



THE AMERICAN ASSOCIATION FOR
LABORATORY ACCREDITATION

ACCREDITED LABORATORY

A2LA has accredited

AMERICAN TESTING AND MEASUREMENT LABORATORY (ATM)

San Pedro Sula, Honduras

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated January 2009*).



Presented this 13th day of March 2009.



President & CEO

For the Accreditation Council
Certificate Number 2467.01
Valid to August 31, 2010

For the tests or types of tests to which this accreditation applies,
please refer to the laboratory's Mechanical Scope of Accreditation.

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

AMERICAN TESTING AND MEASUREMENT LABORATORY (ATM)
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MECHANICAL

Valid To: August 31, 2010

Certificate Number: 2467.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on plastic components and metal terminals:

<u>Tests</u>	<u>Test Methods</u>	<u>Sections</u>
Temperature Testing (-40 to 150) °C	USCAR-2 USCAR-15 USCAR-21	5.6.3 6.1, 6.3 4.5.2.4
Temperature Humidity Cycling (-40 to 150) °C (20 to 95) %RH	USCAR-2 USCAR-15 USCAR-21	5.6.2 6.8 4.5.2.4, 4.5.4
Thermal Shock (-40 to 150) °C	USCAR-2 USCAR-15 USCAR-21	5.6.1 6.2 4.5.2.4, 4.5.5
Vibration / Mechanical Shock 10 Hz to 2 KHz (1 to 10) mS	USCAR-2 USCAR-15 USCAR-21	5.4.6 5.9, 5.10
Pressure Vacuum Leak (0.1 to 20) Kpa	USCAR-2 USCAR-15	5.6.6 5.7
Submersion	USCAR-2	5.6.5
Salt Fog	USCAR-15	6.6

<u>Tests</u>	<u>Test Methods</u>	<u>Sections</u>
Fluid Resistance	USCAR-2	5.6.4
	USCAR-15	6.4
Outgassing	USCAR-15	6.5
Insertion Force (0 to 2,500) N	USCAR-2	5.1, 5.2, 5.3
Insertion Torque (0 to 20) Nm	USCAR-2	6.5
Bulb Wobble	USCAR-15	5.4
Mating Unmating Force (0 to 2,500) N	USCAR-2	5.4.2, 5.4.3, 5.4.1
Voltage Drop (0 to 20) VDC	USCAR-15	4.1
	USCAR-2	5.3.2
Isolation Resistance (0 to 2000) M Ω	USCAR-2	5.5.1
	USCAR-15	4.2
Resistance Including Dry Circuit (0 to 100) Ω	USCAR-21	4.5.3
	USCAR-2	5.3.1, 5.1.9
Temperature Rise (0 to 200) °C	USCAR-15	4.3
Current and Current Cycling (1 to 150) A	USCAR-15	4.4
	USCAR-21	4.5.1
	USCAR-2	5.3.4, 5.3.3
Crimp Cross Section	USCAR-15	5.8
	USCAR-21	4.3
Crimp Force (0 to 2,500) N	USCAR-15	5.8, 5.2
	USCAR-21	4.4
Mechanical Durability Tests	USCAR-15	5.3, 5.5
	USCAR-2	5.1.7, 5.4.8, 5.7.2, 5.4.7, 5.4.4, 5.2.2, 5.7.1

Dimensional Testing:

Parameter	Range	Best Uncertainty* (\pm)	Equipment	Standards
Length	(0 to 6) in	0.0009 in	Mitutoyo 6" Caliper	Customer Specific / Current Scope
Length	(0 to 1) in	0.0002 in	Mitutoyo Micrometer	Customer Specific
Length	(0 to 0.5) in	0.0006 in	Mitutoyo Dial Indicator	USCAR-5 (Sec. 5.4)
Dimensional – Fixed Points X Y Z	800 mm 700 mm 600 mm	0.003 mm 0.004 mm 0.003 mm	Metris LK CMM	Customer Specific
Dimensional – Fixed Points X Y	200 mm 200 mm	0.002 mm 0.001 mm	Mitutoyo MiCat Vision System	Customer Specific

*“Best Uncertainty” is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine inspections of nearly ideal measurement standards with nearly ideal measuring equipment. Best uncertainties represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of $k = 2$. The best uncertainty of a specific test performed by the laboratory may be greater than the best uncertainty due to the behavior of the customer’s test piece, to the environment (if the dimensional testing is performed in the field) and to influences from the circumstances of the specific test.