GD1: portable gas dryer



Dew point under control.
Confidence all around.

Dado Lab GD1 is the compact gas dryer designed for portable stack applications, ensuring a validated dew point output and full protection of downstream analyzers.

It features an advanced electronic controller that monitors refrigerant bath temperature and activates sampling at the set point to prevent condensate intake.

As specified in the EN 15058:2017 standard, it provides the outlet dew point temperature via a type K thermocouple, ensuring continuous monitoring and maintenance below 4°C, regardless of the absolute humidity at the inlet.

Dew point data can be integrated into isokinetic reports via the ST5 TCK input for complete process control.

The GD1 matches and exceeds the performance of systems used in certification.

dado lab

Performance and safety, all in one compact unit.

Thanks to its innovative inverter-driven compressor system, the GD1 dynamically adjusts the high cooling capacity based on the performance of a custom-designed heat exchanger, ensuring optimal efficiency for every application.
Engineered for excellence, the GD1 offers a compact, lightweight design without compromising performance. It operates reliably even in samples with 40% humidity content, making it ideal for demanding environments.

The GD1 features a protective heated filter that's designed for quick and easy replacement: just unscrew the three captive screws on the gas inlet cap to access the filter element.
Gas inlet and outlet connections use Swagelok-type fittings, ensuring a completely leak-proof seal for maximum reliability.
For added safety and long-term durability, Dado Lab Locking Rings secure the heated lines, delivering stable, worry-free connections over time.





GD1: The trusted choice for portable emissions monitoring.

Equipped with a peristaltic pump, the GD1 ensures continuous and automatic condensate removal. The sample pump is selected for its pressure drop compensation and ability to maintain a stable flow available to the analyzers, even under varying conditions.

The GD1 offers convenient access to the pumps for quick maintenance, and to the outlet thermocouple for fast verification or certification, ensuring smooth operation and compliance with standards.

No matter what could happen: the floating valve on the output eliminates accidental water accumulation in the condenser.

The GD1 has been validated by an Italian certified laboratory and its report is available under request.

We have precise knowledge of the outlet dew point temperature and the SO_2 loss rate based on the humidity level of the incoming sample.

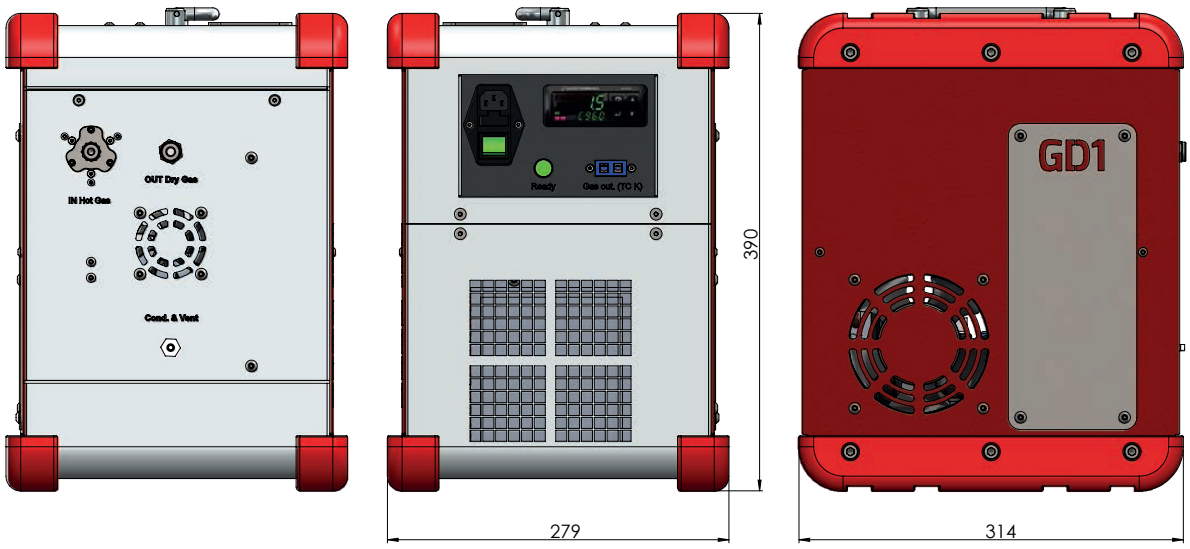
Part Number and accessories

101 105 1401 .....GD1 gas conditioning system
101 105 1411 .....GD1 gas conditioning system 110V
101 105 2000 .....HP1 Heated line locking ring
101 105 2401 .....External type K thermocouple for GD1
101 105 4401 .....GD1 protection filter kit of 10 pcs

Technical Characteristics

Type of cooler	Compressor controlled with inverter
Cooling power	Max 450W
Refrigerant	R134a
Gas outlet temperature	
Setpoint	2°C
Hysteresis	±2°C
Condenser material	AISI 316
Circuit material	PTFE
Condensate outlet	
Pump	Peristaltic pump
Tubes material	Norprene
Nominal flowrate	3 ml/min
Gas sampling pump	
Type	Diaphragm pump
Activation	Automatic upon reaching the setpoint
Max flowrate	2000 ml/min
Flowrate at -100 mbar	1500 ml/min
Max compensation	-650 mbar
Inlet fittings	Dado lab heated line with 6mm double nuts AISI 316 fittings
Outlet fittings	6mm double nuts AISI 316 fittings
Condensate temperature sensor	
Type	Type K thermocouple
Connector	Compensated socket TC K std 2Pin
Alarms	
Reached set point	Status “Ready” green led
Condensate Temp alarm	Automatic stop of the sampling pump
Displayed values	Cooling bath temperature, Pump ON/OFF status, Service alarm
Case - Material	Powder coated aluminum with rubber protections
Operative conditions	-5 to +35°C <95% UR
Stock conditions	-10 to +40°C <95% UR
Power	230Vac±10% - 50/60Hz supply
Consumption max	1.5A
Dimensions	314x279x390 mm
Weight	15 K g

Dimensions (mm)



Dado Lab S.r.l. a company of Sdiptech Group
Via Pellizza da Volpedo 101A, 20092 Cinisello B. (MI) - Italy
+39 02 36569420 info@dadolab.com www.dadolab.com