



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEX Scheme visit www.iecex.com

Certificate No.:	IECEX ITS 10.0018X	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 4	Issue 3 (2013-09-02)
Date of Issue:	2022-03-02		Issue 2 (2012-09-21)
			Issue 1 (2011-07-21)
			Issue 0 (2010-06-11)
Applicant:	AI-TEK Instruments, LLC 152 Knotter Drive Cheshire CT 06410 United States of America		
Equipment:	Speed Sensor 70085-1010-517		
Optional accessory:			
Type of Protection:	Intrinsic Safety Ex i		
Marking:	AI-TEK IECEX ITS 10.0018X Ex ia IIC T4 Gb -65°C < Ta < 95°C		

Approved for issue on behalf of the IECEX
Certification Body:

Mark Newman

Position:

Certificate Officer

Signature:
(for printed version)

Date:
(for printed version)

 2022.03.02
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1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

Intertek Testing & Certification Limited
ITS House, Cleeve Road
Leatherhead
Surrey, KT22 7SA
United Kingdom

intertek



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Manufacturer: **AI-TEK Instruments, LLC**
152 Knotter Drive
Cheshire
CT 06410
United States of America

Manufacturing
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEX Quality system requirements. This certificate is granted subject to the conditions as set out in IECEX Scheme Rules, IECEX 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

[GB/ITS/ExTR10.0011/00](#)
[GB/ITS/ExTR10.0011/03](#)

[GB/ITS/ExTR10.0011/01](#)
[GB/ITS/ExTR10.0011/04](#)

[GB/ITS/ExTR10.0011/02](#)

Quality Assessment Report:

[GB/ITS/QAR10.0006/09](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Magnetic Speed Sensor is a Magnetic Pickup mounted in a 304 stainless steel enclosure and filled with epoxy resin potting material.

The unit is to be supplied from an intrinsically safe barrier MTL7764ac.

The Magnetic Speed Sensor is marked with the warning "Must be used with intrinsic barrier MTL7764ac"

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The Magnetic Speed Sensor is to be supplied from an intrinsically safe barrier MTL7764ac with the intrinsic safety parameters as described in IECEx BAS 04.0025 including all issued amendments.
- The user shall ensure that when installed, the generated voltage does not exceed 12V pk-pk and that the generated energy is less than 26 μ J.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 01:

- Addition of new enclosure material Type 304 stainless steel
- Addition of new Sensor Model No 70085-3030-XXX
- Use of 2-conductor cable, lengths 10 feet and 30 feet, replacing two separate leads
- Upper ambient temperature revised to +95°C (was +100°C)

Issue 02:

- Coil Assembly drawing no. 533-0059 replaced with drawing no. 533-0327 intended only for Hazardous Locations Zone 1 for sensor assembly model no. 70085-1010-517

Issue 03:

- Use of bobbin made from liquid crystal polymer (LCD) as an alternative to the wrap bobbin with five layers.
- Change to all appropriate documents to reflect to the use the LCD bobbin
- Correction of thread pitch for 3/4" sensors on document No. 70085-3030-XXX, sheet 4
- Ground ring assembly drawing no. 533-0059 replaced with drawing no. 540-0002. No changes were made in the drawing

Issue 04:

- Updated standard from IEC 60079-0: 2007 Ed 5 to IEC 60079-0: 2017 Ed.7
- Updated standard from IEC 60079-11: 2006 Ed 5 to IEC 60079-11: 2011 Ed.6
- Attached Annex Controlled Drawing List

Annex:

[Annex for IECEx ITS 10.0018X.pdf](#)



Annex to IECEx Certificate of Conformity

Certificate No:	IECEX ITS 10.0018X	Issue No. 4
Annex No. 1		

Technical Documents			
Title:	Drawing No.:	Rev. Level:	Date:
BOBBIN	017-0330	D	12/14/2017
COIL & CABLE ASSEMBLY ATEX	533-0327	E	07/21/2014
SENSOR, SPEED, ATEX & IEC Ex, ZONE 1 FAMILY (5 Sheets)	70085-3030-XXX	C	04/27/2016
*Housing marked ATEX	097-0935	G	06/16/2020
*SENSOR, SPEED, ATEX & IEC Ex, ZONE 1	70085-1010-517	E	08/20/2021
*Installation Instructions Magnetic Speed Sensor ATEX Zone 1 (4 pages)	960-0123-001	H	08/20/2021
*DECLARATION OF CONFORMITY	960-0129-001	J	08/20/2021
*DECLARATION OF CONFORMITY	960-0122-001	P	08/20/2021

Note: An * is included before the title of documents that are new or revised.