

### DTV RANGE

Standard Range  
Immersion heaters  
with screw plug



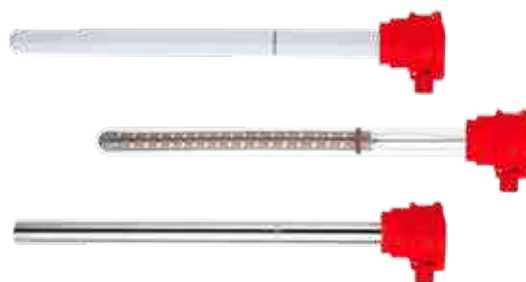
### GALVATHERM®

Flat immersion  
heaters



### ROTKAPPE®

Immersion heaters for heating  
of chemical solutions



### TBR

Flange Immersion  
Heaters



## IMMERSION HEATERS

# FOR WATER, OIL OR CHEMICAL SOLUTIONS

Immersion heaters heat up water, oil or chemical solutions through direct contact with the liquid (heat conduction). This technique can be used for many different industrial processes. Immersion heaters are very efficient appliances. Since the heat is generated within the liquid itself, virtually no energy is lost. Our immersion heaters are divided into categories based on 3 important characteristics : the kind of liquid they heat up (water, oil or a chemical solution), their shape and whether they are ATEX approved or not. If you want to use an immersion heater in a hazardous area (risk of explosion), it should be considered safe under the European guideline ATEX114.



### WATER

Immersion heaters for heating of water



### WATER+

Immersion heaters for heating of water with additives



### GLYCOL

Immersion heaters for heating of glycol-water



### OIL

Immersion heaters for heating of oil (up to 120°C).



### HOT OIL

Immersion heaters for heating of oil at high temperature (up to 250°C)



### CHEMICAL

Immersion heaters for heating of chemical solutions

# DTV45EI

Screw plug immersion heater for water



With the DTV45EI we developed a standard set of immersion heaters for the heating of water.

On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.

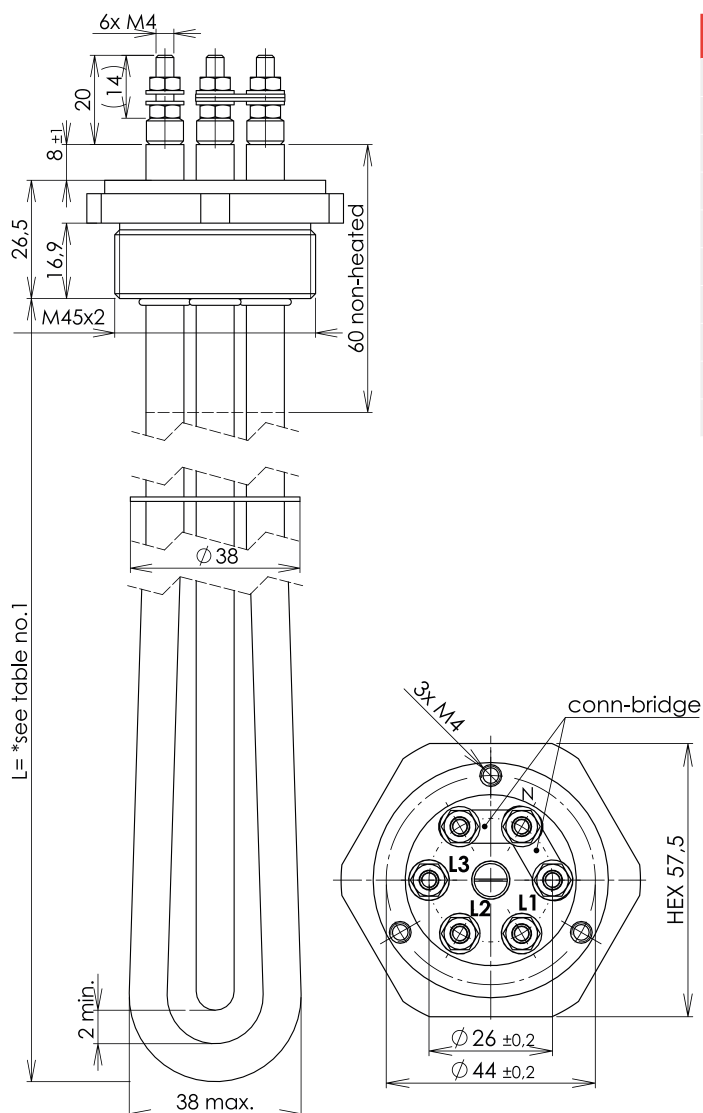
DTV45EI + DKBA105



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>                 1. 100% stainless steel<br/>                 2. 100% stainless steel<br/>                 3. 100% stainless steel<br/>                 4. 100% stainless steel<br/>                 5. 100% stainless steel<br/>                 6. 100% stainless steel<br/>                 7. 100% stainless steel<br/>                 8. 100% stainless steel<br/>                 9. 100% stainless steel<br/>                 10. 100% stainless steel             </p> | <p>                 1. 100% stainless steel<br/>                 2. 100% stainless steel<br/>                 3. 100% stainless steel<br/>                 4. 100% stainless steel<br/>                 5. 100% stainless steel<br/>                 6. 100% stainless steel<br/>                 7. 100% stainless steel<br/>                 8. 100% stainless steel<br/>                 9. 100% stainless steel<br/>                 10. 100% stainless steel             </p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Ø 8 x 0,5 mm

- Connection box DKBA



| DIRAC REFERENCE | POWER<br>[ W ] | LENGTH<br>[ mm ] |
|-----------------|----------------|------------------|
| DTV45EI010      | 1000           | 100              |
| DTV45EI020      | 1000           | 170              |
| DTV45EI030      | 1000           | 300              |
| DTV45EI045      | 1000           | 450              |
| DTV45EI060      | 1000           | 600              |
| DTV45EI075      | 7500           | 700              |
| DTV45EI090      | 1000           | 900              |
| DTV45EI100      | 1000           | 1000             |
| DTV45EI120      | 1000           | 1200             |

**OTHER VARIANTS ON DEMAND**

## OPTIONS

- Aluminium connection box **Small**

**DKBA078-P1**

- Aluminium connection box **Large**

**DKBA105-P1**

1. 100% stainless steel  
2. 100% stainless steel  
3. 100% stainless steel  
4. 100% stainless steel  
5. 100% stainless steel  
6. 100% stainless steel  
7. 100% stainless steel  
8. 100% stainless steel  
9. 100% stainless steel  
10. 100% stainless steel

# DTV45I

Screw plug immersion heater for water with additives



With the DTV45I we developed a standard set of immersion heaters for the heating of water with additives.

On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.

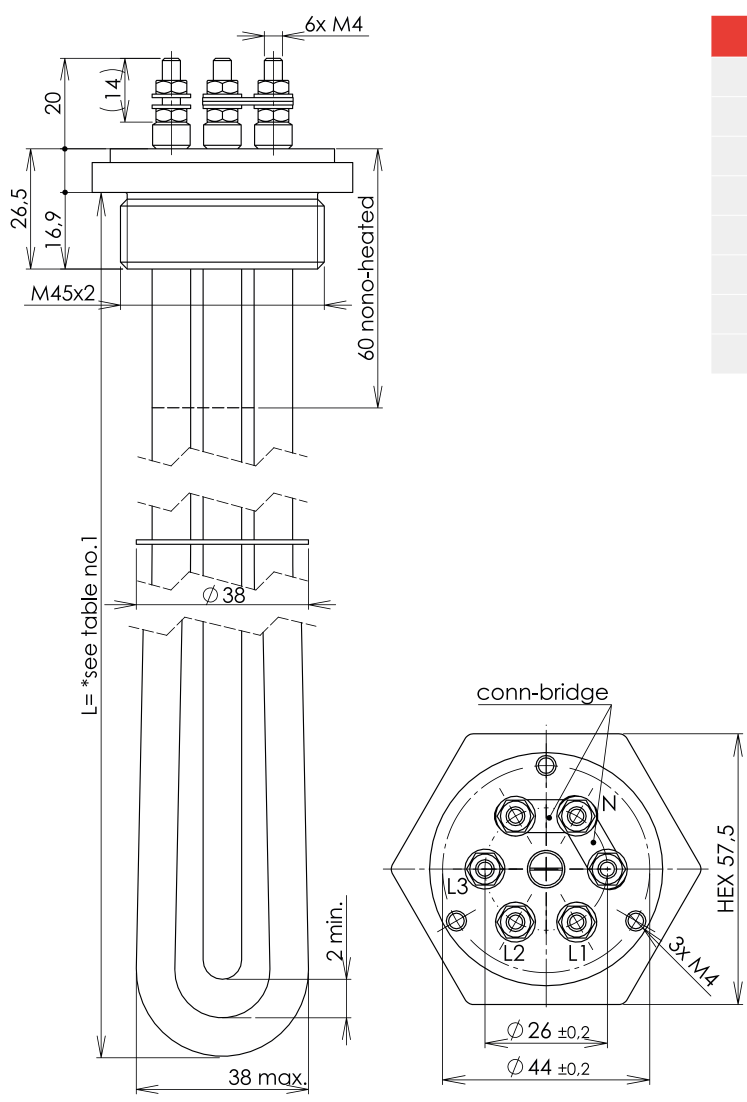
|           |           |
|-----------|-----------|
| DTV45I030 | DTV45I045 |
| DTV45I060 | DTV45I075 |
| DTV45I090 | DTV45I120 |
| DTV45I150 |           |

Ø 8 x 0,5 mm

- Connection box DKBA

| DIRAC REFERENCE | POWER | LENGTH |
|-----------------|-------|--------|
|                 | [ W ] | [ mm ] |
| DTV45I030       | 3000  | 300    |
| DTV45I045       | 4500  | 450    |
| DTV45I060       | 6000  | 370    |
| DTV45I075       | 7500  | 450    |
| DTV45I090       | 9000  | 450    |
| DTV45I120       | 12000 | 700    |
| DTV45I150       | 15000 | 900    |

 OTHER VARIANTS ON DEMAND



**OPTIONS**

- Aluminium connection box **Small** **DKBA078-P1**
- Aluminium connection box **Large** **DKBA105-P1**

# DTV45EG

Screw plug immersion heater for glycol



DTV45EG + DKBA105

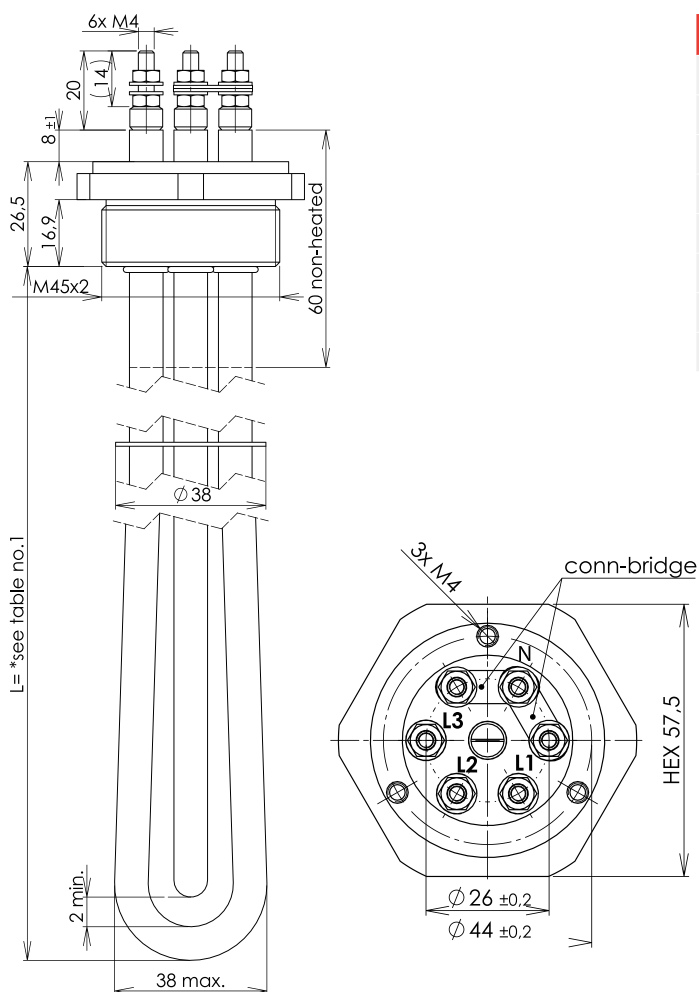


With the DTV45EG we developed a standard set of immersion heaters for the heating of glycol-water (maximum 50%).

On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.

The DTV45EG immersion heater is a standard set of immersion heaters for the heating of glycol-water (maximum 50%).  
 The heater is made of stainless steel and has a screw plug for easy installation.  
 The connection box DKBA105 is made of aluminium and has a screw plug for easy installation.  
 The heater is available in different lengths and powers.  
 - Connection box DKBA105



| DIRAC REFERENCE | POWER | LENGTH |
|-----------------|-------|--------|
|                 | [ W ] | [ mm ] |
| DTV45EG010      | 1000  | 170    |
| DTV45EG015      | 1500  | 170    |
| DTV45EG020      | 2000  | 170    |
| DTV45EG030      | 3000  | 170    |
| DTV45EG045      | 4500  | 170    |
| DTV45EG060      | 6000  | 170    |
| DTV45EG120      | 12000 | 170    |

**OTHER VARIANTS ON DEMAND**

## OPTIONS

- Aluminium connection box **Small**

**DKBA078-P1**

- Aluminium connection box **Large**

**DKBA105-P1**

The DTV45EG immersion heater is a standard set of immersion heaters for the heating of glycol-water (maximum 50%).  
 The heater is made of stainless steel and has a screw plug for easy installation.

# DTV45HI

Screw plug immersion heater for oil



With the DTV45HI we developed a standard set of immersion heaters for the heating of oil (up to 120°C).

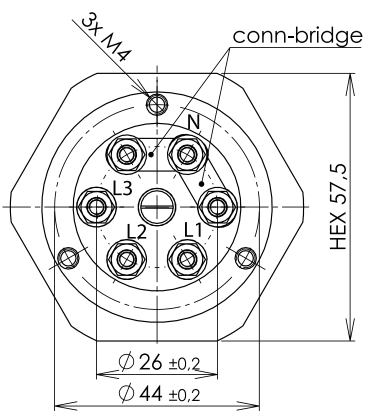
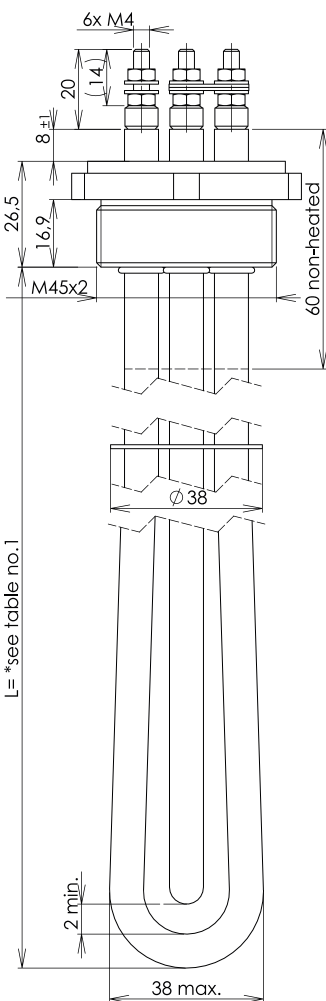
On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.

DTV45HI + DKBA105



|                                                                         |                                                                            |
|-------------------------------------------------------------------------|----------------------------------------------------------------------------|
| Standard set of immersion heaters for the heating of oil (up to 120°C). | On demand, adjustments can be made if the requested quantity is justified. |
| We can tailor make the desired solution.                                |                                                                            |



| DIRAC REFERENCE | POWER | LENGTH |
|-----------------|-------|--------|
|                 | [ W ] | [ mm ] |
| DTV45HI005      | 100   | 170    |
| DTV45HI007      | 750   | 100    |
| DTV45HI010      | 1000  | 100    |
| DTV45HI015      | 1500  | 100    |
| DTV45HI020      | 2000  | 570    |
| DTV45HI030      | 3000  | 100    |

(\*) only 230V - 1ph

 OTHER VARIANTS ON DEMAND

## OPTIONS

- Aluminium connection box **Small** DKBA078-P1
- Aluminium connection box **Large** DKBA105-P1

# DTV45HDI

Screw plug immersion heater for oil



With the DTV45HDI we developed a standard set of immersion heaters for the heating of oil at high temperature (up to 250°C).

On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.

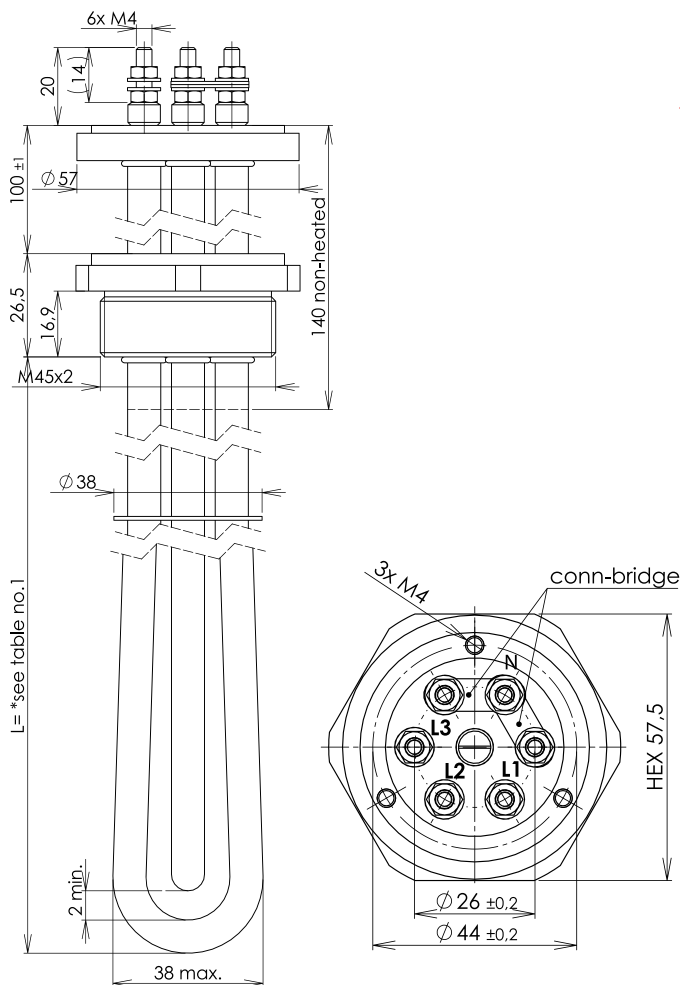


- Brass flange Ø 57 mm, for box mounting  
 - Connection box DKBA (small or large - on flange)

| DIRAC REFERENCE | POWER<br>[ W ] | LENGTH<br>[ mm ] |
|-----------------|----------------|------------------|
| DTV45HDI005     | 100            | 170              |
| DTV45HDI007     | 750            | 100              |
| DTV45HDI010     | 1000           | 100              |
| DTV45HDI015     | 1500           | 100              |
| DTV45HDI020     | 2000           | 570              |
| DTV45HDI030     | 3000           | 100              |

(\*) only 230V - 1ph

**OTHER VARIANTS ON DEMAND**



## OPTIONS

- Aluminium connection box **Small** DKBA078-P1
- Aluminium connection box **Large** DKBA105-P1

- 1 phase 230V  
 - 3 phase 400V



# ELECTRICAL HEATING

## OPTIONS

### ACCESSORIES BOXES



#### DKBA078-P1

Aluminium box Small  
- 78 x 78 x 78 mm

□ □ □ □ □ □ □ □ □ □ □ □  
□ □ □ □ □ □ □ □ □ □ □ □

- M20 gland for power cable



#### DKBA105-P1

Aluminium box Large  
- 105 x 108 x 104 mm

□ □ □ □ □ □ □ □ □ □ □ □  
□ □ □ □ □ □ □ □ □ □ □ □

- 1 PG 16 gland for power cable
- 1 PG 11 gland for control cable
- 1 PG 11 plug for regulation □ □ □ □ □ □ □ □ □ □

### ACCESSORIES ASSEMBLY



#### JSA-DTV45

□ □ □ □ □ □ □ □ □ □ □ □



#### JCU-DTV45

□ □ □ □ □ □ □ □ □ □ □ □



#### E0045

□ □ □ □ □ □ □ □ □ □ □ □



#### EIN45

□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □

### THERMOSTATS

|                 | THERMOSTATS                              | # MORE INFO ON EACH PRODUCT'S SPECIFIC DATASHEET |
|-----------------|------------------------------------------|--------------------------------------------------|
| CAD040-MONO-I   | □ □ □ □ □ □ □ □ □ □ □ □ □ □              |                                                  |
| CAD090-MONO-I   | □ □ □ □ □ □ □ □ □ □ □ □ □ □              |                                                  |
| CAD110-MONO-I   | □ □ □ □ □ □ □ □ □ □ □ □ □ □              |                                                  |
| CAD300-MONO-I   | □ □ □ □ □ □ □ □ □ □ □ □ □ □              |                                                  |
| CAD040-TRI-I    | □ □ □ □ □ □ □ □ □ □ □ □ □ □              |                                                  |
| CAD090-TRI-I    | □ □ □ □ □ □ □ □ □ □ □ □ □ □              |                                                  |
| CAD110-TRI-I    | □ □ □ □ □ □ □ □ □ □ □ □ □ □              |                                                  |
| CAD300-TRI-I    | □ □ □ □ □ □ □ □ □ □ □ □ □ □              |                                                  |
| * CABS4080/98-I | Thermostat 40-80 / limiter 98 - bi-pole  |                                                  |
| * CATS4080/98-I | Thermostat 40-80 / limiter 98 - tri-pole |                                                  |

\* only possible with custom made heater with thermal pocket Ø 10x0,5 mm



#### BIN45

□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □  
ring - treated M45x2

□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □  
□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □  
□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □  
resulting in custom made heaters.  
See next page



CADXXX-MONO-I



CATS4080/98-I



CADXXX-TRI-I



CABS4080/98-I

## THERMOSTAT COMPATIBILITY

| DIRAC<br>IMMERSION<br>HEATERS | POWER<br>[ W ] | LENGTH THERMAL<br>POCKET<br>[ mm ] | CAD040-MONO-I<br>CAD090-MONO-I<br>CAD110-MONO-I | CAD040-MONO-I<br>CAD090-MONO-I<br>CAD110-MONO-I | CAD300-MONO-I | CAD300-MONO-I  | CAD040-TRI-I<br>CAD090-TRI-I<br>CAD110-TRI-I | CAD300-TRI-I |
|-------------------------------|----------------|------------------------------------|-------------------------------------------------|-------------------------------------------------|---------------|----------------|----------------------------------------------|--------------|
|                               |                |                                    | DIRECT                                          | EXT. CONTACTOR                                  | DIRECT        | EXT. CONTACTOR | DIRECT                                       | DIRECT       |
| DTV45HI005                    | □□□            | □□□                                | ✗                                               | ✗                                               | ✗             | ✗              | ✗                                            | ✗            |
| DTV45HI007                    | 750            | □□□                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV45HI010                    | □□□□           | □□□                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV45HI015                    | □□□□           | □□□                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV45HI020                    | □□□□           | □□□                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV45HI030                    | □□□□           | 794                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV45HDI005                   | 500            | 228                                | ✓                                               | ✓                                               | ✓             | ✓              | ✗                                            | ✗            |
| DTV45HDI007                   | 750            | 294                                | ✓                                               | ✓                                               | ✓             | ✓              | ✗                                            | ✗            |
| DTV45HDI010                   | 1000           | 358                                | ✓                                               | ✓                                               | ✓             | ✓              | ✗                                            | ✗            |
| DTV45HDI015                   | 1500           | 494                                | ✓                                               | ✓                                               | ✓             | ✓              | ✓                                            | ✓            |
| DTV45HDI020                   | 2000           | 629                                | ✓                                               | ✓                                               | ✓             | ✓              | ✓                                            | ✓            |
| DTV45HDI030                   | 3000           | 894                                | ✓                                               | ✓                                               | ✓             | ✓              | ✓                                            | ✓            |
| DTV45EG010                    | 1000           | 165                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV45EG015                    | 1500           | 230                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV45EG020                    | 2000           | 295                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV45EG030                    | 3000           | 430                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV45EG045                    | 4500           | 630                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV45EG060                    | 6000           | 830                                | ✗                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV45EI010                    | 1000           | 100                                | ✗                                               | ✗                                               | ✗             | ✗              | ✗                                            | ✗            |
| DTV45EI020                    | 2000           | 165                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV45EI030                    | 3000           | 230                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV45EI045                    | 4500           | 330                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV45EI060                    | 6000           | 430                                | ✗                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV45EI075                    | 7500           | 530                                | ✗                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV45EI090                    | 9000           | 630                                | ✗                                               | ✓                                               | ✗             | ✗              | ✓ (3X400V)                                   | ✗            |
| DTV45EI100                    | 10000          | 695                                | ✗                                               | ✓                                               | ✗             | ✗              | ✓ (3X400V)                                   | ✗            |
| DTV45I030                     | 3000           | 175                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV45I045                     | 4500           | 255                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV45I060                     | 6000           | 340                                | ✗                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV45I075                     | 7500           | 420                                | ✗                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV45I090                     | 9000           | 505                                | ✗                                               | ✓                                               | ✗             | ✗              | ✓ (3X400V)                                   | ✗            |
| DTV45I120                     | 12000          | 670                                | ✗                                               | ✓                                               | ✗             | ✗              | ✗                                            | ✗            |
| DTV45I150                     | 15000          | 835                                | ✗                                               | ✓                                               | ✗             | ✗              | ✗                                            | ✗            |

# DTV47EI

Screw plug immersion heater for water



With the DTV47EI we developed a standard set of immersion heaters for the heating of water.

