

# **About us**

In 3 decades MAGNUM Heating has grown into a successful, market-leading and brand-oriented European designer, manufacturer and supplier of innovative electrical and water-based heating systems and related products.

### **Durable**

Our systems have a very long life span and respond perfectly to the fundamental energy transition from fossil heating sources to sustainable climate solutions.

### In-house production

We manufacture and assemble most products ourselves in our own production departments. This way, we control the process from beginning to end and ensure optimum quality control. This makes us the most reliable supplier of heating products.

MAGNUM Heating B.V. is part of the MAGNUM Heating Group B.V.



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# Home is where the warmth is.

## **Endless comfort**

Underfloor heating offers the most comfortable way of heating. Due to the uniform heat radiation from the entire floor surface, a very even heat distribution is created. The floor will quickly reach a pleasant temperature.

Infrared heat or radiant heat works just like in nature: heat waves from the sun reach the wall of your home during the day, for example. Heat is stored in this wall, which is then emitted again after a delay. In the evening, the ambient air cools down and the release of residual heat from the wall is clearly felt. An underfloor heating system works on the same principle.



# **Transit of energy**

We are rapidly moving away from gas and switching to renewable energy sources. The innovation in this is going fast, but we have only just started. Whether it concerns the renovation of an old or an entirely new house to be built, our systems are already prepared for the future in order to provide maximum comfort for your situation, now and in the future.

# A sustainable home

In many situations it is possible to install underfloor heating as the only heat source (main heating). If the insulation value of the house is not sufficient, for example in an older house, extra insulation and possibly installing wall heating can still achieve a high heat output.

"On the road to a sustainable future."



# The difference

With radiant heat (underfloor heating), the heat is emitted directly so that the room is heated more evenly and more quickly felt. Traditional convection heating only heats the air. Warm air has the property that it rises so that the temperature at the ceiling is significantly higher than close to the floor. Consequence: cold feet and a warm head.

# **Lower temperature**

Underfloor heating offers enormous comfort at a lower temperature. By setting the lowering temperature of the system not lower than 5OC, the heat remains in the floor mass. It takes less energy to bring the system back up to temperature than to let the floor cool down further each time. Not only the temperature is lower, but also your energy bill!

# **Insulation is the key**

A well-functioning system strongly depends on the insulation value of your house. By first applying a good insulation you limit the heat loss downwards. The floor will retain the heat longer as a result. After all, underfloor heating works more efficiently with a well insulated subfloor.



# Underfloor heating for every situation.

Choosing the right underfloor heating for your situation is simple. A heating demand can easily be divided into 3 categories: New build, Renovation or Dry build.

New build systems can be installed directly in the cement screed. This allows more mass to be heated and the heat output is optimal.

For renovations it is important that systems can be applied without far-reaching interventions (such as milling). The minimum installation height of

these systems ensures that they can be installed on an existing floor and even in the wall, so that no radiators are needed.

Wood and laminate floors require weather systems that keep the temperature below 28°C in connection with the (natural) functioning of these floor coverings.

There is a solution for every heating demand.



# Renovation

# **New Build**

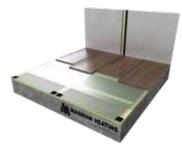
# **Dry Floor**



MAGNUM Mat



MAGNUM Cable



MAGNUM Foil



MAGNUM SlimFit 10 & 12



MAGNUM Tacker Plates



MAGNUM HeatBoard E



MAGNUM Castellated Plates

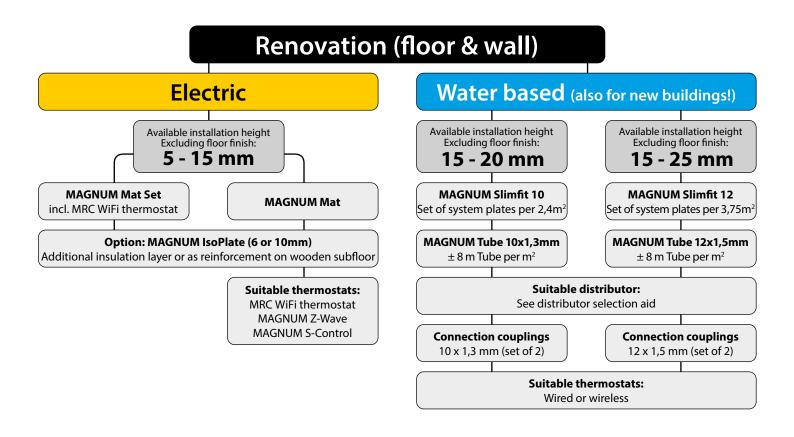


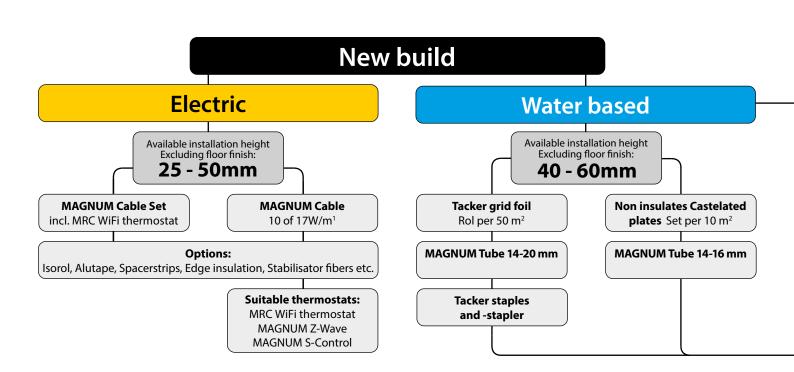
MAGNUM HeatBoard W



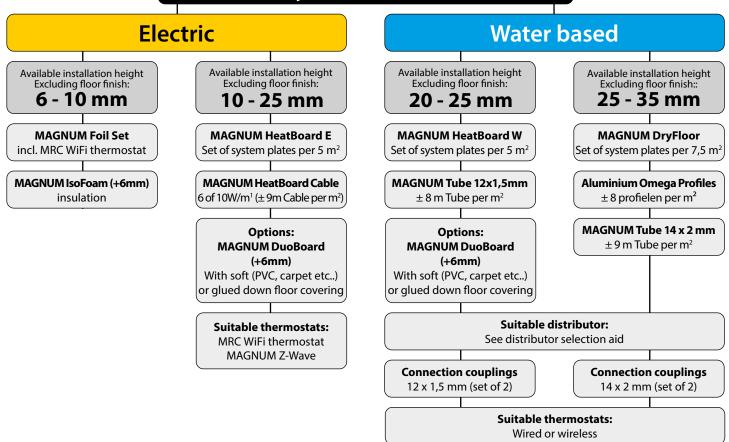


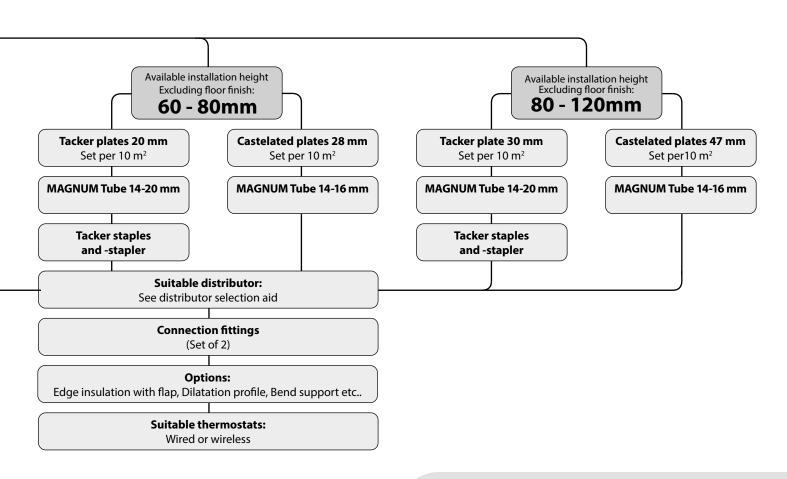
# **Underfloor heating selection guide**



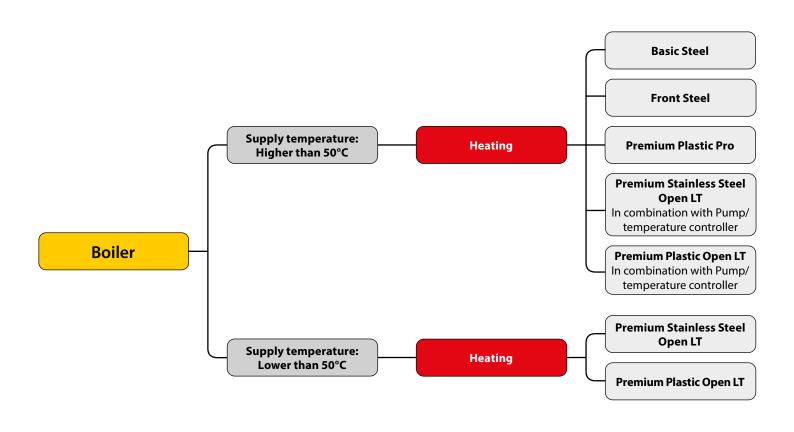


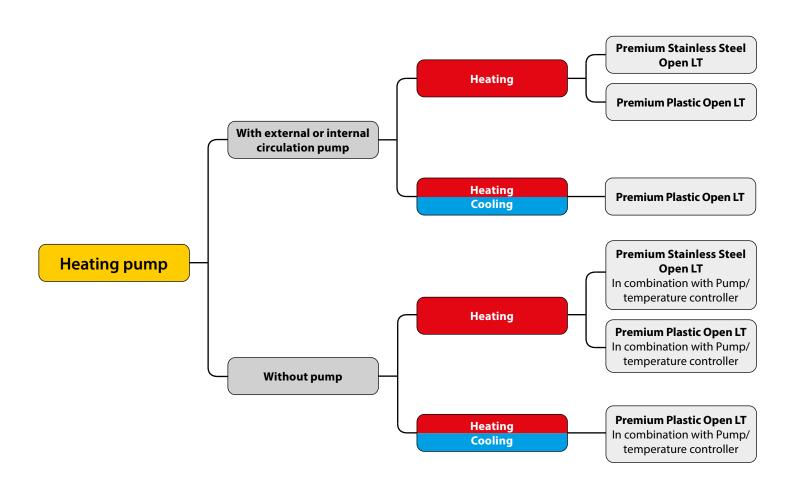
# **Dry Construction**

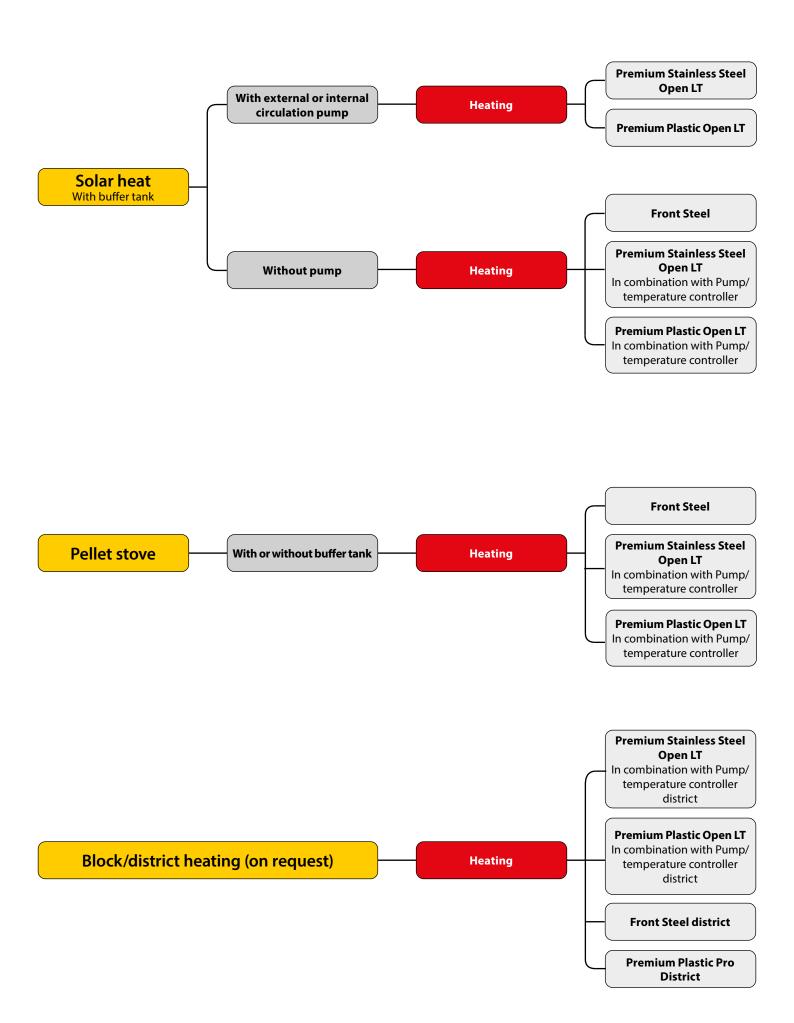




# **Distributor selection guide**









# **Intuitive design**

In the development of our thermostats, in addition to a lot of technical aspects, we take user-friendliness as our starting point. The smart MAGNUM MRC WiFi thermostat, for our electrical systems, is easy to program and operate. Equipped with step-by-step instructions for trouble-free setting of the desired times and temperatures.

# **Cleverly controlled**

The MRC is equiped with an automatic intelligent funtion: All you have to do is enter the periods in which you want to have a warm floor. It gradually learns the ideal warm-up time of the floor and automatically adjusts its program accordingly. So if you set that you want the floor to be at 23°C at 7:00 AM, the thermostat will do the rest.







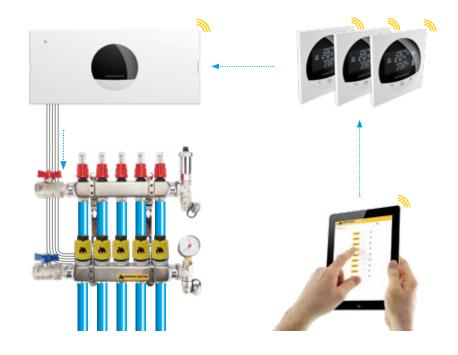




### Zone control

MAGNUM Remote Zone Control is a complete system for controlling your underfloor heating. The system consists of thermostats that can be hung in any room and a controller that is mounted at the distributor. Control the zones separately via the thermostat or via your tablet or smartphone. This allows you to set up the various zones in your home with the greatest of ease.

The MAGNUM W-Thermostat ensures precise control of the room temperature. With this clock thermostat you can adjust the temperature based on a series of programmed settings that come into effect at different times of the day.



# **Optimal precision**

Our products are designed in view of the strongly changing climate in Europe where the outside temperature can fluctuate strongly within a few hours. This requires control equipment that responds quickly and accurately. Our and calculate the required warmup times and the amount of energy needed to do so.

Thanks to precise control, an optimal and comfortable living climate is



# **Ceiling heating**

MAGNUM Sol ceiling radiant heaters can be installed in a suspended ceiling and offer maximum freedom in designing the interior of any office, showroom or shop. With the integrated suspension bracket, the panels can also be fixed directly to any other ceiling.

If you are looking for an extra source of heat in your bathroom, the MAGNUM Sol Premium ceiling radiant heaters are the solution. These panels have an IP54 standard and are therefore very suitable for wet rooms.

These ceiling radiant heaters heat everything within the radiation range in a very short time. This makes them ideal for rooms that do not have a continuous occupancy and need to be warmed up in a short time.







# A clear view

Always a condensation-free mirror thanks to a very simple solution.

MAGNUM Look electric mirror heating is stuck directly on the back of the mirror and is an indispensable addition to your bathroom, it prevents condensation from forming in "no time".

Connect the mirror heating directly to the existing light switch and the heating element will only be switched on during your presence in the bathroom. This way you save energy!

# Safety first. Without compromise.



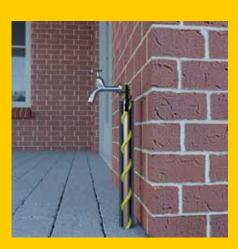
# **Exceptionally safe**

Safety, prevention and continuity are the key words that justify an investment in the construction of a frost-free installation. Especially for ramps and exits at an angle of inclination of distribution centres, car parks, hospitals, fire stations, office buildings, etc. The MAGNUM Outdoor system offers you safety and reliability

at minimum investment, consumption and maintenance costs.

The MAGNUM Trace range offers total solutions for keeping (water) pipes, gutters and drains frost-free. There is also a plug-in frost-free tape available with built-in thermostat.











# Prepared for a sustainable future.

## **Know-How**

Over the past 3 decades, MAGNUM Heating has grown into a successful, market-leading and brand-oriented European designer, manufacturer and supplier of innovative electric and waterborne heating systems and related products. We have a continuous focus on innovation, supported by our customers.

# **Sustainable**

Our systems have a very long lifespan and respond perfectly to the fundamental energy transition from fossil heating sources to sustainable climate solutions. We are continuously active to refine production and logistic processes in order to make our carbon footprint as small as possible.

# **Own manufacturing**

We manufacture and assemble most products ourselves in our own production departments. In this way, the process is kept in our own hands from start to finish and there is optimal quality control. This makes us the most reliable supplier of heating products.

### More information?

Our products are available from any authorised E & W installer or bathroom specialist. They usually also advise and take care of the installation.

Would you like more information in the meantime? Visit magnumheating.nl or call 0166 - 609 300 during office hours.

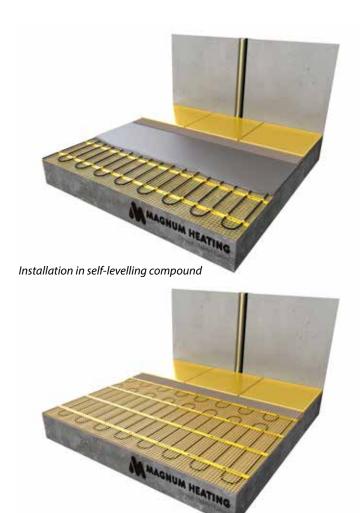
# **MAGNUM Mat (Set)**

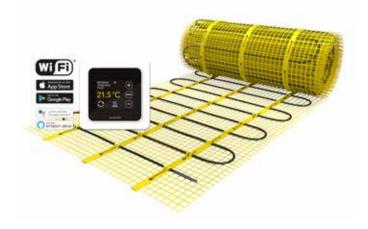
# **Underfloor heating mat**

The MAGNUM Mat is a unique underfloor heating mat. The system is designed to allow underfloor heating to be installed over an existing tiled floor or on top of a screed that has already been installed. The mat is approximately 4 mm thin and can be included in an adhesive layer without demolition and milling out. The mat is placed almost directly under the surface. This increases the heating rate of the floor which also makes the system suitable for areas with non-permanent occupancy such as bathrooms, hobby rooms, recreation rooms etc.

The advanced WiFi thermostat takes into account the necessary warm-up time, so your floor will always be the right temperature at the desired time.

MAGNUM Mat is available in 22 different sizes from 0,75 to 25m<sup>2</sup>. Because the heating cable on the mat is connected at the end, there is only one side with a power cable, which is invisibly attached through a unique blind connection. This means that there is no need for a return to the thermostat.





System type	Electric
System height	4 mm
System width	25 or 50 cm
Min. setting height	10 mm
Installation	Self-levelling / Tile adhesive
Power	125 or 150W/m <sup>2</sup>
In wet areas	V
Tiles	V
Wood	V (i.c.w. self-levelling)
(PVC) Laminate	V (i.c.w. self-levelling)
Carpet	V (i.c.w. self-levelling)
Certification	CE, VDE
Warranty	Lifetime*





Installation in tile adhesive



### **Technical details**

- EMC-free, 2-conductor cable attached to fiber optic network
- 3,5 meter three-wire power cable
- Full enclosure by aluminum sheath
- Unique blind connection between heating and connection cable
- Chrome/Nickel resistance wire
- PTFE (Teflon) insulation
- PVC protective sheath
- Cable diameter approx. 4 mm
- Mat width 25 or 50 cm
- Meets current NEN standards for installation in entire wet area

### Installation methods

- Directly into tile adhesive
- Self-levelling casting mortars
- In plaster/mortar
- Anhydrite floors
- MAGNUM Mat is not suitable for use in lightweight concrete

### **Package contents**

- Heating mat
- MAGNUM Remote Control WiFi thermostat incl. floor sensor
- Flexible tube for floor sensor
- Installation instructions & Check/Control card

### Warranty

Lifelong\* warranty on the electrical operation of the heating mat and 2 years on the thermostat and floor sensor.

\*See conditions on: magnumheating.com

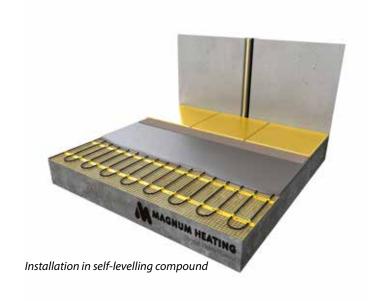
Art.nr. white	Art.nr. black	Description	m²	Power	W per m²	Amps	Ohm	Dimension
200075	210075	MAGNUM Mat Set	0,75 m <sup>2</sup>	113 Watt	150 Watt	0,6	468	0,25 x 3,00 m
200205	210205	MAGNUM Mat Set	1,0 m <sup>2</sup>	150 Watt	150 Watt	0,7	353	0,50 x 2,00 m
200125	210125	MAGNUM Mat Set	1,25 m <sup>2</sup>	188 Watt	150 Watt	0,8	281	0,25 x 5,00 m
200305	210305	MAGNUM Mat Set	1,5 m²	225 Watt	150 Watt	1,0	235	0,50 x 3,00 m
200175	210175	MAGNUM Mat Set	1,75 m <sup>2</sup>	263 Watt	150 Watt	1,1	201	0,25 x 7,00 m
200405	210405	MAGNUM Mat Set	2,0 m <sup>2</sup>	300 Watt	150 Watt	1,3	176	0,50 x 4,00 m
200225	210225	MAGNUM Mat Set	2,25 m <sup>2</sup>	338 Watt	150 Watt	1,5	157	0,25 x 9,00 m
200505	210505	MAGNUM Mat Set	2,5 m <sup>2</sup>	375 Watt	150 Watt	1,6	141	0,50 x 5,00 m
200605	210605	MAGNUM Mat Set	3,0 m <sup>2</sup>	450 Watt	150 Watt	2,0	117	0,50 x 6,00 m
200705	210705	MAGNUM Mat Set	3,5 m <sup>2</sup>	525 Watt	150 Watt	2,3	100	0,50 x 7,00 m
200805	210805	MAGNUM Mat Set	4,0 m <sup>2</sup>	600 Watt	150 Watt	2,6	88	0,50 x 8,00 m
200905	210905	MAGNUM Mat Set	4,5 m <sup>2</sup>	675 Watt	150 Watt	2,9	78	0,50 x 9,00 m
201005	211005	MAGNUM Mat Set	5,0 m <sup>2</sup>	750 Watt	150 Watt	3,3	71	0,50 x 10,00 m
201205	211205	MAGNUM Mat Set	6,0 m <sup>2</sup>	900 Watt	150 Watt	3,9	59	0,50 x 12,00 m
201405	211405	MAGNUM Mat Set	7,0 m <sup>2</sup>	1050 Watt	150 Watt	4,6	50	0,50 x 14,00 m
201605	211605	MAGNUM Mat Set	8,0 m <sup>2</sup>	1200 Watt	150 Watt	5,2	44	0,50 x 16,00 m
201805	211805	MAGNUM Mat Set	9,0 m <sup>2</sup>	1350 Watt	150 Watt	5,9	39	0,50 x 18,00 m
202005	212005	MAGNUM Mat Set	10,0 m <sup>2</sup>	1500 Watt	150 Watt	6,5	35	0,50 x 20,00 m
202405	212405	MAGNUM Mat Set	12,0 m <sup>2</sup>	1500 Watt	125 Watt	6,5	35	0,50 x 24,00 m
203005	213005	MAGNUM Mat Set	15,0 m <sup>2</sup>	1875 Watt	125 Watt	8,2	28	0,50 x 30,00 m
204010	214010	MAGNUM Mat Set	20,0 m <sup>2</sup>	2500 Watt	125 Watt	10,8	21	0,50 x 40,00 m
205010	215010	MAGNUM Mat Set	25,0 m <sup>2</sup>	3125 Watt	125 Watt	13,6	17	0,50 x 50,00 m

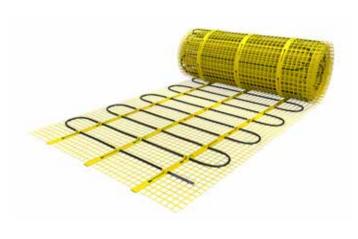
# **MAGNUM Mat**

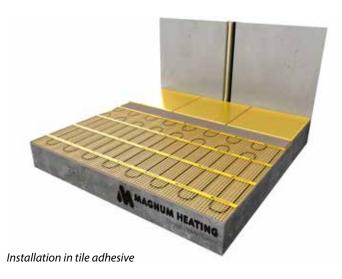
### **Underfloor heating mat**

The MAGNUM Mat is a unique underfloor heating mat. The system is designed to allow underfloor heating to be installed over an existing tiled floor or on top of a screed that has already been installed. The mat is approximately 4 mm thin and can be included in an adhesive layer without demolition and milling out. The mat is placed almost directly under the surface. This increases the heating rate of the floor which also makes the system suitable for areas with non-permanent occupancy such as bathrooms, hobby rooms, recreation rooms etc.

MAGNUM Mat is available in 22 different sizes from 0,75 to 25m<sup>2</sup>. Because the heating cable on the mat is connected at the end, there is only one side with a power cable, which is invisibly attached through a unique blind connection. This means that there is no need for a return to the thermostat.



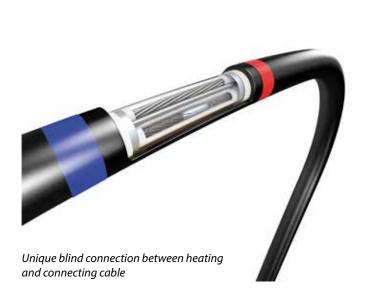




Specifications	
System type	Electric
System height	4 mm
System width	25 or 50 cm
Min. setting height	10 mm
Installation	Self-levelling / Tile adhesive
Power	125 or 150W/m <sup>2</sup>
In wet areas	V
Tiles	V
Wood	V (i.c.w. self-levelling)
(PVC) Laminate	V (i.c.w. self-levelling)
Carpet	V (i.c.w. self-levelling)
Certification	CE, VDE
Warranty	Lifetime*







### **Technical details**

- EMC-free, 2-conductor cable attached to fiber optic network
- 2,5 meter three-wire power cable
- Full enclosure by aluminum sheath
- Unique blind connection between heating and connection cable
- Chrome/Nickel resistance wire
- PTFE (Teflon) insulation
- PVC protective sheath
- Cable diameter approx. 4 mm
- Mat width 25 or 50 cm
- Meets current NEN standards for installation in entire wet area

### Installation methods

- Directly into tile adhesive
- Self-levelling casting mortars
- In plaster/mortar
- Anhydrite floors
- MAGNUM Mat is not suitable for use in lightweight concrete

### **Package contents**

- Heating mat
- Flexible tube for floor sensor
- · Installation instructions & Check/Control card

### Warranty

Lifelong\* warranty on the electrical operation of the heating mat and 2 years on the thermostat and floor sensor.

\*See conditions on: magnumheating.com

Art.nr.	Description	m²	Power	W per m²	Amps	Ohm	Dimension
240075	MAGNUM Mat	0,75 m <sup>2</sup>	113 Watt	150 Watt	0,6	468	0,25 x 3,00 m
240201	MAGNUM Mat	1,0 m <sup>2</sup>	150 Watt	150 Watt	0,7	353	0,50 x 2,00 m
240125	MAGNUM Mat	1,25 m <sup>2</sup>	188 Watt	150 Watt	0,8	281	0,25 x 5,00 m
240301	MAGNUM Mat	1,5 m <sup>2</sup>	225 Watt	150 Watt	1,0	235	0,50 x 3,00 m
240175	MAGNUM Mat	1,75 m <sup>2</sup>	263 Watt	150 Watt	1,1	201	0,25 x 7,00 m
240401	MAGNUM Mat	2,0 m <sup>2</sup>	300 Watt	150 Watt	1,3	176	0,50 x 4,00 m
240225	MAGNUM Mat	2,25 m <sup>2</sup>	338 Watt	150 Watt	1,5	157	0,25 x 9,00 m
240501	MAGNUM Mat	2,5 m <sup>2</sup>	375 Watt	150 Watt	1,6	141	0,50 x 5,00 m
240601	MAGNUM Mat	3,0 m <sup>2</sup>	450 Watt	150 Watt	2,0	117	0,50 x 6,00 m
240701	MAGNUM Mat	3,5 m <sup>2</sup>	525 Watt	150 Watt	2,3	100	0,50 x 7,00 m
240801	MAGNUM Mat	4,0 m <sup>2</sup>	600 Watt	150 Watt	2,6	88	0,50 x 8,00 m
240901	MAGNUM Mat	4,5 m <sup>2</sup>	675 Watt	150 Watt	2,9	78	0,50 x 9,00 m
241001	MAGNUM Mat	5,0 m <sup>2</sup>	750 Watt	150 Watt	3,3	71	0,50 x 10,00 m
241201	MAGNUM Mat	6,0 m <sup>2</sup>	900 Watt	150 Watt	3,9	59	0,50 x 12,00 m
241401	MAGNUM Mat	7,0 m <sup>2</sup>	1050 Watt	150 Watt	4,6	50	0,50 x 14,00 m
241601	MAGNUM Mat	8,0 m <sup>2</sup>	1200 Watt	150 Watt	5,2	44	0,50 x 16,00 m
241801	MAGNUM Mat	9,0 m <sup>2</sup>	1350 Watt	150 Watt	5,9	39	0,50 x 18,00 m
242001	MAGNUM Mat	10,0 m <sup>2</sup>	1500 Watt	150 Watt	6,5	35	0,50 x 20,00 m
202421	MAGNUM Mat	12,0 m <sup>2</sup>	1500 Watt	125 Watt	6,5	35	0,50 x 24,00 m
203021	MAGNUM Mat	15,0 m <sup>2</sup>	1875 Watt	125 Watt	8,2	28	0,50 x 30,00 m
244006	MAGNUM Mat	20,0 m <sup>2</sup>	2500 Watt	125 Watt	10,8	21	0,50 x 40,00 m
245006	MAGNUM Mat	25,0 m <sup>2</sup>	3125 Watt	125 Watt	13,6	17	0,50 x 50,00 m

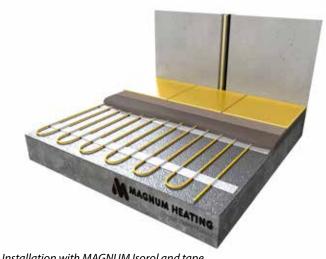
# **MAGNUM Cable 17 Watt (Set)**

# **Underfloor heating cable**

The MAGNUM Cable is specially designed for installation in cement screeds. The mutual cable distance determines the power per m<sup>2</sup>. This gives you the freedom to install more power (faster reaction, higher temperatures) or less power (for constant or low temperatures).

