

## Refrigerated Circulators

### CORIO CD Refrigerated / Heating Circulators

for working temperatures from -40 °C to +150 °C

Refrigerated / Heating Circulators of the CORIO series distinguish themselves with a great price-performance ratio. They are ideal for all standard tasks and routine work in laboratories and industry.

- Models for internal and external applications
- Bright, white, easy-to-read display
- Very quiet
- Easy change-over from internal to external circulation and vice versa
- External pump connections (M16×1)
- USB interface
- Space-saving cooling coil design provides more usable space in the bath tank
- Bath lid and drain tap included
- Removable ventilation grid
- Refrigeration unit without side vents
- Class III (FL) according to DIN 12876-1

To adapt the CORIO Refrigerated / Heating Circulator to your individual application, we offer a comprehensive range of accessories (bath fluid, tubing, adapter and more).

#### Applications

Temperature control of samples in a circulator bath or temperature control of an external application. For example measuring cells, refractometers, polarimeters, photometers, viscometers, fermenters, electrophoresis chambers, chromatography columns, rotary evaporators, rheometers and more.



#### Maintenance. Friendly.

The magnetic front grid can be removed easily for user-friendly cleaning and maintenance. Without tools.



## CORIO™ CD-200F

|                                              |                           |        |
|----------------------------------------------|---------------------------|--------|
| Order No.                                    | 9 012 701                 |        |
| Working temperature range °C                 | -20 ... +150              |        |
| Temperature stability °C                     | ± 0.03                    |        |
| Heating capacity kW                          | 2                         |        |
| Cooling capacity kW<br>(Bath fluid: Ethanol) | +20 °C                    | 0 °C   |
|                                              | 0.22                      | 0.17   |
|                                              | -10 °C                    | -20 °C |
|                                              | 0.13                      | 0.06   |
| Pump capacity                                | l/min                     | bar    |
| Flow rate / Pressure                         | 15                        | 0.35   |
| Bath opening / Bath depth cm                 | W × L / D<br>13 × 15 / 15 |        |
| Filling volume liters                        | 3 ... 4                   |        |
| Dimensions cm                                | W × L × H<br>23 × 39 × 65 |        |



## CORIO™ CD-201F

|                                              |                           |        |
|----------------------------------------------|---------------------------|--------|
| Order No.                                    | 9 012 702                 |        |
| Working temperature range °C                 | -20 ... +150              |        |
| Temperature stability °C                     | ± 0.03                    |        |
| Heating capacity kW                          | 2                         |        |
| Cooling capacity kW<br>(Bath fluid: Ethanol) | +20 °C                    | 0 °C   |
|                                              | 0.22                      | 0.16   |
|                                              | -10 °C                    | -20 °C |
|                                              | 0.12                      | 0.06   |
| Pump capacity                                | l/min                     | bar    |
| Flow rate / Pressure                         | 15                        | 0.35   |
| Bath opening / Bath depth cm                 | W × L / D<br>13 × 15 / 15 |        |
| Filling volume liters                        | 3 ... 4                   |        |
| Dimensions cm                                | W × L × H<br>44 × 41 × 44 |        |

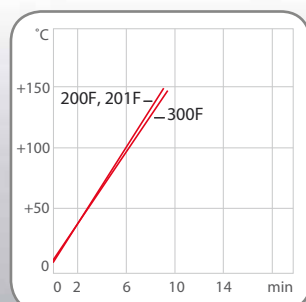


## CORIO™ CD-300F

|                                              |                           |        |
|----------------------------------------------|---------------------------|--------|
| Order No.                                    | 9 012 703                 |        |
| Working temperature range °C                 | -30 ... +150              |        |
| Temperature stability °C                     | ± 0.03                    |        |
| Heating capacity kW                          | 2                         |        |
| Cooling capacity kW<br>(Bath fluid: Ethanol) | +20 °C                    | 0 °C   |
|                                              | 0.31                      | 0.28   |
|                                              | -10 °C                    | -20 °C |
|                                              | 0.2                       | 0.11   |
| Pump capacity                                | l/min                     | bar    |
| Flow rate / Pressure                         | 15                        | 0.35   |
| Bath opening / Bath depth cm                 | W × L / D<br>13 × 15 / 15 |        |
| Filling volume liters                        | 3 ... 4                   |        |
| Dimensions cm                                | W × L × H<br>24 × 42 × 66 |        |

