

1 EU-TYPE EXAMINATION CERTIFICATE



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

3 EU-Type Examination Certificate No: FM07ATEX0002X

4 Equipment or protective system: T-590-AabK I/P Converter
(Type Reference and Name)

5 Name of Applicant: ControlAir Inc.

6 Address of Applicant: 8 Columbia Drive
Amherst, NH 03031
United States of America

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 Europe Ltd, notified body number 2809 in accordance with Article 17 of Directive 2014/34/EU of 26 February 2014, 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:

3030620EC dated 15th June 2007

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:

EN 60079-0:2012+ A11:2013 and EN 60079-11:2012

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 EU-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 1 G Ex ia IIC T* Ta = -55°C to Ta max

*Temperature class and maximum ambient temperature as indicated on Page 2.

 Digitally signed by
Richard Zammitt
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Richard Zammitt
Certification Manager, FM Approvals Europe Ltd.

Issue date: 09th April 2019

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SCHEDULE

to EU-Type Examination Certificate No. FM07ATEX0002X

13 Description of Equipment or Protective System:

The T590 is an electro-mechanical current to pressure converter. The unit's electronics operate on a 4 to 20 mA current loop. The ambient operating temperature range of the T590 is -55°C to 85°C, however the temperature class and the maximum permitted operating temperature are dependant on the Energy Limitation Parameters specified below. The circuitry for the T590 is contained on a single circuit board that is mounted to the transducer's drive coil on the aluminium manifold and covered with a plastic cover. The I/P Converter is intended to be installed within an additional enclosure.

T590-AabK. I/P Converter.

II 1 G Ex ia IIC T* Ta = -55°C to Ta max

a = Output Pressure: C, D, E

b = Connection: M, P

Energy Limitation Parameters

Temperature Class	Ta max	I _i	U _i	P _i
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 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

14 Specific Conditions of Use:

1. The non-metallic cover of the I/P converter is considered to constitute an electrostatic discharge hazard. Clean only with a damp cloth.
2. The I/P converter enclosure's metal base must be mounted as part of a bonded structure.
3. The I/P converter enclosure contains aluminium and is considered to constitute a potential risk of ignition by impact or friction and must be taken into account during installation.
4. The user shall permanently mark the protection type chosen. Once the type of protection has been marked is 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.

16 Test and Assessment Procedure and Conditions:

This EU-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.

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Whilst this certificate may be used in support of a manufacturer's claim for CE Marking, FM Approvals Europe 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 Europe 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 the Notified Body.

18 **Certificate History**

Details of the supplements to this certificate are described below:

Date	Description
19 th June 2007	Original Issue.
13 th May 2013	<u>Supplement 1:</u> Report Reference: – 3023940rev130401 dated 1 st May 2013 and 3023940rev130416 dated 1 st May 2013. Description of the Change: Documentation update with document obsolescence and CDL reformatting.
09 th April 2019	<u>Supplement 2:</u> Report Reference: – RR216273 dated 12 th November 2019. Description of the Change: Documentation update, update of standards. Certificate transferred from FM Approvals Ltd., notified body no. 1725, to FM Approvals Europe Ltd., notified body no. 2809

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