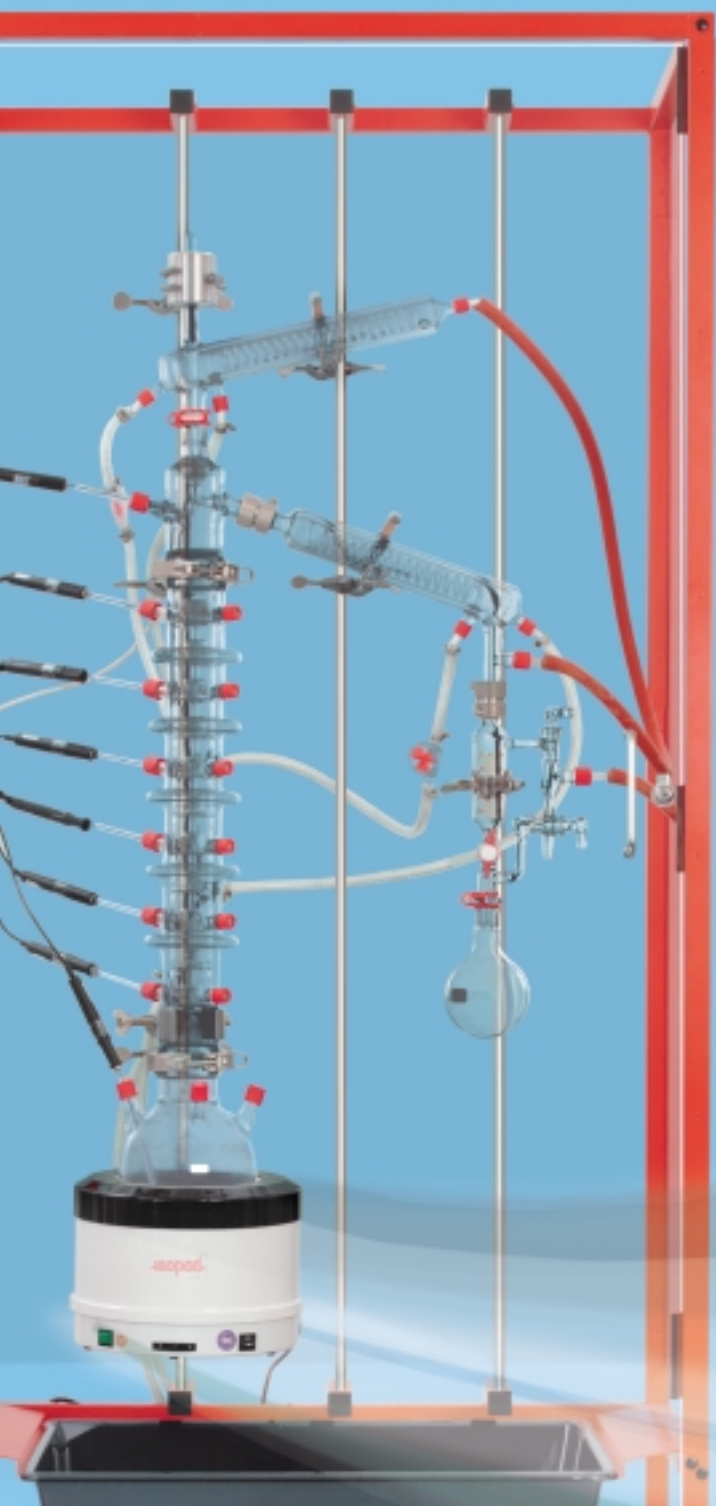


WISAG

General Catalogue 2003

Laboratory



Heating is ...

... a very important process
in many areas of the laboratory market.

Heating is a very important Process in many areas of the laboratory market such as research & development, production, and training. Tyco Thermal Controls is a world leader in the development of specialist heating for customer requirements and we manufacture a wide range of standard heating equipment and associated products.

We produce heating products such as heating tapes, heating cords, heating panels, heating hoses, as well as controllers and regulators providing support and control for our extensive range of heating products.

Our products are a clean and safe solution designed and tested according to the latest safety regulations, and as a function of their application and constant tests, external certificates for all our products support the high standard of ISOPAD.



EN 60519-1 (VDE 0721 Part 911)
EN 60519-2 (VDE 0721 Part 411)
EN 50081-1 / EN 50082-1 / EN 55014
following the provisions of directives
73/23/EWG and 89/336/EWG

Our new stock-operation-system and our team of reliable partners and distributors allow us to deliver to all markets world wide in the shortest space of time possible. Standard products are in stock, non stock items and special builds to customer requirements are available in very short lead times due to the high flexibility in production facility.

For further information, and assistance in offering you the right solution for your requirement, please contact our Area Sales Managers.

Welcome to the world of Tyco Thermal Controls!

| CONTENT | Page |
|--|------|
| Product information | 2 |
| PILZ® Metal-cased Heating Mantles | 4 |
| Heating Bank Units | 7 |
| PILZ® Heating Mantles | 8 |
| Accessories for all G Heating Mantles | 10 |
| PILZ® Top Lagged Mantles heated / unheated | 11 |
| PILZ® Industrial Heating Mantles | 12 |
| Heating Tapes | 14 |
| Regulators and Controllers | 18 |
| Temperature Sensors | 20 |
| Magnetic Stirrers | 21 |
| Further Information | 23 |



DIN EN ISO 9001 certified.

ISOPAD and PILZ® ...

... our brands for all requirements

in laboratories worldwide for more than 50 years.



In many sectors of research & development, production, and training the use of ISOPAD heating mantles are an integral requirement for heating up various substances.

In chemical, biological, and biotechnical laboratories ISOPAD heating mantles are required as standard equipment, since many reactions in these areas are temperature dependent, typically the use of heating mantles for distillation in organic chemistry. Another major range of applications can be found in chemical process technology and biotechnology.

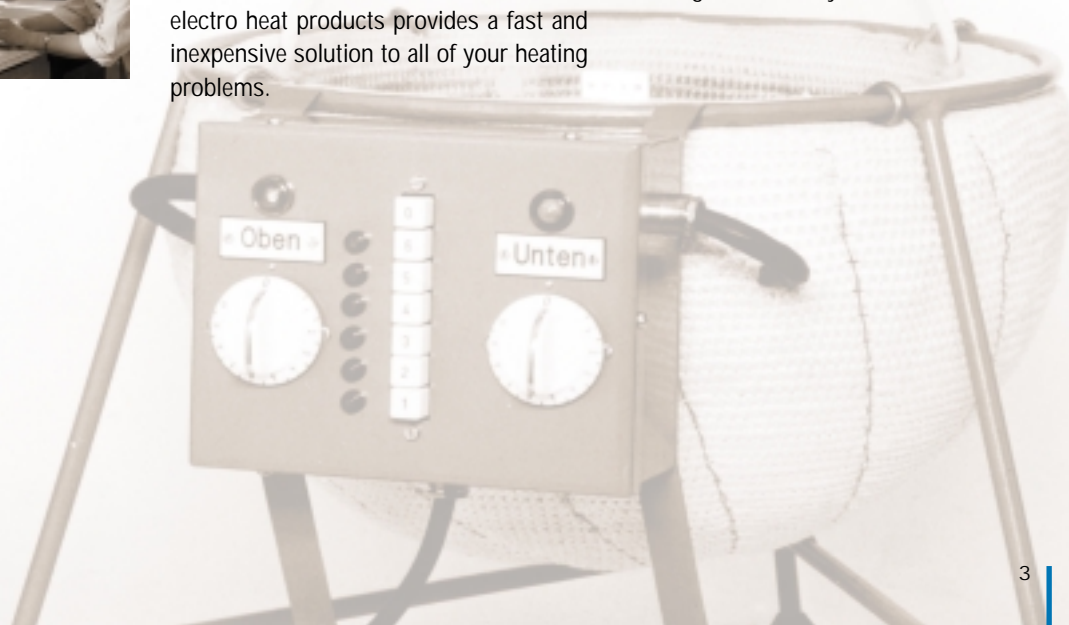


ISOPAD has been manufacturing this type of equipment for chemical, biological and biotechnical laboratories for more than 50 years. We offer a wide range of standard products for all standard laboratory glassware in volumes from 25 ml up to 200 l, as well as special products designed to customer requirements for all types of specialist glassware. Depending on the design, the maximum heating-element temperature of the heating mantles may be as high as 900°C. The wide range of ISOPAD standard PILZ® heating mantles and our associated thermo-electrical, electro heat products provides a fast and inexpensive solution to all of your heating problems.



