

The Laboratory in Service Department of Endress+Hauser Poland Ltd offers calibration for following devices: mass and volume flow meters, mass (as instantaneous value of flow), gauge and absolute pressure, temperature, conductivity and pH. These devices can be calibrated both at the client site or at our location in Wrocław. Laboratory has implemented management system in accordance to EN ISO/IEC 17025.

In 2021 Endress+Hauser Poland Ltd has the Calibration Laboratory No. [AP 200](#) certificate issued by Polish Centre for Accreditation.

ACCREDITED METHODS (AP 200)				
Unit Under Test/Measurement	Range of measurement	CMC	Calibration location	Measurement method
<b>mass flow (flow – liquids) <sup>A)</sup></b>				
Mass flowmeters (diameter up to DN80)	(100 ÷ 30 000) kg/h	0,13 % of indication	at client site or at E+H in Wrocław	EH-PW-01-AKR
<b>pressure</b>				
Pressure transmitters - gauge pressure (gas)	(-90 ÷ 0) kPa (0 ÷ 2,5) kPa (2,5 ÷ 100) kPa (100 ÷ 1 000) kPa (1 000 ÷ 10 000) kPa	0,023 kPa 0,00081 kPa 0,023 kPa 0,15 kPa 1,5 kPa	at E+H in Wrocław	EH-PW-02-AKR
	(-90 ÷ 0) kPa (0 ÷ 7) kPa (7 ÷ 100) kPa (100 ÷ 2 000) kPa	0,052 kPa 0,0040 kPa 0,051 kPa 0,80 kPa	at client site	
Pressure transmitters - absolute pressure (gas)	(0 ÷ 100) kPa (100 ÷ 1 000) kPa (1 000 ÷ 10 000) kPa	0,034 kPa 0,16 kPa 1,5 kPa	at client site or at E+H in Wrocław	
	(0 ÷ 2 000) kPa	1,1 kPa	at client site	
<b>temperature (electric thermometry) <sup>B)</sup></b>				
sensors of resistance thermometers	(-20 ÷ 150) °C (150 ÷ 350) °C	0,1 °C 0,31 °C	at client site or at E+H in Wrocław	EH-PW-03-AKR
temperature transmitters (containing the temperature sensors)	(-20 ÷ 150) °C (150 ÷ 350) °C	0,13 °C 0,41 °C		
electrical thermometers (of which electronic)	(-20 ÷ 150) °C (150 ÷ 350) °C	0,13 °C 0,41 °C		
electrical thermometers (with temperature logging)	(-20 ÷ 150) °C (150 ÷ 350) °C	0,13 °C 0,41 °C		

Notes: **A)** The flowmeter pulse output is a measurement signal.

**B)** The external diameter of sensor is from 3 mm to 10 mm.

## METHODS NON COVERED BY AN ACCREDITATION

Unit Under Test/Measurement	Range of measurement	Calibration location
<b>Mass flow or volumetric flow</b> (flow – liquids) <sup>C)</sup> Kinds Of flowmeters: mass, volume (electromagnetic, vortex, ultrasonic), with diameters up to DN80	(100 ÷ 30 000) kg/h (100 ÷ 30 000) l/h	at client site or at E+H in Wrocław
<b>Mass measurement</b> (as instantaneous value of fluid flow) <sup>D)</sup>	up to 150 kg	
<b>pressure</b> (gas) <sup>E)</sup> pressure transmitters, differential pressure transmitters	(-100 ÷ 10 000) kPa – gauge <sup>E)</sup> (0 ÷ 10 000) kPa – absolut <sup>E)</sup>	
<b>temperature</b> (electric and non-electric thermometry) <sup>F)</sup> sensors of resistance thermometers, temperature transmitters (containing the temperature sensors), electrical thermometers (of which electronic and with temperature logging), pointer thermometers (bimetal, dilatation, manometric)	(-20 ÷ 350) °C	
<b>conductivity</b> conductometers	low: (0,056 ÷ 20,00) µS/cm	
	high, with buffer: (74; 149,6) µS/cm; (1,406; 12,64; 107,00) mS/cm	
<b>pH</b>	With reference buffers: pH (2,00; 4,00; 7,00; 9,00; 9,22; 10,00; 12,00)	

Uwagi: **C)** The measurement signal can be: current output, frequency output, Profibus DP / Profibus PA.

**D)** The minimum instantaneous mass flow rate is: from 5 g/min at E+H headquarters (in Wrocław) or from 25 g/min, which depends on the possibility of a water source at the customer's site.

**E)** When calibration is performed at client site the maximum value of pressure is reduced to 2 000 kPa.

**F)** The external diameter of sensor is from 3 mm to 10 mm.

If necessary, we are also ready to offer you services of wider measurement capabilities, in cooperation with other laboratories of the Endress+Hauser Group