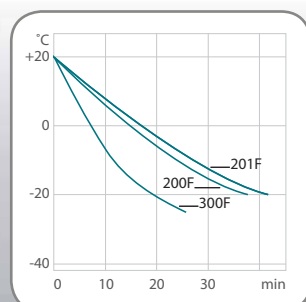
### Heat-up time

Bath fluid: Thermal



### Cool-down time

Bath fluid: Ethanol



## Refrigerated Circulators



### CORIO™ CD-600F

|                                              |                           |        |        |
|----------------------------------------------|---------------------------|--------|--------|
| Order No.                                    | 9 012 704                 |        |        |
| Working temperature range °C                 | -35 ... +150              |        |        |
| Temperature stability °C                     | ± 0.03                    |        |        |
| Heating capacity kW                          | 2                         |        |        |
| Cooling capacity kW<br>(Bath fluid: Ethanol) | +20 °C                    | 0 °C   | -10 °C |
|                                              | 0.6                       | 0.53   | 0.35   |
|                                              | -20 °C                    | -30 °C | -40 °C |
|                                              | 0.22                      | 0.1    | -      |
| Pump capacity                                | l/min                     | bar    |        |
| Flow rate / Pressure                         | 15                        | 0.35   |        |
| Bath opening / Bath depth cm                 | W × L / D<br>22 × 15 / 15 |        |        |
| Filling volume liters                        | 5 ... 7.5                 |        |        |
| Dimensions cm                                | W × L × H<br>33 × 47 × 69 |        |        |

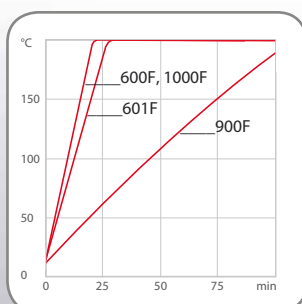


### CORIO™ CD-601F

|                                              |                           |        |        |
|----------------------------------------------|---------------------------|--------|--------|
| Order No.                                    | 9 012 705                 |        |        |
| Working temperature range °C                 | -40 ... +150              |        |        |
| Temperature stability °C                     | ± 0.03                    |        |        |
| Heating capacity kW                          | 2                         |        |        |
| Cooling capacity kW<br>(Bath fluid: Ethanol) | +20 °C                    | 0 °C   | -10 °C |
|                                              | 0.6                       | 0.5    | 0.35   |
|                                              | -20 °C                    | -30 °C | -40 °C |
|                                              | 0.2                       | 0.07   | 0.01   |
| Pump capacity                                | l/min                     | bar    |        |
| Flow rate / Pressure                         | 15                        | 0.35   |        |
| Bath opening / Bath depth cm                 | W × L / D<br>22 × 15 / 20 |        |        |
| Filling volume liters                        | 8 ... 10                  |        |        |
| Dimensions cm                                | W × L × H<br>36 × 46 × 74 |        |        |

