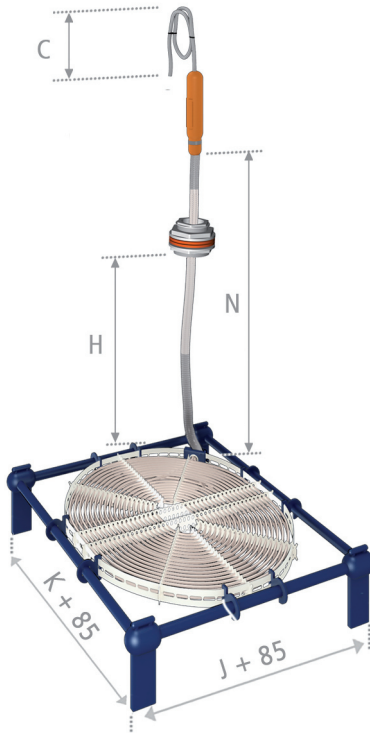


Flat heaters type F, for frost protection

Galvatherm®

Rigid structure ideal for important powers

With options Feet & Cable-gland these models are specifically adapted to keep liquid storage tanks from freezing, all sizes with or without double wall. Installation through the inspection trap (\varnothing 500 mm minimum).



Can be installed in a tank filled when support feet are ordered on each side of the heating part.

Can be passed through the inspection trap without interfering with the tank.

For a complete efficiency we recommend a cable-gland installed on the non heating part N - positioning hole \varnothing 75 mm to be planned on the dome - and a FEP Teflon® coated PT100 probe mounted on heater.

Length H corresponds to the installation height of the cable-gland on the N part.

To ensure a proper positioning and avoid any mechanical damage of the cable, please allow an extra 300 mm on the H length.

The cable is rolled up according dimensions & shapes proposed and held with PVDF, PP or FEP strips which ensure the right distance between the rolls. To secure completely the heating part it is then mounted on a rigid rod structure in PVDF or PP or on a stainless steel structure.

Electric safety : the Galvatherm heater complies with protection class 1 of EN 60519-1/2. The cable is screened throughout the entire length by a copper earthing strip. The earthing must be connected to the earth. In order to provide maximum safety, a fault-current (FI) protection device (30mA) should be used..

Options and Accessories

The Galvatherm heater is only planned to heat liquids.

Extra length of cables



Electrical connecting cable C
of type H05 VV-F (PVC) or H07 RN-F (Neopren)

Non heating cable N
to go out of the tank

Removable guard



Perforated plastic guard
PP ou PVDF

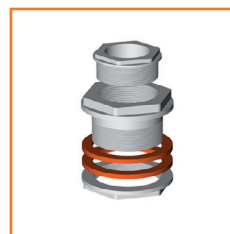
Ref in PP : PRPPP
Ref in PVDF : PRPPF

Feet for type F



Feet (standard 100 mm)
PP, PVDF or stainless steel for installation at the bottom
Ref in PP : PIPP4-100
Ref in PVDF : PIPF4-100
Ref in stainless steel : PIIN4-100
(additional ballast possible)

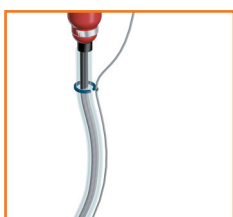
Cable-gland \varnothing 75 mm



Allow between 200 to 300 mm extra on the H length (H=installation height on N)

Ref in PP : PEPP
Ref in PVDF : PEPF

Probe mounted on heater



Teflon® coated PT100 probe
2,3 or 4 wires, installed at the factory. Closed tank : the probe goes through the same cable-gland as the one of the heater. Fixed by PP or Tefzel clamps
Ref : contact us



Flat heaters, reference numbers

Galvatherm®

The table below informs on the dimensions of the heating part and its references.
 The reference number begins by P30, P40 or P90. These codes indicate the thickness 's device.
 P30 = thickness 30 mm / P40 = 40 mm / P90 = 100 mm
 All dimensions are given with a tolerance of ± 10 mm.
 Standard cable coating : FEP single layer. For other coatings please contact us.

