

Monitor and Control Apparatus



Electronic controller "Electemp-TFT"



NEW DESIGN

FEATURES

- Temperature range: -150 °C to 1300 °C
- Stability: ± 0.1 °C.
- Resolution: ± 0.1 °C Pt 100 / ± 1 °C K Type probe.
- Touch screen**
 - Main On/Off switch.
 - Acoustic and visual alarm.
 - Clock calendar.
 - Up to 10 work programs.
 - Up to 6 segments per program.
 - Stability time in each segment (from 1 min to 99h).
 - Ramps between segments.
 - Alarms and events storage.
 - Probe error detection.
 - Self Diagnostics.
 - Network failure detection and saving.
 - Over temperature and low temperature alarms and memorization (date, start time, end time and temperature).
 - Safety thermostat (TS) by software.
 - RS-232 and USB output.
 - Software for PC.
 - Temperature control auto-tuning.
 - Manual user on screen.
 - Configurable parameters: Date / time, temperature correction, data collection interval, language (English, Spanish and French), °C / °F selection, over temperature and low temperature limit.

CONTROL PANEL

- Setpoint temperature and time indicator.
- Temperature limit indicator.
- Timer virtual pushbutton.
- Reverse virtual pushbutton.
- Start virtual pushbutton.
- Stop virtual pushbutton.
- Programming virtual pushbutton.

BACK PANEL

- Power output (SCHUKO plug) 3100 W at 230 V.
- Protection fuse.
- Pt100 probe connection.
- K type probe connection.
- Data output.

APPLICATIONS

Digital thermometer.
To control and display temperature in any equipment with temperature control system, that uses a contact thermometer, such as: Baths, Immersion thermostats, Hotplates and Hotplate stirrers, Mantles, etc.
Can also be used by a immersion thermostat controlling a heater element. (maximum power 3100 W).
As a regulator or temperature reader in equipment that are labelled with

MODEL

| Part No. | Height / Width / Depth cm (exterior) | Max. power W (at 230 V) | Weight Kg |
|----------------|---|----------------------------|--------------|
| 3000897 | 10.5 13.5 21 | 3100 | 1.250 |

ACCESSORIES

- Pt 100 probe.** Immersion dimensions: 4 mm \varnothing , 130 mm length. Cable: 150 cm length. Part No. **1000893**
- Type K probe.** Immersion dimensions: 2 mm \varnothing , 150 mm length. Cable: 150 cm length. Part No. **1000895**



Electronic contact thermometer "Sensoterm II"

DIGITAL DISPLAY, PT 1000 PROBE, AISI 304 STAINLESS STEEL.
STABILITY ± 1 °C, ± 1 DIGIT. RESOLUTION ± 1 °C.



ONLY SUITABLE FOR INSTRUMENTS THAT CAN USE AN ELECTRICAL CONTACT THERMOMETER.

FEATURES

- Advantages include a separate temperature probe that maintain the main body away from steam and other vapours. Safer than a glass contact thermometer, eliminating the risk of broken it and a mercury spillage.
- Main body made of ABS plastic.

TECHNICAL DATA

- Temperature range: from -50 °C to 300 °C.
- Temperature probe: 3.5 mm \varnothing x 250 mm immersion.
- Temperature Display: 8 mm high LCD display.
- Ambient working range: 0 to 60 °C and a relative humidity of 80 %.

MODEL

| Part No. | Height / Width / Depth cm (exterior) | Weight Kg |
|----------------|---|--------------|
| 1001009 | 13 7 2.4 | 0.250 |



Instruments labelled with that can use the electronic controller "Electemp-TFT" and the electronic contact thermometer "Sensoterm".



Sand Bath
"Combiplac-Sand"
Parts No. 6000708 and 6000709.



Hotplate - Rectangular
"Combiplac"
Parts No. 3000156 and 3000718.



Hotplate - Circular
"Combiplac"
Parts No. 3002301 and 3002302.



Magnetic Stirrers "Agimatic"
Parts No. 7000243, 7002431,
7000446, 7001511, 7001609,
7000837 and 7000838.

NOTE: Any equipment that can be connected to an electrical contact thermometer can also be used with an "Electemp-TFT" or "Sensoterm" unit.



Electronic energy controller “Enertron”

FEATURES

Regulates the power to the heating element by pulsing electronic circuit, free of noise and interferences

CONTROL PANEL

Main ON/OFF switch.
Mains “ON” indicator lamp.
“ON” indicator power out.
Controllable from 4% to 100 %.

