



CF1: The digital multi-parameter calibrator



Dado Lab CF1 is the compact, battery-operating, multi-parameter digital calibrator designed to check and calibrate of personal, environmental and stack emissions samplers.

Fully compliant with international standards and ISO17025 certifiable, CF1 delivers professional-grade performance in a highly portable format.

It simultaneously measures flow rate, volume and ambient pressure. When equipped with the external optional probe, it delivers ambient temperature and relative humidity.

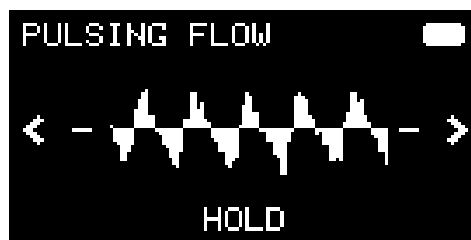
The flow measurement is based on a laminar flow mass sensor, enabling a wide rangeability of 1:100 within a single device.

Two measurement ranges are available: 0.45 to 45 NI/min in the standard version and 0.05 to 5.0 NI/min in the LF version.

Flow and volume readings are displayed in actual, normalized, or dry conditions, offering maximum flexibility for a wide range of applications.

One step further

CF1 automatically detects flow stability conditions, preventing the risk that any pulsations might compromise calibration accuracy. The use of the optional Dado Lab damper ensures full compliance with the requirements of ISO 13137.



The calibrator automatically signals any under -or over-range conditions, ensuring that measurements are performed and recorded strictly within the specified operating range, thereby guaranteeing the validity of the acquired data.

Thanks to integrated wireless connectivity and the Dado Lab CF1 Companion Log software, it is possible to monitor acquired data in real time and automatically generate test reports.

The calibrator can be installed directly on the external sampling line, while the operator, positioned inside the cabin, can view measurement data in real time. This allows a single operator to manage the entire procedure, with automatic generation of the test report.

Using the Dado Lab Calibration Check software, sensor correction values can be entered directly at up to 5 points, or a certification table provided by an ISO 17025 accredited laboratory can be imported. This enables full integration of CF1 into the metrological chain, ensuring traceability and compliance with current regulations.

Thanks to the unique features of the ST5 automatic isokinetic sampler, system verification and calibration can be performed fully automatically, with calibration traceability directly transferred into the report generated by the ST5.



Part number and accessories

CF1 STD : delivered with rugged Pelican case, USB flash disk, bluetooth adapter, hosebarb connectors, inlet fittings EPA/EN PM10/2.5, test report

300 104 1101CF1 Digital Flow calibrator 0,4-45 l/min
300 104 1111CF1-UR Digital Flow calibrator 0,4-45 l/min w/ rH/T probe
300 104 2001CF1 High Accuracy calibration
300 104 2011Damper for ST5 calibration with CF1
300 104 2005Open adapter for CF1 inlet
300 104 2007Outlet adapter for Leckel inlet

CF1 LF : delivered with rugged Pelican case, USB flash disk, bluetooth adapter, hosebarb connectors, test report

300 104 1201CF1-LF Digital Flow calibrator 0,05-5 l/min
300 104 1211CF1-LF-UR Digital Flow calibrator 0,05-5 l/min w/ rH/T probe
300 104 1211CF1-LF-UR Digital Flow calibrator 0,05-5 l/min w/ rH/T probe
300 104 2011Damper for ST5 calibration with CF1

ISO 17025 Certification

200 110 1031ISO17025 Flowrate certification on 5pts
200 110 1031A.....ISO17025 Flowrate certification Additional point

200 110 1001ISO17025 DGM certification on 5 points
200 110 1001A.....ISO17025 DGM certification on Additional point

200 110 1023ISO17025 Absolute pressure sensor certification on 5 pts
200 110 1023A.....ISO17025 Absolute pressure sensor certification Additional point

200 110 1061ISO17025 thermoigrometric CF1 probe certification on 3+3 points

Technical characteristics

General	Principle of measurement	anular laminar flow cell
	Range	0.45 ÷ 45.00 nl/min (STD version)
		0.050 ÷ 5.000 nl/min (LF version)
	Flowrate standard accuracy	1.5% f.s.
	(opt) Flowrate high accuracy STD	0.8% of the reading ±0.1% f.s.
	(opt) Flowrate high accuracy LF	0.8% of the reading ±0.2% f.s.
	Volume accuracy	1.5%
Flowrate and volume indication	Actual conditions	(Pamb - Tgas) or (Pamb - Tamb) with UR probe
	Normalized conditions	
	Dry normalized conditions	Available with UR version
Operating conditions	Operative pressure	0 ÷ 105 kPa
	Operative Temperature	-10 ÷ 40°C 95% RH
	Response time	100 ms
CF1 Sensors		
Pressure	Barometric Pressure	50 ÷ 115 kPa (1150 mBar)
	Hysteresis and Linearity	0.25 % f.s.
	Resolution	0.01 kPa (0.1 mBar)
	Accuracy	Better than 1% (±0.25 kPa)
Temperature	Range	-10 ÷ 60 °C
	Resolution	0.1 °C
	Accuracy	1% (± 0.4 °C)
Temp - RH Sensor (with RH probe)		
	Cable length	1m
	Temperature range	-10÷60°C
	Resolution	0.1 °C
	Accuracy	1% (± 0.4 °C)
	rH% range	0 ÷ 100% RH
	Resolution	0.1 %
	Accuracy	±2% between 10% ÷ 90% RH at 25°C
Construction	Fittings	¼"gas
	Operation conditions	-10÷40°C 95% RH
	Storage conditions	-10÷50°C 95% RH
	Display	1.3" Oled
	Communication	Wireless
	Data output	Continuous for Flowrate/temperature/pressure/volume/rh%
	Internal memory	8MB
	Battery	LiPo 4000mA
	Power	5V/1000mA USB Type-C
	Materials	ABS w/rubber protections
	Keyboard	Polycarbonate, tactile effect
	Dimensions	145x73x58 mm
	Weight	500 gr

Dimensions (mm)