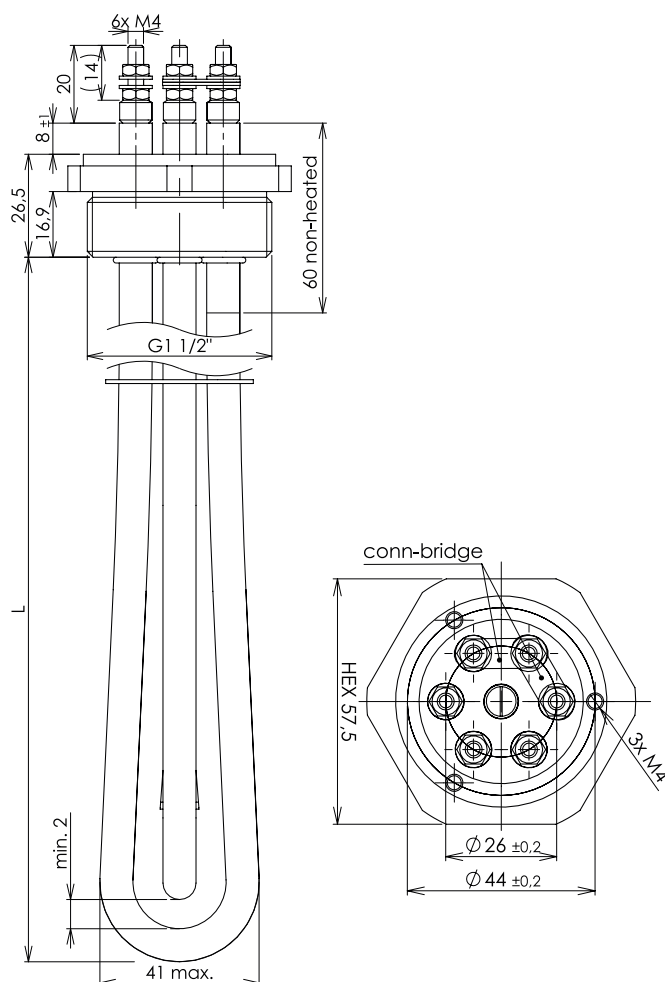
On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.

The heater is made of stainless steel (AISI 316) and is designed for use in water. The heating element is made of nickel-chromium alloy (NiCr) and is protected by a special coating. The electrical connections are made of copper and are protected by a special coating. The heater is available in different lengths and power ratings. The connection box is made of aluminum and is protected by a special coating. The heater is designed for use in water and is not suitable for use in other liquids.

| DIRAC REFERENCE | POWER<br>[ W ] | LENGTH<br>[ mm ] |
|-----------------|----------------|------------------|
| DTV47EI010      | 1000           | 100              |
| DTV47EI020      | 2000           | 170              |
| DTV47EI030      | 3000           | 200              |
| DTV47EI045      | 4500           | 250              |
| DTV47EI060      | 6000           | 300              |
| DTV47EI075      | 7500           | 350              |
| DTV47EI090      | 9000           | 400              |
| DTV47EI100      | 10000          | 700              |
| DTV47EI120      | 12000          | 799              |

**OTHER VARIANTS ON DEMAND**



## OPTIONS

- Aluminium connection box **Small** **DKBA078-P1**
- Aluminium connection box **Large** **DKBA105-P1**

The heater is made of stainless steel (AISI 316) and is designed for use in water. The heating element is made of nickel-chromium alloy (NiCr) and is protected by a special coating. The electrical connections are made of copper and are protected by a special coating. The heater is available in different lengths and power ratings. The connection box is made of aluminum and is protected by a special coating. The heater is designed for use in water and is not suitable for use in other liquids.

# DTV47I

Screw plug immersion heater for water with additives



With the DTV47I we developed a standard set of immersion heaters for the heating of water with additives.

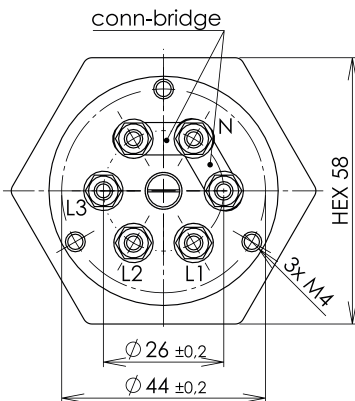
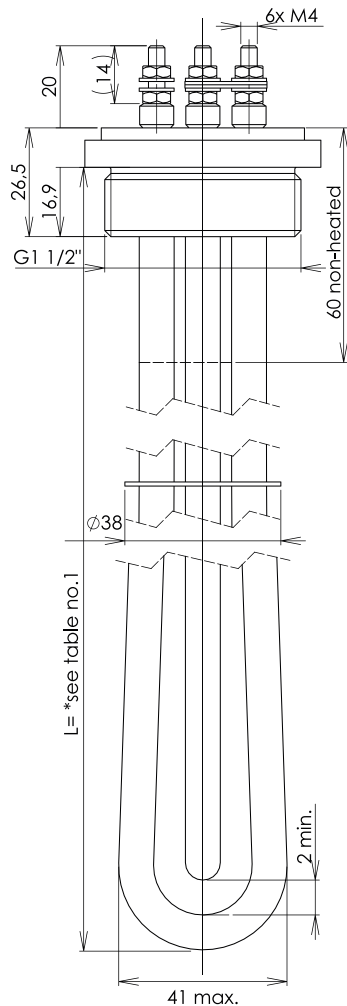
On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.

|           |           |
|-----------|-----------|
| DTV47I030 | DTV47I045 |
| DTV47I060 | DTV47I075 |
| DTV47I090 | DTV47I120 |
| DTV47I150 |           |

| DIRAC REFERENCE | POWER<br>[ W ] | LENGTH<br>[ mm ] |
|-----------------|----------------|------------------|
| DTV47I030       | 3000           | 300              |
| DTV47I045       | 4500           | 300              |
| DTV47I060       | 6000           | 370              |
| DTV47I075       | 7500           | 300              |
| DTV47I090       | 9000           | 300              |
| DTV47I120       | 12000          | 700              |
| DTV47I150       | 15000          | 300              |

OTHER VARIANTS ON DEMAND



## OPTIONS

- Aluminium connection box **Small** DKBA078-P1
- Aluminium connection box **Large** DKBA105-P1

DTV47I030 DTV47I045 DTV47I060 DTV47I075 DTV47I090 DTV47I120 DTV47I150



GLYCOL

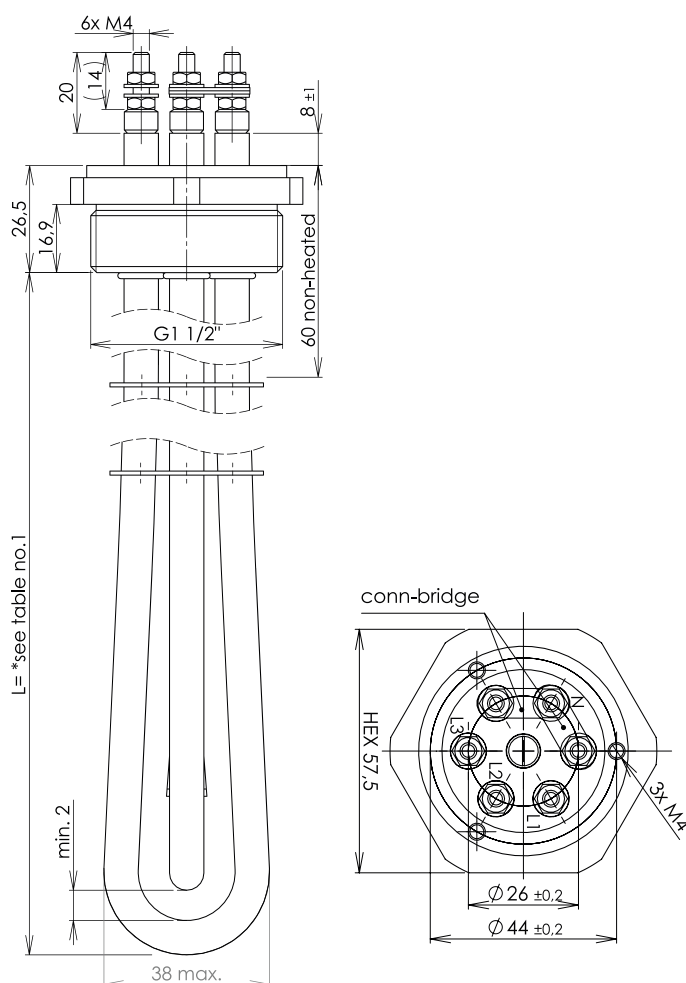


**We can tailor make the desired solution.**

Ø 8 x 0,5 mm

- Connection box DKBA

| DIRAC REFERENCE | POWER  | LENGTH |
|-----------------|--------|--------|
|                 | [ W ]  | [ mm ] |
| DTV47EG010      | 0000   | 170    |
| DTV47EG015      | 0000   | 000    |
| DTV47EG020      | 0000   | 000    |
| DTV47EG030      | 0000   | 000    |
| DTV47EG045      | 0000   | 000    |
| DTV47EG060      | 0000   | 000    |
| DTV47EG120      | 000000 | 0000   |


**OTHER VARIANTS ON DEMAND**[illegible]

# DTV47HI

Screw plug immersion heater for oil



With the DTV47HI we developed a standard set of immersion heaters for the heating of oil (up to 120°C).

On demand, adjustments can be made if the purchase quantity justifies this.

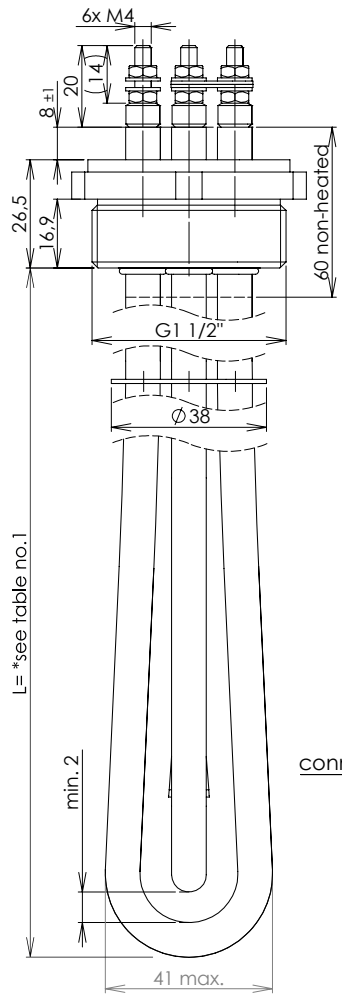
We can tailor make the desired solution.



DTV47HI + DKBA105



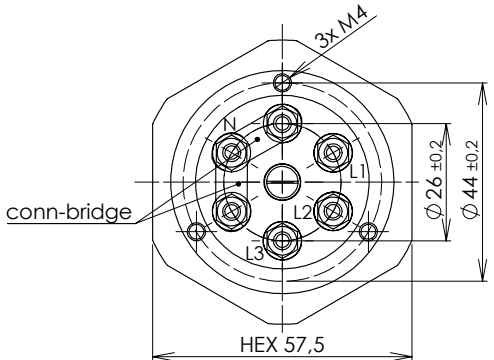
|                                                                                                                                                              |                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| DIRAC REFERENCE | POWER | LENGTH |
|-----------------|-------|--------|
|                 | [ W ] | [ mm ] |
| * DTV47HI005    | □□□   | 170    |
| DTV47HI007      | 750   | □□□    |
| DTV47HI010      | □□□□  | □□□    |
| DTV47HI015      | □□□□  | □□□    |
| DTV47HI020      | □□□□  | 570    |
| DTV47HI030      | □□□□  | □□□    |

(\*) only 230V - 1ph

 OTHER VARIANTS ON DEMAND



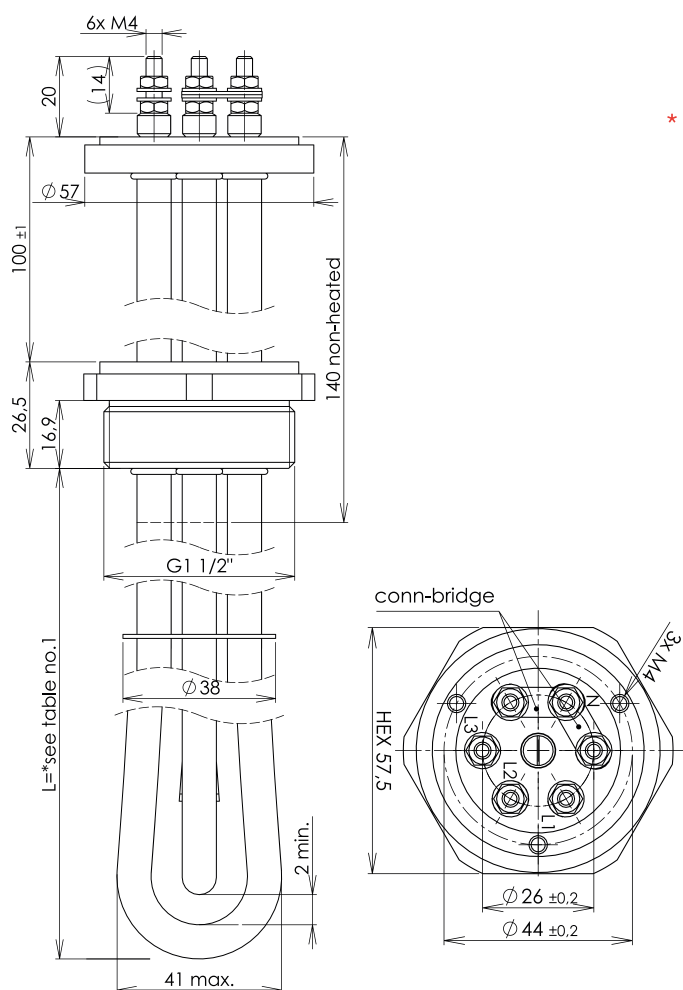
## OPTIONS

- Aluminium connection box **Small** **DKBA078-P1** □□□□□□□□□□□□
- Aluminium connection box **Large** **DKBA105-P1** □□□□□□□□□□□□



**We can tailor make the desired solution.**

| DIRAC REFERENCE | POWER | LENGTH |
|-----------------|-------|--------|
|                 | [ W ] | [ mm ] |
| DTV47HDI005     | □□□   | 170    |
| DTV47HDI007     | 750   | □□□    |
| DTV47HDI010     | □□□□  | □□□    |
| DTV47HDI015     | □□□□  | □□□    |
| DTV47HDI020     | □□□□  | 570    |
| DTV47HDI030     | □□□□  | □□□    |


**OTHER VARIANTS ON DEMAND**



# ELECTRICAL HEATING

## OPTIONS

### ACCESSORIES BOXES



#### DKBA078-P1

Aluminium box Small  
- 78 x 78 x 78 mm

□ □ □ □ □ □ □ □ □ □ □  
□ □ □ □ □ □ □ □ □ □ □

- M20 gland for power cable



#### DKBA105-P1

Aluminium box Large  
- 105 x 108 x 104 mm

□ □ □ □ □ □ □ □ □ □ □  
□ □ □ □ □ □ □ □ □ □ □

- 1 PG 16 gland for power cable
- 1 PG 11 gland for control cable
- 1 PG 11 plug for regulation □ □ □ □ □ □ □ □ □ □

### ACCESSORIES ASSEMBLY



#### JSA-DTV47

□ □ □ □ □ □ □ □ □ □ □



#### JCU-DTV47

□ □ □ □ □ □ □ □ □ □ □



#### E0047

□ □ □ □ □ □ □ □ □ □ □



#### EIN47

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### THERMOSTATS

|                 | THERMOSTATS                                   | # MORE INFO ON EACH PRODUCT'S SPECIFIC DATASHEET |
|-----------------|-----------------------------------------------|--------------------------------------------------|
| CAD040-MONO-I   | □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ |                                                  |
| CAD090-MONO-I   | □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ |                                                  |
| CAD110-MONO-I   | □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ |                                                  |
| CAD300-MONO-I   | □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ |                                                  |
| CAD040-TRI-I    | □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ |                                                  |
| CAD090-TRI-I    | □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ |                                                  |
| CAD110-TRI-I    | □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ |                                                  |
| CAD300-TRI-I    | □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ |                                                  |
| * CABS4080/98-I | Thermostat 40-80 / limiter 98 - bi-pole       |                                                  |
| * CATS4080/98-I | Thermostat 40-80 / limiter 98 - tri-pole      |                                                  |



#### BIN47

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resulting in custom made heaters.  
See next page

\* only possible with custom made heater with thermal pocket Ø 10x0,5 mm



#### CADXXX-MONO-I



#### CATS4080/98-I



#### CADXXX-TRI-I



#### CABS4080/98-I

## THERMOSTAT COMPATIBILITY

| DIRAC<br>IMMERSION<br>HEATERS | POWER<br>[ W ] | LENGTH THERMAL<br>POCKET<br>[ mm ] | CAD040-MONO-I<br>CAD090-MONO-I<br>CAD110-MONO-I | CAD040-MONO-I<br>CAD090-MONO-I<br>CAD110-MONO-I | CAD300-MONO-I | CAD300-MONO-I  | CAD040-TRI-I<br>CAD090-TRI-I<br>CAD110-TRI-I | CAD300-TRI-I |
|-------------------------------|----------------|------------------------------------|-------------------------------------------------|-------------------------------------------------|---------------|----------------|----------------------------------------------|--------------|
|                               |                |                                    | DIRECT                                          | EXT. CONTACTOR                                  | DIRECT        | EXT. CONTACTOR | DIRECT                                       | DIRECT       |
| DTV47HI005                    | □□□            | □□□                                | ✗                                               | ✗                                               | ✗             | ✗              | ✗                                            | ✗            |
| DTV47HI007                    | 750            | □□□                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV47HI010                    | □□□□           | □□□                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV47HI015                    | □□□□           | □□□                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV47HI020                    | □□□□           | □□□                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV47HI030                    | □□□□           | 794                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV47HDI005                   | 500            | 228                                | ✓                                               | ✓                                               | ✓             | ✓              | ✗                                            | ✗            |
| DTV47HDI007                   | 750            | 294                                | ✓                                               | ✓                                               | ✓             | ✓              | ✗                                            | ✗            |
| DTV47HDI010                   | 1000           | 358                                | ✓                                               | ✓                                               | ✓             | ✓              | ✗                                            | ✗            |
| DTV47HDI015                   | 1500           | 494                                | ✓                                               | ✓                                               | ✓             | ✓              | ✓                                            | ✓            |
| DTV47HDI020                   | 2000           | 629                                | ✓                                               | ✓                                               | ✓             | ✓              | ✓                                            | ✓            |
| DTV47HDI030                   | 3000           | 894                                | ✓                                               | ✓                                               | ✓             | ✓              | ✓                                            | ✓            |
| DTV47EG010                    | 1000           | 165                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV47EG015                    | 1500           | 230                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV47EG020                    | 2000           | 295                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV47EG030                    | 3000           | 430                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV47EG045                    | 4500           | 630                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV47EG060                    | 6000           | 830                                | ✗                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV47EI010                    | 1000           | 100                                | ✗                                               | ✗                                               | ✗             | ✗              | ✗                                            | ✗            |
| DTV47EI020                    | 2000           | 165                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV47EI030                    | 3000           | 230                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV47EI045                    | 4500           | 330                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV47EI060                    | 6000           | 430                                | ✗                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV47EI075                    | 7500           | 530                                | ✗                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV47EI090                    | 9000           | 630                                | ✗                                               | ✓                                               | ✗             | ✗              | ✓ (3X400V)                                   | ✗            |
| DTV47EI100                    | 10000          | 695                                | ✗                                               | ✓                                               | ✗             | ✗              | ✓ (3X400V)                                   | ✗            |
| DTV47I030                     | 3000           | 175                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV47I045                     | 4500           | 255                                | ✓                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV47I060                     | 6000           | 340                                | ✗                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV47I075                     | 7500           | 420                                | ✗                                               | ✓                                               | ✗             | ✗              | ✓                                            | ✗            |
| DTV47I090                     | 9000           | 505                                | ✗                                               | ✓                                               | ✗             | ✗              | ✓ (3X400V)                                   | ✗            |
| DTV47I120                     | 12000          | 670                                | ✗                                               | ✓                                               | ✗             | ✗              | ✗                                            | ✗            |
| DTV47I150                     | 15000          | 835                                | ✗                                               | ✓                                               | ✗             | ✗              | ✗                                            | ✗            |

# DTV48EI

Screw plug immersion heater for water

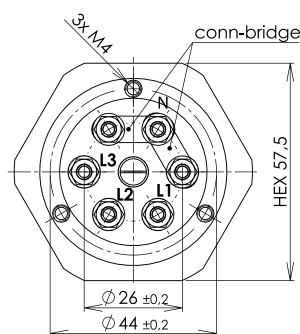
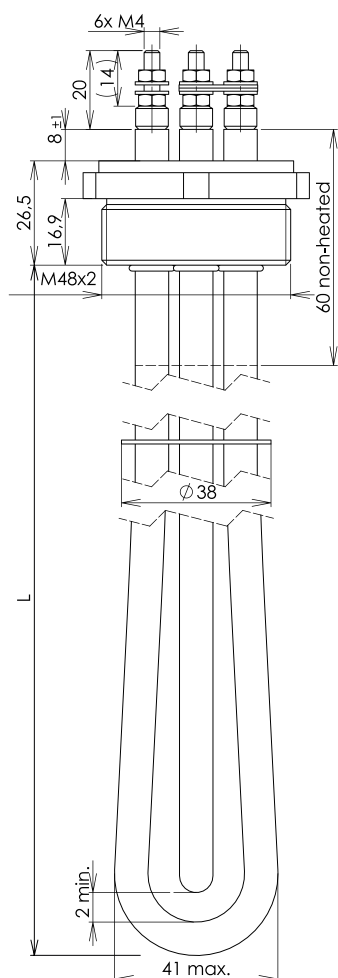


With the DTV48EI we developed a standard set of immersion heaters for the heating of water.

