www.madur.com

PGD-100

madur gas conditioner unit

More Info/Order From:

Electronic Measurement Labs, Inc.

"Best in Gas Detection"

800-452-6822

Sales • Service • Support

24/7/365 Tech Support

CHARACTERISTIC | FEATURES | TECHNICAL DATA | APPEARANCE

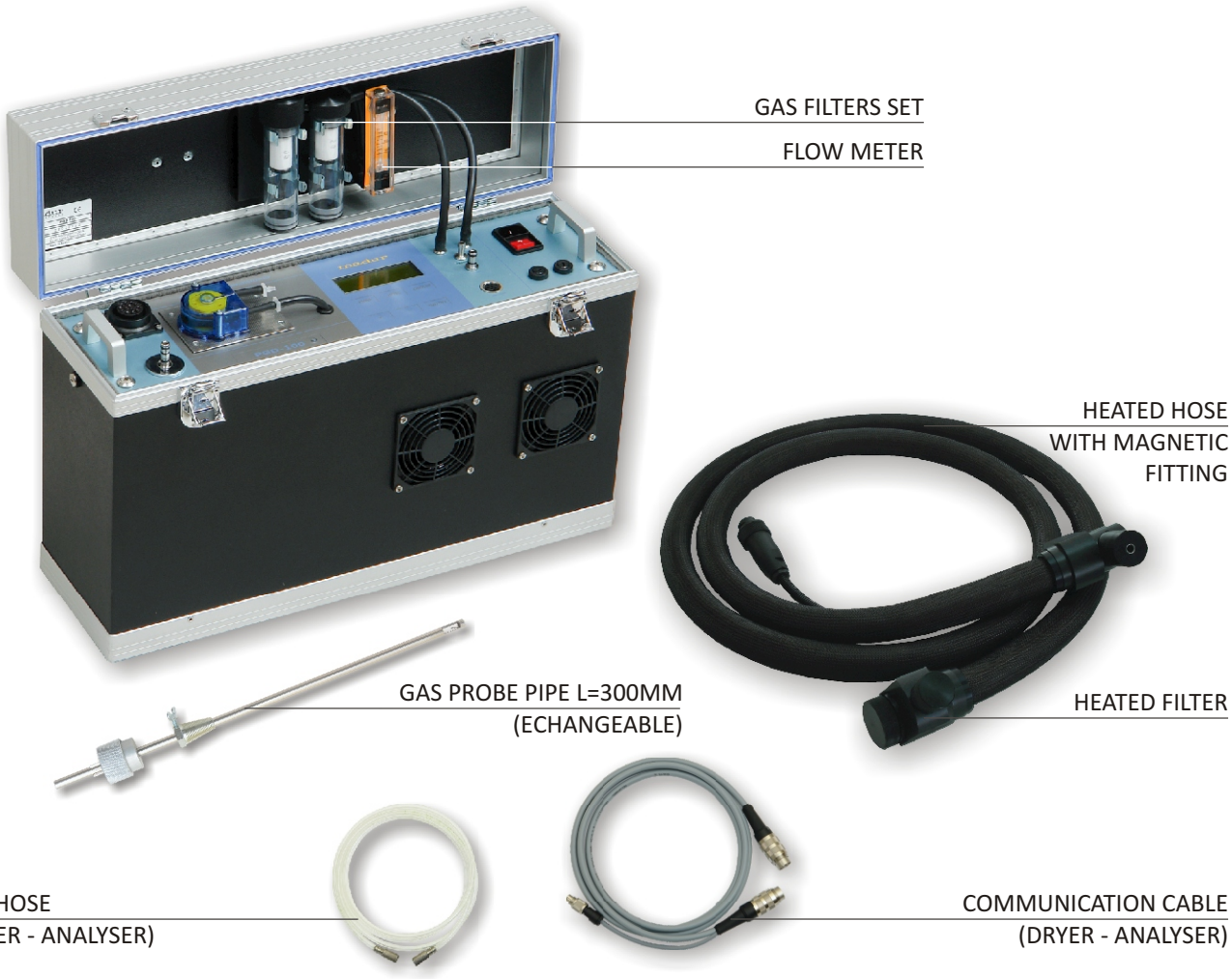
PGD-100 is a powerful gas conditioner necessary to prepare gas sample before further analysis. It removes most particles from the gas and keeps stable level of its humidity during whole measurements.

Using gas conditioner is essential in case of majority measurements with gas analysers.

