

PSG Process Cooler

BCR01

Application

The compact high performance and low maintenance compressor coolers series **BCR01** are used for continuous extractive gas analysis. 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 vapour cross sensitivities and volumetric errors are minimized and damages of the sensible analyzer are avoided. With optional integrated peristaltic pump for condensate removal complete devices series **BCR01** are quick and simple integrable in sample gas conditioning systems.

Technology

The precise proportional temperature control in combination with the long-lasting hot-gas bypass system and the innovative corrosion resistant heat exchangers achieves low extremely constant dew points. Also load fluctuations and high thermal stress is compensated reliably. The heat exchanger is built in a solid aluminum cylinder which guarantees an optimal energy exchange between sample gas and cooling medium. In addition, the aluminum cylinder is an effective cold storage that supports the compensation of unfavorable operating conditions. The **BCR01** is equipped with an exchangeable heat exchanger which allows an easy replacement without dismantling the device.

Functions

The cooling system is filled with FCKW-free refrigerant R134a. As heat-exchanger materials PVDF, glass or stainless-steel are available. The sample gas cooler is equipped with a digital display for temperature monitoring and with a potential-free alarm contact. Two brackets allow a quick and easy wall mounting of the device. Even mobile versions of the **BCR01** with handle are available.



- ✓ High performance compressor cooler
- ✓ 1 gas path
- ✓ High performance heat exchanger
- ✓ Long-lasting hot-gas bypass system without switching the compressor
- ✓ Corrosion resistant easy to change PTFE / PVDF, stainless steel or glass heat exchanger
- ✓ Very compact design
- ✓ Digital display for temperature and alarm
- ✓ Alarm contact
- ✓ Integrated condensate pump optionally
- ✓ Wall mounting or portable housing

Technical Data

BCR01				
Gas paths		1		
Heat exchanger material		PVDF	Glas	SS316
Gas flow Vn ¹⁾	l/h	125	150	250
Gas inlet dew point	°C	65	70	80
Gas inlet temperature max.	°C	140	160	180
Ambient temperature	°C	+5 bis +45		
Operating pressure with condensate pump	bar	0,2 – 2,2	0,2 – 2,0	0,2 – 2,2
Operating pressure without condensate pump	bar	2,5	2,0	100,0
Gas outlet dew point ¹⁾	°C	3,0 ± 0,5		
Dead volume per gas path	ml	67	98	67
Ready for start up	min	5		
Cooling capacity	KJ/h	576		
Design data				
Dimensions (B x H x T)	mm	185 x 300 x 355		
Weight without options	kg	16,5		
Housing / colour		Wandmontage (Rück- oder Seitenwand) oder tragbar / RAL 7035		
Gas / condensate connections		DN 4/6 / ohne eingebaute Schlauchpumpe Kondensatanschluss unten D12		
Electrical data				
Power supply		230V 50/60 Hz oder 115V 50/60Hz		
Temperature display		digital		
Alarm set-points	°C	< +2.0 / > +10.0		
Protection rate		IP 20 EN 60529 / EN 61010		
Power consumption	W	190 bei 230VAC – Anlaufstrom 6,3A		
Alarm contact		250V AC / 2,2A / 375VA		

1) at inlet dew point 65°C and 25°C ambient temperature

Order numbers										
Gas paths			1							
Heat exchanger material	PVDF			1						
	SS316			2						
	Glas			3						
Integrated condensate pump	ohne	2				0				
	mit	1				1				
Housing	Wandmontage								1	
	Tragbar								4	
Power supply	230V 50/60Hz									F
	115V 50/60Hz									B
Order number	BCR01 –		1			-		-	0 0	-

Order example : **BCR01-1111-4-00-F** → Sample gas compressor cooler **BCR01** with heat exchanger made of PVDF, integrated condensate pump, in portable housing with power supply 230V 50/60Hz



BCR01 portable, with on/off switch and fuse on front plate