On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.

Standard set of immersion heaters for the heating of water.  
 Ø 8 x 0,5 mm  
 - Brass screw plug M48x2  
 - Connection box DKBA



| REFERENCE  | POWER | LENGTH |
|------------|-------|--------|
|            | [ W ] | [ mm ] |
| DTV48EI010 | 1000  | 100    |
| DTV48EI020 | 2000  | 170    |
| DTV48EI030 | 3000  | 200    |
| DTV48EI045 | 4500  | 250    |
| DTV48EI060 | 6000  | 300    |
| DTV48EI075 | 7500  | 350    |
| DTV48EI090 | 9000  | 400    |
| DTV48EI100 | 10000 | 700    |
| DTV48EI120 | 12000 | 799    |

**OTHER VARIANTS ON DEMAND**

## OPTIONS

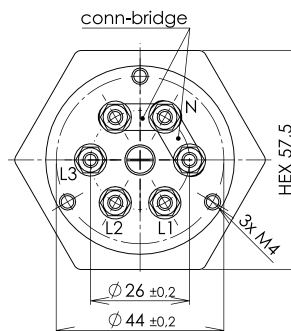
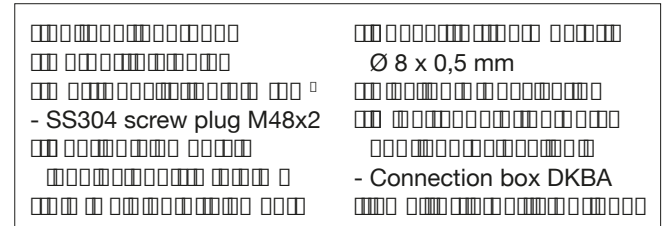
- Aluminium connection box **Small**

**DKBA078-P1**

- Aluminium connection box **Large**

**DKBA105-P1**

Standard set of immersion heaters for the heating of water.



| REFERENCE | POWER | LENGTH |
|-----------|-------|--------|
|           | [ W ] | [ mm ] |
| DTV48I030 | 0000  | 000    |
| DTV48I045 | 0000  | 000    |
| DTV48I060 | 0000  | 370    |
| DTV48I075 | 7500  | 000    |
| DTV48I090 | 0000  | 000    |
| DTV48I120 | 00000 | 700    |
| DTV48I150 | 00000 | 000    |

 **OTHER VARIANTS ON DEMAND**

- Aluminium connection box **Small**   
**DKBA078-P1**                                                                                                                                    

## DTV48EG

Screw plug immersion  
heater for glycol

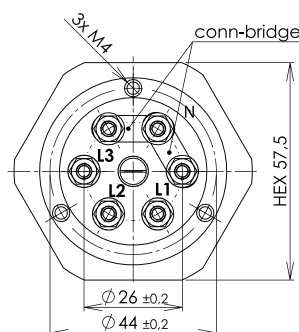
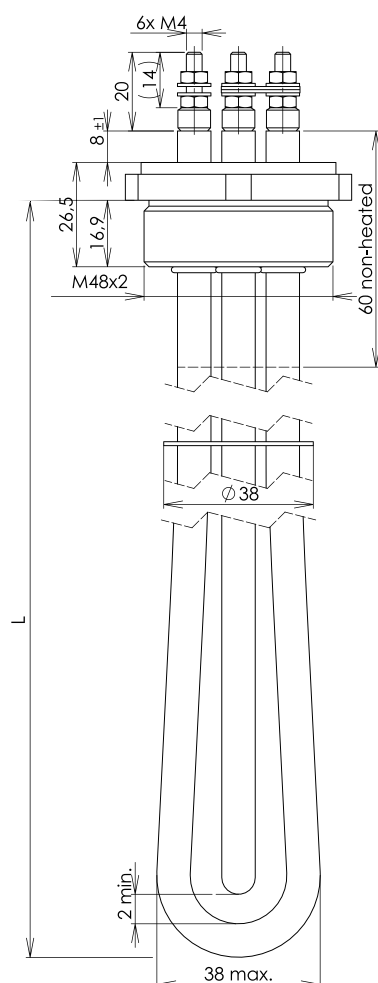


With the DTV48EG we developed a standard set of immersion heaters for the heating of glycol-water (maximum 50%).

On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.

|                                                                                                |                                                                                    |
|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| <p>             - Brass screw plug M48x2<br/>             - Connection box DKBA           </p> | <p>             Ø 8 x 0,5 mm<br/>             - Connection box DKBA           </p> |
|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|



| REFERENCE  | POWER<br>[ W ] | LENGTH<br>[ mm ] |
|------------|----------------|------------------|
| DTV48EG010 | 1000           | 170              |
| DTV48EG015 | 1500           | 200              |
| DTV48EG020 | 2000           | 250              |
| DTV48EG030 | 3000           | 300              |
| DTV48EG045 | 4500           | 350              |
| DTV48EG060 | 6000           | 400              |
| DTV48EG120 | 12000          | 500              |

OTHER VARIANTS ON DEMAND

## OPTIONS

- Aluminium connection box **Small**  
**DKBA078-P1**

- Aluminium connection box **Large**  
**DKBA105-P1**

# DTV48HI

Screw plug immersion heater for oil

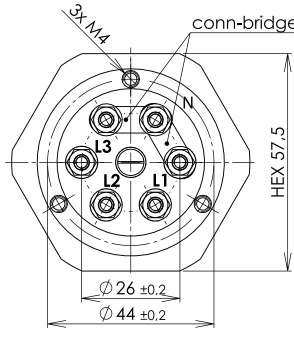
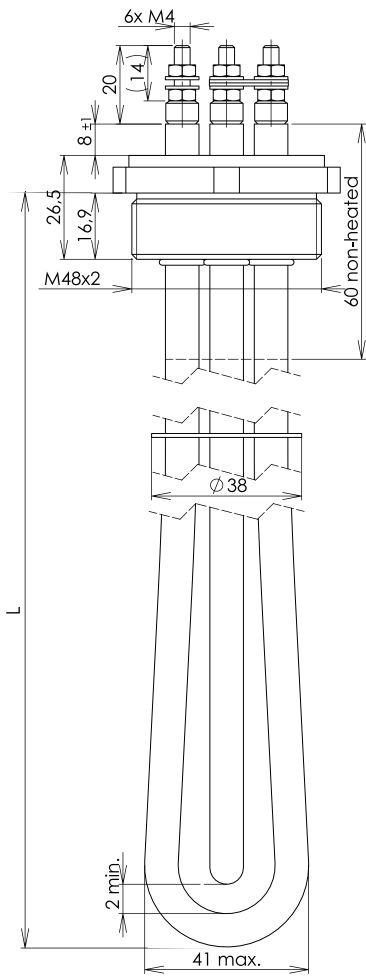


With the DTV48HI we developed a standard set of immersion heaters for the heating of oil (up to 120°C).

On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.

|                          |                       |
|--------------------------|-----------------------|
| Ø 8 x 0,5mm              | Ø 8 x 0,5mm           |
| - Brass screw plug M48x2 | - Connection box DKBA |



| DIRAC REFERENCE | POWER | LENGTH |
|-----------------|-------|--------|
|                 | [ W ] | [ mm ] |
| DTV48HI005      | 100   | 170    |
| DTV48HI007      | 750   | 100    |
| DTV48HI010      | 1000  | 100    |
| DTV48HI015      | 1500  | 100    |
| DTV48HI020      | 2000  | 570    |
| DTV48HI030      | 3000  | 100    |

 OTHER VARIANTS ON DEMAND

## OPTIONS

- Aluminium connection box **Small** DKBA078-P1
- Aluminium connection box **Large** DKBA105-P1

## DTV48HDI

Screw plug immersion  
heater for hot oil

With the DTV48HDI we developed a standard set of immersion heaters for the heating of oil at high temperature (up to 250°C).

On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.



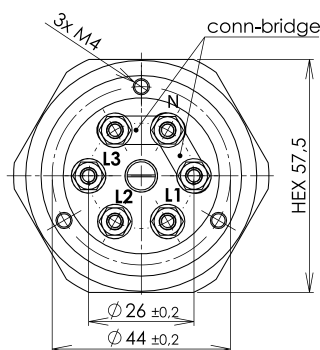
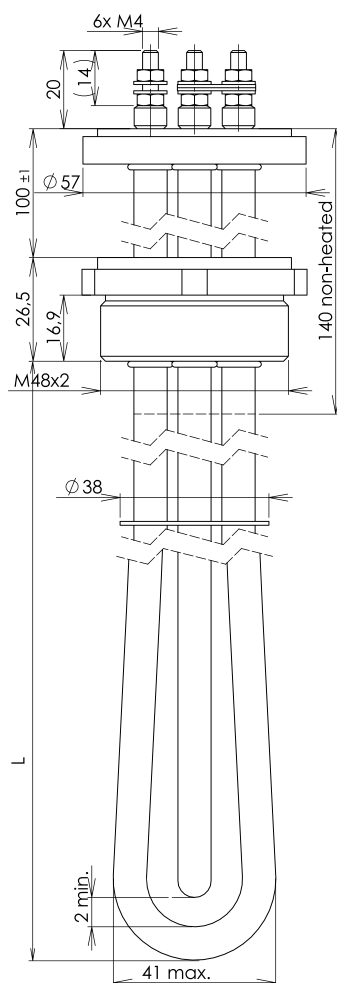
- Brass screw plug M48x2  
 - Brass flange Ø 57 mm,  
 for box mounting  
 - Connection box DKBA  
 (small or large - on flange)

| REFERENCE   | POWER<br>[ W ] | LENGTH<br>[ mm ] |
|-------------|----------------|------------------|
| DTV48HDI005 | 500            | 170              |
| DTV48HDI007 | 750            | 170              |
| DTV48HDI010 | 1000           | 170              |
| DTV48HDI015 | 1500           | 170              |
| DTV48HDI020 | 2000           | 570              |
| DTV48HDI030 | 3000           | 570              |

OTHER VARIANTS ON DEMAND



OTHER VARIANTS ON DEMAND



## OPTIONS

- Aluminium connection box **Small**

**DKBA078-P1**

- Aluminium connection box **Large**

**DKBA105-P1**

- Connection box DKBA  
 (small or large - on flange)



## ACCESSORIES ASSEMBLY



## DKBA105-P1□

Aluminium box Large  
- 105 x108 x 104 mm

- 1 PG 16 gland for power cable
- 1 PG 11 gland for control cable
- 1 PG 11 plug for regulation □



**JCU-DTV48**

0 0 0 0 0 0 0 0 0 0 0 0



## EIN48

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## THERMOSTATS

[illegible]

resulting in custom made heaters.  
See next page

\* only possible with custom made heater with thermal pocket Ø 10x0,5 mm



**CATS4080/98-I**



**CABS4080/98-I**

## THERMOSTAT COMPATIBILITY

| DIRAC<br>IMMERSION<br>HEATERS | POWER<br>[ W ] | THERMAL<br>POCKET<br>L [ mm ] | CAD040-MONO-I<br>CAD090-MONO-I<br>CAD110-MONO-I | CAD040-MONO-I<br>CAD090-MONO-I<br>CAD110-MONO-I | CAD300<br>MONO-I | CAD300<br>MONO-I | CAD040-TRI-I<br>CAD090-TRI-I<br>CAD110-TRI-I | CAD300-TRI-I |
|-------------------------------|----------------|-------------------------------|-------------------------------------------------|-------------------------------------------------|------------------|------------------|----------------------------------------------|--------------|
|                               |                |                               | DIRECT                                          | EXT. CONTACTOR                                  | DIRECT           | EXT. CONTACTOR   | DIRECT                                       | DIRECT       |
| DTV48HI005                    | □□□            | 170                           | ✗                                               | ✗                                               | ✗                | ✗                | ✗                                            | ✗            |
| DTV48HI007                    | 750            | □□□                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV48HI010                    | □□□□           | □□□                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV48HI015                    | □□□□           | □□□                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV48HI020                    | □□□□           | 570                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV48HI030                    | □□□□           | □□□                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV48HDI005                   | 500            | 170                           | ✓                                               | ✓                                               | ✓                | ✓                | ✗                                            | ✗            |
| DTV48HDI007                   | 750            | 235                           | ✓                                               | ✓                                               | ✓                | ✓                | ✗                                            | ✗            |
| DTV48HDI010                   | 1000           | 300                           | ✓                                               | ✓                                               | ✓                | ✓                | ✗                                            | ✗            |
| DTV48HDI015                   | 1500           | 435                           | ✓                                               | ✓                                               | ✓                | ✓                | ✓                                            | ✓            |
| DTV48HDI020                   | 2000           | 570                           | ✓                                               | ✓                                               | ✓                | ✓                | ✓                                            | ✓            |
| DTV48HDI030                   | 3000           | 835                           | ✓                                               | ✓                                               | ✓                | ✓                | ✓                                            | ✓            |
| DTV48EG010                    | 1000           | 170                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV48EG015                    | 1500           | 235                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV48EG020                    | 2000           | 300                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓ □                                          | ✗            |
| DTV48EG030                    | 3000           | 435                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV48EG045                    | 4500           | 635                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV48EG060                    | 6000           | 835                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓ □                                          | ✗            |
| DTV48EI010                    | 1000           | 105                           | ✗                                               | ✗                                               | ✗                | ✗                | ✗                                            | ✗            |
| DTV48EI020                    | 2000           | 170                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV48EI030                    | 3000           | 235                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV48EI045                    | 4500           | 335                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV48EI060                    | 6000           | 435                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV48EI075                    | 7500           | 535                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV48EI090                    | 9000           | 635                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓ (3X400V)                                   | ✗            |
| DTV48EI100                    | 10000          | 700                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓ (3X400V)                                   | ✗            |
| DTV48I030                     | 3000           | 205                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV48I045                     | 4500           | 285                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV48I060                     | 6000           | 370                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV48I075                     | 7500           | 450                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV48I090                     | 9000           | 535                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓ (3X400V)                                   | ✗            |
| DTV48I120                     | 12000          | 700                           | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            |
| DTV48I150                     | 15000          | 865                           | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            |

# DTV60EI

Screw plug immersion heater for water

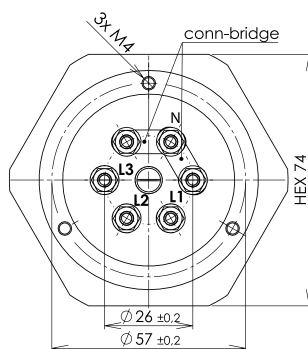
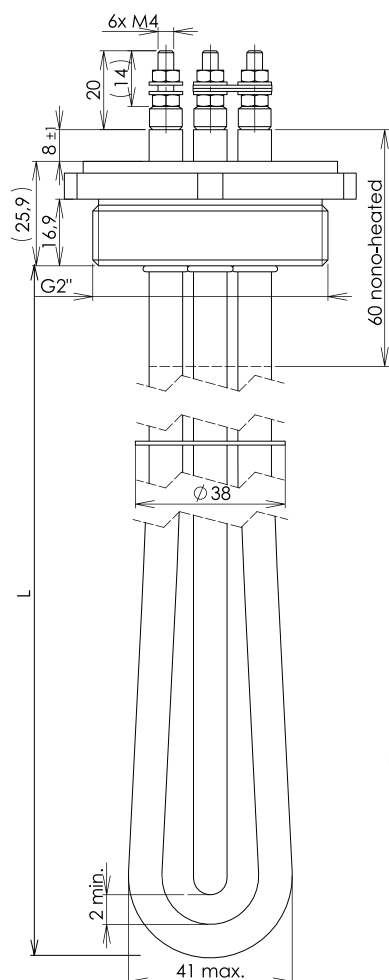


With the DTV60EI we developed a standard set of immersion heaters for the heating of water.

On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>                 1. 100% stainless steel<br/>                 2. 100% stainless steel<br/>                 3. 100% stainless steel<br/>                 4. 100% stainless steel<br/>                 5. 100% stainless steel<br/>                 6. 100% stainless steel<br/>                 7. 100% stainless steel<br/>                 8. 100% stainless steel<br/>                 9. 100% stainless steel<br/>                 10. 100% stainless steel             </p> | <p>                 1. 100% stainless steel<br/>                 2. 100% stainless steel<br/>                 3. 100% stainless steel<br/>                 4. 100% stainless steel<br/>                 5. 100% stainless steel<br/>                 6. 100% stainless steel<br/>                 7. 100% stainless steel<br/>                 8. 100% stainless steel<br/>                 9. 100% stainless steel<br/>                 10. 100% stainless steel             </p> |
| <p>                 Ø 8 x 0,5 mm<br/>                 - Connection box DKBA             </p>                                                                                                                                                                                                                                                                                                                                                                                       | <p>                 - Connection box DKBA             </p>                                                                                                                                                                                                                                                                                                                                                                                                                         |



| REFERENCE  | POWER<br>[ W ] | LENGTH<br>[ mm ] |
|------------|----------------|------------------|
| DTV60EI010 | 1000           | 100              |
| DTV60EI020 | 1000           | 170              |
| DTV60EI030 | 1000           | 300              |
| DTV60EI045 | 1000           | 450              |
| DTV60EI060 | 1000           | 600              |
| DTV60EI075 | 7500           | 750              |
| DTV60EI090 | 1000           | 900              |
| DTV60EI100 | 10000          | 1000             |
| DTV60EI120 | 10000          | 1200             |

**OTHER VARIANTS ON DEMAND**

## OPTIONS

- Aluminium connection box **Small**

**DKBA078-P1**

- Aluminium connection box **Large**

**DKBA105-P1**

100% stainless steel  
100% stainless steel

# DTV60I

Screw plug immersion heater for water with additives



With the DTV60I we developed a standard set of immersion heaters for the heating of water with additives.

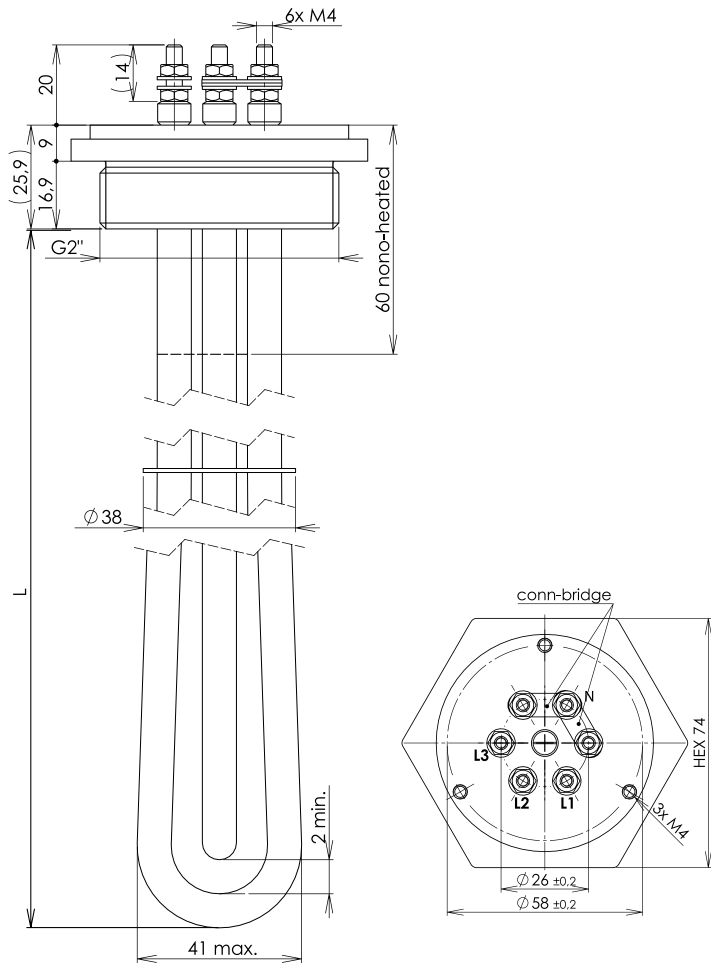
On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.

|           |           |
|-----------|-----------|
| DTV60I030 | DTV60I045 |
| DTV60I060 | DTV60I075 |
| DTV60I090 | DTV60I120 |
| DTV60I150 |           |

| REFERENCE | POWER<br>[ W ] | LENGTH<br>[ mm ] |
|-----------|----------------|------------------|
| DTV60I030 | 3000           | 300              |
| DTV60I045 | 4500           | 300              |
| DTV60I060 | 6000           | 370              |
| DTV60I075 | 7500           | 300              |
| DTV60I090 | 9000           | 300              |
| DTV60I120 | 12000          | 700              |
| DTV60I150 | 15000          | 300              |

OTHER VARIANTS ON DEMAND



## OPTIONS

- Aluminium connection box **Small** DKBA078-P1
- Aluminium connection box **Large** DKBA105-P1

# DTV60EG

Screw plug immersion heater for glycol



With the DTV60EG we developed a standard set of immersion heaters for the heating of glycol-water (maximum 50%).

