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PGD-100

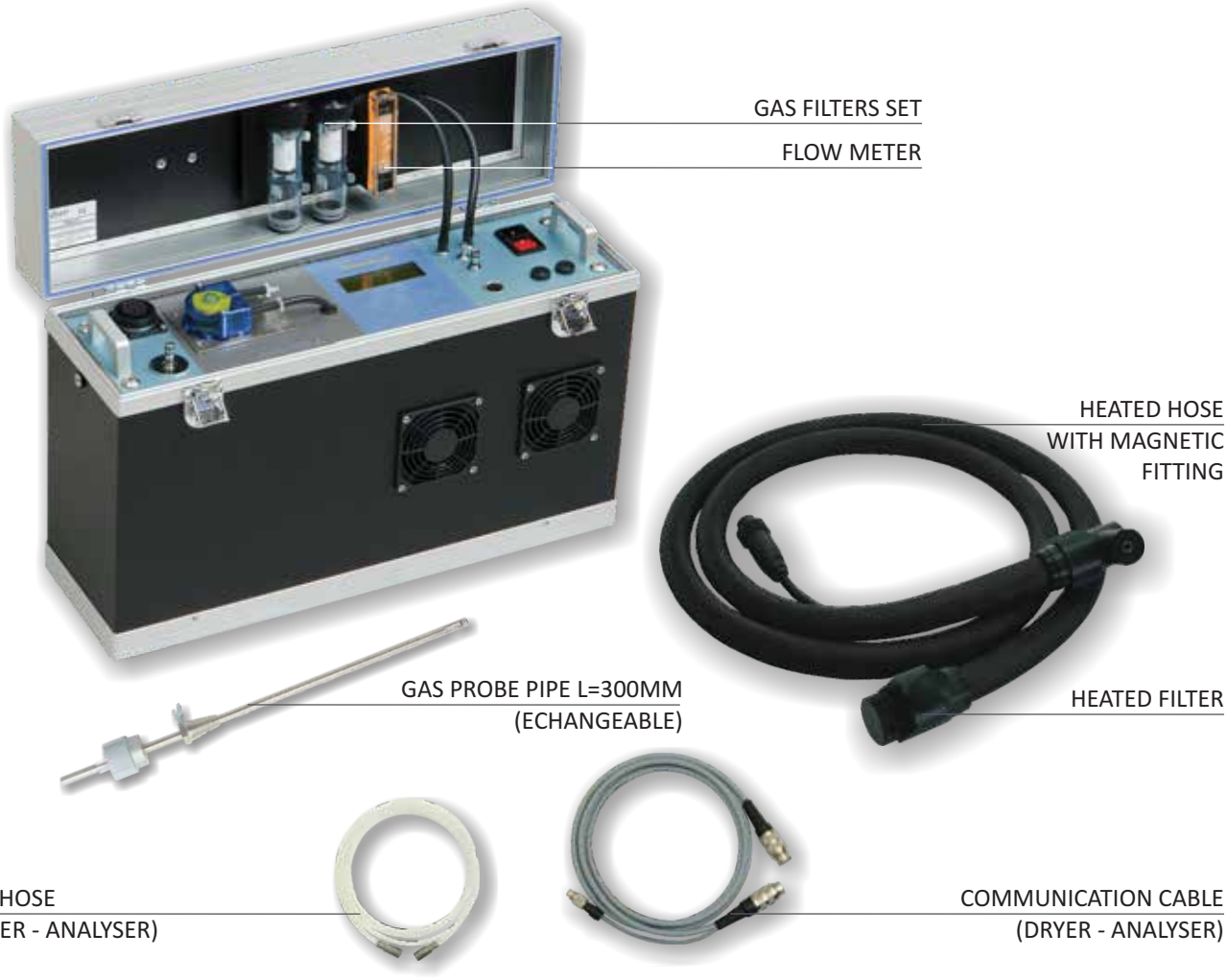
madur gas conditioner unit

CHARACTERISTIC | FEATURES | TECHNICAL DATA | APPEARANCE

PGD-100 prepares gas sample for the co-operating analyser by removing dust, salts particles and condensate, so the sample is dry and clean.
Using gas conditioner is essential in case of majority measurements with gas analysers.

PGD-100

- Gas conditioner unit includes:
  - Gas probe pipe
  - Initial heated filter
  - Heated hose that supplies gas sample to the analyser's drying module(s)
  - One or two drying modules
  - Final filter that cleans the dried gas sample
  - Gas pump
  - Condensation pump (only when PGD-100 is equipped with condensation type dryer with Peltier element)
  - Ventilation valve that provides clean air for cooperating analyser
- Drying modules are: Nafion® exchanger or condensation based unit
- The dryer receives adjustment settings from the co-operating analyser, and returns own status and errors to the analyser via RS-232 communication interface