BACK OF CONTROLLER

Output of power (Schuko plug system).
Protection fuse.
Connection for a contact thermometer.

APPLICATIONS

Regulates the power of a heating element in ovens, baths, radiators, hotplates, etc.

MODEL

| Part No. | Height / Width / Depth cm (exterior) | Max. power W (at 230 V) | Weight Kg |
|----------------|---|----------------------------|--------------|
| 3000886 | 10.5 13.5 21 | 2500 | 1.2 |



“Enertron” application to a hotplate, showing the unit connected with an electronic contact thermometer.



Digital thermometer “TC-9226-A”

FEATURES

Main body made of PVC with anti-slide for better stability.
Temperature range from -200 °C to 1370 °C (-328 to 2498 °F).
Reads °C or °F, reading within 1 second.
Memorizes the last 10 temperature readings. Displays the reading for 3 seconds. It is possible to hold the reading on the screen.
Switches off automatically after 1 hour (if it is in a continuous mode).
LCD with back light illumination.
Low battery power indicator.
Powered by 3 x 1.5V “AAA” batteries”.
Compatible with most Type K sensors.
Operating conditions: from -10 to 50 °C.
Dimensions: (height x width x depth): 17 x 7 x 3 cm. Weight 150g.

| MODEL | Part No. | Temp. range °C | Resolution °C | Precision °C |
|-----------|----------------|----------------|---------------|---|
| CT-9226-A | 5903030 | -200 to 1370 | 0.1 | from -200 to -50: ±2 from -50 to 740: ±1 from 740 to 1370: ±2 |

The precision figures supplied are based on a measurement range from 18 to 28 °C (does not include the sensor error).



Supplied complete with a Type K sensor and cable of 1.40 mm Ø x 100 cm long.

ACCESSORY

Sensor type K of 8 mm Ø x 30 cm length. Part No. **5903025**



Digital Humidity meter with Thermometer “HT-305E”

FEATURES

Temperature range from 0 °C to 60 °C.
Humidity range from 10% to 95% RH.
Digital Display °C or in °F Fast response: 0.4”.
Power: battery 9 V.
Dimensions: (height x width x depth): 3.2 x 7 x 15.5 cm.
Weight: 370 g.

Part No. **5903023**

Supplied complete with humidity / temperature sensor, protective cover and carry case.

| MODEL | Part No. | Temp. range °C | Resolution °C | Precision °C | Humidity range % | Humidity resolution % | Humidity precision % |
|---------|----------------|----------------|---------------|--------------|------------------|-----------------------|------------------------------|
| HT-305E | 5903023 | from 0 to 60 | 0.1 | ±0.8 | from 10 to 95 | 0.1 | > 70%: ±3% +1% < 70%: ±3% |



NEW DESIGN



Ink Printer "Microprinter"

APPLICATIONS

Small ribbon printer (not thermal) with paper roll 2 1/4" (56 mm) wide.
Interface connection: RS232.

Applications: Measuring equipment, pH meters, conductivity meters, spectrophotometers, etc.
Includes interface cable and power transformer 5V - 3A and cable.

MODEL

| Part No. | Height / Width / Depth cm | Power supply | Weight Kg |
|----------------|------------------------------|-----------------|--------------|
| 4120113 | 4 16 10 | DC 5V 3A | 1 |



Automatic programmer "Promat" 24 H

Connects and disconnects electrical power by a pre-programmed timer switch.

Adjustable timer: Cycles up to 24 hours, with controllable connection disconnection up to every 15 minutes.

Manual interrupt setting to disconnect the program, luminous indicator shows when power is being applied.

Maximum current: 16 Amp.

Part No. **1000500**



Timer alarm "Relavis"

Audible sound when the program time has lapsed.

Time setting from 0 to 60 minutes in 1 minute intervals.

Part No. **5900499**



Digital alarm timer "Count Down-Up"

Maximum count time 99 min. 59 sec. Timer: count-down and count-up.

Portable: table top with magnetic holder or clip if used on a pocket or overall.

Audible alarm fitted.

Part No. **5900500**



Digital Chronometer "Diamond"

Maximum timer: 23 hr 59 min 59 sec. Division 1/100 seconds. Control: LAP/SPLIT (timer: split time and accumulative time).

Date incorporated.

Audible Alarm (duration 60 seconds).

Audible Alarm "snooze" function (once pressed the stop alarm goes off every 5 minutes until it is completely shut off).

