

CORIO[™]









$\mathsf{CORIO}^{\scriptscriptstyle\mathsf{TM}}$ — the new laboratory circulators

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'Do not seek to foresee the future, but enable it to happen.'

Antoine de Saint-Exupéry

NEW. CORIO™.

Powerful. Robust.

CORIO[™] is derived from the word 'Core'. Because the core characteristics of these newly developed laboratory circulators are exact temperature, absolute precision, and a wide working temperature range. In addition CORIO[™] is equipped with all the core functions required in your laboratory for the temperature control of a wide variety of applications and samples.

Everything you need. Inside and out.

Precise, robust, and easy to operate units have proven their value in research and industry. That is all you really need. CORIO™ fulfills the highest demands for precision, reliability and handling. And that's not all. CORIO™ offers numerous additional advantages which will facilitate your daily work. An added value which will pay off.

Modern. Ambitious.

CORIOTM accentuates JULABO's ambition to create forward-looking technologies for modern laboratories. Outstanding functionality, ergonomics, easy operation, and a modern design. That is the core. That is $CORIO^{TM}$.

Ergonomic. Elegant.

CORIO[™] makes day-to-day laboratory tasks easier. With a user-friendly operation. A bright and clear display. Easy start-up. Exceptional core functions - you will be able to master the new CORIO[™] in no time at all.

New. Different.

It is the multitude of innovative details which make CORIO™ products unique. Discover the many advantages for yourself.







CORIO™. The best for your laboratory!

Made in Germany!

CORIO[™] is produced according to the highest German quality standards. They utilize reliable and robust core equipment. They feature platinum sensors, proven motor technology, and CAN-Bus communication. Product development consistently applied environmentally friendly materials and technologies.

More comfort in your laboratory!

Switch on. And off you go. With the intelligent operating concept you will be able to set the new CORIO™ quickly and safely. All operating controls and safety functions can be accessed easily from the front. Not only do the new CORIO™ look good, they include integrated handles for superior ergonomics. The elegant, rounded design makes cleaning a breeze.

Safety for users and their processes!

CORIO™ is safe. The circulator and the refrigeration unit are operated via one common switch. The outstanding design of the bath lid and insulation prevent direct contact with hot surfaces. Rubber feet allow for a secured footing. A lockable power plug provides a secure connection which cannot be disconnected by accident. And the best: a stable and reliable perfomance of the CORIO™ at ambient temperatures of up to +40 °C.

Maximum benefit for your laboratory!

The new drain tap permits easy draining of your CORIO™ without tools — a clever and handy solution. The integrated USB interface of all CORIO™ CD models allows remote control. And only JULABO offers temperature control units with closed side panels. This saves laboratory space as you can place your CORIO™ right next to other units and applications.





CORIO™. Everything you need. The advantages at a glance.

Brilliant.

Bright display with strong illumination can be viewed easily from a long distance.

Touching permitted.

Optimum safety. The ergonomic plastic handle protects your fingers from hot surfaces.

Switch on. And off you go.

Intelligent operating concept, Ready for operation with just a few quick and easy steps.

Unique.

Specially designed pyramids ensure that the condensed liquid drips directly back into the bath.



One for all. Control the circulator and the refrigeration

unit with only one power switch.

More bath.

Designed for more comfort. Thanks to the recessed cooling coil, the internal bath provides more space.



Everything at the front.

All operating controls and safety functions are accessed easily and comfortably from the front.

Space saving. Free up space.

Place your CORIO[™] right next to an application, another unit, or wall. That saves space. This is made possible by eliminating vents and connections on the sides.



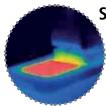
Internal. External.

The pump is controlled via a lever located directly below the display. Easily change between internal and external circulation.

Handle with ease.

Makes day-to-day work easy. Comfortably move your CORIO[™] around by using the ergonomic handles (front and rear).





Solid.

Minimized energy loss through high-quality insulation.



Soft. Quiet.

 $CORIO^{TM}$ circulators are cushion mounted. Protects the electronics. Reduces operating noise and vibration.



Mobile.

Extra easy handling. Integrated castors for easy repositioning of refrigerated circulators. (CD-600F)



Cleaning. Easy.

Not only do the new units look good.

The functional design makes cleaning a breeze.



Saves energy.

As you desire. Various modes for the refrigeration unit: permanently on, permanently off, or on as refrigeration is needed.



ATC.

Absolute Temperature Calibration, 1-point calibration.



Safety.

CORIO™ CD complies with Class III (FL) according to DIN 12876-1 and switches off automatically in case of high temperature or low liquid level alarm.



Condensation protection.

Superb design solution. Integrated ventilation directs air over the bath lid and minimizes condensation.



Stable.

Rubber feet allow for a secured footing of your CORIO™ to prevent damage to your laboratory equipment.



Exact.

You can rely on it. PID1 control and 'Active Cooling Control' make the new CORIO™ precise and perfect.



USB.

Remote control made easy. CORIO™ CD circulators feature a USB connection.



Locked in.

The lockable power plug guarantees safe connection. More process safety.



Connection. Easy.

Inclined pump connections (M16x1) facilitate the connection of applications. Each unit includes 2 barbed fittings of 8/12 mm diameter each.



Tidy.

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



Maintenance. Friendly.

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



JULABO. Quality.

Highest standards of quality for a long product life.



100% Checked.

100% testing. 100% quality. Each CORIOTM undergoes thorough quality testing before leaving the factory.



No sweat.

 $\mathsf{CORIO}^\mathsf{TM}$ works robust and reliable – even at ambient temperatures of up to +40 °C.



Modern. Reliable.

High-grade components in every CORIO[™] - platinum sensors, proven motor technology, CAN-Bus communication and much more.



Green technology.

Development consistently applied environmentally friendly materials and technologies.



Quick start.

Individual JULABO consultation and comprehensive manuals at your disposal.



Satisfied customers.

11 subsidiaries and more than 100 partners worldwide guarantee fast and qualified JULABO support.



Services 24/7.

Around the clock availability. You can find suitable accessories, data sheets, manuals, case studies, and more at www.julabo.com.



Refrigerated Circulators

CORIO[™] CD Series

for working temperatures from -30 °C to +150 °C

Refrigerated / Heating Circulators of the new CORIO[™] series distinguish themselves with a great price-to-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 (M16x1)
- USB interface
- Space-saving cooling coil design yields 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.



′ CD-200F Order No. 9 012 701 Model **CD-200F** Working temperature -20 ... +150 range °C Temperature stability °C ± 0.03 Heating capacity kW +20 °C 0 °C -20 °C Cooling capacity kW (Bath fluid: Ethanol) 0.22 0.17 Pump capacity I/min Flow rate / Pressure Bath opening / W x L / D cm Bath depth 13 x 15 / 15 Filling volume liters 3 ... 4 Dimensions WxLxHcm 23 x 39 x 65



The CORIO™ Principle

Powerful. Robust. CORIO[™] features all core functions for the temperature control of a wide variety of applications and samples.

Everything you need. Inside and out. All that is needed for daily routine tasks in laboratories and industry.

Ergonomic. Elegant. $\mathsf{CORIO}^\mathsf{m}$ incorporates forward-looking technologies with highest demands for precision, reliability, economy and operation.