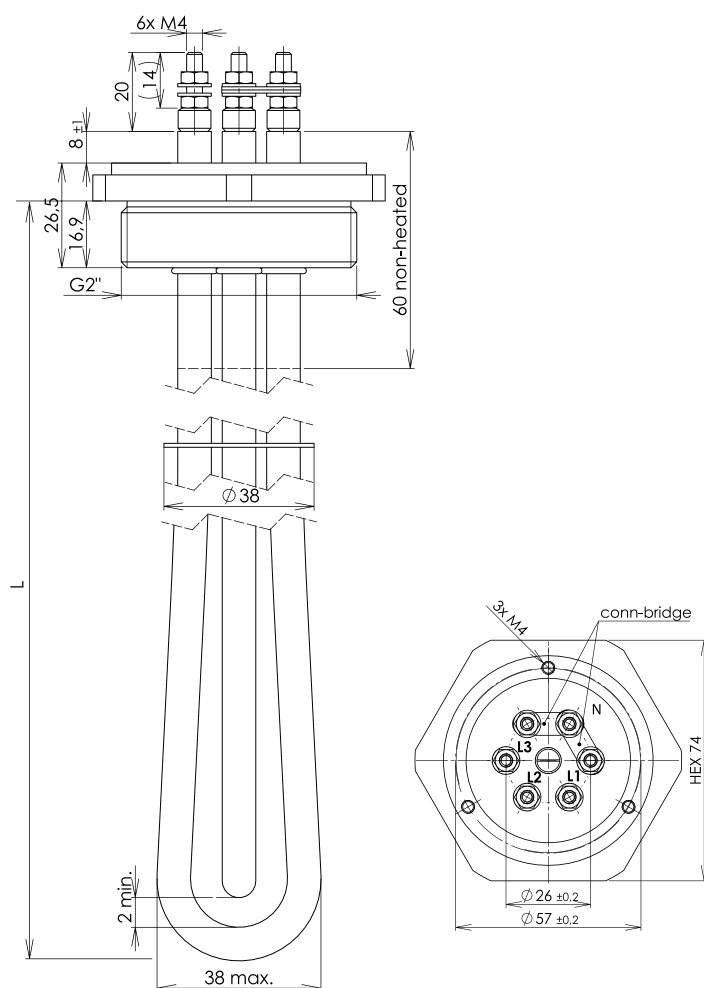
On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.

Standard set of immersion heaters for the heating of glycol-water (maximum 50%).  
 Ø 8 x 0,5 mm  
 - Connection box DKBA

| REFERENCE  | POWER<br>[ W ] | LENGTH<br>[ mm ] |
|------------|----------------|------------------|
| DTV60EG010 | 1000           | 170              |
| DTV60EG015 | 1500           | 200              |
| DTV60EG020 | 2000           | 250              |
| DTV60EG030 | 3000           | 300              |
| DTV60EG045 | 4500           | 350              |
| DTV60EG060 | 6000           | 400              |
| DTV60EG120 | 12000          | 500              |

**OTHER VARIANTS ON DEMAND**



## OPTIONS

- Aluminium connection box **Small**

**DKBA078-P1**

- Aluminium connection box **Large**

**DKBA105-P1**

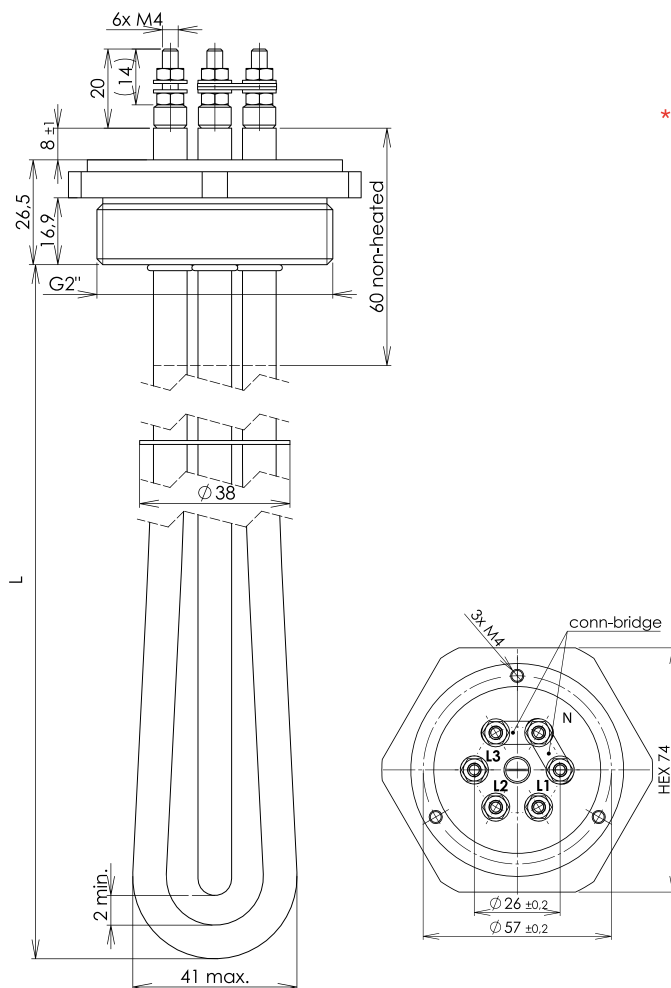
...



**We can tailor make the desired solution.**

000000000000000000  
 000 0000000000000000  
 000 0000000000000000 000 00  
 000 0000000000 000000 00  
 000 0000000000 000000  
 000 0000000000 00000 0  
 000 000000000000 00000  
 - Connection box DKBA  
 00000 0000000000000000000000

| DIRAC REFERENCE | POWER | LENGTH |
|-----------------|-------|--------|
|                 | [ W ] | [ mm ] |
| DTV60HI005      | 000   | 170    |
| DTV60HI007      | 750   | 000    |
| DTV60HI010      | 0000  | 000    |
| DTV60HI015      | 0000  | 000    |
| DTV60HI020      | 0000  | 570    |
| DTV60HI030      | 0000  | 000    |


**OTHER VARIANTS ON DEMAND**[illegible]

# DTV60HDI

Screw plug immersion heater for hot oil



With the DTV60HDI we developed a standard set of immersion heaters for the heating of oil at high temperature (up to 250°C).

On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>                 1. Standard set of immersion heaters for the heating of oil at high temperature (up to 250°C).<br/>                 2. On demand, adjustments can be made if the requested quantity is justified.<br/>                 3. We can tailor make the desired solution.<br/>                 4. With the DTV60HDI we developed a standard set of immersion heaters for the heating of oil at high temperature (up to 250°C).<br/>                 5. On demand, adjustments can be made if the requested quantity is justified.<br/>                 6. We can tailor make the desired solution.             </p> | <p>                 1. Standard set of immersion heaters for the heating of oil at high temperature (up to 250°C).<br/>                 2. On demand, adjustments can be made if the requested quantity is justified.<br/>                 3. We can tailor make the desired solution.<br/>                 4. With the DTV60HDI we developed a standard set of immersion heaters for the heating of oil at high temperature (up to 250°C).<br/>                 5. On demand, adjustments can be made if the requested quantity is justified.<br/>                 6. We can tailor make the desired solution.             </p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

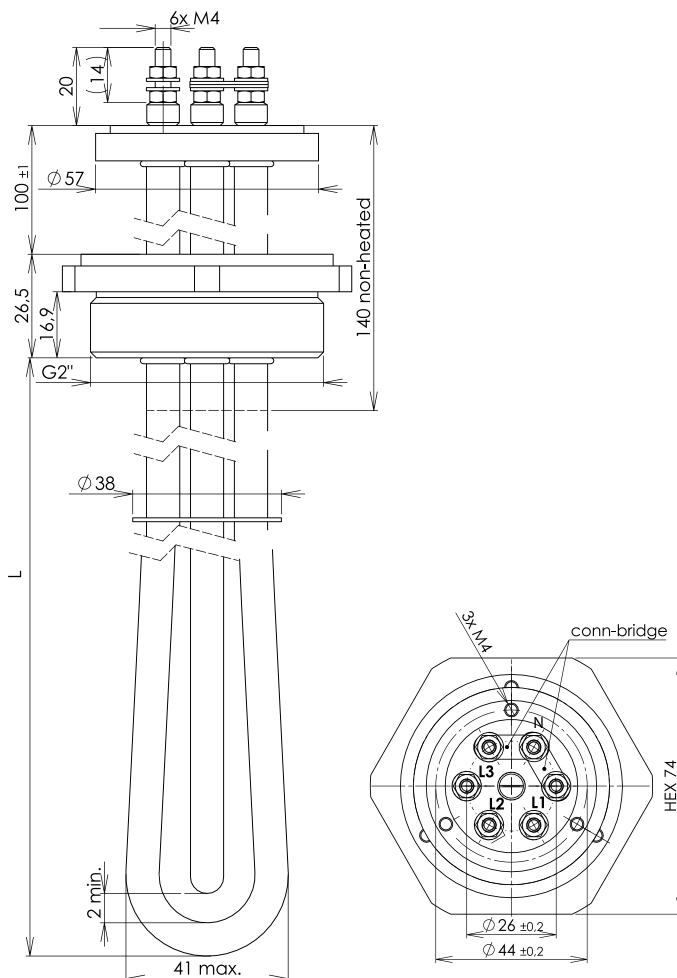
| REFERENCE   | POWER<br>[ W ] | LENGTH<br>[ mm ] |
|-------------|----------------|------------------|
| DTV60HDI005 | 100            | 170              |
| DTV60HDI007 | 750            | 100              |
| DTV60HDI010 | 1000           | 100              |
| DTV60HDI015 | 1500           | 100              |
| DTV60HDI020 | 2000           | 570              |
| DTV60HDI030 | 3000           | 100              |

\*

OTHER VARIANTS ON DEMAND



OTHER VARIANTS ON DEMAND



## OPTIONS

- Aluminium connection box **Small** DKBA078-P1
- Aluminium connection box **Large** DKBA105-P1



## ACCESSORIES ASSEMBLY



## DKBA105-P1□

Aluminium box Large  
- 105 x108 x 104 mm

- 1 PG 16 gland for power cable
- 1 PG 11 gland for control cable
- 1 PG 11 plug for regulation □



**JCU-DTV60**

**Doc B-100**

☐ ☐ ☐ ☐ ☐ ☒ ☒ ☐ ☐ ☐ ☐



# EIN60

☐ ☐ ☒ ☒ ☒ ☒ ☐ ☐ ☒ ☒ ☐ ☐ ☐ ☐ ☐

## THERMOSTATS

|               | TERMOSTATS                           |
|---------------|--------------------------------------|
| CAD040-MONO-I | 00000 000000000000 000 000           |
| CAD090-MONO-I | 00000 000000000000 000 000           |
| CAD110-MONO-I | 00000 000000000000 000 000           |
| CAD300-MONO-I | 00000 000000000000 000 000           |
| CAD040-TRI-I  | 00000 0000000000 00000               |
| CAD090-TRI-I  | 00000 0000000000 00000               |
| CAD110-TRI-I  | 00000 00000000000 00000              |
| CAD300-TRI-I  | 00000 00000000000 00000              |
| CABS4080/98-I | 00000 00000000000000 00000000000 000 |
| CATS4080/98-I | 00000 00000000000000 00000000000 000 |

\* only possible with custom made heater with thermal pocket Ø 10x0,5 mm



## BIN60

The diagram consists of two horizontal rows of rectangular boxes. The top row has ten boxes, and the bottom row has eight boxes. Each box is a simple rectangle with a thin border.

resulting in custom made heaters.  
See next page



**CATS4080/98-I**



**CABS4080/98-1**

## THERMOSTAT COMPATIBILITY

| DIRAC<br>IMMERSION<br>HEATERS | POWER<br>[ W ] | THERMAL<br>POCKET<br>L [ mm ] | CAD040-MONO-I<br>CAD090-MONO-I<br>CAD110-MONO-I | CAD040-MONO-I<br>CAD090-MONO-I<br>CAD110-MONO-I | CAD300<br>MONO-I | CAD300<br>MONO-I | CAD040-TRI-I<br>CAD090-TRI-I<br>CAD110-TRI-I | CAD300-TRI-I |
|-------------------------------|----------------|-------------------------------|-------------------------------------------------|-------------------------------------------------|------------------|------------------|----------------------------------------------|--------------|
|                               |                |                               | DIRECT                                          | EXT. CONTACTOR                                  | DIRECT           | EXT. CONTACTOR   | DIRECT                                       | DIRECT       |
| DTV60HI005                    | □□□            | 170                           | ✗                                               | ✗                                               | ✗                | ✗                | ✗                                            | ✗            |
| DTV60HI007                    | 750            | □□□                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV60HI010                    | □□□□           | □□□                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV60HI015                    | □□□□           | □□□                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV60HI020                    | □□□□           | 570                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV60HI030                    | □□□□           | □□□                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV60HDI005                   | 500            | 170                           | ✓                                               | ✓                                               | ✓                | ✓                | ✗                                            | ✗            |
| DTV60HDI007                   | 750            | 235                           | ✓                                               | ✓                                               | ✓                | ✓                | ✗                                            | ✗            |
| DTV60HDI010                   | 1000           | 300                           | ✓                                               | ✓                                               | ✓                | ✓                | ✗                                            | ✗            |
| DTV60HDI015                   | 1500           | 435                           | ✓                                               | ✓                                               | ✓                | ✓                | ✓                                            | ✓            |
| DTV60HDI020                   | 2000           | 570                           | ✓                                               | ✓                                               | ✓                | ✓                | ✓                                            | ✓            |
| DTV60HDI030                   | 3000           | 835                           | ✓                                               | ✓                                               | ✓                | ✓                | ✓                                            | ✓            |
| DTV60EG010                    | 1000           | 170                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV60EG015                    | 1500           | 235                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV60EG020                    | 2000           | 300                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓ □                                          | ✗            |
| DTV60EG030                    | 3000           | 435                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV60EG045                    | 4500           | 635                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV60EG060                    | 6000           | 835                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓ □                                          | ✗            |
| DTV60EI010                    | 1000           | 105                           | ✗                                               | ✗                                               | ✗                | ✗                | ✗                                            | ✗            |
| DTV60EI020                    | 2000           | 170                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV60EI030                    | 3000           | 235                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV60EI045                    | 4500           | 335                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV60EI060                    | 6000           | 435                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV60EI075                    | 7500           | 535                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV60EI090                    | 9000           | 635                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓ (3X400V)                                   | ✗            |
| DTV60EI100                    | 10000          | 700                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓ (3X400V)                                   | ✗            |
| DTV60I030                     | 3000           | 205                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV60I045                     | 4500           | 285                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV60I060                     | 6000           | 370                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV60I075                     | 7500           | 450                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            |
| DTV60I090                     | 9000           | 535                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓ (3X400V)                                   | ✗            |
| DTV60I120                     | 12000          | 700                           | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            |
| DTV60I150                     | 15000          | 865                           | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            |

# DTV75EI

Screw plug immersion heater for water

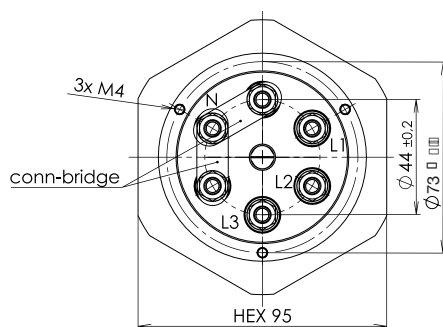
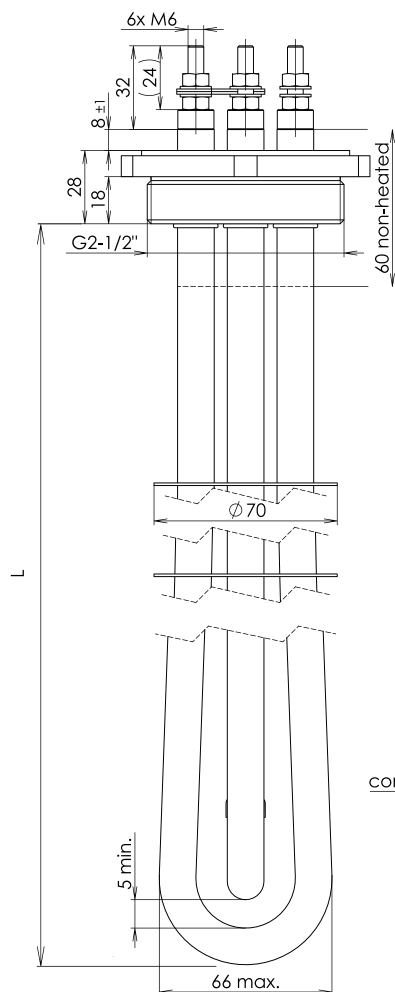


With the DTV75EI we developed a standard set of immersion heaters for the heating of water.

On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.

|                                                                                               |                                                                                               |
|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <p>                 Ø 10 x 0,5 mm<br/>                 - Connection box DKBA             </p> | <p>                 Ø 10 x 0,5 mm<br/>                 - Connection box DKBA             </p> |
|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|



| REFERENCE    | POWER<br>[ W ] | LENGTH<br>[ mm ] |
|--------------|----------------|------------------|
| DTV75EI030   | 0000           | 000              |
| DTV75EI060   | 0000           | 270              |
| DTV75EI090   | 0000           | 000              |
| DTV75EI120   | 00000          | 000              |
| DTV75EI150   | 00000          | 000              |
| DTV75EI180   | 00000          | 725              |
| DTV75EI240   | 00000          | 000              |
| * DTV75EI320 | 00000          | 0000             |

only 3x400V Delta

**OTHER VARIANTS ON DEMAND**

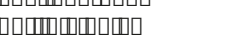
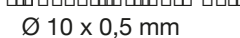
## OPTIONS

- Aluminium connection box **Large**

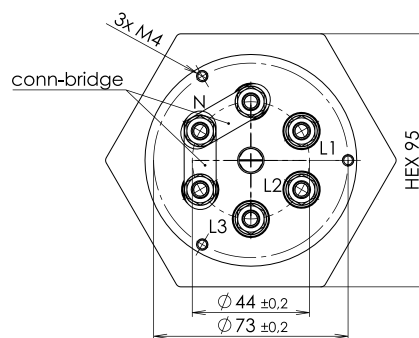
**DKBA105-P1**



**We can tailor make the desired solution.**

Ø 10 x 0,5 mm  
 - Connection box DKBA

\*

## OTHER VARIANTS ON DEMAND

# DTV75EG

Screw plug immersion heater for glycol



With the DTV75EG we developed a standard set of immersion heaters for the heating of glycol-water (maximum 50%).

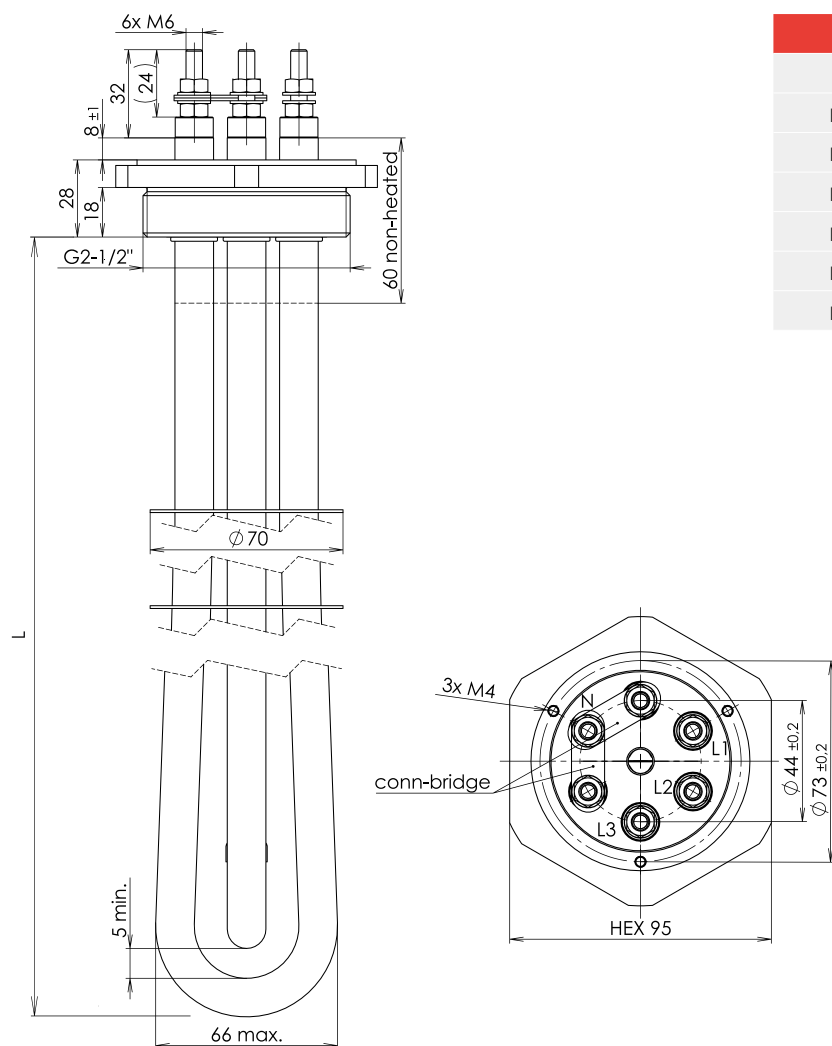
On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.

|                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>                 1. 10 x 0,5 mm<br/>                 2. 10 x 0,5 mm<br/>                 3. 10 x 0,5 mm<br/>                 4. 10 x 0,5 mm<br/>                 5. 10 x 0,5 mm<br/>                 6. 10 x 0,5 mm<br/>                 7. 10 x 0,5 mm<br/>                 8. 10 x 0,5 mm<br/>                 9. 10 x 0,5 mm<br/>                 10. 10 x 0,5 mm             </p> | <p>                 1. 10 x 0,5 mm<br/>                 2. 10 x 0,5 mm<br/>                 3. 10 x 0,5 mm<br/>                 4. 10 x 0,5 mm<br/>                 5. 10 x 0,5 mm<br/>                 6. 10 x 0,5 mm<br/>                 7. 10 x 0,5 mm<br/>                 8. 10 x 0,5 mm<br/>                 9. 10 x 0,5 mm<br/>                 10. 10 x 0,5 mm             </p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| REFERENCE  | POWER<br>[ W ] | LENGTH<br>[ mm ] |
|------------|----------------|------------------|
| DTV75EG030 | 3000           | 270              |
| DTV75EG060 | 6000           | 300              |
| DTV75EG090 | 9000           | 725              |
| DTV75EG120 | 12000          | 800              |
| DTV75EG160 | 16000          | 1000             |
| DTV75EG200 | 20000          | 1000             |

**OTHER VARIANTS ON DEMAND**



## OPTIONS

- Aluminium connection box **Large**  
**DKBA105-P1**

1. 10 x 0,5 mm  
 2. 10 x 0,5 mm  
 3. 10 x 0,5 mm  
 4. 10 x 0,5 mm  
 5. 10 x 0,5 mm  
 6. 10 x 0,5 mm  
 7. 10 x 0,5 mm  
 8. 10 x 0,5 mm  
 9. 10 x 0,5 mm  
 10. 10 x 0,5 mm