PGD-100

CHARACTERISTIC | FEATURES | TECHNICAL DATA | APPEARANCE

- Gas conditioner unit includes:
  - Gas probe pipe of wide range of available lenghts and types
  - Initial heated filter
  - Heated hose with integrated heated filter
  - LCD for checking the status of the gas dryer
  - Final filters that cleans the dried gas sample
  - Built-in gas pump for independent extraction of the gas sample
  - Peristaltic pump which removes condensated water (only if at least one Peltier element is installed)
  - Integrated solenoid valve for ventilation (works only with Photon gas analyser)
- Powerful gas drying modules - Peltier element or / and Nafion exchanger based (one or two drying modules)
- Remote control over RS232 from measurement unit (works only with Photon gas analyser)



PGD-100

CHARACTERISTIC | FEATURES | TECHNICAL DATA | APPEARANCE

PGD-100 GAS DRYER WITH SINGLE CONDENSATION DRYER

Dimensions (W * H * D)	500 mm * 340 mm * 150 mm
Weight	12 kg ÷ 13 kg
Casing material	Plywood covered with aluminium
Operating conditions	T: 10°C ÷ 50°C, RH: 5% ÷ 90% (non-condensing)
Dryer type	Based on Peltier cooling element with fan (12V DC supply)
Drying method	Water condensation by rapid cooling down
Cooling temperature	0°C ÷ 20°C
Ready to operate after	5 minutes
Storing temperature	0°C ÷ 60°C
Maximum gas flow for efficient drying (at inlet gas temp. 100°C and RH 100%)	100 l/h
Gas filters: quantity | material	2 | PA - body, PC - cover, viton - sealing
Filter insert: length | ID | OD | material | pore size	32mm | 12mm or 15mm | 18mm or 20mm | PE | 5µm
Condensate removal	With built-in peristaltic pump
Peristaltic pump capacity	38 ml/min
Power supply: input | maximal power consumption	230V AC | 40W (without heated hose)
Heated hose temperature	+180°C electronically stabilised
Heated hose temperature hysteresis	~5°C
Heated hose length	3m (optionally 5m or 10m)
Heated hose power supply: input | maximal power consumption	230V AC | 1000W
Heated hose thermocouple wires	K-type (S-type optionally)

PGD-100

PDG - 100 GAS DRYER WITH SINGLE NAFION® DRYER

Weight	9kg ÷ 10kg
Dryer type	Based on Nafion® exchanger
Drying method	Water transfer through Nafion® membrane driven by partial vapour pressure differential - first order kinetic reaction
Cooling temperature	n/a
Ready to operate after	1 minute
Under pressure in Nafion® collar	~ 500 mbar

*all other data is the same as for PDG-100 gas dryer with single condensation dryer

PDG - 100 GAS DRYER WITH NAFION® DRYER + CONDENSATION DRYER

Weight	11 kg ÷ 12 kg
Dryer type	Outlet 1: Based on Nafion® exchanger Outlet 2: Based on Peltier cooling element with fan (12V DC supply)
Drying method	Outlet 1: Water transfer through Nafion® membrane driven by partial vapour pressure differential - first order kinetic reaction Outlet 2: Water condensation by rapid cooling down
Cooling temperature	Outlet 1: n/a Outlet 2: 0°C ÷ 20°C
Ready to operate after	10-15 minutes

*all other data is the same as for PDG-100 gas dryer with single condensation dryer

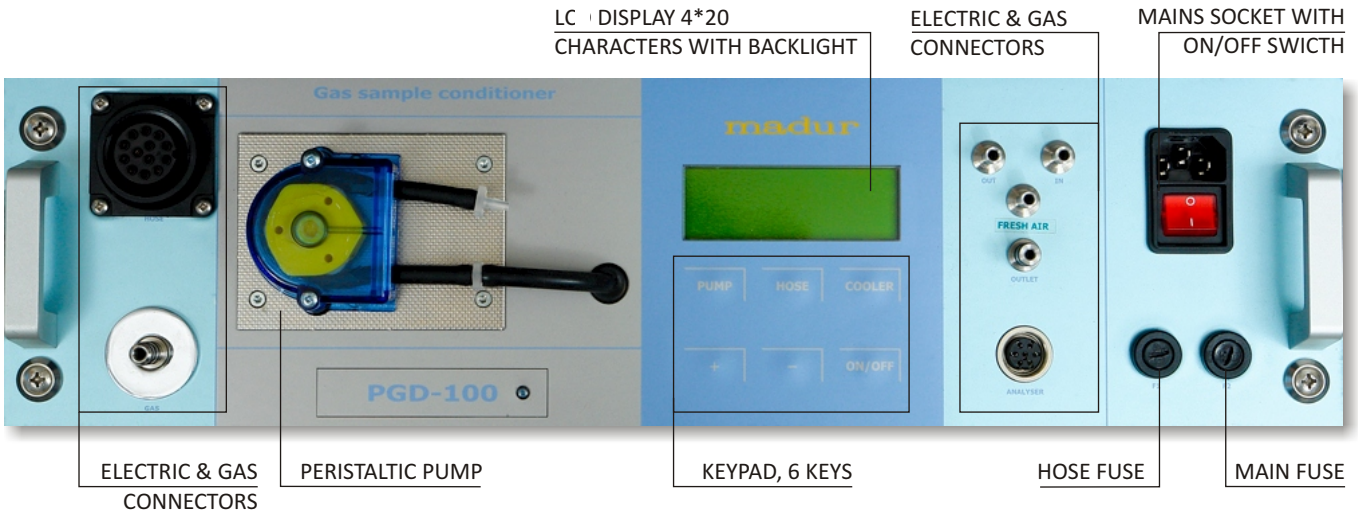
PDG - 100 GAS DRYER WITH DUAL CONDENSATION DRYER