An even heat transfer and consideration for laboratory glassware is ensured by our tried and tested high-quality ISOPAD heating elements which are adapted to fit the respective vessel shapes and sizes.

The built-in, extremely effective thermal insulation prevents heat losses to the outside. Since 1979 no asbestos has been used in the manufacture of PILZ® heating mantles. Please contact us if you are concerned as to whether your existing older heating mantles may contain asbestos.



In recent years our product development efforts resulted in the new LG series of PILZ® metal cased heating mantles. The heating mantles are characterised by a chemical-resistant, plastic-coated metal casing providing excellent stability.

A clamp facilitates integration within support scaffolding and a built-in heating-zone switch or a continuously adjustable power regulator ensures optimum adaptation to the specific power requirement. The maximum temperature of the heating element is 450°C for all models of this series.

Choose the right metal-cased heating mantle for your application!



LG2

Metal-cased heating mantle for round bottom flasks up to 3 l, with built-in heating-zone switch. The models from 250 ml have two heating-zones; the smaller models have a switch to half the power.



LG2/ER

Designed identically to LG2, but in addition equipped with a built-in power-regulator. The models smaller than 250 ml do not have a min/max switch.

| | Volume (ml) | Flask diameter (mm) | Power (W) | Heating- zones | Dimensions Ø x H (mm) | Order No. 115 V AC | Order No. 230 V AC |
|---------------|----------------|------------------------|--------------|-------------------|--------------------------|-----------------------|-----------------------|
| LG2 | 50 | 51 | 50 | 1 | 160 x 180 | 1235-01320152 | 1235-01320151 |
| | 100 | 64 | 60 | 1 | 160 x 180 | 1235-01320212 | 1235-01320211 |
| | 250 | 85 | 120 | 2 | 160 x 180 | 1235-01320232 | 1235-01320231 |
| | 500 | 105 | 200 | 2 | 210 x 190 | 1235-01320252 | 1235-01320251 |
| | 1000 | 131 | 300 | 2 | 210 x 190 | 1235-01320312 | 1235-01320311 |
| | 2000 | 166 | 500 | 2 | 280 x 220 | 1235-01320322 | 1235-01320321 |
| | 3000 | 185 | 600 | 2 | 280 x 220 | 1235-01320332 | 1235-01320331 |
| LG2/ER | 50 | 51 | 50 | 1 | 160 x 180 | 1235-01521152 | 1235-01521151 |
| | 100 | 64 | 60 | 1 | 160 x 180 | 1235-01521212 | 1235-01521211 |
| | 250 | 85 | 120 | 2 | 160 x 180 | 1235-01521232 | 1235-01521231 |
| | 500 | 105 | 200 | 2 | 210 x 190 | 1235-01521252 | 1235-01521251 |
| | 1000 | 131 | 300 | 2 | 210 x 190 | 1235-01521312 | 1235-01521311 |
| | 2000 | 166 | 500 | 2 | 280 x 220 | 1235-01543322 | 1235-01543321 |
| | 3000 | 185 | 600 | 2 | 280 x 220 | 1235-01543332 | 1235-01543331 |



LMG3/ER

Multi-sized metal-cased heating mantle, designed similar to G2 series, but for different flask size (see table below); equipped with a 3-stage switch for heating-zone selection.



LSG2/ER

Metal-cased heating mantle for round bottom flasks from 250 ml to 2 l, designed similar to LG2/ER series, but equipped with a heating bowl made of corrosion-resistant material with optimum thermal conductance. Leaking liquid resulting from broken vessel will not lead to a failure of the heating mantle and the liquid can be collected and recovered.

| | Volume (ml) | Flask diameter (mm) | Power (W) | Heating-zones | Dimensions Ø x H (mm) | Order No. 115 V AC | Order No. 230 V AC |
|----------------|-------------|---------------------|-----------|---------------|-----------------------|--------------------|--------------------|
| LMG3/ER | 50-250 | 51-85 | 150 | 3 | 160 x 180 | 1235-01532252 | 1235-01532251 |
| | 250-1000 | 85-131 | 360 | 3 | 210 x 190 | 1235-01532322 | 1235-01532321 |
| | 1000-3000 | 131-185 | 600 | 3 | 280 x 220 | 1235-01532342 | 1235-01532341 |
| LSG2/ER | 250 | 85 | 120 | 2 | -- | -- | 1235-01555231 |
| | 500 | 105 | 200 | 2 | -- | -- | 1235-01555251 |
| | 1000 | 131 | 300 | 2 | -- | -- | 1235-01555311 |
| | 2000 | 166 | 500 | 2 | -- | -- | 1235-01555321 |

Accessory

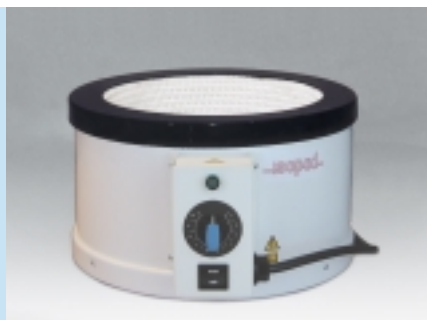
| | | | |
|-------------|--|-----------|--------------|
| STK2 | Clamp to fix support rods to the heating mantles series LG | Order No. | 1235-0705002 |
|-------------|--|-----------|--------------|

The serie U2

The function of this series corresponds to the G2 standard heating mantle, but it is built into a chemical-resistant, metal casing (attached clamp enables its use within support scaffolding). Two heating-zones ensure uniform heat distribution and the attached clamp enables its use with support scaffolding. Depending on customer requirements we can also offer specials, which can be made to fit your respective vessel shapes and sizes. You can choose between heating-mantles with or without power regulator. The maximum heating temperature is 450°C.



U2 / U2F



U2/ER



U2HB / U2NB

Heating mantle from 4 to 20 l. For reaction vessels up to 10 l we offer the U2F model.

Similar to U2, but with integrated power regulator.