Part No. **5900501**



Thermometer reader "Micro-Temp"

SUITABLE FOR MEASURING TEMPERATURE FROM -50 °C TO +300 °C OR FROM -58 °F TO +527 °F.

Applications: process control, laboratories, pharmacies, food processes and agriculture in general.

Digital screen readout in °C or °F.

Stainless steel penetration probe of 3.5 mm Ø x 120 mm long.

Retention memory of minimum and maximum data readout.

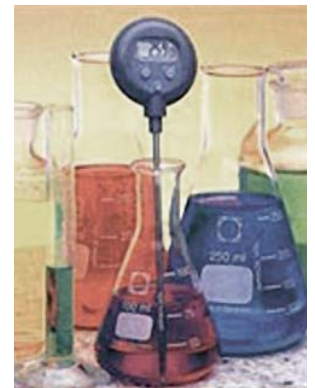
Disconnects automatically after 1 hour.

Powered by a 5V - 3A battery.

MODEL

| Part No. | Precision | Resolution |
|----------------|---------------------|------------------------|
| 5903029 | ±1 °C / 1 °F | 0.1 °C / 0.1 °F |

Comes complete with protective cover and support clip.





GLASS THERMOMETERS

COMMON FEATURES

All thermometers are made of glass rod or with an opal scale, with a reinforced bulb.
 A wide selection of scales and temperature ranges is available.
 Scales etched in acid and graduated with indelible ink.
 Resistant to most chemical agents.
 All thermometers are supplied with a protective plastic cover.



Solid stem Thermometers



Yellow backed, mercury filled.

| Part No. | Range °C | Division scale °C | Total length cm |
|----------|----------|-------------------|-----------------|
| 1090100 | -10 +100 | 1/1 | 30 |
| 1090150 | -10 +150 | 1/1 | 30 |
| 1090250 | -10 +250 | 1/1 | 30 |
| 1090360 | -10 +360 | 1/1 | 30 |
| 1093100 | -10 +100 | 0.5 | 30 |
| 1092050* | 0 +50 | 0.1 | 45 |

* White back.



White back, with red liquid content.
 Suitable for measuring samples where mercury is not permitted.
 E.g. food products, drinks, etc.

| Part No. | Range °C | Division scale °C | Total length cm |
|----------|----------|-------------------|-----------------|
| 1001257 | -10 +100 | 1/1 | 30 |

Yellow backed with suspension ring, mercury filled.

| Part No. | Range °C | Division scale °C | Immersion length cm | Total length cm |
|----------|----------|-------------------|---------------------|-----------------|
| 1001299 | 0 +200 | 1/1 | 5 | 25 |
| 3009100 | -20 +100 | 0.5 | 15 | 34 |
| 3009200 | 0 +200 | 1/1 | 15 | 34 |
| 1009100 | 0 +60 | 0.5 | 15 | 30 |



Enclosed scale thermometers

With prismatic capillary, with easy to read scale. Contains mercury.



| Part No. | Range °C | Division scale °C | Immersion length cm | Total length cm |
|----------|----------|-------------------|---------------------|-----------------|
| 1095060 | -10 +50 | 1/1 | 3 | 30 |
| 1095100 | -10 +100 | 1/1 | 3 | 30 |
| 1095150 | -10 +150 | 1/1 | 3 | 30 |
| 1095250 | -10 +250 | 1/1 | 3 | 30 |
| 1095360 | -10 +360 | 1/1 | 3 | 30 |
| 1096050 | -10 +50 | 0.5 | 3 | 30 |
| 1096100 | -10 +100 | 0.5 | 3 | 30 |
| 1097050 | -10 +50 | 0.1 | 3 | 45 |
| 1000120 | -10 +120 | 1/1 | 10 | 25 |
| 1000100 | -10 +100 | 1/1 | 13 | 25 |
| 1000872 | -10 +120 | 1/1 | 15 | 33 |
| 1000873 | 0 +220 | 1/1 | 15 | 33 |

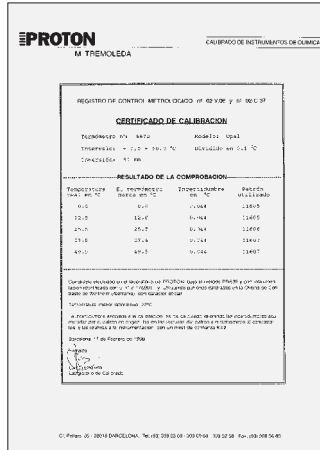


Precision thermometers

Mercury thermometers.