SINGLE-PHASE IMMERSION HEATERS

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

List of other single-phase voltages available

- 110V single-phase : 0.5 kW, 1 kW, 1.5 kW, 2 kW
- 460V single-phase : 1 kW, 1.5 kW, 2 kW, 3 kW, 4 kW, 6 kW



THREE-PHASES IMMERSION HEATERS

| KW | J x K | 230V 3-ph | 400V 3-ph | KW | J x K | 230V 3-ph | 400V 3-ph | |
|------------------|------------------|--------------------|--------------------|--|------------------|--------------------|--------------------|--------------------|
| 1.5 kW | 170 x 680 | P30 04 15 4 | P30 04 15 5 | 9 kW | 400 x 975 | * | P30 17 90 4 | P30 17 90 5 |
| | 205 x 475 | P30 06 15 4 | P30 06 15 5 | | 435 x 870 | | P30 19 90 4 | P30 19 90 5 |
| | 225 x 440 | P30 07 15 4 | P30 07 15 5 | | 475 x 800 | | P30 21 90 4 | P30 21 90 5 |
| | 240 x 360 | P30 08 15 4 | P30 08 15 5 | | 490 x 790 | | P30 22 90 4 | P30 22 90 5 |
| | 280 x 340 | P30 10 15 4 | P30 10 15 5 | | 525 x 720 | | P30 24 90 4 | P30 24 90 5 |
| | 185 x 380 | P40 04 15 4 | P40 04 15 5 | | 545 x 705 | | P30 25 90 4 | P30 25 90 5 |
| | 205 x 375 | P40 05 15 4 | P40 05 15 5 | | 565 x 695 | | P30 26 90 4 | P30 26 90 5 |
| | 225 x 325 | P40 06 15 4 | P40 06 15 5 | | 600 x 675 | P30 28 90 4 | P30 28 90 5 | |
| | 245 x 275 | P40 07 15 4 | P40 07 15 5 | | 345 x 890 | P40 12 90 4 | P40 12 90 5 | |
| | 270 x 270 | P40 08 15 4 | P40 08 15 5 | | 385 x 775 | P40 14 90 4 | P40 14 90 5 | |
| | 195 x 195 | P90 05 15 4 | P90 05 15 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 | |
| 3 kW | 205 x 905 | P30 06 30 4 | P30 06 30 5 | 12 kW | 430 x 1075 | * | P30 18 12 4 | P30 18 12 5 |
| | 225 x 910 | P30 07 30 4 | P30 07 30 5 | | 440 x 1070 | * | P30 19 12 4 | P30 19 12 5 |
| | 240 x 700 | P30 08 30 4 | P30 08 30 5 | | 510 x 885 | | P30 23 12 4 | P30 23 12 5 |
| | 260 x 705 | P30 09 30 4 | P30 09 30 5 | | 585 x 785 | P30 27 12 4 | P30 27 12 5 | |
| | 275 x 580 | P30 10 30 4 | P30 10 30 5 | | 385 x 915 | P40 14 12 4 | P40 14 12 5 | |
| | 295 x 575 | P30 11 30 4 | P30 11 30 5 | | 405 x 860 | P40 15 12 4 | P40 15 12 5 | |
| | 315 x 490 | P30 12 30 4 | P30 12 30 5 | | 425 x 800 | P40 16 12 4 | P40 16 12 5 | |
| | 330 x 465 | P30 13 30 4 | P30 13 30 5 | | 465 x 740 | P40 18 12 4 | P40 18 12 5 | |
| | 350 x 450 | P30 14 30 4 | P30 14 30 5 | | 485 x 705 | P40 19 12 4 | P40 19 12 5 | |
| | 370 x 410 | P30 15 30 4 | P30 15 30 5 | | 505 x 680 | P40 20 12 4 | P40 20 12 5 | |
| | 380 x 395 | P30 16 30 4 | P30 16 30 5 | | 545 x 625 | P40 22 12 4 | P40 22 12 5 | |
| | 205 x 735 | P40 05 30 4 | P40 05 30 5 | | 585 x 595 | P40 24 12 4 | P40 24 12 5 | |
| | 230 x 615 | P40 06 30 4 | P40 06 30 5 | | 410 x 410 | P90 16 12 4 | P90 16 12 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 | 15 kW | 430 x 1245 | * |
| 275 x 750 | | P30 10 45 4 | P30 10 45 5 | 445 x 1235 | * | | P30 19 13 5 | P30 19 13 5 |
| 295 x 730 | | P30 11 45 4 | P30 11 45 5 | 465 x 1140 | * | | P30 20 13 5 | P30 20 13 5 |
| 315 x 625 | | P30 12 45 4 | P30 12 45 5 | 485 x 1125 | * | | P30 21 13 5 | P30 21 13 5 |
| 350 x 535 | | P30 14 45 4 | P30 14 45 5 | 500 x 1045 | * | | P30 22 13 5 | P30 22 13 5 |
| 370 x 520 | | P30 15 45 4 | P30 15 45 5 | 520 x 1030 | * | | P30 23 13 5 | P30 23 13 5 |
| 385 x 505 | | P30 16 45 4 | P30 16 45 5 | 540 x 1035 | * | | P30 24 13 5 | P30 24 13 5 |
| 405 x 460 | | P30 17 45 4 | P30 17 45 5 | 555 x 950 | * | | P30 25 13 5 | P30 25 13 5 |
| 420 x 440 | | P30 18 45 4 | P30 18 45 5 | 575 x 940 | * | | P30 26 13 5 | P30 26 13 5 |
| 265 x 595 | | P40 08 45 4 | P40 08 45 5 | 595 x 925 | * | | P30 27 13 5 | P30 27 13 5 |
| 285 x 535 | | P40 09 45 4 | P40 09 45 5 | 375 x 1125 | * | | P40 13 13 5 | P40 13 13 5 |
| 305 x 480 | | P40 10 45 4 | P40 10 45 5 | 395 x 1055 | * | | P40 14 13 5 | P40 14 13 5 |
| 325 x 445 | | P40 11 45 4 | P40 11 45 5 | 415 x 1000 | * | | P40 15 13 5 | P40 15 13 5 |
| 345 x 425 | | P40 12 45 4 | P40 12 45 5 | 435 x 940 | | | P40 16 13 5 | P40 16 13 5 |
| 365 x 395 | | P40 13 45 4 | P40 13 45 5 | 455 x 890 | | | P40 17 13 5 | P40 17 13 5 |
| 380 x 380 | | P40 14 45 4 | P40 14 45 5 | 475 x 850 | | | P40 18 13 5 | P40 18 13 5 |
| 265 x 265 | | P90 09 45 4 | P90 09 45 5 | 495 x 810 | | | P40 19 13 5 | P40 19 13 5 |
| | | | | 515 x 780 | | | P40 20 13 5 | P40 20 13 5 |
| | | | | 535 x 750 | | | P40 21 13 5 | P40 21 13 5 |
| | | | | 555 x 725 | | | P40 22 13 5 | P40 22 13 5 |
| | | | 575 x 700 | | P40 23 13 5 | P40 23 13 5 | | |
| | | | 595 x 690 | | P40 24 13 5 | P40 24 13 5 | | |
| | | | 615 x 660 | | P40 25 13 5 | P40 25 13 5 | | |
| | | | 635 x 640 | | P40 26 13 5 | P40 26 13 5 | | |
| | | | 450 x 450 | | P90 17 13 5 | P90 17 13 5 | | |
| 6 kW | 275 x 990 | P30 10 60 4 | P30 10 60 5 | <div style="border: 2px solid orange; border-radius: 15px; padding: 10px;"> <p>For the construction of the reference, see following page.</p> <p>Attention P90 type F : Add 25 mm on J and K to the dimensions written</p> <p>* If feet option : 6 feet required instead of 4</p> <p>Other voltage available : 460V three-phases : 3 kW, 4.5 kW, 6 kW, 9 kW, 12 kW, 15 kW</p> </div> | | | | |
| | 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 | | | | | |