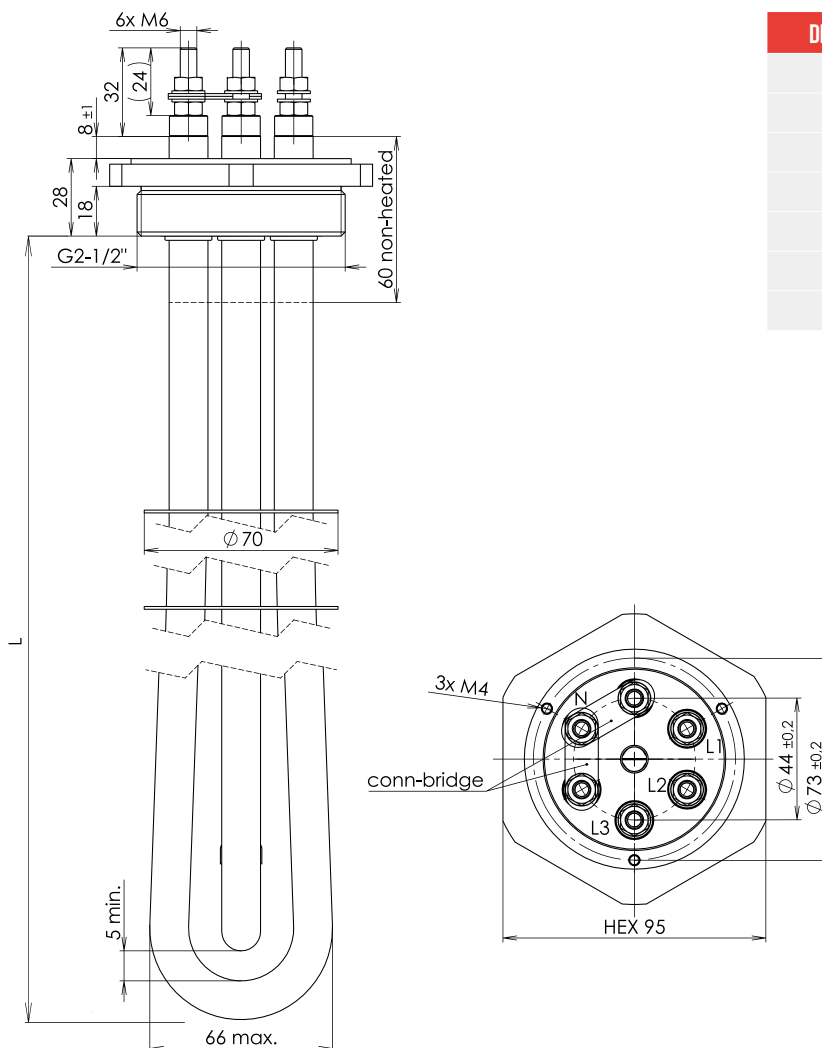


**We can tailor make the desired solution.**

**Technical specifications:**

- Ø 10 x 0,5 mm
- Connection box DKBA

| DIRAC REFERENCE | POWER | LENGTH |
|-----------------|-------|--------|
|                 | [ W ] | [ mm ] |
| DTV75HI015      | 0000  | 270    |
| DTV75HI030      | 0000  | 000    |
| DTV75HI045      | 0000  | 730    |
| DTV75HI060      | 0000  | 000    |
| DTV75HI080      | 0000  | 0000   |
| DTV75HI100      | 00000 | 0000   |


**OTHER VARIANTS ON DEMAND**

- Aluminium connection box **Large**  
**DKBA105-P1**

[illegible]

# DTV75HDI

Screw plug immersion heater for hot oil



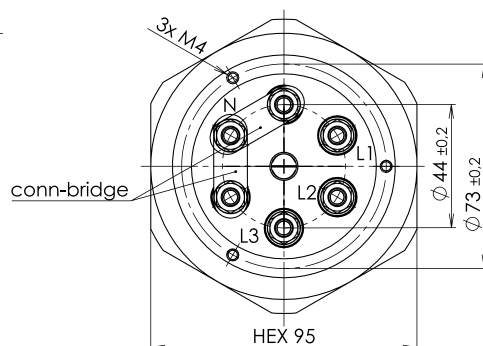
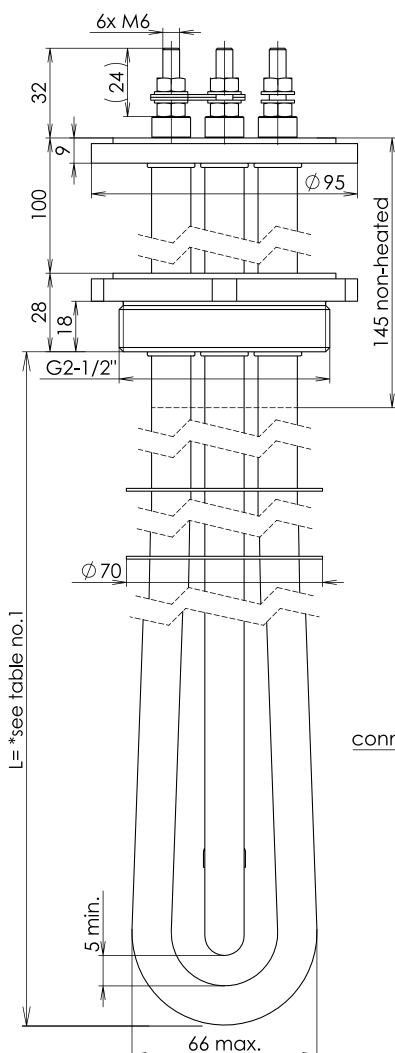
With the DTV75HDI we developed a standard set of immersion heaters for the heating of oil at high temperature (up to 250°C).

On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.



|                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Standard set of immersion heaters for the heating of oil at high temperature (up to 250°C).</p> <p>On demand, adjustments can be made if the requested quantity is justified.</p> <p>We can tailor make the desired solution.</p> | <p>Standard set of immersion heaters for the heating of oil at high temperature (up to 250°C).</p> <p>On demand, adjustments can be made if the requested quantity is justified.</p> <p>We can tailor make the desired solution.</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



| REFERENCE   | POWER | LENGTH |
|-------------|-------|--------|
|             | [ W ] | [ mm ] |
| DTV75HDI015 | 1500  | 270    |
| DTV75HDI030 | 3000  | 300    |
| DTV75HDI045 | 4500  | 730    |
| DTV75HDI060 | 6000  | 800    |
| DTV75HDI080 | 8000  | 1000   |
| DTV75HDI100 | 10000 | 1200   |

**OTHER VARIANTS ON DEMAND**

## OPTIONS

- Aluminium connection box **Large** **DKBA105-P1**
- Connection box DKBA (large - on flange at 100 mm)



# OPTIONS

## ACCESSORIES BOXES



### DKBA105-P1

Aluminium box Large

- 105 x108 x 104 mm

1 PG 16 gland for power cable

1 PG 11 gland for control cable

- 1 PG 16 gland for power cable
- 1 PG 11 gland for control cable
- 1 PG 11 plug for regulation

1 PG 11 plug for regulation

## THERMOSTATS

|               | THERMOSTATS                   |
|---------------|-------------------------------|
| CAD040-MONO-I | 1 PG 16 gland for power cable |
| CAD090-MONO-I | 1 PG 16 gland for power cable |
| CAD110-MONO-I | 1 PG 16 gland for power cable |
| CAD300-MONO-I | 1 PG 16 gland for power cable |
| CAD040-TRI-I  | 1 PG 16 gland for power cable |
| CAD090-TRI-I  | 1 PG 16 gland for power cable |
| CAD110-TRI-I  | 1 PG 16 gland for power cable |
| CAD300-TRI-I  | 1 PG 16 gland for power cable |
| CABS4080/98-I | 1 PG 16 gland for power cable |
| CATS4080/98-I | 1 PG 16 gland for power cable |

## ACCESSORIES ASSEMBLY



### JSA-DTV75

1 PG 16 gland for power cable



### JCU-DTV75

1 PG 16 gland for power cable



### E0075

1 PG 16 gland for power cable



### EIN75

1 PG 16 gland for power cable



### BIN75

1 PG 16 gland for power cable

resulting in custom made heaters.

See next page



CADXXX-MONO-I



CATS4080/98-I



CADXXX-TRI-I



CABS4080/98-I

## THERMOSTAT COMPATIBILITY

| DIRAC<br>IMMERSION<br>HEATERS | POWER<br>[ W ] | THERMAL<br>POCKET<br>L [ mm ] | CAD040-MONO-I<br>CAD090-MONO-I<br>CAD110-MONO-I | CAD040-MONO-I<br>CAD090-MONO-I<br>CAD110-MONO-I | CAD300<br>MONO-I | CAD300<br>MONO-I | CAD040-TRI-I<br>CAD090-TRI-I<br>CAD110-TRI-I | CAD300-TRI-I | CABS4080<br>/98 | CATS4080<br>/98-I |
|-------------------------------|----------------|-------------------------------|-------------------------------------------------|-------------------------------------------------|------------------|------------------|----------------------------------------------|--------------|-----------------|-------------------|
|                               |                |                               | DIRECT                                          | EXT. CONTACTOR                                  | DIRECT           | EXT. CONTACTOR   | DIRECT                                       | DIRECT       | DIRECT          | DIRECT            |
| DTV75EG030                    | □□□□           | 270                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            | ✓               | ✓                 |
| DTV75EG060                    | □□□□           | □□□                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            | ✗               | ✓                 |
| DTV75EG090                    | □□□□           | 725                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓ □□□□□□□□                                   | ✗            | ✗               | ✓ □□□□□□□□        |
| DTV75EG120                    | □□□□□          | □□□                           | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV75EG160                    | □□□□□          | □□□□                          | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV75EG200                    | □□□□□          | □□□□                          | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV75EI030                    | 3000           | 155                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            | ✗               | ✗                 |
| DTV75EI060                    | 6000           | 270                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            | ✗               | ✓                 |
| DTV75EI090                    | 9000           | 385                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓ □□□□□□□□                                   | ✗            | ✗               | ✓ □□□□□□□□        |
| DTV75EI120                    | 12000          | 495                           | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV75EI150                    | 15000          | 610                           | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV75EI180                    | 18000          | 725                           | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV75EI240                    | 24000          | 950                           | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV75EI320                    | 32000          | 1255                          | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV75HDI015                   | 1500           | 270                           | ✓                                               | ✓                                               | ✓                | ✓                | ✓                                            | ✓            | ✓               | ✓                 |
| DTV75HDI030                   | 3000           | 500                           | ✓                                               | ✓                                               | ✓                | ✓                | ✓                                            | ✓            | ✓               | ✓                 |
| DTV75HDI045                   | 4500           | 730                           | ✓                                               | ✓                                               | ✓                | ✓                | ✓                                            | ✓            | ✓               | ✓                 |
| DTV75HDI060                   | 6000           | 950                           | ✗                                               | ✓                                               | ✗                | ✓                | ✓                                            | ✓            | ✗               | ✓                 |
| DTV75HDI080                   | 8000           | 1255                          | ✗                                               | ✓                                               | ✗                | ✓                | ✓                                            | ✓            | ✗               | ✓                 |
| DTV75HDI100                   | 10000          | 1555                          | ✗                                               | ✓                                               | ✗                | ✓                | ✓ □□□□□□□□                                   | ✓ □□□□□□□□   | ✗               | ✓ (3X400V)        |
| DTV75HI015                    | 1500           | 270                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            | ✓               | ✓                 |
| DTV75HI030                    | 3000           | 500                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            | ✓               | ✓                 |
| DTV75HI045                    | 4500           | 730                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            | ✓               | ✓                 |
| DTV75HI060                    | 6000           | 950                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            | ✗               | ✓                 |
| DTV75HI080                    | 8000           | 1255                          | ✗                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            | ✗               | ✓                 |
| DTV75HI100                    | 10000          | 1555                          | ✗                                               | ✓                                               | ✗                | ✗                | ✓ □□□□□□□□                                   | ✗            | ✗               | ✓ □□□□□□□□        |
| DTV75I030                     | 30000          | 140                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            | ✗               | ✗                 |
| DTV75I060                     | 60000          | 235                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            | ✗               | ✓                 |
| DTV75I090                     | 9000           | 325                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓ (3X400V)                                   | ✗            | ✗               | ✓ (3X400V)        |
| DTV75I120                     | 12000          | 415                           | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV75I150                     | 15000          | 505                           | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV75I180                     | 18000          | 595                           | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV75I240                     | 24000          | 780                           | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV75I320                     | 32000          | 1020                          | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |

# DTV77EI

Screw plug immersion heater for water

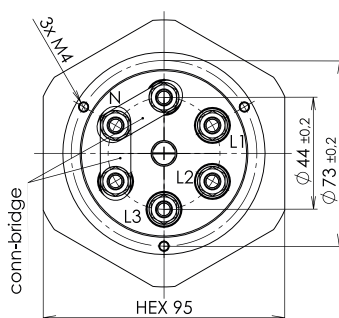
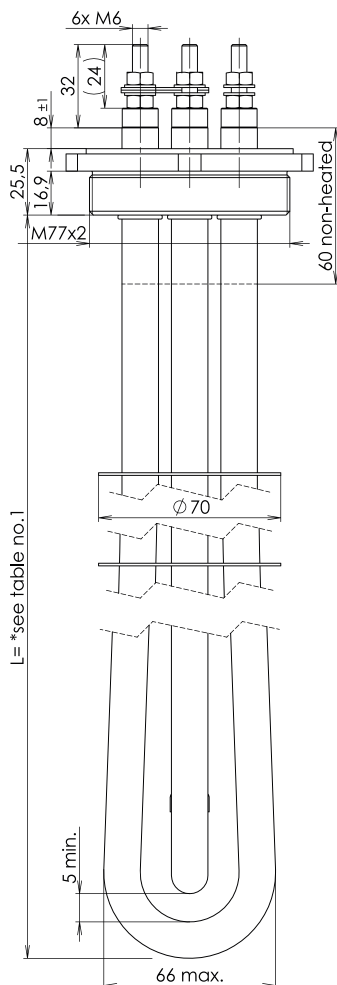


With the DTV77EI we developed a standard set of immersion heaters for the heating of city water.

On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.

|                                                                  |                                        |
|------------------------------------------------------------------|----------------------------------------|
| Ø 10 x 0,5 mm<br>- Brass screw plug M77<br>- Connection box DKBA | Ø 10 x 0,5 mm<br>- Connection box DKBA |
|------------------------------------------------------------------|----------------------------------------|



| DIRAC REFERENCE | POWER<br>[ W ] | LENGTH<br>[ mm ] |
|-----------------|----------------|------------------|
| DTV77EI030      | 3000           | 300              |
| DTV77EI060      | 6000           | 270              |
| DTV77EI090      | 9000           | 300              |
| DTV77EI120      | 12000          | 300              |
| DTV77EI150      | 15000          | 300              |
| DTV77EI180      | 18000          | 725              |
| DTV77EI240      | 24000          | 300              |
| DTV77EI320      | 32000          | 300              |

\*

(\*) only 3 x 400V DELTA

**OTHER VARIANTS ON DEMAND**

## OPTIONS

- Aluminium connection box **Large**  
**DKBA105-P1**

...

# DTV77I

Screw plug immersion heater for water with additives



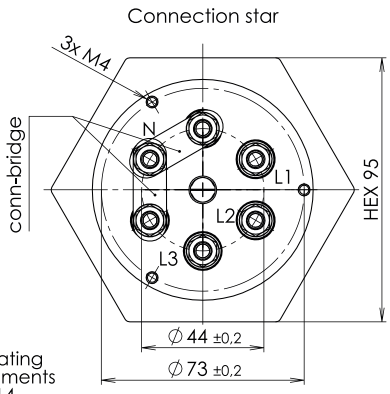
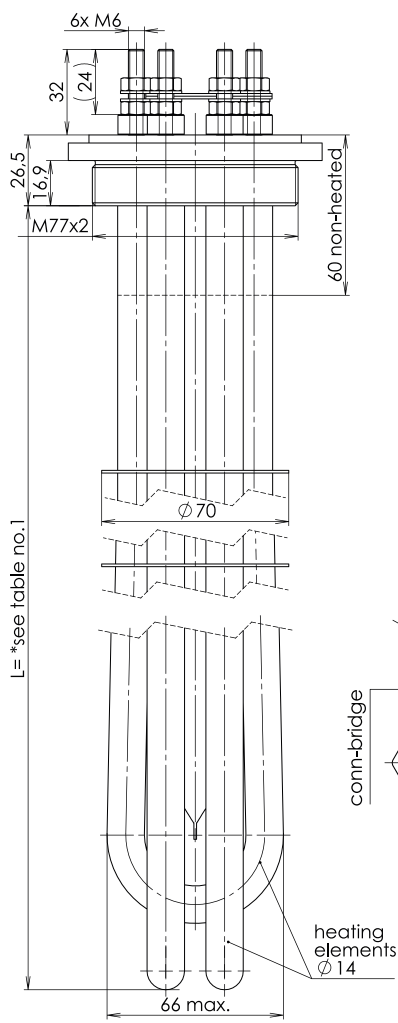
With the DTV77I we developed a standard set of immersion heaters, completely in stainless steel, for the heating of water with additives.

On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.



|                       |                       |
|-----------------------|-----------------------|
| Ø 10 x 0,5 mm         | SS 304 screw plug M77 |
| - Connection box DKBA |                       |



| DIRAC REFERENCE | POWER<br>[ W ] | LENGTH<br>[ mm ] |
|-----------------|----------------|------------------|
| DTV77I030       | 0000           | 000              |
| DTV77I060       | 0000           | 000              |
| DTV77I090       | 0000           | 000              |
| DTV77I120       | 00000          | 000              |
| DTV77I150       | 00000          | 000              |
| DTV77I180       | 00000          | 000              |
| DTV77I240       | 00000          | 780              |
| DTV77I320       | 00000          | 0000             |

\* (\*) only 3 x 400V Delta

OTHER VARIANTS ON DEMAND

**OPTIONS**

- Aluminium connection box **Large**  
**DKBA105-P1**

# DTV77EG

Screw plug immersion heater for glycol

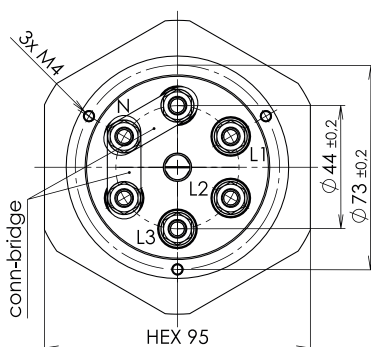
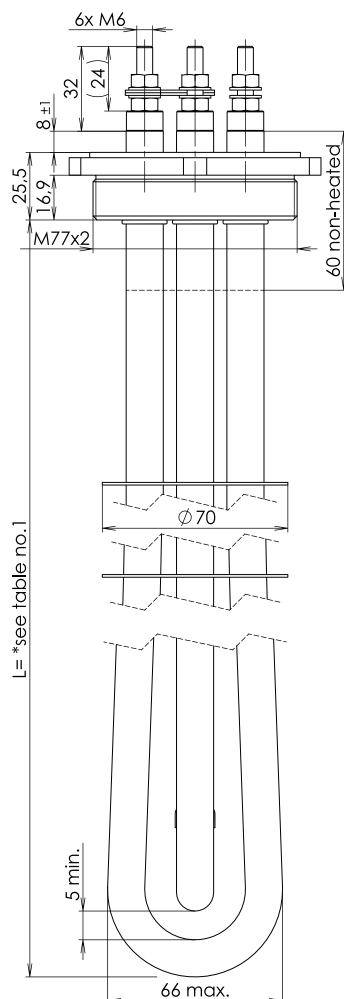


With the DTV77EG we developed a standard set of immersion heaters for the heating of glycol-water (maximum 50%).

On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.

- Brass screw plug M77  
 - Connection box DKBA  
 Ø 10 x 0,5 mm



| DIRAC REFERENCE | POWER<br>[ W ] | LENGTH<br>[ mm ] |
|-----------------|----------------|------------------|
| DTV77EG030      | 0000           | 270              |
| DTV77EG045      | 0000           | 000              |
| DTV77EG060      | 0000           | 000              |
| DTV77EG090      | 0000           | 725              |
| DTV77EG120      | 00000          | 000              |
| DTV77EG160      | 00000          | 0000             |
| DTV77EG200      | 00000          | 0000             |

**OTHER VARIANTS ON DEMAND**

## OPTIONS

- Aluminium connection box **Large**  
**DKBA105-P1**  
 - Connection box DKBA

# DTV77HI

Screw plug immersion heater for oil



With the DTV77HI we developed a standard set of immersion heaters for the heating of oil (up to 120°C).

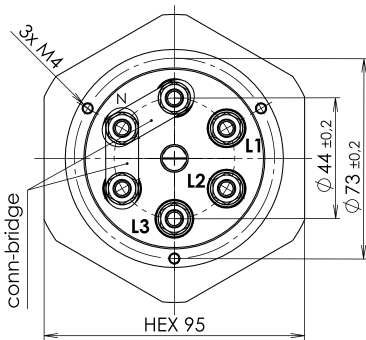
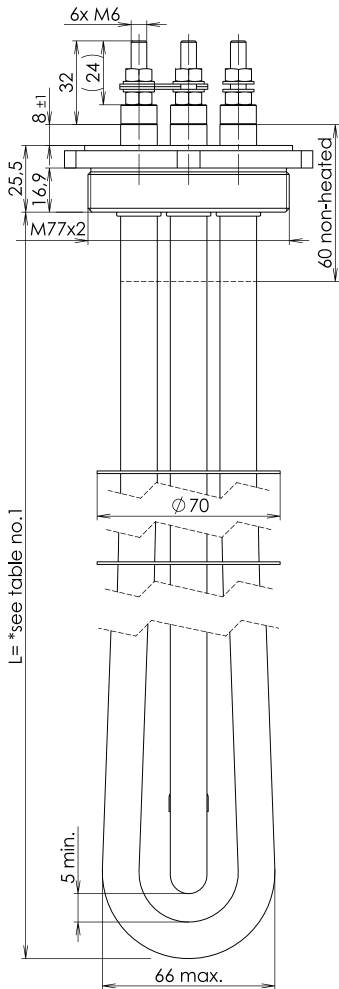
On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.

|                        |                     |
|------------------------|---------------------|
| Ø 10 x 0,5 mm          | Connection box DKBA |
| - Brass screw plug M77 |                     |

| DIRAC REFERENCE | POWER [ W ] | LENGTH [ mm ] |
|-----------------|-------------|---------------|
| DTV77HI015      | 1500        | 270           |
| DTV77HI030      | 3000        | 300           |
| DTV77HI045      | 4500        | 730           |
| DTV77HI060      | 6000        | 800           |
| DTV77HI080      | 8000        | 900           |
| DTV77HI100      | 10000       | 1000          |

 OTHER VARIANTS ON DEMAND



## OPTIONS

- Aluminium connection box Large
- DKBA105-P1

# DTV77HDI

Screw plug immersion heater for hot oil



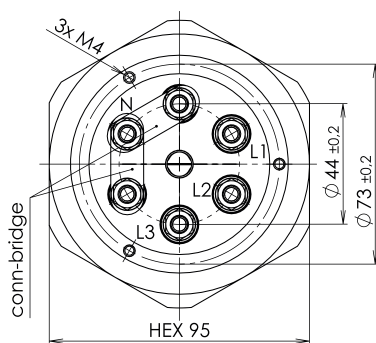
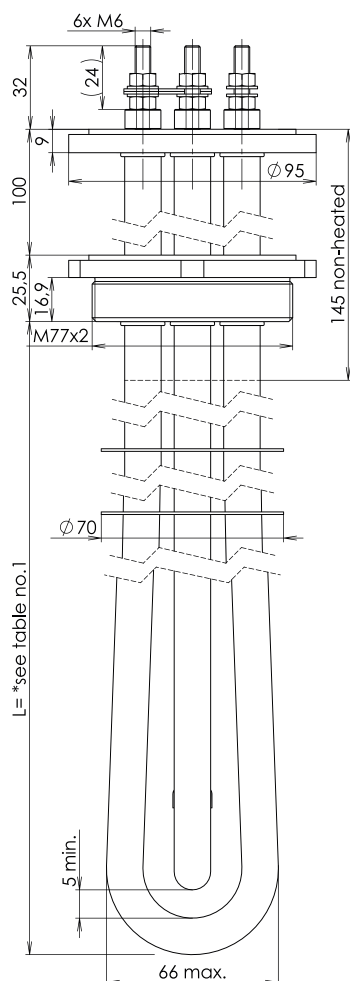
With the DTV77HDI we developed a standard set of immersion heaters for the heating of oil at high temperature (up to 250°C).