Because the cable is deformable, installation becomes easy. It can be attached to MAGNUM Isorol and dovetailed sheets through aluminum tape or to concrete mesh with tiewraps. There are also convenient spacer strips available for direct mounting on the floor.

The advanced WiFi thermostat takes into account the necessary warm-up time, so that your floor always has the right temperature at the right time. The absence of radiators on the wall offers optimal freedom in interior design. (If main heating is possible).



Installation with MAGNUM Isorol and tape

Specifications



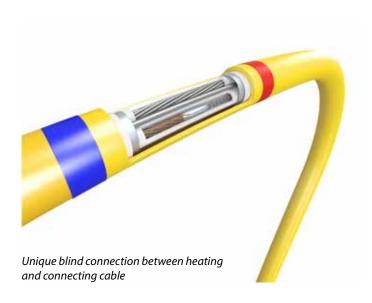


Installation on reinforcement mesh with tie wraps

Electric
7 mm
Variable
30 mm
Screed
115 - 200W/m <sup>2</sup>
V
V
V
V
V
CE, VDE
Lifetime*

<sup>\*</sup>See conditions on: magnumheating.com





### **Example calculations cable distance**

To calculate the correct cable distance, divide the number of square meters of free floor space by the total power of the set. Multiply the result by 17 (= Watts per meter cable). The first two numbers after the comma indicate the cable distance in centimeters.

Some examples of additional heating:

500 Watt cable on 3  $m^2$ : (166W/ $m^2$ ) (3  $m^2$ : 500 Watt) X 17 W/ $m^1$  = 0,102 Install the cable at 10 cm apart from each other

1000 Watt cable on 7 m<sup>2</sup>:  $(142W/m^2)$  (7 m<sup>2</sup>: 1000 Watt) X 17 W/m<sup>1</sup> = 0,119

Install the cable at 11-12 cm apart from each other

### **Technical details**

- EMC-free, 2-conductor cable
- 2,5 meter three-wire power cable
- Unique blind connection between heating and connection cable
- Full enclosure by aluminum sheath
- · Chrome/Nickel resistance wire
- XLPE insulation
- PVC protective sheath
- 17 Watt per meter power, 230 Volt
- Cable diameter approx. 7 mm
- Produced and inspected in accordance with IEC 800 standards
- VDE approved and CE standard within Europe

### Installation methods

The cables are available in total capacities from 300 to 3300 Watts, sufficient for surfaces between 2 and 30 m². Because the cable is looped at the end, there is only one side of a power cable, which is invisibly attached through the unique connection. This means that there is no need for a return to the thermostat. MAGNUM Cable is not suitable for use in lightweight concrete.

### **Package contents**

- · Heating cable
- MAGNUM Remote Control WiFi thermostat
- · Floor sensor
- · Mounting tape
- Flexible tube for floor sensor
- · Installation instructions

### Warranty

Lifelong\* warranty on the electrical function of the heating cable and 2 years on the thermostat and floor sensor.

\*See conditions on: magnumheating.com

Art.nr. white	Art.nr. black	Cable length	Power	Amps	Ohm	
100305	110305	17,6 m	300 Watt	1,3	177	
100505	110505	29,4 m	500 Watt	2,2	109	
100705	110705	41,2 m	700 Watt	3	76	
101005	111005	58,8 m	1000 Watt	4,3	53	
101255	111255	73,5 m	1250 Watt	5,5	42	
101705	111705	100 m	1700 Watt	7,4	31	
102105	112105	123,5 m	2100 Watt	9	25	
102605	112605	152,9 m	2600 Watt	11,3	20	
102905	112905	170,6 m	2900 Watt	12,8	18	
103305	113305	194,1 m	3300 Watt	14,3	16	

Art.nr.	Options	Unit
720100	MAGNUM Stabiliser fibres	Bag of 150 gram
720150	MAGNUM Aluminium tape	Roll of 10 m x 5 cm
720310	MAGNUM Spacer strips	10 m
720315	MAGNUM Spacer strips	15 m
720400	MAGNUM Edge strips	Roll of 10 m x 10 cm
720502	MAGNUM Isorol	Roll of 24 m <sup>2</sup> (20 x 1,2 m) - 3 mm thick

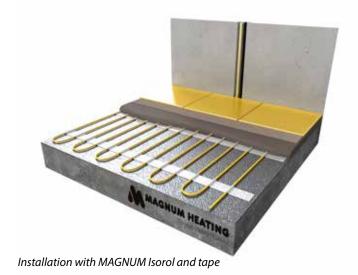
# **MAGNUM Cable 17 Watt (Single)**

# **Underfloor heating cable**

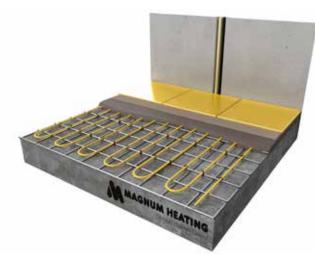
The MAGNUM Cable is specially designed for installation in cement screeds. The mutual cable distance determines the power per m<sup>2</sup>. This gives you the freedom to install more power (faster reaction, higher temperatures) or less power (for constant or low temperatures).

Because the cable is deformable, installation becomes easy. It can be attached to MAGNUM Isorol and dovetailed sheets through aluminum tape or to concrete mesh with tiewraps. There are also convenient spacer strips available for direct mounting on the floor.

The absence of radiators on the wall offers optimal freedom in interior design. (If main heating is possible).





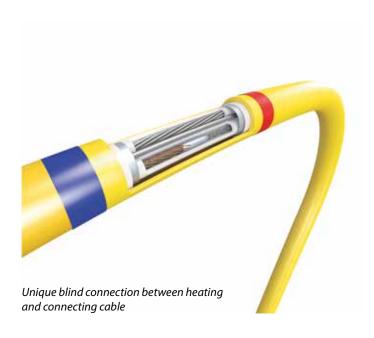


Installation on reinforcement mesh with tie wraps

Specifications	
System type	Electric
System height	7 mm
System width	Variable
Min. setting height	30 mm
Installation	Screed
Power	115 - 200W/m <sup>2</sup>
In wet areas	V
Tiles	V
Wood	V
(PVC) Laminate	V
Carpet	V
Certification	CE, VDE
Warranty	Lifetime*

\*See conditions on: magnumheating.com





### Example calculations cable distance

To calculate the correct cable distance, divide the number of square meters of free floor space by the total power of the set. Multiply the result by 17 (= Watts per meter cable). The first two numbers after the comma indicate the cable distance in centimeters.

Some examples of additional heating:

500 Watt cable on 3 m<sup>2</sup>:  $(166W/m^2)$ (3 m<sup>2</sup>: 500 Watt) X 17 W/m<sup>1</sup> = 0,102 Install the cable at 10 cm apart from each other

1000 Watt cable on 7 m<sup>2</sup>: (142W/m<sup>2</sup>) (7 m<sup>2</sup>: 1000 Watt) X 17 W/m<sup>1</sup> = 0,119

Install the cable at 11-12 cm apart from each other

### **Technical details**

- EMC-free, 2-conductor cable
- 2,5 meter three-wire power cable
- Unique blind connection between heating and connection cable
- Full enclosure by aluminum sheath
- · Chrome/Nickel resistance wire
- XLPE insulation
- PVC protective sheath
- 17 Watt per meter power, 230 Volt
- Cable diameter approx. 7 mm
- Produced and inspected in accordance with IEC 800 standards
- VDE approved and CE standard within Europe

### Installation methods

The cables are available in total capacities from 300 to 3300 Watts, sufficient for surfaces between 2 and 30 m². Because the cable is looped at the end, there is only one side of a power cable, which is invisibly attached through the unique connection. This means that there is no need for a return to the thermostat. MAGNUM Cable is not suitable for use in lightweight concrete.

### **Package contents**

- · Heating cable
- · Mounting tape
- Flexible tube for floor sensor
- · Installation instructions

### Warranty

Lifelong\* warranty on the electrical function of the heating cable.

 ${}^{*}\mathsf{See}$  conditions on: magnumheating.nl

Art.nr.	Description	Cable length	Power	Amps	Ohm	
120300	MAGNUM Cable 17	17,6 m	300 Watt	1,3	177	
120500	MAGNUM Cable 17	29,4 m	500 Watt	2,2	109	
120700	MAGNUM Cable 17	41,2 m	700 Watt	3	76	
121000	MAGNUM Cable 17	58,8 m	1000 Watt	4,3	53	
121250	MAGNUM Cable 17	73,5 m	1250 Watt	5,5	42	
121700	MAGNUM Cable 17	100 m	1700 Watt	7,4	31	
122100	MAGNUM Cable 17	123,5 m	2100 Watt	9	25	
122600	MAGNUM Cable 17	152,9 m	2600 Watt	11,3	20	
122900	MAGNUM Cable 17	170,6 m	2900 Watt	12,8	18	
123200	MAGNUM Cable 17	194,1 m	3300 Watt	14,3	16	

# **MAGNUM Cable 10 Watt (Single)**

### **Underfloor heating cable**

The MAGNUM Cable is specially designed for installation in cement screeds. The mutual cable distance determines the power per m<sup>2</sup>. This gives you the freedom to install more power (faster reaction, higher temperatures) or less power (for constant or low temperatures).

Because the cable is deformable, installation becomes easy. It can be attached to MAGNUM Isorol and dovetailed sheets through aluminum tape or to concrete mesh with tiewraps. There are also convenient spacer strips available for direct mounting on the floor.

The absence of radiators on the wall offers optimal freedom in interior design. (If main heating is possible).







Specifications	
System type	Electric
System height	7 mm
System width	Variable
Min. setting height	30 mm
Installation	Screed
Power	60 - 115 W/m <sup>2</sup>
In wet areas	V
Tiles	V
Wood	V
(PVC) Laminate	V
Carpet	V
Certification	CE, VDE

Lifetime\*

Warranty



<sup>\*</sup>See conditions on: magnumheating.nl



### **Example calculations cable distance**

To calculate the correct cable distance, divide the number of square meters of free floor space by the total power of the set. Multiply the result by 10 (= Watts per meter cable). The first two numbers after the comma indicate the cable distance in centimeters.

Some examples of additional heating:

500 Watt cable on 3 m<sup>2</sup>: (166W/m<sup>2</sup>)  $(3 \text{ m}^2: 500 \text{ Watt}) \text{ X } 10 \text{ W/m}^1 = 0.06$ Install the cable at 6 cm apart from each other

1000 Watt cable on 7 m<sup>2</sup>: (142W/m<sup>2</sup>)  $(7 \text{ m}^2: 1000 \text{ Watt}) \text{ X } 10 \text{ W/m}^1 = 0.07$ 

Install the cable at 7 cm apart from each other

### **Technical details**

- EMC-free, 2-conductor cable
- 3,5 meter three-wire power cable
- Unique blind connection between heating and connection cable
- Full enclosure by aluminum sheath
- · Chrome/Nickel resistance wire
- XLPE insulation
- PVC protective sheath
- 10 Watt per meter power, 230 Volt
- Cable diameter approx. 7 mm
- Produced and inspected in accordance with IEC 800 standards
- VDE approved and CE standard within Europe

### Installation methods

The cables are available in total capacities from 100 to 1900 Watts, sufficient for surfaces between 1 and 20 m<sup>2</sup>. Because the cable is looped at the end, there is only one side of a power cable, which is invisibly attached through the unique connection. This means that there is no need for a return to the thermostat. MAGNUM Cable is not suitable for use in lightweight concrete.

### Package contents

- · Heating cable
- · Mounting tape
- Flexible tube for floor sensor
- · Installation instructions

### Warranty

Lifelong\* warranty on the electrical function of the heating cable.

\*See conditions on: magnumheating.nl

Art.nr.	Description	Cable length	Power	Amps	Ohm	
120107	MAGNUM Cable 10	10 m	100 Watt	0,4	529	
120207	MAGNUM Cable 10	20 m	200 Watt	0,9	264	
120307	MAGNUM Cable 10	30 m	300 Watt	1,3	176	
120407	MAGNUM Cable 10	40 m	400 Watt	1,7	132	
120507	MAGNUM Cable 10	50 m	500 Watt	2,2	106	
120607	MAGNUM Cable 10	60 m	600 Watt	2,6	88	
120807	MAGNUM Cable 10	80 m	800 Watt	3,5	66	
121007	MAGNUM Cable 10	100 m	1000 Watt	4,3	53	
121207	MAGNUM Cable 10	120 m	1200 Watt	5,2	44	
121507	MAGNUM Cable 10	150 m	1500 Watt	6,5	35	
121907	MAGNUM Cable 10	190 m	1900 Watt	8,3	28	

# **MAGNUM Foil (Set)**

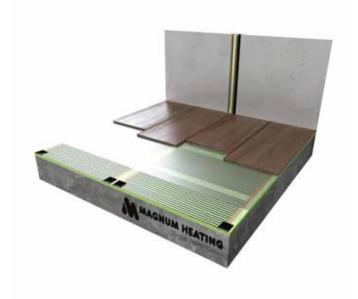
# **Underfloor heating foil**

Wood, parquet and laminate are durable and atmospheric products that are increasingly being used. The demand for a heating system for these floors has led to the development of a new high-tech product. MAGNUM now offers a solution for these "dry" floors. The MAGNUM Foil underfloor heating foil is directly applicable under wood, parquet or laminate. This wafer-thin floor heating system (only 0,3 mm!) is controlled by a WiFi clock thermostat with floor sensor. This ensures very even heating. The floor temperature can be limited to a maximum temperature by means of the floor sensor and thermostat.

The advanced WiFi thermostat takes into account the necessary warm-up time, so that your floor always has the right temperature at the right time. The foil should be installed on 6 mm thin polystyrene insulation plates (MAGNUM Isofoam). These insulation plates provide additional thermal insulation and also have a sound-absorbing effect.

MAGNUM Foil is very easy to cut to size. Safe, comfortable and easy to use: MAGNUM Foil ensures a comfortable living and working environment, even on dry floors!





Specifications	
System type	Electric
System height	0,3 mm
System width	600 mm
Min. setting height	1 cm
Installation	Dry Construction
Power	120 W/m <sup>2</sup>
In wet areas	Х
Tiles	X
Wood	V
Laminate	V (no PVC)
Carpet	V
Certification	CE, SEMKO
Warranty	10 years





### **Technical details**

### Installation method

MAGNUM Foil is connected to 230V. Installation must therefore be carried out by a qualified electrician. MAGNUM Foil should always be installed with MAGNUM polystyrene insulation plates (MAGNUM Isofoam, 6 mm), and covered with a vapour barrier foil (0,1 mm).

### Package content

- Foil on rolls of 5, 10 or 15 m<sup>2</sup> (120 W/m<sup>2</sup>)
- MAGNUM Remote Control WiFi thermostat with floor sensor
- Flexible sensor tube
- · Insulating tape
- · Connection clamps
- Connection wires
- Installation instructions
- Pressure reducers and crimping pliers

### To be ordered separately (depending on the number of m<sup>2</sup>)

- MAGNUM Isofoam, per pack 6 m<sup>2</sup>
- Vapour barrier foil

### Warranty

10 years guarantee on the electrical function of MAGNUM Foil and 2 years on the thermostat and floor sensor.



Art.nr. white	Art.nr. black	Description	Dimensions	Power
361005	371005	MAGNUM Foil Set 5 m <sup>2</sup> *	0,6 x 8,4 m	600 Watt
361010	371010	MAGNUM Foil Set 10 m <sup>2</sup> *	0,6 x 16,8 m	1200 Watt
361015	371015	MAGNUM Foil Set 15 m <sup>2</sup> *	0,6 x 25 m	1800 Watt
361110		MAGNUM Foil add-on set 10 m <sup>2</sup> **	0.6 x 16.8 m	1200 Watt

Art.nr.	Description Dimensions Power m <sup>2</sup>			
360120	MAGNUM Foil loose per m <sup>2</sup> on roll	0,6 x ? m	120 Watt	
Art.nr.	Options		Dimensions	
720807	MAGNUM Vapour barrier film $12 \text{ m}^2$ $4 \times 3 \text{ m.} \times 0.1 \text{ mm}$			
720810	MAGNUM Foil pressure divider and crimping pliers			
720815	MAGNUM Foil connection set for 10 m <sup>2</sup> folie **			
730300	MAGNUM Isofoam PS Insulation 6 m <sup>2</sup> 10 à 120 x 50 x 0,6 cm			

<sup>\*</sup> Set contains: MAGNUM Foil 120 Watt/m², MAGNUM Remote Control WiFi thermostat with floor sensor, flexible sensor tube, 2 x 15 m connection wire black/blue, necessary crimp connectors, processor distribution and crimping place, vulcanised installation installation installation installation.

pressure distribution and crimping pliers, vulcanised insulation tape, PP tape, installation instructions.

\*\* Set contains: 2 x 15 m black/blue connection wire, required crimp connectors, vulcanised insulation tape, PP tape, foil 10 m².

# **MAGNUM HeatBoard (E)**

### System plates

Wood, parquet and laminate are durable and atmospheric products that are increasingly being used. The demand for a heating system for these floors has led to the development of a new high-tech product.

MAGNUM HeatBoard is directly applicable under floating wood, parquet or laminate floors. This thin floor heating system only 12 mm! (also available as 31 mm plates) Controlled by a digital WiFi thermostat with floor sensor. This ensures very even heating. The floor temperature can be limited to a maximum temperature by means of the floor sensor and thermostat.

The advanced WiFi thermostat calculates the necessary warm-up time, so that your floor always has the right temperature at the right time. This thermostat is not included in the set, must be ordered separately. The insulation plates provide additional thermal insulation and also have a sound-absorbing effect.

MAGNUM HeatBoard is very easy to cut to size. After this, the HeatBoard Cable can simply be clamped in. Approximately 9 m<sup>1</sup> (linear metres) of HeatBoard Cable is required per net/unobstructed area of 1 m<sup>2</sup>. Safe, comfortable and easy to use: MAGNUM HeatBoard ensures a comfortable living and working environment, even on dry floors!

MAGNUM HeatBoard can only be used with hard dry floor systems (laminate, wood and parquet). In the case of so-called soft floor systems (PVC laminate and vinyl), DuoBoard should first be applied between the heating system and the floor covering.

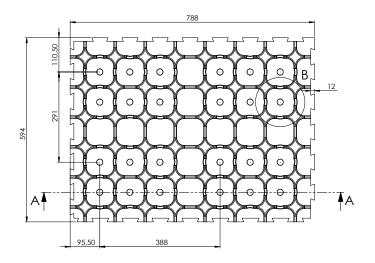




Specifications	
System type	Electric
System height	12 mm / 32 mm
System width	594 mm
System length	778 mm
Min. construction height	20 mm
Installation	Floating
Power	60 or 100W/m <sup>2</sup>
In wet areas	X
Tiles	X
Wood	V
(PVC) Laminate	V (PVC i.c.w. DuoBoard)
Carpet	V (i.c.w. DuoBoard)
Certification	CE, VDE
Warranty	2 years









### **Technical details**

 Designation according to standard EPS-EN13163-T2-L2-W2-S2-P2-DLT(1)5-CS(10)150

• Nominal thickness dL 11,5 mm / 30,5 mm

• Coefficient of thermal conductivity 0,036 W/mK DIN V 4108-10

• Thermal resistance 0,32 m<sup>2</sup>K/W

• Compressive stress 150 kPa (at 10 % compression)

Load under tensionHeat resistance45 kPa80°C

Area of application DEO according to DIN 4108-10
 Fire behaviour Class E according to EN 1350
 Building material class B2 according to DIN 4102

• Material EPS polystyrene hard foam (CFK-free)

• Valid standard EN 13163, DIN V 4108-10

### Installation methods

Through a new patented production process, the high-density EPS foam panels are glued to the preformed aluminium plates. This provides the MAGNUM HeatBoard system with contact over the entire floor and, in comparison to similar products, it even provides maximum heat transfer in the curves. The heat transfer from the electric 7 mm MAGNUM HeatBoard Cable is therefore optimally utilised.

With a system height of only 12 mm (also available as 32 mm plates), MAGNUM HeatBoard is the thinnest dry construction system of its kind. The boards have a size of  $788 \times 594$  mm (effective:  $589 \times 778$  mm) and are supplied in a set of 11 plates ( $5 \text{ m}^2$ ).

### **Package contents**

- 11 HeatBoard E system plates
- 5m<sup>2</sup> Covering felt
- · Safety gloves
- Installation instructions

HeatBoard Cable, thermostat and DuoBoard must be ordered separately.

### Warranty

2 years.

Art.nr.	Description	m²	Dimensions	Unit	
430010	MAGNUM HeatBoard 12 mm	5 m²	78 x 58 cm	11 plates	
430015	MAGNUM HeatBoard 31 mm	5 m²	78 x 58 cm	11 plates	

# MAGNUM HeatBoard (E) Cable

# Heating cable for HeatBoard system plates

Wood, parquet and laminate are durable and atmospheric products that are increasingly being used. The demand for a heating system for these floors has led to the development of a new high-tech product.

MAGNUM HeatBoard is directly applicable under floating wood, parquet or laminate floors. This thin floor heating system (only 12 mm or 32 mm!) is controlled by a digital WiFi thermostat with floor sensor. This ensures very even heating. The floor temperature can be limited to a maximum temperature by means of the floor sensor and thermostat.

The advanced WiFi thermostat calculates the necessary warm-up time, so that your floor always has the right temperature at the right time. This thermostat is not included in the set, must be ordered separately. The insulation plates provide additional thermal insulation and also have a sound-absorbing effect.

MAGNUM HeatBoard is very easy to cut to size. After this, the HeatBoard Cable can simply be clamped in. Approximately 9 m<sup>1</sup> (linear metres) of HeatBoard Cable is required per net/unobstructed area of 1 m<sup>2</sup>. Safe, comfortable and easy to use: MAGNUM HeatBoard ensures a comfortable living and working environment, even on dry floors!

MAGNUM HeatBoard can only be used with hard dry floor systems (laminate, wood and parquet). In the case of so-called soft floor systems (PVC laminate and vinyl), DuoBoard should first be applied between the heating system and the floor covering.





System type	Electric
System height	12 mm / 32 mm
System width	from 20 cm
System length	778 mm
Min. construction height	12 mm / 32 mm
Installation	Floating
Power	60 or 100W/m <sup>2</sup>
In wet areas	X
Tiles	Х
Wood	V
(PVC) Laminate	V (PVC i.c.w. DuoBoard)
Carpet	V (i.c.w. DuoBoard)
Certification	CE, VDE
Warranty	10-year warranty on the electrical operation of the HeatBoard Cable.





Example of the installation for Heatboard E Cable

### **Technical details**

### Installation methods

Through a new patented production process, the high-density EPS foam panels are glued to the preformed aluminium plates. This provides the MAGNUM HeatBoard system with contact over the entire floor and, in comparison to similar products, it even provides maximum heat transfer in the curves. The heat transfer from the electric 7 mm MAGNUM HeatBoard Cable is therefore optimally utilised.

With a system height of only 12 mm, MAGNUM HeatBoard is the thinnest dry construction system of its kind. The boards have a size of  $788 \times 594$  mm (effective:  $589 \times 778$  mm) and are supplied in a set of 11 plates (5 m²).

### Package contents

- HeatBoard E Cable
- Mounting tape
- Flexible tube for floor sensor
- · Installation instructions
- Profile for end loop

HeatBoard Cable, thermostat and DuoBoard must be ordered separately.

### Warranty

10-year warranty on the electrical operation of the HeatBoard Cable.

Art.nr.	Description (60 Watt/m2)	Cable length	Power	
136018	MAGNUM HeatBoard Cable 6	30 m	180 Watt	
136030	MAGNUM HeatBoard Cable 6	50 m	300 Watt	
136048	MAGNUM HeatBoard Cable 6	80 m	480 Watt	
136060	MAGNUM HeatBoard Cable 6	100 m	600 Watt	
136072	MAGNUM HeatBoard Cable 6	120 m	720 Watt	
136090	MAGNUM HeatBoard Cable 6	150 m	900 Watt	
136140	MAGNUM HeatBoard Cable 6	190 m	1140 Watt	

Art.nr.	Description (100 Watt/m2)	Cable length	Power	
131030	MAGNUM HeatBoard Cable 10	30 m	300 Watt	
131050	MAGNUM HeatBoard Cable 10	50 m	500 Watt	
131080	MAGNUM HeatBoard Cable 10	80 m	800 Watt	
131100	MAGNUM HeatBoard Cable 10	100 m	1000 Watt	
131120	MAGNUM HeatBoard Cable 10	120 m	1200 Watt	
131150	MAGNUM HeatBoard Cable 10	150 m	1500 Watt	
131190	MAGNUM HeatBoard Cable 10	190 m	1900 Watt	

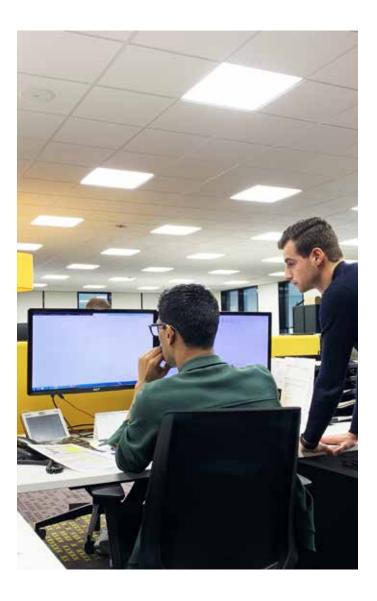
# **MAGNUM Sol**

# **Ceiling heaters**

MAGNUM Sol ceiling heaters can be installed "invisibly" in a suspended ceiling and offer maximum freedom in interior design or showroom arrangement for any office, showroom or shop. However, with the integrated suspension bracket, the panels can also be attached directly to any ceiling.

The ceiling heaters heat everything and everyone within their radiant range in the same way that the sun heats the earth. This with a very short heating time. Ideal for rooms that are not continuously occupied, need to be brought up to temperature in a short time and have little wall space available.

The MAGNUM Sol heating panel is not suitable for installation and use in wet rooms. Only MAGNUM Sol Premium should be used for this application.



Specifications	
System type	Electric
System height	30 mm
System width	590 mm
Min. setting height	2,2 m
Installation	Ceiling
Power	300 or 600 Watt
In wet areas	X
Type of heating	Infrared
System ceiling	V
Ceiling mounting	V
Certification	Kema
Warranty	2 years



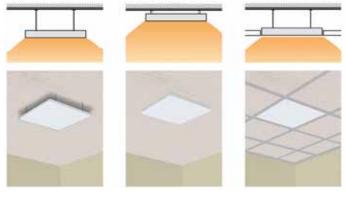




MAGNUM Sol Type 300



MAGNUM Sol Type 600



Several installation options

Color	RAL 9016	

#### Installation methods

Connection voltage

**Technical details** 

Available

Class

MAGNUM Sol ceiling heating panels are easy to install in every suspended ceiling or to mount directly on the ceiling via the integrated suspension system. Each panel is equipped with its own suspension system.

300 and 600 Watt

230V/50Hz IP44

The panels can be thermostatically or modulatively controlled, which minimises energy loss. They can be controlled through a simple on/off thermostat or a wireless RF thermostat.

# Package content

- Suspension bracket
- 0,5 metre connection cable
- · Installation instructions

#### Warranty

MAGNUM Sol has a 2 year guarantee on the electrical function.