Complete with **calibration certificate** PROTON registration control no. 02-C.37 and 02-V.06 (Meteorological control).

Traceable certificate indicating the proof of continued quality of workmanship against different temperatures, with method and conditions of measurement against known traceable standards.



| Part No. | Range °C | Division scale °C | Type | Total length cm |
|----------|----------|-------------------|----------------|-----------------|
| 1001258 | -10 +100 | 1/1 | solid stem | 30 |
| 1001259 | -10 +250 | 1/1 | solid stem | 30 |
| 1001260 | -10 +50 | 0.5 | solid stem | 30 |
| 1001261 | -10 +100 | 0.5 | solid stem | 30 |
| 1001262 | 0 +50 | 0.1 | solid stem | 45 |
| 1001263 | -10 +100 | 1/1 | enclosed scale | 30 |
| 1001264 | -10 +250 | 1/1 | enclosed scale | 30 |
| 1001265 | -10 +50 | 0.5 | enclosed scale | 30 |
| 1001266 | -10 +100 | 0.5 | enclosed scale | 30 |
| 1001267 | -10 +50 | 0.1 | enclosed scale | 45 |

Case with 7 glass rod mercury thermometers, white back, scale in 0.1 °C.

| Range °C* | Total length |
|-----------|--------------|
| -30 +20 | 45 cm |
| 0 +50 | 45 cm |
| +50 +100 | 45 cm |
| +100 +150 | 45 cm |
| +150 +200 | 45 cm |
| +200 +250 | 45 cm |
| +250 +300 | 45 cm |

*One thermometer per range.

Part No.

1001268 with calibration certificate PROTON.

1001298 without calibration certificate.



Electric contact thermometers

Adjustable temperature setting with the use of a dial on the top of the thermometer. To provide better mercury flow, the capillary interior is filled with an inert gas. Supplied complete with a 100 cm cable with the appropriate connection on the end.

| Part No. | Range °C | Division scale °C | Immersion length cm | Total length cm |
|----------|----------|-------------------|---------------------|-----------------|
| 3521015 | 0 +100 | 1/1 | 15 | 39 |
| 3522015 | 0 +200 | 2/1 | 15 | 39 |
| 3523015 | 0 +300 | 5/1 | 15 | 39 |
| 3352604 | 0 +60 | 1/1 | 4 | 28 |
| 3352104 | 0 +100 | 1/1 | 4 | 28 |
| 3352204 | 0 +200 | 2/1 | 4 | 28 |





Universal reactor for laboratory "RV-12"

ADAPTABLE TO ALL THE STANDARDIZED GLASS ELEMENTS WITH A MOUTH OF 100 MM Ø.
REACTOR CAPACITY: 12 LITRES.

APPLICATIONS

Universal reactor suitable for all laboratory and pilot plant's operations.

FEATURES

Standard mouth for connection to DN100 glass reactor's covers.
Reactor in stainless steel AISI 316, with a capacity of 12 litres and with a drain tap.

STANDARD EQUIPMENT

1. **Standard support.** Part No. **1001748**
2. **Clamp with support ring** for the reactor. Part No. **1001747**
3. **Reactor** in stainless steel AISI 316, capacity 12 litres with drain tap. External sizes: Height 38 cm. x 25 cm. Ø. Weight: 4,5 Kg Part No. **1001746**

COMPLEMENTS

4. **Clasp** for fastening normalized flat gaskets for reactor "RV-12" or any glass reactor with normalized mouth of 100 mm. Ø. Part No. **1001758**
5. **Stirrer RZR-1** with adjustable speed. Part No. **5050111**
6. **Double bosshead MAXIM.** Part No. **7000408** or **Clamp** Part No. **1001765**
7. **Flexible shaft holder** for 8 mm. Ø stirring shaft. Part No. **5050903**
8. **Half-moon shape stirring shaft**, 8 mm. Ø stainless steel AISI 304 (length 90 x shovel width 12 cm). Part No. **1001754**
9. **Helix shape stirring shaft**, 8 mm. Ø stainless steel AISI 304 and PTFE shovel (length 90 x shovel width 4 cm). Part No. **1001757**
10. **Electronic controller ELECTEMP-TFT.** Part No. **3000897** with connector for inner temperature control, if the heating mantle is used.
11. **Support plate** with bosshead for Electemp-TFT regulator. Part No. **1001750**
12. **Pt100 probe** Part No. **1001749** 200 mm length x 4 mm. Ø, with connection cable to Electemp-TFT regulator.
13. **Ring holder** with double bosshead for heating mantle. Part No. **1001751**
14. **Heating mantle** with double heating elements for temperatures up to 400 °C. Power consumption 1400W. Part No. **3001752**