On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.



|                                                                                                                                                |                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <p>                 - Brass screw plug M77<br/>                 - Brass flange Ø 95 mm,<br/>                 for box mounting             </p> | <p>                 Ø 10 x 0,5 mm<br/>                 - Connection box DKBA<br/>                 (large - on flange at 100             </p> |
|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|



| DIRAC REFERENCE | POWER | LENGTH |
|-----------------|-------|--------|
|                 | [ W ] | [ mm ] |
| DTV77HDI015     | 0000  | 270    |
| DTV77HDI030     | 0000  | 000    |
| DTV77HDI045     | 0000  | 730    |
| DTV77HDI060     | 0000  | 000    |
| DTV77HDI080     | 0000  | 0000   |
| DTV77HDI100     | 00000 | 0000   |

**OTHER VARIANTS ON DEMAND**

## OPTIONS

- Aluminium connection box **Large**  
**DKBA105-P1**  
 (large - on flange at 100)



# ELECTRICAL HEATING

## OPTIONS

### ACCESSORIES BOXES



#### DKBA105-P1

Aluminium box Large

- 105 x 108 x 104 mm

1 PG 16 gland for power cable

1 PG 11 gland for control cable

- 1 PG 16 gland for power cable
- 1 PG 11 gland for control cable
- 1 PG 11 plug for regulation

105 x 108 x 104 mm

### THERMOSTATS

|               | THERMOSTATS        |
|---------------|--------------------|
| CAD040-MONO-I | 105 x 108 x 104 mm |
| CAD090-MONO-I | 105 x 108 x 104 mm |
| CAD110-MONO-I | 105 x 108 x 104 mm |
| CAD300-MONO-I | 105 x 108 x 104 mm |
| CAD040-TRI-I  | 105 x 108 x 104 mm |
| CAD090-TRI-I  | 105 x 108 x 104 mm |
| CAD110-TRI-I  | 105 x 108 x 104 mm |
| CAD300-TRI-I  | 105 x 108 x 104 mm |
| CABS4080/98-I | 105 x 108 x 104 mm |
| CATS4080/98-I | 105 x 108 x 104 mm |

### ACCESSORIES ASSEMBLY



#### JSA-DTV77

105 x 108 x 104 mm



#### JCU-DTV77

105 x 108 x 104 mm



#### E0077

105 x 108 x 104 mm



#### EIN77

105 x 108 x 104 mm



#### BIN77

105 x 108 x 104 mm

- treated M77

resulting in custom made heaters.  
See next page



CADXXX-MONO-I



CATS4080/98-I



CADXXX-TRI-I



CABS4080/98-I

## THERMOSTAT COMPATIBILITY

| DIRAC<br>IMMERSION<br>HEATERS | POWER<br>[ W ] | THERMAL<br>POCKET<br>L [ mm ] | CAD040-MONO-I<br>CAD090-MONO-I<br>CAD110-MONO-I | CAD040-MONO-I<br>CAD090-MONO-I<br>CAD110-MONO-I | CAD300<br>MONO-I | CAD300<br>MONO-I | CAD040-TRI-I<br>CAD090-TRI-I<br>CAD110-TRI-I | CAD300-TRI-I | CABS4080<br>/98 | CATS4080<br>/98-I |
|-------------------------------|----------------|-------------------------------|-------------------------------------------------|-------------------------------------------------|------------------|------------------|----------------------------------------------|--------------|-----------------|-------------------|
|                               |                |                               | DIRECT                                          | EXT. CONTACTOR                                  | DIRECT           | EXT. CONTACTOR   | DIRECT                                       | DIRECT       | DIRECT          | DIRECT            |
| DTV77HI015                    | □□□□           | 270                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            | ✓               | ✓                 |
| DTV77HI030                    | □□□□           | □□□                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            | ✓               | ✓                 |
| DTV77HI045                    | □□□□           | 730                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            | ✓               | ✓                 |
| DTV77HI060                    | □□□□           | □□□                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            | ✗               | ✓                 |
| DTV77HI080                    | □□□□           | □□□□                          | ✗                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            | ✗               | ✓                 |
| DTV77HI100                    | □□□□□          | □□□□                          | ✗                                               | ✓                                               | ✗                | ✗                | ✓ □□□□□□□                                    | ✗            | ✗               | ✓ (3X400V)        |
| DTV77HDI015                   | 1500           | 370                           | ✓                                               | ✓                                               | ✓                | ✓                | ✓                                            | ✓            | ✓               | ✓                 |
| DTV77HDI030                   | 3000           | 600                           | ✓                                               | ✓                                               | ✓                | ✓                | ✓                                            | ✓            | ✓               | ✓                 |
| DTV77HDI045                   | 4500           | 830                           | ✓                                               | ✓                                               | ✓                | ✓                | ✓                                            | ✓            | ✓               | ✓                 |
| DTV77HDI060                   | 6000           | 1050                          | ✗                                               | ✓                                               | ✗                | ✓                | ✓                                            | ✓            | ✗               | ✓                 |
| DTV77HDI080                   | 8000           | 1355                          | ✗                                               | ✓                                               | ✗                | ✓                | ✓                                            | ✓            | ✗               | ✓                 |
| DTV77HDI100                   | 10000          | 1655                          | ✗                                               | ✓                                               | ✗                | ✓                | ✓ □□□□□□□                                    | ✓ (3X400V)   | ✗               | ✓ (3X400V)        |
| DTV77EG030                    | 3000           | 270                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            | ✓               | ✓                 |
| DTV77EG060                    | 6000           | 500                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            | ✗               | ✓                 |
| DTV77EG090                    | 9000           | 725                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓ □□□□□□□                                    | ✗            | ✗               | ✓ (3X400V)        |
| DTV77EG120                    | 12000          | 955                           | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV77EG160                    | 16000          | 1255                          | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV77EG200                    | 20000          | 1560                          | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV77EI030                    | 3000           | 155                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            | ✗               | ✗                 |
| DTV77EI060                    | 6000           | 270                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            | ✗               | ✓                 |
| DTV77EI090                    | 9000           | 385                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓ □□□□□□□                                    | ✗            | ✗               | ✓ (3X400V)        |
| DTV77EI120                    | 12000          | 495                           | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV77EI150                    | 15000          | 610                           | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV77EI180                    | 18000          | 725                           | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV77EI240                    | 24000          | 950                           | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV77EI320                    | 32000          | 1255                          | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV77I030                     | 3000           | 140                           | ✓                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            | ✗               | ✗                 |
| DTV77I060                     | 6000           | 235                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓                                            | ✗            | ✗               | ✓                 |
| DTV77I090                     | 9000           | 325                           | ✗                                               | ✓                                               | ✗                | ✗                | ✓ (3X400V)                                   | ✗            | ✗               | ✓ (3X400V)        |
| DTV77I120                     | 12000          | 415                           | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV77I150                     | 15000          | 505                           | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV77I180                     | 18000          | 595                           | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV77I240                     | 24000          | 780                           | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |
| DTV77I320                     | 32000          | 1020                          | ✗                                               | ✓                                               | ✗                | ✗                | ✗                                            | ✗            | ✗               | ✗                 |

# TBREI

Flange Immersion Heaters  
for Water



HI-TEMP



With the TBREI-range we developed a standard set of Flange Immersion Heaters for the heating of city water.

On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.

lengths available on different  
- Voltage 3x400V (Star)  
Connection Box on Flange and  
HT version with Connection Box

## TBREI STANDARD RANGE

| FLANGE             |                            | DN80 PN 16      | DN 125 PN 16 | DN 150 PN 16 | DN200 PN 16 | DN250 PN 16 |
|--------------------|----------------------------|-----------------|--------------|--------------|-------------|-------------|
| Number of Elements |                            | 3               | 6            | 9            | 18          | 36          |
| REFERENCE          | IMMERSION LENGTH<br>[ mm ] | POWER<br>[ kW ] |              |              |             |             |
| TBREI-16-DNxxx     | 155                        | 3               | 6            | 9            | 18          | 36          |
| TBREI-27-DNxxx     | 270                        | 6               | 12           | 18           | 36          | 72          |
| TBREI-39-DNxxx     | 385                        | 9               | 18           | 27           | 54          | 108         |
| TBREI-50-DNxxx     | 495                        | 12              | 24           | 36           | 72          | 144         |
| TBREI-61-DNxxx     | 610                        | 15              | 30           | 45           | 90          | 180         |
| TBREI-73-DNxxx     | 725                        | 18              | 36           | 54           | 108         | 216         |
| TBREI-95-DNxxx     | 950                        | 24              | 48           | 72           | 144         | 288         |
| * TBREI-125-DNxxx  | 1255                       | 32              | 64           | 96           | 192         | 384         |

only 3x400V DELTA connection

## TBREI HI-TEMP RANGE (Connection Box on 100mm distance from Flange)

| FLANGE               |                            | DN80 PN 16      | DN 125 PN 16 | DN 150 PN 16 | DN200 PN 16 | DN250 PN 16 |
|----------------------|----------------------------|-----------------|--------------|--------------|-------------|-------------|
| Number of Elements   |                            | 3               | 6            | 9            | 18          | 36          |
| REFERENCE            | IMMERSION LENGTH<br>[ mm ] | POWER<br>[ kW ] |              |              |             |             |
| TBREI-HT-16-DNxxx    | 155                        | 3               | 6            | 9            | 18          | 36          |
| TBREI-HT-27-DNxxx    | 270                        | 6               | 12           | 18           | 36          | 72          |
| TBREI-HT-39-DNxxx    | 385                        | 9               | 18           | 27           | 54          | 108         |
| TBREI-HT-50-DNxxx    | 495                        | 12              | 24           | 36           | 72          | 144         |
| TBREI-HT-61-DNxxx    | 610                        | 15              | 30           | 45           | 90          | 180         |
| TBREI-HT-73-DNxxx    | 725                        | 18              | 36           | 54           | 108         | 216         |
| TBREI-HT-95-DNxxx    | 950                        | 24              | 48           | 72           | 144         | 288         |
| * TBREI-HT-125-DNxxx | 1255                       | 32              | 64           | 96           | 192         | 384         |

only 3x400V DELTA connection

**OTHER VARIANTS ON DEMAND**

# TBRI

## Flange Immersion Heaters for water with additives



**With the TBRI-range we developed a standard set of Flange Immersion Heaters, completely in stainless steel, for the heating of water with additives.**

On demand, adjustments can be made if the requested quantity is justified.

**We can tailor make the desired solution.**



lengths available on different

- Voltage 3x400V (Star/Delta)





[illegible]

$\square \quad \square \quad \square \quad \square \quad \square$

Ø10x1mm between elements

- 1 Pocket for limiter Ø10x1mm

### Connection Box on Flare

HT version with Connection Box

[illegible][illegible]

## TBRI STANDARD RANGE

| FLANGE                          |                            | DN80 PN 16      | DN 125 PN 16 | DN 150 PN 16 | DN200 PN 16 | DN250 PN 16 |
|---------------------------------|----------------------------|-----------------|--------------|--------------|-------------|-------------|
| □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ |                            | 3               | 6            | 9            | 18          | 36          |
| REFERENCE                       | IMMERSION LENGTH<br>[ mm ] | POWER<br>[ kW ] |              |              |             |             |
| TBRI-14-DNxxx                   | 140                        | 3               | 6            | 9            | 18          | 36          |
| TBRI-24-DNxxx                   | 235                        | 6               | 12           | 18           | 36          | 72          |
| TBRI-33-DNxxx                   | 325                        | 9               | 18           | 27           | 54          | 108         |
| TBRI-42-DNxxx                   | 415                        | 12              | 24           | 36           | 72          | 144         |
| TBRI-51-DNxxx                   | 505                        | 15              | 30           | 45           | 90          | 180         |
| TBRI-60-DNxxx                   | 595                        | 18              | 36           | 54           | 108         | 216         |
| TBRI-78-DNxxx                   | 780                        | 24              | 48           | 72           | 144         | 288         |
| TBRI-102-DNxxx                  | 1020                       | 32              | 64           | 96           | 192         | 384         |

**II) only 3x400V DELTA connection**

TBRI HI-TEMP RANGE (Connection Box on 100mm distance from Flange)

| FLANGE                          |                            | DN80 PN 16      | DN 125 PN 16 | DN 150 PN 16 | DN200 PN 16 | DN250 PN 16 |
|---------------------------------|----------------------------|-----------------|--------------|--------------|-------------|-------------|
| □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ |                            | 3               | 6            | 9            | 18          | 36          |
| REFERENCE                       | IMMERSION LENGTH<br>[ mm ] | POWER<br>[ kW ] |              |              |             |             |
| TBRI-HT-14-DNxxx                | 140                        | 3               | 6            | 9            | 18          | 36          |
| TBRI-HT-24-DNxxx                | 235                        | 6               | 12           | 18           | 36          | 72          |
| TBRI-HT-33-DNxxx                | 325                        | 9               | 18           | 27           | 54          | 108         |
| TBRI-HT-42-DNxxx                | 415                        | 12              | 24           | 36           | 72          | 144         |
| TBRI-HT-51-DNxxx                | 505                        | 15              | 30           | 45           | 90          | 180         |
| TBRI-HT-60-DNxxx                | 595                        | 18              | 36           | 54           | 108         | 216         |
| TBRI-HT-78-DNxxx                | 780                        | 24              | 48           | 72           | 144         | 288         |
| TBRI-HT-102-DNxxx               | 1020                       | 32              | 64           | 96           | 192         | 384         |

 only 3x400V DELTA connection

# TBREG

Flange Immersion Heaters  
for Glycol



With the TBREG-range we developed a standard set of Flange Immersion Heaters for the heating of glycolwater (max 50%).

On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.



|                                                                                                                                                  |                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| lengths available on different<br>immersion lengths<br>- Voltage 3x400V (Star)<br>Connection Box on Flange and<br>HT version with Connection Box | Ø10x1mm between elements<br>- 1 Pocket for limiter Ø10x1mm<br>Connection Box on Flange and<br>HT version with Connection Box |
|--------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|

## TBREG STANDARD RANGE

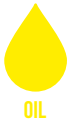
| FLANGE          |                            | DN80 PN 16      | DN125 PN 16 | DN150 PN 16 | DN200 PN 16 | DN250 PN 16 |
|-----------------|----------------------------|-----------------|-------------|-------------|-------------|-------------|
| 3 3 3 3 3 3 3 3 |                            | 3               | 6           | 9           | 18          | 36          |
| REFERENCE       | IMMERSION LENGTH<br>[ mm ] | POWER<br>[ kW ] |             |             |             |             |
| TBREG-27-DNxxx  | 270                        | 3               | 6           | 9           | 18          | 36          |
| TBREG-39-DNxxx  | 390                        | 4,5             | 9           | 13,5        | 27          | 54          |
| TBREG-50-DNxxx  | 500                        | 6               | 12          | 18          | 36          | 72          |
| TBREG-73-DNxxx  | 725                        | 9               | 18          | 27          | 54          | 108         |
| TBREG-96-DNxxx  | 955                        | 12              | 24          | 36          | 72          | 144         |
| TBREG-126-DNxxx | 1255                       | 16              | 32          | 48          | 96          | 192         |
| TBREG-156-DNxxx | 1560                       | 20              | 40          | 60          | 120         | 240         |

## TBREG HI-TEMP RANGE (Connection Box on 100mm distance from Flange)

| FLANGE             |                            | DN80 PN 16      | DN125 PN 16 | DN150 PN 16 | DN200 PN 16 | DN250 PN 16 |
|--------------------|----------------------------|-----------------|-------------|-------------|-------------|-------------|
| 3 3 3 3 3 3 3 3    |                            | 3               | 6           | 9           | 18          | 36          |
| REFERENCE          | IMMERSION LENGTH<br>[ mm ] | POWER<br>[ kW ] |             |             |             |             |
| TBREG-HT-27-DNxxx  | 270                        | 3               | 6           | 9           | 18          | 36          |
| TBREG-HT-39-DNxxx  | 390                        | 4,5             | 9           | 13,5        | 27          | 54          |
| TBREG-HT-50-DNxxx  | 500                        | 6               | 12          | 18          | 36          | 72          |
| TBREG-HT-73-DNxxx  | 725                        | 9               | 18          | 27          | 54          | 108         |
| TBREG-HT-96-DNxxx  | 955                        | 12              | 24          | 36          | 72          | 144         |
| TBREG-HT-126-DNxxx | 1255                       | 16              | 32          | 48          | 96          | 192         |
| TBREG-HT-156-DNxxx | 1560                       | 20              | 40          | 60          | 120         | 240         |

# TBRHI

Flange Immersion Heaters  
for Oil



With the TBRHI-range we developed a standard set of Flange Immersion Heaters for the heating of oil (up to 120°C).

On demand, adjustments can be made if the requested quantity is justified.

We can tailor make the desired solution.

|                                                                                                                                                                 |                                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <p>lengths available on different</p> <p>- 1.5kW - 120 kW</p> <p>- Voltage 3x400V (Star)</p> <p>Connection Box on Flange and HT version with Connection Box</p> | <p>Ø10x1mm between elements</p> <p>- 1 Pocket for limiter Ø10x1mm</p> <p>Connection Box on Flange and HT version with Connection Box</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|

## TBRHI STANDARD RANGE

| FLANGE          |                       | DN80 PN 16 | DN 125 PN 16 | DN 150 PN 16 | DN200 PN 16 | DN250 PN 16 |
|-----------------|-----------------------|------------|--------------|--------------|-------------|-------------|
|                 |                       | 3          | 6            | 9            | 18          | 36          |
| REFERENCE       | IMMERSION LENGTH [mm] | POWER [kW] |              |              |             |             |
| TBRHI-27-DNxxx  | 270                   | 1,5        | 3            | 4,5          | 9           | 18          |
| TBRHI-50-DNxxx  | 500                   | 3          | 6            | 9            | 18          | 36          |
| TBRHI-73-DNxxx  | 730                   | 4,5        | 9            | 13,5         | 27          | 54          |
| TBRHI-95-DNxxx  | 950                   | 6          | 12           | 18           | 36          | 72          |
| TBRHI-126-DNxxx | 1255                  | 8          | 16           | 24           | 48          | 96          |
| TBRHI-156-DNxxx | 1555                  | 10         | 20           | 30           | 60          | 120         |

## TBRHI HI-TEMP RANGE (Connection Box on 100mm distance from Flange)

| FLANGE             |                       | DN80 PN 16 | DN 125 PN 16 | DN 150 PN 16 | DN200 PN 16 | DN250 PN 16 |
|--------------------|-----------------------|------------|--------------|--------------|-------------|-------------|
|                    |                       | 3          | 6            | 9            | 18          | 36          |
| REFERENCE          | IMMERSION LENGTH [mm] | POWER [kW] |              |              |             |             |
| TBRHI-HT-27-DNxxx  | 270                   | 1,5        | 3            | 4,5          | 9           | 18          |
| TBRHI-HT-50-DNxxx  | 500                   | 3          | 6            | 9            | 18          | 36          |
| TBRHI-HT-73-DNxxx  | 730                   | 4,5        | 9            | 13,5         | 27          | 54          |
| TBRHI-HT-95-DNxxx  | 950                   | 6          | 12           | 18           | 36          | 72          |
| TBRHI-HT-126-DNxxx | 1255                  | 8          | 16           | 24           | 48          | 96          |
| TBRHI-HT-156-DNxxx | 1555                  | 10         | 20           | 30           | 60          | 120         |

# DTV-RBC

Screwable Pocket  
for RBC



DKBA

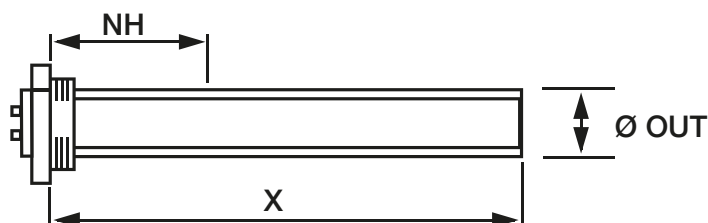
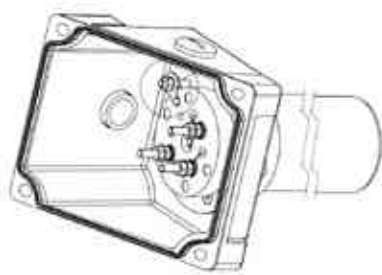
Standard screw plug immersion heater with pocket for fitting of ceramic core elements (RBC).

This technology allows the RBC heater to be replaced without entirely dismantling the immersion heater and without draining the tank containing the fluid to be heated.

The DTV-RBC is supplied with our aluminium DKBA connection box, offering an easy-to-assemble solution with three pre-drilled entries for power, control, and regulation.

Standard screw plug immersion heater with pocket for fitting of ceramic core elements (RBC).  
This technology allows the RBC heater to be replaced without entirely dismantling the immersion heater and without draining the tank containing the fluid to be heated.  
The DTV-RBC is supplied with our aluminium DKBA connection box, offering an easy-to-assemble solution with three pre-drilled entries for power, control, and regulation.

Standard screw plug immersion heater with pocket for fitting of ceramic core elements (RBC).  
This technology allows the RBC heater to be replaced without entirely dismantling the immersion heater and without draining the tank containing the fluid to be heated.  
The DTV-RBC is supplied with our aluminium DKBA connection box, offering an easy-to-assemble solution with three pre-drilled entries for power, control, and regulation.



| REFERENCE            | SCREWPLUG TYPE | SCREWPLUG MATERIAL | RBC Ø [ mm ] | Ø OUT [ mm ] | LENGTH X [ mm ] | NH (*) [ mm ] | OUTPUT [ W ] | WATT DENSITY [ W/cm² ] |
|----------------------|----------------|--------------------|--------------|--------------|-----------------|---------------|--------------|------------------------|
| DTV-RBC-G25-57-15    | G2 ½"          | 1.4301 / SS304     | 54           | 60,3         | 415             | 135           | 1000         | 2,4                    |
| DTV-RBC-G25-67-20    | G2 ½"          | 1.4301 / SS304     | 54           | 60,3         | 565             | 135           | 1500         | 2,2                    |
| DTV-RBC-G25-67-20    | G2 ½"          | 1.4301 / SS304     | 54           | 60,3         | 665             | 135           | 2000         | 2,4                    |
| DTV-RBC-G25-127-45   | G2 ½"          | 1.4301 / SS304     | 54           | 60,3         | 915             | 135           | 3000         | 2,4                    |
| DTV-RBC-G25-127-45   | G2 ½"          | 1.4301 / SS304     | 54           | 60,3         | 1265            | 135           | 4500         | 2,4                    |
| DTV-RBC-G25-47-20    | G2 ½"          | 1.4301 / SS304     | 54           | 60,3         | 315             | 135           | 1000         | 3,9                    |
| DTV-RBC-G25-47-20    | G2 ½"          | 1.4301 / SS304     | 54           | 60,3         | 415             | 135           | 1500         | 3,5                    |
| DTV-RBC-G25-47-20    | G2 ½"          | 1.4301 / SS304     | 54           | 60,3         | 465             | 135           | 2000         | 3,9                    |
| DTV-RBC-G25-87-45    | G2 ½"          | 1.4301 / SS304     | 54           | 60,3         | 615             | 135           | 3000         | 3,9                    |
| DTV-RBC-G25-87-45    | G2 ½"          | 1.4301 / SS304     | 54           | 60,3         | 865             | 135           | 4500         | 3,8                    |
| DTV-RBC-G25-107-60   | G2 ½"          | 1.4301 / SS304     | 54           | 60,3         | 1065            | 135           | 6000         | 3,9                    |
| DTV-RBC-M77x2-42-10  | M77x2          | 1.4301 / SS304     | 54           | 60,3         | 415             | 135           | 1000         | 2,4                    |
| DTV-RBC-M77x2-57-15  | M77x2          | 1.4301 / SS304     | 54           | 60,3         | 565             | 135           | 1500         | 2,2                    |
| DTV-RBC-M77x2-67-20  | M77x2          | 1.4301 / SS304     | 54           | 60,3         | 665             | 135           | 2000         | 2,4                    |
| DTV-RBC-M77x2-92-30  | M77x2          | 1.4301 / SS304     | 54           | 60,3         | 915             | 135           | 3000         | 2,4                    |
| DTV-RBC-M77x2-127-45 | M77x2          | 1.4301 / SS304     | 54           | 60,3         | 1265            | 135           | 4500         | 2,4                    |
| DTV-RBC-M77x2-32-10  | M77x2          | 1.4301 / SS304     | 54           | 60,3         | 315             | 135           | 1000         | 3,9                    |
| DTV-RBC-M77x2-42-15  | M77x2          | 1.4301 / SS304     | 54           | 60,3         | 415             | 135           | 1500         | 3,5                    |
| DTV-RBC-M77x2-47-20  | M77x2          | 1.4301 / SS304     | 54           | 60,3         | 465             | 135           | 2000         | 3,9                    |
| DTV-RBC-M77x2-62-30  | M77x2          | 1.4301 / SS304     | 54           | 60,3         | 615             | 135           | 3000         | 3,9                    |
| DTV-RBC-M77x2-87-45  | M77x2          | 1.4301 / SS304     | 54           | 60,3         | 865             | 135           | 4500         | 3,8                    |
| DTV-RBC-M77x2-107-60 | M77x2          | 1.4301 / SS304     | 54           | 60,3         | 1065            | 135           | 6000         | 3,9                    |

# TBR-RBC

Flange Mounted Pocket  
for RBC



Standard Flanged immersion heater with Single- or Multi-Pocket for fitting of Ceramic Core Elements (RBC).  
This technology allows the RBC heater to be replaced without entirely dismantling the immersion heater and without draining the tank containing the fluid to be heated.

- Connection box on flange

Connection box on flange

Connection box on flange

Connection box on flange

Connection box on flange

Connection box on flange
- Connection box on flange

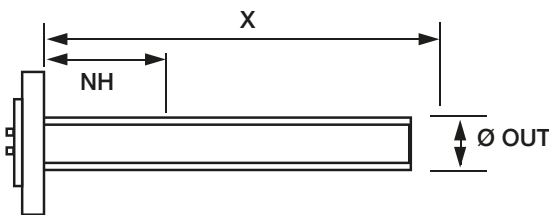
Connection box on flange

Connection box on flange

Connection box on flange

Connection box on flange

Connection box on flange



## TBR-RBC SINGLE-POCKET DN80

230V 1ph / 3x400V 3ph  
in SS304/1.4301  
- 1 pocket

| REFERENCE | RBC Ø<br>[ mm ] | Ø OUT<br>[ mm ] | LENGTH X<br>[ mm ] | NH (°)<br>[ mm ] | OUTPUT<br>[ W ] | WATT DENSITY<br>[ W/cm² ] |
|-----------|-----------------|-----------------|--------------------|------------------|-----------------|---------------------------|
| 1000      | 54              | 60,3            | 405                | 125              | 1000            | 2,4                       |
| 1500      | 54              | 60,3            | 555                | 125              | 1500            | 2,2                       |
| 2000      | 54              | 60,3            | 655                | 125              | 2000            | 2,4                       |
| 3000      | 54              | 60,3            | 905                | 125              | 3000            | 2,4                       |
| 4500      | 54              | 60,3            | 1255               | 125              | 4500            | 2,4                       |
| 1000      | 54              | 60,3            | 305                | 125              | 1000            | 3,9                       |
| 1500      | 54              | 60,3            | 405                | 125              | 1500            | 3,5                       |
| 2000      | 54              | 60,3            | 455                | 125              | 2000            | 3,9                       |
| 3000      | 54              | 60,3            | 605                | 125              | 3000            | 3,9                       |
| 4500      | 54              | 60,3            | 855                | 125              | 4500            | 3,8                       |
| 6000      | 54              | 60,3            | 1055               | 125              | 6000            | 3,9                       |

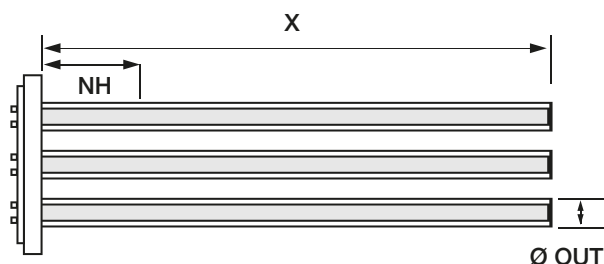
IMMERSION HEATERS





# TBR-RBC

Flange Mounted Pocket  
for RBC



TBR-RBC  
MULTI-POCKET DN150

3000 4500 6000 9000 13500  
 - 230V 1ph / 3x400V 3ph (STAR) SS304/1.4301  
 3000 4500 6000 9000 13500  
**- 3 pockets**

| REFERENCE                 | RBC Ø<br>[ mm ] | Ø OUT<br>[ mm ] | LENGTH X<br>[ mm ] | NH (H)<br>[ mm ] | OUTPUT<br>[ W ] | WATT DENSITY<br>[ W/cm² ] |
|---------------------------|-----------------|-----------------|--------------------|------------------|-----------------|---------------------------|
| 3000 4500 6000 9000 13500 | 54              | 60,3            | 405                | 125              | 3000            | 2,4                       |
| 3000 4500 6000 9000 13500 | 54              | 60,3            | 555                | 125              | 4500            | 2,2                       |
| 3000 4500 6000 9000 13500 | 54              | 60,3            | 655                | 125              | 6000            | 2,4                       |
| 3000 4500 6000 9000 13500 | 54              | 60,3            | 905                | 125              | 9000            | 2,4                       |
| 3000 4500 6000 9000 13500 | 54              | 60,3            | 1255               | 125              | 13500           | 2,4                       |
| 3000 4500 6000 9000 13500 | 54              | 60,3            | 305                | 125              | 3000            | 3,9                       |
| 3000 4500 6000 9000 13500 | 54              | 60,3            | 405                | 125              | 4500            | 3,5                       |
| 3000 4500 6000 9000 13500 | 54              | 60,3            | 455                | 125              | 6000            | 3,9                       |
| 3000 4500 6000 9000 13500 | 54              | 60,3            | 605                | 125              | 9000            | 3,9                       |
| 3000 4500 6000 9000 13500 | 54              | 60,3            | 855                | 125              | 13500           | 3,8                       |
| 3000 4500 6000 9000 13500 | 54              | 60,3            | 1055               | 125              | 18000           | 3,9                       |

3000 4500 6000 9000 13500

TBR-RBC  
MULTI-POCKET DN250

6000 9000 12000 18000 27000  
 - 230V 1ph / 3x400V 3ph (STAR) SS304/1.4301  
 6000 9000 12000 18000 27000  
**- 6 pockets**

| REFERENCE                   | RBC Ø<br>[ mm ] | Ø OUT<br>[ mm ] | LENGTH X<br>[ mm ] | NH (H)<br>[ mm ] | OUTPUT<br>[ W ] | WATT DENSITY<br>[ W/cm² ] |
|-----------------------------|-----------------|-----------------|--------------------|------------------|-----------------|---------------------------|
| 6000 9000 12000 18000 27000 | 54              | 60,3            | 405                | 125              | 6000            | 2,4                       |
| 6000 9000 12000 18000 27000 | 54              | 60,3            | 555                | 125              | 9000            | 2,2                       |
| 6000 9000 12000 18000 27000 | 54              | 60,3            | 655                | 125              | 12000           | 2,4                       |
| 6000 9000 12000 18000 27000 | 54              | 60,3            | 905                | 125              | 18000           | 2,4                       |
| TBR-RBC-DN250-126-270       | 54              | 60,3            | 1255               | 125              | 27000           | 2,4                       |
| 6000 9000 12000 18000 27000 | 54              | 60,3            | 305                | 125              | 6000            | 3,9                       |
| 6000 9000 12000 18000 27000 | 54              | 60,3            | 405                | 125              | 9000            | 3,5                       |
| 6000 9000 12000 18000 27000 | 54              | 60,3            | 455                | 125              | 12000           | 3,9                       |
| 6000 9000 12000 18000 27000 | 54              | 60,3            | 605                | 125              | 18000           | 3,9                       |
| TBR-RBC-DN250-86-270        | 54              | 60,3            | 855                | 125              | 27000           | 3,8                       |
| 6000 9000 12000 18000 27000 | 54              | 60,3            | 1055               | 125              | 36000           | 3,9                       |

6000 9000 12000 18000 27000



- These heaters are specifically designed for heating up water in electrical waterboilers. They consist of a light flange, heating elements and optional a sensor tube for a thermostat or sensor.

| FLANGE N° | MAXIMUM NUMBER OF DIAMETER 8,5MM ELEMENTS |             |
|-----------|-------------------------------------------|-------------|
|           | W/O POCKET                                | WITH POCKET |
| A         | 3                                         | 2           |
| B         | 3                                         | 3           |
| C         | 3                                         | 3           |
| D         | 3                                         | 3           |
| E         | 3                                         | 3           |
| F         | 3                                         | 3           |


**OTHER VARIANTS ON DEMAND**

# OPTIONS

# Plugin immersion thermostats for TBL



| REFERENCE | RANGE<br>[ °C ] | T <sub>s</sub> MIN<br>[ °C ] | T <sub>s</sub> MAX<br>[ °C ] | T <sub>B</sub> MIN<br>[ °C ] | T <sub>B</sub> MAX<br>[ °C ] | T <sub>M</sub> MAX<br>[ °C ] | DIFFERENTIAL<br>[ °C ] | WEIGHT<br>[ kg ] | CONTACT                                    | ROD<br>[ mm ] | DESCRIPTION                                                    |
|-----------|-----------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------|------------------|--------------------------------------------|---------------|----------------------------------------------------------------|
| TSD00706  | 5 to 80         | -20                          | 100                          | -20                          | 100                          | 100                          | 8                      | 0,1              | 20 A / 240 V AC NC                         | Ø 7,5 / L180  | Single pole<br>rod thermostat<br>for integration               |
| TUS 0177  | 13 to 65        | -20                          | 105                          | -20                          | 120                          | 120                          | 9                      | 0,1              | 20 A / 250 V AC NC -<br>15 A / 400 V AC NC | Ø 6 / L270    | Single pole<br>rod thermostat<br>and cutout<br>for integration |

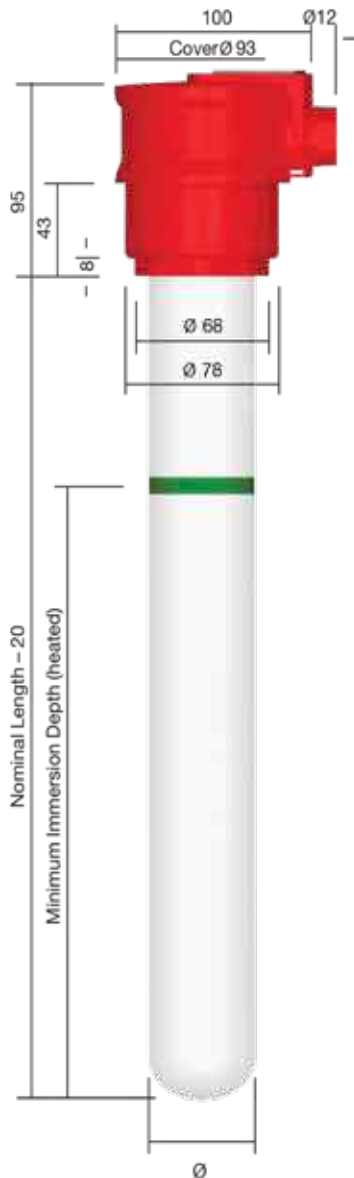
$T_s$  = Min/Max **S**ensor temperature —  $T_B$  = Min/Max Connection **B**ox temperature —  $T_M$  = Min/Max **M**odule temperature



ROTKAPPE Immersion Heaters are most suitable for direct heating of nearly all process liquids and corresponding applications. Using the widest variety of immersion tube materials ensures excellent chemical resistance. The immersion heater is constructed on a modular basis and consists of a tube, a long-life heating cartridge, a terminal casing and the lead.

**SAFETY**

When choosing the materials, the power density) have to be taken equally into consideration.



(See table)

- Offering optimal tube material
- Variable fitting alternatives
- Up to 500V (max.) for one, two
- Classified as Electrical "Safety"
- 0,4 – 7 kW

| MATERIAL CODIFICATION             | Ø [ mm ] | SURFACE POWER DENSITY [ W/cm² ] |
|-----------------------------------|----------|---------------------------------|
| special hard porcelain [PS]       | 54       | 0,8 – 3,2                       |
| technical glass [TG]              | 50       | 0,8 – 3,9                       |
| quartz glass [QS]                 | 52       | 0,8 – 3,4                       |
| fluoropolymer (PFA)-compound [FC] | 46,5     | 0,9 – 2,3                       |
| stainless steel [KB]              | 45       | 0,9 – 4,3                       |
| titanium [TI]                     | 45       | 0,9 – 4,3                       |

**ORDERING INFORMATION**

**B-XX YYY/Z,Z-VVV Qs**

Material Codification \_\_\_\_\_  
\_\_\_\_\_   
\_\_\_\_\_   
\_\_\_\_\_   
\_\_\_\_\_

# ROTKAPPE®

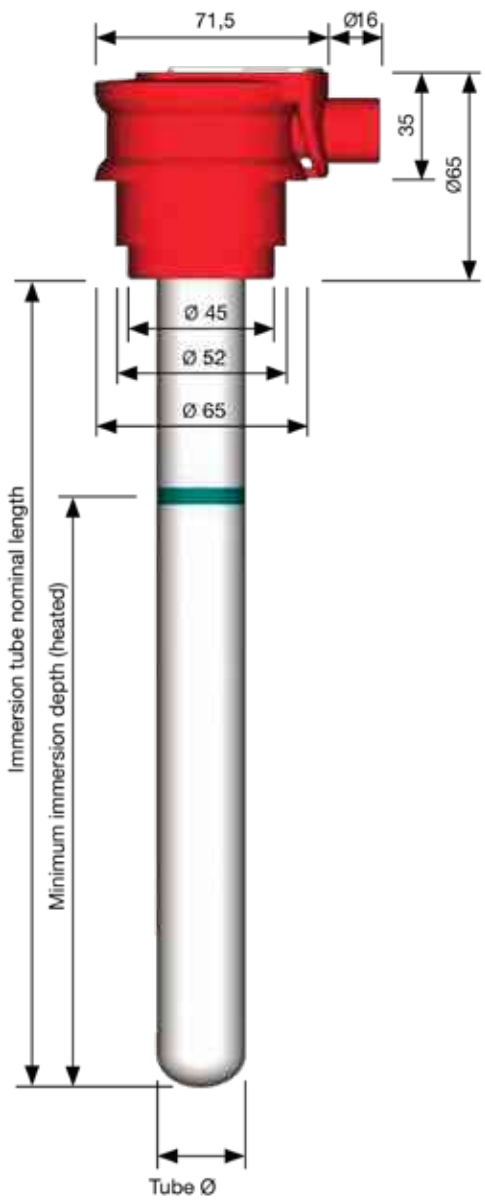
Small Immersion heaters



ROTKAPPE Small Immersion heaters are used primarily in smaller plants and tanks for surface treatment and in the laboratory sector. Using the widest variety of immersion tube materials ensures excellent chemical resistance. The small immersion heater is constructed on a modular basis and consists of a tube, a long-life heating cartridge, a terminal casing and the lead.

### SAFETY

on the part of the user. When choosing the materials, the physical processes be taken equally into consideration.



- Offering optimal tube material
- Variable fitting alternatives
- Classified as Electrical "Safety"

| MATERIAL CODIFICATION       | Ø [ mm ] | SURFACE POWER DENSITY [ W/cm² ] |
|-----------------------------|----------|---------------------------------|
| special hard porcelain [PS] | 28       | 1,9 – 3,9                       |
| technical glass [TG]        | 28       | 1,9 – 3,9                       |
| stainless steel [KB]        | 25       | 1,3 – 4,3                       |
| titanium [TI]               | 25,4     | 1,3 – 4,3                       |

ORDERING INFORMATION

L-XX YYY/Z,Z-230 Ws

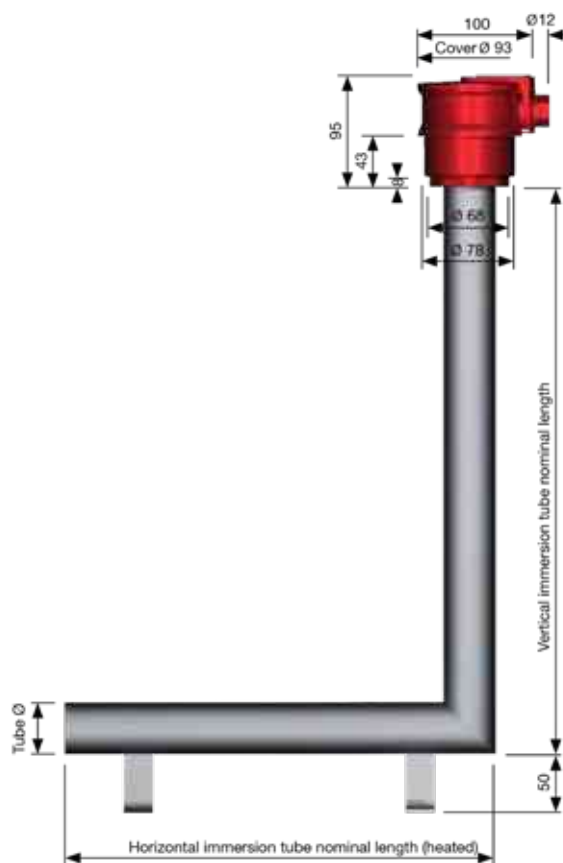
Material Codification



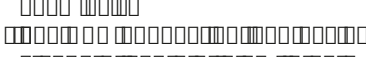
**ROTKAPPE** Angular Immersion heaters are the ideal method of direct heating for all containers with a low liquid level or high level fluctuation. The heating of the liquid from the container bottom is achieved by the horizontal heated immersion tube and this ensures optimum heat radiation as well as good heat distribution. The vertical, unheated immersion tube section can be adapted to the container depth. The angular immersion heater consists of an heated horizontal immersion tube, a long-life heating cartridge, an unheated vertical immersion tube, a terminal casing and the lead.

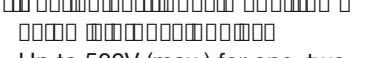
## SAFETY

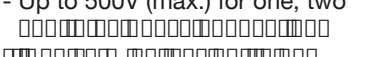
on the part of the user. When choosing the materials; the physical processes be taken equally into consideration.



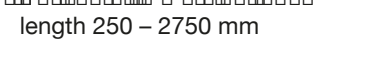


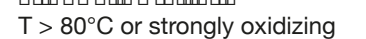










- Up to 500V (max.) for one, two  
 conductors

length 250 – 2750 mm

T > 80°C or strongly oxidizing

| MATERIAL<br>CODIFICATION | Ø<br>[ mm ] | SURFACE POWER DENSITY<br>[ W/cm² ] |
|--------------------------|-------------|------------------------------------|
| stainless steel [KB]     | 45          | 3,0 – 3,6                          |
| titanium [TI]            | 45          | 3,0 – 3,6                          |

**ORDERING INFORMATION** B-WXX YYY-ZZZ/Q,Q-VW Ps

[illegible]

# OPTIONS

## Accessories



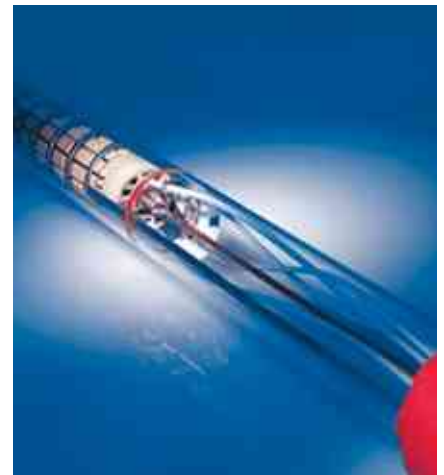
**MOUNTING SLEEVE EM**  
for space-saving fitting in  
beams.  
Drill-hole Ø 87mm



**SUPPORT HWB**  
for fixing long probes  
heaters.  
Drill-hole Ø 87mm



**HOLDING SLEEVE HM**  
for fixing in tank cross-  
liquid temperature (>60°C)  
and exposure of the bot  
concentrated steam.  
Drill-hole Ø 70mm to Ø 76mm.



### SAFETY IMMERSION HEATER WITH ANTI-BURN SYSTEM (ABS)

The heater is equipped with a safety circuit that monitors the liquid temperature. If the temperature rises above the set point, the heater switches off to prevent loss of the liquid being heated. The heater then remains off until the safety circuit is reset manually. The heater is equipped with a dry-running protection device.



**SUPPORT HB**  
for simple fixing to the tank rim (e.g. for immersion heaters with a max. nominal power of 1000W).



**SUPPORT SHB**  
sleeve HM for fixing  
immersion heaters with a max. nominal power of > 800W.



**SUPPORT THB**  
sleeve HM for fixing immer  
Anti-Burn-System.



**TERMINAL CASING BC**  
**TERMINAL CASING BC/L**



**TERMINAL CASING LC**  
**TERMINAL CASING LC/L**



**MOUNTING WRENCH SL**  
for screw fixing.



**MOUNTING WRENCH SB**  
for screw fixing and the lead screw fixing.



**SUPPORT HL**  
is screwed firmly onto the  
push-fit.

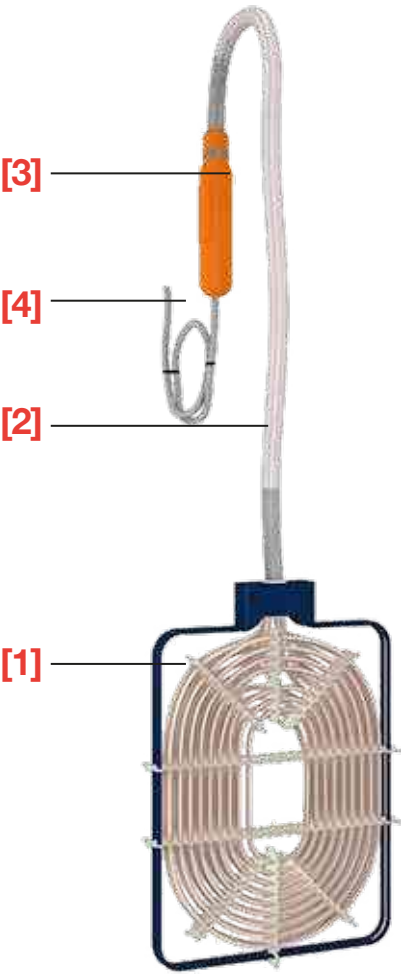


**SUPPORT HWL**  
for fixing long probes and  
heaters.



**MOUNTING SLEEVE ML**  
enables space-saving fitting  
beams.

**N** NORMAL SIZE  
**S** SMALL SIZE



The Galvatherm heaters are specially designed for heating corrosive baths using a cable that only heats the part that is to be continually immersed [1]. The cable is covered with a Teflon® coating. This plastic sheath enables the heaters to resist the flow of heat and the chemical attack of the bath.

