

# DRM Technic

Suppliers of Gas Analysis Equipment



## EGK 1SD SAMPLE GAS COOLER

A compressor-type cooling system connected to a cooling block, specified for use even under harsh ambient conditions. It can be used to serve two separate gas streams at the same time. Condensate is removed either by peristaltic pumps, condensate drains or condensate vessels.

### FEATURES

**Compact Design | Single or Dual Gas Streams | Heat Exchangers made of SS, Duran Glass or PVDF  
Buhler Constant Regulating System | Cooler Block Temperature Display | Self-Checking  
Status Alarm | Nominal Cooling Capacity 320 kJ/h | Dew point stability 0.1 °C | CFC free | FM approval**

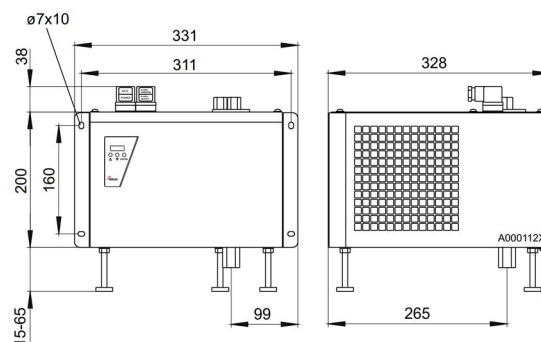
### SPECIFICATIONS

| Product No.  | EGK 1SD   |
|--|---|
| Ready for Operation  | Max. 15 minutes                                   |
| Cooling Capacity (at 25 °C)                                  | 320 kJ/h  |
| Ambient Temperature  | +5 °C to + 50 °C                                  |
| Dew Point (set at factory)                                   | Approx. 5 °C                                      |
| Dew Point Variations (Static)<br>(Over Full Operation Range) | 0.1 K<br>± 1.5 K                                  |
| Power Supply   | 115 or 230 V, 50/60 Hz,<br>plug acc. to DIN 43650 |
| Power Consumption  | 290/260 VA,<br>fuse (external) max. 10 A          |
| Alarm Output   | Switching Capacity Max.<br>250 V, 2 A, 50 VA      |
| Protection Class   | IP 20   |
| Housing  | Stainless Steel                                   |
| Installation   | Table or Wall Mounting                            |
| Packing Dimensions   | Approx. 390 mm x 300 mm<br>x 400 mm               |
| Weight (inc. heat exchanger)                                 | Approx. 15 kg                                     |

### OPTIONS AND ACCESSORIES

| Product No. | Description                                |
|-------------|--|
| 4410001     | Automatic Condensate<br>Drain 11 LD V 38   |
| 4410004     | Automatic Condensate<br>Vessel AK 20, PVDF |
| 4410005     | Condensate Vessel, 0.4 l                   |
| 4410019     | Condensate Vessel, 1 l                     |
| 9124030104  | Peristaltic Pump, 230 V                    |
| 9124030105  | Peristaltic Pump, 115 V                    |

### TECHNICAL DRAWINGS



For more information, please contact our sales department

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## HEAT EXCHANGERS

| Heat Exchanger                            | TS / TS-I <sup>1</sup> | TG   | TV-SS / TV-I <sup>1</sup> | DTS (DTS-6 <sup>2</sup> ) / DTS-I (DTS-6-I <sup>2</sup> ) | DTG  | DTV <sup>1</sup> / DTV-1 <sup>1,2</sup> |
|---|------------------------|--|---------------------------|---|--|---|
| Flow Rate $v_{max}$                       | 500 l/h                | 400 l/h  | 235 l/h                   | 2 x 250 l/h   | 2 x 200 l/h  | 2 x 160 l/hl                            |
| Inlet dew point $\tau_{e,max}$            | 80 °C                  | 80 °C  | 65 °C                     | 80 °C   | 65 °C  | 65 °C                                   |
| Gas Inlet Temperature $\vartheta_{G,max}$ | 180 °C                 | 140 °C   | 140 °C                    | 180 °C  | 140 °C   | 140 °C                                  |
| Max. Cooling Capacity $Q_{max}$           | 450 kJ/h               | 230 kJ/h   | 120 kJ/h                  | 450 kJ/h  | 230 kJ/h   | 185 kJ/h                                |
| Gas Pressure $p_{max}$                    | 160 bar                | 3 bar  | 3 bar                     | 25 bar  | 3 bar  | 2 bar                                   |
| Pressure Drop $\Delta$ ( $v=150$ l/h)     | 8 mbar                 | 8 mbar   | 8 mbar                    | each 5 mbar   | each 5 mbar  | each 15 mbar                            |
| Dead Volume $V_{tot}$                     | 69 ml                  | 48 ml  | 129 ml                    | 28 / 25 ml  | 28 / 25 ml   | 21 / 21 ml                              |
| Sample Gas Connections (Metric/US)        | G 1/4" / NPT 1/4"      | GL 14 (6mm) <sup>3</sup> / GL 14 (1/4") <sup>3</sup>   | DN 4/6 / 1/4" - 1/6"      | Tube 6mm / Tube 1/4"                                      | GL 14 (6mm) <sup>3</sup> / GL 14 (1/4") <sup>3</sup>   | DN 4/6 / 1/4" - 1/6"                    |
| Condensate Out Connections (Metric/US)    | G 3/8" / NPT 3/8"      | GL 25 (12 mm) <sup>3</sup> / GL 25 (1/2") <sup>3</sup> | G 3/8" / NPT 3/8"         | Tube 10 mm (6mm) / Tube 3/8" (1/4")                       | GL 18 (10 mm) <sup>3</sup> / GL 18 (3/8") <sup>3</sup> | DN 5/8 / 3/16" - 5/16"                  |

<sup>1</sup> Max. Cooling Capacity of the Cooler must be considered | <sup>2</sup> Types marketing "I" have NPT-threads or US tubes, respectively

<sup>3</sup> Can only be used with peristaltic pumps | <sup>4</sup> Inner diameter gasket

## ORDERING INFORMATION

Please Note: Each gas path should be equipped with a peristaltic pump or an automatic condensate drain

| Part No | 4 | 5 | 6 | 1 | 2 |  |  | 0 | 0 | 0 | 0 | EGK 1SD with display  |
|---------|---|---|---|---|---|--|--|---|---|---|---|---|
|         |   |   |   |   |   |  |  |   |   |   |   | <b>Gas path / Material / Version</b>  |
|         | 0 | 0 | 0 |   |   |  |  |   |   |   |   | without heat exchanger  |
|         | 1 | 1 | 0 |   |   |  |  |   |   |   |   | 1 gas path / single path heat exchanger stainless steel / (TS or TS-1)      |
|         | 1 | 2 | 0 |   |   |  |  |   |   |   |   | 1 gas path / single path heat exchanger glass / (TG)                        |
|         | 1 | 3 | 0 |   |   |  |  |   |   |   |   | 1 gas path / single path heat exchanger PVDF / (TV-SS or TV-I)              |
|         | 2 | 6 | 0 |   |   |  |  |   |   |   |   | 2 gas paths / dual path heat exchanger stainless steel / (DTS or DTS-1)     |
|         | 2 | 6 | 1 |   |   |  |  |   |   |   |   | 2 gas paths / dual path heat exchanger stainless steel / (DTS-6 or DTS-6-I) |
|         | 2 | 7 | 0 |   |   |  |  |   |   |   |   | 2 gas paths / dual path heat exchanger glass / (DTG)                        |
|         | 2 | 8 | 0 |   |   |  |  |   |   |   |   | 2 gas paths / dual path heat exchanger PVDF / (DTV or DTV-1)                |