Similar to heating mantle U2, but supplied with a heating element for high (type HB) or low-sided (type NB) beaker. Both have two heating zones.

| | Volume | Flask diameter | Power | Heating zones | Dimensions | Order No. |
|--------------|----------|----------------|--------|---------------|---------------|---------------|
| U2 | 4000 ml | 64 mm | 700 W | 2 | -- | 1235-01320340 |
| | 5000 ml | 85 mm | 860 W | 2 | -- | 1235-01320350 |
| | 6000 ml | 105 mm | 1000 W | 2 | -- | 1235-01320360 |
| | 10000 ml | 131 mm | 1400 W | 2 | -- | 1235-01320410 |
| | 20000 ml | 166 mm | 2000 W | 2 | -- | 1235-01320420 |
| U2F | 100 ml | 70 mm | 80 W | 2 | -- | 1235-01328210 |
| | 250 ml | 70 mm | 120 W | 2 | -- | 1235-01328230 |
| | 500 ml | 106 mm | 200 W | 2 | -- | 1235-01328250 |
| | 1000 ml | 106 mm | 300 W | 2 | -- | 1235-01328310 |
| | 2000 ml | 140 mm | 500 W | 2 | -- | 1235-01328320 |
| | 4000 ml | 200 mm | 700 W | 2 | -- | 1235-01328340 |
| | 6000 ml | 215 mm | 1000 W | 2 | -- | 1235-01328360 |
| 10000 ml | 400 mm | 2000 W | 2 | -- | 1235-01328410 | |
| U2/ER | 4000 ml | 64 mm | 700 W | 2 | -- | 1235-01320340 |
| | 5000 ml | 85 mm | 860 W | 2 | -- | 1235-01320350 |
| | 6000 ml | 105 mm | 1000 W | 2 | -- | 1235-01320360 |
| | 10000 ml | 131 mm | 1400 W | 2 | -- | 1235-01320410 |
| | 20000 ml | 166 mm | 2000 W | 2 | -- | 1235-01320420 |
| U2NB | 400 ml | 82 mm | 200 W | 2 | H 100 mm | 1235-01321240 |
| | 600 ml | 92 mm | 260 W | 2 | H 116 mm | 1235-01321260 |
| | 1000 ml | 107 mm | 400 W | 2 | H 145 mm | 1235-01321310 |
| | 2000 ml | 132 mm | 600 W | 2 | H 186 mm | 1235-01321320 |
| | 3000 ml | 153 mm | 800 W | 2 | H 210 mm | 1235-01321330 |
| U2HB | 400 ml | 70 mm | 200 W | 2 | H 130 mm | 1235-01322240 |
| | 600 ml | 82 mm | 260 W | 2 | H 145 mm | 1235-01322260 |
| | 1000 ml | 95 mm | 400 W | 2 | H 185 mm | 1235-01322310 |
| | 2000 ml | 118 mm | 600 W | 2 | H 236 mm | 1235-01322320 |
| | 3000 ml | 134 mm | 800 W | 2 | H 275 mm | 1235-01322330 |



Heating Bank Units RE

The function of the heating bank units corresponds to that of the standard series G2R heating mantle. The bank units are available in either four or six heating positions. The RE4 and RE6 are made of a metal casing with a chemical-resistant paint coat and a cover lid made of stainless steel. Each heating position is separately controlled via power regulator, so that various analyses can be performed simultaneously.

| | Volume | Flask diameter | Power | Heating zones | Dimensions | Order No. |
|------------|---------|----------------|-----------|---------------|---------------------|---------------|
| RE4 | 100 ml | -- | 4 x 110 W | 1 | 780 x 180 x 280 mm | 1235-01703210 |
| | 250 ml | -- | 4 x 220 W | 1 | 780 x 180 x 280 mm | 1235-01703230 |
| | 500 ml | -- | 4 x 330 W | 1 | 780 x 180 x 280 mm | 1235-01703250 |
| | 1000 ml | -- | 4 x 495 W | 1 | 780 x 190 x 310 mm | 1235-01703310 |
| RE6 | 100 ml | -- | 6 x 110 W | 1 | 1160 x 180 x 280 mm | 1235-01704210 |
| | 250 ml | -- | 6 x 220 W | 1 | 1160 x 180 x 280 mm | 1235-01704230 |
| | 500 ml | -- | 6 x 330 W | 1 | 1160 x 180 x 280 mm | 1235-01704250 |
| | 1000 ml | -- | 6 x 495 W | 1 | 1160 x 190 x 310 mm | 1235-01704310 |

Accessories

| | | | | | | |
|------------------------------------|------------|----|-------|----|----|---------------|
| Replacement Heating Element | 100 ml | -- | 110 W | -- | -- | 1235-01707210 |
| | 250 ml | -- | 220 W | -- | -- | 1235-01707230 |
| | 500 ml | -- | 330 W | -- | -- | 1235-01707250 |
| | 1000 ml | -- | 495 W | -- | -- | 1235-01707310 |
| Support Rod Set | 4 x 660 mm | -- | -- | -- | -- | 1235-07199007 |
| Support Rod Set | 6 x 660 mm | -- | -- | -- | -- | 1235-07199008 |
| Support Rod | 500 mm | -- | -- | -- | -- | 1235-07199010 |
| | 660 mm | -- | -- | -- | -- | 1235-07199011 |
| | 960 mm | -- | -- | -- | -- | 1235-07199012 |
| | 1160 mm | -- | -- | -- | -- | 1235-07199013 |
| Clamp STK1 | -- | -- | -- | -- | -- | 1235-07050001 |

Our "classic" series

This standard heating mantle was designed for use in laboratories more than 50 years ago – it is the basis for all other series! Constant development of material, mantles for different kinds of glasses and finally high quality standards combined with highest safety and security standards are the reason why PILZ® heating mantles are found in nearly every laboratory. A great variety of accessories as well as suitable controllers and regulators offers a complete solution for every heating-problem.

The sizes from 500 ml to 20 l have a 60 mm Ø bottom out-let. Models 500 ml to 6 l can be used with the RM 3003 series magnetic stirrer. The G series heating mantles have 2 heating zones with the exception of the small models (25 and 50 ml) which have just one.



G2

Standard heating mantle for round bottom flasks. The maximum heating temperature is 450°C. Two heating zones (except for 25 and 50 ml), bottom out-let for the models from 500 ml to 20 l. Models 500 ml to 6 l can be used with the magnetic stirrer type RM 3003.



G2R and G4R

High performance heating mantle, designed similar to that of the G2 series, but with an increased heating power for shortening the heating-up time. The maximum temperature is still 450°C. G2R has two, G4R four heating zones.

| | Volume | Flask diameter | Power | Heating zones | Dimensions | Order No. |
|------------|----------|----------------|--------|---------------|------------|---------------|
| G2 | 25 ml | 41 mm | 40 W | 1 | -- | 1235-01110130 |
| | 50 ml | 51 mm | 55 W | 1 | -- | 1235-01110150 |
| | 100 ml | 64 mm | 85 W | 2 | -- | 1235-01120210 |
| | 250 ml | 85 mm | 130 W | 2 | -- | 1235-01120230 |
| | 500 ml | 105 mm | 220 W | 2 | -- | 1235-01120250 |
| | 1000 ml | 131 mm | 330 W | 2 | -- | 1235-01120310 |
| | 2000 ml | 166 mm | 550 W | 2 | -- | 1235-01120320 |
| | 3000 ml | 185 mm | 665 W | 2 | -- | 1235-01120330 |
| | 4000 ml | 207 mm | 770 W | 2 | -- | 1235-01120340 |
| | 5000 ml | 223 mm | 945 W | 2 | -- | 1235-01120350 |
| | 6000 ml | 236 mm | 1100 W | 2 | -- | 1235-01120360 |
| | 10000 ml | 279 mm | 1545 W | 2 | -- | 1235-01120410 |
| | 20000 ml | 345 mm | 2200 W | 2 | -- | 1235-01120420 |
| G2R | 50 ml | 51 mm | 75 W | 1 | -- | 1235-01111150 |
| | 100 ml | 64 mm | 110 W | 2 | -- | 1235-01121210 |
| | 250 ml | 85 mm | 220 W | 2 | -- | 1235-01121230 |
| | 500 ml | 105 mm | 330 W | 2 | -- | 1235-01120250 |
| | 1000 ml | 131 mm | 495 W | 2 | -- | 1235-01120310 |
| | 2000 ml | 166 mm | 770 W | 2 | -- | 1235-01120320 |



G2H

High-temperature heating mantle, designed identically to the G2 series, but with a maximum heating-element temperature of 900°C. Owing to the materials used in the construction of this heating mantle for this temperature range, a low outer temperature is ensured. For safety reasons however, we recommend the use of a power or temperature controller, respectively.



G2F / G4F

Heating mantle for reaction vessels up to 10 l. Construction is similar to that of the standard heating mantle.

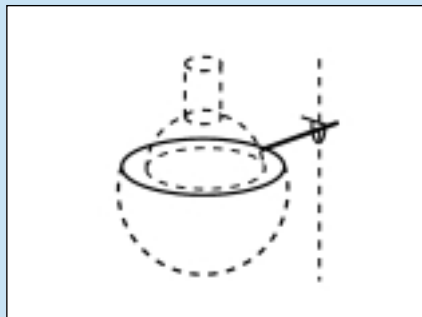
| | Volume | Flask diameter | Power | Heating zones | Dimensions | Order No. |
|------------|------------|----------------|--------|---------------|------------|---------------|
| G4R | 4000 ml | 207 mm | 1100 W | 4 | -- | 1235-01141340 |
| | 6000 ml | 236 mm | 1545 W | 4 | -- | 1235-01141360 |
| | 10000 ml | 279 mm | 2200 W | 4 | -- | 1235-01141410 |
| | 20000 ml | 345 mm | 3085 W | 4 | -- | 1235-01141420 |
| G2H | 250 ml | 85 mm | 345 W | 2 | -- | 1235-01122230 |
| | 500 ml | 105 mm | 565 W | 2 | -- | 1235-01122250 |
| | 1000 ml | 131 mm | 875 W | 2 | -- | 1235-01122310 |
| | 2000 ml | 166 mm | 1370 W | 2 | -- | 1235-01122320 |
| | 4000 ml | 207 mm | 2045 W | 2 | -- | 1235-01122340 |
| | 6000 ml | 236 mm | 2870 W | 2 | -- | 1235-01122360 |
| | G2F | 100 ml | 70 mm | 80 W | 2 | -- |
| 250 ml | | 70 mm | 120 W | 2 | -- | 1235-01123230 |
| 500 ml | | 106 mm | 200 W | 2 | -- | 1235-01123250 |
| 1000 ml | | 106 mm | 300 W | 2 | -- | 1235-01123310 |
| 2000 ml | | 140 mm | 500 W | 2 | -- | 1235-01123320 |
| G4F | 4000 ml | 200 mm | 700 W | 4 | -- | 1235-01143340 |
| | 6000 ml | 215 mm | 1000 W | 4 | -- | 1235-01143360 |
| | 10000 ml | 240 mm | 1400 W | 4 | -- | 1235-01143410 |

Accessories suitable for all heating mantles of the G series



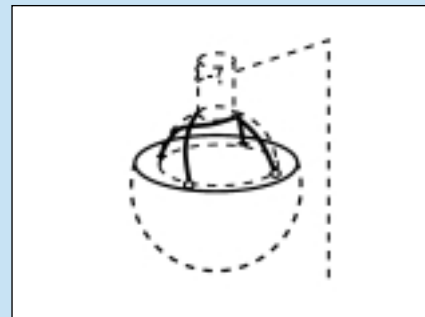
G/D - Tripod

Stand for higher stability of heating mantles from 100 ml. The four clips of the heating mantles are suspended on the tripod ring.



G/T - Support ring

Heating mantles can be secured to the support ring by the mantle's clips.



G/H - Clamping springs

For attachment of mantles in a free hanging position. A mantle can be fixed to the free hanging flasks directly.

| | Volume | Order No. |
|------------|---------------|---------------|
| G/D | 100 ml | 1235-07114001 |
| | 250 ml | 1235-07114002 |
| | 500 ml | 1235-07114003 |
| | 1000 ml | 1235-07114004 |
| | 2000 ml | 1235-07114005 |
| | 3000 ml | 1235-07114006 |
| | 4000 ml | 1235-07114007 |
| | 5000 ml | 1235-07114008 |
| | 6000 ml | 1235-07114009 |
| | 10000 ml | 1235-07114010 |
| | 20000 ml | 1235-07114011 |
| G/T | 25 ml | 1235-07114040 |
| | 50 ml | 1235-07114041 |
| | 100 ml | 1235-07114042 |
| | 250 ml | 1235-07114043 |
| | 500 ml | 1235-07114044 |
| | 1000 ml | 1235-07114045 |
| | 2000 ml | 1235-07114046 |
| | 3000 ml | 1235-07114047 |
| 4000 ml | 1235-07114048 | |
| G/H | 250 ml | 1235-07110001 |
| | 500 ml | 1235-07110002 |
| | 1000 ml | 1235-07110003 |
| | 2000 ml | 1235-07110004 |
| | 3000 ml | 1235-07110005 |
| | 4000 ml | 1235-07110006 |
| | 5000 ml | 1235-07110007 |
| | 6000 ml | 1235-07110008 |
| | 10000 ml | 1235-07110009 |



IRA and IRB

Open-sided-lagged mantle, in heated or non-heated design. These top-lagged mantles are used to prevent heat losses occurring at the upper flask halves. They are especially suited to prevent condensation and thus re-cooling, as well as to ensure the desired temperature of the contents of the flasks is even above 250°C.

- Type **IRA** for **single-neck** flasks
- Type **IRB** for **twin-neck** flasks

Also available for multi-neck flasks upon request.

| | Volume (ml) | Flask diameter (mm) | Power (W) | Heating zones | Order No. IRA-B | Order No. IRB-B |
|---------------|----------------|------------------------|--------------|------------------|---------------------------|---------------------------|
| heated | 100 | 64 | 30 | -- | 1235-01171210 | 1235-01172210 |
| | 250 | 85 | 40 | -- | 1235-01171230 | 1235-01172230 |
| | 500 | 105 | 60 | -- | 1235-01171250 | 1235-01172250 |
| | 1000 | 131 | 100 | -- | 1235-01171310 | 1235-01172310 |
| | 2000 | 166 | 150 | -- | 1235-01171320 | 1235-01172320 |
| | 3000 | 185 | 200 | -- | 1235-01171330 | 1235-01172330 |
| | 4000 | 207 | 250 | -- | 1235-01171340 | 1235-01172340 |
| | 5000 | 223 | 300 | -- | 1235-01171350 | 1235-01172350 |
| | 6000 | 236 | 350 | -- | 1235-01171360 | 1235-01172360 |
| | 10000 | 279 | 450 | -- | 1235-01171410 | 1235-01172410 |
| 20000 | 345 | 650 | -- | 1235-01171420 | 1235-01172420 | |

| | Volume (ml) | Flask diameter (mm) | Power (W) | Heating zones | Order No. IRA-U | Order No. IRB-U |
|-------------------|----------------|------------------------|--------------|------------------|---------------------------|---------------------------|
| non-heated | 100 | 64 | -- | -- | 1235-01151210 | 1235-01152210 |
| | 250 | 85 | -- | -- | 1235-01151230 | 1235-01152230 |
| | 500 | 105 | -- | -- | 1235-01151250 | 1235-01152250 |
| | 1000 | 131 | -- | -- | 1235-01151310 | 1235-01152310 |
| | 2000 | 166 | -- | -- | 1235-01151320 | 1235-01152320 |
| | 3000 | 185 | -- | -- | 1235-01151330 | 1235-01152330 |
| | 4000 | 207 | -- | -- | 1235-01151340 | 1235-01152340 |
| | 5000 | 223 | -- | -- | 1235-01151350 | 1235-01152350 |
| | 6000 | 236 | -- | -- | 1235-01151360 | 1235-01152360 |
| | 10000 | 279 | -- | -- | 1235-01151410 | 1235-01152410 |
| 20000 | 345 | -- | -- | 1235-01151420 | 1235-01152420 | |



Heating mantles for industrial use are produced in three types. The basic construction for all is the same.

