

PSG Plus Cooler

MAK 10 Mobile Peltier

Application

The mobile sample gas coolers series **MAK 10 Mobile Peltier** are used for extractive gas analysis and can be integrated with the **MET Mobile Peltier** to complete a mercury backup monitoring system. They serve primarily for exact constant lowering of the sample gas dew point and thus for drying of the humid sample gas flow. In this way water vapor cross sensitivities and volumetric errors are minimized and damages of the sensible analyzers are avoided. With optional HVAC system the **MAK 10 Mobile Peltier** is suitable also for extreme conditions.

Technology

The precise temperature control with pulse width modulation in combination with the innovative corrosion resistant heat exchangers achieves low extremely constant dew points. Also load fluctuations and high thermal stress is compensated reliably.

Functions

An electronic display unit for performance feedback controls dew point and cooling air temperature. Potential free alarm contacts allow remote monitoring of the device. Operating parameters are stored for diagnosis in a log. An operation hours counter controls the service intervals.



- ✓ High performance thermoelectric cooler with two long lasting peltier-elements
- ✓ Precise outlet dew point even at significant load variations
- ✓ Corrosion resistant dual path PVDF heat exchanger
- ✓ Very compact design
- ✓ Digital display for temperature, alarms, logbook, operating hours counter and service interval indication
- ✓ Integrated with the MET-Nomad
- ✓ Same footprint as the MET-Nomad
- ✓ Out-of-range temperature alarm
- ✓ Integrated peristaltic pumps
- ✓ Optional HVAC system

Technical Data

Model		
Type		MAK10 Mobile Peltier
Part number		MAK10-Nomad-2502-4-00-F
Number of gas paths		2
Number of condensate pumps		2
Material of gas paths		
Cooling transmission / storage		aluminium-block
Cooling surface		PVDF
Housing / sealings		PVDF
Operating data		
Max. gas flow per gas path	l/hr	180
Gas inlet temperature	°C	max. 140
Ambient temperature	°C	+5 to +40
Operating pressure	bar	0,2 to 2,2
Outlet dew point ¹⁾	°C	3,0 ± 0,3 at constant conditions
Dead space per gas path	ml	55
Ready for start up	min	< 15
Cooling capacity	KJ/hr	Peltier-elements with modulating power supply: 2 x 124
Design data		
Dimensions (W x H x D)	mm	460 x 480 x 180
Weight without options	kg	approx. 15
Housing		portable hard plastic case
Connections		gas: PVDF DN 4/6 / condensate: PVDF DN 4/6
Electrical data		
Main connection		plug
Digital display		temperature (outlet dew point resp. ambient), operating status, alarm and alarm storage, service control, operating hours, condensate pump control
Alarm set-points	°C	< +2.0 / > +10.0
Power supply		230V 50/60Hz or 115V 50/60Hz
Power consumption	W	170 - 180

Options

- HAVAC system