Construction of the reference number

| P30 | 03 | 05 | 2 | J | F | 0 | 0 | F | 1 |
|----------------|------------|-------------|-------------------|----------------|------------|---------------|---------------|---------------|----------------|
| thickness code | J x K code | power code | voltage code | exit code | cable code | N length code | C length code | assembly code | materials code |
| P30 | 03 | 05 = 0.5 kW | 1 = 110V M | J = petit côté | F | 0 = 1m | 0 = 1m | F | 1 |
| P40 | 04 | 10 = 1 kW | 2 = 230V M | K = grand côté | G | 1 = 1,5m | 1 = 1,5m | | 2 |
| P90 | ... | 15 = 1.5 kW | 3 = 460V M | | P | 2 = 2 m | 2 = 2 m | | 6 |
| | | 20 = 2 kW | 4 = 230V T | | D | 3 = 2,5m | 3 = 2,5m | | 7 |
| | | 30 = 3 kW | 5 = 400V T | | | 4 = 3m | 4 = 3m | | 8 |
| | | 40 = 4 kW | 6 = 460V T | | | 5 = 3,5m | 5 = 3,5m | | |
| | | 45 = 4.5 kW | | | | 6 = 4m | 6 = 4m | | |
| | | 60 = 6 kW | | | | 7 = 4,5m | 7 = 4,5m | | |
| | | 90 = 9 kW | | | | 8 = 5m | 8 = 5m | | |
| | | 12 = 12 kW | | | | 9 = sup.5m | 9 = sup.5m | | |
| | | 13 = 15 kW | | | | | | | |

Cable code details

F = FEP single layer 1 W/cm²
G = FEP double layer 1 W/cm²
P = PFA single layer 1 W/cm²
D = PFA double layer 1 W/cm²

Assembly code details

F = with a rod frame
H = for rod frame

Support materials code

| code | frame | strips | other pieces |
|-----------|-------------|-------------|--------------|
| 1 | PVDF | PVDF | PVDF |
| 2 | PP | PP | PP |
| 6 | PVDF | FEP | PVDF |
| 7 | PP | FEP | PP |
| 8* | inox | FEP | PP |

* Please contact us