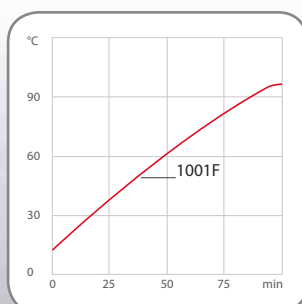
#### Heat-up time

Bath fluid: Thermal



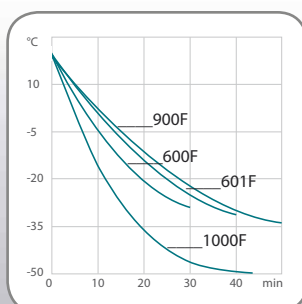
#### Heat-up time

Bath fluid: Thermal



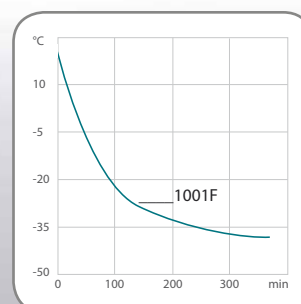
#### Cool-down time

Bath fluid: Ethanol



#### Cool-down time

Bath fluid: Ethanol





## CORIO™ CD-900F

|                                              |                           |        |        |  |
|----------------------------------------------|---------------------------|--------|--------|--|
| Order No.                                    | 9 012 706                 |        |        |  |
| Working temperature range °C                 | -38 ... +150              |        |        |  |
| Temperature stability °C                     | ± 0.03                    |        |        |  |
| Heating capacity kW                          | 2                         |        |        |  |
| Cooling capacity kW<br>(Bath fluid: Ethanol) | +20 °C                    | 0 °C   | -10 °C |  |
|                                              | 0.9                       | 0.8    | 0.55   |  |
|                                              | -20 °C                    | -30 °C | -40 °C |  |
|                                              | 0.35                      | 0.15   | 0.02   |  |
| Pump capacity                                | l/min                     | bar    |        |  |
| Flow rate / Pressure                         | 15                        | 0.35   |        |  |
| Bath opening / Bath depth cm                 | W × L / D<br>26 × 35 / 20 |        |        |  |
| Filling volume liters                        | 21 ... 30                 |        |        |  |
| Dimensions cm                                | W × L × H<br>39 × 62 × 75 |        |        |  |



## CORIO™ CD-1000F

|                                              |                           |        |        |
|----------------------------------------------|---------------------------|--------|--------|
| Order No.                                    | 9 012 707                 |        |        |
| Working temperature range °C                 | -40 ... +150              |        |        |
| Temperature stability °C                     | ± 0.03                    |        |        |
| Heating capacity kW                          | 2                         |        |        |
| Cooling capacity kW<br>(Bath fluid: Ethanol) | +20 °C                    | 0 °C   | -10 °C |
|                                              | 1                         | 0.9    | 0.73   |
|                                              | -20 °C                    | -30 °C | -40 °C |
|                                              | 0.5                       | 0.32   | 0.15   |
| Pump capacity                                | l/min                     | bar    |        |
| Flow rate / Pressure                         | 15                        | 0.35   |        |
| Bath opening / Bath depth cm                 | W × L / D<br>18 × 13 / 15 |        |        |
| Filling volume liters                        | 5 ... 7.5                 |        |        |
| Dimensions cm                                | W × L × H<br>42 × 49 × 70 |        |        |



## CORIO™ CD-1001F

|                                              |                           |        |        |
|----------------------------------------------|---------------------------|--------|--------|
| Order No.                                    | 9 012 708                 |        |        |
| Working temperature range °C                 | -38 ... +100              |        |        |
| Temperature stability °C                     | ± 0.03                    |        |        |
| Heating capacity kW                          | 2                         |        |        |
| Cooling capacity kW<br>(Bath fluid: Ethanol) | +20 °C                    | 0 °C   | -10 °C |
|                                              | 1                         | 0.9    | 0.63   |
|                                              | -20 °C                    | -30 °C | -40 °C |
|                                              | 0.35                      | 0.13   | -      |
| Pump capacity                                | l/min                     | bar    |        |
| Flow rate / Pressure                         | 15                        | 0.35   |        |
| Bath opening / Bath depth cm                 | W × L / D<br>35 × 41 / 30 |        |        |
| Filling volume liters                        | 42 ... 56                 |        |        |
| Dimensions cm                                | W × L × H<br>45 × 64 × 95 |        |        |

### Saves energy.

CORIO models come with various modes for the refrigeration unit: permanently on, permanently off, or on as refrigeration is needed. CORIO CD-600F to CORIO CD-1001 additionally contain a continuous automatic adjustment of the cooling capacity at the operating point to minimize the power consumption and the heat waste.