OPTIONAL

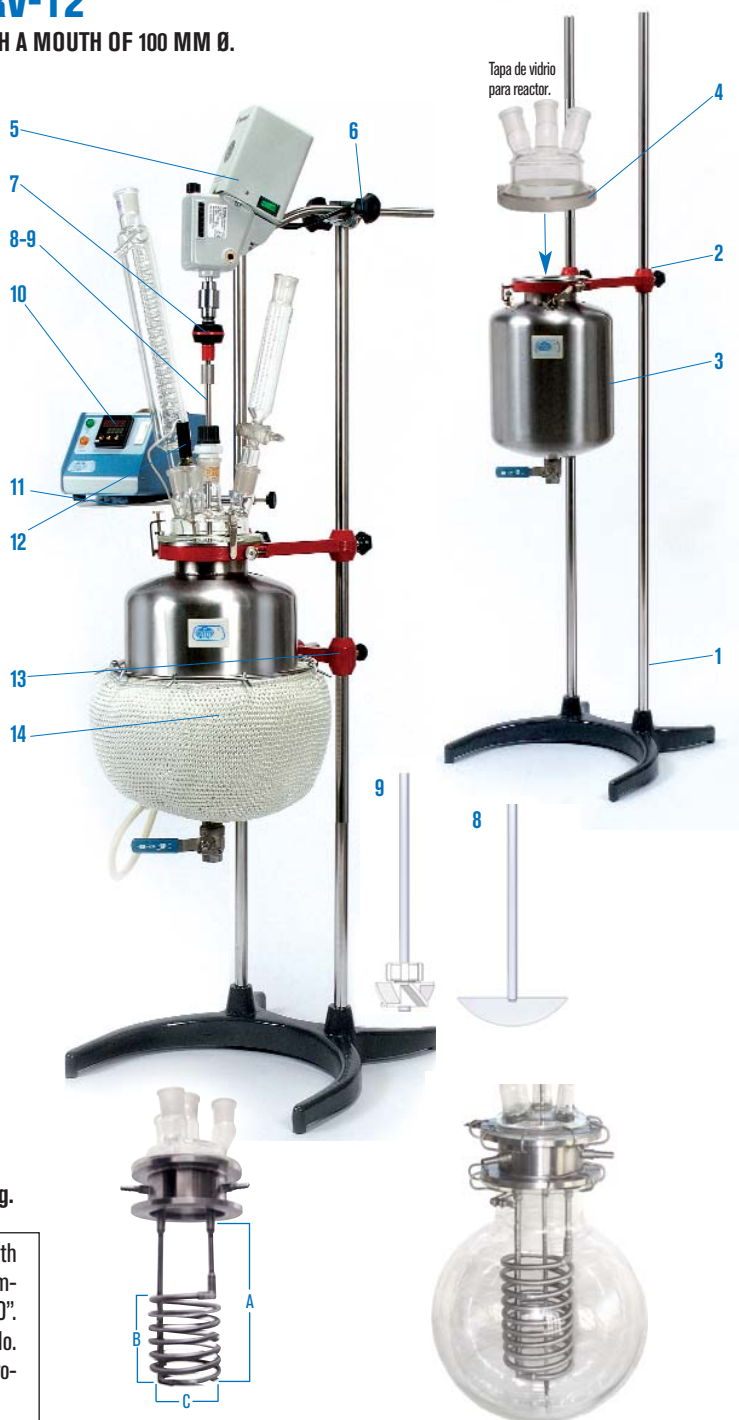
Aisi 316 stainless steel device, with standard double mouth and coll for liquid heating or refrigeration inside the reactor.

This device can be connected to the universal reactor part no. 1001746 or to glass reactors with a 10 l. capacity and with DN-100 standard mouth.

Coil measurement: A: 21 cm. B: 15 cm. C: 10 cm. Part No. **1001755**

For reactors higher than 40 cm., it must be manufactured according to drawing.

Note: Several tests have been made in the laboratory with the silicone oil "47V50" and with the **Ultraterm-TFT-300 thermostat.** Part No. **3000545** (See page 103), reaching temperatures up to 170 °C in 35' inside the reactor properly isolated with "durablanket120". With methanol fluid transmitter liquid and with **Frigiterm-TFT-30 thermostat.** Part No. **3000547** (see page 103), reaching temperatures up to -21 °C in 57' inside the reactor properly isolated with "durablanket120".



