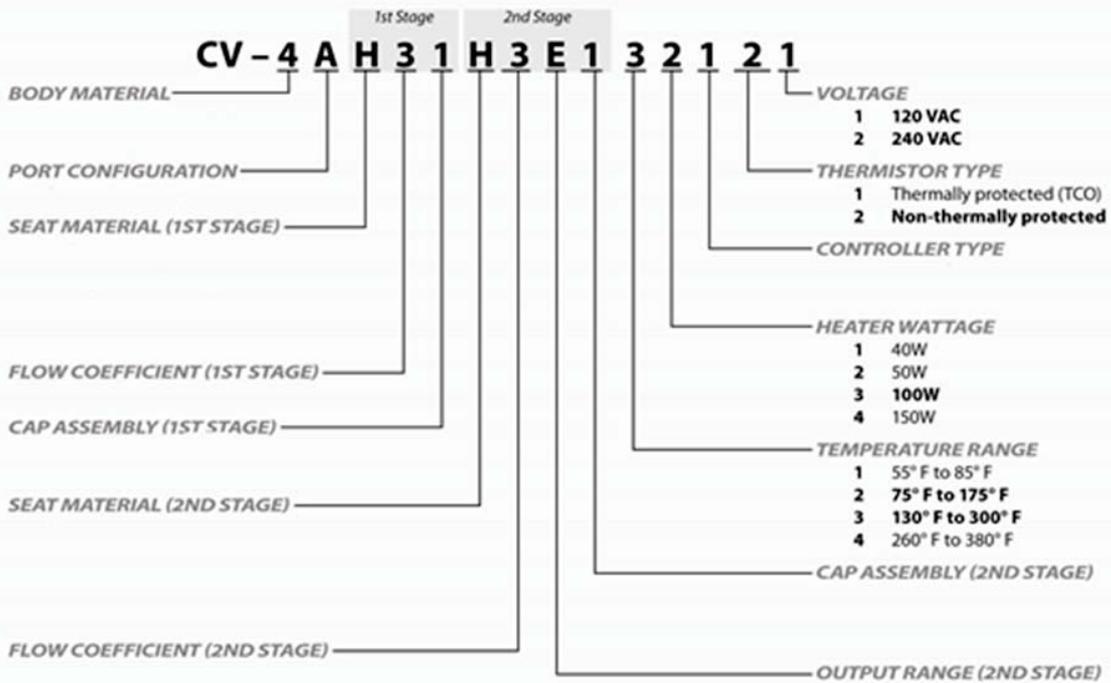
IECEx TRC 10.0004X issue No.:2

Title:	Drawing No.:	Rev. Level:	Date:
Condulet, Machined, ATEX	109819-ATEX	*	2003-09-02
Assy, Heater/Thermistor, 100 Watts, 120 VAC, 3', ATEX	110239-ATEX	*	2003-09-02
Assy, Heater/Thermistor, 100 Watts, 120 VAC, TCO, ATEX	110520-ATEX	*	2003-09-03
Assy, Heater/Thermistor, 100 Watts, 240 VAC, TCO, ATEX	110521-ATEX	*	2003-09-03
Assy, Heater/Thermistor, 50 Watts, 120 VAC, TCO, ATEX	110522-ATEX	*	2003-09-03
Assy, Heater/Thermistor, 50 Watts, 240 VAC, TCO, ATEX	110523-ATEX	*	2003-09-03
Assy, Heater/Thermistor, 40 Watts, 120 VAC, TCO, ATEX	110524-ATEX	*	2003-09-03
Assy, Heater/Thermistor, 40 Watts, 240 VAC, TCO, ATEX	110525-ATEX	*	2003-09-03
Assy, Heater/Thermistor, 150 Watts, 120 VAC, TCO, ATEX	110526-ATEX	*	2003-09-03
Assy, Heater/Thermistor, 150 Watts, 240 VAC, TCO, ATEX	110527-ATEX	*	2003-09-03
Label, Vaporizing Regulator, ATEX CERT	110542	I	2016-03-18
Assy, Heater/Thermistor, 100 Watts, 240 VAC, 20 cm	110820-ATEX	*	2003-09-02
Assy, Heater/Thermistor, 150 Watts, 240 VAC, 20 cm, TCO, ATEX	110914-ATEX	*	2003-09-02
Assy, Heater/Thermistor, 40 Watts, 240 VAC, ATEX	110915-ATEX	*	2003-09-02
Assy, Heater/Thermistor, 150 Watts, 240 VAC, 400 mm TCO, ATEX	111145-ATEX	*	2003-09-02
Assy, Heater/Thermistor, 100 Watts, 120 VAC, 18", ATEX	111160-ATEX	*	2003-09-02
Assembly, Regulator, Electric, DHR, ATEX	111206-ATEX	*	2003-09-02
Test Procedure for Vaporizing Pressure Regulator	113109	D	2010-06-14
Installation Procedure for Vaporizing Regulator	113117	E	2016-03-18
Disassemble & Assemble Procedure for Vaporizing Regulator Model: HPR-2, HPR-2XW, CV and DHR	108727	E	2016-03-18
Label, Temperature, Wiring, Porting, , ATEX, IEC	113144	A	2010-06-10
Assy, Heater/Thermistor, 200 Watts, 120 VAC,	114941-ATEX	A	2010-09-28
Assy, Heater/Thermistor, 200 Watts, 240 VAC,	114942-ATEX	A	2010-09-28
Assy, Heater/Thermistor, 250 Watts, 120 VAC,	114943-ATEX	A	2010-09-28
Assy, Heater/Thermistor, 250 Watts, 240 VAC,	114944-ATEX	A	2010-09-28

* no information provided

Example Model nomenclature and electrical data:

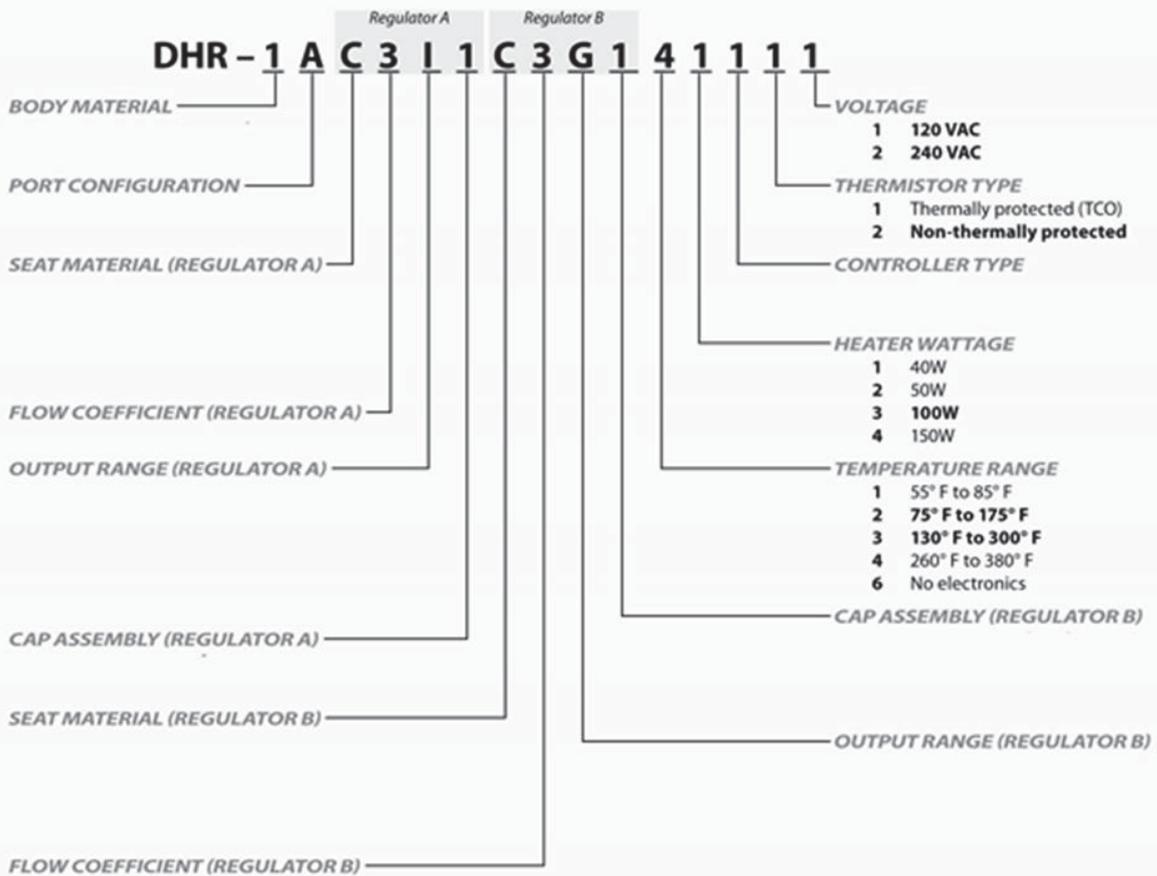
CV Series Cylinder Vaporizer





Example Model nomenclature and electrical data continued:

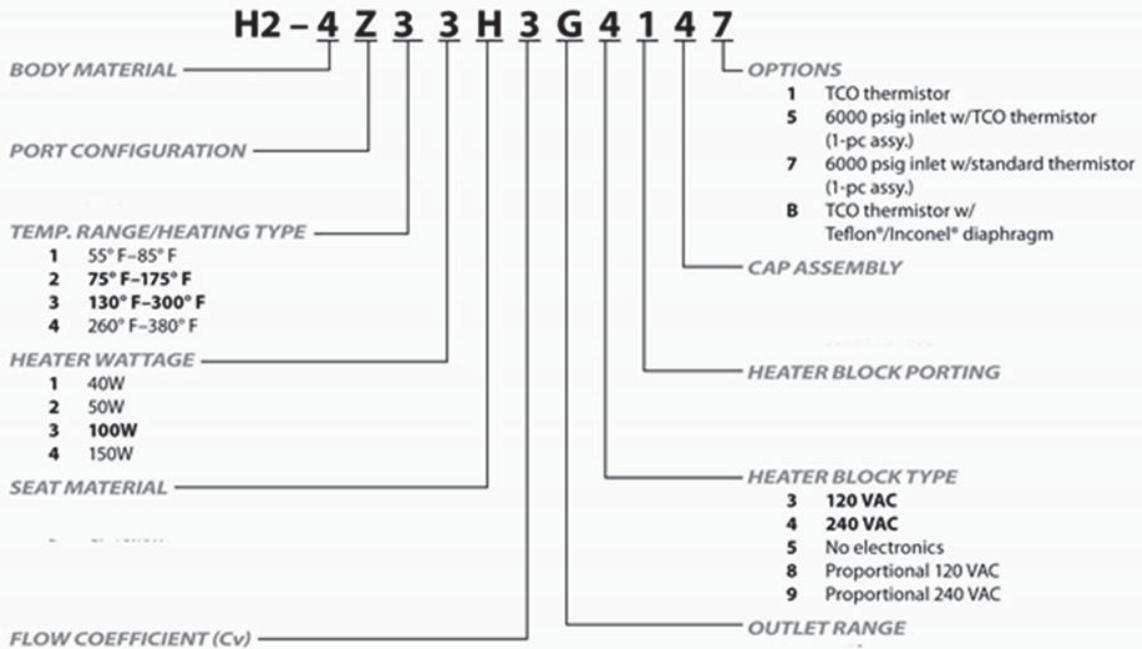
DHR Series





Example Model nomenclature and electrical data continued:

HPR-2 Series





Example Model nomenclature and electrical data continued:

