

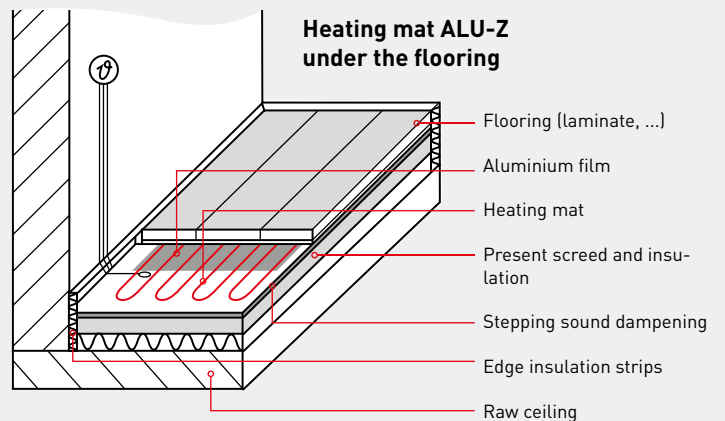
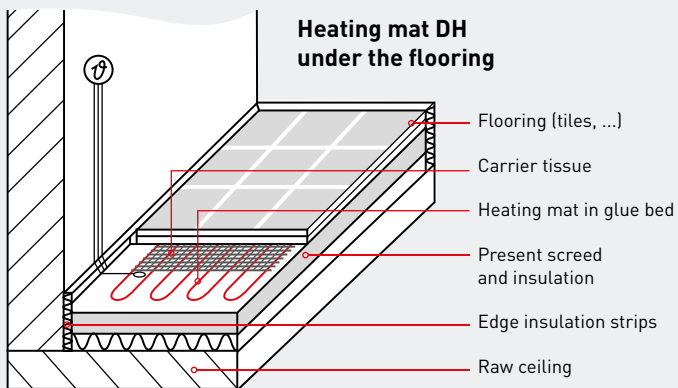
# HEM-SYSTEM® REDUCED-THICKNESS DIRECT HEATING MATS



Reduced-thickness heating mats in adhesive for tiles and natural stone

Reduced-thickness heating mats – Dry installation system for laminate and ready-to-lay wooden parquet

Stepping sound dampening



# MODERN UNDERFLOOR HEATING SYSTEMS WITH LOW INSTALLATION HEIGHT

Ideal for different building conditions

Modern underfloor heating systems from Hemstedt® generate heat source over a large-area to ensure a comfortable room temperature.

## Reduced-thickness heating for tiles

Reduced-thickness heating mats and heating cables – specially designed for installation in bathrooms, showers, children's rooms, living rooms and bedrooms.

The reduced-thickness heating mats and heating cables are laid directly in the levelling compound. By cutting the heating mats they can be adapted easily to different building conditions. The maximum output of an underfloor direct heating system must not exceed 150 W/m<sup>2</sup>.

## Dry installation system for laminate and ready to lay parquet floor

The brand new HEM dry installation system sets new standards in warmth, installation height and mounting. With its unique heating mat concept using aluminium-coated textile fibre glass, Hemstedt® ensures even heat distribution and super fast heating within a few minutes. The heating cables are extremely thin at only 2.5 mm, fit easily in the sound insulation and fully secured against slipping. The specialist's view: Ideal for renovation, new builds and also subsequent removal. The HEM dry installation must only be laid in dry rooms. By cutting the heating mats they can be adapted easily to different building conditions. All components must be temperature resistant up to 80 °C. A sound/heat insulation with fire class B2 is required.



The sleeveless splice is absolutely waterproof, and therefore ideal for installations requiring moisture proofing.

**Hemstedt**  
**HEM-SYSTEM®**  
**sleeveless**

- Warmth made to measure
- Direct from the manufacturer
- Self-adhesive
- 100 % waterproof
- Insulating covering completely chemical and temperature resistant



DHSU  
reduced-  
thickness  
heating mat



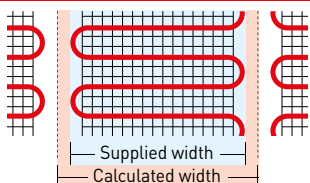
Class: M1

N 609

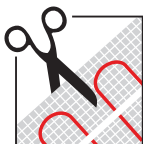
Sleeveless  
splice

93089

### Calculated width



### Flexible installation



By cutting the heating mats they can be adapted easily to different building conditions.

Simply cut and adjust.

## DHSU REDUCED-THICKNESS HEATING MAT SET

Sleeveless with timer thermostat,  
flush installation, for installation



HEM SYSTEM® heating mats with single-end connection cable for mounting in tile adhesive / or levelling compound. Ideal for renovations, new buildings as well as for baths, showers, living rooms, offices etc.

The reduced-thickness heating mat set contains the following products:

- 1 HEM direct heating mat with single-end connection cable 150 W/m<sup>2</sup> and 4.00 m connection cable
- 1 temperature regulator with self-teaching timer thermostat and sensor, flush
- 1 end seal sensor for sensor tube
- 1 sensor tube for room thermostat
- 1 switch socket
- 1 installation instructions

### Technical data

Nominal voltage	230 Volt
Output	150 W/m <sup>2</sup>
Cold connection cable	1 x 4.00 m
Minimum installation temperature	5 °C
Smallest bending radius	6 x dA
Resistance tolerance	-5 % / +10 %
Approvals	VDE
Cold / warm splice	sleeveless, without shrinkable sleeve
Insulation	Fluoroplastic
Supplied width	0.46 m
Calculated width	0.50 m

### 150 W/m<sup>2</sup> 230 V

#### DHSU reduced-thickness heating mats with single-end connection cable

Heating output W	Surface area m <sup>2</sup>	Calculated width m	Length m	Order no.
150	1.00	0.50	2.00	30751-150 U-SET
225	1.50	0.50	3.00	30751-225 U-SET
300	2.00	0.50	4.00	30751-300 U-SET
375	2.50	0.50	5.00	30751-375 U-SET
450	3.00	0.50	6.00	30751-450 U-SET
525	3.50	0.50	7.00	30751-525 U-SET
600	4.00	0.50	8.00	30751-600 U-SET
675	4.50	0.50	9.00	30751-675 U-SET
750	5.00	0.50	10.00	30751-750 U-SET
900	6.00	0.50	12.00	30751-900 U-SET
1050	7.00	0.50	14.00	30751-1050 U-SET
1200	8.00	0.50	16.00	30751-1200 U-SET
1350	9.00	0.50	18.00	30751-1350 U-SET
1500	10.00	0.50	20.00	30751-1500 U-SET
1800	12.00	0.50	24.00	30751-1800 U-SET
2250	15.00	0.50	30.00	30751-2250 U-SET

Cold connection cable 1.00 m<sup>2</sup> - 4.00 m<sup>2</sup> → 0.50 mm<sup>2</sup> | 4.50 m<sup>2</sup> - 9.00 m<sup>2</sup> → 0.75 mm<sup>2</sup> | 10.00 m<sup>2</sup> → 1.00 mm<sup>2</sup>  
Heat insulation is required in flooring in all cases.

### Accessories

Article designation	Order no.
Cold connection cable for extension 3 x 1.00 mm <sup>2</sup> , 1.00 m, black	81302-1.00 BL/SW
Mounting sleeve (1, factory fitted), for extension	26121
Aluminium end seal sensor (OD 15.20 mm / ID 12.50 mm)	20079
Plastic switch socket for room thermostat	20702
Sensor tube for room thermostat, length: 2.50 m	20703
Spare temperature sensor timer thermostat	93089 sensor
Repair sleeves on request	

A residual current device (FI < 30 mA) must be provided as a protection measure.  
Extended cold connection cables cannot be returned.

# DHSPA REDUCED-THICKNESS HEATING MAT SET

**Sleeveless** with point scale regulator, flush for installation in tile glue



HEM SYSTEM® heating mats with single-end connection cable for mounting in tile adhesive / or levelling compound. Ideal for renovations, new buildings as well as for baths, showers, living rooms, offices etc.

The reduced-thickness heating mat set contains the following products:

- 1 HEM direct heating mat with single-end connection cable 150 W/m<sup>2</sup> and 4.00 m cold connection cable
- 1 analog regulator, flush and sensor
- 1 end seal sensor for sensor tube
- 1 sensor tube for room thermostat
- 1 switch socket
- 1 installation instructions

Technical data	
Nominal voltage	230 Volt
Output	150 W/m <sup>2</sup>
Cold connection cable	1 x 4.00 m
Minimum installation temperature	5 °C
Smallest bending radius	6 x dA
Resistance tolerance	-5 % / +10 %
Approvals	VDE
Cold / warm splice	sleeveless, without shrinkable sleeve
Insulation	Fluoroplastic
Supplied width	0.46 m
Calculated width	0.50 m

## 150 W/m<sup>2</sup> 230 V

DHSPA reduced-thickness heating mats with single-end connection cable				
Heating output W	Surface area m <sup>2</sup>	Calculated width m	Length m	Order no.
150	1.00	0.50	2.00	30751-150 PA-SET
225	1.50	0.50	3.00	30751-225 PA-SET
300	2.00	0.50	4.00	30751-300 PA-SET
375	2.50	0.50	5.00	30751-375 PA-SET
450	3.00	0.50	6.00	30751-450 PA-SET
525	3.50	0.50	7.00	30751-525 PA-SET
600	4.00	0.50	8.00	30751-600 PA-SET
675	4.50	0.50	9.00	30751-675 PA-SET
750	5.00	0.50	10.00	30751-750 PA-SET
900	6.00	0.50	12.00	30751-900 PA-SET

Cold connection cable 1.00 m<sup>2</sup> - 4.00 m<sup>2</sup> → 0.50 mm<sup>2</sup> | 4.50 m<sup>2</sup> - 6.00 m<sup>2</sup> → 0.75 mm<sup>2</sup>  
Heat insulation is required in flooring in all cases.

## Accessories

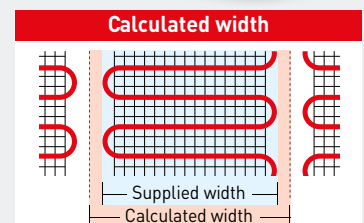
Article designation	Order no.
Cold connection cable for extension 3 x 1.00 mm <sup>2</sup> , 1.00 m, black	81302-1.00 BL/SW
Mounting sleeve (1, factory fitted), for extension	26121
Aluminium end seal sensor (OD 15.20 mm / ID 12.50 mm)	20079
Plastic switch socket for room thermostat	20702
Sensor tube for room thermostat, length: 2.50 m	20703
Spare temperature sensor timer thermostat	93088 sensor
Repair sleeves on request	

A residual current device (FI < 30 mA) must be provided as a protection measure.  
Extended cold connection cables cannot be returned.

# HEM-SYSTEM®

**EN/IEC 60335-2-96**

DHSPA reduced-thickness heating mat



**Flexible installation**

By cutting the heating mats they can be adapted easily to different building conditions.

**Simply cut and adjust.**

DH reduced-thickness heating mat



**HEM SYSTEM® Heating mats and reduced-thickness heating cables with single-end connection cable for installation in tile adhesive / or levelling compound. Ideal for renovations, new buildings as well as for baths, showers, living rooms, offices etc.**

### Technical data

Nominal voltage	230 Volt
Output	150 W/m <sup>2</sup>
Cold connection cable	1 x 4.00 m
Minimum installation temperature	5 °C
Smallest bending radius	6 x dA
Resistance tolerance	-5 % / +10 %
Approval	VDE (1-10 m <sup>2</sup> )
Cold / warm splice	sleeveless, without shrinkable sleeve
Insulation	Fluoroplastic
Supplied width	0.46 m
Calculated width	0.50 m

Class: M1

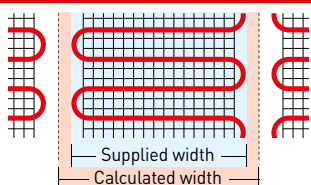
N 009

Sleeveless splice

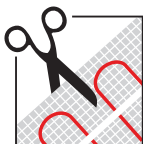
DR reduced-thickness heating cables

Distance bars for reduced-thickness heating cables

### Calculated width



### Flexible installation



By cutting the heating mats they can be adapted easily to different building conditions.

**Simply cut and adjust.**

### 150 W/m<sup>2</sup> 230 V

Heat output W	DH heating mats with single-end connection cable				DR heating cables	
	Surface area m <sup>2</sup>	Calculated width m	Mat length m	Order no.	Element length m	Order no.
150	1.00	0.50	2.00	30751-150	12.07	37702-12.07
225	1.50	0.50	3.00	30751-225	17.66	37702-17.66
300	2.00	0.50	4.00	30751-300	23.77	37702-23.77
375	2.50	0.50	5.00	30751-375	29.87	37702-29.87
450	3.00	0.50	6.00	30751-450	35.97	37702-35.97
525	3.50	0.50	7.00	30751-525	41.56	37702-41.56
600	4.00	0.50	8.00	30751-600	47.67	37702-47.67
675	4.50	0.50	9.00	30751-675	53.77	37702-53.77
750	5.00	0.50	10.00	30751-750	59.87	37702-59.87
900	6.00	0.50	12.00	30751-900	71.57	37702-71.57
1050	7.00	0.50	14.00	30751-1050	83.77	37702-83.77
1200	8.00	0.50	16.00	30751-1200	95.47	37702-95.47
1350	9.00	0.50	18.00	30751-1350	107.67	37702-107.67
1500	10.00	0.50	20.00	30751-1500	119.37	37702-119.37
1800	12.00	0.50	24.00	30751-1800	143.27	37702-143.27
2250	15.00	0.50	30.00	30751-2250	179.37	37702-179.37

### Accessories

Article designation	Order no.
Cold connection cable for extension 3 x 1.00 mm <sup>2</sup> , 1.00 m, black	81302-1.00 BL/SW
Mounting sleeve (1 piece, factory fitted), for extension	26121
Copper end seal sensor (OD 15.20 mm / ID 12.50 mm)	20079
Plastic switch socket for room thermostat	20702
Sensor tube for room thermostat, length: 2.50 m	20703
Analog point scale regulator with sensor, flush	93088
Intelligent temperature monitoring timer thermostat with self-teach function and sensor, flush	93089
Distance bars	20063
Spare temperature sensor for analogue controller	93088 sensor
Spare temperature sensor for clock thermostat	93089 sensor
Repair sleeves on request	

A residual current device (FI < 30 mA) must be provided as a protection measure. Extended cold connection cables cannot be returned.

# DH-Z REDUCED-THICKNESS HEATING MATS DR-Z REDUCED-THICKNESS HEATING CABLES

Sleeveless heating mats, self-adhesive



HEM SYSTEM® heating mats and reduced-thickness heating cables with double-end connection cable for installation in tile adhesive / or levelling compound. Ideal for renovations, new buildings as well as for baths showers, living rooms, offices etc.

## Technical data

Nominal voltage .....	230 Volt
Output .....	150 W/m <sup>2</sup>
Cold connection cable .....	1 x 6.00 / 1 x 2.50 m
Minimum installation temperature .....	5 °C
Smallest bending radius .....	6 x dA
Resistance tolerance .....	-5 % / +10 %
Standard .....	60335-2-96
Cold / warm splice .....	sleeveless, without shrinkable sleeve
Insulation .....	Fluoroplastic
Supplied width .....	0.46 m
Calculated width .....	0.50 m

## 150 W/m<sup>2</sup> 230 V

Heat output W	DH-Z heating mats with double-end connection cable				DR-Z heating cables	
	Surface area m <sup>2</sup>	Calculated width m	Calculated width m	Order no.	Element length m	Order no.
150	1.00	0.50	2.00	30800-150	12.07	37709-12.07
225	1.50	0.50	3.00	30800-225	17.66	37709-17.66
300	2.00	0.50	4.00	30800-300	23.77	37709-23.77
375	2.50	0.50	5.00	30800-375	29.87	37709-29.87
450	3.00	0.50	6.00	30800-450	35.97	37709-35.97
525	3.50	0.50	7.00	30800-525	41.56	37709-41.56
600	4.00	0.50	8.00	30800-600	47.67	37709-47.67
675	4.50	0.50	9.00	30800-675	53.77	37709-53.77
750	5.00	0.50	10.00	30800-750	59.87	37709-59.87
900	6.00	0.50	12.00	30800-900	71.57	37709-71.57
1050	7.00	0.50	14.00	30800-1050	83.77	37709-83.77
1200	8.00	0.50	16.00	30800-1200	95.47	37709-95.47
1350	9.00	0.50	18.00	30800-1350	107.67	37709-107.67
1500	10.00	0.50	20.00	30800-1500	119.37	37709-119.37

Heat insulation is required in flooring in all cases.

## Accessories

Article designation	Order no.
Cold connection cable for extension 1.00 mm <sup>2</sup> , 2 x 1.00 m, black	81101-1.00 SW
Mounting sleeve (2, factory fitted), for extension	26123
Copper end seal sensor (OD 15.20 mm / ID 12.50 mm)	20079
Plastic switch socket for room thermostat	20702
Sensor tube for room thermostat, length: 2.50 m	20703
Analog point scale regulator with sensor, flush	93088
Intelligent temperature monitoring timer thermostat with self-teach function and sensor, flush	93089
Distance bars	20063
Spare temperature sensor for analogue controller	93088 sensor
Spare temperature sensor for clock thermostat	93089 sensor
Repair sleeves on request	

A residual current device (FI < 30 mA) must be provided as a protection measure. Extended cold connection cables cannot be returned.

Further information in our installation instructions.

Subject to alterations.

www.hemstedt.de

# HEM-SYSTEM®

**NEW!**  
super-thin, without  
shrink technology!



DH-Z reduced-thickness heating mat

Sleeveless splice

Class: M1

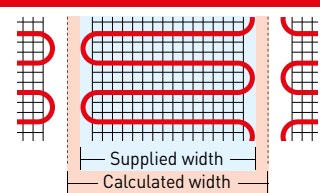


DR-Z reduced-thickness heating cables

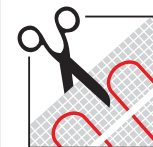
Sleeveless splice

Distance bars for reduced-thickness heating cables

### Calculated width



### Flexible installation



By cutting the heating mats they can be adapted easily to different building conditions.

**Simply cut and adjust.**

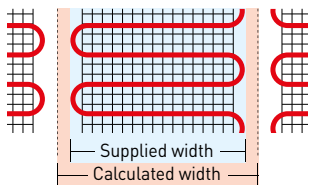
ALU-Z reduced-thickness heating mat



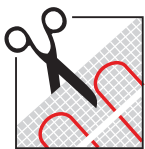
Sleeveless splice



#### Calculated width



#### Flexible installation



By cutting the heating mats they can be adapted easily to different building conditions.

Simply cut and adjust.

Further information in our installation instructions.

93088



93089



## ALU-Z DRY INSTALLATION

Sleeveless, specially developed for laying under laminate and engineered parquet flooring.



Heating mat with **double-end connection cable**. The aluminium-coated textile glass fabric ensures even heat distribution underneath the flooring. The small installation height of only approx. 5 mm + floor makes this product ideal for renovations and for new buildings. **Must only be installed in dry rooms.**

The **regulation system** uses thermostats that are specially adapted to this product.

The HEM dry installation system is manufactured in accordance with VDE 60335-2-96.

**Installation** (brief description):

A vapour barrier must be installed and fitted if necessary. The room must be fitted with a temperature resistant sound and heat insulation (80 °C, B2). The heated area must be fitted with our HEM dry installation system. Fit floor covering.

#### Technical data

Nominal voltage	230 Volt
Output	100 W/m <sup>2</sup>
Cold connection cable	1 x 2.50 m / 1 x 6.00 m
Minimum installation temperature	5 °C
Smallest bending radius	6 x dA
Resistance tolerance	-5 % / +10 %
Standard	60335-2-96
Cold / warm splice	sleeveless, without shrinkable sleeve
Heating cable diameter	approx. 2.80 mm
Insulation	Fluoroplastic
Supplied width	0.45 m
Calculated width	0.50 m

#### Example for price calculation:

- The room must be completely fitted with sound and heat insulation (Order no.: 20106)
- Calculate the surface area to be heated = Size of heating mat (Order no.: 30600...)
- Remaining surface area (unheated area) = compensation textile (Order no.: 20107)
- Selection and determination of temperature regulator (Order no.: 93088 or 93089)

#### 100 W/m<sup>2</sup> 230 V

Dry installation system				
Heating output W	Surface area m <sup>2</sup>	Calculated width m	Length m	Order no.
100	1.00	0.50	2.00	30600-100
200	2.00	0.50	4.00	30600-200
300	3.00	0.50	6.00	30600-300
400	4.00	0.50	8.00	30600-400
500	5.00	0.50	10.00	30600-500
600	6.00	0.50	12.00	30600-600
700	7.00	0.50	14.00	30600-700
800	8.00	0.50	16.00	30600-800

#### Sound / heat insulation

Article designation	Width m	Length m	Surface area m <sup>2</sup>	Order no.
Fire class B2, thickness 5 mm	1.00	10.00	10.00	20106
Compensation textile	0.50	10.00	5.00	20107

#### Accessories

Article designation	Order no.
Cold connection cable for extension 1.00 mm <sup>2</sup> , 2 x 1.00 m	81101-1.00 SW
Mounting sleeve (2, factory fitted), for extension	26123
Aluminium sensor sleeve (AD 15.20 mm / ID 12.50 mm)	20079
Plastic switch socket for room thermostat	20702
Sensor tube for room thermostat, length: 2.50 m	20703
Analog point scale regulator with sensor, up to 35 °C, flush	93088
Digital floor regulator, digital with sensor, up to 35 °C, flush	93089

A residual current device (FI < 30 mA) must be provided as a protection measure. Extended cold connection cables cannot be returned.

# CEILING HEATING ACCORDING TO EN/IEC 60335-2-96

Sleeveless, specifically developed for placement at the ceiling



Heating mat with single-end connection cable. The aluminium coating, applied on a textile glass fabric, permits homogeneous heat distribution in the ceiling.

Technical data	
Nominal voltage .....	230 Volt
Output .....	125-150 W/m <sup>2</sup>
Cold connection cable .....	1 x 4,00
Minimum installation temperature .....	5 °C
Smallest bending radius .....	6 x dA
Resistance tolerance .....	-5 % / +10 %
Heating cable diameter .....	approx. 4.0 mm
Heating conductor distance .....	8.50 cm
Heating mat delivery width .....	0.50 m

## 125-150 W/m<sup>2</sup> 230 V

Ceiling heating				
Heating output W	Surface area m <sup>2</sup>	Calculated width m	Length m	Order no.
45*	0.3	0.60	0.5	30809-45
150	1.2	0.60	2.00	30809-150
225	1.8	0.60	3.00	30809-225
300	2.4	0.60	4.00	30809-300
375	3.00	0.60	5.00	30809-375
450	3.60	0.60	6.00	30809-450
525	4.20	0.60	7.00	30809-525

\* Output 150 W/m<sup>2</sup>

## Accessories

Article designation	Order no.
Cold connection cable for extension 1.00 mm <sup>2</sup> , 2 x 1.00 m	81101-1.00 SW
Mounting sleeve (2, factory fitted), for extension	26123
Aluminium sensor sleeve (AD 15.20 mm / ID 12.50 mm)	20079
Plastic switch socket for room thermostat	20702
Sensor tube for room thermostat, length: 2.50 m	20703
Analog point scale regulator with sensor, up to 35 °C, flush	93088
Intelligent temperature monitoring timer thermostat with self-teach function and sensor, flush	93089

# HEM-SYSTEM®

Ceiling heating according to EN/IEC 60335-2-96





Reduced-thickness heating mat DHM MINI



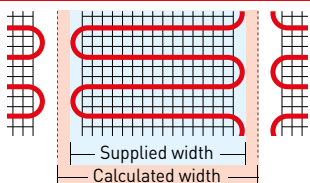
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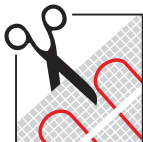
Sleeveless splice

Reduced-thickness heating cables DRM MINI

### Calculated width



### Flexible installation



By cutting the heating mats they can be adapted easily to different building conditions.

Simply cut and adjust.

# DHM MINI REDUCED-THICKNESS HEATING MATS DRM MINI-HEATING CABLES

Sleeveless, heating mats self-adhesive



HEM-SYSTEM® MINI heating mats with single-end connection cable and MINI reduced-thickness cables for installation in tile glue/or compensation mass; Outstanding for old building renovation and for bathrooms, showers and similar. Also as installation set for self-assembly. Also for boats, yachts, etc.

### Technical data

Rated voltage	230 Volt
Power	150 W/m <sup>2</sup>
Low-voltage connection line	1 x 3.00 m (0.50 mm <sup>2</sup> )
Minimum placement temperature	5 °C
Smallest bending radius	6 x dA
Resistance tolerance	-5 % / +10 %
Cold/hot transfer	sleeveless

### 150 W/m<sup>2</sup> 230 V

Heating output W	DHM Mini reduced-thickness heating mats with unilateral connection				DRM Mini heating cables with unilateral connection	
	Surface area m <sup>2</sup>	Calculated width m	Length m	Order no.	Length m	Order no.
45.00	0.30	0.30	1.00	30900-45	4.57	37701-4.57
67.50	0.45	0.30	1.50	30900-67.5	6.76	37701-6.76
90.00	0.60	0.30	2.00	30900-90	8.96	37701-8.96
112.50	0.75	0.30	2.50	30900-112.5	11.42	37701-11.42

### Accessories

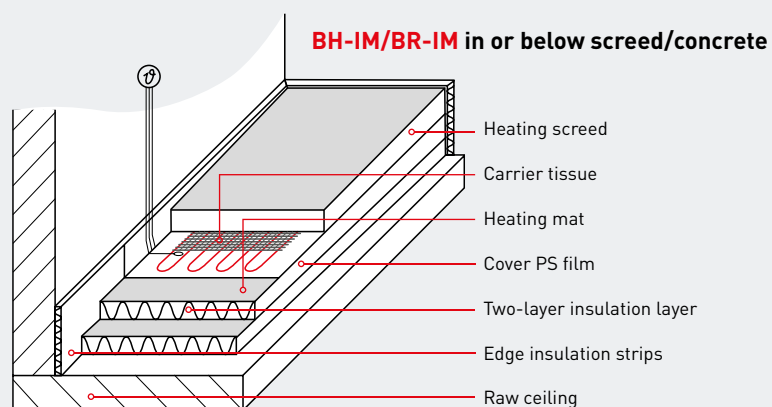
Article designation	Order no.
Cold connection cable for extension 0.75 mm <sup>2</sup> , black / 1.00 m	81302-1.00 BL/SW
Mounting sleeve (1, factory fitted), for extension	26121
Aluminium sensor sleeve (AD 15.20 mm / ID 12.50 mm)	20079
Plastic switch socket for room thermostat	20702
Sensor tube for room thermostat, length: 2.50 m	20703
Point scale controller, analogue, UP	93088
Smart temperature monitoring Clock thermostat with self-learning function, digital	93089
Spare temperature sensor for analogue controller	93088 sensor
Repair sleeves on request	

A residual current device (FI < 30 mA) must be provided as a protection measure. Extended cold connection cables cannot be returned.

### Dry installation system

Heating output W	Surface area m <sup>2</sup>	Calculated width m	Length m	Order no.
100	1.00	0.50	2.00	30600-100
200	2.00	0.50	4.00	30600-200
300	3.00	0.50	6.00	30600-300
400	4.00	0.50	8.00	30600-400
500	5.00	0.50	10.00	30600-500
600	6.00	0.50	12.00	30600-600
700	7.00	0.50	14.00	30600-700
800	8.00	0.50	16.00	30600-800

# HEM-SYSTEM® CONCRETE HEATING MATS AND CONCRETE HEATING CABLES





Concrete heating mat BH-IM

Sleeveless splice



## BH-IM CONCRETE HEATING MATS

Sleeveless, for installation in / under heating screed  
Not in Bitumen.



HEM SYSTEM® Heating mats with single-end connection cable and sleeveless splice.  
For underfloor storage / direct heating install only in dry, humid and wet rooms as well as in flush installations and in screed.

### Technical data

Nominal voltage	230 Volt
Output	100 / 120 / 140 / 160 / 180 / 240 W/m <sup>2</sup>
Cold connection cable	1 x 4.00 (1.00 mm <sup>2</sup> )
Minimum installation temperature	5 °C
Max. temperature outer sheath	65 °C
Smallest bending radius	5 x dA
Resistance tolerance	-5 % / +10 %
Cold / warm splice	sleeveless, without shrinkable sleeve
Diameter	approx. 7.50 mm
Insulation	XLPE / PTFE*
Supplied width	0.80 m
Calculated width	0.90 m

### 100 W/m<sup>2</sup> 230 V

#### BH-IM concrete heating mats

Heating output W	Surface area m <sup>2</sup>	Calculated width m	Length m	Order no.
220	2.20	0.90	2.44	31801-220*
300	3.00	0.90	3.33	31801-300*
500	5.00	0.90	5.55	31801-500
700	6.66	0.90	7.40	31801-700
1000	9.52	0.90	10.58	31801-1000

### 120 W/m<sup>2</sup> 230 V

#### BH-IM concrete heating mats

Heating output W	Surface area m <sup>2</sup>	Calculated width m	Length m	Order no.
300	2.49	0.90	2.77	31802-300*
400	3.33	0.90	3.70	31802-400
700	5.47	0.90	6.08	31802-700
1250	9.77	0.90	10.85	31802-1250
2100	16.38	0.90	18.20	31802-2100

### 140 W/m<sup>2</sup> 230 V

#### BH-IM concrete heating mats

Heating output W	Surface area m <sup>2</sup>	Calculated width m	Length m	Order no.
300	2.14	0.90	2.38	31804-300*
400	2.85	0.90	3.17	31804-400
700	4.70	0.90	5.22	31804-700
1500	10.08	0.90	11.20	31804-1500
2300	15.48	0.90	17.20	31804-2300

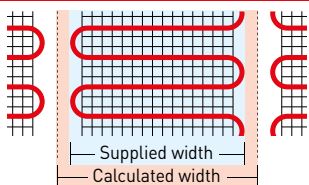
### 160 W/m<sup>2</sup> 230 V

#### BH-IM concrete heating mats

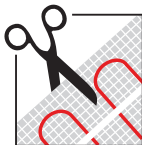
Heating output W	Surface area m <sup>2</sup>	Calculated width m	Length m	Order no.
300	1.94	0.90	2.15	31806-300*
500	3.12	0.90	3.47	31806-500
850	5.22	0.90	5.80	31806-850
1500	9.18	0.90	10.20	31806-1500
2300	14.13	0.90	15.70	31806-2300

\* Insulation PTFE

#### Calculated width



#### Flexible installation



By cutting the heating mats they can be adapted easily to different building conditions.

Simply cut and adjust.

# BH-IM CONCRETE HEATING MATS

Sleeveless, for installation in / under heating screed – not in Bitumen.



## Accessories

Article designation	Order no.
Cold connection cable for extension 3 x 1.50 mm <sup>2</sup> , 1.00 m, black	81302-1.50 BL/SW
Mounting sleeve (1, factory fitted), for extension	26182
Plastic fixing nails (standard pack = 100 pcs.)	20304
Sensor extension 1.00 m	20090
Spare temperature sensor for analogue controller	93088 sensor
Spare temperature sensor for clock thermostat	93089 sensor
Repair sleeves on request	

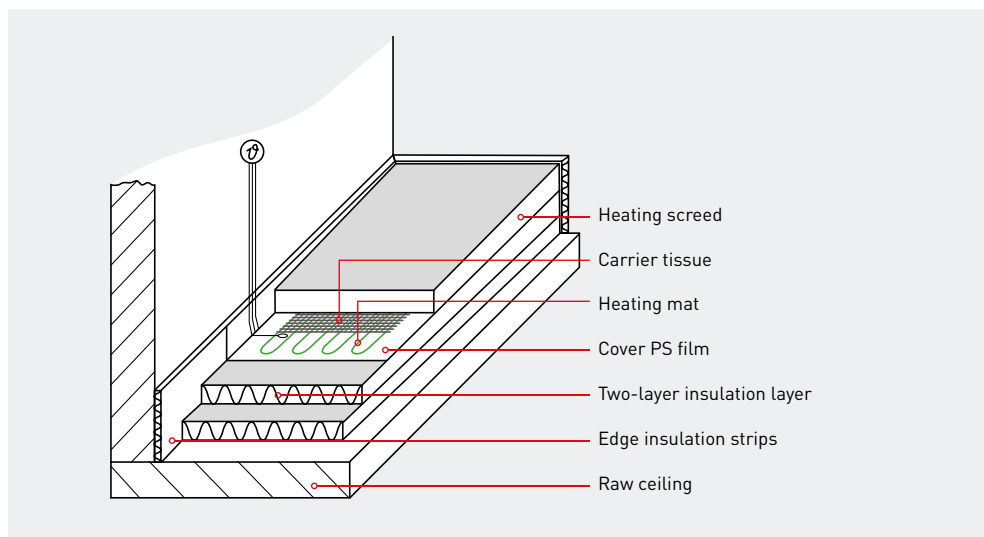
A residual current device (FI < 30 mA) must be provided as a protection measure.

Further information in our installation instructions.

Thermostats see page 15.



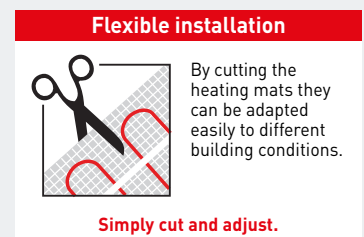
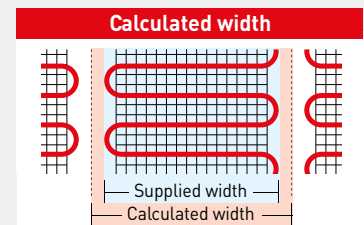
## BH-IM in or below screed / concrete



# HEM-SYSTEM®



Concrete heating mat BH-IM



Concrete heating cables BR-IM



Distance bars for concrete heating cables



## BR-IM CONCRETE HEATING CABLES

Sleeveless

**NEW:** Suitability for concrete and screed tested by VDE



With single-end connection cable and sleeveless splice. Ideal for melting ice and snow in outdoor areas as well as for installation in concrete and sand for melting snow and ice. Likewise suitable for outdoor areas, e.g. stairways. Not in Bitumen.

### Technical data

Nominal voltage	230 Volt
Output	17 W/m
Cold connection cable	1 x 4.00 (1.00 mm <sup>2</sup> )
Minimum installation temperature	5 °C
Max. temperature outer sheath	65 °C
Smallest bending radius	5 x dA
Resistance tolerance	-5 % / +10 %
Cold / warm splice	sleeveless, without shrinkable sleeve
Outer diameter	approx. 7.50 mm
Insulation	310 W, XLPE from 410 W

### 17 W/m

#### BR-IM concrete heating cables

Heating output W	Element length m	Order no.
150	8.86	37710-8.86
220	13.75	37710-13.75
300	18.50	37710-18.50
400	24.77	37710-24.77
500	31.04	37710-31.04
600	34.74	37710-34.74
700	40.59	37710-40.59
850	49.35	37710-49.35
1000	58.11	37710-58.11
1250	72.71	37710-72.71
1500	87.32	37710-87.32
1700	99.00	37710-99.00
1900	110.69	37710-110.69
2100	122.37	37710-122.37
2300	134.05	37710-134.05
2600	151.58	37710-151.58
3356	197.00	37710-197.00

### Accessories

Article designation	Order no.
Cold connection cable for extension 3 x 2.50 mm <sup>2</sup> , 1.00 m, black	81302-2.50 BL/SW
Mounting sleeve (1, factory fitted), for extension	26182
Plastic fixing nails (standard pack = 100 pcs.)	20304
Distance bars (mounting bars)	20063
Spare temperature sensor for analogue controller	93088 sensor
Spare temperature sensor for clock thermostat	93089 sensor
Repair sleeves on request	

A residual current device (FI < 30 mA) must be provided as a protection measure.

# BR-IM-Z CONCRETE HEATING CABLES

Sleeveless



With double-end connection cable and sleeveless splice. Ideal for melting ice and snow in outdoor areas as well as for installation in concrete and sand for melting snow and ice. Likewise suitable for outdoor areas, e.g. stairways. Not in Bitumen.

Technical data	
Nominal voltage .....	230 Volt
Output .....	17 W/m
Cold connection cable .....	2 x 2.50 (1.00 mm <sup>2</sup> )
Minimum installation temperature .....	5 °C
Max. temperature outer sheath .....	65 °C
Smallest bending radius .....	5 x dA
Resistance tolerance .....	-5 % / +10 %
Cold / warm splice .....	sleeveless, without shrink technology
Outer diameter .....	approx. 7.00 mm
Insulation .....	PTFE up to 300 W, XLPE from 410 W

## 17 W/m

BR-IM-Z concrete heating cables		
Heating output W	Element length m	Order no.
310	18.07	37720-18.07*
410	24.24	37720-24.24
510	30.42	37720-30.42
600	34.55	37720-34.55
700	41.09	37720-41.09
850	49.61	37720-49.61
1000	59.15	37720-59.15
1260	74.28	37720-74.28
1530	89.34	37720-89.34
1750	101.88	37720-101.88
1980	111.79	37720-111.79
2200	124.59	37720-124.59
2430	136.06	37720-136.06
2780	163.34	37720-163.34

\* Insulation PTFE

## Accessories

Article designation	Order no.
Cold connection cable for extension 1 x 1.50 mm <sup>2</sup> , 1.00 m, black	81101-1.50 SW
Cold connection cable for extension 1 x 2.50 mm <sup>2</sup> , 1.00 m, black	81101-2.50 SW
Mounting sleeve (1, factory fitted), for extension	26184
Plastic fixing nails (standard pack = 100 pcs.)	20304
Distance bars (mounting bars)	20063
Spare temperature sensor for analogue controller	93088 sensor
Spare temperature sensor for clock thermostat	93089 sensor
Repair sleeves on request	

A residual current device (FI < 30 mA) must be provided as a protection measure.

Further information in our installation instructions.  
Thermostats see page 15.

# HEM-SYSTEM®

Concrete heating cables BR-IM-Z



Distance bars for concrete heating cables



# D DISTANCE BARS

For fixing heating cables



D distance bars



Heating mats can be created with distance bars.

A variable Watt/m<sup>2</sup> heating mat production is possible depending on the grid dimensions of the distance bars.

Examples: Heating mats, heating cables, heating loops. Not in Bitumen.

## Distance bars

Article designation	Length m	Grid mm	Cable diameter mm	Bar width mm	Order no.
MS-1 distance bars	~ 1.00	20	3.5 – 4.5	8	20060
MS-2 distance bars	~ 1.00	25	4.5 – 5.5	8	20061
MS-3 distance bars	~ 1.00	25	5.6 – 6.5	8	20062
MS-4 distance bars	~ 1.00	25	6.6 – 8.0	8	20063



## Examples:

- Heating mats
- Heating cables
- Heating loops