New. Different. Discover the numerous advantages of the $\mathsf{CORIO}^\mathsf{TM}$ generation.





| Order No. | 9 012 702 |
|---|---|
| Model | CD-201F |
| Working temperature range °C | -20 +150 |
| Temperature stability °C | ± 0.03 |
| Heating capacity kW | 2 |
| Cooling capacity kW (Bath fluid: Ethanol) | +20 °C 0 °C -20 °C 0.2 0.16 0.06 |
| Pump capacity Flow rate / Pressure | l/min bar 15 0.35 |
| Bath opening / Bath depth | W x L / D cm 13 x 15 / 15 |
| Filling volume liters | 3 4 |
| Dimensions | W x L x H cm 44 x 41 x 44 |
| | |



ORIO™ CD-300F

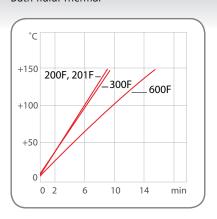
| Order No. | 9 012 703 |
|---|--|
| Model | CD-300F |
| Working temperature range °C | -25 +150 |
| Temperature stability °C | ± 0.03 |
| Heating capacity kW | 2 |
| Cooling capacity kW (Bath fluid: Ethanol) | +20 °C 0 °C -20 °C 0.31 0.28 0.11 |
| Pump capacity Flow rate / Pressure | l/min bar 15 0.35 |
| Bath opening / Bath depth | W x L / D cm 13 x 15 / 15 |
| Filling volume liters | 3 4 |
| Dimensions | W x L x H cm 24 x 42 x 66 |



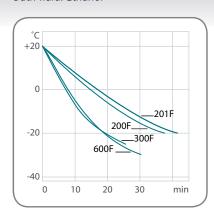
ORIO™ CD-600F

| Order No. | 9 012 704 |
|--|---|
| Model | CD-600F |
| Working temperature range °C | -30 +150 |
| Temperature stability °C | ± 0.03 |
| Heating capacity kW | 2 |
| Cooling capacity kW (Bath fluid: Ethanol) | +20 °C 0 °C -20 °C 0.6 0.53 0.22 |
| Pump capacity Flow rate / Pressure | l/min bar 15 0.35 |
| Bath opening / Bath depth | W x L / D cm 22 x 15 / 15 |
| Filling volume liters | 5 7.5 |
| Dimensions | W x L x H cm 33 x 47 x 69 |

Heat-up time Bath fluid: Thermal



Cool-down time Bath fluid: Ethanol



Pump capacity Bath fluid: Water

bar 0.40 0.30 CD 0.20 0.10 0 _

12

Refrigerated Circulators Accessories

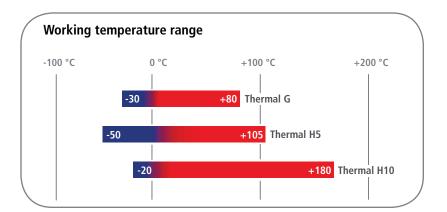
JULABO Thermal Bath Fluids

JULABO Thermal bath fluids have been carefully chosen after 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, oxidation and heat transfer characteristics of the Thermal fluids are specifically selected for use with JULABO temperature control instruments.

Advantages

- Wide temperature ranges
- Low viscosity
- High stability
- Good heat conductivity
- Minimum odor
- Low corrosion tendency
- Low toxicity
- Long fluid life





Makes routine laboratory work easier.

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



Tidv

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 2000), 134

1.08 -70

+108 +430

light yellow

+20 °C) mm2/s

Pour point °C

Boiling point °C

Color

Density (at +20 $^{\circ}\text{C}$) g/cm³

Ignition temperature °C



| | Thermal H5 | 14 THE R. P. LEWIS CO., LANSING |
|----|---|---------------------------------|
| C | Order No. 5 liters | 8 940 107 |
| C | Order No. 10 liters | 8 940 106 |
| | Vorking temperature ange °C | -50 +105 |
| F | lash point °C | +124 |
| F | ire point °C | +142 |
| | /iscosity, (kinematic at -20 °C) mm²/s | 5.66 |
| | Density (at +20 °C) g/cm ³ | 0.92 |
| Р | our point °C | -100 |
| В | Boiling point °C | +288 |
| lģ | gnition temperature °C | +350 |
| (| Color | clear |



| Inermal HTC | |
|---|-----------|
| 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 ² /s | 10.8 |
| Density (at $+20$ °C) g/cm ³ | 0.94 |
| Pour point °C | <-60 |
| Boiling point °C | +288 |
| Ignition temperature °C | +370 |
| Color | clear |

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 high dielectric strength. 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 fluids ...

... in our brochure 'Thermal Bath Fluids' at www.julabo.com.



Refrigerated Circulators Accessories



Aqua Stabil Water protective media to prevent formation of algae and bacteria

| Order No. | Description | Suitable for |
|-----------|------------------------|--------------|
| 8 940 006 | 6 bottles 100 ml each | CD |
| 8 940 012 | 12 bottles 100 ml each | CD |



 $\textbf{Hollow balls} \quad \text{to reduce heat loss, evaporation, oxygen input, odors, action of light}$

| Order No. | Description | Suitable for |
|-----------|--|--------------|
| 8 970 010 | Hollow balls, Polypropylen $^\circ$, 20 mm Ø, 1000 pcs. (up to +100 $^\circ$ C, for water only) | CD |



Heat exchangers / Cooling installations

| Order No. | Description | Suitable for |
|-----------|---|------------------|
| 9 970 240 | Bath cover with built-in heat exchanger | 200F, 201F, 300F |
| 9 970 242 | Bath cover with built-in heat exchanger | 600F |



CR®Tubing (-30 ... +120 °C)

| Order No. | Description | Suitable for |
|-----------|-----------------------|--------------|
| 8 930 008 | 1 m, 8 mm inner dia. | CD |
| 8 930 010 | 1 m, 10 mm inner dia. | CD |
| 8 930 012 | 1 m, 12 mm inner dia. | CD |



Viton®Tubing (-35 ... +200 °C)

| Order No. | Description | Suitable for |
|-----------|-----------------------|--------------|
| 8 930 108 | 1 m, 8 mm inner dia. | CD |
| 8 930 110 | 1 m, 10 mm inner dia. | CD |
| 8 930 112 | 1 m, 12 mm inner dia. | CD |



Tubing insulation (-50...+100 °C)

| Order No. | Description | Suitable for |
|-----------|--------------------------------------|---------------------|
| 8 930 410 | 1 m, for tubing 8 - 10 mm inner dia. | CR® / Viton® Tubing |
| 8 930 412 | 1 m, for tubing 12 mm inner dia. | CR®/Viton® Tubing |



Tube clamps

| Order No. | Description | Suitable for |
|-----------|-----------------------|---|
| 8 970 480 | 2 Tube clamps, size 1 | CR® / Vito n® Tubing 8 mm inner dia. |
| 8 970 481 | 2 Tube clamps, size 2 | CR°/Viton° Tubing 10 - 12 mm inner dia. |





Metal tubing flexible, insulated, -50 ... +200 °C

| Order No. | Description | Suitable for |
|-----------|---|--------------|
| 8 930 220 | 0.5 m Metal tubing, 2 fittings M16x1 female | CD |
| 8 930 221 | 1.0 m Metal tubing, 2 fittings M16x1 female | CD |
| 8 930 222 | 1.5 m Metal tubing, 2 fittings M16x1 female | CD |
| 8 930 223 | 3.0 m Metal tubing, 2 fittings M16x1 female | CD |