- Heating-element temperature up to 450°C max.
- Glass-silk coated heating element
- Outer sheathing made of glass-silk fabric
- Support basket
- Threaded securing bolt

The short-cut SK stands for Schott glass flasks, QK for Quickfitt glass flasks. We can also offer bottom out-lets and alternative heating mantle sizes to suit your specific requirements.



Industrial heating mantle SK / QK

The simplest model in this series is produced without temperature sensors. Therefore it is recommended that the heating zones should be controlled e.g. by a suitable power regulator from the MF controlling unit range.

For greater control in regulating the temperature we offer versions SKF / QKF as well as SKF-S / QKF-S. Models SKF / QKF have a temperature sensor in the upper heating zone, the SKF-S / QKF-S models have temperature sensors for all heating zones.

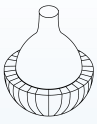
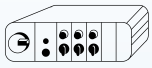
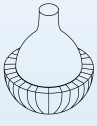

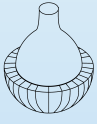

Control System MF

The MF control system is especially designed for large spherical-vessel industrial heating mantles. It is of very solid construction, modular standard rack, to be combined for different customer requirements. The simplest modules are power regulators that allow manual temperature selection. For closer control it is possible to use regulators with return-loop temperature feedback to control and regulate the temperature.

MF-E Power control by one power-regulator for each heating element. This controller is designed for the SKF / QKF series.

MF Similar to the MF-E series, but with a control unit for the upper heating-zone. Designed for the SKF / QKF series.

MF-S Designed for the SKF-S / QKF-S series. One control-unit for each heating-zone.

| Heating mantles | | | | Corresponding control unit | | | |
|--|---------------------------|---------------|-------------|----------------------------|---------------|---------|--|
| Size | Power | Order No. | Type | Type | Order No. | Voltage | Heating zones |
|  50 Litre | 4000 W 3 Heating zones | 1235-01832003 | 3 SK 50 | MF 3 E | 1235-05225123 | 400 V | 3  |
| | | 1235-01932003 | 3 QK 50 | | | | |
| | | 1235-01832050 | 3 SKF 50 | | | | |
| | | 1235-01932050 | 3 QKF 50 | | | | |
| | | 1235-01837050 | 3 SKF 50 S | | | | |
| | | 1235-01937050 | 3 QKF 50 S | | | | |
|  100 Litre | 6000 W 4 Heating zones | 1235-01832004 | 4 SK 100 | MF 4 E | 1235-05225124 | 400 V | 4  |
| | | 1235-01932004 | 4 QK 100 | | | | |
| | | 1235-01843100 | 4 SKF 100 | | | | |
| | | 1235-01943100 | 4 QKF 100 | | | | |
| | | 1235-01848100 | 4 SKF 100 S | | | | |
| | | 1235-01948100 | 4 QKF 100 S | | | | |
|  200 Litre | 9000 W 5 Heating zones | 1235-01832005 | 5 SK 200 | MF 5 E | 1235-05225125 | 400 V | 5  |
| | | 1235-01932005 | 5 QK 200 | | | | |
| | | 1235-01854200 | 5 SKF 200 | | | | |
| | | 1235-01954200 | 5 QKF 200 | | | | |
| | | 1235-01859200 | 5 SKF 200 S | | | | |
| | | 1235-01959200 | 5 QKF 200 S | | | | |

Along side our standard laboratory units we offer a wide range of heating tapes, heating cables, heating panels, drum heaters and heating hoses – suitable for the vast majority of heating requirements. Depending on your particular requirements we can offer electrical heating solutions up to 1200°C. In this booklet we offer the most often used products, you will find additional products that may suit your particular heating requirements in our price-list. For further information, especially regarding other types of heating elements or special purpose heating solutions please contact us!



G25

The G25 is a pre-terminated heating tape constructed from resistance wire or foil heating elements. The elements are stitched into a total of 6 layers (3 per side) of glass tape which acts as the carrier.

G25 tapes are suitable for indoor use where there is no risk of moisture ingress. Available in standard 240 V / 220 V and up to 600 W/m, alternatively if our standard range is not suitable in many instances we are able to manufacture to customer requirements. The maximum withstand temperature is 450°C.



GW20 / GW27

GW20 / GW 27 is a pre-terminated heating tape constructed from resistance wire or foil elements stitched to 2 woven glass carrier layers (1 per side). The whole assembly is then extruded in silicone rubber making it waterproof.

Available in standard 240 V / 220 V up to 220 W/m, alternatively if our standard range is not suitable in many instances we are able to manufacture to customer requirements. The maximum withstand temperature is 200°C.

| | Volume | Flask diameter | Power | Heating zones | Dimensions | Order No. |
|-------------|--------|----------------|-------------|---------------|------------|------------|
| G 25 | -- | -- | 1180/990 W | -- | L 1.8 m | 017628-000 |
| | -- | -- | 720/605 W | -- | L 1.8 m | 891490-000 |
| | -- | -- | 1775/1490 W | -- | L 3.6 m | 396998-000 |
| | -- | -- | 1180/990 W | -- | L 3.6 m | 131950-000 |
| | -- | -- | 1580/1325 W | -- | L 5.4 m | 940384-000 |
| | -- | -- | 815/685 W | -- | L 5.4 m | 604576-000 |
| | -- | -- | 2070/1740 W | -- | L 7.5 m | 207500-000 |
| GW20 | -- | -- | 850/715 W | -- | L 7.5 m | 667608-000 |
| | -- | -- | 25/21 W | -- | L 1.0 m | 221764-000 |
| | -- | -- | 75/63 W | -- | L 2.0 m | 495656-000 |
| | -- | -- | 100/85 W | -- | L 3.0 m | 658562-000 |
| | -- | -- | 150/125 W | -- | L 4.0 m | 298940-000 |
| GW27 | -- | -- | 200/170 W | -- | L 6.0 m | 724422-000 |
| | -- | -- | 550/460 W | -- | L 3.6 m | 552332-000 |
| | -- | -- | 275/230 W | -- | L 4.0 m | 868186-000 |
| | -- | -- | 800/670 W | -- | L 5.4 m | 921660-000 |
| | -- | -- | 360/300 W | -- | L 6.0 m | 231854-000 |
| | -- | -- | 400/335 W | -- | L 8.0 m | 909346-000 |
| | -- | -- | 950/800 W | -- | L 9.0 m | 918870-000 |
| | -- | -- | 640/540 W | -- | L 10.0 m | 980552-000 |



ITW/SS-M

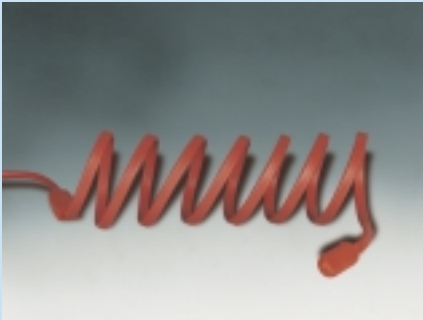
ITW/SS-M is a pre-terminated moisture-proof heating tape having a go and return series resistance heating element insulated with a PTFE sheath covered with a stainless steel braid complete with an M20 gland. The maximum withstand temperature is 260°C. Available in standard 230 V or 115 V and wattages of 33, 44, or 55 W/m, alternatively if our standard range is not suitable in many instances we are able to manufacture to customer requirements.