## Refrigerated Circulators

### CORIO CP Refrigerated/Heating Circulators

for working temperatures from -50 °C to +200 °C

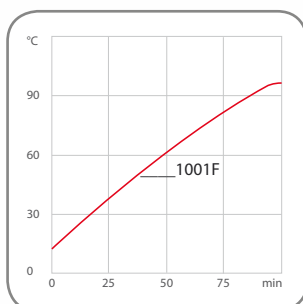
Refrigerated Circulators from the CORIO CP range are suitable for applications with a temperature range from -50°C to +200°C. The enhanced pump performance ensures they are suitable for easy temperature control tasks in combination with external applications.

- Models for internal and external applications
- Bright, white, easy-to-read display
- Very quiet
- Easy change-over from internal to external circulation and vice versa
- External pump connections (M16×1)
- pump capacity, infinitely adjustable
- USB interface
- R232 interface
- Space-saving cooling coil design provides more usable space in the bath tank
- Bath lid and drain tap included
- Removable ventilation grid
- Refrigeration unit without side vents
- System for low liquid level
- Class III (FL) according to DIN 12876-1

To adapt the CORIO Refrigerated/Heating Circulator to your individual application, we offer a comprehensive range of accessories (bath fluid, tubing, adapter and more)

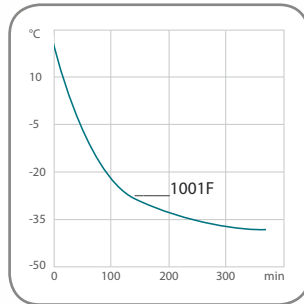
#### Heat-up time

Bath fluid: Thermal



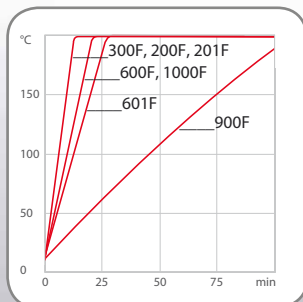
#### Cool-down time

Bath fluid: Ethanol



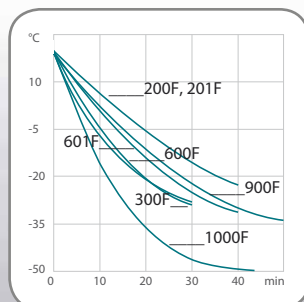
#### Heat-up time

Bath fluid: Thermal



#### Cool-down time

Bath fluid: Ethanol



### CORIO™ CP-200F

NEW

|                                              |                           |             |
|----------------------------------------------|---------------------------|-------------|
| Order No.                                    | 9 013 701                 |             |
| Working temperature range °C                 | -20 ... +200              |             |
| Temperature stability °C                     | ± 0.03                    |             |
| Heating capacity kW                          | 2                         |             |
| Cooling capacity kW<br>(Bath fluid: Ethanol) | +20 °C                    | 0 °C        |
|                                              | 0.2                       | 0.15        |
|                                              | -10 °C                    | -20 °C      |
|                                              | 0.1                       | 0.02        |
| Pump capacity                                | l/min                     | bar         |
| Flow rate / Pressure                         | 8 ... 27                  | 0.1 ... 0.7 |
| Bath opening / Bath depth cm                 | W × L / D<br>13 × 15 / 15 |             |
| Filling volume liters                        | 3 ... 4                   |             |
| Dimensions cm                                | W × L × H<br>23 × 39 × 65 |             |



### CORIO™ CP-601F

NEW

|                                              |                           |             |        |
|----------------------------------------------|---------------------------|-------------|--------|
| Order No.                                    | 9 013 705                 |             |        |
| Working temperature range °C                 | -35 ... +200              |             |        |
| Temperature stability °C                     | ± 0.03                    |             |        |
| Heating capacity kW                          | 2                         |             |        |
| Cooling capacity kW<br>(Bath fluid: Ethanol) | +20 °C                    | 0 °C        | -10 °C |
|                                              | 0.6                       | 0.5         | 0.33   |
|                                              | -20 °C                    | -30 °C      | -40 °C |
|                                              | 0.2                       | 0.07        | -      |
| Pump capacity                                | l/min                     | bar         |        |
| Flow rate / Pressure                         | 8 ... 27                  | 0.1 ... 0.7 |        |
| Bath opening / Bath depth cm                 | W × L / D<br>22 × 15 / 20 |             |        |
| Filling volume liters                        | 8 ... 10                  |             |        |
| Dimensions cm                                | W × L × H<br>36 × 46 × 74 |             |        |