Adapters and connectors

| Order No. | Description | Suitable for |
|-----------|---|---|
| 8 970 446 | 2 Barbed fittings for tubing 8 mm inner dia. | CD |
| 8 970 447 | 2 Barbed fittings for tubing 10 mm inner dia. | CD |
| 8 970 445 | 2 Barbed fittings for tubing 12 mm inner dia. | CD |
| 8 970 443 | 1 Adapter M16x1 male to M16x1 male | CD |
| 8 970 490 | 2 Collar nuts M16x1 female | CD |
| 8 970 442 | 2 Elbow fittings 90°, M16x1 female/male | CD |
| 8 890 004 | 2 Adapters M16x1 female to NPT 1/4" male | CD |
| 8 890 005 | 2 Adapters M16x1 female to NPT 1/4" female | CD |
| 8 890 006 | 2 Adapters M16x1 female to NPT 3/8" male | CD |
| 8 890 007 | 2 Adapters M16x1 female to NPT 3/8" female | CD |
| 8 890 008 | 2 Adapters M16x1 female to NPT 1/2" male | CD |
| 8 890 009 | 2 Adapters M16x1 female to NPT 1/2" female | CD |
| 8 890 010 | 2 Adapters M16x1 male to NPT 1/4" female | CD |
| 8 891 008 | 1 Adapter M16x1 male to BSP 1/2"female | CD |
| 8 891 009 | 1 Adapter M16x1 male to BSP 3/4" female | CD |
| 8 890 011 | 2 Adapters M16x1 female to tube 1/4" male | CD |
| 8 890 012 | 2 Adapters M16x1 female to tube 3/8" male | CD |
| 8 890 013 | 2 Adapters M16x1 female to tube 1/2" male | CD |
| 8 890 024 | 2 Adapters M16x1 female to M16x1 female | CD |
| | 8 970 446 8 970 447 8 970 445 8 970 443 8 970 442 8 890 004 8 890 005 8 890 006 8 890 007 8 890 008 8 890 010 8 891 008 8 891 008 8 891 009 8 890 011 8 890 011 8 890 012 8 890 013 | 8 970 446 2 Barbed fittings for tubing 8 mm inner dia. 8 970 447 2 Barbed fittings for tubing 10 mm inner dia. 8 970 445 2 Barbed fittings for tubing 12 mm inner dia. 8 970 443 1 Adapter M16x1 male to M16x1 male 8 970 490 2 Collar nuts M16x1 female 8 970 442 2 Elbow fittings 90°, M16x1 female/male 8 890 004 2 Adapters M16x1 female to NPT 1/4" male 8 890 005 2 Adapters M16x1 female to NPT 1/4" female 8 890 006 2 Adapters M16x1 female to NPT 3/8" male 8 890 007 2 Adapters M16x1 female to NPT 3/8" female 8 890 008 2 Adapters M16x1 female to NPT 1/2" male 8 890 009 2 Adapters M16x1 female to NPT 1/2" female 8 890 010 2 Adapters M16x1 male to NPT 1/4" female 8 891 008 1 Adapter M16x1 male to BSP 1/2 "female 8 891 009 1 Adapter M16x1 male to BSP 3/4" female 8 890 011 2 Adapters M16x1 female to tube 1/4" male 8 890 012 2 Adapters M16x1 female to tube 3/8" male 8 890 013 2 Adapters M16x1 female to tube 1/2" male |



Shut-off valves for loop circuit

| Order No. | Description | Suitable for |
|-----------|--|--------------|
| 8 970 457 | Shut-off valve (-30 °C +200 °C), M16x1 | CD |
| 8 970 456 | Shut-off valve (-10 °C +100 °C), M16x1 | CD |



Twin distributing adapters with barbed fittings

| Order No. | Description | Suitable for |
|-----------|--|-------------------------|
| 8 970 470 | Twin distributing adapter with barbed fittings | Tubing 8 mm inner dia. |
| 8 970 471 | Twin distributing adapter with barbed fittings | Tubing 12 mm inner dia. |
| 8 970 472 | Twin distributing adapter with barbed fittings | Tubing 10 mm inner dia. |
| 8 970 473 | Twin distributing adapter M16x1 female to 2 x M16x1 male | CD |

Refrigerated Circulators Accessories



EasyTEMP Software Software for instrument control, data recording and visualization

| Order No. | Description | Suitable for |
|-----------|--|--------------|
| 8 901 102 | EasyTEMP Software (free of charge at www.julabo.com) | CD |
| 8 901 105 | EasyTEMP Professional Software, incl. USB-Dongle | CD |
| 9 900 110 | USB interface cable 2m type A-B | CD |



Calibration and manufacturer's certificates

| Order No. | Description | Suitable for |
|-----------|--|--------------------------|
| 8 902 901 | 1-Point manufacturer's calibration certificate | CD |
| 8 902 903 | 3-Point manufacturer's calibration certificate | CD |
| 8 902 905 | 5-Point manufacturer's calibration certificate | CD |
| 8 903 025 | Manufacturer's Certificate for JULABO units with up to 1 kW cooling capacity (at +20 $^{\circ}$ C) | Refrigerated Circulators |



IQ/OQ Documentation for Equipment Qualification

| Order No. | Description | Suitable for |
|-----------|---------------------------------|--------------|
| 2 310 110 | IQ/OQ Documentation, Category 1 | CD |



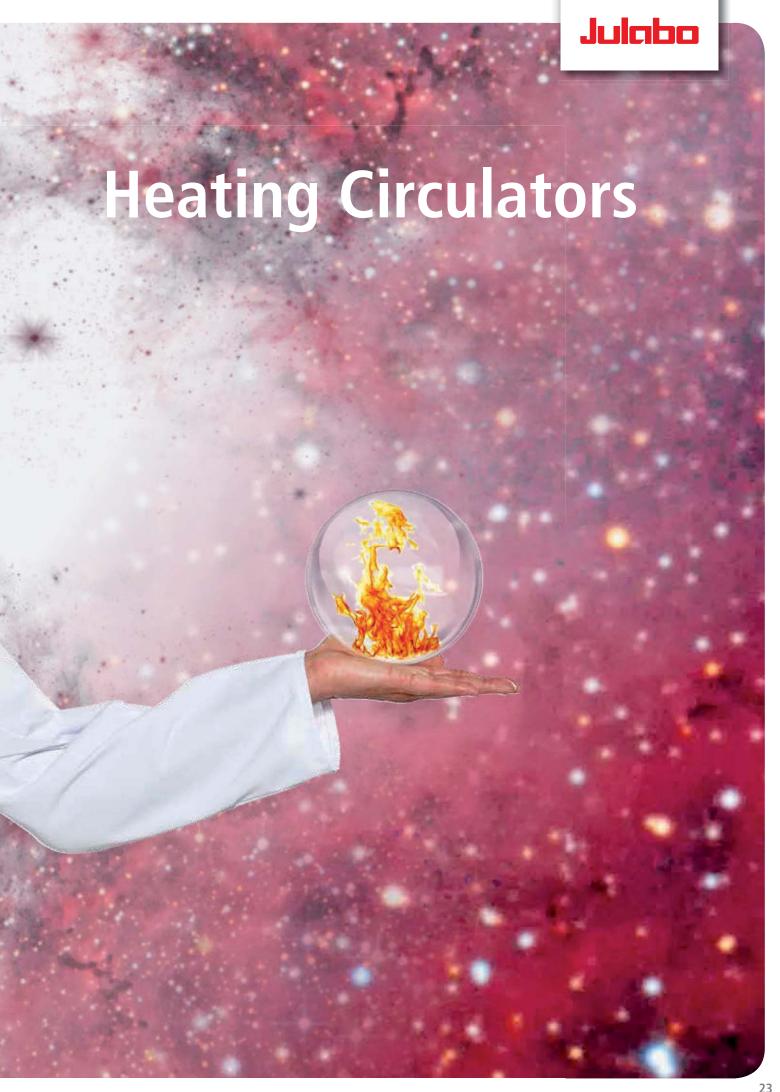
Preventative Maintenance Contracts

| Order No. | Description | Suitable for |
|-----------|--|--------------|
| 2 350 100 | Preventative Maintenance Contract Standard includes the following services: Visual inspection, technical diagnostics, data analysis, BlackBox, testing of tube connections and bath fluid, thorough cleaning of condenser and other components, testing of temperature stability and sensor calibration, testing/measuring of pump and cooling capacity (depending on model) and firmware update (if no hardware adjustment is required) | CD |
| 2 350 110 | Preventative Maintenance Contract Premium includes all services listed above as well as spare parts and labor required for installation or replacement | CD |

Julabo







CORIO[™]. Everything you need. The advantages at a glance.



Brilliant.

Bright display with strong illumination can be viewed easily from a long distance.



Touching permitted.

Optimum safety. The ergonomic plastic handle protects your fingers from hot surfaces.