Les Galvatherm sont spécialement conçus pour chauffer des bains corrosifs à l'aide d'un câble qui ne chauffe que la partie à immerger en permanence [1]. Le câble est recouvert d'un revêtement en Teflon®. Cette gaine plastique permet aux chauffeuses de résister au flux de chaleur et à l'attaque chimique du bain.

| ASSEMBLY              | TYPE A                 | TYPE B           | TYPE C           | TYPE D           | TYPE F           |
|-----------------------|------------------------|------------------|------------------|------------------|------------------|
| Description           | Chauffeuse à immersion | avec fixation    | à montage mural  | à montage mural  | à montage mural  |
| Place of installation | à immersion            | à immersion      | à immersion      | à immersion      | à immersion      |
| Frame material        | acier inoxydable       | acier inoxydable | acier inoxydable | acier inoxydable | acier inoxydable |
| Product availability  | à la demande           |                  |                  |                  |                  |

DIFFERENT ASSEMBLIES

Les dimensions de la chauffeuse et du support (max.) doivent être indiquées sur le schéma de montage.

Please pay attention to the dimensions of the heater and the rod in assembly type F

Type A



For classical tank configurations, offering a large exchange surface in a minimum bulk

Type B



Type C



Designed for small tank configurations and low powers

Type D



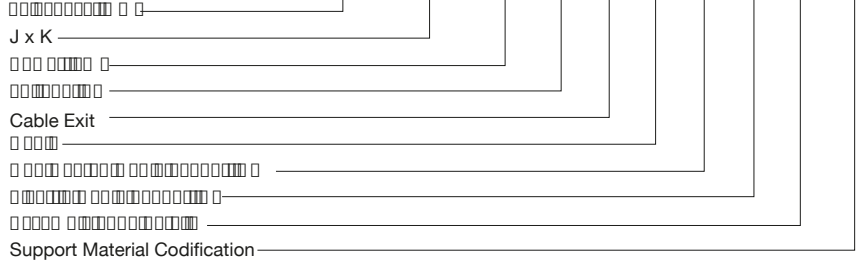
Type F



Rigid structure ideal for important powers (> 6kW) and large tanks

## ORDERING INFORMATION

**PXX YY ZZ V E D N C A M**



## CABLE CODE DETAILS

F: 110V single-phase : 0.5 kW, 1 kW, 1.5 kW, 2 kW  
 G: 230V single-phase : 0.5 kW, 1 kW, 1.5 kW, 2 kW, 3 kW, 4 kW, 5 kW  
 P: 230V single-phase : 0.5 kW, 1 kW, 1.5 kW, 2 kW, 3 kW, 4 kW, 5 kW  
 D: 230V single-phase : 0.5 kW, 1 kW, 1.5 kW, 2 kW, 3 kW, 4 kW, 5 kW  
 E: 230V single-phase : 0.5 kW, 1 kW, 1.5 kW, 2 kW, 3 kW, 4 kW, 5 kW  
 H: 230V single-phase : 0.5 kW, 1 kW, 1.5 kW, 2 kW, 3 kW, 4 kW, 5 kW

## ASSEMBLY CODE DETAILS

A: 110V single-phase : 0.5 kW, 1 kW, 1.5 kW, 2 kW  
 B: 230V single-phase : 0.5 kW, 1 kW, 1.5 kW, 2 kW, 3 kW, 4 kW, 5 kW  
 C: 230V single-phase : 0.5 kW, 1 kW, 1.5 kW, 2 kW, 3 kW, 4 kW, 5 kW  
 D: 230V single-phase : 0.5 kW, 1 kW, 1.5 kW, 2 kW, 3 kW, 4 kW, 5 kW  
 F: 230V single-phase : 0.5 kW, 1 kW, 1.5 kW, 2 kW, 3 kW, 4 kW, 5 kW  
 H: 230V single-phase : 0.5 kW, 1 kW, 1.5 kW, 2 kW, 3 kW, 4 kW, 5 kW

## THICKNESS

0.5 kW  
 1 kW  
 1.5 kW

## J x K

0.5 kW  
 1 kW  
 1.5 kW

## POWER

0.5 = 0.5 kW  
 1.5 = 1.5 kW  
 4.5 = 4.5 kW

## VOLTAGE

230V  
 240V  
 250V  
 260V  
 275V  
 295V  
 315V  
 340V  
 350V  
 365V  
 375V  
 390V  
 405V  
 420V  
 435V  
 445V  
 455V  
 475V  
 495V  
 510V  
 520V  
 535V  
 550V  
 565V  
 580V  
 595V  
 610V  
 620V  
 635V  
 645V  
 660V  
 675V  
 690V  
 705V  
 720V  
 735V  
 750V  
 765V  
 780V  
 795V  
 810V  
 825V  
 840V  
 855V  
 870V  
 885V  
 900V  
 915V  
 930V  
 945V  
 960V  
 975V  
 990V

## CABLE EXIT

0.5 kW  
 1 kW  
 1.5 kW

## N LENGTH

7 = 4,5m  
 9 = sup. 5m

## C LENGTH

7 = 4,5m  
 9 = sup. 5m

## SUPPORT MATERIALS CODIFICATION

| code | frame | strips | other pieces | valid for assembly |
|------|-------|--------|--------------|--------------------|
| 0    | 0000  | 0000   | 0000         | 000000             |
| 1    | 00    | 00     | 00           | 000000             |
| 2    | 000   | 000    | 0            | 0                  |
| 3    | 000   | 000    | 0000         | 000000             |
| 4    | 000   | 000    | 00           | 000000             |
| 5    | 0000  | 000    | 0000         | 000000             |
| 6    | 00    | 000    | 00           | 000000             |
| 7    | inox  | 000    | 0            | 00                 |

## SINGLE - PHASE HEATERS

| kW     | J x K     | 230V MONO   | kW   | J x K     | 230V MONO   | kW   | J x K     | 230V MONO   | kW   | J x K     | 230V MONO   |
|--------|-----------|-------------|------|-----------|-------------|------|-----------|-------------|------|-----------|-------------|
| 0.5 kW | 150 x 375 | P30 03 05 2 |      | 220 x 475 | P30 07 20 2 |      | 340 x 340 | P40 12 30 2 |      | 315 x 495 | P40 10 50 2 |
|        | 170 x 265 | P30 04 05 2 |      | 240 x 420 | P30 08 20 2 | 4 kW | 225 x 880 | P30 07 40 2 |      | 335 x 460 | P40 11 50 2 |
|        | 185 x 210 | P30 05 05 2 |      | 260 x 380 | P30 09 20 2 |      | 260 x 700 | P30 09 40 2 |      | 355 x 430 | P40 12 50 2 |
|        | 165 x 230 | P40 03 05 2 |      | 275 x 340 | P30 10 20 2 |      | 315 x 545 | P30 12 40 2 |      | 375 x 405 | P40 13 50 2 |
| 1 kW   | 150 x 605 | P30 03 10 2 |      | 295 x 315 | P30 11 20 2 |      | 330 x 515 | P30 13 40 2 |      | 395 x 390 | P40 14 50 2 |
|        | 170 x 520 | P30 04 10 2 |      | 185 x 515 | P40 04 20 2 |      | 350 x 475 | P30 14 40 2 | 6 kW | 275 x 990 | P30 10 60 2 |
|        | 185 x 365 | P30 05 10 2 |      | 210 x 420 | P40 05 20 2 |      | 385 x 435 | P30 16 40 2 |      | 295 x 855 | P30 11 60 2 |
|        | 205 x 335 | P30 06 10 2 |      | 225 x 350 | P40 06 20 2 |      | 405 x 420 | P30 17 40 2 |      | 310 x 825 | P30 12 60 2 |
|        | 220 x 290 | P30 07 10 2 |      | 245 x 305 | P40 07 20 2 |      | 205 x 810 | P40 05 40 2 |      | 350 x 720 | P30 14 60 2 |
|        | 240 x 250 | P30 08 10 2 |      | 265 x 275 | P40 08 20 2 |      | 225 x 685 | P40 06 40 2 |      | 365 x 645 | P30 15 60 2 |
|        | 165 x 395 | P40 03 10 2 | 3 kW | 205 x 925 | P30 06 30 2 |      | 245 x 595 | P40 07 40 2 |      | 385 x 635 | P30 16 60 2 |
|        | 185 x 305 | P40 04 10 2 |      | 225 x 790 | P30 07 30 2 |      | 285 x 475 | P40 09 40 2 |      | 405 x 625 | P30 17 60 2 |
|        | 205 x 255 | P40 05 10 2 |      | 240 x 690 | P30 08 30 2 |      | 310 x 435 | P40 10 40 2 |      | 420 x 570 | P30 18 60 2 |
|        | 225 x 230 | P40 06 10 2 |      | 260 x 620 | P30 09 30 2 |      | 325 x 400 | P40 11 40 2 |      | 440 x 550 | P30 19 60 2 |
|        |           |             |      | 275 x 555 | P30 10 30 2 |      | 345 x 375 | P40 12 40 2 |      | 455 x 545 | P30 20 60 2 |
| 1.5 kW | 165 x 680 | P30 04 15 2 |      | 295 x 510 | P30 11 30 2 | 5 kW | 340 x 580 | P30 13 50 2 |      | 475 x 540 | P30 21 60 2 |
|        | 205 x 425 | P30 06 15 2 |      | 315 x 460 | P30 12 30 2 |      | 360 x 545 | P30 14 50 2 |      | 265 x 785 | P40 08 60 2 |
|        | 220 x 355 | P30 07 15 2 |      | 330 x 440 | P30 13 30 2 |      | 375 x 520 | P30 15 50 2 |      | 305 x 635 | P40 10 60 2 |
|        | 240 x 315 | P30 08 15 2 |      | 345 x 410 | P30 14 30 2 |      | 395 x 500 | P30 16 50 2 |      | 325 x 585 | P40 11 60 2 |
|        | 260 x 285 | P30 10 15 2 |      | 365 x 390 | P30 15 30 2 |      | 410 x 475 | P30 17 50 2 |      | 350 x 550 | P40 12 60 2 |
|        | 185 x 375 | P40 04 15 2 |      | 370 x 385 | P30 16 30 2 |      | 430 x 455 | P30 18 50 2 |      | 365 x 505 | P40 13 60 2 |
|        | 205 x 345 | P40 05 15 2 |      | 205 x 685 | P40 05 30 2 |      | 450 x 445 | P30 19 50 2 |      | 390 x 470 | P40 14 60 2 |
|        | 225 x 275 | P40 06 15 2 |      | 225 x 575 | P40 06 30 2 |      | 215 x 940 | P40 05 50 2 |      | 405 x 455 | P40 15 60 2 |
|        | 245 x 245 | P40 07 15 2 |      | 245 x 500 | P40 07 30 2 |      | 235 x 790 | P40 06 50 2 |      | 425 x 425 | P40 16 60 2 |
|        | 245 x 245 | P40 08 15 2 |      | 265 x 445 | P40 08 30 2 |      | 255 x 685 | P40 07 50 2 |      | 300 x 300 | P90 10 60 2 |
| 2 kW   | 170 x 765 | P30 04 20 2 |      | 285 x 400 | P40 09 30 2 |      | 275 x 605 | P40 08 50 2 |      |           |             |
|        | 185 x 635 | P30 05 20 2 |      | 325 x 340 | P40 11 30 2 |      | 295 x 545 | P40 09 50 2 |      |           |             |
|        | 205 x 565 | P30 06 20 2 |      |           |             |      |           |             |      |           |             |

Standard cable : FEP single layer. Other cable available, see top of page.  
 For the construction of the reference, see top of page.  
 All dimensions given with a tolerance of  $\pm 10$  mm.

0.5 kW, 1 kW, 1.5 kW, 2 kW  
 1 kW, 1.5 kW, 2 kW, 3 kW, 4 kW, 5 kW

## THREE - PHASE HEATERS

| kW     | J x K     | 230V TRI    | 400V TRI    |
|--------|-----------|-------------|-------------|
| 1.5 kW | 170 x 680 | P30 04 15 4 | P30 04 15 5 |
|        | 205 x 475 | P30 06 15 4 | P30 06 15 5 |
|        | 225 x 440 | P30 07 15 4 | P30 07 15 5 |
|        | 240 x 360 | P30 08 15 4 | P30 08 15 5 |
|        | 280 x 340 | P30 10 15 4 | P30 10 15 5 |
|        | 185 x 380 | P40 04 15 4 | P40 04 15 5 |
|        | 205 x 375 | P40 05 15 4 | P40 05 15 5 |
|        | 225 x 325 | P40 06 15 4 | P40 06 15 5 |
|        | 245 x 275 | P40 07 15 4 | P40 07 15 5 |
|        | 270 x 270 | P40 08 15 4 | P40 08 15 5 |
|        | 195 x 195 | P90 05 15 4 | P90 05 15 5 |
| 3 kW   | 205 x 905 | P30 06 30 4 | P30 06 30 5 |
|        | 225 x 910 | P30 07 30 4 | P30 07 30 5 |
|        | 240 x 700 | P30 08 30 4 | P30 08 30 5 |
|        | 260 x 705 | P30 09 30 4 | P30 09 30 5 |
|        | 275 x 580 | P30 10 30 4 | P30 10 30 5 |
|        | 295 x 575 | P30 11 30 4 | P30 11 30 5 |
|        | 315 x 490 | P30 12 30 4 | P30 12 30 5 |
|        | 330 x 465 | P30 13 30 4 | P30 13 30 5 |
|        | 350 x 450 | P30 14 30 4 | P30 14 30 5 |
|        | 370 x 410 | P30 15 30 4 | P30 15 30 5 |
|        | 380 x 395 | P30 16 30 4 | P30 16 30 5 |
|        | 205 x 735 | P40 05 30 4 | P40 05 30 5 |
|        | 230 x 615 | P40 06 30 4 | P40 06 30 5 |
|        | 250 x 545 | P40 07 30 4 | P40 07 30 5 |
|        | 265 x 470 | P40 08 30 4 | P40 08 30 5 |
|        | 285 x 420 | P40 09 30 4 | P40 09 30 5 |
|        | 325 x 360 | P40 11 30 4 | P40 11 30 5 |
|        | 340 x 340 | P40 12 30 4 | P40 12 30 5 |
|        | 250 x 250 | P90 07 30 4 | P90 07 30 5 |
| 4.5 kW | 240 x 905 | P30 08 45 4 | P30 08 45 5 |
|        | 275 x 750 | P30 10 45 4 | P30 10 45 5 |
|        | 295 x 730 | P30 11 45 4 | P30 11 45 5 |
|        | 315 x 625 | P30 12 45 4 | P30 12 45 5 |
|        | 350 x 535 | P30 14 45 4 | P30 14 45 5 |
|        | 370 x 520 | P30 15 45 4 | P30 15 45 5 |
|        | 385 x 505 | P30 16 45 4 | P30 16 45 5 |
|        | 405 x 460 | P30 17 45 4 | P30 17 45 5 |
|        | 420 x 440 | P30 18 45 4 | P30 18 45 5 |
|        | 265 x 595 | P40 08 45 4 | P40 08 45 5 |
|        | 285 x 535 | P40 09 45 4 | P40 09 45 5 |
|        | 305 x 480 | P40 10 45 4 | P40 10 45 5 |
|        | 325 x 445 | P40 11 45 4 | P40 11 45 5 |
|        | 345 x 425 | P40 12 45 4 | P40 12 45 5 |
|        | 365 x 395 | P40 13 45 4 | P40 13 45 5 |

| kW        | J x K       | 230V TRI    | 400V TRI    |
|-----------|-------------|-------------|-------------|
| 6 kW      | 380 x 380   | P40 14 45 4 | P40 14 45 5 |
|           | 265 x 265   | P90 09 45 4 | P90 09 45 5 |
|           | 275 x 990   | P30 10 60 4 | P30 10 60 5 |
|           | 295 x 855   | P30 11 60 4 | P30 11 60 5 |
|           | 310 x 825   | P30 12 60 4 | P30 12 60 5 |
|           | 350 x 720   | P30 14 60 4 | P30 14 60 5 |
|           | 365 x 645   | P30 15 60 4 | P30 15 60 5 |
|           | 385 x 635   | P30 16 60 4 | P30 16 60 5 |
|           | 405 x 625   | P30 17 60 4 | P30 17 60 5 |
|           | 420 x 570   | P30 18 60 4 | P30 18 60 5 |
|           | 440 x 550   | P30 19 60 4 | P30 19 60 5 |
|           | 455 x 545   | P30 20 60 4 | P30 20 60 5 |
|           | 475 x 540   | P30 21 60 4 | P30 21 60 5 |
|           | 265 x 785   | P40 08 60 4 | P40 08 60 5 |
|           | 305 x 635   | P40 10 60 4 | P40 10 60 5 |
|           | 325 x 585   | P40 11 60 4 | P40 11 60 5 |
|           | 350 x 550   | P40 12 60 4 | P40 12 60 5 |
|           | 365 x 505   | P40 13 60 4 | P40 13 60 5 |
|           | 390 x 470   | P40 14 60 4 | P40 14 60 5 |
|           | 405 x 455   | P40 15 60 4 | P40 15 60 5 |
| 425 x 425 | P40 16 60 4 | P40 16 60 5 |             |
| 300 x 300 | P90 10 60 4 | P90 10 60 5 |             |
| 9 kW      | 400 x 975   | P30 17 90 4 | P30 17 90 5 |
|           | 435 x 870   | P30 19 90 4 | P30 19 90 5 |
|           | 475 x 800   | P30 21 90 4 | P30 21 90 5 |
|           | 490 x 790   | P30 22 90 4 | P30 22 90 5 |
|           | 525 x 720   | P30 24 90 4 | P30 24 90 5 |
|           | 545 x 705   | P30 25 90 4 | P30 25 90 5 |
|           | 565 x 695   | P30 26 90 4 | P30 26 90 5 |
|           | 600 x 675   | P30 28 90 4 | P30 28 90 5 |
|           | 345 x 890   | P40 12 90 4 | P40 12 90 5 |
|           | 385 x 775   | P40 14 90 4 | P40 14 90 5 |
|           | 405 x 730   | P40 15 90 4 | P40 15 90 5 |
|           | 425 x 685   | P40 16 90 4 | P40 16 90 5 |
|           | 445 x 655   | P40 17 90 4 | P40 17 90 5 |
|           | 465 x 625   | P40 18 90 4 | P40 18 90 5 |
|           | 505 x 575   | P40 20 90 4 | P40 20 90 5 |
|           | 525 x 565   | P40 21 90 4 | P40 21 90 5 |
|           | 375 x 375   | P90 15 90 4 | P90 15 90 5 |
| 12 kW     | 430 x 1075  | P30 18 12 4 | P30 18 12 5 |
|           | 440 x 1070  | P30 19 12 4 | P30 19 12 5 |
|           | 510 x 885   | P30 23 12 4 | P30 23 12 5 |
|           | 585 x 785   | P30 27 12 4 | P30 27 12 5 |
|           | 385 x 915   | P40 14 12 4 | P40 14 12 5 |
|           | 405 x 860   | P40 15 12 4 | P40 15 12 5 |

| kW    | J x K      | 230V TRI    | 400V TRI    |
|-------|------------|-------------|-------------|
|       | 425 x 800  | P40 16 12 4 | P40 16 12 5 |
|       | 465 x 740  | P40 18 12 4 | P40 18 12 5 |
|       | 485 x 705  | P40 19 12 4 | P40 19 12 5 |
|       | 505 x 680  | P40 20 12 4 | P40 20 12 5 |
|       | 545 x 625  | P40 22 12 4 | P40 22 12 5 |
|       | 585 x 595  | P40 24 12 4 | P40 24 12 5 |
|       | 410 x 410  | P90 16 12 4 | P90 16 12 5 |
| 15 kW | 430 x 1245 | P30 18 13 4 | P30 18 13 5 |
|       | 445 x 1235 | P30 19 13 4 | P30 19 13 5 |
|       | 465 x 1140 | P30 20 13 4 | P30 20 13 5 |
|       | 485 x 1125 | P30 21 13 4 | P30 21 13 5 |
|       | 500 x 1045 | P30 22 13 4 | P30 22 13 5 |
|       | 520 x 1030 | P30 23 13 4 | P30 23 13 5 |
|       | 540 x 1035 | P30 24 13 4 | P30 24 13 5 |
|       | 555 x 950  | P30 25 13 4 | P30 25 13 5 |
|       | 575 x 940  | P30 26 13 4 | P30 26 13 5 |
|       | 595 x 925  | P30 27 13 4 | P30 27 13 5 |
|       | 375 x 1125 | P40 13 13 4 | P40 13 13 5 |
|       | 395 x 1055 | P40 14 13 4 | P40 14 13 5 |
|       | 415 x 1000 | P40 15 13 4 | P40 15 13 5 |
|       | 435 x 940  | P40 16 13 4 | P40 16 13 5 |
|       | 455 x 890  | P40 17 13 4 | P40 17 13 5 |
|       | 475 x 850  | P40 18 13 4 | P40 18 13 5 |
|       | 495 x 810  | P40 19 13 4 | P40 19 13 5 |
|       | 515 x 780  | P40 20 13 4 | P40 20 13 5 |
|       | 535 x 750  | P40 21 13 4 | P40 21 13 5 |
|       | 555 x 725  | P40 22 13 4 | P40 22 13 5 |
|       | 575 x 700  | P40 23 13 4 | P40 23 13 5 |
|       | 595 x 690  | P40 24 13 4 | P40 24 13 5 |
|       | 615 x 660  | P40 25 13 4 | P40 25 13 5 |
|       | 635 x 640  | P40 26 13 4 | P40 26 13 5 |
|       | 450 x 450  | P90 17 13 4 | P90 17 13 5 |

3 kW, 4.5 kW, 6 kW, 9 kW, 12 kW, 15 kW

Standard cable : FEP single layer. Other cable available, see previous page.

For the construction of the reference, see previous page.

All dimensions given with a tolerance of  $\pm 10$  mm.

## Accessories

[illegible]

**FLEXIBLE PROBE FOR HEATER**

**Assembly type**  
The flexible probe is used to measure the temperature of the heater. The probe is connected to the heater by a cable. The probe is inserted into the heater and the temperature is measured. The probe is then removed and the temperature is recorded.

**Platinum resistor**

insulated with a Teflon<sup>®</sup> sleeve. The hot junction tip is protected by a Teflon<sup>®</sup> shrink tube.





## Probes