## CORIO™ CP-201F NEW

|                                              |                           |             |  |
|----------------------------------------------|---------------------------|-------------|--|
| Order No.                                    | 9 013 702                 |             |  |
| Working temperature range °C                 | -20 ... +200              |             |  |
| Temperature stability °C                     | ± 0.03                    |             |  |
| Heating capacity kW                          | 2                         |             |  |
| Cooling capacity kW<br>(Bath fluid: Ethanol) | +20 °C                    | 0 °C        |  |
|                                              | 0.2                       | 0.15        |  |
|                                              | -10 °C                    | -20 °C      |  |
|                                              | 0.1                       | 0.02        |  |
| Pump capacity                                | l/min                     | bar         |  |
| Flow rate / Pressure                         | 8 ... 27                  | 0.1 ... 0.7 |  |
| Bath opening / Bath depth cm                 | W × L / D<br>13 × 15 / 15 |             |  |
| Filling volume liters                        | 3 ... 4                   |             |  |
| Dimensions cm                                | W × L × H<br>44 × 41 × 44 |             |  |



## CORIO™ CP-300F NEW

|                                              |                           |             |  |
|----------------------------------------------|---------------------------|-------------|--|
| Order No.                                    | 9 013 703                 |             |  |
| Working temperature range °C                 | -30 ... +200              |             |  |
| Temperature stability °C                     | ± 0.03                    |             |  |
| Heating capacity kW                          | 2                         |             |  |
| Cooling capacity kW<br>(Bath fluid: Ethanol) | +20 °C                    | 0 °C        |  |
|                                              | 0.3                       | 0.27        |  |
|                                              | -10 °C                    | -20 °C      |  |
|                                              | 0.19                      | 0.08        |  |
| Pump capacity                                | l/min                     | bar         |  |
| Flow rate / Pressure                         | 8 ... 27                  | 0.1 ... 0.7 |  |
| Bath opening / Bath depth cm                 | W × L / D<br>13 × 15 / 15 |             |  |
| Filling volume liters                        | 3 ... 4                   |             |  |
| Dimensions cm                                | W × L × H<br>24 × 42 × 66 |             |  |



## CORIO™ CP-600F NEW

|                                              |                           |             |        |
|----------------------------------------------|---------------------------|-------------|--------|
| Order No.                                    | 9 013 704                 |             |        |
| Working temperature range °C                 | -35 ... +200              |             |        |
| Temperature stability °C                     | ± 0.03                    |             |        |
| Heating capacity kW                          | 2                         |             |        |
| Cooling capacity kW<br>(Bath fluid: Ethanol) | +20 °C                    | 0 °C        | -10 °C |
|                                              | 0.6                       | 0.5         | 0.33   |
|                                              | -20 °C                    | -30 °C      | -40 °C |
|                                              | 0.2                       | 0.07        | -      |
| Pump capacity                                | l/min                     | bar         |        |
| Flow rate / Pressure                         | 8 ... 27                  | 0.1 ... 0.7 |        |
| Bath opening / Bath depth cm                 | W × L / D<br>22 × 15 / 15 |             |        |
| Filling volume liters                        | 5 ... 7.5                 |             |        |
| Dimensions cm                                | W × L × H<br>33 × 47 × 69 |             |        |