Switch on. And off you go.

Intelligent operating concept. Ready for operation with just a few quick and easy steps.



Unique.

Specially designed pyramids ensure that the condensed liquid drips directly back into the bath.



Click

One for all. Control the circulator and the refrigeration unit with only one power switch.



Universal.

Universal bath attachment clamp. For straight containers. For round containers. For laboratory stands.



Everything at the front.

All operating controls and safety functions are accessed easily and comfortably from the front.



Space saving. Free up space.

Place your CORIO™ right next to an application, another unit, or wall. That saves space. This is made possible by eliminating vents and connections on the sides.



Internal. External.

The pump is controlled via a lever located directly below the display. Easily change between internal and external circulation.



Handle with ease.

Makes day-to-day work easy. Comfortably move your $\mathsf{CORIO}^{\mathsf{TM}}$ around using the ergonomic handles (front and rear).





Solid.

Heat protected sides with high-quality mineral wool insulation. (BC baths)



Cleaning. Easy.

Not only do the new units look good.
The functional design makes cleaning a breeze.



Clever.

A clean solution. The cleverly integrated drip off design. (B and BT baths)



Flexibility.

The jet nozzle permits continuous adjustment of the pump stream in your bath.



Stable.

Rubber feet allow for a secured footing of your CORIO™ to prevent damage to your laboratory equipment.



Locked in.

The lockable power plug guarantees safe power connection. More process safety.



USB.

Remote control made easy. CORIO™ CD circulators featurea USB connection.



Soft. Quiet.

 $\mathsf{CORIO}^{\mathsf{TM}}$ circulators are cushion mounted. Protects the electronics. Reduces operating noise and vibration.



Connection. Easy.

Inclined pump connections (M16x1) facilitate the connection of applications. Each unit includes 2 barbed fittings of 8/12 mm diameter each (CD models).



Tidy.

The special drain tap for easy draining of bath fluids without tools (BC bath tanks).



ATC.

Absolute Temperature Calibration, 1-point calibration.



Safety.

CORIO[™] C models comply with protection class I (NFL) according to DIN 12876-1. CORIO[™] CD models comply with protection class III (FL).



JULABO. Quality.

Highest standards of quality for a long product life.



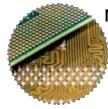
100% Checked.

100% testing. 100% quality. Each CORIO™ undergoes thorough quality testing before leaving the factory.



No sweat.

CORIO[™] works robust and reliable – even at ambient temperatures of up to +40 °C.



Modern. Reliable.

High-grade components in every CORIO[™] – platinum sensors, proven motor technology, CAN-Bus communication and much more.



Green technology.

Deliberately engineered with environmentally friendly materials and technologies.



Quick start.

Individual JULABO consultation and comprehensive manuals at your disposal.



Satisfied customers.

11 subsidiaries and more than 100 partners worldwide guarantee fast and qualified JULABO support.



Services 24/7.

Around the clock availability. You can find suitable accessories, data sheets, manuals, case studies, and more at www.julabo.com.







CORIO[™] C Immersion Circulator

for working temperatures from +20 °C to +100 °C

The CORIO™ C Immersion Circulator is the basic model of the CORIO™ circulator portfolio. The bath attachment clamp is included in delivery and facilitates mounting of the circulator on any bath tank up to 30 liters.

- Precise temperature control
- For internal standard applications
- For bath tanks with a max. filling volume of 30 liters
- Immersion depth: 7.5 ... 16.5 cm
- Bright, white, easy to read display
- Whisper quiet
- Easy operation
- Class I (NFL) according to DIN 12876-1

To adapt the CORIO[™] Immersion Circulator to your individual application we offer a comprehensive range of accessories (racks, bath lids, and more).



Option I

The universal bath attachment clamp permits mounting the $CORIO^{TM}$ Immersion Circulator on rectangular as well as round bath tanks.



Option II

Just a few simple steps and the bath attachment clamp is transformed into a mount for laboratory stands.



Option III

The Immersion Circulator can be attached directly to the rim of an open JULABO bath.

Applications (CORIO™ C and CD)

Flexible applications, for example when changing bath tanks. For a large variety of applications in chemistry, pharmaceutics, medicine, e.g. temperature applications for samples, analytics, or material testing, and more.



| CORIO™ C | | |
|--|-------------|------------|
| Order No. | 9 011 000 | |
| Model | С | |
| Working temperature range °C | +20 +1 | 00 |
| Temperature stability °C | ± 0.03 | |
| Heating capacity kW | 2 | |
| Circulation capacity Flow rate / Pressure | l/min 6 | bar 0.1 |
| Dimensions | W x L x H c | |



CORIO[™] CD Immersion Circulator

for working temperatures from +20 °C to +150 °C

In addition to the advantages of the $CORIO^{TM}$ C Circulator, the $CORIO^{TM}$ CD Immersion Circulator can be equipped with an optional pump set for temperature control of external applications.

- Precise temperature control
- For internal and external applications (accessories required)
- For bath tanks with a max. filling volume of 50 liters
- Immersion depth: 7.5 ... 16.5 cm
- Bright, white, easy to read display
- Very quiet
- Easy handling
- Pump change-over between internal and external circulation
- USB interface
- Class III (FL) according to DIN 12876-1

To adapt the CORIO[™] Immersion Circulator to your individual application we offer a comprehensive range of accessories (racks, bath lids, tubing, adapters, and more).



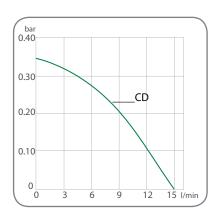
Optional pump set

With a few simple steps you can install a pump set onto the CORIO™ CD Immersion Circulator. In no time at all, your circulator is ready for temperature control of an external application.



| CORIO™ CD | | |
|---------------------------------------|----------------------------|-------------|
| Order No. | 9 012 000 | 0 |
| Model | CD | |
| Working temperature range °C | +20 + | 150 |
| Temperature stability °C | ± 0.03 | |
| Heating capacity kW | 2 | |
| Pump capacity Flow rate / Pressure | l/min 15 | bar 0.35 |
| Dimensions | W x L x H o 13.2 x 16 : | |

Pump capacity Bath fluid: Water





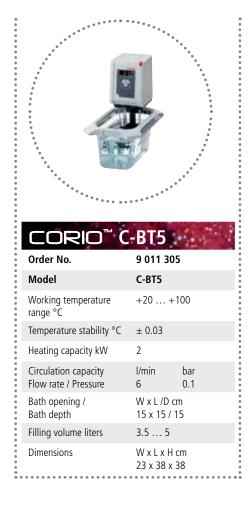
CORIO[™] C Open Heating Bath Circulators for internal temperature applications with transparent bath tanks

for working temperatures from +20 °C to +100 °C

The Open Heating Bath Circulators of the new CORIO™ series feature durable, high-quality transparent bath tanks.

