Gas conditioning system GD1

dado lab

Gas conditioning system mod. GD1

Description

The gas conditioning system mod. GD1, designed and realized in the typical Dado lab style, is an advanced, robust and efficient solution for stack emission sample conditioning for portable or rack mounted analyzers.

GD1 is a light, portable and rugged solution made of quality materials and easy to transport to the field thanks to the practical rubber protections that prevent damages both to the unit and technicians.

The use of the innovative inverter based compression system allows to modulate the high cooling capacity available according to the performance of the exchanger, especially designed by Dado lab for this application.

In addition to allowing a better system engineering, more efficient and with very reduced weight and dimensions, the refrigeration system can also be used in conditions of high moisture content in the sample.

The intelligent electronic management continuously controls the temperature of the refrigerating bath, the value of which is shown on the display, and also controls the automatic activation of the sample suction pump when the set point is reached, thus avoiding accidental aspirations of condensate and protecting the connected automatic instruments. downstream.

Characteristics

GD1 can be used in combination with EN15267-4 certified systems, such as the Horiba PG350 EU, since its performances are equivalent, and even better, than the system used during certification.

GD1 is equipped with a peristaltic pump with continuous and automatic elimination of condensed water, which, thanks to a pneumatic connection, can be collected for any subsequent investigations.

The sample suction pump was specifically selected to grant high compensation to ensure an operative flowrate of about 2 l/min and high pressure drop compensation.

If the cooling system is not ready or blocked, GD1 automatically stop the suction pump to prevent the water to reach the analyzer.
Morevover, thanks to its particular pneumatic circuit, accidental accumulations of water in the condenser are eliminated from the vent line.

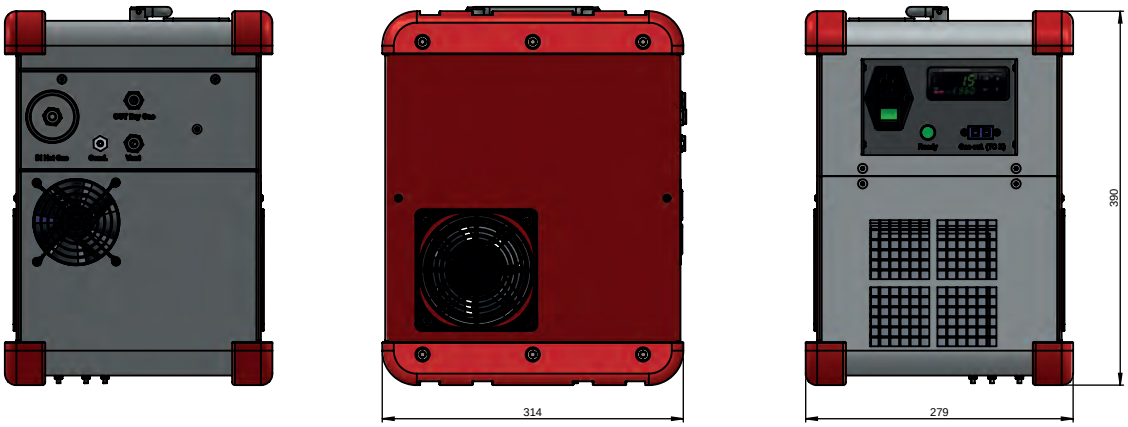
A LED allows to have the visual and immediate evaluation of the correct functioning and maintenance of the set point.

The temperature of the outlet gas is measured by a type K thermocouple and in compliance with UNI EN 15058: 2017, so is possible to verify its maintenance below 4 degrees. For quality accreditation, it's also possibile to replace the control thermocouple with a certified one.

Technical specifications :

Type of cooler	: Compressor controlled with inverter
Cooling power	: Max 450W
Refrigerant	: R134a
Gas outlet temperature	: 2°C
Hysteresis	: +/- 2°C
Condenser material	: AISI 316
Circuit material	: PTFE
Condense outlet	: Peristaltic pump
Tubes material	: Norprene
Nominal flowrate	: 3 ml/min
Gas sampling pump	: 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 and control panel signals	
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	: Powder coated aluminum with rubber protections
Operative conditions	: -5 +35°C 95% UR
Stock conditions	: -10 +40°C 95% UR
Power	: 230 Vac 50Hz
Consumption	: max 1.5A
Dimensions	: 315x280x390 mm
Weight	: 15 Kg

Dimensions :



Models and accessories

101 105 1401	GD1 Conditioning system
101 105 2401	Additional type K thermocouple for GD1
200 110 1011	ISO17025 Temperature sensor certification on 5 pts max 300°C

101 105 1001	HP1-1W probe w/ case
101 105 1002	HP1-2W probe w/ case
101 105 1019	Terminals for heated line w/ HP1 locking ring
101 105 1020	1 m self-regulated heated line