Issue date: 25 March 2025
Valid Until: -

NO: SAMM 1128

LABORATORY LOCATION/ CENTRAL OFFICE:	Atto Precision Sdn. Bhd. Lot 5, First Floor, SLPP Light Industrial Complex KM4, Off Jalan Patau-Patau 87000 Labuan , 87000, WILAYAH PERSEKUTUAN LABUAN MALAYSIA
ACCREDITED SINCE :	25 MARCH 2025
FIELD(S) OF CALIBRATION:	PRESSURE

This laboratory has demonstrated its technical competence to operate in accordance with MS ISO/IEC 17025:2017 (ISO/IEC 17025:2017).

This laboratory's fulfillment of the requirements of ISO/IEC 17025 means the laboratory meets both the technical competence requirements and management system requirements that are necessary for it to consistently deliver technically valid test results and calibrations. The management system requirements in ISO/IEC 17025 are written in language relevant to laboratory operations and operate generally in accordance with the principles of ISO 9001 (see Joint ISO-ILAC-IAF Communiqué dated April 2017).

*** The uncertainty covered by the CMC is expressed as the expanded uncertainty corresponding to a coverage probability of approximately 95 % and have a coverage factor of k=2 unless stated otherwise.**

CENTRAL LOCATION	Atto Precision Sdn. Bhd. Lot 5, First Floor, SLPP Light Industrial Complex KM4, Off Jalan Patau-Patau 87000 Labuan , 87000, Wilayah Persekutuan Labuan
FIELD(S) OF CALIBRATION :	PRESSURE,

SCOPE OF CALIBRATION : PRESSURE

Instrument Calibrated/Measurement Parameter	**Range**	**Calibration and Measurement Capability Expressed as an Uncertainty (±)***	**Remarks**
Device	None	None	
	1 bar to 6 bar	0.029% of reading	
	None	None	temperature
	None	None	digital pressure
	None	None	procedure
	None	None	procedure
	None	None	
	0 bar to 20 bar	50 mbar	Pressure
	None	None	Temperature
	None	None	electrical

Instrument Calibrated/Measurement Parameter	Range	Calibration and Measurement Capability Expressed as an Uncertainty (±)*	Remarks
	None	None	electrical
	600 psi to 6000 psi	8 psi	Pressure sensor
	600 psi to 6000 psi	8 psi	Pressure sensor
	600 psi to 6000 psi	8 psi	Pressure sensor
	600 psi to 6000 psi	8 psi	Pressure sensor
	600 psi to 6000 psi	8 psi	Pressure sensor
	600 psi to 6000 psi	8 psi	Pressure sensor
	600 psi to 6000 psi	8 psi	Pressure sensor
	600 psi to 6000 psi	8 psi	Pressure sensor
	None	None	
	None	None	
	None	None	
	0 to 16000 psi	None	Dead Weight
	0 to 16000 psi	None	Tester with
	0 to 16000 psi	None	reference to
	0 to 16000 psi	None	BS EN 837-1:1998
	0 to 16000 psi	None	BS EN 837-2:1998
	0 to 16000 psi	None	BS EN 837-3:1998
	None	None	pressure calibrator
	-500Pa to +500PaNone -500Pa to +500Pa	-500Pa to +500Pa	comparison method
	-10000Pa to +10000Pa10Pa -10000Pa to +10000Pa	-10000Pa to +10000Pa	with reference to
	-10000Pa to +10000PaNone -10000Pa to +10000Pa	-10000Pa to +10000Pa	EURAMET Guide17
	None	None	
	None	None	
Hydraulic	0 bar to 100 bar	0.23% of reading	DKD-R-6-1
	1200 bar to 1800 bar	0.033% of reading	Deadweight Tester with reference to
	1 bar to 700 bar	0.015% of reading	Calibrated using Deadweight
	0 psi to 5000 psi 5000 psi to 16000 psi	0.062 % of reading 0.063 % of reading	Calibrated using Dead weights as standards according to AS 1349 : 1986
	0 psi to 10000 psi 10000 psi to 20000 psi	0.3% of reading 0.2% of reading	Calibrated using Pressure Calibrator as standards according to AS 1349:1986
	0 bar to 700 bar	90 mbar	Calibrate using

