



ANKERSMID Peltier cooler APC 14xx/16xx Series

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 and PFA[®]-coated.

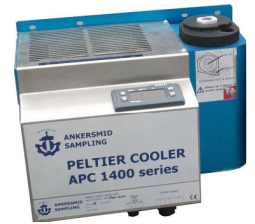
The digital controlled cooler has many control and warning features like programmable alarms, mA-output, digital inputs and Modbus or RS485 communication.

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.



* Pictures 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°C**
- **Alarm contact**
- **Optional digital communication Modbus/RS485**
- **Power supply 115/230VAC**
- **Universal housing for 2 different versions; 1x 250NI/h or 1x 350NI/h**
- **Isolation cap for heat exchanger head to avoid condensation**



ANKERSMID Peltier cooler

Technical data

APC 14xx/16xx Series

Model APC xxxx	14x3	16x3
Number of heat exchanger	1	
Housing version	Stainless steel/Aluminum anodized, Wall-mounting	
Dimensions (HxLxD)	200 x 280 x 190mm	
Data per heat exchanger		
Gas flow rate	1x 250NI/h max.	1x 350NI/h max.
Sealing	Viton®	
Maximum pressure	10 bar a	
Pressure drop	3mbar at 200NI/h	5mbar at 350NI/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	PFA®	
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	Electrical terminals 2,5mm ² / Cable gland 2 x PG13	
Alarm contact	Free programmable contact 1NO / 1NC, rating: 250V, 16A AC	
Alarm set points	< +2°C / > +8°C	
Protection class	IP20 EN 60529 / EN 61010	
Electrical protection	Fuse 1,6A	
Power consumption	2 Peltier elements á 34W	
Weight	4,0 kg	4,5 kg
Model APC	1403	1603
Power supply	230VAC, 50/60Hz	
Model APC	1413	1613
Power supply	115VAC, 50/60Hz	

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
 FFFM = Perfluorelastomer (Kalrez®) PPS = Polypropylenesulphide (Ryton®)



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Performance

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