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	5 minutes

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

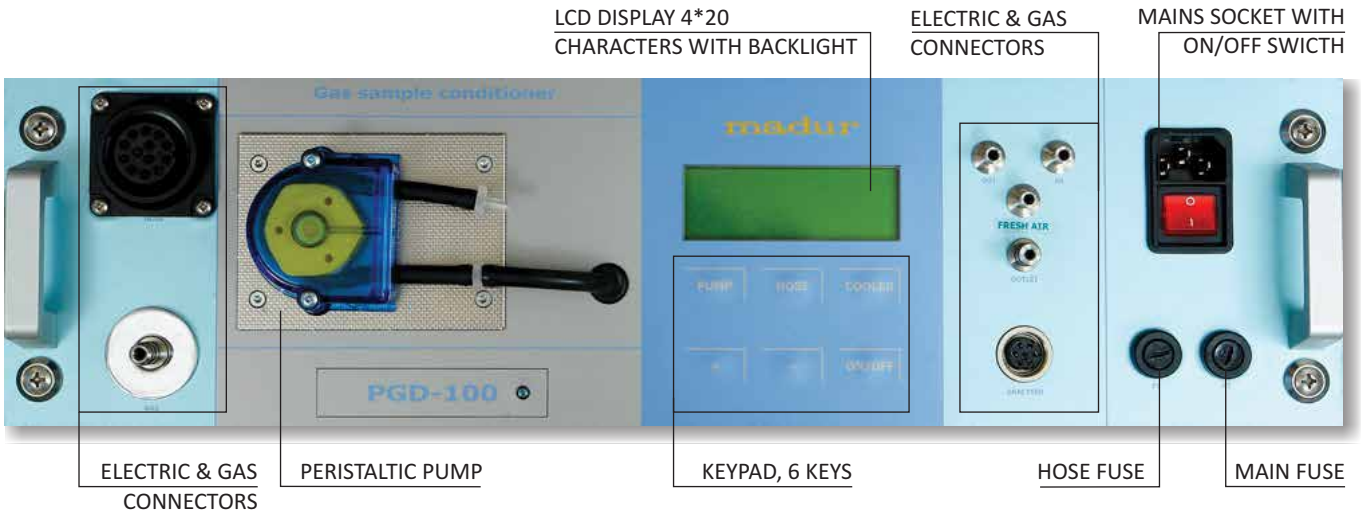
PDG - 100 GAS DRYER WITH DUAL CONDENSATION DRYER

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	5 minutes

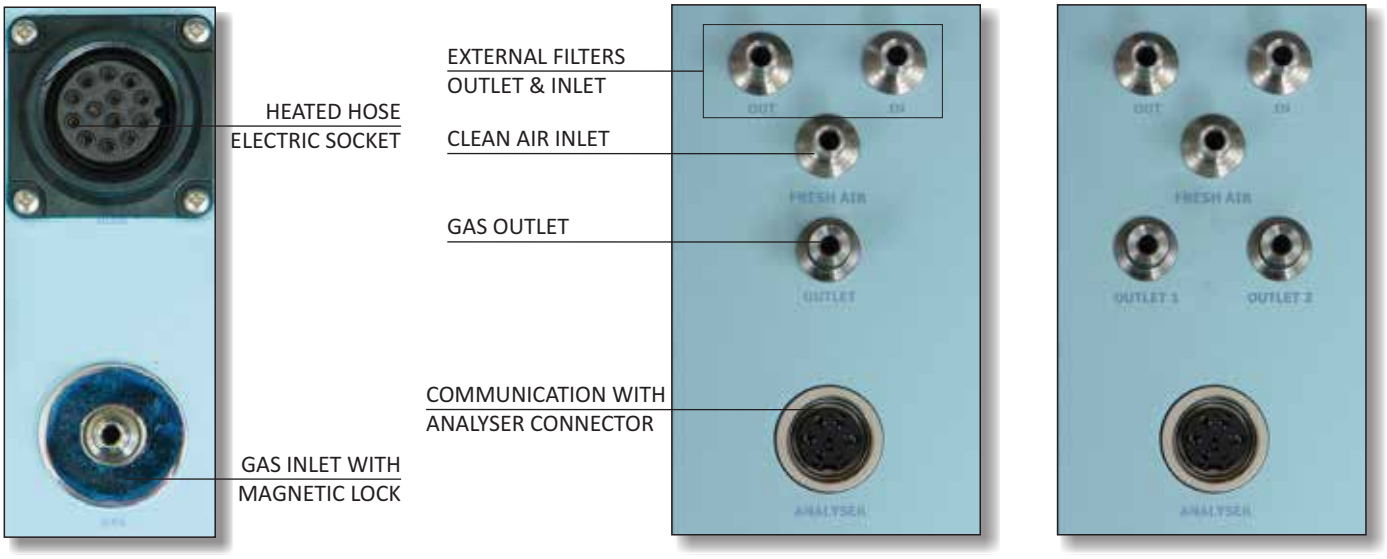
*all other data is the same as for PDG-100 gas dryer with single condensation dryer

PGD-100

FRONT PANEL



GAS AND ELECTRONIC CONNECTORS



SINGLE OUTPUT CONFIGURATION

DUAL OUTPUT CONFIGURATION

EXAMPLE PRINT SCREENS