MAGNUM HEATING
Comfort | Safety | Control

# Product catalogue

2022 | 2023

# 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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## General information



## Electrical systems



## Waterborne systems



## Outdoor systems

# 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.

# Efficiency and comfort at every level.

# 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.

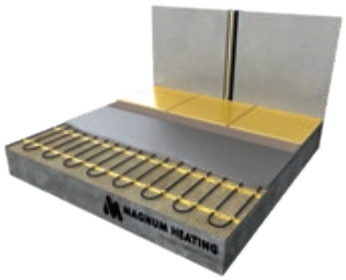
For renovations it is important that systems can be applied without far-reaching interventions (such as milling). The minimum installation height of these systems ensures that they can be installed on an existing floor and even in the wall, so that no radiators are needed.

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.

***"Good insulation is the key to an efficiently functioning system."***

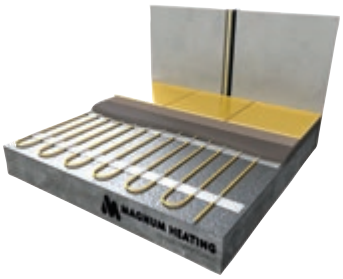
## Renovation



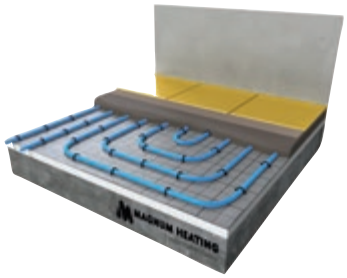
MAGNUM Mat

MAGNUM SlimFit 10 & 12

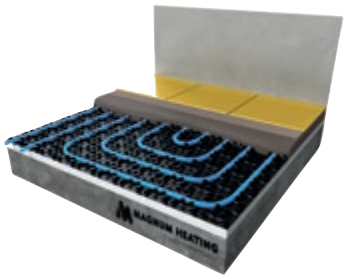
## New Build



MAGNUM Cable

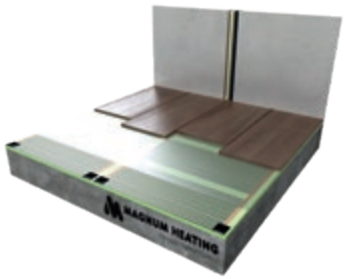


MAGNUM Tacker Plates



MAGNUM Castellated Plates

## Dry Floor



MAGNUM Foil

MAGNUM HeatBoard E

MAGNUM HeatBoard W

MAGNUM DryFloor

# Underfloor heating selection guide

## Renovation (floor & wall)

### Electric

Available installation height
Excluding floor finish:
**5 - 15 mm**

- **MAGNUM Mat Set**
  incl. MRC WiFi thermostat
- **MAGNUM Mat**

**Option: MAGNUM IsoPlate (6 or 10mm)**
Additional insulation layer or as reinforcement on wooden subfloor

**Suitable thermostats:**
MRC WiFi thermostat
MAGNUM Z-Wave
MAGNUM S-Control

### Water based (also for new buildings!)

| Available installation height Excluding floor finish: **15 - 20 mm** | Available installation height Excluding floor finish: **15 - 25 mm** |
|---|---|
| **MAGNUM Slimfit 10** Set of system plates per 2,4m² | **MAGNUM Slimfit 12** Set of system plates per 3,75m² |
| **MAGNUM Tube 10x1,3mm** ± 8 m Tube per m² | **MAGNUM Tube 12x1,5mm** ± 8 m Tube per m² |

**Suitable distributor:**
See distributor selection aid

| | |
|---|---|
| **Connection couplings** 10 x 1,3 mm (set of 2) | **Connection couplings** 12 x 1,5 mm (set of 2) |

**Suitable thermostats:**
Wired or wireless

## New build

### Electric

Available installation height
Excluding floor finish:
**25 - 50mm**

- **MAGNUM Cable Set**
  incl. MRC WiFi thermostat
- **MAGNUM Cable**
  10 of 17W/m¹

