



UNITED KINGDOM CONFORMITY ASSESSMENT

1 **UK TYPE EXAMINATION CERTIFICATE**

2 Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

3 Certificate Number: **CSAE 22UKEX1283X** Issue: **1**
4 Product: **Heated Regulator Assembly XHR-300, XHR-301, XHR-310 & XHR-311**
5 Manufacturer: **Pressure Tech Limited**
6 Address: **Unit 24 Graphite Way
Hadfield
Glossop
Derbyshire
SK13 1QH
United Kingdom**

7 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 CSA Group Testing UK Limited, Approved Body number 0518, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), 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 Schedule 1 of the Regulations. The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 EN 60079-1:2014 EN ISO 80079-36:2016

Except in respect of those requirements listed at Section 16 of the schedule to this certificate. The above standards may not appear on the UKAS Scope of Accreditation, but have been added through flexible scope of accreditation, which is available on request.

10 If the sign 'X' is placed after the certificate number, it indicates that the product is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This UK TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of this product shall be in accordance with Regulation 41 and include the following:



II 2G
Ex db IIC T3 Gb
Ta = -40 °C ≤ Ta ≤ 60 °C

Name: M Halliwell
Title: Director of Operations



SCHEDULE

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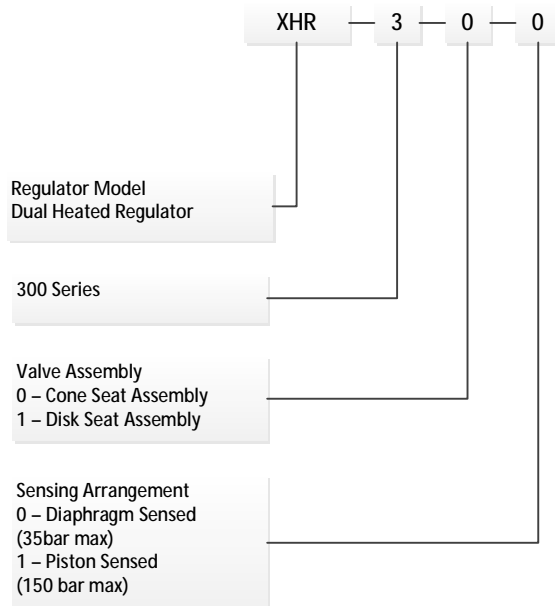
Issue 1

13 DESCRIPTION OF PRODUCT

The Heated Regulator Assembly whether XHR-300, XHR-301, XHR-310 or XHR311 comprises of three main parts: a flameproof cast aluminium enclosure, heater cartridges (probes) and a pressure regulator manufactured in stainless steel.

The XHR-300, XHR-301, XHR-310 and XHR-311 pressure regulators are similar in construction, varying only in the arrangement of the pressure sensor and main valve assemblies. In particular, the XHR-300 and XHR-310 are diaphragm sensed pressure regulators, while the XHR-301 and XHR-311 are piston sensed pressure regulators. The XHR-300 and XHR-301 main valve assembly includes a cone seat design, while the XHR-310 and XHR311 pressure regulators include a disc type valve assembly. The operating parameters of the Heated Regulator Assembly range are listed in Table 1.

The model number can be broken down as follows:



The flameproof enclosure is employed to house the control equipment for the heater cartridges (probes). The heater cartridges protrude from the flameproof enclosure via two 3/8" BSP threaded flamepaths, access to the heaters within is provided by a cylindrical flamepath secured by a hexagonal threaded locking nut. The heater cartridges are installed into the body of the pressure regulator. The flameproof enclosure/heater cartridge combination contains all of the electrical equipment. The pressure regulator contains no electrical equipment.

The flameproof enclosure provides up to three, M20 x 1.5, threaded entry points for the installation of suitably certified cable entry devices.

The regulator can be used to regulate any gas or liquid that is compatible with the materials of construction.

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Table 1 – Heater Regulator Assemblies

Model Ref.	Electrical ratings	Regulator Pressure	
		Maximum Inlet Pressure (bar)	Maximum Outlet Pressure (bar)
XHR-300	115 Vac 3 A, 230 Vac 3 A	300	35
XHR-301	115 Vac 3 A, 230 Vac 3 A	300	150
XHR-310	115 Vac 3 A, 230 Vac 3 A	414	35
XHR-311	115 Vac 3 A, 230 Vac 3 A	414	150

Variation 1 - This variation introduced the following changes:

- i. Update drawing PT-EHR-300-008 to correct typographical errors of the ATEX Notified Body number and the IECEx certificate number.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	14 April 2023	R80137399A	The release of the prime certificate.
1	28 June 2023	R80174198A	The introduction of Variation 1.

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

- 15.1 The user shall ensure that the equipment is appropriately connected to earth.
- 15.2 The equipment shall not be exposed to vibrations exceeding 5m/sec².
- 15.3 The equipment shall be protected from mechanical impact in service by location or suitable guarding.
- 15.4 To prevent damage being caused to the regulator, which may result in an ignition risk, it is the user's responsibility to ensure the equipment is operated in accordance with the manufacturer's instructions and recommendations.
- 15.5 The equipment has flamepaths which differ from those in EN 60079-1:2014. The manufacturer, Pressure Tech, shall be contacted for guidance when maintaining the flamepaths.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS (REGULATIONS SCHEDULE 1)

In addition to the Essential Health and Safety Requirements covered by the standards listed in Section 9, all other requirements are demonstrated in the relevant reports.

17 PRODUCTION CONTROL

- 17.1 Holders of this certificate are required to comply with production control requirements defined in Schedule 3A, as applicable, and CSA Group Testing UK Regulations for Certificate Holders



SCHEDULE

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- 17.2 This certificate relies on the following previously certified product. It is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with this product, and the manufacturer shall inform CSA Group Testing UK Ltd of any modifications of the product that may impinge upon the explosion safety design of their products.

Item	Certificate Number
Cortem Enclosure Type GUB	CESI 01 ATEX 034U

- 17.3 The manufacturer shall provide the end-user and/or installer with an appropriate copy of the certificate for the certified flameproof enclosure.



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CANI**

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Certificate Annexe

Certificate Number: CSAE 22UKEX1283X
Product: Heated Regulator Assembly XHR-300, XHR-301, XHR-310 & XHR-311
Manufacturer: Pressure Tech Limited

Issue 0

Drawing	Sheets	Rev.	Date (Stamp)	Title
PT-XHR-300	1 of 1	D	16 Jul 15	Dual Heated Regulator – XHR300
PT-XHR-301	1 of 1	B	16 Jul 15	Dual Heated Regulator – XHR301
PT-XHR-300-100	1 of 1	C	16 Jul 15	Dual Heated Regulator – Electrical Portion
PT-EHR-300-006	1 of 1	F	16 Jul 15	Enclosure Tappings
PT-XHR-310	1 of 1	A	16 Jul 15	Dual Heated Regulator – XHR310
PT-XHR-311	1 of 1	A	16 Jul 15	Dual Heated Regulator – XHR311
PT-EHR-300-007	1 of 1	D	16 Jul 15	Connector Fitting
PT-EHR-300-008	1 to 1	J	12 Jan 23	XHR300/301/310/311 Dual Heated Regulator Label

Issue 1

Drawing	Sheets	Rev.	Date (Stamp)	Title
PT-EHR-300-008	1 of 1	K	22 Jun 23	XHR300/301/310/311 Dual Heated Regulator Label