Instrument Calibrated/Measurement Parameter	Range	Calibration and Measurement Capability Expressed as an Uncertainty (±)*	Remarks
	0 bar to 700 bar	90 mbar	Calibrate using
	Obar to 350bar	0.5 bar	
	0 psi to 1000 psi 1000 psi to 5000 psi 5000 psi to 10000 psi 10000 psi to 15000 psi	0.7 psi 3 psi 6 psi 10 psi	
	0 psi to 1000 psi 1000 psi to 10000 psi 10000 psi to 15000 psi	0.3 psi 3.3 psi 3.9 psi	
	0 psi to 1000 psi 1000 psi to 10000 psi 10000 psi to 15000 psi	0.3 psi 3.3 psi 3.9 psi	
	0 bar to 350 bar 350 bar to 700 bar	0.09 bar 0.16 bar	
	0 bar to 350 bar 350 bar to 700 bar	0.09 bar 0.16 bar	
	0 psi to 14500 psi	4 psi	
	14500 psi to 36000 psi	14 psi	
	0 to 10000 psi	2.3 psi	based on
	0 to 10000 psi	None	BS EN 837-1:1998,
	0 to 10000 psi	None	BS EN 837-2:1998 &
	0 to 10000 psi	None	BS EN 837-3:1998
	20 bar to 100 bar	0.4 bar	Pressure Meter
	0 bar to 700 bar 0 bar to 1000 bar	0.14 bar 0.016 % of reading	Calibrated using deadweight tester or by comparison method according to MSA Test Method 1
	0 bar to 700 bar 0 bar to 1000 bar	None	and 2 - 2022
	0 bar to 700 bar	0.59 bar	
	300 bar to 700 bar	0.1 bar	
	700 bar to 2500 bar	0.5 bar	
	300 bar to 700 bar	0.1 bar	
	700 bar to 2500 bar	0.46 bar	
Pneumatic And Hydraulic	0 bar to 10 bar	0.20% of reading	Reference Digital Pressure Indicator
Pressure Measuring	None	None	
	None	None	
	-2500 Pa to 9000 Pa	14 Pa	Comparison with
	0 to 2500 bar	3.3 bar	Calibration
	0 to 60 bar	0.2 bar	Calibration

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	None	None	
	-700 mbar to 700 mbar	1.7 mbar	Calibrated using
	0 bar to 30 bar	11 mbar	Calibrated using
	None	None	Calibrated using
	30 psi to 600 psi	0.8 psi	
	30 psi to 600 psi	0.8 psi	
	30 psi to 600 psi	0.8 psi	
	30 psi to 600 psi	0.8 psi	
	30 psi to 600 psi	0.8 psi	
	30 psi to 600 psi	0.8 psi	
	30 psi to 600 psi	0.8 psi	
	30 psi to 600 psi	0.8 psi	
	None	None	
	None	None	
	None	None	
	None	None	
	15 psi to 1000 psi	0.3 psi	Calibrate using dead
	0 psi to 1000 psi	5 psi	standards based on DKD-R 6-1
	0 to 16000 psi	0.03 % of reading	Calibrated using
	None	None	Calibrated using
	-500Pa to +500Pa2Pa -500Pa to +500Pa	-500Pa to +500Pa	Calibration by
	None	None	
	Up to 600 bar	None	on 837-1:1998, BS
	None	None	
	None	None	
Vacuum	-0.90 bar to 0 bar	0.40% of reading	Calibrated using
	0 bar to -0.95 bar	0.42 mbar	Calibrated using
	Up to 14 psi	0.02 psi	Electronic Pressure Test Gauge and Air Dead Weight Tester
	Up to 14 psi	0.018 psi	Pressure sensor
	Up to 14 psi	0.02 psi	Electronic Pressure Test Gauge and Air Dead Weight Tester
	Up to 14 psi	0.018 psi	Pressure sensor
	Up to 14 psi	0.02 psi	Electronic Pressure Test Gauge and Air Dead Weight Tester
	Up to 14 psi	0.018 psi	Pressure sensor
	Up to 14 psi	0.02 psi	Electronic Pressure Test Gauge and Air Dead Weight Tester
	Up to 14 psi	0.018 psi	Pressure sensor

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	Up to 14 psi	0.02 psi	Electronic Pressure Test Gauge and Air Dead Weight Tester
	Up to 14 psi	0.018 psi	Pressure sensor
	Up to 14 psi	0.02 psi	Electronic Pressure Test Gauge and Air Dead Weight Tester
	Up to 14 psi	0.018 psi	Pressure sensor
	Up to 14 psi	0.02 psi	Electronic Pressure Test Gauge and Air Dead Weight Tester
	Up to 14 psi	0.018 psi	Pressure sensor
	Up to 14 psi	0.02 psi	Electronic Pressure Test Gauge and Air Dead Weight Tester
	Up to 14 psi	0.018 psi	Pressure sensor
	Up to 14 psi	0.02 psi	Electronic Pressure Test Gauge and Air Dead Weight Tester
	Up to 14 psi	0.018 psi	Pressure sensor
	None	None	Calibrated using Pressure
	-0.9 bar to 0 bar	0.004 bar	Calibrator as standards
	-0.9 bar to 0 bar	None	according to AS 1349 : 1986
	-0.9 bar to 0 bar	0.004 bar	Calibrated using Pressure Calibrator as standards according to AS 1349:1986
	-12 to 0 psi	0.022 psi	“Intermediate values can be
	-0.97 bar to 0 bar	1.3 mbar	Calibrate using
	-0.97 bar to 0 bar	1.3 mbar	Calibrate using
	-0.9bar to Obar	0.03bar	according to AS 1349:1986
	Ambient to - 0.95 bar	0.001 bar	Calibrated using Pressure Calibrator based on BS EN 837-1, BS EN 873-3 & DKD-R 6-1 Ed 03/2014
	0 bar to -0.95 bar	0.003 bar	Calibration using pressure
	0 bar to -0.95 bar	0.003 bar	Calibration using pressure

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