1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Component intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **CSANe 20ATEX1154U** Issue: **0**

4 Component: **CH504 and CH506 Connection Heads**

5 Applicant: **Minco Products Inc.**

6 Address: 7300 Commerce Lane NE
Minneapolis
MN 55432

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

8 CSA Group Netherlands B.V. notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of a component intended for use in potentially explosive atmospheres given in Annex II to the Directive.

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, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN IEC 60079-0:2018 EN 60079-1:2014+AC:2018-09 EN 60079-31:2014

10 The sign 'U' is placed after the certificate number to indicate that the product assessed is a component and may be subject to further assessment when incorporated into equipment. Any limitations of use are listed in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified component. If applicable, further requirements of this Directive apply to the manufacture and supply of this component.

12 The marking of the component shall include the following:

II 2GD
Ex db IIC Gb
Ex tb IIIC Db
Ta =-50°C ≤ Ta ≤ +60°C

Project Number 70157624

Signed: J A May

Title: Director of Operations

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SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

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13 DESCRIPTION OF COMPONENT

The Minco CH504 and CH506 Connection Heads are compact component enclosures which feature the same geometry but are constructed from different materials. The CH504 is available in aluminium or powder coated aluminium versions; whereas the CH506 is constructed from stainless steel grade 316. The connection heads feature either two ½" NPT or ¾" NPT entries and an M85 cover joint.

The Connection Heads have been separately tested against the requirements of EN 60529 and they meet IP66 with a cover O-ring and IP64 without a cover O-ring.

The Minco CH504P**abc** and CH506P**abc** connection heads:

a - connection threads

SENSOR THREAD A	CONDUIT THREAD B
P1 = 3/4 - 14 NPT	1/2 - 14 NPT
P2 = 3/4 - 14 NPT	3/4 - 14 NPT
P3 = 1/2 - 14 NPT	1/2 - 14 NPT
P4 = 1/2 - 14 NPT	3/4 - 14 NPT
P5 = 1/2 - 14 NPT	M20 x 1.5 - 6H*
P6 = 3/4 - 14 NPT	M20 x 1.5 - 6H*

b - type of and number of connection points

W0 = Empty enclosure (no connection points); W6 = 6 wire nuts; W8 = 8 wire nuts
T0 = Screws package for Minco temperature transmitter mounting
T8 = Standard fiberglass terminal board with 8 connection points
H8 = Standard fiberglass terminal board, tropicalized for humid conditions, with 8 connection points

c - external surface finish

Blank = None (bare aluminum or stainless steel)
P = Polyester powder coated finish (aluminium CH504 connection heads only)

* For options P5 and P6, where the conduit threads are M20 x 1.5, this is achieved by using a suitable equipment certified thread adapter provided by the manufacturer.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	04 January 2021	R70157624C	The release of the prime certificate.

15 SCHEDULE OF LIMITATIONS

15.1 Component enclosures are not assigned a temperature class. However, these enclosures exhibit a surface temperature rise of 7 K with a 1.5 W load (1.35 W including 10% safety factor) in a 60°C ambient.

15.2 The enclosures feature two entries, these may be ½" or ¾" NPT.

15.3 Oil filled circuit breakers and contactors shall not be used with these enclosures.

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15.4 The ambient temperature rating of the final equipment shall be within the range of -50°C ≤ Ta ≤ + 60°C.

15.5 Internal parts may be placed in any arrangement provided that an area of at least 40 % of each cross-sectional area remains free to permit unimpeded gas flow and, therefore, unrestricted development of an explosion. Separate relief areas may be aggregated provided that each area has a minimum dimension in any direction of 12.5 mm. The Minco Fiberglass terminal board with 8 connection points is considered suitable for this application.

15.6 With reference to point 15.5, the maximum obtained reference pressure when testing with baffle plates in accordance with the listed standards was 10.96 bar (159.0 lbf/in^2). Based on overpressure testing carried out by CSA, the connection heads are considered suitable for reference pressures up to 12.3 bar (178.3 lbf/in^2).

16 **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II** (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 **CONDITIONS OF MANUFACTURE**

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Certificates.

17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

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Certificate Annexe

Certificate Number: **CSANe 20ATEX1154U**

Component: **CH504 and CH506 Connection Heads**

Applicant: **Minco Products Inc**

Issue 0

Drawing	Sheets	Rev.	Date (Stamp)	Title
B224600	1 to 2	-	10 Dec 20	Connection Head Flameproof Explosionproof CH504 and CH506 Series Approval Drawing
A12299	1 to 1	B	10 Dec 20	Reducing Bushing

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