



1 **EC TYPE EXAMINATION CERTIFICATE**

2 Equipment or protective system intended for use in potentially explosive atmospheres –
Directive 94/9/EC – Annex III

3 EC Type Examination **TRAC14ATEX0072U**
Certificate No.:

4 Component: **Flameproof Enclosures Types CH356, CH357 and CH358**

5 Manufacturer: **Minco Products,**

6 Address: **7300 Commerce Lane, Minneapolis, Minnesota 55432,
United States of America**

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

8 TRaC Global Ltd, Notified Body number 0891 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment or protective system 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 **TRA-016158-33-01A**.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in section 18 of the schedule to this certificate, has been assured by compliance with:

EN 60079-0:2012

EN 60079-1:2007

10 If the sign "X" is placed after the certificate number then this indicates that the equipment or protective system is subject to special conditions of safe use specified in the schedule to this certificate.

The sign "U" placed after the certificate number indicates that this certificate describes components and must not be mistaken for a certificate intended for an equipment or protective system. This EC-Type Examination certificate may be used as the basis for certification for an equipment or protective system.

11 This EC-Type Examination certificate relates only to the design and construction of the specified equipment in accordance with Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of this equipment or protective system shall include the following:

II 2 G Ex d IIC Gb

This certificate and its schedules may only be reproduced in its entirety and without change. This certificate is issued in accordance with the TRaC Ex Certification Scheme.

S.P. Winsor

S P Winsor, Certification Manager

Issue date: 2015-06-19

Copy No.: 1e

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Form RF355 is16A

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13 **SCHEDULE TO EC TYPE EXAMINATION CERTIFICATE**

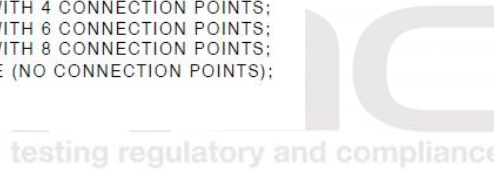
14 **TRAC14ATEX0072U**

15 **General description of equipment or protective system included within the scope of this certificate**

Flameproof enclosures types CH356 are constructed from stainless steel and types CH357 and CH358 from aluminium. The CH358 differs from the CH357 only in that the CH358 has a grey epoxy finish. All the enclosure types are cylindrical enclosures fitted with M80 threaded lids with two threaded entries, one to the side and one on the base, the thread type options are as detailed below. The enclosure volumes are 220cm³ for the CH357 and CH358 and 230cm³ for the CH359. The enclosures are designed primarily for the connection of temperature transmitters and can be supplied empty, with terminals or a temperature transmitter.

Part number breakdown example:

CH356P4T4 ← EXAMPLE OF MODEL NUMBER		
CH356	SPECIFICATIONS DRAWING NUMBER.	
P4	THREAD CODE:	
	CODE	THREAD A
	P1	3/4 - 14 NPT
	P2	3/4 - 14 NPT
	P3	1/2 - 14 NPT
	P4	1/2 - 14 NPT
	P5	1/2 - 14 NPT
	P6	3/4 - 14 NPT
	P7	M20 x 1.5 - 6H
	P8	M20 x 1.5 - 6H
	P9	M20 x 1.5 - 6H
T4	TYPE AND NUMBER OF CONNECTION POINTS:	
	T0 = TEMPTRAN MOUNTING SCREWS ENCLOSED;	
	T4 = TERMINAL BOARD WITH 4 CONNECTION POINTS;	
	T6 = TERMINAL BOARD WITH 6 CONNECTION POINTS;	
	T8 = TERMINAL BOARD WITH 8 CONNECTION POINTS;	
	W0 = EMPTY ENCLOSURE (NO CONNECTION POINTS);	
	W4 = 4 WIRE NUTS;	
	W6 = 6 WIRE NUTS.	



A list of controlled Manufacturer's Documents is given in Appendix A to this schedule.

16 **Test report No.:** **TRA-016158-33-01A.**

17 **Schedule of Limitations" for Ex Components, if any:**

1. Rotating electrical machines or other devices which create turbulence shall not be incorporated.
2. Oil-filled circuit breakers and contactors shall not be used.
3. The enclosures are designed to be used in an ambient temperature range of -50°C to +60°C.
4. The content of the Ex component enclosure maybe placed in any arrangement providing that an area of at least 40% of each cross-sectional area remains free to permit unimpeded gas flow and unrestricted development of an explosion. Separate relief areas may be aggregated provided that each area has a minimum dimension in any direction of 12.5mm.
5. Only suitably rated and approved Ex certified cable glands and blanking elements shall be used.
6. When evaluating the component enclosure as equipment, apply the requirements of IEC 60079-1 Annex D.4.
7. The enclosures qualify for a T6 classification, for an upper ambient of +60°C, when the internal equipment fitted has a maximum power dissipation of 1.35W.