- For internal applications
- Bright, white, easy to read display
- Whisper quiet

To adapt the CORIO[™] Open Heating Bath Circulator to your individual application we offer a comprehensive range of accessories (racks, bath lids, and more).











| Order No. | 9 011 309 |
|--|------------------------------|
| Model | C-BT9 |
| Working temperature range °C | +20 +100 |
| Temperature stability °C | ± 0.03 |
| Heating capacity kW | 2 |
| Circulation capacity Flow rate / Pressure | l/min bar 6 0.1 |
| Bath opening / Bath depth | W x L /D cm 23 x 15 / 15 |
| Filling volume liters | 6 9 |
| Dimensions | W x L x H cm 32 x 38 x 38 |



| CORIO" (| -BT19 | |
|--|----------------------------|------------|
| Order No. | 9 011 319 | 9 |
| Model | C-BT19 | |
| Working temperature range °C | +20 + | 100 |
| Temperature stability °C | ± 0.03 | |
| Heating capacity kW | 2 | |
| Circulation capacity Flow rate / Pressure | l/min 6 | bar 0.1 |
| Bath opening / Bath depth | W x L /D ci 30 x 35 / 1 | |
| Filling volume liters | 14 19 | |
| Dimensions | W x L x H o 38 x 58 x 3 | |
| | | |

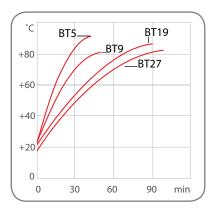


| CORIO™ C | -BT27 | |
|--|----------------------------|------------|
| Order No. | 9 011 327 | 1 |
| Model | C-BT27 | |
| Working temperature range °C | +20 +1 | 100 |
| Temperature stability °C | ± 0.03 | |
| Heating capacity kW | 2 | |
| Circulation capacity Flow rate / Pressure | l/min 6 | bar 0.1 |
| Bath opening / Bath depth | W x L /D cr 30 x 35 / 2 | ** |
| Filling volume liters | 20 27 | |
| Dimensions | W x L x H o 38 x 58 x 4 | |

Applications

Temperature control of samples, preparation of samples for serology and clinical chemistry, analysis, material testing, and more.

Heat-up timeBath fluid: Water



CORIO[™] C Open Heating Bath Circulators for internal temperature applications with stainless steel bath tanks

for working temperatures from +20 °C to +100 °C

The Open Heating Bath Circulators of the new CORIO™ series feature high-quality bath tanks made of stainless steel.

- For internal applications
- Bright, white, easy to read display
- Whisper quiet
- High-quality bath tanks made of stainless steel
- Integrated drain screw (except for B5)

To adapt the CORIO[™] Open Heating Bath Circulator to your individual application we offer a comprehensive range of accessories (racks, bath lids, and more).

Applications

Temperature control of samples, preparation of samples for serology and clinical chemistry, analysis, material testing, and more.



| CORIO™ C | -B5 |
|--|------------------------------|
| Order No. | 9 011 405 |
| Model | C-B5 |
| Working temperature range °C | +20 +100 |
| Temperature stability °C | ± 0.03 |
| Heating capacity kW | 2 |
| Circulation capacity Flow rate / Pressure | l/min bar 6 0.1 |
| Bath opening / Bath depth | W x L /D cm 15 x 15 / 15 |
| Filling volume liters | 3.5 5 |
| Dimensions | W x L x H cm 23 x 38 x 41 |







CORIO™ C-B13

| Order No. | 9 011 413 |
|--|------------------------------|
| Model | C-B13 |
| Working temperature range °C | +20 +100 |
| Temperature stability °C | ± 0.03 |
| Heating capacity kW | 2 |
| Circulation capacity Flow rate / Pressure | l/min bar 6 0.1 |
| Bath opening / Bath depth | W x L /D cm 30 x 18 / 15 |
| Filling volume liters | 9 13 |
| Dimensions | W x L x H cm 38 x 40 x 42 |



CORIO™ C-B17

| Order No. | 9 011 417 | |
|--|------------------------------|--|
| Model | C-B17 | |
| Working temperature range °C | +20 +100 | |
| Temperature stability °C | ± 0.03 | |
| Heating capacity kW | 2 | |
| Circulation capacity Flow rate / Pressure | l/min bar 6 0.1 | |
| Bath opening / Bath depth | W x L /D cm 30 x 18 / 20 | |
| Filling volume liters | 13 17 | |
| Dimensions | W x L x H cm 38 x 40 x 47 | |



CORIO™ C-B19

| Order No. | 9 011 419 | |
|--|------------------------------|--|
| Model | C-B19 | |
| Working temperature range °C | +20 +100 | |
| Temperature stability °C | ± 0.03 | |
| Heating capacity kW | 2 | |
| Circulation capacity Flow rate / Pressure | l/min bar 6 0.1 | |
| Bath opening / Bath depth | W x L /D cm 30 x 35 / 15 | |
| Filling volume liters | 14 19 | |
| Dimensions | W x L x H cm 38 x 58 x 42 | |



Heat-up timeBath fluid: Water

| °C | B5 | D1 | B17, | B19 |
|-----|----|----|------|-----|
| +80 | | BI | B27 | |
| +60 | | | | |
| +40 | | | | |
| +20 | | | | |
| 0 | | | | |
| 0 | 30 | 60 | 90 | min |

CORIO™ C-B27

| | The second secon |
|--|--|
| Order No. | 9 011 427 |
| Model | C-B27 |
| Working temperature range °C | +20 +100 |
| Temperature stability °C | ± 0.03 |
| Heating capacity kW | 2 |
| Circulation capacity Flow rate / Pressure | l/min bar 6 0.1 |
| Bath opening / Bath depth | W x L /D cm 30 x 35 / 20 |
| Filling volume liters | 17 27 |
| Dimensions | W x L x H cm 38 x 58 x 47 |

Heating Circulators

CORIO™ CD Open Heating Bath Circulators for internal and external temperature applications with transparent bath tanks

for working temperatures from +20 °C to +100 °C

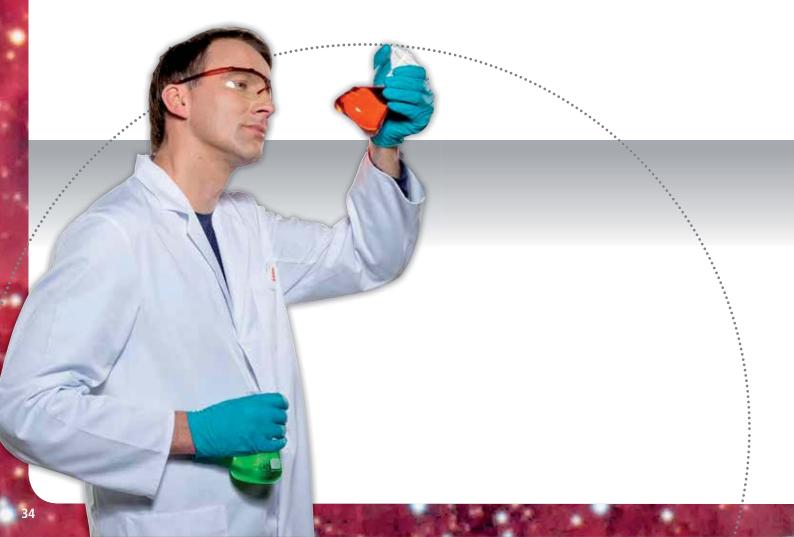
The Open Heating Bath Circulator of the new CORIO™ series feature durable, high-quality transparent bath tanks and pump connections.

- For internal and external applications
- Bright, white, easy to read display
- Very quiet
- Pump change-over between internal and external circulation
- USB connection
- Class III (FL) according to DIN 12876-1

To adapt the CORIO[™] Open Heating Bath Circulator to your individual application we offer a comprehensive range of accessories (racks, bath lids, tubing, adapters and more).

