Issue date: 06 April 2025
Valid Until: -

NO: SAMM 963

LABORATORY LOCATION/ CENTRAL OFFICE:	Endress+Hauser Laboratory, Endress+Hauser (M) Sdn. Bhd. 27, Jalan Astaka U8/84, Seksyen U8 Bukit Jelutong 40150 Shah Alam Selangor , 40150, SELANGOR MALAYSIA
ACCREDITED SINCE :	06 APRIL 2025
FIELD(S) OF CALIBRATION:	FLOW PRESSURE TEMPERATURE

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	Endress+Hauser Laboratory, Endress+Hauser (M) Sdn. Bhd. 27, Jalan Astaka U8/84, Seksyen U8 Bukit Jelutong 40150 Shah Alam Selangor , 40150, Selangor
FIELD(S) OF CALIBRATION :	FLOW, PRESSURE, HEAT & TEMPERATURE

SCOPE OF CALIBRATION : FLOW

Instrument Calibrated/Measurement Parameter	**Range**	**Calibration and Measurement Capability Expressed as an Uncertainty (±)***	**Remarks**
Coriolis Flowmeter	None	None	Calibrated
	None	None	Calibrated
Electromagnetic Flowmeter	(0.08 to 50)	0.18% of reading	as reference
	(0.08 to 50) m3/hr	0.18% of reading	as reference
Liquid Flow Measuring	None	None	
	None	None	
Vortex Flowmeter	(0.08 to 50) m3/hr	1.5% of reading	as reference
	(0.08 to 50)	1.5% of reading	as reference

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SCOPE OF CALIBRATION : PRESSURE

Instrument Calibrated/Measurement Parameter	Range	Calibration and Measurement Capability Expressed as an Uncertainty (±)*	Remarks
Device	None	None	
	None	None	Digital Pressure
	None	None	Digital Pressure
	None	None	
	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
	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

Instrument Calibrated/Measurement Parameter	Range	Calibration and Measurement Capability Expressed as an Uncertainty (±)*	Remarks
	-10000Pa to +10000PaNone -10000Pa to +10000Pa	-10000Pa to +10000Pa	EURAMET Guide17
	None	None	
	None	None	
Pneumatic And Vacuum	- 0.9 to 0 Bar 0 to 20 Bar 0 to 40 Bar	0.03Bar 0.02Bar 0.05Bar	Indicator The Calibration method is with reference to BS
	- 0.9 to 0 Bar 0 to 20 Bar 0 to 40 Bar	0.03Bar 0.02Bar 0.05Bar	Indicator The Calibration method is with reference to BS
Pressure Measuring	None	None	Calibrated using
	None	None	Calibrated using
	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
	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	

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Instrument Calibrated/Measurement Parameter	**Range**	**Calibration and Measurement Capability Expressed as an Uncertainty (±)***	**Remarks**
	None	None	

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SCOPE OF CALIBRATION : TEMPERATURE

Instrument Calibrated/Measurement Parameter	**Range**	**Calibration and Measurement Capability Expressed as an Uncertainty (±)***	**Remarks**
Detector With Indicator	None	None	Standard
	None	None	Standard
Resistance Temperature	None	None	Comparison with
	None	None	Comparison with
	-30 °C to 140 °C	1.4°C	Comparison with Standard