ITH

ITH is a pre-terminated heating tape with go and return series resistance heating elements. Suitable for high temperature applications and indoor locations where there is no risk of moisture ingress. ITH is electrically insulated with a silicone varnished glass braid and the heating element is enclosed in a glass woven carrier. It is terminated with 150 mm cold tails and an M20 Gland. The maximum withstand temperature is 450°C. Available in standard 230 V or 115 V and wattages of 75 and 150 W/m. If our standard range is not suitable in many instances we are able to manufacture to customer requirements.

| | Volume | Flask diameter | Power | Heating zones | Dimensions | Order No. |
|----------|--------|----------------|--------|---------------|------------|------------|
| ITW/SS-M | -- | -- | 80 W | -- | L 2.0 m | 293449-000 |
| | -- | -- | 110 W | -- | L 3.0 m | 130782-000 |
| | -- | -- | 130 W | -- | L 4.0 m | 539544-000 |
| | -- | -- | 170 W | -- | L 5.0 m | 944136-000 |
| | -- | -- | 280 W | -- | L 8.0 m | 691860-000 |
| | -- | -- | 370 W | -- | L 10.0 m | 060142-000 |
| ITH-75 | -- | -- | 87 W | -- | L 1.1 m | 127826-000 |
| | -- | -- | 164 W | -- | L 2.2 m | 355644-000 |
| | -- | -- | 232 W | -- | L 3.1 m | 264108-000 |
| | -- | -- | 295 W | -- | L 3.9 m | 973710-000 |
| | -- | -- | 376 W | -- | L 5.1 m | 278420-000 |
| | -- | -- | 496 W | -- | L 6.7 m | 868414-000 |
| | -- | -- | 618 W | -- | L 8.4 m | 466228-000 |
| | -- | -- | 681 W | -- | L 9.2 m | 170822-000 |
| | -- | -- | 743 W | -- | L 10.1 m | 219944-000 |
| ITH-150 | -- | -- | 120 W | -- | L 0.8 m | 698158-000 |
| | -- | -- | 240 W | -- | L 1.5 m | 492204-000 |
| | -- | -- | 327 W | -- | L 2.2 m | 514720-000 |
| | -- | -- | 411 W | -- | L 2.8 m | 325606-000 |
| | -- | -- | 533 W | -- | L 3.6 m | 979028-000 |
| | -- | -- | 707 W | -- | L 4.7 m | 930930-000 |
| | -- | -- | 880 W | -- | L 5.9 m | 298266-000 |
| | -- | -- | 963 W | -- | L 6.5 m | 056372-000 |
| | -- | -- | 1056 W | -- | L 7.1 m | 002600-000 |
| | -- | -- | 1226 W | -- | L 8.3 m | 596744-000 |
| | -- | -- | 1397 W | -- | L 9.5 m | 880458-000 |
| | -- | -- | 1574 W | -- | L 10.7 m | 767952-000 |



SiS10

SiS10 is a pre-terminated, flexible and waterproof silicone heating tape of the highest quality. It is manufactured according to the latest safety-technology regulations. Four silicone insulated heating conductors are embedded in a protective overbraid made of cupro-nickel.

Owing to its smooth, washable surface this heating tape is also suitable for use in industrial applications where contaminants to the surface of the tape may be washed away.

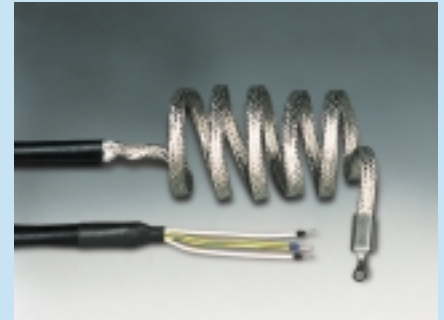
It is essential make sure, that the heating tape does not exceed the maximum withstand temperature of 200°C or degradation of the heating tape will occur.



TeMS

TeMS is a pre-terminated and flexible heating tape. TeMS 2 is used in applications ranging from simple frost protection up to temperature maintenance on short pipe-work and apparatus as well as for general container heating applications. If more power is required the use of the TeMS 4 or TeMS 6 heating tapes is recommended. The parallel arrangement of the heating conductors ensures a wide heat-transfer surface.

It is essential to make sure, that the heating tape does not exceed the maximum withstand temperature of 260°C or degradation of the heating tape will occur.



S20

Glass silk heating tape. It is a pre-terminated, flexible heating tape with a Cu tinned outer braiding serving as a protective conductor. It can be used for temperature adaptation for pipes and structures in the industrial and laboratory sector.

The temperature depends on the power and way of use. It is essential to make sure, that the heating tape does not exceed the maximum withstand temperature of 450°C or degradation of the heating tape will occur.

The heating tape enables maximum power to be installed even in the case of small surfaces.

| | Volume | Flask diameter | Power | Heating zones | Dimensions | Order No. |
|---------------|--------|----------------|--------|---------------|------------|------------|
| SiS10 | -- | -- | 100 W | -- | L 1.0 m | 115096-000 |
| | -- | -- | 150 W | -- | L 1.5 m | 328552-000 |
| | -- | -- | 200 W | -- | L 2.0 m | 162874-000 |
| | -- | -- | 300 W | -- | L 3.0 m | 021826-000 |
| | -- | -- | 500 W | -- | L 5.0 m | 910894-000 |
| TeMS 2 | -- | -- | 50 W | -- | L 1.1 m | 584216-000 |
| | -- | -- | 100 W | -- | L 2.2 m | 411376-000 |
| | -- | -- | 140 W | -- | L 3.5 m | 067444-000 |
| | -- | -- | 250 W | -- | L 5.5 m | 846778-000 |
| TeMS 4 | -- | -- | 100 W | -- | L 1.1 m | 458786-000 |
| | -- | -- | 200 W | -- | L 2.2 m | 149158-000 |
| | -- | -- | 280 W | -- | L 3.5 m | 802292-000 |
| | -- | -- | 490 W | -- | L 5.5 m | 124922-000 |
| TeMS 6 | -- | -- | 160 W | -- | L 1.0 m | 755718-000 |
| | -- | -- | 330 W | -- | L 2.0 m | 533964-000 |
| | -- | -- | 490 W | -- | L 3.0 m | 184778-000 |
| | -- | -- | 820 W | -- | L 5.0 m | 824016-000 |
| S20 | -- | -- | 110 W | -- | L 0.5 m | 263604-000 |
| | -- | -- | 220 W | -- | L 1.0 m | 114346-000 |
| | -- | -- | 330 W | -- | L 1.5 m | 704368-000 |
| | -- | -- | 440 W | -- | L 2.0 m | 153620-000 |
| | -- | -- | 650 W | -- | L 3.0 m | 443830-000 |
| | -- | -- | 1090 W | -- | L 5.0 m | 054874-000 |
| | -- | -- | 1530 W | -- | L 7.0 m | 522884-000 |
| | -- | -- | 2180 W | -- | L 10.0 m | 261076-000 |



S45

Glass silk heating tape. It is a pre-terminated, flexible heating tape consisting of a glass silk insulated flexible fabric weave with interior heating conductors. The protective overbraid of the coiled heating conductors meets the requirements of protection class I.

The temperature depends on the power and way of use. It is essential to make sure, that the heating tape does not exceed the maximum withstand temperature of 450°C or degradation of the heating tape will occur. The tape is not moisture-protected and must only be used in dry areas.

Owing to its dimensions the heating tape is used for heating up and compensating heat losses on short pipes and small-sized structures.



SP

Non-moisture-proof glass fibre heating cord. Owing to its dimensions this heating tape is used for heating up and compensating heat losses on short pipes and small-sized glass structures.

The temperature depends on the power and way of use. It is essential to make sure, that the heating tape does not exceed the maximum withstand temperature of 450°C or degradation of the heating tape will occur.



H

H heating tapes type are suitable where high power input is needed or where work has to be carried out at high temperatures. The high quality quartz-cloth allows a working element temperature of up to 900°C.

This tape should only be used in dry atmospheres with additional electrical protection and always with a temperature regulator.

