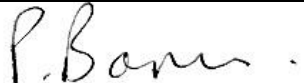


Laboratory Accreditation Programmes

Schedule to
CERTIFICATE OF ACCREDITATION

Laboratory	South Pacific Avionics Ltd	
Address	PO Box 72-816, Papakura, Auckland, 2244 197 De Havilland Lane, Ardmore Airfield, Auckland	
Telephone	09 298-1373	
URL	www.avionics.co.nz	
Authorised Representative	Mr Ross Osborne Quality Manager	
Client No.	9518	
Programme	Metrology & Calibration Laboratory	
Accreditation Number	1291	
Initial Accreditation Date	22 December 2017	
Conformance Standard	NZS ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories	
Testing Services Summary	5.03	Engineers' Measuring Tools and Instruments
	5.44	Pressure and vacuum
Signatories	Mr Ross Osborne	5.03, 5.44
	Mr John Ralph	5.03, 5.44

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Schedule to

CERTIFICATE OF ACCREDITATION

South Pacific Avionics Ltd
 Metrology & Calibration Laboratory
SCOPE OF ACCREDITATION

Accreditation No 1291

Calibration and Measurement Capabilities (CMC) are expressed as an expanded uncertainty with a level of confidence of approximately 95 % ($k = 2$) Note¹.

Measurement results are traceable to the International System of Units (SI) via an unbroken chain of comparisons to the New Zealand National Standards or to the National Standards of other Signatories to the CIPM MRA.

Unless stated elsewhere in this schedule, calibrations are performed at the premises of the accredited laboratory.

5.03 Engineers' Measuring Tools and Instruments

(b) Other tools and instruments

Where a range is given for the least uncertainty, uncertainty decreases approximately linearly with increasing applied torque.

Torque meters, transducers and testers calibrated to an in-house method based on ISO 6789-2:2017 *Assembly tools for screws and nuts -- Hand torque tools -- Part 2: Requirements for calibration and determination of measurement uncertainty, Annex C Minimum requirements for the calibration of the torque measurement device and the estimation of its measurement uncertainty*

CMC

0.49 N.m to 149 N.m	0.28 % of reading to 0.11 % of reading
149 N.m to 1500 N.m	0.17 % of reading to 0.09 % of reading

Torque tools calibrated to an in-house method based on ISO 6789-2:2017 *Assembly tools for screws and nuts -- Hand torque tools -- Part 2: Requirements for calibration and determination of measurement uncertainty*

0.5 N.m to 3.5 N.m	1.12 % of reading to 0.36 % of reading
3.5 N.m to 813 N.m	0.36 % of reading

5.44 Pressure and Vacuum

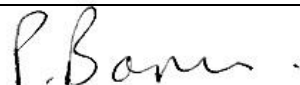
(a) Pressure gauges
 (b) Vacuum gauges

Calibration by comparison with reference gauges to an in-house method based on ISO/EN 837-1, ISO/EN 837-3 and MSL Technical Guide 13, either in the laboratory or on-site. Pressure gauges of accuracy classes 0.1 and above as defined by ISO/EN 837-1.

CMC

Gauge pressure, liquid and gas medium	
-49 kPa to 49 kPa	0.02 kPa
49 kPa to 700 kPa	0.12 kPa

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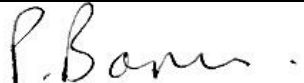
Gauge pressure, liquid medium	
700 kPa to 7000 kPa	1.1 kPa
7000 kPa to 70000 kPa	14 kPa

Absolute pressure, gas medium	
12 kPa to 120 kPa	0.12 kPa

Note 1:

Unless stated otherwise the CMC is based on the performance of the best commercially available device and measurement uncertainties achieved for specific calibrations may be greater than the CMC. A laboratory may not report measurement uncertainties lower than its CMC. However, if the device under calibration has a greater accuracy than the device used to calculate the CMC the laboratory may be able to use the calibration data to lower its CMC. Please contact the laboratory to discuss your specific requirements.

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