Customizable reactors on demand

FOR LABORATORY AND PILOT PLANT WITH HEATING AND COOLING SYSTEMS

BOROSILICATE GLASS 3.3. CAPACITY: FROM 0,5 UP TO 20 LITRES.

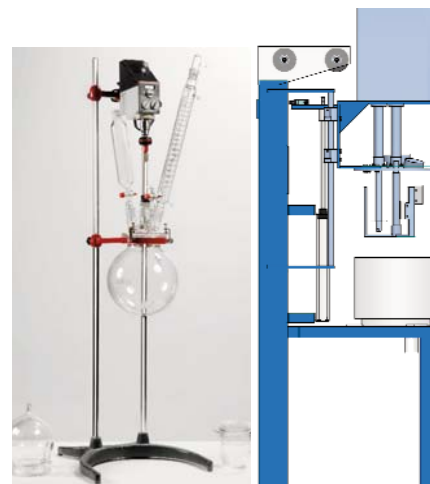
AISI 304 - 316 - 316L STAINLESS STEEL LITRES CAPACITY: FROM 20 UP TO 100 LITRES.

Borosilicate glass 3.3: Spherical, cylindrical and thermostatic with or without PTFE release valve with temperature control accessories, PH, oxygen, turbidity, etc. Heidolph stirring systems and variable PTFE blades.

Aisi 304 - 306 - 306 stainless steel: Cylindrical and thermostatic with or without release valve. With temperature control accessories, PH, oxygen, turbidity, etc.

Fixed and variable stirring systems of different powers according to viscosity and density, combined with stirring elements, dispersers and emulsifiers micronizers and helical.

REQUEST INFORMATION.





Reactor for pilot plant "R-605" and "R-620"

CAPACITY UP TO 20 LITRES

APPLICATIONS

This equipment is designed for reflux and distillation operations with a stirring element, for all laboratory's pilot plant operations and small productions.

FEATURES

Reactor module built-in, made of glazed steel in epoxy, composed of an engine group stirring and a reaction borosilicate glass 3.3 with graduation and dual Camera to temper, for a volume of 4-20 liters in "R-620" model and 1-5 liters in "R-605" model. Stirring anchor blade and elements in contact with the liquid or reaction steam, composed of borosilicate glass and PTFE.

R-605 model addition and reflux. Distillation system on demand.

Reactor for multiple reactions: add PTFE tap Part No. **1001752**, support Part No. **1001744** and digital thermometer Part No. **5903030** or pH analyser/Redox and temperature Part No. **4120800**.

CONTROL PANEL

Main switch ON / OFF.

Regulator knob for stirring speed from 0 to 800 rpm, and with digital reading.

MODELS

| Part No. | Total dimensions Height / Width / Depth | Reactor capacity | Operating temperature | Power W | Weight Kg |
|----------------|--|---------------------|--------------------------|------------|--------------|
| 1001705 | 130 70 35 | 5 | -30 °C to 200 °C | 90 | 10 |
| 1001745 | 180 62 50 | 20 | -30 °C to 200 °C | 250 | 68 |



"R-605" model
5 litres.



"R-620" model
20 litres.

ACCESSORIES

pH analyser/Redox and temperature from -10°C up to 130°C. Backlit graphic display. For pH/ ORP measurement, temperature by probe measurement, temperature automatic compensation. 1 relay output for alarm or temperature, 1 relay output for electrode wash or temperature. pH measurement: 00.00÷14.00Ph.

Redox ±1500Mv± 1Mv. Part number **4120800**

HT glass sensor pH 0-14 +Temp -10 to 100°C. Part number **4120801**

Glass sensor adapter for R-605. Part number **4120802**

Glass sensor adapter for R-620. Part number **4120803**

Digital thermometer "TC-9226-A"

Temperature range: -200 °C. to 1370 °C.

Part No. **5903030**

Universal drain tap in PTFE and bellow for disposal of different density and viscosity liquid / liquid and liquid / solid suspensions.

Part No. **1001753** for model RV-605.

Part No. **1001752** for model RV-620.

Over elevation support base.

Part No. **1001773** for model RV-605. Height 38 cm.

Part No. **1001744** for model RV-620. Height 65 cm.



COMPLEMENTS

Peristaltic dosing pump "Peristaltic PR-2003."

For PH stabilisation (acid-base).

