



ANKERSMID Portable gas conditioning system

APS 3xx Series

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 amount of flow 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 as 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 O₂-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.



* Picture may vary

- **Low maintenance and self-monitoring**
- **Dew point +4°C ± 0,1°C**
- **Ready for use < 15 min**
- **Compact design**
- **Optimum reliability**
- **Light weight**
- **Universally equipped**
- **Optional paramagnetic O₂-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 303	APS 313
Gas flow rate max.	350 NI/h	200 NI/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	
Ambient temperature	+5°C up to +45°C	
Maximum pressure	3 bar abs.	
Material of gas wetted parts*		
Heat exchanger coating	PFA [®]	
Diaphragm pump	AMP: Head: PPS, Valves: FFPM, 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	
Number of gas outlets	1 (standard), max. 2	
Filter porosity*	2µm	
Alarm contact	Free programmable contact 1NO / 1NC, rating: 250V, 16A AC	
Total cooling capacity	Max. 245kJ/h (2 Peltier elements)	
Storage temperature	-25 °C up to +65 °C	
Ready for operation	< 15 min	
Power supply	230V/50Hz or 115V/60Hz	
Power consumption	100VA	
Electrical connection	Cold appliance plug with 1,5 m of cable	
Housing	Portable heavy duty ABS case	
Housing dimensions	52,4cm x 42,8cm x 20,6cm (W x H x D)	
Electrical protection	Fuse 2A	
Electrical equipment standard	EN61010	
Weight approx.	12 kg	

Maximum values in technical data's must be rated in consideration of total cooling capacity at 25°C ambient temperature and 5°C outlet dew point

PTFE = Polytetrafluoroethylene (Teflon[®])

PFA = Perfluoralkoxy-Polymere

PVDF = Polyvinylidenfluoride

FFPM = Perfluorelastomer (Kalrez[®])

PPS = Polypropylenesulphide (Ryton[®])



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Dimensions

