

# CERTIFICATE OF ACCREDITATION

## The ANSI National Accreditation Board

Hereby attests that

Raptor Scientific PPS 81 Fuller Way Berlin, CT 06037

Fulfills the requirements of

**ISO/IEC 17025:2017** 

In the field of

## **CALIBRATION**

This certificate is valid only when accompanied by a current scope of accreditation document. The current scope of accreditation can be verified at <a href="www.anab.org">www.anab.org</a>.

Jason Stine, Vice President

Expiry Date: 12 April 2026 Certificate Number: AC-3930





#### SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

### **Raptor Scientific PPS**

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#### **CALIBRATION**

Valid to: April 12, 2026 Certificate Number: AC-3930

#### **Electrical – DC/Low Frequency**

	Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
	4 XV: Marrows	18 Ω	$4.7~\mathrm{m}\Omega$	
		$160 \Omega$	26 mΩ	Comparison to Keithley
4-Wire Measure Resistance		1 kΩ	$0.17 \Omega$	DM65000, Decade box
	Resistance	100 kΩ	$22 \Omega$	HARS-LX-0.1-K
	$2  \mathrm{M}\Omega$	8.3 kΩ		

#### **Length – Dimensional Metrology**

Version 002 Issued: March 20, 2025

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Calibration Beams <sup>1</sup> (X Values)	(11 to 22) in	0.001 4 in	Comparison to Gage blocks, Length Rods, Gage Pins.
Calibration Beams <sup>1</sup> (Y Values)	(0 to 1) in	0.000 75 in	Comparison to Gage blocks, Length Rods, Gage Pins.
Calibration Beam <sup>1</sup> (X and Y Values)	(11 to 60) in	0.002 6 in	Comparison to CMM Arm
MW904 Interface Plate <sup>1</sup>	(8 to 9) in	0.000 11 in	Comparison to Gage blocks, Gage Pins.
POI Mass Standard Length <sup>1</sup>	(0 to 12) in	0.001 4 in	Comparison to Gage blocks, Caliper.
Proving Rotor <sup>1</sup>	(2 to 34) in	0.002 6 in	Comparison to CMM Arm





#### **Mass and Mass Related**

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Weights / Masses	(1 to 200) g	0.000 64 g	Comparison to Balance (WZ214S)
	(200 to 2 000) g	0.005 4 g	Comparison to Balance (MSE2203S)
	(2 000 to 6 200) g	0.061 g	Comparison to Balance (LA6200S)
	(6 200 to 8 000) g (8 000 to 16 000) g (16 000 to 34 000) g	0.7 g 1.1 g 1.8 g	Comparison to Balance (BP34000-P)
Center of Gravity Moment Calibration <sup>1,2</sup>	(0 to 6) lb-in (0 to 60) lb-in (0 to 150) lb-in (0 to 5 000) lb-in (0 to 36 000) lb-in	(M x 0.000 33) + 0.00017 lb-in (M x 0.000 27) + 0.00084 lb-in (M x 0.000 13) + 0.053 lb-in (M x 0.000 11) + 0.069 lb-in (M x 0.000 23) + 6.4 lb-in	Mass (Weights) & Distance (Beams) Method
Moment of Inertia Calibration <sup>1,2</sup>	(0 to 526 789) lb-in <sup>2</sup> (0 to 790 184) lb-in <sup>2</sup> (0 to 2 300 000) lb-in <sup>2</sup>	(R x 0.000 25) + 0.027 lb-in <sup>2</sup> (R x 0.000 18) + 0.82 lb-in <sup>2</sup> (R x 0.000 29) + 60 lb-in <sup>2</sup>	Mass (Weights) & Distance (Beams) Method

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 (*k*=2), corresponding to a confidence level of approximately 95%.

#### Notes:

- 1. On-site calibration service is available for this parameter, since on-site conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected on-site than what is reported on the accredited scope.
- 2. M = moment reading in lb-in , R = moment reading in lb-in<sup>2</sup>.
- 3. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-3930.

Jason Stine, Vice President

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