Also applicable to dosages in process.

Features: See page 49. Part No. **4129050**

FOR REACTOR R-605:

Recirculation thermostat "Ulterm-TFT-200".

For adjustable temperatures from ambient +5 °C. to 200 °C.

Part No. **3000545** (See page: 103).

Recirculation cryothermostat "Frigiterm-TFT-30".

For adjustable temperatures from -30 °C. to 100 °C.

Part No. **3000547** (See page: 103).

FOR REACTOR R-620:

High power recirculation thermostat "Interheater"

For adjustable temperatures from ambient +5 °C. up to 90 °C.

Part No. **6001491** (See page: 107).

Water refrigerator and recirculator "Unichiller 015"

For temperatures from -20°C to +40 °C.

Part No. **5910027**



Unichiller 015

Interheater



FILTRATION. FILTER PAPER FOR LABORATORY

NEW



Quantitative filter papers

ASH CONTENT LESS THAN 0.01%. CRITICAL GRAVIMETRIES AND ANALYSIS



| Filtration | Basis weight g/m ² | Thickness mm | Ashes % | Type | Units box |
|------------|-------------------------------|--------------|---------|------|-----------|
| Fast | 97 | 0,200 | < 0,01 | Flat | 100 |
| Medium | 97 | 0,200 | < 0,01 | Flat | 100 |
| Slow | 97 | 0,170 | < 0,01 | Flat | 100 |

Fast: Ø 70: 5301070. Ø 90: 5301090. Ø 110: 5301110. Ø 125: 5301125. Ø 150: 5301150. Ø 180: 5301180.

Medium: Ø 70: 5302070. Ø 90: 5302090. Ø 110: 5302110. Ø 125: 5302125. Ø 150: 5302150. Ø 180: 5302180.

Slow: Ø 70: 5303070. Ø 90: 5303090. Ø 110: 5303110. Ø 125: 5303125. Ø 150: 5303150. Ø 180: 5303180.



General use qualitative filter papers

FILTRATIONS FOR ROUTINE ANALYSIS IN ALL KINDS OF LABORATORIES



| Filtration | Basis weight g/m ² | Thickness mm | Ashes % | Type | Units box |
|------------|-------------------------------|--------------|---------|-------|-----------|
| Fast | 80 | 0,300 | < 0,11 | Plano | 100 |
| Medium | 80 | 0,150 | < 0,11 | Plano | 100 |
| Slow | 80 | 0,200 | < 0,11 | Plano | 100 |

Fast: Ø 70: 5304070. Ø 90: 5304090. Ø 110: 5304110. Ø 125: 5304125. Ø 150: 5304150. Ø 180: 5304180.

Medium: Ø 70: 5305070. Ø 90: 5305090. Ø 110: 5305110. Ø 125: 5305125. Ø 150: 5305150. Ø 180: 5305180.

Slow: Ø 70: 5306070. Ø 90: 5306090. Ø 110: 5306110. Ø 125: 5306125. Ø 150: 5306150. Ø 180: 5306180.



Filter paper reams

PROTECTION AND ABSORPTION IN WORKBENCHES IN ALL KIND OF LABORATORIES

| Grade | Basis weight g/m ² | Thickness mm | Absorption speed* mm/10 min | Moisture resistance kV/m | Units box |
|-------|-------------------------------|--------------|-----------------------------|--------------------------|-----------|
| 1305 | 73 | 0.170 | 75/70 | 0.290/0.260 | 500 |
| 1510 | 60 | 0.130 | 60/55 | 0.280/0.230 | 500 |

1305: 42 x 52 (cm): 5130502. 32 x 42: 5130501.

1510: 42 x 52(cm): 5151002. 32 x 42: 5151001.



Absorbent paper with polyethylene

PROTECTION AND ABSORPTION THANKS TO ITS DOUBLE LAYER: ONE OF ABSORBENT PAPER AND THE OTHER OF WATERPROOF POLYETHYLENE

| Grade | Basis weight g/m ² | Thickness mm | Area absorption g water/m ² |
|-------|-------------------------------|--------------|--|
| 1505 | 125 | 0.250 | 240 |

1505: 42 x 52 (cm): 5150502. 32 x 42: 5150501. 50 (cm) Width x 50 (meters): 5150503





Glass microfiber filters without binders

RECOMMENDED IN AIR AND WATER ANALYSIS ACCORDING TO INTERNATIONAL STANDARDS

| Grade | Retention μm | Basis weight g/m^2 | Thickness mm | Retention DOP % | Binders | Units Box |
|-------|-------------------------|-----------------------------|--------------|-----------------|---------|-----------|
| MFV1 | 1.6 | 52 | 0,26 | 99.998 | No | 100 |
| MFV3 | 1.2 | 52 | 0,26 | 99.998 | No | 100 |

MFV1: mm \emptyset 47: 5291047. \emptyset 70: 5291070. \emptyset 90: 5291090. \emptyset 110: 5291110. \emptyset 125: 5291125. \emptyset 150: 5291150.