18 **Essential health and safety requirements**

Covered by application of the standards listed in section 9 of this certificate and the assessment conducted in the test report listed in section 16 of this certificate.

19 **Additional information**

CONTINUATION OF SCHEDULE TO CERTIFICATE TRAC14ATEX0027U

“Routine tests”, if any:

None.

“Special conditions for manufacture”, if any:

None.

Other information, if any:

None.

Photographs



Details of markings

MINCO MINNEAPOLIS, MN USA CONNECTION HEAD/TETE DE CONNEXION: CH356P3T6 CONDUIT THREAD: 1/2 - 14 NPT DATE#: 0920 WITH O-RING TYPE 3, 4, 4X, TR66 WITHOUT O-RING TYPE 3, 4, IP54	 II 2G Ex d IIC Gb 0344 TRAC14ATEX0072U IECEX TRC 14.0033U DO NOT OPEN WHEN EXPLOSIVE ATMOSPHERE IS PRESENT NE PAS OUVRIR EN PRESENCE D'ENVIRONNEMENT EXPLOSIF	EMPTY ENCLOSURE WITH Ex COMPONENT CERTIFICATE
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SEE NOTE ③

MINCO MINNEAPOLIS, MN USA CONNECTION HEAD/TETE DE CONNEXION: CH357P3T6 CONDUIT THREAD: 1/2 - 14 NPT DATE#: 0920 WITH O-RING TYPE 3, 4, IP65 WITHOUT O-RING TYPE 3, 4, IP54	 II 2G Ex d IIC Gb 0344 TRAC14ATEX0072U IECEX TRC 14.0033U DO NOT OPEN WHEN EXPLOSIVE ATMOSPHERE IS PRESENT NE PAS OUVRIR EN PRESENCE D'ENVIRONNEMENT EXPLOSIF	EMPTY ENCLOSURE WITH Ex COMPONENT CERTIFICATE
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SEE NOTE ③

MINCO MINNEAPOLIS, MN USA CONNECTION HEAD/TETE DE CONNEXION: CH358P3T6 CONDUIT THREAD: 1/2 - 14 NPT DATE#: 0920 WITH O-RING TYPE 3, 4, 4X, TR66 WITHOUT O-RING TYPE 3, 4, IP54	 II 2G Ex d IIC Gb 0344 TRAC14ATEX0072U IECEX TRC 14.0033U DO NOT OPEN WHEN EXPLOSIVE ATMOSPHERE IS PRESENT NE PAS OUVRIR EN PRESENCE D'ENVIRONNEMENT EXPLOSIF	EMPTY ENCLOSURE WITH Ex COMPONENT CERTIFICATE
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SEE NOTE ③

③ CONNECTION HEAD PART NUMBER, CONDUIT THREAD SIZE, AND DATE CODE TO UPDATE WITH EACH PRINTING OF LABEL.

CONTINUATION OF SCHEDULE TO CERTIFICATE TRAC14ATEX0027U

Details of variations to this certificate

None.

Notes to CE marking

In respect of CE Marking, TRaC Global Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

Notes to this certificate

TRaC certification reference: **TRA-016158-32-00**.

Throughout this certificate, the date format yyyy-mm-dd (year-month-day) is used.



CONTINUATION OF SCHEDULE TO CERTIFICATE TRAC14ATEX0027U

APPENDIX A - LIST OF CONTROLLED MANUFACTURER'S DOCUMENTS

Title:	Drawing No.:	Rev. Level:	Date:
Flameproof Connection Head Approval Drawing CH356 Series (2 pages)	B13089	B	2014-10-31
Flameproof Connection Head Approval Drawing (Epoxy Coated Gray) CH358 Series (2 pages)	B13795	E	2014-10-31
Flameproof Connection Head Approval Drawing CH357 Series (2 pages)	B13794	E	2014-10-31
Label, CH356, CH357, Ch358 Series Connection Heads	B204091	B	2014-10-31
Minco Installation and Operation Instructions (2 pages)	SPI 75-1087 Appendix B	E	*

*no information provided.