Art.nr.	Description	Туре	Power	Dimensions
600331	MAGNUM Sol	300	300 Watt	590 x 590 x 30 mm
600661	MAGNUM Sol	600	600 Watt	1190 x 590 x 30 mm

Art.nr.	Description
825100	MAGNUM Remote Control WiFi thermostat (Polar White - RAL 9010) incl. floor sensor
825101	MAGNUM Remote Control WiFi thermostat (Graphite black - RAL 9011) incl. floor sensor
827000	MAGNUM Standard Control on/off concealed thermostat

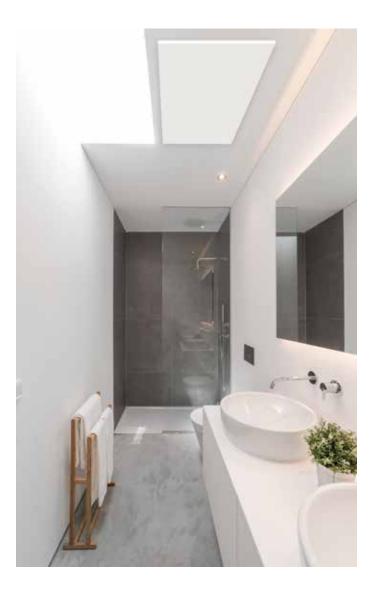
Art.nr.	Options
838000	MAGNUM RF Basic - thermostat incl. RF receiver (8 Amps)
838001	MAGNUM RF Advanced - digital clock thermostat incl. RF receiver (8 Amps)
838002	MAGNUM RF Receiver - additional receiver for RF thermostats (8 Amps)

# **MAGNUM Sol Premium**

# **Ceiling heaters**

MAGNUM Sol Premium ceiling heaters can be installed in a suspended ceiling and, thanks to the integrated suspension bracket, they can also be directly attached to any ceiling. This panel can be used as main heating or as additional heating in a bathroom. There are 2 outputs available: 300W and 750W. These heating panels produce exclusively radiant heat. The high intensity of the infrared heat waves results in an optimal feeling of comfort after only a short time.

The ceiling heaters heat everything and everyone within the radiation range, just like the sun heats the earth. This with a very short warm-up time. It is therefore ideal for rooms that are not continuously occupied, need to be brought up to temperature in a short time and have little wall space available.



Specifications	
System type	Electric
System height	30 mm
System width	592 mm
Min. setting height	2,25 m
Installation	Ceiling
Power	300 or 750 Watt
In wet areas	V
Type of heating	Infrared
System ceiling	V
Ceiling mounting	V
Certification	Kema, CE
Warranty	2 years





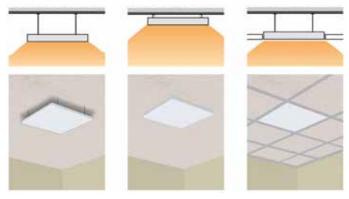




MAGNUM Sol Premium Type 300



MAGNUM Sol Premium Type 750



Several installation options

Available in 300 and 750 Watt
 Connection voltage 230V/50Hz
 Class IP54
 Colour RAL 9010

#### Installation methods

MAGNUM Sol Premium ceiling heating panels are easy to install in any suspended ceiling or to attach directly to the ceiling using the integrated suspension system. Each panel is equipped with its own suspension system.

The panels can be thermostatically or modulatively controlled, which minimises energy loss. They can be controlled through a simple on/off thermostat or a wireless thermostat.

# Package content

- Suspension bracket
- 0,5 metre connection cable
- · Installation instructions

#### Warranty

2 year warranty on the electrical function.

Art.nr.	Description	Type	Power	Dimensions	
610331	MAGNUM Sol Premium	300	300 Watt	592 x 592 x 30 mm	
610751	MAGNUM Sol Premium	750	750 Watt	1192 x 592 x 30 mm	

Art.nr.	Options
825100	MAGNUM Remote Control WiFi thermostat (Polar White - RAL 9010) incl. floor sensor
825101	MAGNUM Remote Control WiFi thermostat (Graphite black - RAL 9011) incl. floor sensor
827000	MAGNUM Standard Control on/off concealed thermostat

<sup>\*</sup> RF thermostats are not suitable for use in bathrooms, for this you can connect a MAGNUM Remote Control, Z-Wave or S-Control.

# **MAGNUM Look**

# Mirror heating

MAGNUM Look mirror heating always provides a clear view when shaving, cutting hair and applying make-up. No more wiping with a towel to see yourself in the mirror after showering or using hot water.

MAGNUM Look is connected and easily switched through the light switch and prevents condensation in no time. It also prevents the unpleasant towel marks that remain after removing condensation. Connecting directly to the mains, through the light switch in the bathroom, avoids unnecessary waste of energy.

MAGNUM Look mirror heating is a self-adhesive heating foil element that can be applied directly to the back of the mirror. The elements are double insulated and can therefore also be used in humid rooms.

The capacity achieves a fast heating-up time of approx. 5 to 8 minutes. In that short time, the mirror is already brought to a temperature of approx. 40°C and condensation is prevented. The maximum achievable mirror temperature is limited to approx. 50°C. This makes the product absolutely safe to touch.





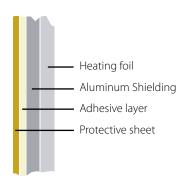
Specifications	
System type	Electric
System height	1 mm
System width	Various sizes
Min. setting height	1 mm
Installation	Self-adhesive element
Power	50 - 150 Watt
In wet areas	V
Гуре of heating	Infrared
System ceiling	V
Ceiling mounting	V
Regulation	Light switch (no dimmer)
Certification	CE
Warranty	2 years







MAGNUM Look circular



Thickness 1 mmVoltage 230 Volt

• Connection 2-core, double insulated

Class IP-34, class 2Temperatures 40°C to 50°C

(depending on ambient temperature)

#### Installation methods

The mirror must not be damaged (e.g. broken off pieces of the edge, cut to size by hand, etc.) because of possible cracking due to tension differences during heating. For fixing, you can simply use the self-adhesive backing. This should be applied directly to the back of the mirror.

ATTENTION: The film has a very high adhesive strength, therefore it is permanently attached.

### Package content

- · Heating foil with self-adhesive backing
- ±1 meter connection cable
- · Installation instruction

### Warranty

2 year warranty on the electrical function.

Art.nr.	Description	Power	Dimensions	
310035	MAGNUM Look Mirror heating	50 Watt	Round 35 cm	
310029	MAGNUM Look Mirror heating	27 Watt	29 x 29 cm	
310050	MAGNUM Look Mirror heating	50 Watt	36 x 50 cm	
310058	MAGNUM Look Mirror heating	50 Watt	40 x 58 cm	
310055	MAGNUM Look Mirror heating	70 Watt	50 x 58 cm	
310075	MAGNUM Look Mirror heating	100 Watt	57 x 75 cm	
310085	MAGNUM Look Mirror heating	120 Watt	58 x 85 cm	
310110	MAGNUM Look Mirror heating	150 Watt	57 x 110 cm	

# **MAGNUM IsoRol**

# Insulation

MAGNUM Isorol is an expanded polystyrene foam covered on one side with a metallized PET film 12µ. Can be used as an underlay for MAGNUM Cable (take into account sufficient structural strength for floating floors). The base floor must be free of dust and grease, smooth and dry. Unevenness of more than 2 mm must be levelled. Place the underlay with the PET layer facing upwards. The seams should be sealed with a special aluminium / polyester tape. This tape has to be ordered separately.

# **Technical details**

- · Immune to humidity and mould
- Has excellent reflective and moisture insulating properties (thanks to the metallized PET film)
- Easy to install and to cut
- · Very high mechanical strength
- 100% CFK-free material
- Suitable for MAGNUM Cable
- Suitable for laminate floors up to 9 mm

Density Min. 15kg/m<sup>3</sup> **EPS** foam Fire resistant quality Temperature range 30°C tot +70°C 0,036 W/mK Insulation value

With 10% distortion 60kPa

Short term compression strength

Thermal shape stability

transient 100°C longer term at -5000 Pa 85°C

at -20000 Pa 75-80°C

#### Installation methods

- The floor must be clean, dry and free of uneven spots.
- Before application, remove any irregularities of the subfloor
- · Roll out the first strip with the silver side up and lay the next strip side by side with the first.
- · Unfold the overlap strip and lay it over the next strip, the edges should be connected by using the integrated adhesive tape.
- After laying the floor, cut off the excess material at the ends.

# Package content

- MAGNUM IsoRol 24m<sup>2</sup>
- Productsheet

Thickness	3 mm
Compressive strength	CS 1: 10 kPA $<$ CS $\le$ 50 kPA according to EN 826 + A.3.7
Impact sound reduction	20 db( with laminate) according to DIN EN ISO 140-8/717-2
Footstep noise reduction	19 % according to IHD W431
Temp. resistance	40°C: +/- 0,09 m2K/W according to DIN EN ISO 12667
Tensile strength	CC2: 25 kPA < CC ≤ 50 kPA according to EN 1606 + A.3.8
Water vapour diffusion resistance	> 100 m according to DIN 52615 / DIN EN 12086
Fire resistance	E according to DIN EN 13501- 1:2007 +A1 2013
Warranty	2 years

Specifications



Art.nr.	Description	m²	Unit	Dimensions	Thickness
720502	MAGNUM Isorol	24 m <sup>2</sup>	Roll	20 x 1,2 m	3 mm

# **MAGNUM Edge insulation**

# Positioning systems and accessories

# **Edge insulation**

Edge insulation should be applied when floor heating is used. This form of insulation prevents unwanted heat loss and absorbs the expansion and contraction of the floor. The edge insulation will also ensure that no cold bridges are formed.



Roll length	25 m
Foam thickness	8 mm ± 1 mm
Foam width	150 mm ± 5 mm
Material	PE - foam
Density	$18 \text{ kg/m}^3 \pm 5 \text{ kg/m}^3$
Packaging	In sturdy plastic foil
Color	Grey
Fire class	EN 13501-1:2010
Application	Conforms to all types of underfloor heating systems
Warranty	2 years
Inspection	CE



Art.nr.	Description	Dimensions
W90111	Edge insulation	25 m x 15 cm x 8 mm with flap

# **MAGNUM IsoFoam**

# Insulation

MAGNUM IsoFoam is a 6 mm thin floor insulation manufactured from fully recycled materials. The structure of the Isofoam consists of small closed cells that have an excellent insulating effect. This special structure ensures that it does not conduct heat to the bottom, so that all the heat generated by MAGNUM Foil is directed towards the floor surface.



# **Technical details**

# Installation methods

- Lightweight
- · Optimal noise reduction
- Excellent heat insulation
- Levels out small irregularities in the floor
- Easy to install and to cut
- Only 6 mm thin
- Suitable for MAGNUM Foil

### Package content

- MAGNUM IsoFoam 6m<sup>2</sup>
- Product sheet

### Warranty

2 year warranty.



Thickness	6 mm
Density	28 kg/m³
Heat resistance	0,19 m <sup>2</sup> K/W
Heat transfer coefficient	0,029 - 0,034 W/(mK)
Water absorption after 24 hours	≤ 1 %
Water absorption after 24 days	≤ 2 %
Compressive strength	≥ 10 kPa PN-EN ISO 826:2013
Dynamic load resistance	≥ 2 kPa
Impact sound reduction	18 dB EN ISO 10140
Footstep noise reduction	9 % EN 16205
Warranty	2 years



Art.nr.	Description	Unit	Dimensions	Thickness
730300	MAGNUM IsoFoam PS Insulation	6 m²	10 plates of 120 x 50 cm	6 mm

# **MAGNUM IsoPlate**

# Insulation

MAGNUM IsoPlate offers the possibility of additional floor insulation where only very limited construction height is available. Due to the pressure-resistant properties of the insulation plates, an underfloor heating system (MAGNUM Mat) and a tiled floor can be directly glued on. MAGNUM Isoplate increases the insulating properties of the subfloor and thereby increases the efficiency and response time of the underfloor heating system used. These insulating properties result in lower energy consumption.



# **Technical details**

#### Installation methods

- Moisture and rot resistant
- Fire resistant
- Very low moisture absorption
- Suitable for MAGNUM Mat
- Suitable for MAGNUM Slim Fit
- Fire resistance DIN4102 material class B1
- Water resistance Water absorption >0,5% after 28 days

under water according to DIN53 421

• Temp. resistance -30°C tot +70°C

Insulation value 0,035 W/mK according to DIN4108
 Compressive strength > 0,20 N/mm2 according to DIN 52 615

### Package content

- MAGNUM IsoPlate (5 x at 10 mm / 8 x at 6 mm)
- Fixing material
- Tape

## Warranty

2 year warranty.

Specifications	
Insulation value	0,035 W/mK in accordance with DIN 4108
Compressive strength	0,20 N/mm <sup>2</sup> according to DIN 52 615
Temp. resistance	-30°C tot +70°C
Water resistance	0,5% after 28 days under water, according to DIN53 421
Fire resistance	DIN 4102 material class B1



Art.nr.	Description	Material	Unit	Dimensions	Thickness
630112	MAGNUM IsoPlate	Polystyrene hardfoam	3 m²	5 plates of 60 x 100 cm	10 mm
630113	MAGNUM IsoPlate	Polystyrene hardfoam	4.8 m <sup>2</sup>	8 plates of 60 x 100 cm	6 mm

# **MAGNUM DuoBoard**

Stable base for soft floor finishes (carpet, PVC, rubber, linoleum, vinyl, cork etc.) over dry floor heating systems.

This solution is designed for installation on underfloor heating to provide a smooth, stable and level base for laying carpet, linoleum and the like. DuoBoard consists of two layers of MDF boards (each with dimensions of  $1200 \times 600 \times 3$  mm): Base board and Top board.

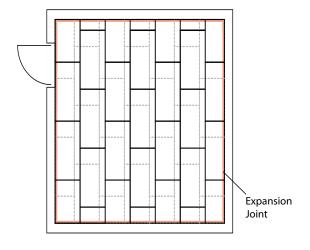
DuoBoards are characterised by a low construction height, great durability and high thermal conductivity. Before installation, the product should be stored for at least 48 hours at a temperature of not less than 18°C and a relative humidity of not more than 60% in the room where the DuoBoard system will be used. The base plates must also be properly cleaned of dust and dirt before installation. The base plate can only be glued once.

The surface of the underfloor heating layer must be stable, level and clean.



Base Board, 3 mm, left and Top Board 4 mm, right.

# Example of a laying plan:



Cross-section	of the floor structure:	Top DuoBoard
O	0	- Base DuoBoard
		Floor Heating System

860 (kg/m)
0,192 (W/mK)
0,037 (m K/W)
≥ 23 (N/mm)
≥ 65 (N/mm)
≤ 60 (%)
max. 8 (mg/100g)
2 years
CE



Art.nr.	Description	m²	Material	Dimensions
430030	MAGNUM DuoBoard 2 x 4	2,88 m <sup>2</sup>	MDF boards	1200 x 600 x 3 mm Base Board Top Board 4 mm

# MAGNUM Contact adhesive Multi-purpose glue spray

This contact adhesive was specially developed to bond various MAGNUM laying systems to flat, dry, dust- and grease-free dimensionally stable subfloors such as, for example, sand cement and concrete. Apply the contact adhesive from the spray can effervescently at various points. The adhesive cross-links around the fixing point and thus bonds the Plastic or EPS systems to the substrate. The average drying time is 45-60 minutes. 1 spray can is enough for approximately 5 m<sup>2</sup>.

#### Instructions for use

The processing temperature is at least 15°C. The surfaces to be bonded should be dry, clean, grease- and dust-free.

Spray an even layer of glue on both surfaces, making sure it is applied evenly to the edges.

The adhesive is dry after about 1-2 min. Roll or press the materials firmly. Correcting is no longer possible.

Cleaning: adhesive residues can be removed with a suitable cleaner.



MAGNUM Contact adhesive 500 ml

Contents per can	500 ml
Suitable systems	MAGNUM Mat, SlimFit, DryFloor, HeatBoard E&W, Tacker plate and Stud plate.
Drying time	45 - 60 minutes
Max surface area per aero- sol can	5 m²
Substrate	Mould-proof, flat, dry, grease- and dust-free
Processing	See user manual

Art. no.	Description	Content
W61027	MAGNUM Contact adhesive	500 ml

# **MAGNUM Remote Control (MRC)**

# **Smart WiFi thermostat**

The MAGNUM Remote Control smart WiFi thermostat (MRC) is the most advanced on the market. When developing this new thermostat, our first priority was ease of use. The MRC thermostat therefore has a completely new user interface that can be operated easily and intuitively from the screen and an app.

#### Smartly arranged

The MRC calculates the heating time itself. You only have to enter the periods in which you want your floor to be warm. It gradually learns the ideal heating time for the floor and automatically adjusts its programme accordingly. So if you set the floor to 23°C at 7 in the morning, the thermostat does the rest.

#### 3 in 1 operation

The MAGNUM MRC can be operated using the touch screen on the thermostat. In addition, you can remotely control the thermostat from anywhere at any time with your smartphone through the app (iOS and Android). It also works with the voice assistants of Google and Amazon. With this, you can turn the thermostat up or down or ask what the current temperature of your floor is. Useful, for example, if you are in the car and cannot use your mobile manually.



#### **Wooden floors**

The MAGNUM MRC also has a wood floor function where the temperature is limited to 28°C. This makes the MAGNUM MRC the perfect and safe solution for any electric heating system.

# Supplied as standard with each set

The MAGNUM Remote Control (Polar White - RAL 9010) comes standard with every MAGNUM Mat, Cable and Foil underfloor heating set, including a built-in air sensor and floor sensor (12K). Thanks to its clever design, this concealed thermostat fits virtually every single and multiple switch material. White and black can be supplied as a set.



Polar white - RAL 9010

# **Specifications**

Туре	Smart WiFi thermostat
Suitable for	Electrical systems
Controls	Full touch screen
Sensors	Room and floor sensor (12K)
Voltage	230V – 50/60Hz
Maximum load	16A / 230V
Temperature range	+5 / +40°C
Housing	IP21

### **Functions**

WiFi	<b>V</b> 2.4Ghz
Арр	V iOS & Android
Voice assistant	Google assistant and Amazon Alexa
Programmable	up to 3 periods per day
Intelligence	V
Wooden floor	<b>V</b> < 28°C
Open window	V
Slow start	V











Graphite black - RAL 9011

Voltage 230V - 50/60 Hz
 Max. load 16A / 230V
 Temp. range +5 / +40°C
 Housing IP21

• Floor sensor (12K) and built-in room sensor

• WiFi (2.4 Ghz)

• Full touch screen and colour display

• Magnetic connection

• Smart user interface

• Open window function

• Up to 3 periods per day can be set

• Night vision

• App for iOS and Android

• Works with Amazon Alexa and Google Assistant

• Automatic start-up menu

• Intelligent and self-learning

• Slow start-up function

• Wood floor function (limited 28°C)

• Backup function

• Automatic summer & winter time

• Multilingual programming

#### Installation method

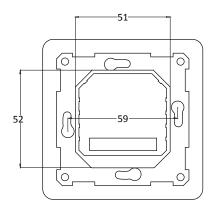
Suitable for electric heating systems.

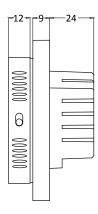
#### Package content

- MRC Thermostat
- Installation instructions
- Manual
- Floor sensor (12k)

#### Warranty

2 year guarantee on the electrical operation and floor sensor.





Thermostat dimensions

Art.nr.	Description	Color code
825100	MAGNUM Remote Control WiFi thermostat incl. floor sensor	Polar white - RAL 9010
825101	MAGNUM Remote Control WiFi thermostat incl. floor sensor	Graphite black - RAL 9011

# **MAGNUM Z-Wave Control**

# **Electronic thermostat**

This Z-Wave thermostat is an electronic thermostat for installation in a standard wall box. The thermostat has a built-in Z-Wave 500 chip which can be connected to home automation systems such as Fibaro, Sensio, Vera, Zipato. The display shows the floor or ambient temperature.

The thermostat is equipped with touch-sensitive buttons. By lightly pressing the buttons, the display will show the set value. The Z-Wave thermostat is equipped with a single-pole switch. It can be used with two external temperature sensors.

#### What is Z-Wave?

Z-Wave is the name of a wireless signal for controlling devices in your home, also known as home automation. In other words, it allows you to program your home (e.g. when does the thermostat go on/off and what temperature). And you can control all this remotely using your tablet or smartphone.

#### Compatible systems

The MAGNUM Z-Wave thermostat works with systems such as Fibaro, Vera, Zipato and Sensio.



MAGNUM Z-Wave Polar white - RAL 9010

Гуре	Smart Z-Wave thermostat
Suitable for	Electrical systems
Control	Touch buttons
Sensors	Room and floor sensor (10K)
/oltage	230V – 50/60Hz
Maximum load	16 A / 230V
Temperature range	+5 / +40°C
Housing	IP21
Functions	
WiFi	V
Арр	X through Z-Wave system
App Voice assistant	X through Z-Wave system X
Voice assistant	X
/oice assistant Programmable ntelligentie	X V
Voice assistant Programmable	X V X





MAGNUM Z-Wave all black (optional)

 Voltage 230 Volt - 50/60 Hz • Max. load 16A / 230 V • Temperature range +5 / +40°C Class IP21

 Color Polar white (RAL 9010) Black (RAL 9011)

 Certification • Power consumption 1,5W 5°C tot 40°C • Min/Max operating temp. 5°C tot 40°C • Temp.interval floor sensor • Temp.interval room sensor 5°C tot 40°C

 Smartstart Adding the thermostat to a

Z-wave network by scanning

a supplied QR code Reading consumption

• Power metering • Over The Air Update (OTA) The ability to update the Z-wave wirelessly

• Room and floor sensor

- Temperature limiter
- · Power controller
- Built-in Z-Wave chip 500 series
- Weekly programme through gateway
- 7-segment LCD display
- Can be used in combination with various NTC sensors
- Lock mode / child lock
- Backlight
- Calibration possibility
- 8 scenarios
- Works with Fibaro, Sensio, Vera and Zipato systems

#### Installation method

Suitable for electric heating systems.

#### Package content

- Z-Wave Thermostat
- · Installation instructions
- Floor sensor (10K)

#### Warranty

2 year guarantee on the electrical operation and floor sensor.

#### MAGNUM Z-wave measurements

Art.nr.	Description	Color code
825861	MAGNUM Z-wave Control for Fibaro, Sensio, Vera and Zipato systems	Polar white - RAL 9010
825860	MAGNUM Z-wave Control for Fibaro, Sensio, Vera and Zipato systems	Graphite black - RAL 9011

# F32 WiFi Thermostat

# **Smart WiFi thermostat**

The stylish F32 Wi-Fi thermostat is a programmable thermostat designed to control electric underfloor heating systems. Install the App on your smart device to control the heating system remotely with this Wi-Fi thermostat.

An App is available in the Apple App Store and on Google Play. Within the App, you can program and adjust settings. Extra thermostats can easily be added to control different rooms.

Besides the Wi-Fi connection, this thermostat can also work as a simple stand-alone unit (select temperature and mode). It is fully programmable within the App. Therefore it is suitable for easy use and also perfect for hotels and holiday homes with the addition of a pilot wire.

An open window function is also included. If the temperature suddenly drops, the thermostat automatically switches off, preventing additional electricity costs.









Specifications
Type

Туре	Smart WiFi thermostat
Suitable for	Electrical systems
Controls	Touchscreen
Sensors	Room and floor sensor (12K)
Voltage	230V – 50/60Hz
Maximum load	16A /230V
Temperature range	+5°C / +40°C
Housing	IP21

# **Functions**

WiFi	V 2.4Ghz
Арр	<b>V</b> iOs & Android
Voice assistant	Google assistant and Amazon Alexa
Programmable	up to 3 periods per day
Intelligence	V
Wooden floor	<b>V</b> < 28°C
Open window	V
Slow start	V
Pilot Wire	V









# F32 WiFi Thermostat

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Specifica	ations
Туре	
Suitable for	r

Туре	Smart WiFi thermostat
Suitable for	Electrical systems
Controls	Touchscreen
Sensors	Room and floor sensor (12K)
Voltage	230V – 50/60Hz
Maximum load	16A /230V
Temperature range	+5°C / +40°C
Housing	IP21

# **Functions**

WiFi	<b>V</b> 2.4Ghz
Арр	V iOs & Android
Voice assistant	Google assistant and Amazon Alexa
Programmable	up to 3 periods per day
Intelligence	V
Wooden floor	<b>V</b> < 28°C
Open window	V
Slow start	V
Pilot Wire	V









# **MAGNUM Standard Control**

# **Thermostat**

In some situations, a digital control is less necessary, and a simple on/off control is preferred. Especially in industrial applications or if continuous heating is required. For this purpose MAGNUM has developed the Standard Control: a simple on/off thermostat with temperature control that excels in simplicity and ease of use.

# **Technical details**

Voltage 230 Volt - 50/60 Hz
 Max. load 16A / 230 V
 Temperature range +5 / +40°C
 Housing IP21

• Color Polar white (RAL 9010)

• Certification CE

• On/off thermostat with temperature control

• Includes floor sensor

• Built-in room sensor and floor limit sensor

• Multi-frame adapter system for: Gira, Jung, Elko, Merten, Busch Jager etc.

### Installation method

Suitable for electric heating systems.

# Package content

- Thermostat
- Installation instructions
- Floor sensor
- · two frames

### Warranty

2 year guarantee on the electrical operation and floor sensor.





Specifications	,
----------------	---

Туре	On/off thermostat
Suitable for	Electrical systems
Controls	Physical buttons
Sensors	Room and floor sensor (12K)
Voltage	230V – 50/60Hz
Maximum load	16A / 230V
Temperature range	+5 / +40°C
Housing	IP21



Art.nr.	Description	Color code Color code
827000	MAGNUM Standard Control On/Off Thermostat	Polar white - RAL 9010

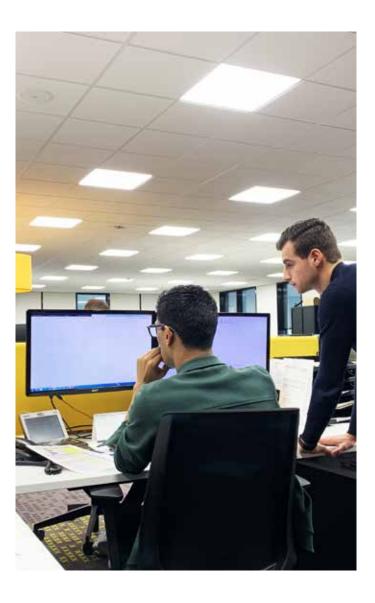
# **MAGNUM Sol**

# **Ceiling heaters**

MAGNUM Sol ceiling heaters can be installed "invisibly" in a suspended ceiling and offer maximum freedom in interior design or showroom arrangement for any office, showroom or shop. However, with the integrated suspension bracket, the panels can also be attached directly to any ceiling.

The ceiling heaters heat everything and everyone within their radiant range in the same way that the sun heats the earth. This with a very short heating time. Ideal for rooms that are not continuously occupied, need to be brought up to temperature in a short time and have little wall space available.

The MAGNUM Sol heating panel is not suitable for installation and use in wet rooms. Only MAGNUM Sol Premium should be used for this application.



System type	Electric
System height	30 mm
System width	590 mm
Min. setting height	2,2 m
Installation	Ceiling
Power	300 or 600 Watt
In wet areas	X
Type of heating	Infrared
System ceiling	V
Ceiling mounting	V
Certification	Kema, CE
Warranty	2 years

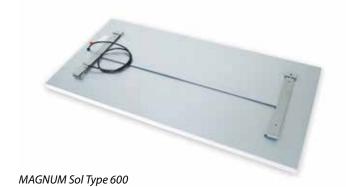


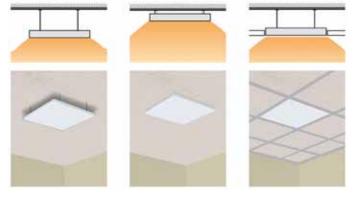






MAGNUM Sol Type 300





# Several installation options

<ul> <li>Connection voltage</li> </ul>	230V/50Hz
• Class	IP44
• Color	RAL 9016

#### Installation methods

**Technical details** 

Available

MAGNUM Sol ceiling heating panels are easy to install in every suspended ceiling or to mount directly on the ceiling via the integrated suspension system. Each panel is equipped with its own suspension system.

300 and 600 Watt

The panels can be thermostatically or modulatively controlled, which minimises energy loss. They can be controlled through a simple on/off thermostat or a wireless RF thermostat.

# Package content

- Suspension bracket
- 0,5 metre connection cable
- · Installation instructions

#### Warranty

MAGNUM Sol has a 2 year guarantee on the electrical function.

Art.nr.	Description	Туре	Power	Dimensions
600331	MAGNUM Sol	300	300 Watt	590 x 590 x 30 mm
600661	MAGNUM Sol	600	600 Watt	1190 x 590 x 30 mm

Art.nr.	Description	
825100	MAGNUM Remote Control WiFi thermostat (Polar White - RAL 9010) incl. floor sensor	
825101	MAGNUM Remote Control WiFi thermostat (Graphite black - RAL 9011) incl. floor sensor	
827000	MAGNUM Standard Control on/off concealed thermostat	

Art.nr.	Options
838000	MAGNUM RF Basic - thermostat incl. RF receiver (8 Amps)
838001	MAGNUM RF Advanced - digital clock thermostat incl. RF receiver (8 Amps)
838002	MAGNUM RF Receiver - additional receiver for RF thermostats (8 Amps)

# **MAGNUM SlimFit 12**

# **Underfloor heating system**

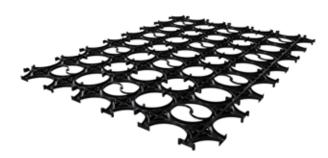
With an installation height from 12 mm, MAGNUM Slimfit is one of the lowest systems of its kind. Can be used for both wall and floor heating.

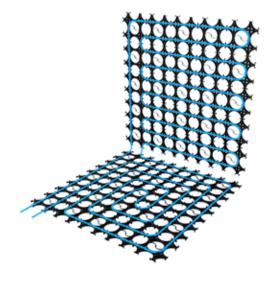
This system consists of plastic mats (tiles) that are simply clicked together. An underfloor heating tube of 12 mm is clamped in the mats with the same ease. The total height of only 14 mm makes this system ideal for renovation projects. Installation is possible both on the floor and in the wall.

The open structure of the tiles ensures perfect adhesion of the cast floor to the base floor as well as to the wall. This system can also be used as main heating.

If the system is used as a heating/cooling system in the wall, the mat supports the plaster and the MAGNUM Slimfit behaves like a reinforcement.

MAGNUM Slimfit 12 is developed for the 12 mm MAGNUM Tube. The 12 mm tube is supplied in lengths of 100 and 300 metres. The maximum tube length per group is 100 metres.





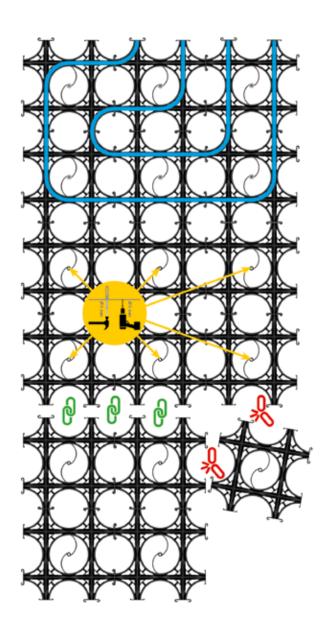


Specifications	
System type	Water based
System height	14 mm (incl. tube)
System width	from 20 cm
Min. setting height	17 mm
Installation	Self-levelling / Screed
Power	Variable
In wet areas	V
Tiles	V
Wood	V (i.c.w. self-levelling)
(PVC) Laminate	V (i.c.w. self-levelling)
Carpet	V (i.c.w. self-levelling)
Certification	CE, KOMO, MPA, SKZ

50 years

Warranty





• LxW SlimFit elements 1000 x 750 mm (4x3 components)

Component dimensions
 Surface area per element
 250 x 250 mm
 0,75 m²

• Surface area per pack 3,75 m<sup>2</sup> (5 elements)

System installation height
 Total mounting height
 Centre-to-centre distance tube
 Suitable for tube size
 4 mm
 17-22 mm
 125 mm
 Ø 12 mm

# Installation methods For mounting (floor or wall)

Drill size 5 mm Hammer plug size 5 mm

#### **Pattern**

Floor Reverse Spiral Wall Meander

#### Finish

Floor Leveling compound or (sand)cement

Wall Plaster mortar

### Warranty

MAGNUM SlimFit has a 2 year guarantee on the elements, the floor heating pipe has a 50 year guarantee.



Art.nr.	Description	m <sup>2</sup>	Dimensions	
W61012	MAGNUM SlimFit 12 system	3,75 m <sup>2</sup>	5 plates of 75 x 100 cm	
Art.nr.	Description	m	Dimensions	
W12100	MAGNUM Tube PE-RT	100 m	12 x 1,5 mm	
W12300	MAGNUM Tube PE-RT	300 m	12 x 1,5 mm	
Art.nr.	Description		Dimensions	
W90012	MAGNUM Adaptor / Euroconus co	onnection	12 x 1,5 x 3/4" mm	
W91201	PUSH connection set for 1x 80 m	tube 12 mm		
W91202	PUSH connection set for 2x 80 m	tube 12 mm		
W91203	PUSH connection set for 3x 80 m	tube 12 mm		

# **MAGNUM FiberBoard**

# **System plates**

Fibre plasterboards are used as a carrier for pipes in dry floor heating systems. Due to the properties of the fibre plaster, the panels allow heat to spread effectively over the heating space. When using fibre plasterboards, the installation of heat transfer plates is not necessary. The panels are 18 mm thick and are only suitable for a Ø12 mm underfloor heating pipe. The fixed pipe spacing is 12 cm.

#### FiberBoard Multi

Width 600 mm Length 600 mm Thickness 8 mm H.o.h. 120 mm

#### **FiberBoard Connect**

This EPS board can be used to guide the tube from the distributor to the heating surface. A maximum of 10 groups can be placed on the board.

Width 1200 mm Length 600 mm Thickness 18 mm

#### FiberBoard Combi

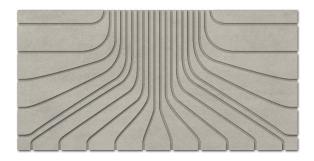
Width 1200 mm Length 600 mm Thickness 18 mm H.o.h. 120 mm



Art. W63001 FiberBoard Multi

Specifications	
System type	Water-based
System height	18 mm
System width	from 20 cm
Min. installation height	18 mm
Installation	Floating
Tube spacing	120 mm (fixed)
In wet areas	Х
Tiles	V (i.c.w. Knauf of fermacell min. 12 mm)
Wood	V
Laminate	V
Carpet	V (i.c.w. DuoBoard)
Test	CE
Warranty	2 years





Art. W63002 FiberBoard Connect



Art. W63003 FiberBoard Combi

- Gypsum, cellulose fibre
- Density [kg /m<sup>3</sup>]: 1150
- Declared thermal conductivity  $\lambda$  [W/(m\*K)]: 0.32
- Declared thermal resistance R [(m2\*K)/W]: 0.056 (18 mm)
- Mechanical sound insulation EN ISO 140-6 Ln,w [dB]: 53
- Airborne sound insulation EN ISO 140-3 Rw [dB]: 54
- Water vapour diffusion resistance value  $\mu$ : 13
- Swelling after 24 hours contact with water: <2%
- Fire class according to EN 13501-1: A2

### Installation methods

For mounting (floor or wall)
Drill hole size 5 mm
Impact plug size 5 mm

### Laying pattern

Floor Snail shell Wall Meander

### Finishing

Floor Levelling compounds or (sand) cement

Wall Plaster mortar

### Warranty

MAGNUM FiberBoard has a 2-year warranty on the elements, underfloor heating pipe has a 50-year warranty.

Art. no.	Description	Weight	
W63001	FiberBoard Multi - 60 x 60 cm - 18 mm for MAGNUM Tube 12 x 1,5 mm	5,9 kg	
W63002	FiberBoard Connect- 120 x 60 cm - 18 mm for MAGNUM Tube 12 x 1,5 mm	15 kg	
W63003	FiberBoard Combi 120 x 60 cm - 18 mm for MAGNUM Tube 12 x 1,5 mm	15 kg	

# **MAGNUM Tacker system**

# Positioning systems and accessories

#### **Tacker Grid foil**

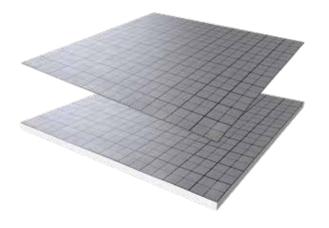
For installations directly on insulation, Tacker Grid foil can be used. This grid foil has a rectangular division of  $10 \text{ cm} \times 10 \text{ cm}$  and an inner grid of  $5 \text{ cm} \times 5 \text{ cm}$ . This means that underfloor heating tubes can be laid at different centre-to-centre distances.

### **Tacker Insulation plates**

With this type of underfloor heating installation, the tubes are fixed to 20 or 30 mm thick insulation plates using tacker staples. This system is ideal if you want to install underfloor heating and floor insulation over a large area. To allow the floor to expand and contract, it is important that edge insulation is placed against all walls.







System type	Water based
System height	20 or 30 mm
System width	1000 mm
Min. setting height	5 cm above the tube
Installation	Floating / Pasting
In wet areas	V
Tiles	V
Wood	V
(PVC) Laminate	V
Carpet	V
Certification	DIN 13163, DIN 4108-10, building material class B2 in accordance with DIN 4102-B2
Warranty	2 years



### Tacker staples and device

The Tacker system consists of insulation plates on which floor heating pipes can be directly fastened using 40 or 60 mm plastic staples. These staples are fastened with the Tacker stapler.



# **Technical details**

- Dimensions 10000 x 1000 mm
- Plate thickness 20 or 30 mm
- Thermal resistance 0,444 m<sup>2</sup>K/w or 0,667 m<sup>2</sup>K/W
- Max. traffic load 4 kPA (kN/m²)
- Impact noise improvement 28 dB or 29 dB
- Nominal value according to DIN 4108-4 0,045 W/mK
- Dimensions Tacker staples 40 x 18,5 x 6 mm The staples 38 mm are suitable for the installation of tubes with a diameter of 14-20 mm.
- Dimensions Tacker stapler 800 x 140 x 70 mm

### Warranty

MAGNUM Tacker system has a 2 year warranty.

Art.nr.	Description	m²	Dimensions
W90102	Tacker Grid foil	50 m²	50 m x 1 m
Art.nr.	Description	m²	
W90103	MAGNUM Tacker Insulation Plate	10 m²	Thermal 20 mm
W90104	MAGNUM Tacker Insulation Plate	10 m <sup>2</sup>	Thermal 30 mm
W90122	MAGNUM Tacker Insulation Plate	10 m <sup>2</sup>	Acoustic 20 mm
W90123	MAGNUM Tacker Insulation Plate	10 m <sup>2</sup>	Acoustic 30 mm
Art.nr.	Description		
W90105	Tacker Staples		40 mm 300 pieces
W90106	Tacker Staples		60 mm 300 pieces
Art.nr.	Description		
W90107	Tacker Stapler		

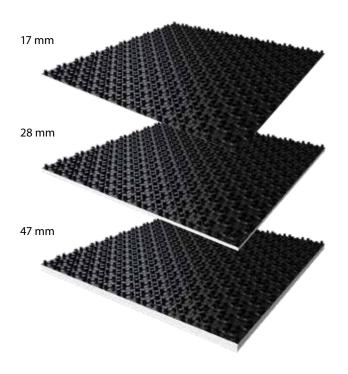
# **MAGNUM Castellated Plates**

# Positioning systems and accessories

# **Castellated plates**

Castellated plates are specially designed to simplify the preparation of the floor for the installation of heating tubes, which reduces the installation time. The castellated plates also make it possible to fix underfloor heating tubes in a quick and easy way. Available as 17 mm uninsulated and in 28 or 47 mm insulated.





Specifications	
System type	Water based
System height	17, 28 or 47 mm
System width	1 x 1 m
Min. setting height	5 cm above the tube
Installation	Floating / Pasting
In wet areas	V
Tiles	V
Wood	V
(PVC) Laminate	V
Carpet	V
Certification	DIN 4108-10, building material class B2 according to DIN 4102-B2
Warranty	2 years





Knob element with EPS thermal insulation plate according to DIN EN 13163, PS foil with tread seal and EPS tube knob on the back for heating tubes 14-16 mm. Two-sided foil overlay for screed-tight connection. Application for interior insulation on ceilings or floor plates according to DIN 4108-10, building material class B2 according to DIN 4102-B2.

- Fire behaviour according to EN 13501 = Class E
- Building material class in accordance with DIN 4102 = B2
- Application according to EN 13163 for interior insulation on ceilings or floorboards according to DIN 4108-10
- EPS (CFK-, HCFK-, HFK- & HBCD-free)
- Flame retardant polymer-FR

#### 28 mm insulated

Thermal resistance 0,314 m²K/W
 Max. traffic load 150 kPa

#### 47 mm insulated

Thermal resistance 0,75 m<sup>2</sup>K/W
 Max. traffic load 5 kPa ( kN/m<sup>2</sup>)

• Impact sound improvement 28 dB

Nominal value according to DIN 4108-4 0,040 W/mK

### Warranty

2 years

Art.nr.	Description	m²	
W90116	Castellated plates Uninsulated	10 m²	10 pieces - 17 mm
W90108	Castellated plates Uninsulated	30 m <sup>2</sup>	30 pieces - 17 mm
Art.nr.	Description	m²	

Art.nr.	Description	m²	
W90117	Castellated plates 28 mm	10 m <sup>2</sup>	11 mm EPS - 10 pieces
W90109	Castellated plates 28 mm	20 m <sup>2</sup>	11 mm EPS - 20 pieces
W90110	Castellated plates 47 mm	10 m <sup>2</sup>	30 mm EPS - 10 pieces

# **MAGNUM Heatboard W**

# **System plates**

The 18 mm thin water based underfloor heating system MAGNUM HeatBoard W is directly applicable under floating wood, parquet or laminate floors. Only suitable for dry rooms and ideal for renovations.

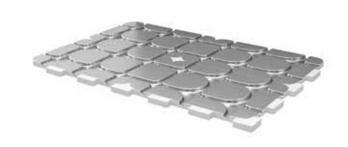
## **Application**

MAGNUM HeatBoard W is suitable for use with hard dry floor systems (laminate, wood and parquet). MAGNUM DuoBoard should first be installed between the heating system and the floor covering in the case of soft floor coverings (carpets, PVC laminate and vinyl).

#### Ease of installation

The system boards can be put together like puzzle pieces. They are also easy to cut to size with a hobby knife. Then the 12 mm MAGNUM Tube underfloor heating tube can easily be clamped in. The fixed tube distance is 12,5 cm. Approximately 8 m¹ (linear metres) of MAGNUM Tube is needed per 1 m². The floor can then be covered with the supplied felt layer on which the top floor can be applied.

The subfloor to which this system is to be applied must be stable, level and clean.





Specifications	
System type	Water based
System height	18 mm
System width	from 20 cm
Min. setting height	18 mm
Installation	Floating
Tube distance	Fixed 125 mm
In wet areas	Х
Tiles	<b>V</b> (i.c.w. Knauf or Fermacell min. 12 mm)
Wood	V
(PVC) Laminate	V (PVC i.c.w. DuoBoard)
Carpet	V (i.c.w. DuoBoard)
Certification	CE
Warranty	2 years







• Designation according to standard EPS-EN13163-T2-L2-S2- P2-DLT(1)5-CS(10)150

Nominal thickness dL 17 mm

• Coefficient of thermal conductivity 0,036 W/mK DIN V 4108-10

• Thermal resistance 0,33 m<sup>2</sup>K/W

• Compressive stress 150 kPa (at 10 % compression)

Load under tensionHeat resistance45 kPa80°C

Area of application DEO according to DIN 4108-10
 Fire behaviour Class E according to EN 1350
 Building material class B2 according to DIN 4102

• Material EPS polystyrene hard foam (CFK-free)

• Valid standard EN 13163, DIN V 4108-10

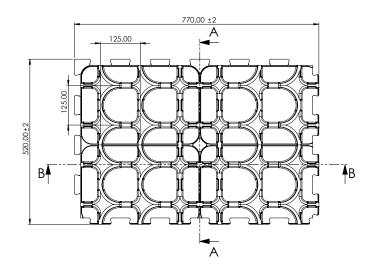
### Package content

- 13 plates (4,8 m<sup>2</sup>)
- Felt layer (5 m<sup>2</sup>)
- Roll of aluminum tape
- Safety gloves

12 mm MAGNUM Tube, a manifold, necessary connection fittings and possibly DuoBoard must be ordered separately.

### Warranty

MAGNUM Heatboard W has a 2 year warranty.



Art.nr.	Description	m²	Dimensions
W63010	MAGNUM Heatboard 18 mm	4,8 m <sup>2</sup>	13 plates of 770 x 520 mm
Art.nr.	Options	m	Dimensions
W12100	MAGNUM Tube PE-RT	100 m	12 x 1,5 mm
W12300	MAGNUM Tube PE-RT	300 m	12 x 1,5 mm
W90012	MAGNUM Adaptor / Euroconus connection		12 x 1,5 x 3/4" mm
W91201	PUSH connection set for 1 x 100 m tube 12 mm		
W91202	PUSH connection set for 2 x 100 m tube 12 mm		
W91203	PUSH connection set for 3 x 100 m tube 12 mm		
430030	DuoBoard 2 x 4 MDF plates	2,88 m <sup>2</sup>	1200 x 600 x 3 mm BaseBoard / 4 mm TopBoard

# **MAGNUM DryFloor (25mm)**

# **Underfloor heating system**

If you want to install underfloor heating in a room with a low construction height or in places where the supporting construction is less strong (such as wooden subfloors), a dry construction installation offers a solution. The system consists of profiled EPS insulation plates on which steel heat distribution profiles are placed.

#### Omega profile

The aluminium Omega profiles spread the heat of the underfloor heating system over the floor surface and are placed on top of the 25 mm drywall insulation plates. Due to the high thermal conductivity of the plates, the reaction time compared to traditional systems is much lower (thermal conductivity: 80 W/mK).

As a rule of thumb for ordering, you should consider approximately 8 profiles per m<sup>2</sup>.

The subfloor on which this system is installed must be stable, level and clean.

Attention: When you use these profiles in combination with the dry construction insulation plates, you should use a floor heating tube with a diameter of 14 mm.

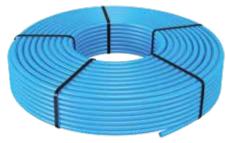




Specifications	
System type	Water based
System height	25 mm
System width	from 20 cm
Min. setting height	25 mm
Installation	Floating
Power	Variable
In wet areas	X
Tiles	V (i.c.w. Fermacell min. 12 mm)
Wood	V
(PVC) Laminate	V (i.c.w. Fermacell min. 12 mm)
Carpet	V (i.c.w. Fermacell min. 12 mm)
Certification	CE
Warranty	2 years









#### **EPS-insulation plates**

- Dimensions: 0,75 m<sup>2</sup> per insulation plate (100 cm x 75 cm)
- Number of pieces per box: 10 plates (7,5 m<sup>2</sup>)
- Tube spacing: 125 mm (main heating)
- Maximum tube length: 100 m
- · Application: insulation plate without impact sound
- Designation according to standard: EPS-EN13163-T4-L1-W1-S1-P4-DLT(1)5-CS(10)200
- Nominal thickness dL: 25 mm
- Coefficient of thermal conductivity DIN V 4108-10 in W/mK: 0,035
- Thermal resistance in m<sup>2</sup>K/W: 0,71
- Compressive stress (at 10 % compression): 150 kPa
- Tension load: 60 kPa
- Heat deflection temperature up to 80°C
- Application area according to DIN 4108-10: DEO
- Quality tested: CE / FIW
- Fire behaviour according to EN 13501: Class E
- Building material class in accordance with DIN 4102: B1
- Material EPS polystyrene hard foam (CFK-free)
- Valid standard EN 13163, DIN V 4108-10
- Usable area (L x W) per panel 1,000 x 750 mm
- Usable area per panel 0,75 m<sup>2</sup>

### **Aluminium Omega profiles**

- Dimensions per profile: 1000 mm x 120 mm
- Thermal conductivity: 80 W/mK
- Number required approx. 8 profiles per m<sup>2</sup>

#### Warranty

MAGNUM insulation boards and profiles: 2 years MAGNUM Tube: 50 years, the first 10 with consequential damages.

Art.nr.	Description	m²	Dimensions	
W62075	MAGNUM DryFloor 25 mm	7,5 m <sup>2</sup>	100 x 75 cm	
W62901	Aluminium Omega Profile 14 r	nm	1000 x 120 x 0,4 mm	
Art.nr.	Description	m	Dimensions	
W14100	MAGNI IM Tuba PF-RT	100 m	14 v 2 mm	

Art.nr.	Description	m	Dimensions	
W14100	MAGNUM Tube PE-RT	100 m	14 x 2 mm	
W14120	MAGNUM Tube PE-RT	120 m	14 x 2 mm	
W14240	MAGNUM Tube PE-RT	240 m	14 x 2 mm	
W14600	MAGNUM Tube PE-RT	600 m	14 x 2 mm	

Art.nr.	Description	Dimensions
W90014	MAGNUM Adaptor / Euroconus connection (per 2)	14 x 2 x 3/4" mm

# **MAGNUM Tube**

# Underfloor heating tube

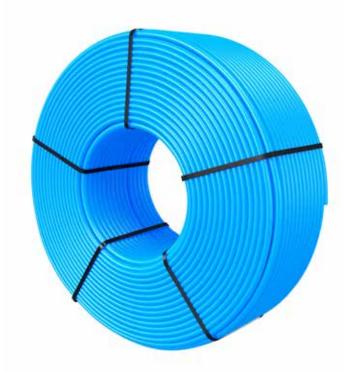
The MAGNUM Tube, floor heating tube, is made of a PE-RT type I and stands for Polyethylene Raised Temperature. This makes the tube also suitable for high temperatures.

PE-RT type I is strong and yet flexible. It is copolymer of ethylene with a unique molecular structure, based on controlled side chain distribution. As a result, it exhibits superior behaviour in terms of stress cracking and resistance to hydrostatic pressure, without the need for cross-linking. This makes MAGNUM Tube recyclable.

This PE-RT Type I is optimally stabilised against ageing, so that the MAGNUM Tube has a calculated life span of at least 50 years under normal conditions of use. The PE-RT type I MAGNUM Tube has been specially developed for use in hot and cold water systems, floor and wall heating/cooling and ceiling cooling.

The PE-RT type I feedstock, has been a leader for more than 20 years in tube applications where a wide temperature range is required.

The MAGNUM Tube can be used in a temperature range from 5°C to 80°C. Short-term peak loads of up to 95°C at a maximum internal hydrostatic overpressure of 6 bar can be withstood without any problems.





PE-RT Type I
EVOH Low (DIN 4726)
0,933 g/cm³ (ASTM D-792)
20°C - 70°C 0,19 mm/mK (DIN 53752 A)
at 60°C 0,4 W/mK (DIN 52612-1)
122°C (ASTM D-1525)
> 800% (ISO 527-2)
5 x Diameter
KOMO, MPA and SKZ
50 years of which the first 10 years with consequential damage

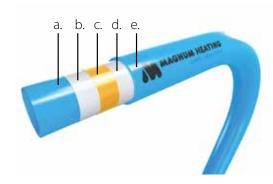








# Cross section of the PE-RT 5 layered heating tube:



- a. PE-RT, Type 1
- b. Adhesive layer
- c. EVOH layer
- d. Adhesive layer
- e. PE-RT, Type 1

# **Technical details**

• Density 0,933 g/cm³ (ASTM D-792)

• Linear expansion coefficient 20°C - 70°C

0,19 mm/mK (DIN 53752 A)

• Coefficient of thermal conductivity at 60°C

0,4 Watt/mK (DIN 52612-1)

Deflection point (Vicat)
 Maximum elongation to failure
 122°C (ASTM D-1525)
 800% (ISO 527-2)

• Bending radius 5 x Diameter

• Oxygen density EVOH Low (DIN 4726)

• With KOMO, MPA and SKZ certification

### Warranty

50 years of which the first 10 years with consequential damage.

Art.nr.	Description	Length	Dimensions
	10 mm for MAGNUM SlimFit 10 system		
W10080	MAGNUM Tube, underfloor heating tube PE-RT	80 m	10 x 1,3 mm
W10240	MAGNUM Tube, underfloor heating tube PE-RT	240 m	10 x 1,3 mm
Art.nr.	Description	Length	Dimensions
	12 mm for MAGNUM Heatboard W system & MAGNUM SlimFit 12 s	ystem	
W12100	MAGNUM Tube, underfloor heating tube PE-RT	100 m	12 x 1,5 mm
W12300	MAGNUM Tube, underfloor heating tube PE-RT	300 m	12 x 1,5 mm
	•		
Art.nr.	Description	Length	Dimensions
	14 mm		
W14100	MAGNUM Tube, underfloor heating tube PE-RT	100 m	14 x 2 mm
W14120	MAGNUM Tube, underfloor heating tube PE-RT	120 m	14 x 2 mm
W14240	MAGNUM Tube, underfloor heating tube PE-RT	240 m	14 x 2 mm
W14600	MAGNUM Tube, underfloor heating tube PE-RT	600 m	14 x 2 mm
Art.nr.	Description	Length	Dimensions
	16 mm		
W16090	MAGNUM Tube, underfloor heating tube PE-RT	90 m	16 x 2 mm
W16100	MAGNUM Tube, underfloor heating tube PE-RT	100 m	16 x 2 mm
W16120	MAGNUM Tube, underfloor heating tube PE-RT	120 m	16 x 2 mm
W16240	MAGNUM Tube, underfloor heating tube PE-RT	240 m	16 x 2 mm
W16600	MAGNUM Tube, underfloor heating tube PE-RT	600 m	16 x 2 mm
Art.nr.	Description	Length	Dimensions
	18 mm	- <del>-</del>	
W18130	MAGNUM Tube, underfloor heating tube PE-RT	130 m	18 x 2 mm
W18260	MAGNUM Tube, underfloor heating tube PE-RT	260 m	18 x 2 mm
W18520	MAGNUM Tube, underfloor heating tube PE-RT	520 m	18 x 2 mm
Art.nr.	Description	Length	Dimensions
	20 mm		
W20120	20 mm  MAGNUM Tube, underfloor heating tube PE-RT	120 m	20 x 2 mm
W20120 W20240		120 m 240 m	20 x 2 mm 20 x 2 mm

# Underfloor heating | Manifolds with pump

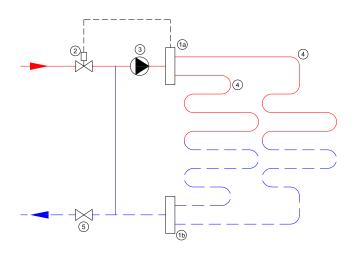
# **MAGNUM Basic Steel**

# Floor heating manifold

The MAGNUM Basic Steel is a simple, yet very robust control unit that comes standard with an energy-efficient pump with energy label A. This pump has a constant pressure, so that it adjusts itself when groups are closed off by a possible after-control (actuator). This is also called a modulating pump.

The manifold is hydraulically neutral, which means that the pump of this manifold has no influence on the primary circuit. The manifold is pressure tested at 6 bar provided with a press report, clear instruction manual and warranty card.





1a	Manifold
1b	Collector
2	Thermostatic valve
3	Circulation pump
4	Underfloor heating group(s)
5	Valve

Central heating boiler	V
Heat pump	Х
Solar heat (with buffer tank)	Х
Pellet stove	Х
District heating	Х
Specifications	
Valve on inlet	V
Thermostat on inlet	V
Pump	V
Flow meter	X
Thermometer	V
Pressure gauge	X
Air vent	V
Valve on return	V
RTL valve on return	X
In control valve mixing quantity	X
Stop valve between supply and return	X
Keuring	CE



- The body of this manifold is galvanised and epoxy-coated in black RAL 9011
- Equipped with thermostat knob, thermometer, maximum safety device and air vent
- Equipped as standard with an A-rated pump
- Double adjustable thermostatic group valves suitable for MAGNUM actuators
- Group connections suitable for 3/4" Euroconus
- Primary connection 1/2" (from 8 groups 3/4")
- Distributor is supplied with mounting material as standard
- · Thermostatically prepared valve
- Thermostat knob with cap valve in immersion tube
- Bimetal thermometer incl. immersion tube
- Air vent 1/2"
- Ball valve 1/2" 2-piece blue

#### Package content

- Press report
- · Installation instructions
- Warranty certificate
- Basic Steel

#### Warranty

MAGNUM Basic Steel 5 years for the body, 2 years for fittings.



- A. Supply pipe (central heating)
- B. Return pipe (central heating)
- C. Thermostat knob
- D. Temp. sensor (in tube)
- E. Temperature gauge
- F. A-Label Pump
- G. Group valves
- H. Supply MAGNUM Tube
- I. Return MAGNUM Tube
- J. Maximum protection
- K. Air vent

Art.nr.	Description	Dimensions
W40001	MAGNUM Basic Steel incl. A-Label Pump	190 x 390 x 145 mm
W40002	MAGNUM Basic Steel 2 Groups incl. A-Label Pump	190 x 390 x 145 mm
W40003	MAGNUM Basic Steel 3 Groups incl. A-Label Pump	245 x 390 x 145 mm
W40004	MAGNUM Basic Steel 4 Groups incl. A-Label Pump	300 x 390 x 145 mm
W40005	MAGNUM Basic Steel 5 Groups incl. A-Label Pump	355 x 390 x 145 mm
W40006	MAGNUM Basic Steel 6 Groups incl. A-Label Pump	410 x 390 x 145 mm
W40007	MAGNUM Basic Steel 7 Groups incl. A-Label Pump	465 x 390 x 145 mm
W40008	MAGNUM Basic Steel 8 Groups incl. A-Label Pump	520 x 390 x 145 mm
W40009	MAGNUM Basic Steel 9 Groups incl. A-Label Pump	575 x 390 x 145 mm
W40010	MAGNUM Basic Steel 10 Groups incl. A-Label Pump	630 x 390 x 145 mm

# Underfloor heating | Manifolds with pump

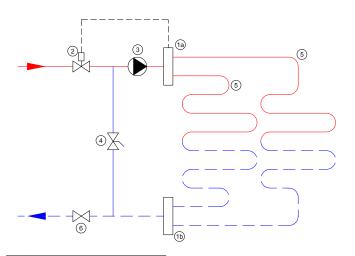
# **MAGNUM Front Steel**

# Floor heating manifold

This MAGNUM control unit is very compact and made of galvanised and epoxy coated steel. This allows MAGNUM to give a 5-year guarantee on the housing of this manifold. The manifold is equipped with a A-label pump as standard. Standard with a primary top connection. This pump has a constant pressure, so it adapts itself when groups are closed off by a possible after-control (actuator).

The manifold is basically hydraulically neutral. If the mixing valve is closed in the hydraulically active





1a	Manifold
1b	Collector
2	Thermostatic valve
3	Circulation pump
4	Regulating valve
5	Underfloor heating group(s)
6	Valve

Eentral heating boiler	V
leat pump	X
olar heat (with buffer tank)	V
ellet stove	V
District heating	V (on request)
Specifications	
alve on inlet	V
hermostat on inlet	V
ump	V
low meter	X
hermometer	V
ressure gauge	X
ir vent	V
alve on return	V
TL valve on return	X
n control valve mixing quantity	V
top valve between supply and return	X
nspection	CE



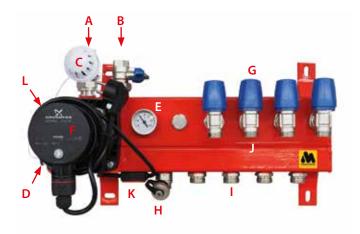
- The body of this manifold is galvanised and epoxied steel
- Equipped with thermometer, air vent and maximum safety device
- Equipped as standard with an energy-efficient A-Label pump
- Thermostatic group valves M30x 1,5 suitable for MAGNUM actuators
- Group connections suitable for 3/4" Eurocones
- Primary connection ½" (from 8 groups ¾")
- Manifold is supplied with mounting material as standard
- Thermostatically prepared valve
- Thermostat knob with cap valve in immersion tube
- · Bimetal thermometer incl. immersion tube
- Air vent 1/2"
- Ball valve 1/2" 2-part blue
- · Valve insert LTV manifold

### Package content

- Press report
- · Installation instructions
- Warranty certificate
- MAGNUM Front Steel

#### Warranty

MAGNUM Basic Steel 5 years for the body, 2 years for fittings.



- A. Supply pipe (central heating)
- B. Return pipe (central heating)
- C. Thermostat knob
- D. Temperature sensor
- E. Temperature gauge
- F. A-Label Pump
- G. Group valves
- H. Filling Nipple
- I. Supply MAGNUM Tube
- J. Return MAGNUM Tube
- K. Maximum protection
- L. Mixing valve

W41001       MAGNUM Front Steel incl. A-Label pump       325 x 235 x 185 mm         W41002       MAGNUM Front Steel 2 Groups incl. A-Label pump       325 x 235 x 185 mm         W41003       MAGNUM Front Steel 3 Groups incl. A-Label pump       375 x 235 x 185 mm         W41004       MAGNUM Front Steel 4 Groups incl. A-Label pump       425 x 235 x 185 mm         W41005       MAGNUM Front Steel 5 Groups incl. A-Label pump       475 x 235 x 185 mm         W41006       MAGNUM Front Steel 6 Groups incl. A-Label pump       525 x 235 x 185 mm         W41007       MAGNUM Front Steel 7 Groups incl. A-Label pump       575 x 235 x 185 mm         W41008       MAGNUM Front Steel 8 Groups incl. A-Label pump       625 x 235 x 185 mm         W41009       MAGNUM Front Steel 9 Groups incl. A-Label pump       675 x 235 x 185 mm         W41010       MAGNUM Front Steel 10 Groups incl. A-Label pump       725 x 235 x 185 mm         W41011       MAGNUM Front Steel 11 Groups incl. A-Label pump       775 x 235 x 185 mm         W41012       MAGNUM Front Steel 12 Groups incl. A-Label pump       825 x 235 x 185 mm         W41013       MAGNUM Front Steel 13 Groups incl. A-Label pump       875 x 235 x 185 mm         W41014       MAGNUM Front Steel 15 Groups incl. A-Label pump       925 x 235 x 185 mm         W41015       MAGNUM Front Steel 15 Groups incl. A-Label pump       975 x 235 x 185	Art.nr.	Description	Dimensions
W41003       MAGNUM Front Steel 3 Groups incl. A-Label pump       375 x 235 x 185 mm         W41004       MAGNUM Front Steel 4 Groups incl. A-Label pump       425 x 235 x 185 mm         W41005       MAGNUM Front Steel 5 Groups incl. A-Label pump       475 x 235 x 185 mm         W41006       MAGNUM Front Steel 6 Groups incl. A-Label pump       525 x 235 x 185 mm         W41007       MAGNUM Front Steel 7 Groups incl. A-Label pump       575 x 235 x 185 mm         W41008       MAGNUM Front Steel 8 Groups incl. A-Label pump       625 x 235 x 185 mm         W41009       MAGNUM Front Steel 9 Groups incl. A-Label pump       675 x 235 x 185 mm         W41010       MAGNUM Front Steel 10 Groups incl. A-Label pump       725 x 235 x 185 mm         W41011       MAGNUM Front Steel 11 Groups incl. A-Label pump       775 x 235 x 185 mm         W41012       MAGNUM Front Steel 12 Groups incl. A-Label pump       825 x 235 x 185 mm         W41013       MAGNUM Front Steel 13 Groups incl. A-Label pump       875 x 235 x 185 mm         W41014       MAGNUM Front Steel 14 Groups incl. A-Label pump       925 x 235 x 185 mm	W41001	MAGNUM Front Steel incl. A-Label pump	325 x 235 x 185 mm
W41004       MAGNUM Front Steel 4 Groups incl. A-Label pump       425 x 235 x 185 mm         W41005       MAGNUM Front Steel 5 Groups incl. A-Label pump       475 x 235 x 185 mm         W41006       MAGNUM Front Steel 6 Groups incl. A-Label pump       525 x 235 x 185 mm         W41007       MAGNUM Front Steel 7 Groups incl. A-Label pump       575 x 235 x 185 mm         W41008       MAGNUM Front Steel 8 Groups incl. A-Label pump       625 x 235 x 185 mm         W41009       MAGNUM Front Steel 9 Groups incl. A-Label pump       675 x 235 x 185 mm         W41010       MAGNUM Front Steel 10 Groups incl. A-Label pump       725 x 235 x 185 mm         W41011       MAGNUM Front Steel 11 Groups incl. A-Label pump       775 x 235 x 185 mm         W41012       MAGNUM Front Steel 12 Groups incl. A-Label pump       825 x 235 x 185 mm         W41013       MAGNUM Front Steel 13 Groups incl. A-Label pump       875 x 235 x 185 mm         W41014       MAGNUM Front Steel 14 Groups incl. A-Label pump       925 x 235 x 185 mm	W41002	MAGNUM Front Steel 2 Groups incl. A-Label pump	325 x 235 x 185 mm
W41005       MAGNUM Front Steel 5 Groups incl. A-Label pump       475 x 235 x 185 mm         W41006       MAGNUM Front Steel 6 Groups incl. A-Label pump       525 x 235 x 185 mm         W41007       MAGNUM Front Steel 7 Groups incl. A-Label pump       575 x 235 x 185 mm         W41008       MAGNUM Front Steel 8 Groups incl. A-Label pump       625 x 235 x 185 mm         W41009       MAGNUM Front Steel 9 Groups incl. A-Label pump       675 x 235 x 185 mm         W41010       MAGNUM Front Steel 10 Groups incl. A-Label pump       725 x 235 x 185 mm         W41011       MAGNUM Front Steel 11 Groups incl. A-Label pump       775 x 235 x 185 mm         W41012       MAGNUM Front Steel 12 Groups incl. A-Label pump       825 x 235 x 185 mm         W41013       MAGNUM Front Steel 13 Groups incl. A-Label pump       875 x 235 x 185 mm         W41014       MAGNUM Front Steel 14 Groups incl. A-Label pump       925 x 235 x 185 mm	W41003	MAGNUM Front Steel 3 Groups incl. A-Label pump	375 x 235 x 185 mm
W41006       MAGNUM Front Steel 6 Groups incl. A-Label pump       525 x 235 x 185 mm         W41007       MAGNUM Front Steel 7 Groups incl. A-Label pump       575 x 235 x 185 mm         W41008       MAGNUM Front Steel 8 Groups incl. A-Label pump       625 x 235 x 185 mm         W41009       MAGNUM Front Steel 9 Groups incl. A-Label pump       675 x 235 x 185 mm         W41010       MAGNUM Front Steel 10 Groups incl. A-Label pump       725 x 235 x 185 mm         W41011       MAGNUM Front Steel 11 Groups incl. A-Label pump       775 x 235 x 185 mm         W41012       MAGNUM Front Steel 12 Groups incl. A-Label pump       825 x 235 x 185 mm         W41013       MAGNUM Front Steel 13 Groups incl. A-Label pump       875 x 235 x 185 mm         W41014       MAGNUM Front Steel 14 Groups incl. A-Label pump       925 x 235 x 185 mm	W41004	MAGNUM Front Steel 4 Groups incl. A-Label pump	425 x 235 x 185 mm
W41007       MAGNUM Front Steel 7 Groups incl. A-Label pump       575 x 235 x 185 mm         W41008       MAGNUM Front Steel 8 Groups incl. A-Label pump       625 x 235 x 185 mm         W41009       MAGNUM Front Steel 9 Groups incl. A-Label pump       675 x 235 x 185 mm         W41010       MAGNUM Front Steel 10 Groups incl. A-Label pump       725 x 235 x 185 mm         W41011       MAGNUM Front Steel 11 Groups incl. A-Label pump       775 x 235 x 185 mm         W41012       MAGNUM Front Steel 12 Groups incl. A-Label pump       825 x 235 x 185 mm         W41013       MAGNUM Front Steel 13 Groups incl. A-Label pump       875 x 235 x 185 mm         W41014       MAGNUM Front Steel 14 Groups incl. A-Label pump       925 x 235 x 185 mm	W41005	MAGNUM Front Steel 5 Groups incl. A-Label pump	475 x 235 x 185 mm
W41008         MAGNUM Front Steel 8 Groups incl. A-Label pump         625 x 235 x 185 mm           W41009         MAGNUM Front Steel 9 Groups incl. A-Label pump         675 x 235 x 185 mm           W41010         MAGNUM Front Steel 10 Groups incl. A-Label pump         725 x 235 x 185 mm           W41011         MAGNUM Front Steel 11 Groups incl. A-Label pump         775 x 235 x 185 mm           W41012         MAGNUM Front Steel 12 Groups incl. A-Label pump         825 x 235 x 185 mm           W41013         MAGNUM Front Steel 13 Groups incl. A-Label pump         875 x 235 x 185 mm           W41014         MAGNUM Front Steel 14 Groups incl. A-Label pump         925 x 235 x 185 mm	W41006	MAGNUM Front Steel 6 Groups incl. A-Label pump	525 x 235 x 185 mm
W41009       MAGNUM Front Steel 9 Groups incl. A-Label pump       675 x 235 x 185 mm         W41010       MAGNUM Front Steel 10 Groups incl. A-Label pump       725 x 235 x 185 mm         W41011       MAGNUM Front Steel 11 Groups incl. A-Label pump       775 x 235 x 185 mm         W41012       MAGNUM Front Steel 12 Groups incl. A-Label pump       825 x 235 x 185 mm         W41013       MAGNUM Front Steel 13 Groups incl. A-Label pump       875 x 235 x 185 mm         W41014       MAGNUM Front Steel 14 Groups incl. A-Label pump       925 x 235 x 185 mm	W41007	MAGNUM Front Steel 7 Groups incl. A-Label pump	575 x 235 x 185 mm
W41010         MAGNUM Front Steel 10 Groups incl. A-Label pump         725 x 235 x 185 mm           W41011         MAGNUM Front Steel 11 Groups incl. A-Label pump         775 x 235 x 185 mm           W41012         MAGNUM Front Steel 12 Groups incl. A-Label pump         825 x 235 x 185 mm           W41013         MAGNUM Front Steel 13 Groups incl. A-Label pump         875 x 235 x 185 mm           W41014         MAGNUM Front Steel 14 Groups incl. A-Label pump         925 x 235 x 185 mm	W41008	MAGNUM Front Steel 8 Groups incl. A-Label pump	625 x 235 x 185 mm
W41011         MAGNUM Front Steel 11 Groups incl. A-Label pump         775 x 235 x 185 mm           W41012         MAGNUM Front Steel 12 Groups incl. A-Label pump         825 x 235 x 185 mm           W41013         MAGNUM Front Steel 13 Groups incl. A-Label pump         875 x 235 x 185 mm           W41014         MAGNUM Front Steel 14 Groups incl. A-Label pump         925 x 235 x 185 mm	W41009	MAGNUM Front Steel 9 Groups incl. A-Label pump	675 x 235 x 185 mm
W41012         MAGNUM Front Steel 12 Groups incl. A-Label pump         825 x 235 x 185 mm           W41013         MAGNUM Front Steel 13 Groups incl. A-Label pump         875 x 235 x 185 mm           W41014         MAGNUM Front Steel 14 Groups incl. A-Label pump         925 x 235 x 185 mm	W41010	MAGNUM Front Steel 10 Groups incl. A-Label pump	725 x 235 x 185 mm
W41013 MAGNUM Front Steel 13 Groups incl. A-Label pump 875 x 235 x 185 mm W41014 MAGNUM Front Steel 14 Groups incl. A-Label pump 925 x 235 x 185 mm	W41011	MAGNUM Front Steel 11 Groups incl. A-Label pump	775 x 235 x 185 mm
W41014 MAGNUM Front Steel 14 Groups incl. A-Label pump 925 x 235 x 185 mm	W41012	MAGNUM Front Steel 12 Groups incl. A-Label pump	825 x 235 x 185 mm
	W41013	MAGNUM Front Steel 13 Groups incl. A-Label pump	875 x 235 x 185 mm
W41015 MAGNUM Front Steel 15 Groups incl. A-Label pump 975 x 235 x 185 mm	W41014	MAGNUM Front Steel 14 Groups incl. A-Label pump	925 x 235 x 185 mm
	W41015	MAGNUM Front Steel 15 Groups incl. A-Label pump	975 x 235 x 185 mm

# Underfloor heating | Manifolds with pump

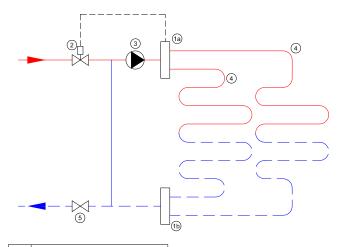
# **MAGNUM Premium Plastic**

# Floor heating manifold

This professional MAGNUM Premium Plastic control unit is very compact and consists of individual plastic elements connected by threaded rods.

The individual elements are made of a glass-fibre-reinforced polyamide plastic that is very suitable for high but also low temperatures. The elements have a double-walled construction that automatically forms an insulating layer, making this manifold ideal for heating as well as cooling. This insulation layer virtually eliminates the formation of condensation on the manifold.





1a	Manifold
1b	Collector
2	Thermostatic valve
3	Circulation pump
4	Underfloor heating group(s)
5	Valve

Central heating boiler	V
Heat pump	X
Solar heat (with buffer tank)	V
Pellet stove	V
District heating	V (on request)
Specifications	
/alve on inlet	V
Thermostat on inlet	V
Pump	V
Flow meter	V
Thermometer	V
Pressure gauge	V
Air vent	V
/alve on return	V
RTL valve on return	X
n control valve mixing quantity	X
top valve between supply and return	X
nspection	CE



- Equipped as standard with an energy-efficient Grundfos A-Label pump
- Thermostatic group valves M30x 1,5 suitable for MAGNUM actuators
- Group connections suitable for 3/4" Eurocones
- Groups fitted with professional flow meters with a range of 0-2,5L/min
- Primary connection ½" (from 8 groups ¾")
- Equipped with thermometer, air vent, maximum safety valve and filler tap
- Thermostatically prepared valve 1/2" (from 8 groups 3/4")
- Thermostat knob with cap valve in immersion tube
- Grundfoss A-label pump
- Flow meter Camflux 2,5 L/m- 1/2"
- Manothermometer 60mm Axiaal incl. immersion tube
- Air vent 1/2"
- Ball valve 1/2" 2-part blue (from 8 groups 3/4")

#### Installation method

The water temperature can be set with a thermostat head. The manifold is also equipped with a maximum safety device to prevent too hot water being pumped into the floor.

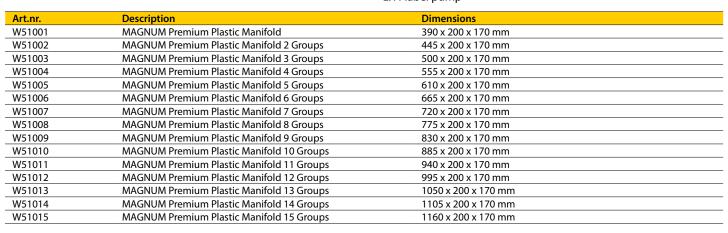
#### Package content

- Press report
- · Installation instructions
- · Warranty certificate
- MAGNUM Premium Plastic Manifold

#### Warranty

MAGNUM Premium Plastic 10 years on body, 2 years on valves.

- A. Supply pipe (central heating)
- B. Return pipe (central heating)
- C. Flow meter
- D. Group valves
- E. Filling nipple
- F. Supply MAGNUM Tube
- G. Return MAGNUM Tube
- H. Pressure gauge
- I. Thermostat knob
- J. Temperature gauge
- K. Maximum protection
- L. A-label pump



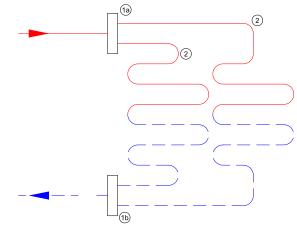


# **MAGNUM Premium Stainless Steel Open LT**

# Floor heating manifold

The MAGNUM Premium Stainless Steel Open manifold is used in low temperature installations and is made of the very high quality 4301 stainless steel. This manifold is fitted as standard with 1" ball valves, 1 automatic air vent, 2 drain valves and a pressure gauge.





1a	Manifold
1b	Collector
2	Underfloor heating group(s)

Central heating boiler	V
Heat pump	V
Solar heat (with buffer tank)	V
Pellet stove	V
District heating	V
Specifications	
Valve on inlet	V
Thermostat on inlet	X
Pump	X
Flow meter	V
Thermometer	X
Pressure gauge	V
Air vent	V
Valve on return	V
RTL valve on return	X
In control valve mixing quantity	X
Stop valve between supply and return	X
Inspection	CE



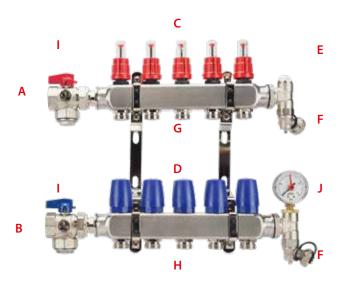
- The body of this manifold is stainless steel 4301
- Thermostatic group valves M30x 1,5 suitable for MAGNUM actuators
- Groups fitted with professional flow meters with a range of 0-2,5L/min
- Group connections suitable for 3/4" Eurocones
- Primary connection 1" Sealable by ball valves
- Manifold is supplied with mounting material as standard
- Ball valve 1" with red handle
- Flow meter Camflux 2,5 L/m- 1/2"
- Pressure gauge 40 mm axial 1/8"
- Automatic air vent nickel-plated 1/2" + O-ring
- Ball valve 1" with blue handle

#### Package content

- Press report
- · Installation instructions
- · Warranty certificate
- MAGNUM Premium stainless steel Open LT

#### Warranty

MAGNUM Premium stainless steel Open LT 10 years on body, 2 years on fittings.



- A. Supply pipe (central heating)
- B. Return pipe (central heating)
- C. Flow meter
- D. Group valves
- E. Automatic air vent
- F. Filling nipple
- G. Supply MAGNUM Tube
- H. Return MAGNUM Tube
- I. Ball valve
- J. Pressure gauge

Art.nr.	Description	Dimensions
W32002	MAGNUM Premium Stainless Steel Open LT 2 Groups	270 x 380 x 100 mm
W32003	MAGNUM Premium Stainless Steel Open LT 3 Groups	320 x 380 x 100 mm
W32004	MAGNUM Premium Stainless Steel Open LT 4 Groups	370 x 380 x 100 mm
W32005	MAGNUM Premium Stainless Steel Open LT 5 Groups	420 x 380 x 100 mm
W32006	MAGNUM Premium Stainless Steel Open LT 6 Groups	470 x 380 x 100 mm
W32007	MAGNUM Premium Stainless Steel Open LT 7 Groups	520 x 380 x 100 mm
W32008	MAGNUM Premium Stainless Steel Open LT 8 Groups	570 x 380 x 100 mm
W32009	MAGNUM Premium Stainless Steel Open LT 9 Groups	620 x 380 x 100 mm
W32010	MAGNUM Premium Stainless Steel Open LT 10 Groups	670 x 380 x 100 mm
W32011	MAGNUM Premium Stainless Steel Open LT 11 Groups	720 x 380 x 100 mm
W32012	MAGNUM Premium Stainless Steel Open LT 12 Groups	770 x 380 x 100 mm
W32013	MAGNUM Premium Stainless Steel Open LT 13 Groups	820 x 380 x 100 mm
W32014	MAGNUM Premium Stainless Steel Open LT 14 Groups	870 x 380 x 100 mm
W32015	MAGNUM Premium Stainless Steel Open LT 15 Groups	955 x 365 x 100 mm

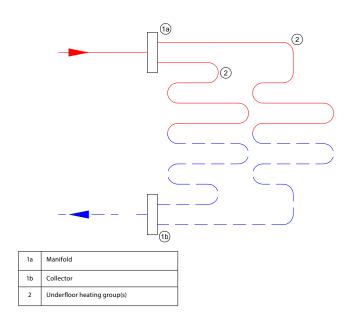
**MAGNUM Premium Plastic Open LT** 

# Floor heating manifold

The MAGNUM Premium Plastic Open manifold consists of individual plastic elements that are connected by threaded rods.

The individual elements are made of a glass-fibre reinforced polyamide plastic that is very suitable for high and low temperatures. The elements have a double-walled construction that automatically forms an insulating layer. This makes this manifold extremely suitable for heating, but also for cooling. This insulating layer practically eliminates the formation of condensation on the manifold. This manifold is increasingly used in combination with a heat pump, which heats in the winter and cools in the summer. This manifold is equipped as standard with 1" ball valves, 2 automatic air vents, 2 filler drain valves, thermometer and a thermo-manometer.





Central heating boiler	V
Heat pump	V
Solar heat (with buffer tank)	V
Pellet stove	V
District heating	V
Specifications	
Valve on inlet	V
Thermostat on inlet	X
Pump	X
Flow meter	V
Thermometer	V
Pressure gauge	V
Air vent	V
Valve on return	V
RTL valve on return	Х
In control valve mixing quantity	X
Stop valve between supply and return	X
Inspection	CE



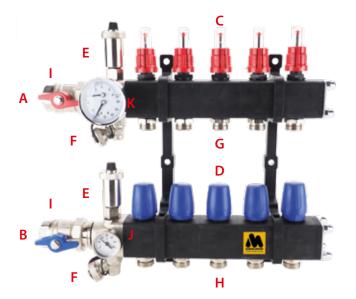
- Constructed from separate plastic elements, with a 10 year guarantee
- Thermostatic group valves M30x 1,5 suitable for MAGNUM actuators
- Groups fitted with a professional flow meter with a range of 0-2,5L/min
- Group connections suitable for ¾" Eurocones
- Primary connection 1" Sealable by ball valves
- Manifold is supplied with mounting material as standard
- Ball valve 1" with red handle
- Flowmeter Camflux 2,5 L/m- 1/2"
- Bi-metal thermometer incl. DB
- Automatic air vent nickel-plated 1/2" + O-ring
- Ball valve 1" with blue handle

### Package content

- Press report
- Installation instructions
- · Warranty certificate
- MAGNUM Premium Plastic Open LT

#### Warranty

MAGNUM Premium Plastic Open LT 10 years on body, 2 years on fittings.



- A. Supply pipe (central heating)
- B. Return pipe (central heating)
- C. Flow meter
- D. Group valves
- E. Automatic air vent
- F. Filling Nipple
- G. Supply MAGNUM Tube
- H. Return MAGNUM Tube
- I. Ball valve
- J. Temperature indicator
- K. Thermo/Manometer

Art.nr.	Description	Dimensions	
W50002	MAGNUM Premium Plastic Open LT 2 Groups	265 x 375 x 125 mm	
W50003	MAGNUM Premium Plastic Open LT 3 Groups	320 x 375 x 125 mm	
W50004	MAGNUM Premium Plastic Open LT 4 Groups	375 x 375 x 125 mm	
W50005	MAGNUM Premium Plastic Open LT 5 Groups	430 x 375 x 125 mm	
W50006	MAGNUM Premium Plastic Open LT 6 Groups	485 x 375 x 125 mm	
W50007	MAGNUM Premium Plastic Open LT 7 Groups	540 x 375 x 125 mm	
W50008	MAGNUM Premium Plastic Open LT 8 Groups	595 x 375 x 125 mm	
W50009	MAGNUM Premium Plastic Open LT 9 Groups	650 x 375 x 125 mm	
W50010	MAGNUM Premium Plastic Open LT 10 Groups	705 x 375 x 125 mm	
W50011	MAGNUM Premium Plastic Open LT 11 Groups	760 x 375 x 125 mm	
W50012	MAGNUM Premium Plastic Open LT 12 Groups	815 x 375 x 125 mm	
W50013	MAGNUM Premium Plastic Open LT 13 Groups	870 x 375 x 125 mm	
W50014	MAGNUM Premium Plastic Open LT 14 Groups	925 x 375 x 125 mm	
W50015	MAGNI IM Premium Plastic Open IT 15 Groups	980 x 375 x 125 mm	

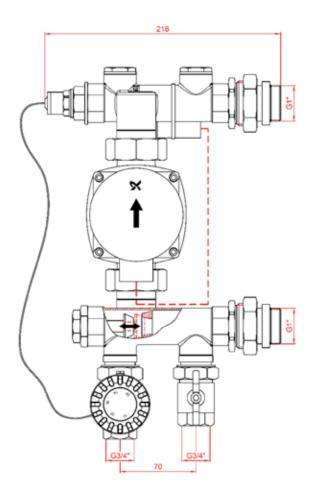
# **Pump/temperature regulator**

# For open floor heating manifolds

The temperature regulator makes MAGNUM Premium Stainless Steel Open LT or MAGNUM Premium Plastic Open LT suitable for high temperature systems. The controller mixes the warm supply water from the boiler back in order to obtain the correct temperature for the underfloor heating system.

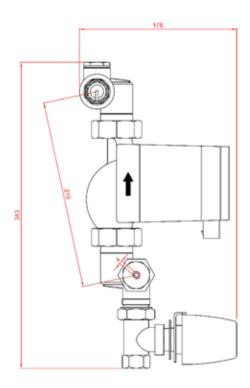
The controller is equipped with an energy-efficient A-Label pump as standard.





Suitable for	
Basic Steel	X
Front Steel	х
Premium Plastic Pro	х
Premium Stainless Steel Open LT	V
Premium Plastic Open LT	V
Specifications	
Valve on inlet	V
Thermostat on inlet	V
Pump	V
Flow meter	х
Thermometer	X
Pressure gauge	X
Air vent	V
Valve on return	V
RTL valve on return	Х
In control valve mixing quantity	V
Stop valve between supply and return	Х

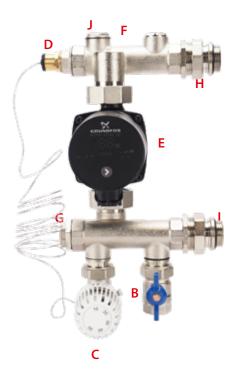




- Thermostatically prepared valve 3/4"
- Thermostat knob with cap valve in immersion tube
- A-Label pump
- Ball valve 3/4" 2-part blue
- Valve insert LTV manifold

### Warranty

The A-Label pump/temperature regulator has a 10 year guarantee on the body, 2 years on the fittings.



- A. Supply primary
- B. Primary return
- C. Thermostat knob
- D. Temperature sensor
- E. A-Label Pump
- F. Maximum protection
- G. LTV mixing valve
- H. Underfloor heating supply
- I. Underfloor heating return
- J. Air vent

Art.nr.	Description
W90002	A-Label Pump/temperature regulator

# **MAGNUM Euroconus**

# **Connection fittings**

Euroconus connection fittings are the ideal fittings for attaching the tubes of your underfloor heating system to the manifold. MAGNUM supplies connection fittings suitable for all MAGNUM Tube underfloor heating tubes with a diameter of 10 mm, 12 mm, 14 mm, 15 mm, 16 mm, 18 mm or 20 mm and a wall thickness up to 2,0 mm (supplied per 2 pieces).



Locking	сар
Open ferr	ule
0-ring	
Flat gas	ket
0-ring	

Connector

Diameter	10 mm
Dimensions	1,3 x 3/4" mm
Diameter	12 mm
Dimensions	1,5 x 3/4" mm
Diameter	14 mm
Dimensions	2 x 3/4" mm
Diameter	16 mm
Dimensions	2 x 3/4" mm
Diameter	18 mm
Dimensions	2 x 3/4" mm
Diameter	20 mm
Dimensions	2 x 3/4" mm
Warranty	2 years

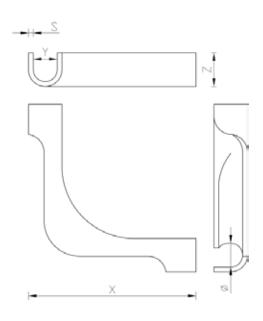
Art.nr.	Description	Dimensions	
W90010	MAGNUM Adaptor / Euroconus connection 10 mm	1,3 x 3/4" mm	
W90012	MAGNUM Adaptor / Euroconus connection 12 mm	1,5 x 3/4" mm	
W90014	MAGNUM Adaptor / Euroconus connection 14 mm	2 x 3/4" mm	
W90016	MAGNUM Adaptor / Euroconus connection 16 mm	2 x 3/4" mm	
W90018	MAGNUM Adaptor / Euroconus connection 18 mm	2 x 3/4" mm	
W90020	MAGNUM Adaptor / Euroconus connection 20 mm	2 x 3/4" mm	

# **MAGNUM Bend support**

# Positioning systems and accessories

90° bend support holds the heating tubes at an angle of 90° and enables you to process the tubes easily and quickly. This support is very suitable to support tubes in corners when installing in ceilings, floors or support from the manifolds of the underfloor heating system.





Specifications	
Diameter	14 - 17 mm 18 - 20 mm
Dimensions	125 x 17 x 25 mm 140 x 20 x 39 mm
Weight	37 g 45 g
Material	PA 6 with glass fibre
Operating temperature	0°C - 65°C
Warranty	2 years
Keuring	CE



Art.nr.	Description	Dimensions
W90113	90° Bend support	Tube size ø 14 - 17 mm 2 pieces
W90114	90° Bend support	Tube size ø 18 - 20 mm 2 pieces

# **MAGNUM Aluminium Reflection Foil**

## Positioning systems and accessories

### Aluminium reflection foil

Aluminium reflection foil consists of a plastic webbing and an aluminium top layer. The foil reflects heat to the screed and displaces cold via the subfloor, making it a highly effective heat conductor. The foil is designed for direct application under underfloor heating tubes and can be easily cut to size.



## **Technical details**

#### Installation methods

• Suitable for MAGNUM Tube

#### Package content

• MAGNUM Aluminium reflection foil roll

### Warranty

2 years warranty.

Surface area	30 m <sup>2</sup> - 75 m <sup>2</sup>
ength	20 m - 50 m
Vidth	1,50 m
hickness	0,20 mm
Veight per area	90 ± 25% (g/m²)
ire class	Class E
ear resistance	> 100 (N)
Max. tensile strength length	> 220 (N/50mm)
Max. tensile strength width	> 150 (N/50mm)
longation at break length	> 12 %
longation at break width	> 7 %
Vater vapour transmission (Sd)	50 ± 30 m
emperature range	-30°C / 70°C
euring	CE



Art.nr.	Description	m²	Dimensions	
W90100	Aluminium reflection foil roll	30 m <sup>2</sup>	20 x 1,5 m	
W90101	Aluminium reflection foil roll	75 m <sup>2</sup>	50 x 1.5 m	

# **MAGNUM Edge insulation**

# Positioning systems and accessories

### **Edge insulation**

Edge insulation should be applied when floor heating is used. This form of insulation prevents unwanted heat loss and absorbs the expansion and contraction of the floor. The edge insulation will also ensure that no cold bridges are formed.



Roll length	25 m
Foam thickness	8 mm ± 1 mm
Foam width	150 mm ± 5 mm
Material	PE - foam
Density	18 kg/m³ ± 5 kg/m³
Packaging	In sturdy plastic foil
Color	Grey
Fire class	EN 13501-1:2010
Application	Conforms to all types of underfloor heating systems
Warranty	2 years
Inspection	CE



Art.nr.	Description	Dimensions
W90111	Edge insulation	25 m x 15 cm x 8 mm with flap

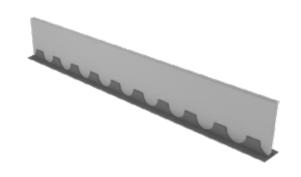
# **MAGNUM Expansion profile**

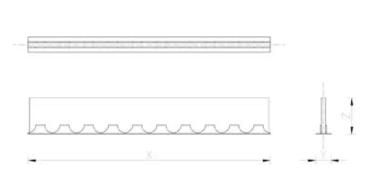
# Positioning systems and accessories

#### **Expansion profile**

In rooms that are larger than 40 m<sup>2</sup>, it is often necessary to use expansion profiles in the floor. Also when a floor is staggered, such a joint is usually necessary. Expansion profiles prevent the screed in larger rooms from cracking due to expansion and contraction.







Specifications		
Dimensions	2000 x 40 x 104 mm	
Weight	400 g	
Material	Foamed LDPE, polypropylene	
Warranty	2 years	
Inspection	CE	

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Art.nr. D	Description	Dimensions
W90112 E	xpansion profile - Profile set with adhesive strip	5 pieces 2 m (10 m/l)

# **MAGNUM Tube reel**

# Positioning systems and accessories

#### **Tube reel**

This tube reel is made of galvanised steel and is equipped with a strong ball bearing. Furthermore, the reel is suitable for almost all common tube rolls, because the uprights of the inner core are manually adjustable. This reel is very robust and has a long service life.

The tube reel is used for quick unrolling of the tube during the installation of underfloor heating systems. The device facilitates and accelerates the work of the installer and increases the comfort of his work. The tube reel is used for quick unrolling of the tube during the installation of underfloor heating systems. Easy assembly and disassembly of the device makes it possible to move it quickly from place to place.





Dimensions 59 x 23 x 185 cm  Weight 7,4 kg  Material Steel
Dimensions 59 x 23 x 185 cm  Weight 7,4 kg  Material Steel
Weight 7,4 kg Material Steel
Material Steel
Narranty 2 years
nspection CE

Art.nr.	Description	
W90115	Tube reel / unwinding device	

## **MAGNUM Remote Zone Control**

MAGNUM Remote Zone Control is a complete system for controlling your underfloor heating. The system consists of thermostats that can be hung in each room and a controller that is mounted near the manifold. The advanced actuators receive a signal through the controller whether they should be opened or closed depending on the temperature demand. Control the zones separately through the thermostat or through your tablet or smartphone.

#### **MAGNUM W - Controller**

The MAGNUM W - Controller receiver is specially designed to control the temperature of underfloor heating systems through the "normally closed" actuators. Each receiver can control 8 zones and can be expanded as required.



#### **MAGNUM W - Thermostat**

The MAGNUM W - Clock Thermostat ensures precise control of the room temperature. With this clock thermostat you can adjust the temperature based on a series of programmed settings that take effect at different times of the day. The thermostat is connected wirelessly to the MAGNUM W - Controller and transmits a signal when the temperature changes.



#### **MAGNUM W - Actuators**

These electrothermal actuators are used to automatically control the stopcocks. When the actuators are mounted on the taps, they automatically shut off the water supply from the boiler. As soon as there is a heat demand from the underfloor heating system, the thermostat, which is connected to the receiver, causes the actuators to open the stopcocks so that hot water from the boiler can be let into the manifold. When the correct temperature is reached, they close the stopcocks again.



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Туре	Wireless thermostat
Suitable for	Water based systems
Controls	On thermostat and through app
Sensors	Room sensor
Voltage MW - C	230V – 50/60Hz
Voltage MW - T	3x AAA battery
Voltage MW - A	230V – 50/60Hz
Max. number of groups	32 per MW - C station
Temperature range	1°C - 40°C
Housing	IP21

### **Functions**

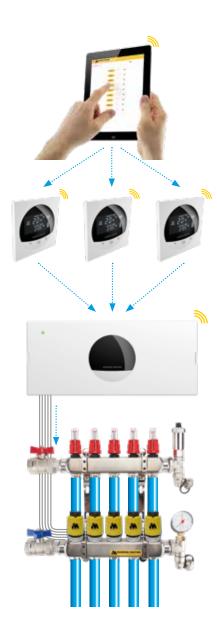
WiFi	V (LAN connection required)
Арр	<b>V</b> iOS & Android
Voice assistant	X
Programmable	up to 2 periods per day
Intelligence	V
Wooden floor	V < 28°C
Inspection	CE











- Wireless control through thermostat, PC, Tablet or Smartphone
- Heating and cooling mode
- Set up to 8 zones
- Merge zones easily
- Up to 32 actuators can be connected
- LAN connection necessary
- Pump control function
- Customised weekly programme
- Bus connection for Smart Home functionality
- Room/floor sensor function

#### Warranty

2 year warranty for MW-C, MW-T and MW-A.

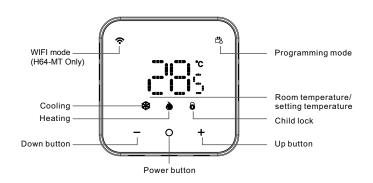
Art.nr.	Description
W80001	MW - C Central 8-zone control - App control
Art.nr.	Description
W80000	MW - T Room thermostat Digital, wireless RF
Art.nr.	Description
W80003	MW - A Actuator / thermomotor 230V NC

# **MAGNUM H64 WiFi**

H64 is a wired control system with WiFi functionality for water-based floor heating systems. The stylish H64-MT thermostat with WiFi functionality is a programmable thermostat designed to control water-based floor heating systems. An App is available in the Apple App Store and on Google Play. Within the App, you can programme and adjust settings. To control different rooms (groups), additional H64-ST slave thermostats can easily be added.



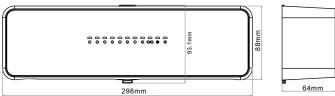
H64 Control centre + thermostat in Polar white



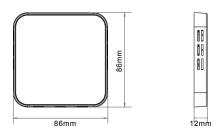


H64 Control Center + thermostaat in Grafietzwart

Туре	Wired control system with WiFi		
Suitable for	Waterborne systems		
Operation	Touchscreen		
Sensors	Room sensor		
Voltage	230V - 50/60Hz		
Maximum load	16A / 230V		
Temperature range	+5°C / +40°C		
Housing	IP21		
Functies			
WiFi	<b>V</b> 2.4Ghz		
Арр	<b>V</b> iOs & Android		
Voice Assistant	Google assistant and Amazon Alexa		
Programmable	up to 3 periods per day		
Intelligence	V		
Wooden floor	<b>V</b> < 28°C		
Open window	V		
Slow start	V		
Pilot Wire	Х		
Inspection	CE		
®	Download on the App Store		







#### **H64-CC Control Centre**

Power source 100-240VAC 50/60Hz (max. 10A)

Storage temperature and humidity -10  $\sim$  60 °C, 0  $\sim$  90% RH (noncondensing)

Operating temperature and humidity 0 ~ 50 °C, 0 ~ 80% RH (noncondensing)

Colour polar white / graphite black Dimensions 298 x 88 x 64 mm

IP rating IP40

#### **H64-MT Master WiFi Thermostat\* H64-ST Slave Thermostat**

Power supply and signal input DC12 ~ 18V carrier non-polar input Storage environment temp. & humidity 10 ~ 60°C, 0 ~ 90% RH (noncondensing)

Working environment temp. & humidity 0 ~ 50°C, 0 ~ 80% RH (noncondensing)

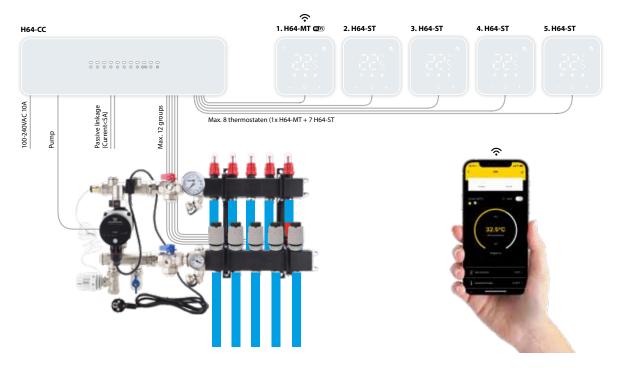
Display temperature range 0 ~ 50°C Display accuracy 0.1°CColour polar white graphite black Dimensions (LxWxD) 86 x 86 x 12 mm

IP class IP21

\* Extra on the H64-MT Master WiFi Thermostat: WiFi frequency 2.4 GHz. Wireless WiFi transmission distance 60 metres.

#### Warranty

2-year warranty on electrical operation.



Art.nr.	Description
W81000	H64 Kit 1x H64-CC Control Center + 1x H64-MT Master WiFi Thermostaat (Polar White - RAL 9010)
W81003	H64-ST Slave Thermostat (Polar White - RAL 9010)
W81004	H64 Kit 1x H64-CC Control Center + 1x H64-MT Master WiFi Thermostaat (Grafiet Black - RAL 9011)
W81005	H64-ST Slave Thermostat (Grafiet Black- RAL 9011)

# **MAGNUM Outdoor Cable Asphalt**

## Especially for installation in asphalt

Especially for large areas, such as loading docks or driveways for car parks, where safety must be ensured. MAGNUM Outdoor Cable can be fixed directly to the reinforcement before the sand bed, concrete or asphalt is poured.

MAGNUM Outdoor is a highly advanced system of heating cables, 2 sensor units that measure humidity in combination with the outdoor temperature and a custom-made control cabinet.

The power supply cable is uniquely connected to the resistance wire. The aluminium reinforcement jacket protects the resistance wires against mechanical damage and shields the cable against EMC (electromagnetic radiation). This has the advantage that the cable does not interfere with mobile phones, electrically operated garage doors and gates, security installations etc.

The cable is equipped with PTFE (Teflon) inner sheaths and a PVC outer sheath that is resistant to the action of chemicals.

#### **Complete systems**

A complete watertight control cabinet (IP-65) is manufactured and fitted out in proportion to the number of cables/mats and power. For larger projects, the control cabinet can be expanded to include modulating power regulators up to 50kW that prevent peak loads and also save energy. The system can be implemented in both 230V and 400V.





Installation in unrolled asphalt

Specifications	
Sand bed + bricks	V
Concrete	V
Cold asphalt	V unrolled processing!
Asphalt < 240°C	V unrolled processing!
nner jacket	PFTE (Teflon)
Outer jacket	PVC
ength of connecting wire	10 m
ower	30 Watt/m <sup>1</sup>
Connection voltage	230 V/50Hz
Certification	IEC 800, CE, IPX7, VDE
Warranty	10 year





Power
 Cables available from
 Connection voltage
 Standards
 Certification
 Class
 Core insulation
 100 Watt
 230 V/50Hz
 1EC 800 and CE
 1SO 9001
 1PX7
 PTFE (Teflon)

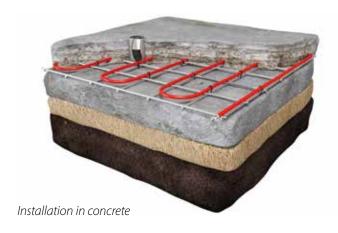
• Suitable for unrolled mastic asphalt up to 240°C

### Installation methods (complete systems)

MAGNUM Outdoor systems are calculated and designed per order.

#### Warranty

MAGNUM Outdoor Cable has a 10 year warranty on the electrical function of the cable.





Installation in sand bed under paving stones

Art.nr.	Description	Length	Length connecting wire	Power	Volt	Amps	Ohm
125006	MAGNUM Outdoor Cable Asphalt 30W/m <sup>1</sup>	20 m	10 m	600 Watt	230V	2,6	88,2
125012	MAGNUM Outdoor Cable Asphalt 30W/m <sup>1</sup>	40 m	10 m	1200 Watt	230V	5,2	44,1
125019	MAGNUM Outdoor Cable Asphalt 30W/m <sup>1</sup>	63,3 m	10 m	1900 Watt	230V	8,3	27,8
125034	MAGNUM Outdoor Cable Asphalt 30W/m <sup>1</sup>	113,3 m	10 m	3400 Watt	230V	14,8	15,6

# **MAGNUM Outdoor Cable Concrete**

## For concrete & paving

Especially for large areas, such as loading docks or driveways for car parks, where safety must be ensured. MAGNUM Outdoor Cable can be fixed directly to the reinforcement before the sand bed, concrete or asphalt is poured.

MAGNUM Outdoor is a highly advanced system of heating cables, 2 sensor units that measure humidity in combination with the outdoor temperature and a custom-made control cabinet.

The power supply cable is uniquely connected to the resistance wire. The aluminium reinforcement jacket protects the resistance wires against mechanical damage and shields the cable against EMC (electromagnetic radiation). This has the advantage that the cable does not interfere with mobile phones, electrically operated garage doors and gates, security installations etc.

The cable is equipped with XLPE inner sheaths and a PVC outer sheath that is resistant to the action of chemicals.

#### **Complete systems**

MAGNUM Outdoor installations are specially drawn and designed per order. A complete watertight control cabinet (IP-65) is manufactured and fitted out in proportion to the number of cables/mats and power. For larger projects, the control cabinet can be expanded to include modulating power regulators up to 50kW that prevent peak loads and also save energy. The system can be implemented in both 230V and 400V.





Installation in concrete

Specifications	
Sand bed + bricks	V
Concrete	V
Cold asphalt	X
Asphalt < 240°C	X
Inner jacket	XLPE
Outer jacket	PVC
Length of connecting wire	4 m
Power	30 Watt/m <sup>1</sup>
Connection voltage	230 V/50Hz
Certification	IEC 800, CE, VDE, IPX7
Warranty	10 year





Power
 Cables available from
 Connection voltage
 Standards
 Certification
 Class
 Core insulation
 300 to 4200 Watt
 230 V/50Hz
 IEC 800 and CE
 ISO 9001
 XLPE

### Installation methods (complete systems)

MAGNUM Outdoor systems are calculated and designed per order.

### Warranty

MAGNUM Outdoor Cable has a 10 year warranty on the electrical function of the cable.



Installation in sand bed under paving stones

Art.nr.	Description	Length	Length connecting wire	Power	Volt	Amps	Ohm
120308	MAGNUM Outdoor Cable Concrete 30W/m <sup>1</sup>	10 m	4 m	300 Watt	230V	1,3	176
120458	MAGNUM Outdoor Cable Concrete 30W/m <sup>1</sup>	15 m	4 m	450 Watt	230V	2,0	118
120608	MAGNUM Outdoor Cable Concrete 30W/m <sup>1</sup>	20 m	4 m	600 Watt	230V	2,6	88
120758	MAGNUM Outdoor Cable Concrete 30W/m <sup>1</sup>	25 m	4 m	750 Watt	230V	3,3	71
120908	MAGNUM Outdoor Cable Concrete 30W/m1	30 m	4 m	900 Watt	230V	3,9	59
121208	MAGNUM Outdoor Cable Concrete 30W/m <sup>1</sup>	40 m	4 m	1200 Watt	230V	5,2	44
121508	MAGNUM Outdoor Cable Concrete 30W/m <sup>1</sup>	50 m	4 m	1500 Watt	230V	6,5	35
121808	MAGNUM Outdoor Cable Concrete 30W/m <sup>1</sup>	60 m	4 m	1800 Watt	230V	7,8	29
122108	MAGNUM Outdoor Cable Concrete 30W/m <sup>1</sup>	70 m	4 m	2100 Watt	230V	9,1	25
122408	MAGNUM Outdoor Cable Concrete 30W/m <sup>1</sup>	80 m	4 m	2400 Watt	230V	10,4	22
123008	MAGNUM Outdoor Cable Concrete 30W/m <sup>1</sup>	100 m	4 m	3000 Watt	230V	13,0	18
123408	MAGNUM Outdoor Cable Concrete 30W/m <sup>1</sup>	113 m	4 m	3400 Watt	230V	14,8	16
123608	MAGNUM Outdoor Cable Concrete 30W/m <sup>1</sup>	120 m	4 m	3600 Watt	230V	15,7	15
124208	MAGNUM Outdoor Cable Concrete 30W/m1	140 m	4 m	4200 Watt	230V	18,3	13

# **MAGNUM Outdoor Mat**

## For installation in asphalt and concrete

This mat has been specially developed for heating footpaths and driving tracks. The heating mat is easy to unroll, cut and fold for simple and quick installation.

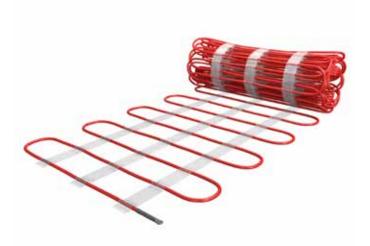
MAGNUM Outdoor Mat is a highly advanced system of heating mats, 2 sensor units that measure humidity in combination with the outdoor temperature and a custom-made control cabinet.

The power supply cable is uniquely connected to the resistance wire. The aluminium reinforcement jacket protects the resistance wires against mechanical damage and shields the cable against EMC (electromagnetic radiation). This has the advantage that the cable does not interfere with mobile phones, electrically operated garage doors and gates, security installations etc.

The cable is equipped with PTFE (Teflon) inner sheaths and a PVC outer sheath that is resistant to the action of chemicals.

#### **Complete systems**

MAGNUM Outdoor installations are specially drawn and designed per order. A complete watertight control cabinet (IP-65) is manufactured and fitted out in proportion to the number of cables/mats and power. For larger projects, the control cabinet can be expanded to include modulating power regulators up to 50kW that prevent peak loads and also save energy. The system can be implemented in both 230V and 400V.





*Installation in unrolled asphalt* 

Specifications	
Sand bed + bricks	٧
Concrete	٧
Cold asphalt	V unrolled processing!
Asphalt < 240°C	V unrolled processing!
Inner jacket	PFTE (Teflon)
Outer jacket	PVC
Length of connecting wire	10 m
Power	30 Watt/m <sup>1</sup>
Connection voltage	230 V/50Hz
Certification	IEC 800, CE, VDE , IPX7
Warranty	10 year





Power 300 Watt/m²
 Dimensions 2, 5, 8 & 10 m²
 Connection voltage 230 V/50Hz
 Standards IEC 800 and CE

Certification VDEClass IPX7

• Core insulation PTFE (Teflon)

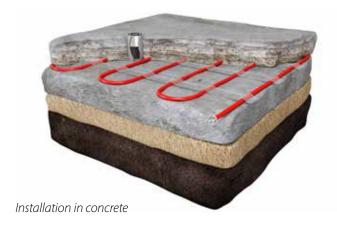
 $\bullet$  Suitable for unrolled mastic asphalt up to 240°C

### Installation methods (complete systems)

MAGNUM Outdoor systems are calculated and designed per order.

#### Warranty

MAGNUM Outdoor Mat has a 10 year warranty on the electrical function of the cable.





Installation under paving stones

Art.nr.	Description	m²	Dimensions	Power	Volt	Amps	Ohm	
126002	MAGNUM Outdoor Mat	2 m <sup>2</sup>	0,5 x 4 m	600 Watt	230V	2,6	88,2	
126005	MAGNUM Outdoor Mat	5 m <sup>2</sup>	0,5 x 10 m	1500 Watt	230V	6,5	35,3	
126008	MAGNUM Outdoor Mat	8 m <sup>2</sup>	0,5 x 16 m	2400 Watt	230V	10,4	22	
126010	MAGNUM Outdoor Mat	10 m <sup>2</sup>	0,5 x 20 m	3000 Watt	230V	13	17,6	

# **MAGNUM Outdoor Control**

## **Control cabinets**

Complete watertight control cabinets manufactured and fitted according to the number of cables/mats and power. The system can be implemented in both 230V and 400V.

#### **Connection box**

The control cabinets can be assembled custom-made for each project. The standard version is equipped (according to NEN1010) with the necessary waterproof cable entries, magnetic circuits (relays), circuit breakers, earth leakage switches, terminal strips for easy connection of power and heating cables and the special outdoor road sensor units. For this, the diagram shown in the switch box must be followed.





Specifications	
ETO2-4550 DIN-rail	Thermostat 0°C / +5°C 230V
2x ETOG-56 Sensorunits	Humidity & Temperature
Potential-free contacts	3 x 16 Amps
Required solenoid circuits (relays)	230V/400V
Required installation circuit breakers	16 Amps
Connection terminals	for mounting power cables
Indicator lights	
Warranty	2 year



Art.nr.	Description	kW	Cabinet dimensions	Unit	
900004	MAGNUM Outdoor control cabinet	3,6 kW	430 x 310 x 160 mm	units/1	incl. ETO2-4550 DIN-rail thermostat and 2x ETOG-56 sensor units
900010	MAGNUM Outdoor control cabinet	10 kW	500 x 400 x 200 mm	units/1	incl. ETO2-4550 DIN-rail thermostat and 2x ETOG-56 sensor units
900020	MAGNUM Outdoor control cabinet	20 kW	500 x 400 x 200 mm	units/1	incl. ETO2-4550 DIN-rail thermostat and 2x ETOG-56 sensor units
900030	MAGNUM Outdoor control cabinet	30 kW	700 x 520 x 253 mm	units/1	incl. ETO2-4550 DIN-rail thermostat and 2x ETOG-56 sensor units
900040	MAGNUM Outdoor control cabinet	40 kW	700 x 520 x 253 mm	units/1	incl. ETO2-4550 DIN-rail thermostat and 2x ETOG-56 sensor units
900050	MAGNUM Outdoor control cabinet	50 kW	700 x 520 x 253 mm	units/1	incl. ETO2-4550 DIN-rail thermostat and 2x ETOG-56 sensor units

# **MAGNUM Ideal Frost-Free Ribbon**

### **Ideal Frost-Free Ribbon**

In many situations, outdoor taps and pipes are shut off in winter to prevent freezing and damage. MAGNUM offers a much simpler solution: with MAGNUM Ideal frost-free ribbon, frozen and burst water pipes are definitely a thing of the past! The MAGNUM Ideal range has been specially designed to keep (water) pipes, taps, drains, etc. frost-free.

Freezing problems can easily be prevented by installing a frost-free ribbon, ready to plug in and with automatic thermostat, along the pipe. Then, fitted with pipe insulation, this application not only provides safety, but also prevents additional and unnecessary costs from water damage. When installed on plastic piping, it must first be completely wrapped in aluminium tape before the cable can be applied.

MAGNUM Ideal frost-free ribbons are ready to use (with a 2 metre long connecting cable and earthed plug) and equipped with temperature control through bi-metal. MAGNUM Ideal frost-free ribbons are available in lengths from 1 to 48 metres. The ribbon switches on at a temperature below +5°C and switches off automatically if the temperature of the pipe exceeds +13°C.

The heating ribbon must never be placed directly on a PVC pipe, the PVC pipe must first be covered with aluminium tape for proper heat conduction.





Specifications	
System type	Outdoor
Dimensions	1 m to 48 m
Power	10 Watt per metre
Connection voltage	230 V/50Hz
Certification	VDE, CE, IPX7
Warranty	2 year





Power 10 Watt per metre length / 230V
 Connection cable 2 metres with earthed plug

• Class IPX7

#### Installation methods

MAGNUM Ideal can be easily attached to the pipes using aluminium tape or plastic ties (tiewraps). When installed on plastic piping, it should first be completely wrapped with aluminium tape before the cable can be applied. MAGNUM Ideal should always be used in combination with (polyethylene) pipe insulation with a minimum wall thickness of 10 mm. This for optimal protection and insulation, so that an energy-efficient operation is guaranteed.

#### Package content

- Ready to switch heating cable with built-in, bi-metal thermostat.
- Installation instructions
- PVC-Tape

#### Warranty

MAGNUM Ideal frost-free ribbon has a 2 year guarantee on the electrical function of the ribbon.

#### Calculate the required cable length here:

Max. pipe diameter	15mm	20mm	25mm	30mm	40mm	50mm	100mm		
Application method		Protection factor of the water supply:							
Linear (along pipe)	-30 ℃	-30 ℃	-25 °C	-20 ℃	-15 °C	-10 °C	-5 ℃		
10 windings per m.			-30 ℃	-30 °C	-25 ℃	-25 ℃	-20 °C		
20 windings per m.					-30 ℃	-30 ℃	-30 °C		
Calculate the cable	Length of pipe times:								
10 windings per m (x)	1,25	1,50	1,75	2	2,25	2,5	4		
20 windings per m (x)	2	2,25	2,50	2,75	3,25	4	8		

Art.nr.	Description	Length	Power	Volt	
155001	MAGNUM Ideal frost-free ribbon	1 m	10 Watt	230V	
155002	MAGNUM Ideal frost-free ribbon	2 m	20 Watt	230V	
155004	MAGNUM Ideal frost-free ribbon	4 m	40 Watt	230V	
155006	MAGNUM Ideal frost-free ribbon	6 m	60 Watt	230V	
155008	MAGNUM Ideal frost-free ribbon	8 m	80 Watt	230V	
155010	MAGNUM Ideal frost-free ribbon	10 m	100 Watt	230V	
155014	MAGNUM Ideal frost-free ribbon	14 m	140 Watt	230V	
155018	MAGNUM Ideal frost-free ribbon	18 m	180 Watt	230V	
155022	MAGNUM Ideal frost-free ribbon	22 m	220 Watt	230V	
155026	MAGNUM Ideal frost-free ribbon	26 m	260 Watt	230V	
155030	MAGNUM Ideal frost-free ribbon	30 m	300 Watt	230V	
155034	MAGNUM Ideal frost-free ribbon	34 m	340 Watt	230V	
155040	MAGNUM Ideal frost-free ribbon	40 m	400 Watt	230V	
155048	MAGNUM Ideal frost-free ribbon	48 m	480 Watt	230V	

# MAGNUM Trace Regular

# Self regulating heating ribbon < 85°C

MAGNUM Trace Regular - MTR is an industrial, self-regulating heating ribbon that can be used for protection against freezing or for temperature regulation in tubes and on vehicles up to 85°C. Suitable for use in non-risky and corrosive areas. It can be cut to size on site to fit the pipes exactly, without the need for a complicated design. Due to the self-regulating properties, safety and reliability are increased. The MTR does not overheat and does not burn up, even when it overlaps itself. The current flow regulates itself according to the temperature in the tube. MTR is available with a stainless, thermoplastic outer jacket.

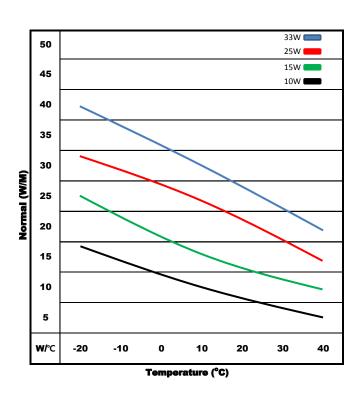
#### **Applications**

Cold water pipelines Drains Sprinkler systems

#### **Additional Information**

The amount of heat loss depends on the diameter of the pipeline, ambient temperature and flow rate of the fluid. Additional insulation is recommended. The use of a temperature controller reduces energy consumption.

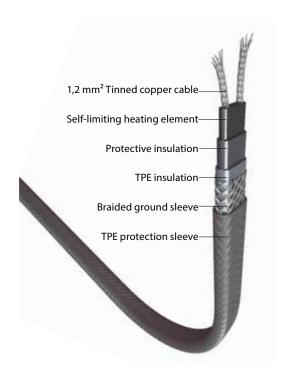
For a heat loss calculation and applicable cable, please contact the calculation department of MAGNUM Heating.





Max. temperature	Without voltage 85°C With voltage 65°C
Min. operating temperature	-30°C
Max. resistance	18,2 Ohm/km
Nominal voltage	230V
Outer jacket	Tinned copper
Coating	TPE
Water resistant	100%
Dimensions	13 x 6,8 mm
Min. bending radius	25 mm
Weight	12 kg/100 m
T-classification 10,15,25 W/m	T6
T-classification 33 W/m	T5
Color	Grey
Certification	10MTR & 25MTR: CE /RU 15MTR & 33MTR: CE/RU/ FM/EX,according to DIN EN 62395-1, VDE
Warranty	2 year





#### Max. recommended cable length at 230V using Type-C relays:

Categorie	Switch		230V	
Reference	16A	20A	20A	30A
10MTR	+10°C	205 m	-	-
	-15°C	140 m	186 m	195 m
	-25°C	123 m	165 m	195 m
15MTR	+10°C	145 m	162 m	-
	-15°C	93 m	125 m	160 m
	-25°C	82 m	111 m	160 m
25MTR	+10°C	88 m	117 m	126 m
	-15°C	60 m	75 m	117 m
	-25°C	50 m	70 m	105 m
33MTR	+10°C	70 m	90 m	108 m
	-15°C	50 m	65 m	95 m
	-25°C	45 m	58 m	85 m

ATTENTION: Heating cables in combination with drinking water pipelines must be thermostatically controlled at all times.

### **Technical details**

• Max. temperature Without voltage  $85^{\circ}$ C With voltage  $65^{\circ}$ C

• Min. operating temperature -30°C

• Max. resistance 18,2 Ohm/km

Nominal voltage 230V

• Outer jacket Tinned copper

Coating TPE
Water resistant 100%
Dimensions 13 x 6,8 mm
Min. bending radius 25 mm

Weight 12 kg/100 m
 T-classification 10, 15, 25 W/m T6
 T-classification 33 W/m T5

• Color Grey

• Certification 10MTR & 25MTR: CE /RU

15MTR & 33MTR: CE/RU/FM/ EX according to DIN

EN 62395-1

• Warranty 2 year

#### Installation methods

- Check whether all necessary materials and tools are present at the construction site.
- Inspect the pipe, gutter or surface to be heated, deburring any unevenness and sharp edges or removing the sharp edges with tape.
- Remove any unevenness and sharp edges or remove the sharp edges with tape.
- Clean and dry gutters before laying the heating cable.
- Allow painted and coated pipes and surfaces to become completely dry before commencing installation.
- In the case of a plastic pipe, first wrap it with aluminium tape

Art.nr.	Description	Length	Power per metre	Volt	
151010	MAGNUM Trace Regular	10 m	10 Watt @ 10°C	230V	
151015	MAGNUM Trace Regular	15 m	15 Watt @ 10°C	230V	
151025	MAGNUM Trace Regular	25 m	25 Watt @ 10°C	230V	
151033	MAGNUM Trace Regular	33 m	33 Watt @ 10°C	230V	

# **MAGNUM Trace Micro**

# Self regulating heating ribbon < 65°C

MAGNUM Trace Micro - MTM is an industrial, self-regulating heating ribbon that can be used for protection against freezing or for temperature regulation in tubes and on vehicles. It is particularly suitable for use on pipes and instruments with small diameters. It can also be cut to size on site, so that it fits exactly on the pipes, without having to take complicated design into account. Due to the self regulating properties, safety and reliability are increased. The MTM does not overheat or burn, even when it overlaps itself. The current regulates itself according to the temperature in the tube. MTM is available with a stainless, thermoplastic outer jacket and, if greater corrosion resistance is required, with a fluoropolymer outer jacket (MTM-Fluoropolymer).

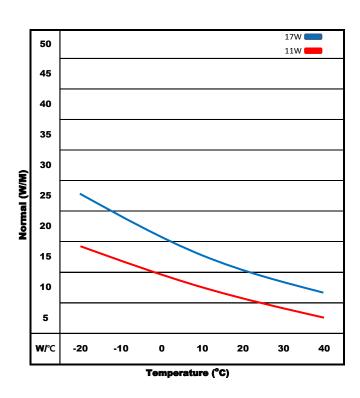
#### **Applications**

Cold water pipelines Drains Sprinkler systems

#### **Additional Information**

The amount of heat loss depends on the diameter of the pipeline, ambient temperature and flow rate of the fluid. Additional insulation is recommended. The use of a temperature controller reduces energy consumption.

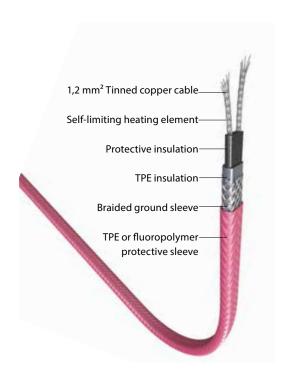
For a heat loss calculation and applicable cable, please contact the calculation department of MAGNUM Heating.





Specifications	
Max. temperature	65°C
Min. operating temperature	-30°C
Max. resistance	18 Ohm/km
Nominal voltage	230V
Outer jacket	Tinned copper
Coating	Thermoplastic or Fluoropolymer
Water resistant	100%
Dimensions	8 x 5 mm
Min. bending radius	25 mm
Weight	7 kg/100 m
Color	MTM 11 & 17 Watt (Red) MTM 11 & 17 Watt Fluoropolymer (Blue)
Certification	CE /RU, according to DIN EN 62395-1, VDE
Warranty	2 year





### Max. recommended cable length at 230V using Type-C relays:

Categorie	Switch		230V	
Referentie	Temp.	6A	10A	16A
11MTM	5°C	70 m	100 m	110 m
	0°C	65 m	95 m	105 m
	-20°C	44 m	77 m	90 m
	-30°C	38 m	67 m	80 m
17MTM	5°C	39 m	60 m	70 m
	0°C	37 m	58 m	65 m
	-20°C	25 m	44 m	50 m
	-30°C	23 m	41 m	47 m

ATTENTION: Heating cables in combination with drinking water pipelines must be thermostatically controlled at all times.

### **Technical details**

Max. temperature 65°C
 Min. operating temperature -30°C
 Max. resistance 18 Ohm/km
 Nominal voltage 230V

Outer jacket Tinned copper
 Coating Thermoplastic or Fluoropolymer

Water resistant 100%
Dimensions 8 x 5 mm
Min. bending radius 25 mm
Weight 7 kg/100 m

• Color MTM 11 & 17 Watt (Red) MTM 11 & 17 Watt

Fluoropolymer (Blue)

Certification
 CE /RU, according to DIN EN 62395-1

• Warranty 2 year

#### Installation methods

- Check whether all necessary materials and tools are present at the construction site.
- Inspect the pipe, gutter or surface to be heated, deburring any unevenness and sharp edges or removing the sharp edges with tape.
- Remove any unevenness and sharp edges or remove the sharp edges with tape.
- Clean and dry gutters before laying the heating cable.
- Allow painted and coated pipes and surfaces to become completely dry before commencing installation.
- In the case of a plastic pipe, first wrap it with aluminium tape



Art.nr.	Description	Length	Power per metre	Volt
150211	MAGNUM Trace Micro 11	Per metre	11 Watt @ 10°C	230V
150411	MAGNUM Trace Micro 11	Roll 25 metres	11 Watt @ 10°C	230V
150511	MAGNUM Trace Micro 11	Roll 50 metres	11 Watt @ 10°C	230V
150611	MAGNUM Trace Micro 11	Roll 100 metres	11 Watt @ 10°C	230V
150217	MAGNUM Trace Micro 17	Per metre	17 Watt @ 10°C	230V
150417	MAGNUM Trace Micro 17	Roll 25 metres	17 Watt @ 10°C	230V
150517	MAGNUM Trace Micro 17	Roll 50 metres	17 Watt @ 10°C	230V
150617	MAGNUM Trace Micro 17	Roll 100 metres	17 Watt @ 10°C	230V

Art.nr.	Description	Length	Power per metre	Volt	
150311	MAGNUM Trace Micro Fluoropolymer	Per metre	11 Watt @ 10°C	230V	
150317	MAGNUM Trace Micro Fluoropolymer	Per metre	17 Watt @ 10°C	230V	

# **MAGNUM Trace Micro Plug & Go**

# Self regulating heating ribbon < 65°C

MAGNUM Trace Micro Plug & Go is an industrial self-regulating heating ribbon, which can be used for frost protection or maintaining the temperature of pipes up to 65°C. For use in non-hazardous, hazardous and corrosive areas. The self-regulating property of MAGNUM Tracing cables prevents overheating or burning even when heating cables are overlapped. The power regulates itself in response to the ambient temperature. The conductive polymer core automatically releases the required heat at any point along the pipe without the use of a thermostat.

#### **Applications**

Cold water pipelines Drains Sprinkler systems

#### **Additional Information**

The amount of heat loss depends on the diameter of the pipeline, ambient temperature and flow rate of the fluid. Additional insulation is recommended. The use of a temperature controller reduces energy consumption.

For a heat loss calculation and applicable cable, please contact the calculation department of MAGNUM Heating.





Specifications			
Max. temperature	65°C		
Min. operating temperature	-30°C		
Max. resistance	18 Ohm/km		
Nominal voltage	230V		
Outer jacket	Tinned copper		
Coating	Thermoplastic or Fluoropolymer		
Water resistant	100%		
Dimensions	8 x 5 mm		
Min. bending radius	25 mm		
Weight	7 kg/100 m		
Color	MTM 11 & 17 Watt (Red) MTM 11 & 17 Watt Fluoropolymer (Blue)		
Certification	CE /RU, according to DIN EN 62395-1, VDE		
Warranty	2 year		

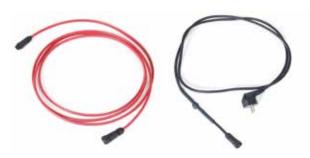




#### Max. recommended cable length at 230V using Type-C relays:

Categorie	Switch		230V	
Referentie	Temp.	6A	10A	16A
11MTM	5°C	70 m	100 m	110 m
	0°C	65 m	95 m	105 m
	-20°C	44 m	77 m	90 m
	-30°C	38 m	67 m	80 m

ATTENTION: Heating cables in combination with drinking water pipelines must be thermostatically controlled at all times.



#### **Technical details**

- · Ready to connect heating elements including connectors
- Power 11 Watt per metre @ 10°C 230V
- IP67 connection

Max. temperature
 Min. operating temperature
 Max. resistance
 Nominal voltage
 65°C
 -30°C
 18 Ohm/km
 230V

Outer jacket Tinned copper
 Coating Thermoplastic or Fluoropolymer

Water resistant 100%
Dimensions 8 x 5 mm
Min. bending radius 25 mm
Weight 7 kg/100 m

• Color MTM 11 & 17 Watt (Red)

MTM 11 & 17 Watt Fluoropolymer (Blue)

• Certification CE /RU, according to

DIN EN 62395-1

• Warranty 2 year

#### Connection cable

- · Grounded connection cable with earth
- Including connector and end cap
- Available with or without thermostat
- Thermostat switches on at < 5°C

#### **Installation methods**

- Check whether all necessary materials and tools are present at the construction site.
- Inspect the pipe, gutter or surface to be heated, deburring any unevenness and sharp edges or removing the sharp edges with tape.
- Remove any unevenness and sharp edges or remove the sharp edges with tape.
- Clean and dry gutters before laying the heating cable.
- Allow painted and coated pipes and surfaces to become completely dry before commencing installation.
- In the case of a plastic pipe, first wrap it with aluminium tape

Description	Length	Power	Volt	
MAGNUM Trace Micro Plug & Go 1	1 m	11 Watt @ 10°C	230V	
MAGNUM Trace Micro Plug & Go 3	3 m	33 Watt @ 10°C	230V	
MAGNUM Trace Micro Plug & Go 5	5 m	55 Watt @ 10°C	230V	
MAGNUM Trace Micro Plug & Go 9	9 m	99 Watt @ 10°C	230V	
MAGNUM Trace Micro Plug & Go 15	15 m	165 Watt @ 10°C	230V	
MAGNUM Trace Micro Plug & Go 22	22 m	242 Watt @ 10°C	230V	
	MAGNUM Trace Micro Plug & Go 1 MAGNUM Trace Micro Plug & Go 3 MAGNUM Trace Micro Plug & Go 5 MAGNUM Trace Micro Plug & Go 9 MAGNUM Trace Micro Plug & Go 15	MAGNUM Trace Micro Plug & Go 1         1 m           MAGNUM Trace Micro Plug & Go 3         3 m           MAGNUM Trace Micro Plug & Go 5         5 m           MAGNUM Trace Micro Plug & Go 9         9 m           MAGNUM Trace Micro Plug & Go 15         15 m	MAGNUM Trace Micro Plug & Go 1       1 m       11 Watt @ 10°C         MAGNUM Trace Micro Plug & Go 3       3 m       33 Watt @ 10°C         MAGNUM Trace Micro Plug & Go 5       5 m       55 Watt @ 10°C         MAGNUM Trace Micro Plug & Go 9       9 m       99 Watt @ 10°C         MAGNUM Trace Micro Plug & Go 15       15 m       165 Watt @ 10°C	MAGNUM Trace Micro Plug & Go 1       1 m       11 Watt @ 10°C       230V         MAGNUM Trace Micro Plug & Go 3       3 m       33 Watt @ 10°C       230V         MAGNUM Trace Micro Plug & Go 5       5 m       55 Watt @ 10°C       230V         MAGNUM Trace Micro Plug & Go 9       9 m       99 Watt @ 10°C       230V         MAGNUM Trace Micro Plug & Go 15       15 m       165 Watt @ 10°C       230V

Art.nr.	Options
159701	Connecting cable 2 metres without thermostat incl. connector and end cap
159702	Connection cable 2 metres with thermostat incl. connector and end cap. Switching temperature: $< 5^{\circ}$ C

### **MAGNUM Trace Water**

Self-regulating heating ribbon for water pipes < 65°C

MAGNUM Trace Water (MTW) is a self-regulating heating ribbon that can be used for frost protection in indoor and outdoor water pipes. It can be cut to size on-site to fit the pipework exactly, without the need for complex design. The self-regulating properties increase safety and reliability by adjusting the heat output to the temperature in the pipes.

MAGNUM Trace Water is equipped with a polyolefin outer casing that meets all requirements and can therefore be used safely in combination with drinking water.

#### **Additional Information**

The amount of heat loss depends on the diameter of the pipeline, ambient temperature and flow rate of the fluid. Additional insulation is recommended. The use of a temperature controller reduces energy consumption.

For a heat loss calculation and applicable cable, please contact the calculation department of MAGNUM Heating.

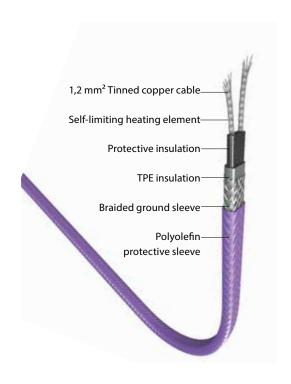


Trace Water Set



Specifications	
Max. temperature	Without voltage 65°C
Min. operating temperature	-40°C
Max. resistance	18 Ohm/km
Max. cable length	100 m with 16A circuit breaker
Nominal voltage	230V
Outer jacket	Tinned copper
Coating	Polyolefin
Water resistant	100%
Dimensions	8 x 5,9 mm
Min. bending radius	25 mm
Weight	7,3 kg/100 m
Color	Violet
Certification	CE according to DIN EN 62395-1, VDE
Warranty	2 year





### **Technical details**

· Max. temperature

• Min. operating temperature

· Max. resistance

· Max. cable length

· Nominal voltage

· Outer jacket

 Coating Water resistant

Dimensions

· Min. bending radius

Weight

Color

Certification

Violet CE according to DIN EN 62395-1

 Warranty 2 year

#### Installation methods

• Check whether all necessary materials and tools are present at the construction site.

Without voltage 65°C

100 m with 16A circuit breaker

- 40°C

230V

100%

25 mm

18 Ohm/km

Tinned copper

Polyolefin

8 x 5,9 mm

7,3 kg/100 m

- Inspect the pipe, gutter or surface to be heated, deburring any unevenness and sharp edges or removing the sharp edges with tape.
- Remove any unevenness and sharp edges or remove the sharp edges with tape.
- Clean and dry gutters before laying the heating cable.
- Allow painted and coated pipes and surfaces to become completely dry before commencing installation.

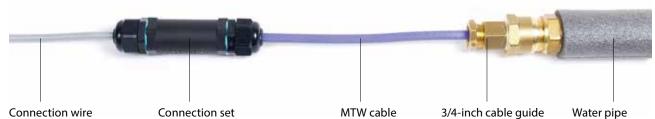
#### **Set contents**

Ready-to-use heating elements incl.:

- MTW self-regulating cable with end seal
- 3/4-inch copper cable conductor/conduit connection
- · Connection set for power supply

ATTENTION: Heating cables in combination with drinking water pipes must be thermostatically controlled at all times.

#### Complete installation of an MTW Kit:



Art.nr.	Description	Length	Power per metre	Volt	
159000	MAGNUM Trace Water	Per metre	10 Watt @ 10°C	230V	
Art.nr.	Description	Length	Power per metre	Volt	
159002	MAGNUM Trace Water Set	2 m	20 Watt @ 10°C	230V	
159003	MAGNUM Trace Water Set	3 m	30 Watt @ 10°C	230V	
159004	MAGNUM Trace Water Set	4 m	40 Watt @ 10°C	230V	
159005	MAGNUM Trace Water Set	5 m	50 Watt @ 10°C	230V	
159006	MAGNUM Trace Water Set	6 m	60 Watt @ 10°C	230V	
159008	MAGNUM Trace Water Set	8 m	80 Watt @ 10°C	230V	
159010	MAGNUM Trace Water Set	10 m	100 Watt @ 10°C	230V	
159013	MAGNUM Trace Water Set	13 m	130 Watt @ 10°C	230V	
159020	MAGNUM Trace Water Set	20 m	200 Watt @ 10°C	230V	
159025	MAGNUM Trace Water Set	25 m	250 Watt @ 10°C	230V	

**MAGNUM Trace Hot Water** 

Self-regulating heating ribbon for water pipes < 85°C

MAGNUM Trace Hot Water (MTHW) is a self-regulating heating ribbon designed to compensate for heat loss from hot water distribution systems.

If the hot tap is not used continuously, the water in the distribution pipes cools and is usually lost before the hot water from the source reaches the tap.

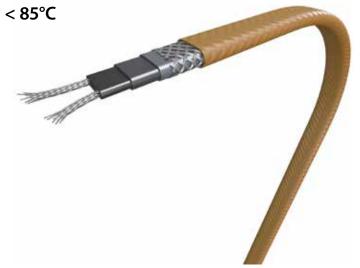
This MTHW does not overheat or burn, even when it overlaps itself. The current regulates itself according to the temperature in the tube. The self-regulating properties increase safety and reliability. By applying it to the pipes (under the thermal insulation), heat loss is eliminated and the water remains at the desired temperature.

Installing MTHW is quick and easy, and the cable can be cut to the exact length of the tubes. No special skills or tools are required. The supplies for terminating, splicing and connecting to power are available separately.



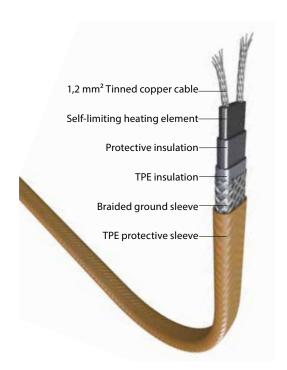
The amount of heat loss depends on the diameter of the pipeline, ambient temperature and flow rate of the fluid. Additional insulation is recommended. The use of a temperature controller reduces energy consumption.

For a heat loss calculation and applicable cable, please contact the calculation department of MAGNUM Heating.



wed . It of	
Max. temperature Without voltage 85 With voltage 65°C	°C
Min. operating temperature -30°C	
Max. resistance 18,2 Ohm/km	
Nominal voltage 230V (120V on requ	est)
Outer jacket Tinned copper	
Coating TPE	
Water resistant 100%	
Dimensions 13 x 6,8 mm	
Min. bending radius 25 mm	
Weight 12 kg/100 m	
Color Brown	
Certification CE according to DIN 62395-1, VDE	I EN
Warranty 2 year	





#### Maximum length (m) vs. size of circuit break:

Categorie	Switch		230V		
Referentie	Temp.	6A	10A	16A	20A
MTHW-9	18°C	56 m	92 m	128 m	-
	0°C	38 m	64 m	102 m	128 m
MTHW-12	18°C	34 m	56 m	90 m	94 m
	0°C	24 m	40 m	64 m	80 m

For use with Type C Circuit Breakers to BS EN60898:1991.

### Recommended insulation thickness (mm):

Category Reference	Preserve Temp.	Tube 15 mm	Tube 22 mm	Tube 28 mm	Tube 35 mm	Tube 42 mm	Tube 54 mm
MTHW-9	60°C	25	30	40	50	60	75
	55°C	20	25	30	40	50	60
	50°C	15	20	25	30	40	50
MTHW-12	45-70°C	30	40	50	60	75	75

These figures are based on the thermal insulation with a K-value of 0.038W/mK at an average temperature of 36°C.

### **Technical details**

Max. temperature Without voltage 85°C With voltage 65°C
 Min. operating temperature -30°C
 Max. resistance 18,2 Ohm/km

Nominal voltage 230V (120V on request)Outer jacket Tinned copper

Coating
Water resistant
Dimensions
Min. bending radius
Weight
Color
Brown
Certification

DIN EN 62395-1

• Warranty 2 year

#### Installation methods

- Check whether all necessary materials and tools are present at the construction site.
- Inspect the pipe, gutter or surface to be heated, deburring any unevenness and sharp edges or removing the sharp edges with tape.
- Remove any unevenness and sharp edges or remove the sharp edges with tape.
- Clean and dry gutters before laying the heating cable.
- Allow painted and coated pipes and surfaces to become completely dry before commencing installation.

ATTENTION: Heating cables in combination with drinking water pipes must be thermostatically controlled at all times.

Art.nr.	Description	Power per metre	Volt	
159555	MAGNUM Trace Hot Water - per metre	9 Watt @ 55°C	230V	
159565	MAGNUM Trace Hot Water - per metre	12 Watt @ 65°C	230V	

### **MAGNUM Trace Gutter Heat**

Self-regulating heating ribbon for gutters < 85°C

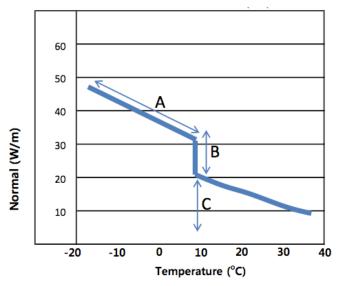
MAGNUM Trace Gutter Heat (MTGH-Kit) is a self-regulating heating ribbon specifically designed to prevent snow and ice formation on roofs, in gutters and downspouts. Even in snow and icy water, the cable functions at full power. As the snow melts and the water flows away, the MTGH Kit regulates itself to half power as it gets drier; the warmer it gets, the more it reduces its output. This cable can be cut to length during installation. The MTGH-Kit is a self-regulating cable, which prevents overheating. It can even be installed directly into plastic gutters, and with its black, rustproof and UV-resistant outer jacket, it is resilient and reliable.

The MTGH kit is quick and easy to install and requires no special skills or tools. Components are available for terminating, splitting and connecting.



The use of an additional temperature controller is recommended. A controller that measures the ambient temperature and the presence of snow or moisture is most efficient. This cable should not be placed on a bitumen surface.

For a heat loss calculation and applicable cable, please contact the calculation department of MAGNUM Heating.

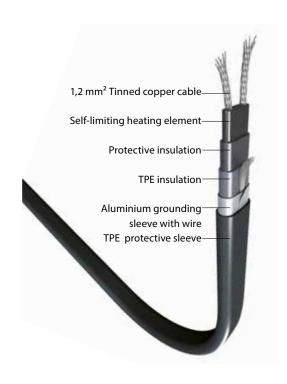


- A In snow and ice water the cable will operate at full power.
- B When the snow melts the power will automatically decrease.
- C The power will decrease further until all snow and ice has disappeared.



Max. temperature	Without voltage 85°C With voltage 65°C
Min. operating temperature	- 45°C
Max. resistance	18,2 Ohm/km
Power output	Air at 10°C 20W Ice at 30W
Nominal voltage	230V
Outer jacket	Tinned copper
Coating	Aluminium foil with UV resistant TPE-O sleeve
Water resistant	100%
Dimensions	10,5 x 5,9 mm
Min. bending radius	25 mm
Weight	7,4 kg/100 m
Color	Black/UV-stable
Certification	VDE, CE
Warranty	2 year







#### **Technical details**

• Max. temperature Without voltage  $85^{\circ}$ C With voltage  $65^{\circ}$ C

• Min. operating temperature - 45°C

Max. resistance
 Power output
 18,2 Ohm/km
 Air at 10°C 20W
 Ice at 30W

• Nominal voltage 230V

• Outer jacket Tinned copper

Coating
 Aluminium foil with UV

resistant TPE-O sleeve

Water resistant 100%Dimensions 10.5 x

Dimensions
 Min. bending radius
 Weight
 Color
 10,5 x 5,9 mm
 25 mm
 7,4 kg/100 m
 Black/UV-stable

CertificationWarrantyVDE2 year

Ready-to-use heating elements with built-in thermostat. Easy to use and can be installed immediately. With built-in thermostat that switches on at temperatures below 5°C and off at temperatures below -10°C and at 13°C.

#### Installation methods

- Check whether all necessary materials and tools are present at the construction site.
- Inspect the pipe, gutter or surface to be heated, deburring any unevenness and sharp edges or removing the sharp edges with tape.
- Remove any unevenness and sharp edges or remove the sharp edges with tape.
- Clean and dry gutters before laying the heating cable.
- Allow painted and coated pipes and surfaces to become completely dry before commencing installation.

#### Set contents

- Incl. connection cable 3 metres long
- 2x Bi-metal thermostat
- Mounting clips (1 per metre length)
- Metal strips for support in drainpipe

#### Maximum length (m) vs. size of circuit break:

Category	Switch		230V	
Reference	Temp.	6A	16A	20A
MTGH-20	10°C	44 m	72 m	80 m
	0°C	36 m	58 m	80 m

Art.nr.	Description	Power per metre	Volt	
151020	MAGNUM Trace Gutter Heat	20 Watt @ 10°C	230V	
160107	MAGNUM Support bracket for rain pipe 3 pieces			

Art.nr.	Description	Length	Power	Volt
159605	MAGNUM Trace Gutter Heat Set	5 m	100 Watt	230V
159610	MAGNUM Trace Gutter Heat Set	10 m	200 Watt	230V
159615	MAGNUM Trace Gutter Heat Set	15 m	300 Watt	230V
159625	MAGNUM Trace Gutter Heat Set	25 m	500 Watt	230V

# **MAGNUM Outdoor Control**

### **Connecting materials for MAGNUM Tracing**

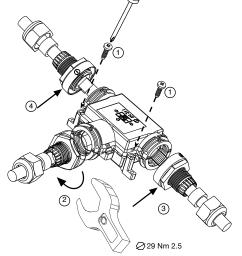
MT - Distribution unit MTR, MTGH & MTHW

MT - Distribution unit MTM & MTW

Distribution unit (T) for connecting or splitting tracing cables. Delivered with 2x 160103 MT-Crimp insulation end splice kits.









MT - Distribution unit MTR, MTGH & MTHW MT - Distribution unit MTM & MTW

Specifications		
System type	MT - Distribution unit	
Dimensions	36 x 155 x 120 mm	
Class	IP65	
Operating temp.	-40°C up to 125°C	
Inspection	CE	



Art.nr.	Description
159712	MAGNUM MT - Distribution Unit (T) for MTR, MTGH and MTHW
159713	MAGNUM MT - Distribution Unit (T) for MTM & MTW

# **MAGNUM Outdoor Control**

# **Connection materials for MAGNUM Tracing**

MT - Connection unit MTR, MTGH & MTHW

MT - Connection unit MTM & MTW

Connector (straight) for connecting or interconnecting tracing cables. Delivered with 1 x 160103 MT heatshrink insulation end splice kit.



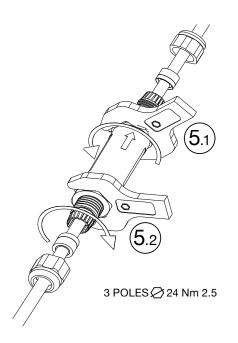
Connection cable



*MT - Connection unit MTR, MTGH & MTHW MT - Connection unit MTM & MTW* 



Extend cable



System type	MT - Connection unit
Dimensions	159710: 32 mm x 130 mm 159711: 26,5 mm x 120 mm
Class	IP68 / 5 Bar
T marking	T85℃
Operating temp.	-40°C up to 125°C
Inspection	CE

( (

Art.nr.	Description
159710	MAGNUM MT - Connecting Unit for MTR, MTGH and MTHW
159711	MAGNUM MT - Connection Unit for MTM & MTW

### **MAGNUM Outdoor Control**

### **Attachments for MAGNUM Tracing**



#### **MT - Connection box IP55**

Connection box IP55 including DIN-rail connection clamps. For connecting or splitting several tracing cables.

#### **Technical details**

Class IP55

Dimensions 125 x 125 x 75 mm



#### MT - Cable gland (20 mm) for MTM, MTW and MTGH

For feeding an MTM, MTW and MTGH tracing cable into an MT connection box. One gland per cable.

#### MT - Cable gland (25 mm) for MTHW and MTR

For feeding an MTHW or MTR tracing cable into an MT connection box. One gland per cable.



#### MT - 3/4" Copper cable guide/connection for MTW

Copper cable guide for a watertight seal of the water pipe. For feeding a MAGNUM Trace Water into a water pipe with a minimum diameter of 22 mm.



#### Aluminium tape 50 mm x 10 metres

Especially for wrapping plastic pipework where a tracing cable is required. This tape provides increased heat dissipation in plastic pipes.

#### **Technical details**

Width tape 50 mm Length tape 10 metres



#### MT - Bracket for gutter | Set of 3 pieces

These brackets support the cable and keep it in position in the gutter or drain. In gutters where 2 cables are required, these brackets ensure that the cables remain at the correct distance.