**Options:**
Isorol, Alutape, Spacerstrips, Edge insulation, Stabilisator fibers etc.

**Suitable thermostats:**
MRC WiFi thermostat
MAGNUM Z-Wave
MAGNUM S-Control

### Water based

Available installation height
Excluding floor finish:
**40 - 60mm**

| | |
|---|---|
| **Tacker grid foil** Rol per 50 m² | **Non insulates Castelated plates** Set per 10 m² |
| **MAGNUM Tube 14-20 mm** | **MAGNUM Tube 14-16 mm** |
| **Tacker staples and -stapler** | |

# Dry Construction

## Electric

Available installation height
Excluding floor finish:
**6 - 10 mm**

**MAGNUM Foil Set**
incl. MRC WiFi thermostat

**MAGNUM IsoFoam (+6mm)**
insulation

Available installation height
Excluding floor finish:
**10 - 25 mm**

**MAGNUM HeatBoard E**
Set of system plates per 5 $m^2$

**MAGNUM HeatBoard Cable**
6 of 10W/$m^1$ (± 9m Cable per $m^2$)

**Options:**
**MAGNUM DuoBoard (+6mm)**
With soft (PVC, carpet etc..) or glued down floor covering

**Suitable thermostats:**
MRC WiFi thermostat
MAGNUM Z-Wave

## Water based

Available installation height
Excluding floor finish:
**20 - 25 mm**

**MAGNUM HeatBoard W**
Set of system plates per 5 $m^2$