Applications

Temperature control of samples, preparation of samples for serology and clinical chemistry, analysis, material testing, and more. External temperature control applications in combination with measuring instruments, measuring cells, photometers, refractometers, polarimeters, and more.









| Order No. | 9 012 305 |
|---------------------------------------|------------------------------|
| Model | CD-BT5 |
| Working temperature range °C | +20 +100 |
| Temperature stability °C | ± 0.03 |
| Heating capacity kW | 2 |
| Pump capacity Flow rate / Pressure | l/min bar 15 0.35 |
| Bath opening / Bath depth | W x L / D cm 15 x 15 / 15 |
| Filling volume liters | 3.5 5 |
| Dimensions | W x L x H cm 23 x 38 x 38 |

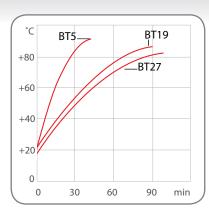


| CORIO" C | D-BT1 | 19 |
|---------------------------------------|------------------------|-------------|
| Order No. | 9 012 31 | 9 |
| Model | CD-BT19 | |
| Working temperature range °C | +20 + | 100 |
| Temperature stability °C | ± 0.03 | |
| Heating capacity kW | 2 | |
| Pump capacity Flow rate / Pressure | l/min 15 | bar 0.35 |
| Bath opening / Bath depth | W x L / D 30 x 35 / | |
| Filling volume liters | 14 19 | |
| Dimensions | W x L x H 38 x 58 x | |



| | D-BT2 | 27 |
|---------------------------------------|------------------------|-------------|
| Order No. | 9 012 32 | 7 |
| Model | CD-BT27 | |
| Working temperature range °C | +20 + | 100 |
| Temperature stability °C | ± 0.03 | |
| Heating capacity kW | 2 | |
| Pump capacity Flow rate / Pressure | l/min 15 | bar 0.35 |
| Bath opening / Bath depth | W x L / D 30 x 35 / | |
| Filling volume liters | 20 27 | |
| Dimensions | W x L x H 38 x 58 x | |

Heat-up timeBath fluid: Water



Pump capacity Bath fluid: Water

bar 0.40 0.30 _CD 0.20 0.10 0 12

CORIO[™] CD Open Heating Bath Circulators

for internal and external temperature applications with stainless steel bath tanks for working temperatures from +20 °C to +150 °C

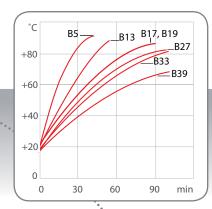
The Open Heating Bath Circulators of the new CORIO™ series feature high-quality bath tanks made of stainless steel and with pump connections.

- For internal and external applications
- Bright, white, easy to read display
- Very quiet
- Pump change-over between internal and external circulation
- USB connection
- High-quality bath tanks made of stainless steel
- Integrated drain screw (except for B5)

To adapt the CORIO[™] Open Heating Bath Circulator to your individual application we offer a comprehensive range of accessories (racks, bath lids, tubing, adapters, and more).



Heat-up timeBath fluid: Water



23 x 38 x 41

Applications

CD

Temperature control of samples, preparation of samples for serology and clinical chemistry, analysis, material testing, and more. External temperature control applications in combination with measuring instruments, measuring cells, photometers, refractometers, polarimeters, and more.







| Order No. | 9 012 413 |
|---------------------------------------|------------------------------|
| Model | CD-B13 |
| Working temperature range °C | +20 +150 |
| Temperature stability °C | ± 0.03 |
| Heating capacity kW | 2 |
| Pump capacity Flow rate / Pressure | l/min bar 15 0.35 |
| Bath opening / Bath depth | W x L / D cm 30 x 18 / 15 |
| Filling volume liters | 9 13 |
| Dimensions | W x L x H cm 38 x 40 x 42 |



CORIO™ CD-B17 CORIO™ CD-B19

| The second secon | | * W. F. (1) |
|--|----------------------------|-------------|
| Order No. | 9 012 41 | 7 |
| Model | CD-B17 | |
| Working temperature range °C | +20 + | 150 |
| Temperature stability °C | ± 0.03 | |
| Heating capacity kW | 2 | |
| Pump capacity Flow rate / Pressure | l/min 15 | bar 0.35 |
| Bath opening / Bath depth | W x L / D o 30 x 18 / 2 | |
| Filling volume liters | 13 17 | |
| Dimensions | W x L x H o 38 x 40 x 4 | |



| Order No. | 9 012 419 |
|---------------------------------------|------------------------------|
| Model | CD-B19 |
| Working temperature range °C | +20 +150 |
| Temperature stability °C | ± 0.03 |
| Heating capacity kW | 2 |
| Pump capacity Flow rate / Pressure | l/min bar 15 0.35 |
| Bath opening / Bath depth | W x L / D cm 30 x 35 / 15 |
| Filling volume liters | 14 19 |
| Dimensions | W x L x H cm 38 x 58 x 42 |





| | | F-4-7 |
|---------------------------------------|----------------------------|-------------|
| Order No. | 9 012 427 | 7 |
| Model | CD-B27 | |
| Working temperature range °C | +20 + | 150 |
| Temperature stability °C | ± 0.03 | |
| Heating capacity kW | 2 | |
| Pump capacity Flow rate / Pressure | l/min 15 | bar 0.35 |
| Bath opening / Bath depth | W x L / D c 30 x 35 / 2 | |
| Filling volume liters | 17 27 | |
| Dimensions | W x L x H o 38 x 58 x 4 | |



| Order No. | 9 012 433 |
|---------------------------------------|------------------------------|
| Model | CD-B33 |
| Working temperature range °C | +20 +150 |
| Temperature stability °C | ± 0.03 |
| Heating capacity kW | 2 |
| Pump capacity Flow rate / Pressure | l/min bar 15 0.35 |
| Bath opening / Bath depth | W x L / D cm 66 x 32 / 15 |
| Filling volume liters | 26 39 |
| Dimensions | W x L x H cm 91 x 36 x 43 |



| Order No. | 9 012 439 |
|---------------------------------------|------------------------------|
| Model | CD-B39 |
| Working temperature range °C | +20 +150 |
| Temperature stability °C | ± 0.03 |
| Heating capacity kW | 2 |
| Pump capacity Flow rate / Pressure | l/min bar 15 0.35 |
| Bath opening / Bath depth | W x L / D cm 33 x 30 / 30 |
| Filling volume liters | 35 41 |
| Dimensions | W x L x H cm 54 x 34 x 57 |

Heating Circulators

CORIO[™] CD Heating Circulators

for internal and external temperature applications with stainless steel baths for working temperatures from +20 °C to +150 °C

 $\mathsf{CORIO}^{\mathsf{TM}}$ Heating Circulators feature professional technology for demanding applications. These units facilitate internal temperature control in the bath tank or control of externally connected applications.

- For internal and external applications
- Bright, white, easy to read display
- Very quiet
- Pump change-over between internal and external circulation
- USB connection
- High-quality bath tanks made of stainless steel with bath lid and drain tap
- Integrated cooling coil for counter-cooling

To adapt the CORIO[™] Heating Circulator to your individual application we offer a comprehensive range of accessories (racks, bath lids, tubing, adapters, and more).



External temperature applications in combination with jacketed reactors, distillation apparatus, mini-plant applications, photometers, refractometers and more, internal temperature applications of samples and small objects.



CD-BC4 9 012 504 Order No. CD-BC4 Model Working temperature +20 ... +150 range °C Temperature stability °C ± 0.03 Heating capacity kW 2 Pump capacity l/min bar Flow rate / Pressure 15 0.35

Filling volume liters 3 ... 4.5

Dimensions W x L x H cm
23 x 41 x 42

W x L / D cm

13 x 15 / 15

Bath opening /

Bath depth



OptionalBath cover with built-in heat exchanger.







| Order No. | 9 012 50 |)6 |
|---------------------------------------|------------------------|-------------|
| Model | CD-BC6 | |
| Working temperature range °C | +20 + | -150 |
| Temperature stability °C | ± 0.03 | |
| Heating capacity kW | 2 | |
| Pump capacity Flow rate / Pressure | l/min 15 | bar 0.35 |
| Bath opening / Bath depth | W x L / D 13 x 15 / | |
| Filling volume liters | 4.5 6 | |
| Dimensions | W x L x H 24 x 44 x | |



CORIO™ CD-BC12

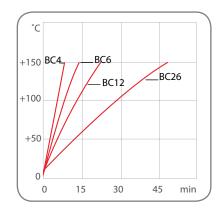
| The second secon | | *** F (1) |
|--|-------------|-------------|
| Order No. | 9 012 512 | 2 |
| Model | CD-BC12 | |
| Working temperature range °C | +20 + | 150 |
| Temperature stability °C | ± 0.03 | |
| Heating capacity kW | 2 | |
| Pump capacity Flow rate / Pressure | l/min 15 | bar 0.35 |
| Bath opening / Bath depth | W x L / D o | |
| Filling volume liters | 8.5 12 | |
| Dimensions | W x L x H o | |



