

Ankersmid Digital system ADS

Application

The digital gas conditioning system **ADS** has been designed for continuous use so that detailed gas analyses can be carried out at any time.

The entire gas conditioning system is equipped with a PLC which is housed in a compact 19"-housing and can be fully integrated into a gas analysis system. Its compact design ensures the **ADS** takes up only little space.

Description

The Ankersmid digital gas conditioning system is a compact, low-maintenance, self-monitoring and completely equipped units is suitable for variable and continuous operation in most applications.

The innovative new programmed PLC with touch screen provides a comprehensive desktop with separate pop-up menus to check and control all parts of the conditioning system as well as external devices.

The PLC is operating as controller for the internal Peltier cooler, the integrated flow sensor, a liquid sensor and several check valves for zero gas and calibration gases.

Furthermore the PLC is able to control an external heated sample line and a gas sample probe. Due to that fact external temperature controllers are no longer required for these devices.

The heated sample line is to be mounted at the gas measuring inlet terminal backside the 19"-housing.

Several valves are fitted to the inlet terminal block of the 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 is activated automatically by means of an excess temperature contact on the cooler.

A digital flow sensor is integrated and the flow rate can be checked and adjusted on the touch screen.

This unique PLC microprocessor controls the Peltier cooler with 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 a heat exchanger made of glass and PTFE. Heat exchanger made of full PTFE or stainless steel is also available.

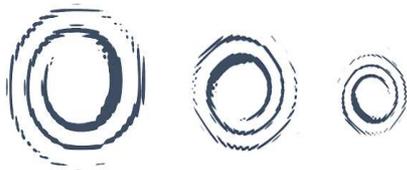
A preliminary front-panel fine filter type is installed at the inlet of the gas sampling pump and can be equipped with a variety range of filter elements in different materials and porosities.

Any condensation is continually removed by a peristaltic pump.



* picture may vary

- **Low maintenance and self-monitoring**
- **Dew point +4 °C ± 0,1°C**
- **Ready for use < 15 min**
- **Compact design**
- **Optimum reliability**
- **Universally equipped**
- **Good chemical resistance**

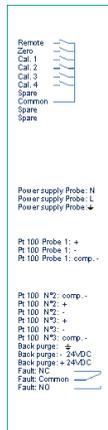


Ankersmid Digital system

ADS

Connections

Electrical



Technical data

ADS Digital system	ADS 301	ADS 302	ADS 303
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 bulkhead union DN4/6mm		
Sample inlet dew point	Max. 80°C		
Gas flow rate	Max. 350 NI/h		
Ambient temperature	+5°C up to +45°C		
Maximum pressure	3 bar abs.		
Material of gas wetted parts*			
Heat exchanger head	PTFE	PVDF	SS316
Heat exchanger body	Duran® glass	PVDF	SS316
Diaphragm pump	Head: PPS, valves: FFPM, membrane: PTFE-coated		
Filter	Head, filter element, element holder: PTFE, Body: glass		
Peristaltic pump	Tube: Novoprene®, Connectors: PVDF		
Others	Tubing: PTFE, inlet connector: SS316, Outlet connector: PVDF		
Number of gas inlets	1 sample inlet, max 5 check/test gas inlets (3 standard, 2 optional)		
Number of gas outlets	1 sample outlet, max. 2 (1 standard, 1 optional)		
Filter porosity*	2µm		
Alarm contact	1 Free programmable contact 1NO / 1NC, rating: 250V, 0,5A AC		
Total cooling capacity	Max. 225kJ/h		
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	19"-housing for rack mounting		
Housing dimensions	483mm x 315mm x 400mm (W x H x D)		
Electrical protection	Fuse 2A		
Electrical equipment standard	EN61010		
Weight approx.	20 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®) PVDF = Polyvinylidenfluoride
 FFPM = Perfluorelastomer (Kalrez®) PPS = Polypropylenesulphide (Ryton®)

* Other versions on request