

Certificate of Conformity

Ex EQUIPMENT

Certificate No.:	ANZEx 18.4160	Current Issue:	0	Date of Issue:	27 July 2018
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Applicant: **Connection Technology Center**
7939 Rae Blvd
Victor New York 14564
United States of America

Equipment: Transducer Sensors
AC95X, AC96X, LP85X, LP86X, LP95X, LP96X

Type of Explosion Protection: Intrinsic Safety 'i'

Explosion Protection Marking: Ex ia I Ma (Ta varies with model, refer Equipment Description)
Ex ia IIC T3..T4 Ga (Ta varies with model, refer Equipment Description)

*This certificate is granted subject to the conditions as set out in
Standards Australia/Standards New Zealand Miscellaneous Publication **MP87.1***

Signed for and on behalf of issuing body



Name & Position

David Price - Certification Authority
Ex Testing & Certification

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

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

**Additional
Manufacturing
Location(s):** None

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 Ed 7 Explosive atmospheres - Part 0: Equipment—General requirements
IEC 60079-11:2011 Ed 6 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.

TEST & ASSESSMENT REPORTS:

The equipment listed has successfully met the examination and test requirements as recorded in:

Test Report No. & Issuing Body: AU/EXTC/ExTR18.0021/00

Quality Assessment Report No. CA/CSA/QAR08.0011/05
& Issuing Body:

File Reference: Job No 18081

(Certificate format based on template QMA-HAE-08-720 dated 2017-11-13)

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Schedule

Equipment Description:

This certificate covers a variety of vibration sensors.

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

Models AC95x: These provide 100, 50, or 10mV/g acceleration signals as a voltage output.

Models AC96x: These are a low capacitance version of the AC95X and also provide a 100, 50, or 10mV/g acceleration signals as a voltage output,

Models LP85x, LP86x: These are identical, and provide a velocity signal as a 4-20mA output.

Models LP95x, LP96x: These are identical, and provide an acceleration signal as a 4-20mA output.

Electrical Ratings/Parameters

The parameters that shall be taken into account are:

For AC95x:

Ex ia IIC T3 Ga for Ta -54°C to +125°C

Ex ia IIC T4 Ga for Ta -54°C to +80°C

Ex ia I Ma for Ta -54°C to +80°C

Ui 28V; li 100mA, Pi 1W, Ci 70nF, Li 0 uH

Cable provides an additional 80.4nF and 312uH for 500m length of cable. This is limited to 60m length for Group IIC, adding 9.7nF and 37.44uH.

For AC96x:

Ex ia IIC T3 Ga for Ta -40°C to +125°C

Ex ia IIC T4 Ga for Ta -40°C to +80°C

Ex ia I Ma for Ta -40°C to +80°C

Ui 28V; li 100mA, Pi 1W, Ci 0nF, Li 0uH

Cable provides an additional 80.4nF and 312uH for 500m length of cable.

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For LP85x, LP95x:

Ex ia IIC T4 Ga for Ta -40°C to +80°C

Ex ia I Ma for Ta -40°C to +80°C

Ui 28V; li 100mA, Pi 1W, Ci 0nF, Li 0uH

Cable provides an additional 80.4nF and 312uH for 500m length of cable.

For LP86x, LP96x:

Ex ia IIC T4 Ga for Ta -40°C to +80°C

Ex ia I Ma for Ta -40°C to +80°C

Ui 28V; li 100mA, Pi 1W, Ci 0nF, Li 0uH

Cable provides an additional 80.4nF and 312uH for 500m length of cable.

The ambient temperatures shall not be exceeded by the temperature of the machine to which this equipment is bolted.

Condition of Manufacture:

For models with integral cable, the cable shall be appropriately rated for the ambient temperature range of the vibration sensor.

Specific Conditions of Use:

None

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History of Issues and Variations

Issue 0 dated 27 July 2018

Manufacturer's Documents associated with Issue 0:

Document Number	Pages / Sheets	Document Title	Revision	Date
INS10013	1 & 2 of 3	Sensors, Pin Connector, Hazardous Area	E	2018-04-25
INS10014	1 to 4 of 6	Sensors, Accelerometers, With Integral Cable, Hazardous Area	C	2017-05-10
INS10015	1	Labelling, Hazardous Locations	A	2007-05-09
INS10019	1	Control Drawing, Traces, AC Series - Trace	0	2003-07-17
INS10020	1	Control Drawing, Component Layout, AC Series	0	2003-07-17
INS10021	1	Trace Locations, LP Series, Side 1 & Side 2	A	2003-09-23
INS10022	1	Parts Locations, LP Series, Side 1 & Side 2	A	2003-09-23
INS10025	9 of 9	Marking/Labelling, Hazardous Locations Sensor	J	2018-07-25
INS10026	2	LP 4-20mA Schematic (and BOM)	D	2017-06-06
INS10027	2	IS 100mV/g Schematic (and BOM)	B	2017-06-06
INS10028	2	IS 50mV/g Schematic (and BOM)	B	2017-06-06
INS10029	2	IS 10mV/g Schematic (and BOM)	B	2017-06-06
INS10030	1	Ceramic, Piezoelectric, Schedule Drawing	A	2015-03-16
INS10031	1	Sensing Element, Hazardous Area Models	B	2015-03-16
INS10053	2	New Low Cap IS Sensor Board (Schematic and BOM)	D	2017-05-11
MNX10022	6	Product Manual Models AC95X, AC96X, LP85X, LP86X, LP95X, LP96X	C	2010-01-11
ACP42110	1	Artwork for low capacitance AC96X (Top Overlay)	G	-

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Document Number	Pages / Sheets	Document Title	Revision	Date
ACP42110	1	Artwork for low capacitance AC96X (Top Tracks)	H	-
CBP10033	1	Cable, Black, Polyurethane, Jacketed, Twisted, Shielded Pair	K	2015-03-19
CBP10039	1	Cable, Red, Teflon Jacketed, Twisted, Shielded Pair	C	2016-09-21
CBP10099	1	Cable, Yellow Jacketed, 0.190 Diameter	G	2016-09-23
CBP10202	1	Cable, Blue RAL 5015, Polyurethane Jacketed, twisted, shielded pair, matte finish	D	2016-09-21
CBP10283	1	Blue Thermoplastic Cable, 2 Conductor (Class I, Division 2)	F	2013-10-21