ANZEx

Australian/New Zealand Certification Scheme
for Explosion Protected Equipment

Certificate of Conformity
Ex EQUIPMENT

Certificate No.: **ANZEx 18.4160**	*Current Issue:* 2	*Date of Issue:* 2025-12-17

Applicant: **Connection Technology Center**
7939 Rae Blvd
Victor New York 14564
United States of America

Equipment: Transducer Sensors
AC990, AC991, AC998

Type of Explosion Protection: Intrinsic safety "i"

Explosion Protection Marking:
Ex ia I Ma (-40 °C ≤ Ta ≤ +80 °C)
Ex ia IIC T3 Ga (-40 °C ≤ Ta ≤ +125 °C)
Ex ia IIC T4 Ga (-40 °C ≤ Ta ≤ +80 °C)

This certificate is granted subject to the requirements as set out in
Joint Accreditation System of Australia and New Zealand Publications
ANZEx System Rules 2020 & ANZEx Certified Equipment Scheme Rules 2021

Signed for and on behalf of issuing body .....

Name & Position *James Bes – Certification Authority*

This certificate is not transferable and remains the property of the issuing body.
The status of this certificate can be confirmed through the database located at www.anzex.com.au

Certificate issued by:

Ex Testing & Certification Pty Ltd
1/30 Kennington Drive, Tomago NSW 2322 Australia

JAS-ANZ
WWW.JASANZ.ORG/REGISTER

TESTING AND CERTIFICATION

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Manufacturer:
Connection Technology Center
7939 Rae Blvd
Victor New York 14564
United States of America

Manufacturing Location(s):
Connection Technology Center
7939 Rae Blvd
Victor New York 14564
United States of America

STANDARDS:

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

IEC 60079-0:2017	Explosive atmospheres Part 0: Equipment—General requirements
IEC 60079-11:2011	Explosive atmospheres Part 11: Equipment protection by intrinsic safety "i"

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

(Certificate format based on template QMA-HAE-08-720 dated 2025-09-01)

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Schedule

Equipment Description:

Vibration sensors are used for acceleration measurement by means of piezo-electric device. The piezo-electric device is subjected to compression pressure from a mass which produces a voltage in proportion to the acceleration. The voltage is then amplified by internal electronic circuity. The sensors are mounted on the desired surface via a threaded bolt.

There are two basic shapes for the sensors, referred to as “Top Exit” which has a cylindrical enclosure, or a “Side Exit” which has a rectangular enclosure.

The ‘Top Exit’ shape uses a threaded hole to provide the means for attaching the sensor to the object being monitored. The ‘Side Exit’ model has a through hole in its body to accommodate a fastener that attaches the sensor to the object being monitored.

The outer casing of the sensor is made of stainless steel, and provides hermetic sealing to the internal circuits. Epoxy encapsulant is used for the assembly and also on all circuit boards directly.

External connections are provided either by using a socket or integral cable.

The equipment uses a ceramic piezo disc that has been described in the drawing INS10030.

CTC Part No:	Description:
AC990-xx	**AC low capacitance series** 100 mV/g with top exit sensor
AC991-xx	**AC low capacitance series** 100 mV/g with side exit sensor
AC998-xx	**AC low capacitance series** 100 mV/g side exit sensor with M8 Captive Bolt

Legend:

xx refers to external connection type, where xx can be:

- 1R – 2 pin connector
- 2R – integral cable
- 3R – armor jacket integral cable
- M12R – 4 pin M12 connector

Electrical Ratings/Parameters

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The following parameters shall be taken into account during interconnection in a system:

Ui	28V
Ii	100mA
Pi	1W
Ci	Negligible*
Li	Negligible*

Note *: For sensors with an integral cable, an additional cable capacitance of 193pF/m and cable inductance of 0.827µH/m shall be taken into account.

Specific Conditions of Use:

None

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Manufacturer's Documents/Drawings associated with this issue:

Document/Drawing Title	Document/Drawing Number	Pages / Sheets	Revision	Date
Common Drawings				
Intrinsically Safe Sensors AC990, AC991, AC998 Product Manual	MNX10121	9	B	-
SENSORS, PIN CONNECTOR, HAZARDOUS AREA (SENSING ELEMENT CONSTRUCTION WITH PIN CONNECTOR)	INS10013	Sheet 1 of 5	N	2024-07-31
SENSORS, ACCELEROMETERS, WITH INTEGRAL CABLE, HAZARDOUS AREA (SENSING ELEMENT CONSTRUCTION WITH INTEGRAL CABLE)	INS10014	Sheets 1 & 2 of 8	J	2024-09-24
CERAMIC, PIEZOELECTRIC, SCHEDULE DRAWING	INS10030	1	A	2015-03-16
NEW LOW CAP IS SENSOR BOARD	INS10053	3	E	2022-05-19
Layout for circuits covered by INS10053	INS10167	1	A	2024-12-20
MARKING / LABELING, HAZARDOUS LOCATIONS SENSOR	INS10168	1	A	2025-04-03
AC Series Labeling Matrix for Zone 0,1	INS10171	1	A	2025-04-03
INTRINSIC SAFE SENSOR CONTROL DRAWING	INS10172	2	A	2025-04-08
Cables				
CB103 CONTROL DRAWING	INS10150	1	C	2025-01-08
CB111 CONTROL DRAWING	INS10151	1	C	2025-01-08
*CB296 CONTROL DRAWING	INS10152	1	D	2025-11-12
CB193 CONTROL DRAWING	INS10153	1	C	2025-01-08
CB190 CONTROL DRAWING	INS10154	1	C	2025-01-08

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

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Register of Issues and Variations
includes the current issue

Issue 0 dated 2018-07-27

Test & Assessment Reports relevant for this issue:

TR No. & Issuing CBs:	AU/EXTC/ExTR18.0021/00 (REP18081-01) by Ex Testing and Certification
QAR No. & Issuing CB:	CA/CSA/QAR08.0011/05 by CSA Group
File Reference:	18081

Issue 1 dated 2025-04-30

Variations included in this Issue

- Removal of models AC963, AC964, LP85X, LP86X, LP95X and LP96X and the associated drawings.
- Revision of part numbers for model AC965 to AC990 and model AC966 to AC991
- Addition of model AC998 based on model AC991 but incorporating a captive M8 bolt and the additional option of a 4 pin M12 connector
- Revision of part number for cable CB206 to CB296.
- Revision of the encapsulated areas and list of encapsulants
- Revision of the drawings to reflect the changes above
- Revision of the certificate description to reflect the changes above.

Test & Assessment Reports relevant for this issue:

TR No. & Issuing CBs:	REP24057-01 by Ex Testing and Certification
QAR No. & Issuing CB:	CA/CSA/QAR08.0011/13 by CSA Group
File Reference:	24057

Issue 2 dated 2025-12-17

Variations included in this Issue

- Revision of the conductor size of cable CB296 (drawing INS10152).

Test & Assessment Reports relevant for this issue:

TR No. & Issuing CBs:	REP25119-01 by Ex Testing and Certification
QAR No. & Issuing CB:	CA/CSA/QAR08.0011/13 by CSA Group
File Reference:	25119