



MASS FLOW

Calibration Service for Mass Flow

E+E Elektronik operates a government-accredited calibration lab (OEKD) in accordance with DIN EN ISO/IEC 17025.

The reliable execution of mass flow and volumetric flow calibrations is performed in a unique European facility that is specifically designed for applications in compressed air technology. Calibrations can be performed in the range between 3 m³/h and 2090 m³/h at standardised conditions. To allow calibration as close as possible to the real application, the system operating pressure can be set between 1 and 10 bar.

The flow meter calibration service is manufacturer independent. Inline and immersion flow meters can be calibrated in pipes from DN15 to DN80.



Calibration object

- Air flow meter
- Mass flow sensors
- Compressed air consumption meter



Calibration range

Calibration standard	Calibration object	Measurement method	Measurement range
OEKD Lab	Flow meter for air / mass flow	Measuring in a flow calibration system and comparison with volumetric flow meters	according to table (1 to 10) bar 23 °C ± 3 °C

Measuring range depending on pipe diameter and pressure

Pipe Ø	Pressure	1	2	3	4	5	6	7	8	9	10
	[bar]	Flow rate at standard conditions (0 °C / 1013 mbar) [m ³ /h]									
DN15	Min.	3	6	9	11	14	17	20	22	25	28
	max.	12	25	35	50	60	75	90	100	115	125
DN20	Min.	3	6	9	11	14	17	20	22	25	28
	max.	22	45	65	90	110	135	155	180	200	225
DN25	Min.	3	6	9	11	14	17	20	22	25	28
	max.	35	70	105	140	175	210	245	280	315	350
DN32	Min.	3	6	9	11	14	17	20	22	25	28
	max.	170	405	575	575	575	575	575	575	575	575
DN40	Min.	3	6	9	11	14	17	20	22	25	28
	max.	205	415	625	835	900	900	900	900	900	900
DN50	Min.	4	6	9	11	14	17	20	22	25	28
	max.	205	415	625	835	1045	1255	1400	1400	1400	1400
DN65	Min.	6	6	9	11	14	17	20	22	25	28
	max.	205	415	625	835	1045	1255	1465	1670	1880	2090
DN80	Min.	9	9	9	11	14	17	20	22	25	28
	max.	205	415	625	835	1045	1255	1465	1670	1880	2090

OEKD Calibration Standard

ÖKD ACCREDITED CALIBRATION - Accreditation Austria

The essential characteristic of an accredited calibration certificate is the traceability of measurement results and thus their international comparability. The essential factor is mainly the indication of measurement uncertainties, which is determined from the measurement process.



According to international agreements (ILAC), only calibration labs accredited in accordance with EN ISO/IEC 17025 can perform traceable calibrations, thus ensuring full international comparability of the calibration results.

Calibration procedure

The flow calibration system permits the calibration of flow meters with a maximum dimension of DN80 to a "volumetric flow rate at standard conditions".

The calibration is carried out as a comparative measurement. The reference and the test piece are arranged in series.

Rotary meters are used as a reference to measure the standard volume flow / mass flow as well as the pressure, temperature and humidity.

Order code

Calibration standard		OEKD-R
Calibration points	Amount of calibration points	3...9
Calibration pressures¹⁾	Amount of calibration pressures	1...9
Text entry	Values for calibration points, unit, pressure and pipe diameter (e.g. 20/50/90/130/155 Nm ³ /h; 7 bar; DN20)	

1) 1...10 bar absolute

Order example

OEKD-R51

Text field: 20/50/90/130/155 Nm³/h; 7 bar; DN20

Declaration:

- [R] accredited flow rate calibration
- [5] - 5 measuring points at 20/50/90/130/155 Nm³/h
- [1] - 1 cycle at 7 bar