## CORIO™ CP-900F NEW

|                                              |                           |             |        |
|----------------------------------------------|---------------------------|-------------|--------|
| Order No.                                    | 9 013 706                 |             |        |
| Working temperature range °C                 | -38 ... +200              |             |        |
| Temperature stability °C                     | ± 0.03                    |             |        |
| Heating capacity kW                          | 2                         |             |        |
| Cooling capacity kW<br>(Bath fluid: Ethanol) | +20 °C                    | 0 °C        | -10 °C |
|                                              | 0.9                       | 0.8         | 0.52   |
|                                              | -20 °C                    | -30 °C      | -40 °C |
|                                              | 0.31                      | 0.11        | -      |
| Pump capacity                                | l/min                     | bar         |        |
| Flow rate / Pressure                         | 8 ... 27                  | 0.1 ... 0.7 |        |
| Bath opening / Bath depth cm                 | W × L / D<br>26 × 35 / 20 |             |        |
| Filling volume liters                        | 21 ... 30                 |             |        |
| Dimensions cm                                | W × L × H<br>39 × 62 × 75 |             |        |



## CORIO™ CP-1000F NEW

|                                              |                           |             |        |
|----------------------------------------------|---------------------------|-------------|--------|
| Order No.                                    | 9 013 707                 |             |        |
| Working temperature range °C                 | -50 ... +200              |             |        |
| Temperature stability °C                     | ± 0.03                    |             |        |
| Heating capacity kW                          | 2                         |             |        |
| Cooling capacity kW<br>(Bath fluid: Ethanol) | +20 °C                    | 0 °C        | -10 °C |
|                                              | 1                         | 0.9         | 0.73   |
|                                              | -20 °C                    | -30 °C      | -40 °C |
|                                              | 0.5                       | 0.3         | 0.13   |
| Pump capacity                                | l/min                     | bar         |        |
| Flow rate / Pressure                         | 8 ... 27                  | 0.1 ... 0.7 |        |
| Bath opening / Bath depth cm                 | W × L / D<br>18 × 13 / 15 |             |        |
| Filling volume liters                        | 5 ... 7.5                 |             |        |
| Dimensions cm                                | W × L × H<br>42 × 49 × 70 |             |        |



## CORIO™ CP-1001F NEW

|                                              |                           |             |        |
|----------------------------------------------|---------------------------|-------------|--------|
| Order No.                                    | 9 013 708                 |             |        |
| Working temperature range °C                 | -38 ... +100              |             |        |
| Temperature stability °C                     | ± 0.03                    |             |        |
| Heating capacity kW                          | 2                         |             |        |
| Cooling capacity kW<br>(Bath fluid: Ethanol) | +20 °C                    | 0 °C        | -10 °C |
|                                              | 1                         | 0.9         | 0.6    |
|                                              | -20 °C                    | -30 °C      | -40 °C |
|                                              | 0.6                       | 0.12        | -      |
| Pump capacity                                | l/min                     | bar         |        |
| Flow rate / Pressure                         | 8 ... 27                  | 0.1 ... 0.7 |        |
| Bath opening / Bath depth cm                 | W × L / D<br>35 × 41 / 30 |             |        |
| Filling volume liters                        | 42 ... 56                 |             |        |
| Dimensions cm                                | W × L × H<br>45 × 64 × 95 |             |        |

### JULABO Thermal Bath Fluids

JULABO Thermal bath fluids have been carefully chosen following long term testing. They are highly suitable for all of your temperature control applications guaranteeing safe and reliable operation. Choosing the proper bath fluid is critical for high performance temperature control. The viscosity and heat transfer characteristics of the Thermal fluids are specifically selected for use with JULABO temperature control instruments.

#### Advantages

- Broad temperature ranges
- Low viscosity
- High stability
- Good thermal conductivity
- Almost odorless
- Long life



#### Makes routine laboratory work easier.

JULABO Thermal bath fluids are delivered in containers with a handy drain tap.



#### Tidy.

The special drain tap for easy draining of bath fluids without tools.