**MAGNUM Tube 12x1,5mm**
± 8 m Tube per $m^2$

**Options:**
**MAGNUM DuoBoard (+6mm)**
With soft (PVC, carpet etc..) or glued down floor covering

Available installation height
Excluding floor finish::
**25 - 35 mm**

**MAGNUM DryFloor**
Set of system plates per 7,5 $m^2$

**Aluminium Omega Profiles**
± 8 profielen per $m^2$

**MAGNUM Tube 14 x 2 mm**
± 9 m Tube per $m^2$

**Suitable distributor:**
See distributor selection aid

**Connection couplings**
12 x 1,5 mm (set of 2)

**Connection couplings**
14 x 2 mm (set of 2)

**Suitable thermostats:**
Wired or wireless

Available installation height
Excluding floor finish:
**60 - 80mm**

**Tacker plates 20 mm**
Set per 10 $m^2$

**MAGNUM Tube 14-20 mm**

**Tacker staples and -stapler**

**Castelated plates 28 mm**
Set per 10 $m^2$

**MAGNUM Tube 14-16 mm**

Available installation height
Excluding floor finish:
**80 - 120mm**

**Tacker plate 30 mm**
Set per 10 $m^2$

**MAGNUM Tube 14-20 mm**

**Tacker staples and -stapler**

**Castelated plates 47 mm**
Set per10 $m^2$

**MAGNUM Tube 14-16 mm**

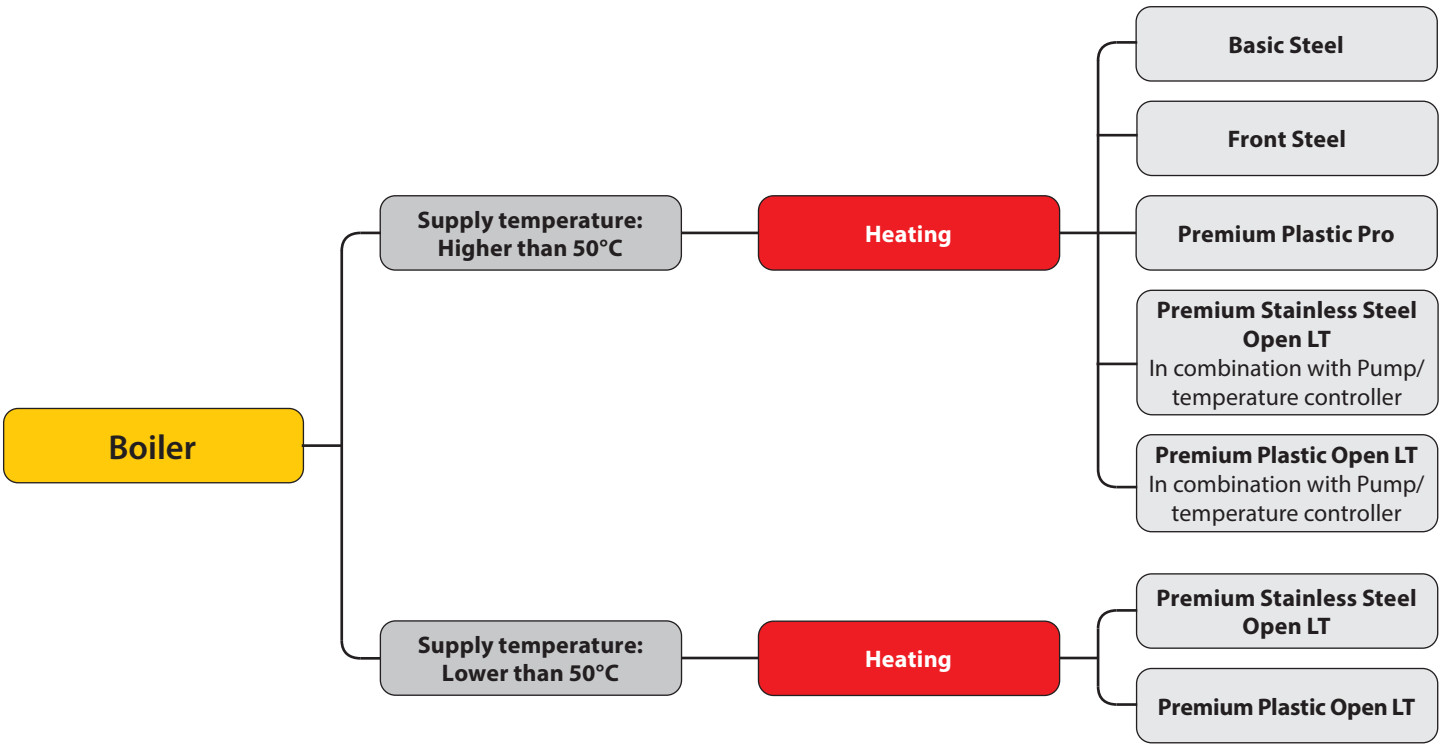
**Suitable distributor:**
See distributor selection aid