MFV3: mm \emptyset 47: 5293047. \emptyset 70: 5293070. \emptyset 90: 5293090. \emptyset 110: 5293110. \emptyset 125: 5293125. \emptyset 150: 5293150.



Cellulose extraction cartridges

NOBLE CELLULOSES AND COTTON LINERS TOTALLY FREE FROM IMPURITIES.

FOR REMOVING PAINTINGS, ANIMAL FAT, COSMETICS, VARNISHES, LACQUERS, OIL SEEDS, RESINS AND WOOD FATS, ETC... WALL THICKNESS: BETWEEN 1 AND 2 MM. UNITS PER BOX: 25

| Part No. | Interior Dimensions mm \emptyset / L | Part No. | Interior Dimensions mm \emptyset / L | Part No. | Interior Dimensions mm \emptyset / L |
|----------|--|----------|--|----------|--|
| 5297001 | 19 x 90 | 5297005 | 28 x 100 | 5297009 | 33 x 94 |
| 5297002 | 22 x 80 | 5297006 | 30 x 80 | 5297010 | 33 x 100 |
| 5297003 | 22 x 100 | 5297007 | 30 x 100 | 5297011 | 35 x 100 |
| 5297004 | 25 x 100 | 5297008 | 33 x 80 | 5297012 | 43 x 123 |



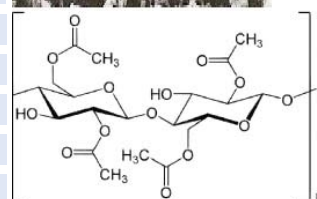
Cellulose Acetate Membrane Filters

LOW PROTEIN ABSORPTION FOR FILTERING DIFFERENT SAMPLES: BIOLOGICAL, AQUEOUS, ALCOHOLS, OILS AND HIDROCARBONS. AVAILABLE IN PORES FROM 0.22 UP TO 5 μm AND IN DIAMETERS FROM 13 UP TO 293 MM.

AVAILABLE ON DEMAND IN \emptyset 13 - 25 - 142 Y 293 MM.

PH COMPATIBILITY: 4-8.

| Part No. | Membrane Material | Diameter mm | Pore μm | Colour | Surface | Format | Units x box |
|----------|-------------------|-------------|--------------------|--------|---------|-------------|-------------|
| 5297013 | Cellulose acetate | 47 | 0.22 | White | Flat | Non-Sterile | 100 |
| 5297014 | Cellulose acetate | 47 | 0.45 | White | Flat | Non-Sterile | 100 |
| 5297015 | Cellulose acetate | 47 | 0.8 | White | Flat | Non-Sterile | 100 |
| 5297016 | Cellulose acetate | 47 | 3.0 | White | Flat | Non-Sterile | 100 |
| 5297017 | Cellulose acetate | 47 | 5.0 | White | Flat | Non-Sterile | 100 |
| 5297018 | Cellulose acetate | 90 | 0.22 | White | Flat | Non-Sterile | 100 |
| 5297019 | Cellulose acetate | 90 | 0.45 | White | Flat | Non-Sterile | 100 |
| 5297020 | Cellulose acetate | 90 | 0.8 | White | Flat | Non-Sterile | 100 |
| 5297021 | Cellulose acetate | 90 | 3.0 | White | Flat | Non-Sterile | 100 |
| 5297022 | Cellulose acetate | 90 | 5.0 | White | Flat | Non-Sterile | 100 |



Glass filtration equipment

TECHNICAL SPECIFICATIONS

Materials:

100% borosilicate glass 3.3 except aluminium clamps.

Capacities:

Funnel 300 ml. Filtration flasks 1000 ml.

Plate porosity: Grade 2/3

Sterilization: Autoclave (max. 134°C), dry heat (max. 180°C).

Diameter filters: 47 mm

Output connections to vacuum: Tube 8 - 10 mm. diameter.

Complete equipment. Part No. 5297023



Vacuum pumps. See page 50 and 51.