ANKERSMID Portable gas conditioning system

APS 500 Series

* Picture may vary

Application

The portable gas conditioning system APS has been designed so that detailed gas analyses can be carried out at any time and in any place.
The entire gas conditioning system is housed in a compact and robust carrying case which ensures that the components can be removed easily and gas analyses carried out quickly, safely and with minimum maintenance.

Description

The portable system is suitable for variable, discontinuous and continuous operation. The components built into the system can be used for standard applications. For special requirements please ask us for other solutions.
The heated sample line is to be mounted at the gas measuring inlet terminal inside the portable case.
A ball-valve can be fitted to the inlet terminal of the portable system in order to calibrate analyser(s) with check gas.
The flow rate is determined by a sample gas diaphragm pump.
The sample gas pump (AMP) is activated automatically by means of an excess temperature contact on the cooler.
Optional flow meters with integrated needle valve are available. The flow meters are built-in like the electronic controller and are visible from outside when the carrying case is closed.
This unique microprocessor-controlled Peltier cooler is a powerful designed dew-point stabiliser. The dew-point is set at +4°C but can be changed at any value between +1°C and +15°C. The gas cooler is equipped with an innovative heat exchanger system.
A preliminary fine filter (AUF) is installed at the inlet of the gas sampling pump and can be equipped with a variety range of filter elements in different materials and porosities.
Any condensation is continually removed by the peristaltic pump type ASR25.
With the optional thermostatic paramagnetic O_2-sensor the APS is a suitable and reliable instrument for monitoring oxygen concentrations in various gas analytical control applications including process gas-, emission monitoring gas-, inert gas-, flue gas-, fermentation processes-, ambient air- and laboratory process control measurements.

- **Low maintenance and self-monitoring**
- **250Nl/h flow rate**
- **Dew-point +4°C ± 0,1°C**
- **Ready-for-use in < 10min**
- **Compact design**
- **Optimum reliability**
- **Light weight**
- **Universally equipped**
- **Optional paramagnetic O_2-sensor**
- **Good chemical resistance**
- **Very visible colour for use in process environment**
- **Values readable from outside**

ANKERSMID Portable gas conditioning system Technical data

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APS Portable system	APS 500
Gas flow rate max.	250Nl/h
Sample outlet dew-point	+1°C ..... +15°C, factory setting: +4°C
Dew-point stability	±0,1°C
Sample inlet temperature	Max. +190°C
Sample inlet connection	Stainless steel connection DN4/6mm, suitable for heated sample lines
Sample inlet dew-point	Max. +50°C
Sample outlet connection	PVDF connection DN4/6mm (1x standard, additional connectors extra for each optional flow meter)
Ambient temperature	+5°C up to +45°C
Maximum pressure	3 bar abs.
Material of gas wetted parts*	
Heat exchanger	PFA/PTFE
Diaphragm pump	Head: PPS, Valves: FKM, Membrane: PTFE-coated
Filter	Head, element holder: PVDF, Filter element: PTFE, Body: Duran® glass
Peristaltic pump	Tube: Novoprene®, Connectors: PVDF
Others	Tubing: PTFE, Inlet connector: SS316, Outlet connector: PVDF
Number of gas inlets	1 (standard), max. 2
Number of gas outlets	1 (standard), max. 3
Filter porosity	2µm (standard), others on request
Total cooling capacity	Max. 245kJ/h (2 Peltier elements)
Storage temperature	-25°C up to +65°C
Ready for operation	< 10min
Power supply	230V/50Hz (standard), 115V/60Hz or multi-voltage 85-230VAC with option APS 070
Power consumption	100VA
Electrical connection	Cold appliance plug with 1,5m cable
Housing	Portable heavy-duty ABS case
Housing dimensions	46.8 x 35.5 x 19.3 cm (18.43" x 14.00" x 7.62")
Electrical protection	Fuse 2A (10A with option APS 007)
Protection class	IP22 (EN 60529)
Electrical equipment standard	EN 61010
Weight approx.	~11kg

Maximum values in technical data's must be rated in consideration of total cooling capacity at 20°C ambient temperature and 4°C outlet dew-point

PTFE = Polytetrafluoroethylene (Teflon®)
PVDF = Polyvinylidenfluoride
PPS = Polypropylenesulphide (Ryton®)
PFA = Perfluoralkoxy-Polymere
FFPM = Perfluorelastomer (Kalrez®)
FKM = Fluorine Kautschuk Material

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Dimensions