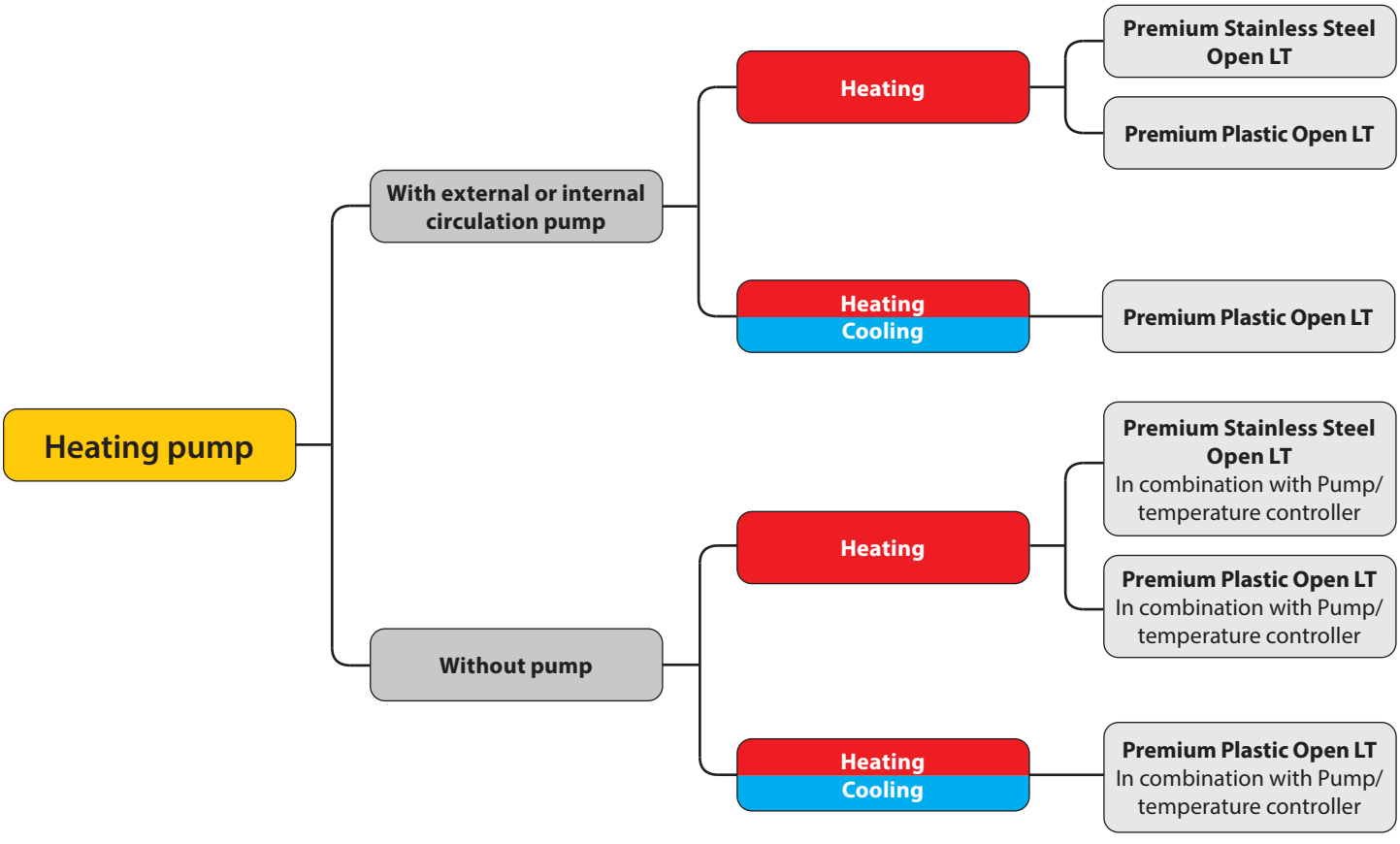
**Connection fittings**
(Set of 2)

