



ANKERSMID Peltier cooler

APC 1403

Application

Ankersmid Peltier Coolers are used to lower the dew point of humid gas to avoid condensate entering into the gas analyser.

A good and stable gas dew point avoids cross-interference if the analyser is sensitive to H₂O.

Description

This unique microprocessor-controlled Peltier Cooler has been designed with two powerful Peltier elements and an unique patented heat-pipe system. The dew-point is set at +4°C but can be changed at any value between 1 and 15°C. The condensate that is formed should be removed by a peristaltic pump, automatic drain or collection vessel.

The heat exchanger is demountable.
All gas wetted parts are made of PTFE & PFA®.

The digital controlled cooler has many control and warning features like programmable alarms, mA-output, digital inputs and Modbus or RS485 communication.

The alarm status changes when the temperature deviates by $\pm 3^\circ\text{C}$ from the set point.

Available for 230VAC and 115VAC power supply.



Picture may vary

- **Special demountable heat-exchanger with unique design**
- **Digital controlled high stable outlet dew point $\pm 0,1^\circ\text{C}$**
- **Ambient temperature up to $+50^\circ\text{C}$**
- **Alarm contact**
- **Optional digital communication Modbus/RS485**
- **Power supply 115/230VAC**
- **Universal housing for 1x 250NI/h**



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Technical data

APC 1403

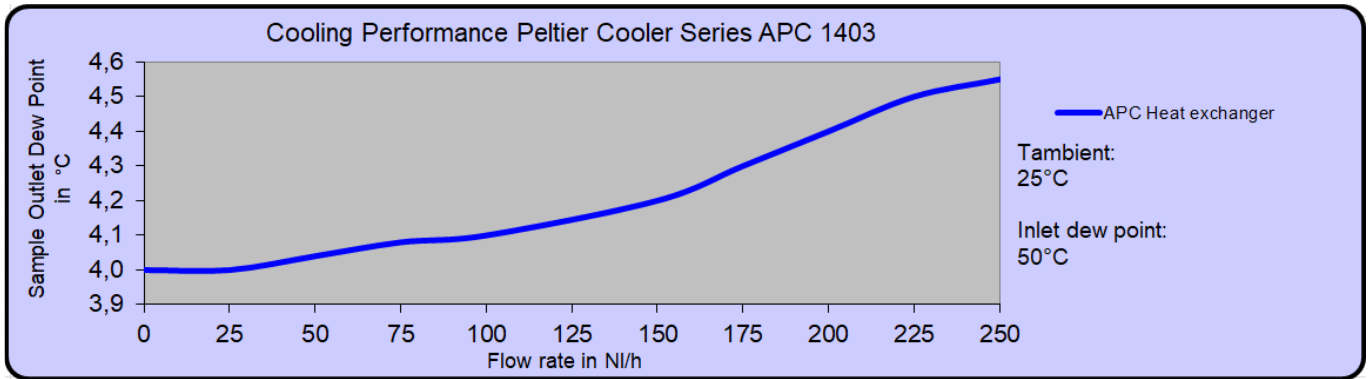
Model APC 1403	
Number of heat exchanger	1
Housing version	Stainless steel/Aluminum anodized, Wall-mounting
Dimensions (HxLxD)	200 x 281 x 201mm
Data per heat exchanger	
Gas flow rate	1x 250NI/h max.
Maximum pressure	10 bar a
Pressure drop	3mbar at 250NI/h
Dead volume	35cm ³
Sample gas inlet	1x 1/4" f NPT
Sample gas outlet	1x 1/4" f NPT
Condensate outlet	1x 3/8" f NPT
Material of gas wetted parts	PTFE/PFA [®]
Sealing	Viton [®]
Operation data	
Gas inlet dew point	Max. 50°C
Gas inlet temperature	Max. 190°C
Gas outlet temperature	+1°C ... +15°C, factory setting: +4°C
Total cooling capacity	Max. 245kJ/h
Stability	0,1°C at ambient temperature 20°C
Ambient temperature	+5°C to +45°C
Electrical data general	
Mains connection	via 4-pin socket (incl. plug for customized wiring)
Alarm contact	Free programmable contact 1NO / 1NC, rating: 250V, 16A AC via 5-pin socket (incl. plug for customized wiring)
Alarm set points	< +2°C / > +8°C
Protection class	IP20 EN 60529 / EN 61010
Electrical protection	Safety fuse 1,6A (installed inside of the device)
Power consumption	2 Peltier elements á 35W
Weight	4,0 kg
Model APC	1403
Power supply	230VAC, 50/60Hz (115VAC with option APC 015)

Maximum values in technical data's must be rated in consideration of total cooling capacity at 25°C ambient temperature and 4°C outlet dew-point
 PTFE = Polytetrafluoroethylene (Teflon[®]) PVDF = Polyvinylidenfluoride
 FFPM = Perfluorelastomer (Kalrez[®]) PPS = Polypropylenesulphide (Ryton[®])



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Performance



Dimensions

