



Sample gas cooler EGK 10

In the chemical industry, petrochemistry or biochemistry, reliable process control relies on prompt and exact determination of the operating parameters.

Here, gas analysis is the key for safe and efficient control of process flows, environmental protection and quality assurance. This benefits controlling flue gas emission in power stations or exhaust gas analysis in automotive engineering, as well as the efficient control of air separators or sterile production and packaging in the food industry.

Many of the analysis processes used in these fields require extracting the sample gas. This inevitably also extracts process-related contamination such as particles or moisture. These in turn can impact the measurement results or damage the measuring cells. The sample gas must therefore be conditioned before entering the analyser.

The EGK 10 is a compressor high performance cooler with a special heat exchanger. Suitable for wall-mounting or desktop operation.

Stainless steel heat exchanger

Rated cooling power 1375 Btu/h

Use as wall mounting or desktop housing

Compact size

Electronic control with cooling block temperature display

Adjustable outlet dew point and alarm thresholds

Self-monitoring

Dew point stability ± 0.2 °F

CFC-free



Technical Data

Gas Cooler Technical Data

Ready for operation:	after max. 15 minutes		
Rated cooling capacity (at 77 °F):	1375 Btu/h		
Ambient temperature:	41 °F to 122 °F		
Gas outlet dew point			
preset:	41 °F		
adjustable:	36 °F to 68 °F		
Alarm threshold adjustable around dew point			
upper alarm threshold:	1 K to 7 K, factory setting 3 K		
lower alarm threshold:	-1 K to -3 K, factory setting -3 K		
Dew point fluctuations			
static:	± 0.2 K		
in the entire specification range:	± 3.6 °F		
IP rating:	IP 20		
Housing:	Stainless steel		
Weight incl. heat exchanger:	approx. 70 lb		
Refrigerant (global warming potential):	R134a (GWP 1430)		
Quantity:	11.64 oz		
CO ₂ -equivalent:	0.472 T		
Electric supply:	115 V, 60 Hz or 230 V, 50 Hz		
Electrical data:		230 V	115 V
	Typical power input:	300 VA	260 VA
	max. operating current:	3.6 A	6.8 A
Starting current:	12 A (230 V), 28 A (115 V)		
Status output switching capacity:	230 VAC, 150 VDC Changeover contact, 2 A, 30 VA		
Max. pressure p_{max} :	73 psi		
Pressure drop Δp ($v = 25$ lpm):	0.35 psi		