### Thermal G

**Order No. 5 liters** 8 940 125

**Order No. 10 liters** 8 940 124

Working temperature range °C -30 ... +80

Flash point °C not applicable

Fire point °C not applicable

Viscosity, (kinematic at +20 °C) mm<sup>2</sup>/s 4.07

Density (at +20 °C) g/cm<sup>3</sup> 1.08

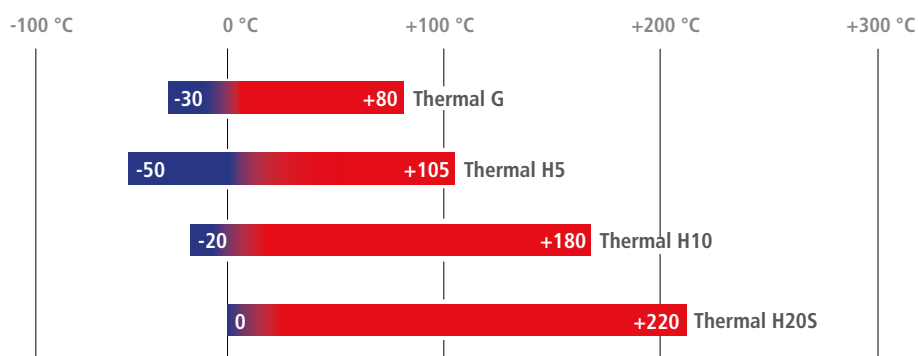
Pour point °C -70

Boiling point °C +108

Ignition temperature °C +430

Color light yellow

#### Working temperature range





## Thermal H5

|                                                     |              |
|-----------------------------------------------------|--------------|
| Order No. 5 liters                                  | 8 940 107    |
| Order No. 10 liters                                 | 8 940 106    |
| Working temperature range °C                        | -50 ... +105 |
| Flash point °C                                      | +124         |
| Fire point °C                                       | +142         |
| Viscosity, (kinematic at +20 °C) mm <sup>2</sup> /s | 5.66         |
| Density (at +20 °C) g/cm <sup>3</sup>               | 0.92         |
| Pour point °C                                       | -100         |
| Boiling point °C                                    | +288         |
| Ignition temperature °C                             | +350         |
| Color                                               | clear        |



## Thermal H10

|                                                     |              |
|-----------------------------------------------------|--------------|
| Order No. 5 liters                                  | 8 940 115    |
| Order No. 10 liters                                 | 8 940 114    |
| Working temperature range °C                        | -20 ... +180 |
| Flash point °C                                      | >+170        |
| Fire point °C                                       | +220         |
| Viscosity, (kinematic at +20 °C) mm <sup>2</sup> /s | 10.8         |
| Density (at +20 °C) g/cm <sup>3</sup>               | 0.94         |
| Pour point °C                                       | <-60         |
| Boiling point °C                                    | +288         |
| Ignition temperature °C                             | +370         |
| Color                                               | clear        |



## Thermal H20S

|                                                     |             |
|-----------------------------------------------------|-------------|
| Order No. 5 liters                                  | 8 940 109   |
| Order No. 10 liters                                 | 8 940 108   |
| Working temperature range °C                        | 0 ... +220  |
| Flash point °C                                      | +230        |
| Fire point °C                                       | +264        |
| Viscosity, (kinematic at +20 °C) mm <sup>2</sup> /s | 22.3        |
| Density (at +20 °C) g/cm <sup>3</sup>               | 0.95        |
| Pour point °C                                       | -70         |
| Boiling point °C                                    | +424        |
| Ignition temperature °C                             | +385        |
| Color                                               | light brown |

### JULABO Thermal bath fluids based on silicone ...

... are chemically inert substances which do not affect metals like iron, copper, zinc, aluminum, chrome or nickel. Compared to other fluids, JULABO Thermal fluids have an extraordinarily low electrical conductivity. When properly stored, the fluids will last for 12 months and longer as they are not susceptible to climatic influences.

### JULABO Thermal bath fluids based on water-glycol ...

... (monoethyleneglycol with anti-corrosion additives) have excellent thermal characteristics and a low viscosity. In addition, they provide anti-freeze protection, i.e. they can be applied at temperatures below the freezing point of water.

### More information on JULABO Thermal bath fluids ...

... in our brochure 'Thermal Bath Fluids' at [www.julabo.com](http://www.julabo.com).