#### MT - Warning sticker | Set of 5 pieces

To be applied as a warning in places where tracing is installed.

Art.nr.	Description	
160105	MAGNUM MT - Connection box IP 55	
160109	MAGNUM MT - Cable gland for MTM, MTW and MTGH	20 mm
160110	MAGNUM MT - Cable gland for MTHW and MTR	25 mm
159001	MAGNUM MT - 3/4" Copper cable guide/connection for MTW	
720200	MAGNUM MT - Aluminium tape	50 mm x 10 metres
160107	MAGNUM MT - Support bracket for gutter	Set of 3 pieces
160113	MAGNUM MT - Warning sticker	Set of 5 pieces

### **MAGNUM ETI-1551**

### Thermostat for MAGNUM Outdoor systems

ETI is a series of compact ON/OFF thermostats for industrial applications, primarily ON/OFF control of a single electric heating element in floor, ceiling and radiant heating systems.

ETI thermostats are also ideal for pipe frost protection and for ON/OFF control of pumps and compressors. Furthermore, the integrated changeover relay allows ETI to be used as a cooling thermostat.

Despite their compact design, ETI thermostats are capable of handling electrical loads of up to 10A or 2200W, allowing several loads to be controlled without the necessity of installing large electrical panels. As the thermostats are also extremely robust, little or no maintenance is required.

#### **Functions:**

#### Adjustable temperature differential

The temperature differential around the setpoint can be adjusted to ensure a suitable ON/OFF switching frequency in relation to heating/cooling effects and sensor reaction to temperature changes. When the temperature is lower than the setpoint minus half the temperature differential, the thermostat registers a need for heating and the potentialfree relay cuts in. When the temperature is higher than the setpoint plus half the temperature differential, the relay cuts out, switching off the heating.

#### Visual status indication

ETI thermostats have a built-in red LED which lights up when the relay is activated. This saves time on fault finding when heating is absent.

#### Compact design

ETI thermostats are designed for DIN-rail mounting and are only 36 mm wide. It should therefore be easy to find room for them in most electrical panels and space is saved in the panel in comparison with conventional thermostats.

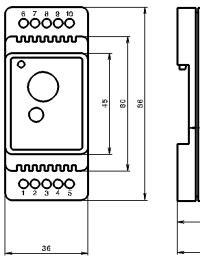
#### Sensor programme

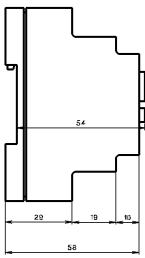
MAGNUM offers a wide range of sensors in various designs suitable for use with ETI thermostats, including floor sensors, immersion sensors, machinery and equipment sensors, outdoor sensors, room sensors, duct sensors, pipe sensors and wall sensors. For further information on sensors, see ETF data sheet.

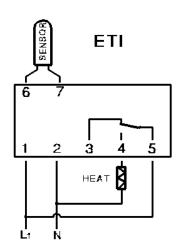


Specifications	
Supply voltage	230V AC ±10%, 50-60 Hz
Sensor input	NTC
Relay output	SPCO 10A, 250V AC
Setpoint adjustment	-10°C / +50°C
Temperature differential	0,3°C - 6°C
Ambient temperature	0°C / +50°C
Power consumption	3VA
Max. fuse rating	10A, Type g
Housing	IP20
Weight	170 g
Dimensions	36 x 58 x 86 mm (H/W/D)
Inspection	CE









### **Technical details**

#### ETI-1551 Thermostat installation

ETI thermostats are designed to be mounted on a DIN rail inside an enclosure with a suitable rating. A wall-mounting enclosure is available as an accessory.

#### **Cable connection**

The sensor cable may be extended up to 100 m. The sensor cable must be kept separate from mains-carrying cables as disruptive voltages may be induced. The sensor cable need not be screened, but the use of screened cable increases ETI resistance to interference, which is particularly important in industrial installations. The screen must be connected by a bracket to an earthed metal backplate or direct to an earth terminal.

#### **Room sensors**

Room sensors should be positioned on the wall in such a way as to allow free air circulation around them. They must also be positioned so as to prevent them being affected by direct heat sources (e.g. the sun), draughts from doors and windows, or outside temperature (i.e. do not mount on outer wall).

#### Floor sensors

Floor sensors should be installed in standard conduit embedded in the floor between heating cables, preferably as close to the floor surface as possible.

Art.nr.	Description	Volt	
891551	MAGNUM Thermostat ETI-1551 DIN-rail -10°C/+50°C 10A	230V	

### **MAGNUM ETR-2**

### Thermostat for MAGNUM Outdoor systems

An intelligent all-in-one solution for ice and snow melting suitable for any application which uses hydronic or electric heating. Optimal operation is ensured through output control, making the system both effective and economical. ETR-2 offers the possibility of snow melting - the green way.

MAGNUM has developed the ETR-2 controller for ice and snow melting in gutters or small ground areas. Using readings from temperature and moisture sensors, the controller ensures economical control of power consumptions when keeping outdoor areas or roofs free of ice and snow. The moisture sensor is installed in the surface of the outdoor area or placed in the gutter. As soon as moisture is detected, the ETR-2 controller activates the snow melting system. Once the sensor has dried out, the thermostat immediately goes in afterrun and the system will continue to provide heat for a chosen time.

The ETR-2 gives an economical control of ice-and snow melting for all smaller applications. With focus on power consumption and easy installation, the ETR-2 keeps gutters and small ground areas free of ice and snow.

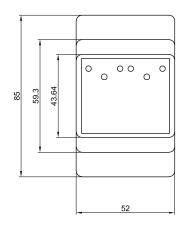
#### **Functions:**

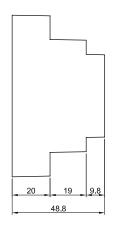
- Economical control of ice and snow melting in the outdoor area and gutters
- · Detection of temperature and moisture
- Electronic on/off control up to 3,600W
- For roof or gutter applications
- Easy to install
- · Adjustable moisture sensitivity
- · Possibility to activate forced heat



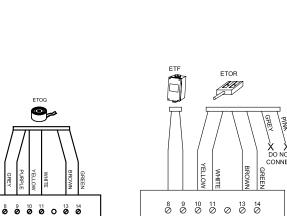
Specifications	
Supply voltage	230V ±10% 50/60 Hz
On/off differential	0,4°C
Setting of temperature	0°C - 10°C
Setting of afterruntime	0 - 5 hours
Output relays	16A potential-free 3600W
Power consumption	3VA
Temp. range (ambient)	0°C /+50°C
Housing	IP20
Weight	190 g
Dimensions	86/52,5/58 mm (H/W/D)
LED indication:	Green: Power on Red + moist: Moisture detected Red + temp.: Temp. below setpoint Red + relay: Output on
Inspection	CE







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### **Technical details**

#### ETR-2 Easy startup:

Adjust the temperature and the afterrun time. The thermostat is now working when the outdoor temperature is below the set temperature.

#### Suitable sensors for outdoor surfaces:

#### ETOG-56

The ETOG sensor is designed for embedding in the surface of the outdoor area. ETOG sensors measure ground temperature and moisture.



#### ETF-744/99

The ETF-744/99 sensor can be used for measuring rapid temperature drops.



#### Suitable sensors for gutters:

#### ETOR-55

The ETOR sensor is designed for installation in gutters, downpipes, etc. ETOR sensors detect moisture



### ETF-744/99

The ETF-744/99 sensor can be used for measuring rapid temperature drops.



Art.nr.	Description	Volt	
900056	MAGNUM Thermostat ETR-2 DIN-rail temp./moisture 1x16A	230V	

### **MAGNUM ETN-4**

### Thermostat for MAGNUM Outdoor systems

An intelligent all-in-one solution for ice and snow melting suitable for any application which uses hydronic or electric heating. Optimal operation is ensured through output control, making the system both effective and economical. ETN-4 offers the possibility of snow melting - the green way.

MAGNUM has developed the ETN-4 controller for ice and snow melting on the ground and in gutters. Using readings from temperature and moisture sensors, the controller ensures economical control of power consumption while keeping outdoor areas and roofs free of ice and snow. The moisture sensor should be installed in the ground surface or placed in the gutter. As soon as moisture is detected in conjunction with low temperature, the ETN-4 controller activates the snow-melting system. Once the sensor has dried out, the thermostat immediately goes into afterrun and the system continues to provide heat for a set time.

An "all-in-one" thermostat with extented temperature control range, suitable for a wide range of applications. Easy to operate and programme.

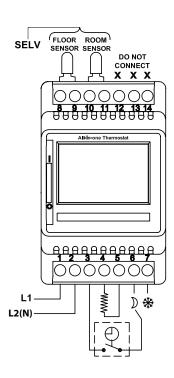
The "all-in-one" thermostat comes with room sensing, room sensing and floor limitation, floor sensing mode only and regulator mode. If you need a thermostat for floor heating control, sauna, frost protection of pipes or cooling applications, the ETN4-1999 is an obvious choise.

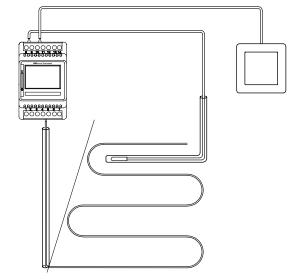
#### Large differential temperature range

The thermostat has a large differential temperature range of 6°C, for either lowering the cycle time of the relay or specifically to reduce the number of start cycles.



Supply voltage	230V AC ±10% 50/60Hz
Standby power	0,5 Watt
Output relay SPST	16A, resistive load or 1A inductive load
Interrupter	2-pole, 16A
Control temperature range (extended)	-19,5°C to +70°C
Control accuracy	±0,4°C
Floor limit range	-19,5°C / +70°C
Ambient temperature	-19,5°C / +55°C during operation
Night setback relative	-19,5°C / +30°C
Night setback regulator	1-100%
Frost protection Abs.	0°C - 10°C
Frost protection regulator	1-100%
Regulation principle	PWM/PI or ON/OFF
Housing	IP20
Sensor type	NTC (12 KΩ) 3 m max. 100 m
Display	Segment – backlit
Dimensions	88,5/52,9/57,3 mm (H/W/D)
Inspection	CE C





### **Technical details**

#### **Functions:**

- The "all-in-one" thermostat is perfect for the application types:
  - Electrical floor heating
  - Frost protection
  - Ice & Snow melting
  - Cooling
- Extended temperature range -19,5°C to +70°C
- Input for night setback and frost protection
- Now also with cooling application invertible relay function and differential temperature
- Optimum safety due to built-in 2 pole 16 Amp interrupter
- Easy menu navigation and programming
- Programming is easy, ensuring the fastest and easiest set-up
- Big backlit display
- Delivered with new thin floor sensor, which makes mounting of sensor more comfortable than ever

Art.nr.	Description	Volt	
892551	MAGNUM Thermostat ETN-4 Digital DIN-rail -20°C/+70°C 16A	230V	

### **MAGNUM ETO2-4550**

### Thermostat for MAGNUM Outdoor systems

An intelligent all-in-one solution for ice and snow melting suitable for any application which uses hydronic or electric heating. Optimal operation is ensured through output control, making the system both effective and economical. ETO2 offers the possibility of snow melting - the green way.

MAGNUM has developed the ETO2 controller for ice and snow melting on the ground and in gutters. Using readings from temperature and moisture sensors, the controller ensures economical control of power consumption while keeping outdoor areas and roofs free of ice and snow. The moisture sensor should be installed in the ground surface or placed in the gutter. As soon as moisture is detected in conjunction with low temperature, the ETO2 controller activates the snow-melting system. Once the sensor has dried out, the thermostat immediately goes into afterrun and the system continues to provide heat for a set time.

Complete watertight switch boxes manufactured and fitted according to the number of cables/mats and power. The system can be supplied in both 230V and 400V.

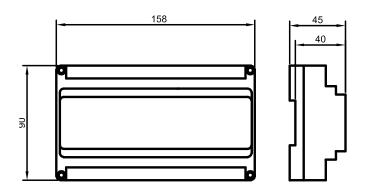
#### **Functions:**

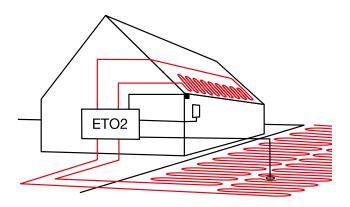
- Temperature & humidity 3 x 16A 230V
- · Electronic on/off control up to 11kW
- 2 zone control, at the same time individually controllable
- · Economic control, minimum energy consumption
- · Adjustable moisture sensitivity
- · Measurement of both temperature and moisture
- · Control of hydronic or electric ice and snow melting systems
- Display and "turn-and-push" button for easy programming
- · Language options

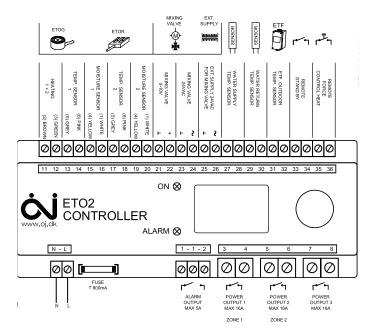


Supply voltage	120 - 240 V ±10%, 50 - 60 Hz
Temp. range (control)	-20°C / +50°C
Built-in timer for manual snow melting / afterrun	0 - 18 hours
Output relays	3 x 16 A potential-free relays
2-zone application	Via 2 x 16 A potential-free output relays
Hydronic system	Control of 3 or 4 way valve, primary pump, secondary pump
Display	Graphic, backlit
Temp. range (ambient)	0°C / +40°C
Temp. range (storage)	-50°C / +70°C
Housing / incl. cover	IP20
Weight	495 g
Dimensions excl. cover	90/156/45 mm (H/W/D)
Dimensions incl. cover	170/162/45 mm (H/W/D)
LED indication:	Green: ON Red: Error
Keuring	CE









### **Technical details**

#### ETO2 4550 thermostat installation:

DIN-rail mounting in electrical cabinet, MAGNUM mounting box or on a wall surface.

#### Suitable sensors for outdoor surfaces:

#### ETOG-56

The ETOG sensor is designed for embedding in the surface of the outdoor area. ETOG sensors measure ground temperature and moisture.



#### ETF-744/99

The ETF-744/99 sensor can be used for measuring rapid temperature drops.



#### Suitable sensors for gutters:

#### ETOR-55

The ETOR sensor is designed for installation in guetc. ETOR sensors detect moisture



#### ETF-744/99

The ETF-744/99 sensor can be used for measuring rapid temperature drops.



Art.nr.	Description	Volt
893550	MAGNUM Thermostat ETO2-4550 DIN-rail temp./moisture 3 x 16A	230V

### **MAGNUM ETOG-56**

### **Sensor for MAGNUM Outdoor systems**

#### **Ground sensor type ETOG-56**

Designed for embedding in the outdoor surface using the ETOK-1 sensor tube. Detects both temperature and moisture.

#### Sensor tube ETOK-1

Mounting tube for ETOG-56, supplied with a wood plug for covering the ETOK-1 hole during installation. Notch on side for conduit.

#### Mounting of sensor tube ETOK-1

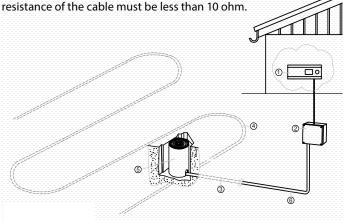
The sensor should be mounted in an open unsheltered location away from walls, etc. The tube must be embedded with its top completely horizontal and flush with the surrounding surface. It should be embedded in a hard surface, e.g. concrete or asphalt. A conduit, up to Ø 23 mm, must be inserted into the notch. It is recommended that the conduit be equipped with a cord in order to make it easier to pull the cable through. The accompanying wood plug must be placed in the hole before the concrete or asphalt is applied. Ensure that it is securely embedded in relation to the expected surface load.

#### Mounting of ground sensor ETOG-56

After the concrete/asphalt has cured, the sensor can be mounted. Remove the wood plug from the tube and ensure that the tube is clean. Pull the cable through the conduit, ensuring that the cable is not damaged on any sharp edges. Place the sensor in the tube. The sensor cable must fit easily through the hole in the bottom. The accompanying screw must be fitted in the middle of the sensor and securely tightened.

#### Mounting of sensor cable

The cable must be mounted in accordance with applicable local regulations. The cable must never be installed parallel to power cables as electrical interference may distort the sensor signal. The sensor is supplied with 25 m cable which can be extended up to 200 m using standard installation cable: 6 x 1,5 mm<sup>2</sup>. The total





Detection	Moisture and temperature
Mounting	Outdoor surface
Cable length	25 m
Enclosure rating	NEMA 6P/IP 68
Temp. range (ambient)	-50°C / +70°C
Dimensions (sensor)	H32, Ø60 mm
Dimensions (tube)	H78, Ø63,5 mm
Heating (brown, green)	224 Ohm
Moisture (yellow/white)	0 Ohm (normally no value, with moisture: full lock)
Temperature sensor depending on temp.	-4°C: 43 K/Ohm -2°C: 39 K/Ohm 0°C: 35 K/Ohm 2°C: 32.4 K/Ohm 4°C: 29.8 K/Ohm 5°C: 27 K/Ohm 10°C: 22 K/Ohm
Keuring	CE



### **MAGNUM ETOR-55**

### **Sensor for MAGNUM Outdoor systems**

#### Gutter sensor type ETOR-55 + 10 metres connection cable

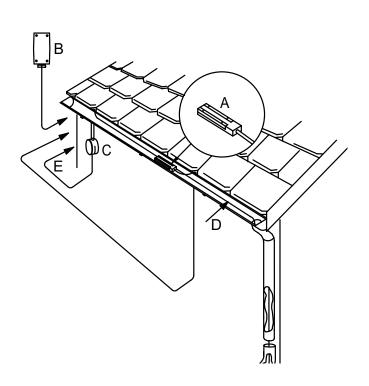
Designed for mounting in gutters and down pipes ect. Detects moisture and is mounted in combination with outdoor sensor ETF for temperature detection. Only to be used in combination with outdoor sensor type ETF-744/99.

#### Mounting of sensor

To be mounted in the gutter or downpipe on the sunny side of the building. Contact points of the sensor must be placed towards the flow of the melting water. To be mounted where the melting water will often appear.

#### Mounting of sensor cable

The cable must be mounted in accordance with applicable local regulations. The cable must never be installed parallel to power cables as electrical interference may distort the sensor signal. The sensor is supplied with 10 m cable which can be extended up to 200 m using standard installation cable: 6 x 1,5 mm<sup>2</sup>. The total resistance of the cable must be less than 10 ohm.





### **Specifications**

Measurement	Moisture
Installation	Gutter or downpipe
Housing	IP68
Temp. range (ambient)	-50°C / +70°C
Dimensions	105/30/13 mm (H/W/D)
Keuring	CE



Art.nr.	Description
900055	MAGNUM Sensor unit ETOR-55 moisture for the (roof) gutter

### **MAGNUM ETF-744/99**

### **Sensor for MAGNUM Outdoor systems**

The snow melting system is only energized when the outdoor temperature drops below the selected setting and snow or ice is detected by the sensors. Energy is therefore used only when absolutely necessary.

#### ETF-744/99 External Outdoor Temperature Sensor

This outdoor sensor only records the temperature. To be used in combination with outdoor sensor type ETOR-55 or only for temperature recording.

#### For gutters - ETO2-4550, ETOR-55 and ETF-744/99

The ETOR sensor is designed for installation in gutters, downpipes, etc. ETOR sensors detect moisture, while ETF sensors measure temperature.

#### ETF outdoor temperature sensor

Measures temperature. Is normally used in combination with ETOR gutter sensors, but can also be used separately for temperature measurement only. An ETF sensor can also be used in combination with ETOG ground sensors for outdoor areas. The ETF sensor can detect rapid drops in air temperature, avoiding icy areas.

#### ETF outdoor temperature sensor installation

Should be installed beneath the eaves on the northern side of the building.



#### **Specifications**

Measurement	Temperature
Installation	Wall surface
Housing	IP54
Temp. range (ambient)	-50°C / +70°C
Dimensions	86 x 45 x 35 mm (H/W/D)
Inspection	CE



Art.nr.	Description
901441	MAGNUM Sensor unit ETF-744/99 External outside temperature sensor

# **MAGNUM ETF-633/44/55**

### **Sensor for MAGNUM Outdoor systems**

ETF is a complete series of temperature sensors designed for temperature control and monitoring in heating and cooling systems.

All common sensor types are available in a wide range of mechanical types. The specific requirements of individual applications can therefore always be met.

The ETF series also contains sensors dedicated to the temperature controllers from MAGNUM. ETF sensors thus provide optimum temperature control.

ETF sensors are designed to provide our customers with an advantageous combination of high quality, accurate measurement and low life cycle costs.

#### **Many Mechanical Types**

Thanks to the many mechanical types, a single supplier can provide ideal sensors for temperature measurement in everything from large tank installations and cold-storage facilities to residential living rooms. Sensors can be custombuilt to order.



Specifications	
Detection	Temperature
Туре	NTC, 12kΩ / 25°C
Cable length	2,5 m
Enclosure rating	IP54
Temp. range (ambient)	-40°C / +120°C
Dimensions	8 x 12mm, ø 3,5 mm hole
Inspection	CE

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Art.nr.	Description
891650	MAGNUM Sensor unit ETF-633/44/55 Pipe sensor -20°C /+70°C

### **MAGNUM ETF-144**

### **Sensor for MAGNUM Outdoor systems**

ETF is a complete series of temperature sensors designed for temperature control and monitoring in heating and cooling systems.

All common sensor types are available in a wide range of mechanical types. The specific requirements of individual applications can therefore always be met.

The ETF series also contains sensors dedicated to the temperature controllers from MAGNUM. ETF sensors thus provide optimum temperature control.

ETF sensors are designed to provide our customers with an advantageous combination of high quality, accurate measurement and low life cycle costs.

#### **Many Mechanical Types**

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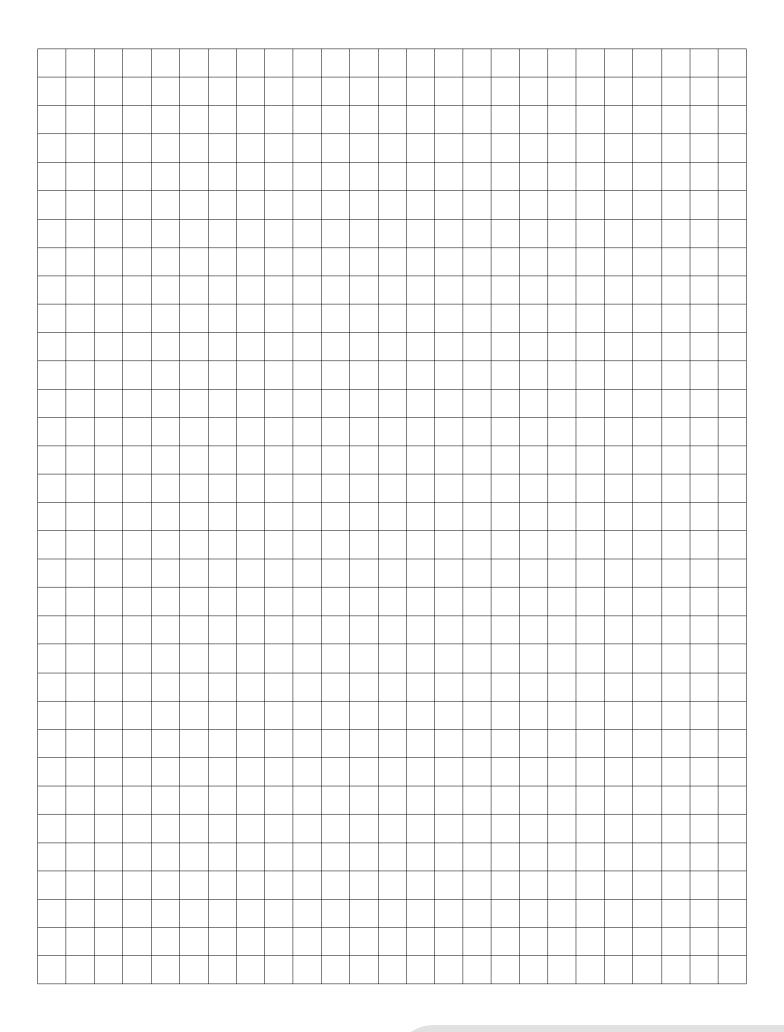


Specifications	
Detection	Temperature
Mounting	Floor
Cable length	2,5 m
Enclosure rating	IP54
Temp. range (ambient)	-20°C / +70°C
Inspection	CE

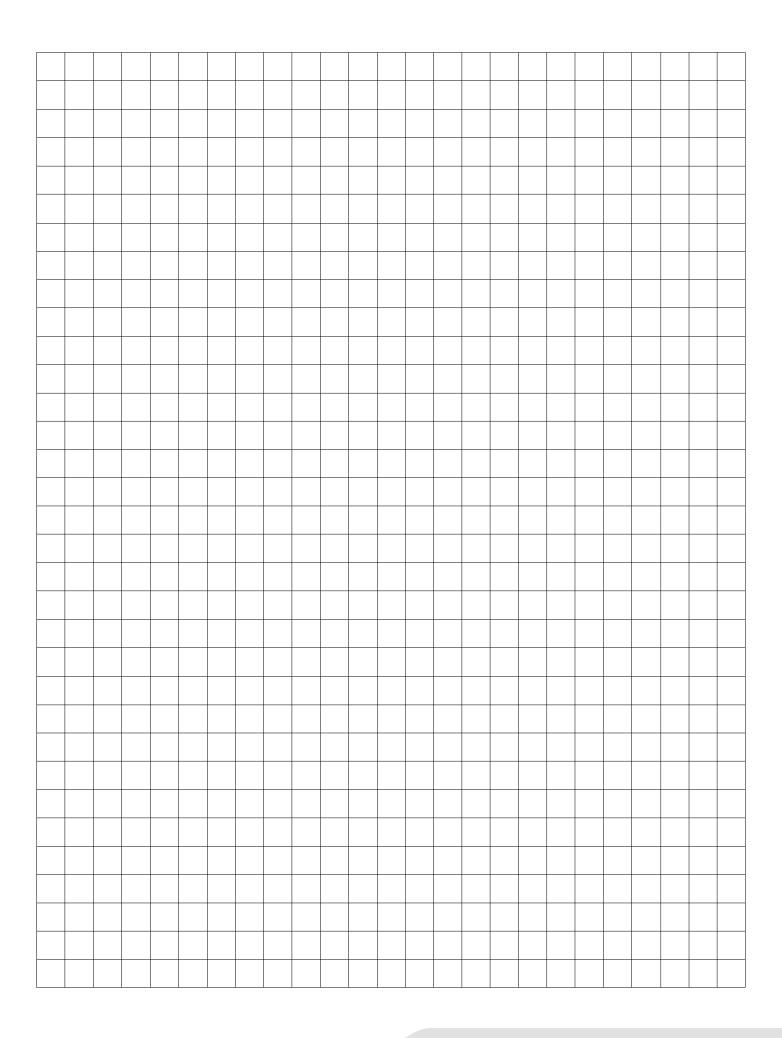
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Art.nr.	Description
860199	MAGNUM Sensor unit ETF-144 Floor sensor (12k) -20°C/+70°C

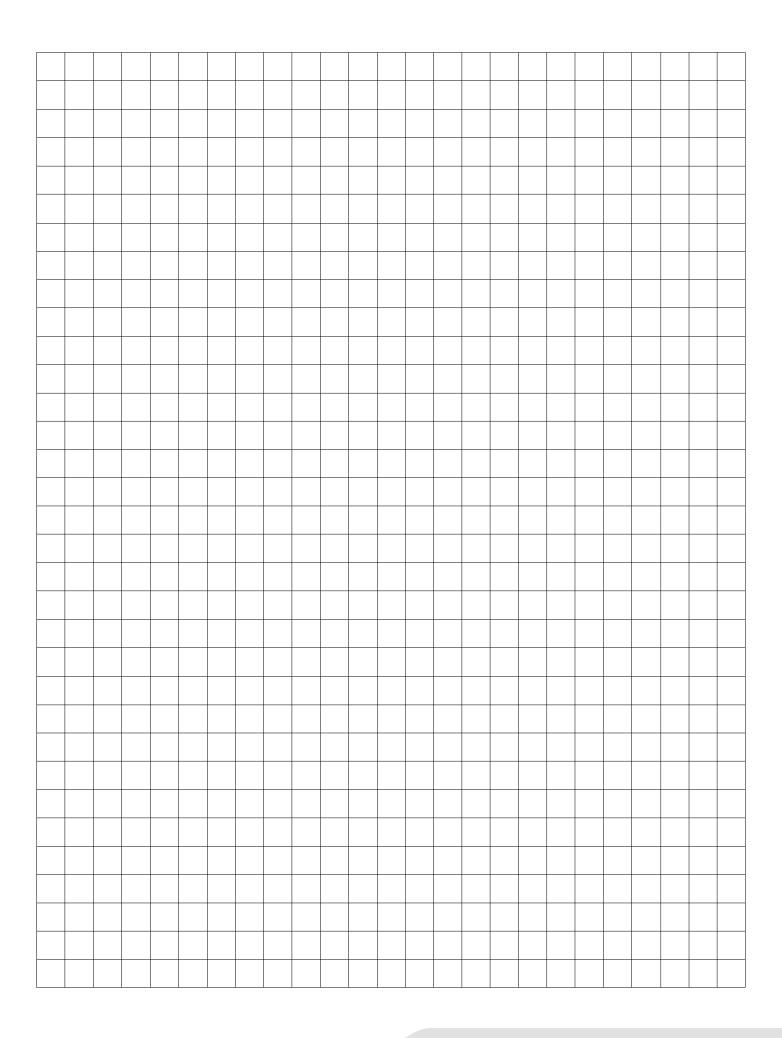
**Notes** 



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