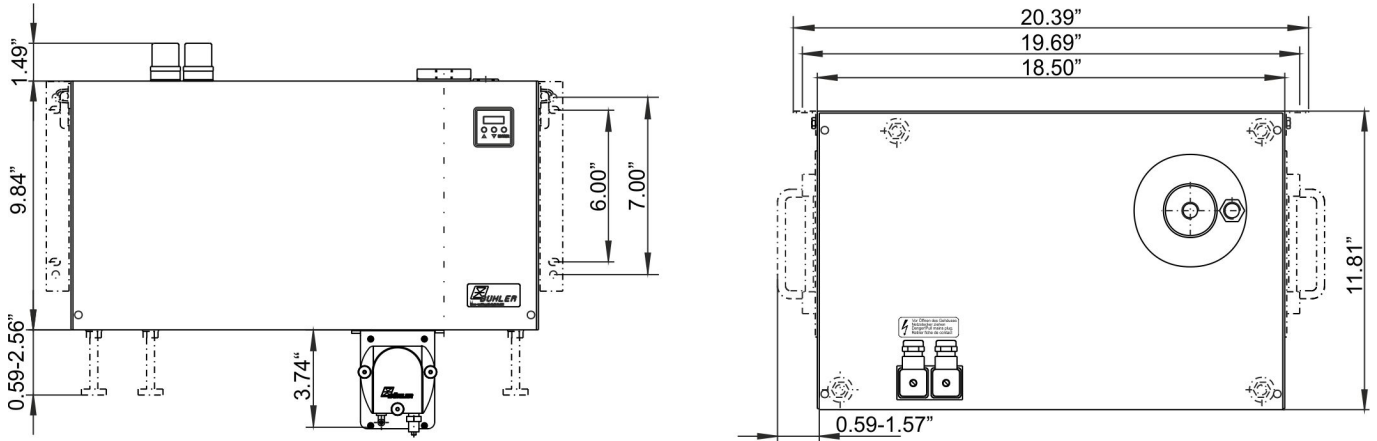
Flow parameter TS10

Inlet dew point (humidity)	Ambient temperature	Flow in lpm at a gas inlet temperature of					Condensate per h every 10 lpm
		140 °F	176 °F	212 °F	284 °F	356 °F	
104 °F (7 Vol%)	41...122 °F	65	58	52	43	37	2.6 cu. in.
122 °F (12 Vol%)	50...113 °F	55	50	47	41	36	4.4 cu. in.
	41...122 °F	32	29	28	24	22	
131 °F (16 Vol%)	72...95 °F	50	47	44	39	35	5.5 cu. in.
	41...122 °F	25	23	23	20	18	
140 °F (20 Vol%)	72...95 °F	42	39	37	33	31	7.3 cu. in.
	41...122 °F	20	18	17	16	15	
149 °F (25 Vol%)	72...95 °F	-	30	29	27	24	9.7 cu. in.
	41...122 °F	-	14	14	13	12	
158 °F (31 Vol%)	72...95 °F	-	23	21	20	19	13.4 cu. in.
	41...122 °F	-	11	11	10	10	
176 °F (47 Vol%)	72...95 °F	-	12	12	11	10	26.7 cu. in.
	41...122 °F	-	6.0	5.8	5.5	5.3	

Example: The ambient temperature can be maintained in the 72...95 °F range. The gas inlet temperature is 284 °F, the inlet dew point 140 °F.

Use row "inlet dew point" = 140 °F and ambient temperature 72...95 °F to locate the value 33 lpm in column 284 °F. For values between the gas temperature values in the table, use linear calculation between the flow values.

Dimensions



Ordering Instructions

The item number is a code for the configuration of your unit. Please use the following model key:

Please note: Every individual gas path must be equipped with peristaltic pump or condensate drain.

4569	X	X	X	X	0	0	0	X	Product Characteristics
									Voltage
1									115 V
2									230 V
									Gas path / Material / Version
0	0	0							without heat exchanger
1	1	0							Single heat exchanger / stainless steel / TS10 G 3/8"
1	1	1							Single heat exchanger / stainless steel / TS10 NPT 3/8"
1	2	1							Single heat exchanger / glass coated inside / TS10 GB NPT 3/8"
									Condensate drain ¹⁾
0									without condensate drain
									Mounting Accessories
0	0	0							without mounting accessories
0	0	1							with mounting accessories
0	0	2							with feet
0	0	3							with mounting accessories and feet
0	0	4							with handles
0	0	5							with mounting brackets and handles
0	0	6							with feet and handles
0	0	7							with all mounting accessories

¹⁾ Peristaltic pumps cannot be mounted to the cooler. Peristaltic pumps only available for separate installation.

Spare Parts and Accessories

Item no.	Description
4410001	Automatic condensate drain 11 LD V 38
4410004	Automatic condensate drain AK 20, PVDF
4410005	Condensate trap GL 1; glass, 0.4 L
4410019	Condensate trap GL 2; glass, 1 L
44921170114	CPsingle 115 V 60 Hz, 1 L/h, metric screw-in connection DN 4/6, for separate installation
44921170115	CPsingle 115 V 60 Hz, 1 L/h, US screw-in connection 1/6"-1/4, for separate installation
44921180114	CPsingle 230 V, 60 Hz, 1 L/h, metric screw-in connection DN 4/6, for separate installation
44921180115	CPsingle 230 V 60 Hz, 1 L/h, US screw-in connection 1/6"-1/4, for separate installation