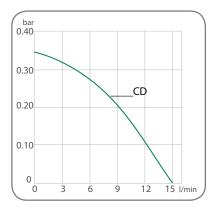
CORIO™ CD-BC26

| Order No. | 9 012 526 |
|---------------------------------------|------------------------------|
| Model | CD-BC26 |
| Working temperature range °C | +20 +150 |
| Temperature stability °C | ± 0.03 |
| Heating capacity kW | 2 |
| Pump capacity Flow rate / Pressure | l/min bar 15 0.35 |
| Bath opening / Bath depth | W x L / D cm 22 x 30 / 20 |
| Filling volume liters | 19 26 |
| Dimensions | W x L x H cm 39 x 62 x 48 |

Heat-up timeBath fluid: Thermal



Pump capacityBath fluid: Water



JULABO Thermal Bath Fluids

JULABO Thermal bath fluids have been carefully chosen after 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, oxidation and heat transfer characteristics of the Thermal fluids are specifically selected for use with JULABO CORIO™CD temperature control instruments.



| 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) mm²/s | 4.07 |
| Density (at +20 $^{\circ}$ C) g/cm ³ | 1.08 |
| Pour point °C | -70 |
| Boiling point °C | +108 |
| Ignition temperature °C | +430 |
| Color | light yellow |



| Thermal M | |
|---|-----------|
| Order No. 5 liters | 8 940 101 |
| Order No. 10 liters | 8 940 100 |
| Working temperature range °C | +70 +170 |
| Flash point °C | +284 |
| Fire point °C | +306 |
| Viscosity, (kinematic at +20 °C) mm ² /s | 293 |
| Density (at $+20$ °C) g/cm ³ | 1.15 |
| Pour point °C | -39 |
| Boiling point °C | >+170 |
| Ignition temperature °C | >+255 |
| Color | clear |

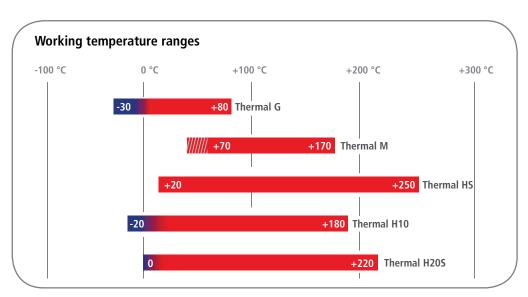
Advantages

- Wide temperature ranges
- Low viscosity
- · High stability
- Good heat conductivity
- Minimum odor
- Low corrosion tendency
- Low toxicity
- Long fluid life



Makes laboratory work easier.JULABO Thermal bath fluids

are delivered in containers with a handy drain tap.



Julabo



Thermal HS

| Order No. 5 liters | 8 940 103 |
|---|-------------|
| Order No. 10 liters | 8 940 102 |
| Working temperature range °C | +20 +250 |
| Flash point °C | +270 |
| Fire point °C | +360 |
| Viscosity, (kinematic at +20 °C) mm²/s | 55 |
| Density (at $+20$ °C) g/cm ³ | 0.96 |
| Pour point °C | <-60 |
| Boiling point °C | +246 |
| Ignition temperature °C | >+400 |
| Color | light brown |



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) mm²/s | 10.8 |
| Density (at $+20$ °C) g/cm ³ | 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) mm²/s | 22.3 |
| Density (at $+20$ °C) g/cm ³ | 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 high dielectric strength. 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 \dots

... (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 fluids ...

... in our brochure 'Thermal Bath Fluids' at www.julabo.com.



Heating Circulators Accessories



 $\textbf{Aqua Stabil} \quad \text{Water protective media to prevent formation of algae and bacteria}$

| Order No. | Description | Suitable for |
|-----------|------------------------|--------------|
| 8 940 006 | 6 bottles 100 ml each | C, CD |
| 8 940 012 | 12 bottles 100 ml each | C, CD |



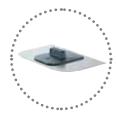
Transparent bath tanks up to +100 °C for heating immersion circulators

| Order No. | Description | Suitable for |
|-----------|----------------|--------------|
| 9 901 305 | Bath tank BT5 | C, CD |
| 9 901 309 | Bath tank BT9 | C, CD |
| 9 901 319 | Bath tank BT19 | C, CD |
| 9 901 327 | Bath tank BT27 | C, CD |



Stainless steel bath tanks up to +150 °C, insulated for heating immersion circulators

| Order No. | Description | Suitable for |
|-----------|---------------|--------------|
| 9 903 405 | Bath tank B5 | C, CD |
| 9 903 413 | Bath tank B13 | C, CD |
| 9 903 417 | Bath tank B17 | C, CD |
| 9 903 419 | Bath tank B19 | C, CD |
| 9 903 427 | Bath tank B27 | C, CD |
| 9 903 433 | Bath tank B33 | C, CD |
| 9 903 439 | Bath tank B39 | C, CD |



Bath covers

| Order No. | Description | Suitable for |
|-----------|--|----------------------|
| 9 970 296 | Flat bath cover | B5, BT5 |
| 9 970 290 | Flat bath cover | B13, B17 |
| 9 970 291 | Flat bath cover | B19, B27, BT19, BT27 |
| 9 970 292 | Flat bath cover | B33 |
| 9 970 293 | Flat bath cover | B39 |
| 9 970 253 | Lift-up gable bath cover made of stainless steel | B13, B17 |
| 9 970 254 | Lift-up gable bath cover made of stainless steel | B19, B27, BT19, BT27 |
| 9 970 257 | Lift-up gable bath cover made of stainless steel | B33 |



Assembly frames

| Order No. | Description | Suitable for |
|-----------|---|---------------------------|
| 9 970 229 | Stainless steel bridge including assembly frame | C-BT5, C-B5 |
| 9 970 228 | Stainless steel bridge including assembly frame | C-BT19/27, C-B13/17/19/27 |





Hollow balls to reduce heat loss, evaporation, oxygen input, odors, action of light

| Order No. | Description | Suitable for | A 50 |
|-----------|--|--------------|------|
| 8 970 010 | Hollow balls, Polypropylen $^{\!\circ}$, 20 mm Ø, 1000 pcs. (up to +100 $^{\circ}\text{C},$ for water only) | C, CD | |



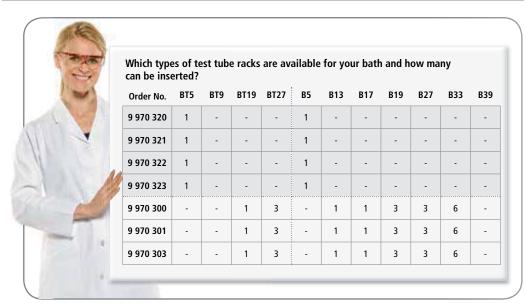
Test tube racks made of stainless steel, up to +150 °C

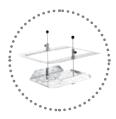
| Order No. | Description | Suitable for |
|-----------|--|--------------|
| 9 970 320 | Test tube rack for 30 tubes 100 x 17 mm dia. | B5, BT5 |
| 9 970 321 | Test tube rack for 42 tubes 75 x 12/13 mm dia. | B5, BT5 |
| 9 970 322 | Test tube rack for 42 tubes 40 x 10/11 mm dia. | B5, BT5 |
| 9 970 323 | Test tube rack for 10 Falcon tubes 50 ml | B5, BT5 |



Test tube racks made of high grade plastic, up to +100 °C

| Order No. | Description | Suitable for |
|-----------|---|-------------------------------------|
| 9 970 300 | Test tube rack for 60 tubes 100 x 16/17 mm dia. | B13, B17, B19, B27, B33, BT19, BT27 |
| 9 970 301 | Test tube rack for 90 tubes 75 x 12/13 mm dia. | B13, B17, B19, B27, B33, BT19, BT27 |
| 9 970 303 | Test tube rack for 21 tubes 30 mm dia. | B13, B17, B19, B27, B33, BT19, BT27 |





