

1 TYPE EXAMINATION CERTIFICATE



2 Equipment or Protective systems intended for use in Potentially
Explosive Atmospheres - Directive 2014/34/EU

3 Type Examination Certificate No: FM09ATEX0031X

4 Equipment or protective system: T595XP Current-to-Pressure Transducer
(Type Reference and Name)

5 Name of Applicant: ControlAir, Inc.

6 Address of Applicant: 8 Columbia Drive
Amherst, NH 03031
USA

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

8 FM Approvals Ltd. certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report number:

3035877EC dated 16th April 2009

9 Compliance with the Essential Health and Safety Requirements, with the exception of those identified in item 15 of the schedule to this certificate, has been assessed by compliance with the following documents:

EN60079-0:2012 + A11:2013, EN 60079-15: 2005, EN1127-1:2011,
EN60529:1991+ A1: 2000

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.

11 This Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

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



II 3 G Ex nL IIC T6...T4 Ta= -55°C to 85°C; IP65 (see table below)
II 3 G Ex nA nL IIC T6 Ta= -55°C to 85°C; IP65



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Mick Gower
Certification Manager, FM Approvals Ltd.

Issue date: 06th February 2017

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

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SCHEDULE



to Type Examination Certificate No. FM09ATEX0031X

13 Description of Equipment or Protective System:

The T595XP is an electro-mechanical current to pressure converter. The unit operates on a 4 mA to 20 mA current loop. The ambient operating temperature range of the T595 is dependent on the energy limitation Parameters as specified below.

The housing is constructed of epoxy-painted A380/A383 Aluminum Alloy. The housing is available with a threaded blank cover. The enclosure contains one M20 x 1.5 wiring entry. The housing is provided with internal grounding connection. An o-ring is provided between the cover and base for environmental protection. Two sintered Flame arrestors are press-fit into the base of the housing.

T595XP-Aabc. I/P Converter.

II 3 G Ex nL IIC T6...T4 Ta = -55°C to +85°C; IP65

a = Output Pressure Range: C, D, or E.

b = Connection: M, N, or P.

c = Options K, K2, L or R.

Energy Limitation Parameters

Temperature Class	Ta	li	Ui	Pi
T4	85°C	60 mA	38.8 V	2.328 W
T4	85°C	100 mA	30 V	3.0 W
T4	80°C	120 mA	28 V	3.36 W
T4	70°C	150 mA	25.5 V	3.825 W
T5	70°C	60 mA	38.8 V	2.328 W
T5	55°C	100 mA	30 V	3.0 W
T5	45°C	120 mA	28 V	3.36 W
T5	85°C	23 mA	6.75 V	0.155 W
T6	60°C	50 mA	42.5 V	2.125 W
T6	55°C	60 mA	38.8 V	2.328 W

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Input Parameters

Ui = 40 V; li = 20 mA

14 Specific Conditions of Use:

The user shall permanently mark the protection type chosen. Once the type of protection has been marked it shall not be changed.

15 Essential Health and Safety Requirements:

The relevant EHSRs that have not been addressed by the standards listed in this certificate have been identified and assessed in the confidential report identified in item 8.

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16 Test and Assessment Procedure and Conditions:

This Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production.

Whilst this certificate may be used in support of a manufacturer's claim for CE Marking, FM Approvals Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

This Certificate has been issued in accordance with FM Approvals Ltd's ATEX Certification Scheme.

17 Schedule Drawings

A list of the significant parts of the technical documentation is annexed to this certificate and a copy has been kept by FM Approvals Ltd.

18 Certificate History

Details of the supplements to this certificate are described below:

Date	Description
17th April 2009	Original Issue.
13th March 2013	<u>Supplement 1:</u> Report Reference: 3031829rev130124; dated 15 th February 2013 Description of Change: Add ½" 14 NPT / M20 x 1.5 conduit adapter.
25 th April 2013	<u>Supplement 2:</u> Report reference: 3031829rev130124; dated 15 th February 2013 Description of change: Correction to Supplement 1 – Change description should read: Add integral M20 x 1.5 entry thread to housing.
04 th August 2014	<u>Supplement 3:</u> Report reference: 3031829rev140515 dated 28 th July 2014 Description of change: Minor change to ground screws not affecting the equipment safety.
22 nd December 2015	<u>Supplement 4:</u> Report reference: RR202976 dated 21 st December 2015 Description of change: Added additional model code options.
06 th February 2017	<u>Supplement 5:</u> Report reference: RR203720 dated 1 st February 2017 Description of change: Model code changes. Update standards to latest version.

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Blueprint Report

Controlair Inc (1000000397)

Class No 3615

Original Project I.D. 3031829

Certificate I.D. FM09ATEX0031X

<u>Drawing No.</u>	<u>Revision Level</u>	<u>Drawing Title</u>	<u>Last Report</u>	<u>Electronic Drawing</u>
429-990-060	8	XP CERTIFICATION DRAWING T595XP TRANSDUCER	RR203720	Yes (pdf)
431-990-055	4	T595XP Interconnection Drawing	RR203720	Yes (pdf)
436-799-061	4/9/07	Circuit Board ATEX Approved T590 Transducer	FM09ATEX0031X	Yes (pdf)
441-622-099	12/27/16	Type 595XP Installation, Operation and Maintenance Instructions	RR203720	Yes (pdf)
CTA-T590	C	Assembly T590 Transducer	FM09ATEX0031X	Yes (pdf)