Weight	12 kg ÷ 13 kg
Cooling temperature	First dryer: Constant, about +1°C, output gas dewpoint about +4°C Second dryer: 0°C ÷ 20°C
Ready to operate after	10-15 minutes

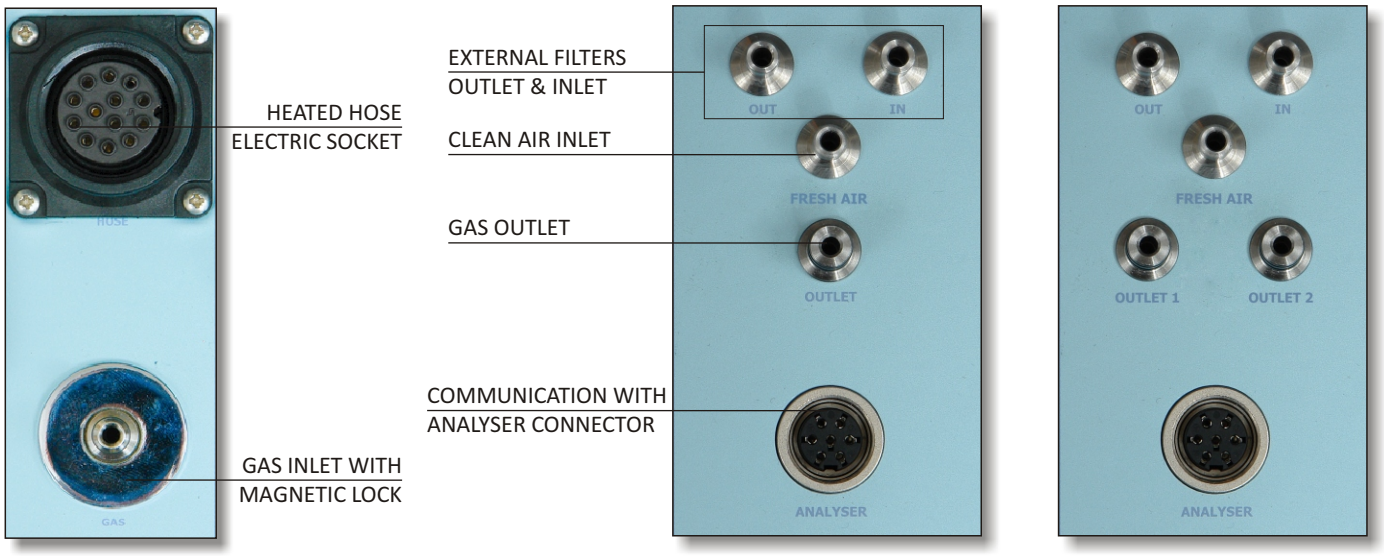
*all other data is the same as for PDG-100 gas dryer with single condensation dryer

PGD-100

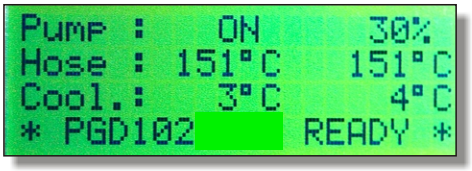
FRONT PANEL



GAS AND ELECTRONIC CONNECTORS



SINGLE OUTPUT CONFIGURATION

DUAL OUTPUT CONFIGURATION

EXAMPLE PRINT SCREENS