Immersion-height adjustable platforms

| Order No. | Description | Suitable for |
|-----------|--------------------------------------|--------------|
| 9 970 502 | Immersion-height adjustable platform | B19, B27 |
| 9 970 503 | Immersion-height adjustable platform | B13, B17 |

Heating Circulators Accessories



Universal bath attachment clamp

| Order No. | Description | Suitable for |
|-----------|--|--------------|
| 9 970 420 | Bath attachment clamp for wall thickness up to 30 mm | C, CD |



Pump set for external temperature applications

| Order No. | Description | Suitable for |
|-----------|----------------------------------|--------------|
| 9 970 140 | Pump set (Pump connectors M16x1) | CD |



Stand attachment for laboratory stands

| Order No. | Description | Suitable for |
|-----------|--|--------------|
| 9 970 022 | Stand attachment with rod 200x12 mm dia. | C, CD |



Heat exchangers / Cooling installations

| Order No. | Description | Suitable for |
|-----------|--|--|
| 9 970 240 | Bath cover with built-in heat exchanger | BC4, BC6 |
| 9 970 242 | Bath cover with built-in heat exchanger | BC12 |
| 9 970 100 | Assembly cooling coil for counter-cooling with tap water | CD-BT5/19/27, CD-B5/13/17/19/27/33/39 |
| 9 970 101 | Installation cooling coil for counter-cooling with tap water | C, C-BT5/9/19/27, C-B5/13/17/19/27, CD |



CR®Tubing (-30 ... +120 °C)

| Order No. | Description | Suitable for |
|-----------|-----------------------|--------------|
| 8 930 008 | 1 m, 8 mm inner dia. | CD |
| 8 930 010 | 1 m, 10 mm inner dia. | CD |
| 8 930 012 | 1 m, 12 mm inner dia. | CD |



Viton*Tubing (-35 ... +200 °C)

| Order No. | Description | Suitable for |
|-----------|-----------------------|--------------|
| 8 930 108 | 1 m, 8 mm inner dia. | CD |
| 8 930 110 | 1 m, 10 mm inner dia. | CD |
| 8 930 112 | 1 m, 12 mm inner dia. | CD |





Tubing insulation (-50...+100 °C)

| Order No. | Description | Suitable for |
|-----------|--------------------------------------|---------------------|
| 8 930 410 | 1 m, for tubing 8 - 10 mm inner dia. | CR® / Viton® Tubing |
| 8 930 412 | 1 m, for tubing 12 mm inner dia. | CR® / Viton® Tubing |



Tube clamps

| Order No. | Description | Suitable for |
|-----------|-----------------------|---|
| 8 970 480 | 2 Tube clamps, size 1 | CR® / Viton® Tubing 8 mm inner dia. |
| 8 970 481 | 2 Tube clamps, size 2 | CR® / Viton® Tubing 10 - 12 mm inner dia. |



Metal tubing flexible, insulated, -50 ... +200 °C

| Order No. | Description | Suitable for |
|-----------|---|--------------|
| 8 930 220 | 0.5 m Metal tubing, 2 fittings M16x1 female | CD |
| 8 930 221 | 1.0 m Metal tubing, 2 fittings M16x1 female | CD |
| 8 930 222 | 1.5 m Metal tubing, 2 fittings M16x1 female | CD |
| 8 930 223 | 3.0 m Metal tubing, 2 fittings M16x1 female | CD |



Adapters and connectors

| Order No. | Description | Suitable for |
|-----------|---|--------------|
| 8 970 446 | 2 Barbed fittings for tubing 8 mm inner dia. | CD |
| 8 970 447 | 2 Barbed fittings for tubing 10 mm inner dia. | CD |
| 8 970 445 | 2 Barbed fittings for tubing 12 mm inner dia. | CD |
| 8 970 443 | 1 Adapter M16x1 male to M16x1 male | CD |
| 8 970 490 | 2 Collar nuts M16x1 female | CD |
| 8 970 442 | 2 Elbow fittings 90°, M16x1 female/male | CD |
| 8 890 004 | 2 Adapters M16x1 female to NPT 1/4" male | CD |
| 8 890 005 | 2 Adapters M16x1 female to NPT 1/4" female | CD |
| 8 890 006 | 2 Adapters M16x1 female to NPT 3/8" male | CD |
| 8 890 007 | 2 Adapters M16x1 female to NPT 3/8" female | CD |
| 8 890 008 | 2 Adapters M16x1 female to NPT 1/2" male | CD |
| 8 890 009 | 2 Adapters M16x1 female to NPT 1/2" female | CD |
| 8 890 010 | 2 Adapters M16x1 male to NPT 1/4" female | CD |
| 8 891 008 | 1 Adapter M16x1 male to BSP 1/2"female | CD |
| 8 891 009 | 1 Adapter M16x1 male to BSP 3/4" female | CD |
| 8 890 011 | 2 Adapters M16x1 female to tube 1/4" male | CD |
| 8 890 012 | 2 Adapters M16x1 female to tube 3/8" male | CD |
| 8 890 013 | 2 Adapters M16x1 female to tube 1/2" male | CD |
| 8 890 024 | 2 Adapters M16x1 female to M16x1 female | CD |



Heating Circulators Accessories



Shut-off valves for loop circuit

| Order No. | Description | Suitable for |
|-----------|--|--------------|
| 8 970 457 | Shut-off valve (-30 °C +200 °C), M16x1 | CD |
| 8 970 456 | Shut-off valve (-10 °C +100 °C), M16x1 | CD |



Twin distributing adapters with barbed fittings

| Order No. | Description | Suitable for |
|-----------|--|-------------------------|
| 8 970 470 | Twin distributing adapter with barbed fittings | Tubing 8 mm inner dia. |
| 8 970 471 | Twin distributing adapter with barbed fittings | Tubing 12 mm inner dia. |
| 8 970 472 | Twin distributing adapter with barbed fittings | Tubing 10 mm inner dia. |
| 8 970 473 | Twin distributing adapter M16x1 female to 2 x M16x1 male | CD |



EasyTEMP Software Software for instrument control, data recording and visualization

| Order No. | Description | Suitable for |
|-----------|--|--------------|
| 8 901 102 | EasyTEMP Software (free of charge at www.julabo.com) | CD |
| 8 901 105 | EasyTEMP Professional Software, incl. USB-Dongle | CD |
| 9 900 110 | USB interface cable 2m type A-B | CD |



Calibration and manufacturer's certificates

| Order No. | Description | Suitable for |
|-----------|---|--------------|
| 8 902 901 | 1-Point manufacturer's calibration certificate | C, CD |
| 8 902 903 | 3-Point manufacturer's calibration certificate | C, CD |
| 8 902 905 | 5-Point manufacturer's calibration certificate | C, CD |
| 8 903 015 | Manufacturer's Testing Certificate for JULABO units w/o cooling units | C, CD |



IQ/OQ Documentation for Equipment Qualification

| Order No. | Description | Suitable for |
|-----------|---------------------------------|--------------|
| 2 310 110 | IQ/OQ Documentation, Category 1 | C, CD |





Preventative Maintenance Contracts

| Order No. | Description | Suitable for |
|-----------|--|--------------|
| 2 350 100 | Preventative Maintenance Contract Standard includes the following services: Visual inspection, technical diagnostics, data analysis, BlackBox, testing of tube connections and bath fluid, thorough cleaning of condenser and other components, testing of temperature stability and sensor calibration, testing/measuring of pump and cooling capacity (depending on model) and firmware update (if no hardware adjustment is required) | C, CD |
| 2 350 110 | Preventative Maintenance Contract Premium includes all services listed above as well as spare parts and labor required for installation or replacement | C, CD |





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