For further information please check the price list or contact our support centre who will be happy to send you the required data sheets and advice you of your local sales contact.

| | Volume | Flask diameter | Power | Heating zones | Dimensions | Order No. |
|------------|--------|----------------|--------|---------------|------------|------------|
| S45 | -- | -- | 100 W | -- | L 0.5 m | 386552-000 |
| | -- | -- | 250 W | -- | L 1.0 m | 542364-000 |
| | -- | -- | 375 W | -- | L 1.5 m | 051330-000 |
| | -- | -- | 500 W | -- | L 2.0 m | 111280-000 |
| | -- | -- | 625 W | -- | L 2.5 m | 870574-000 |
| | -- | -- | 750 W | -- | L 3.0 m | 873740-000 |
| | -- | -- | 1000 W | -- | L 4.0 m | 596276-000 |
| | -- | -- | 1250 W | -- | L 5.0 m | 932450-000 |
| SP | -- | -- | 50 W | -- | L 0.5 m | 175192-000 |
| | -- | -- | 160 W | -- | L 1.0 m | 209402-000 |
| | -- | -- | 220 W | -- | L 1.5 m | 490504-000 |
| | -- | -- | 330 W | -- | L 2.0 m | 030246-000 |
| | -- | -- | 380 W | -- | L 2.5 m | 217452-000 |
| | -- | -- | 490 W | -- | L 3.0 m | 920078-000 |
| | -- | -- | 600 W | -- | L 4.0 m | 610730-000 |
| | -- | -- | 710 W | -- | L 5.0 m | 927312-000 |
| | -- | -- | 820 W | -- | L 6.0 m | 514784-000 |
| H | -- | -- | 180 W | -- | L 0.5 m | 740644-000 |
| | -- | -- | 380 W | -- | L 1.0 m | 802236-000 |
| | -- | -- | 540 W | -- | L 1.5 m | 433904-000 |
| | -- | -- | 760 W | -- | L 2.0 m | 965602-000 |
| | -- | -- | 930 W | -- | L 2.5 m | 890228-000 |
| | -- | -- | 1090 W | -- | L 3.0 m | 444118-000 |



ML 10

Electromechanical power regulator that offers the facility to vary the power supply of electrical heating devices.



TD 2000

Electronic temperature controller / limiter with adjustable set points. The device is operated using function keys. A total of 13 different parameters can be set and invoked. The current operating mode "controlling", "limiting" and "heating on" is displayed by light emitting diodes and the temperature or error message is shown on a digital display. In the limiting mode, upon reaching the pre-selected command temperature, the current supply is cut off permanently and indicated both visually and acoustically.

Special features:

- Microprocessor control
- Controlling and limiting function contained within one device
- 3 sensor types can be used (connection without diode plug)
- Sensor correction is possible
- Switch-on durable selectable
- Unlimited data protection in case of mains failure
- Acoustic signal beeper
- Potential-free switching contact
- Heating-up curve (hysteresis) adjustable
- Protection from unauthorised operation (access coding)

| | ML 10 | TD 2000 |
|------------------------|-------------------|-------------------|
| Operating voltage | 230 V AC | 230 V AC |
| Switching power | 2700 VA | 2300 VA |
| Switching current | 12 A | 10 A |
| Protection class | I | I |
| System of protection | IP 30 | IP 30 |
| Temperature range | -- | 0 - 1200°C |
| Sensor type | -- | Pt 100 |
| | -- | NiCr-Ni |
| | -- | Fe-CuNi |
| Accuracy | -- | 0 - 100°C ± 1 K |
| | -- | 0 - 100°C ± 1 K |
| | -- | 0 - 100°C ± 1 K |
| Rated tolerance | + 10%... - 15% | -- |
| Weight | 0.8 kg | 1.2 kg |
| Dimensions (L x W x D) | 95 x 195 x 130 mm | 95 x 195 x 130 mm |
| Order No. | 1235-05218101 | 1235-05255210 |



T 7000

An electronic temperature controller with PID feedback. Incorporated in a wall-mounted enclosure with transparent cover. LEDs for mains, operation and faults (sensor break). Volt-free contact 10 A. Temperature visibly adjustable on the outside. Direct connection of supply and heating is possible.



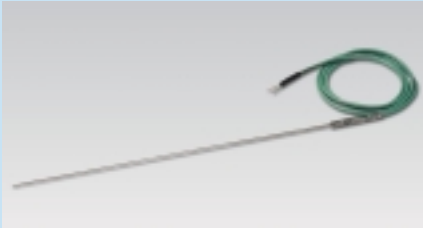
T 26000

An electronic temperature controller with integrated limiter. Incorporated in a wall-mounted enclosure with transparent cover. LEDs for mains, operation and faults (excessive temperature). Controller with a single-pole contact 10 A, limiter with a 2-pole contact with changeover as monitor. Temperature visibly adjustable on the outside. Direct connection of supply and heating is possible.

| | T 7000 | T 26000 |
|-----------------------------|--------------------|--------------------|
| Voltage | 230 V | 230 V |
| Switching power | 2300 VA | 2300 VA |
| Frequency | 50 / 60 Hz | 50 / 60 Hz |
| Power-in fuse | 10 A | 10 A |
| Protection class | II | II |
| System of protection | IP 65 | IP 65 |
| Measurement precision class | 1.5 | 2.5 |
| Dimensions (L x W x D) | 160 x 80 x 55 mm | 200 x 120 x 75 mm |
| Weight | 0.45 kg | 0.9 kg |
| Case | Makrolon | Makrolon |
| Glands | 1 x Pg 7; 2 x Pg 9 | 1 x Pg 7; 2 x Pg 9 |

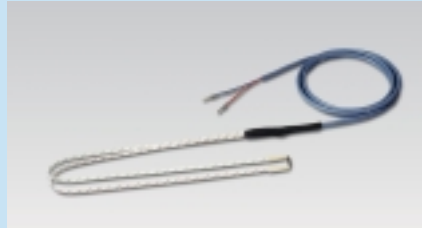
| | Type | Temperature | Entry | Order No. |
|----------------|----------|-------------|---------|---------------|
| T 7000 | TP 7010 | 0 to 100°C | Pt 100 | 962650-000 |
| | TF 7010 | 0 to 100°C | FeCu-Ni | 425064-000 |
| | TP 7020 | 0 to 200°C | Pt 100 | 371776-000 |
| | TF 7020 | 0 to 200°C | FeCu-Ni | 443956-000 |
| | TN 7050 | 0 to 500°C | NiCr-Ni | 962248-000 |
| | TN 7100 | 0 to 1000°C | NiCr-Ni | 242950-000 |
| T 26000 | TF 26020 | 0 to 200°C | FeCu-Ni | 1235-05332121 |
| | TN 26050 | 0 to 500°C | NiCr-Ni | 734490-000 |
| | TN 26100 | 0 to 1000°C | NiCr-Ni | 525582-000 |

temperature controllers



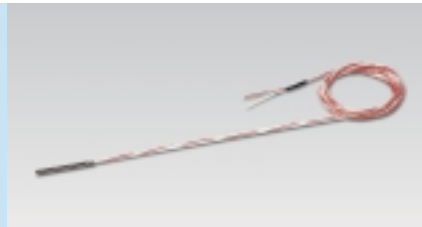
Thermocouple rod sensor

A rod sensor made of V2A (TAI-FM) or Inconel-600 (TAI-NM) with permanently connected compensation line.



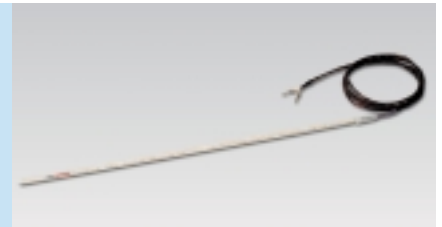
Thermocouple flat sensor

A thermocouple with permanently connected compensation line.



Pt 100 – sheathed element sensor

A Pt 100 sheathed element sensor made of V2A with permanently connected compensation line.



Pt 100 – glass sensor

Pt 100 plug-in resistant thermometer in protective sleeve with permanently connected compensation line

| | Thermocouple rod sensor | Thermocouple flat sensor | Sheathed element sensor | Glass sensor |
|-----------------------------|-----------------------------|--------------------------|-------------------------|----------------------|
| Length: | | | | |
| • Temperature pickup sensor | measuring cone point | 15 mm | 20 mm | measuring cone point |
| • Sensor | 300 mm | 400 mm | 50 mm | 400 mm |
| • Connecting bend | 1000 mm | 1500 mm | 2000 mm | 1500 mm |
| Diameter Sensor | 1.5 mm | 2.5 x 0.2 mm | 3.5 mm | 6 mm |
| Connecting bend | | | | |
| • Type | 2 x 0.25 mm ² TG | SS350-2 kc-0.25L | Teflon® | 2 x 0.22/3 TEHGL |
| • Max. temperature range | 200°C | 200°C | 250°C | 260°C |

| | Type | Temperature | Input | Order No. |
|--------------------------|--------|---------------|---------|---------------|
| Thermocouple rod sensor | TAI-FM | -40 to 750°C | Fe-CuNi | 205360-000 |
| | TAI-NM | -40 to 1200°C | NiCr-Ni | 260146-000 |
| Thermocouple flat sensor | TAI-FG | 0 to 400°C | Fe-CuNi | 909416-000 |
| | TAI-NG | 0 to 400°C | NiCr-Ni | 198978-000 |
| Sheathed element sensor | TAI-PM | -80 to 250°C | Pt 100 | 068430-000 |
| Glass sensor | TAI-PG | -50 to 260°C | Pt 100 | 1235-05506421 |



KSR4

For controlling heating mantles in combination with the contact thermometer type KT4. All-pole on/off. A stand clamp on the rear casing panel enables the device to be used attached to support scaffolding.



KT4

Contact thermometer according to DIN 12878 for controlling and maintaining the temperature of the medium. The required temperature can be set using a rotary magnet; includes a connection cable and 3-pole diode plug.



KT5

Electronic thermometer with digital display. Suitable for magnetic stirrers series RM 4002 / 4003 and RM 3003. Clamp to attach thermometer to support rods. Ranges from -50 to +300°C.

| | KSR4 | KT4 | KT5 |
|-------------------------------|-----------------------------------|---------------|--------------------|
| Nominal voltage | 230 V AC | 230 V AC | -- |
| Breaking capacity | 2200 W only ohm resistive load | 2200 W | -- |
| Length: | | | |
| • Tube | -- | 150 mm | -- |
| • Connecting bend | -- | 0.8 m | -- |
| • Sensor (Pt 100 in V2A tube) | -- | -- | 225 mm |
| Dimensions (L x W x D) | 85 x 120 x 80 mm | -- | 54 x 109 x 22 |
| Temperature range | -- | 0 to 250°C | -50 to +300°C |
| Accuracy | | | +/- 1°C +/-1 Digit |
| Stock diameter | -- | 9 mm | -- |
| Connecting bend | | | |
| • Coupling | -- | 3-pole | -- |
| • Plug | -- | 3-pole | -- |
| Weight | 0.6 kg | -- | -- |
| Order No. | 1235-05290103 | 1235-05290104 | 1235-05290105 |



RM 4002

Magnetic stirrer with a heating plate made of aluminium, a connection for a contact thermometer according to DIN 12878 for temperature control. Rated for a stirring volume up to 2 l (H₂O) and a temperature up to 450°C.



RM 4003

Magnetic stirrer, design and function corresponding to the RM 4002 series, but technical designed for a stirring quantity up to 10 l (H₂O).



RM 3003

Magnetic stirrer for the G2, G2R and G4R heating mantles series, for use with the 500 ml to 6 l, for stirring the medium in a round flask (stirring rod required). The temperature is controlled by an integrated power regulator. The controllable heat input together with the stir feature ensures even heat transfer up to 450°C.

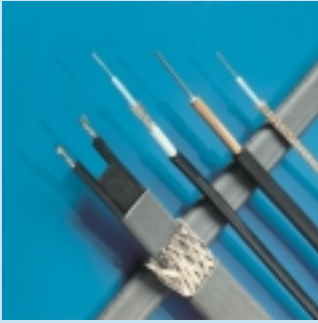
The heating mantle is positioned on the stirrer and fixed by a bayonet connection.

The RM 3003 replaces the models RM 3003 and RM 3002.

| | RM 4002 | RM 4003 | RM 3003 |
|--------------------------------------|--------------------|--------------------|--------------------|
| Nominal voltage | 230 V / 50-60 Hz | 230 V / 50-60 Hz | 230 V / 50-60 Hz |
| Max. heating power | 400 VA | 2300 VA | 2300 VA |
| Max. temperature range | 450°C | 450°C | 450°C |
| Rotational frequency | up to 1600 rpm | up to 1600 rpm | up to 1600 rpm |
| Stirring quantity (H ₂ O) | max. 5 l | max. 20 l | max. 6 l |
| Electrical protection | I | I | I |
| Protection system | IP 33 | IP 33 | IP 33 |
| Power in-fuse | 2 A | 10 A | 10 A |
| Dimensions (L x W x D) | 105 x 165 x 220 mm | 140 x 165 x 240 mm | 120 x 165 x 240 mm |
| Weight | 2.0 kg | 2.7 kg | 2.3 kg |
| Order No. | 1235-05200014 | 1235-05200015 | 1235-05200013 |

Accessories for RM 4002 and 4003

| | | |
|---------------|-----------------------------|-------------------------|
| KT5 | Contact thermometer digital | Order Nr. 1235-05290105 |
| Adapter cable | for KT5 | Order Nr. 1235-17180001 |
| Support Rod | Ø 12 mm 660 mm | Order Nr. 1235-07199011 |



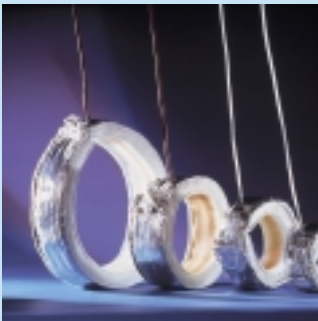
Heating cables

Heating cables for a variety of temperature ranges with silicone or Teflon insulation, with a mineral-insulated core, with copper-nickel, vanadium or alloy outer sheathing. Individual customers' specifications for one off requirements are also available.



Drum and Jacket heaters

Drum heaters for standard drums up to 200 l and jacket heaters for steel gas bottles in commercial and industrial use are available. For rapid warming air powered heating is also available as an option.



Heated Jackets

Heated jackets can be designed to individual customer's requirement regarding size and technical format. Materials used allow temperatures to be raised or maintained up to 900°C with hazardous area approval if required.



Heated Hoses

Heated hoses, for use in the analyses, of gas emissions and for fluid or semi-fluid materials are available in lengths up to 100 m and in temperatures up to 380°C.



Heating panels

Silicone heating panels are used in thermal working processes requiring high temperature withstand and flexibility. We offer a great variety of standard heating panels as well as special formats for almost any size, voltage, wattage, and shape.

The product range of Tyco Thermal Controls contains a large spectrum on industrial heat tracing products. For more information order our special brochures and datasheets:



Tyco Thermal Controls
Capabilities Brochure



Isopad
OEM & customized solutions



Isopad
Heated Hoses



Isopad
Drum Heaters



Tyco Thermal Controls
Technical Databook for
industrial heating systems



Tyco Thermal Controls
Pricelist



Isopad
Datasheets Heating Cables



Isopad
Datasheets Heating Tapes



Wenn es auf die richtige Temperatur ankommt

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