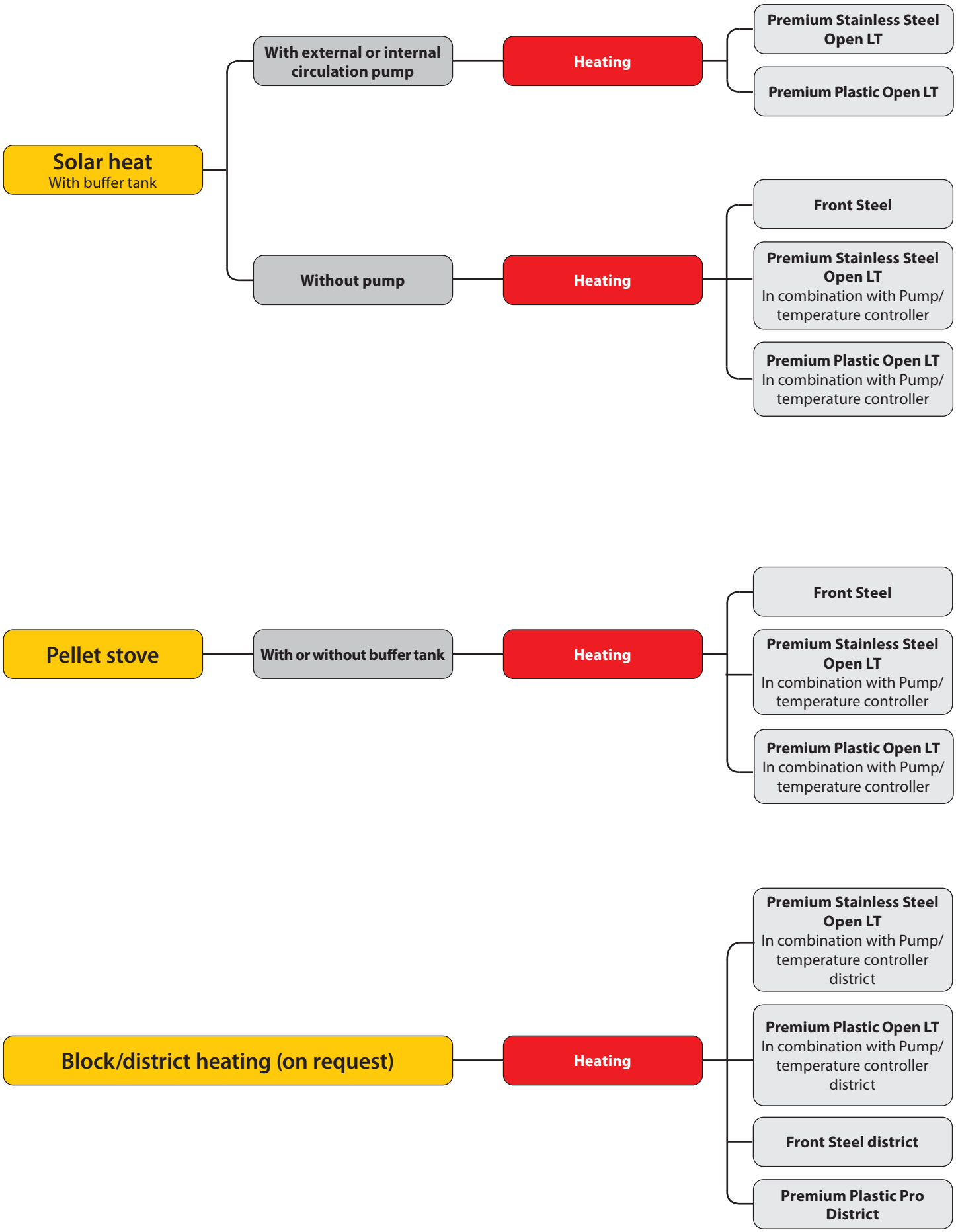
**Options:**
Edge insulation with flap, Dilatation profile, Bend support etc..

**Suitable thermostats:**
Wired or wireless

# Distributor selection guide




Solar heat
With buffer tank
With external or internal circulation pump
Heating
Premium Stainless Steel Open LT
Premium Plastic Open LT
Without pump
Heating
Front Steel
Premium Stainless Steel Open LT
In combination with Pump/ temperature controller
Premium Plastic Open LT
In combination with Pump/ temperature controller
Pellet stove
With or without buffer tank
Heating
Front Steel
Premium Stainless Steel Open LT
In combination with Pump/ temperature controller
Premium Plastic Open LT
In combination with Pump/ temperature controller
Block/district heating (on request)
Heating
Premium Stainless Steel Open LT
In combination with Pump/ temperature controller district
Premium Plastic Open LT
In combination with Pump/ temperature controller district
Front Steel district
Premium Plastic Pro District

# Full control. Even when you're not at home.

## 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.


Wi Fi®

Download on the App Store

GET IT ON Google Play

Add to Siri

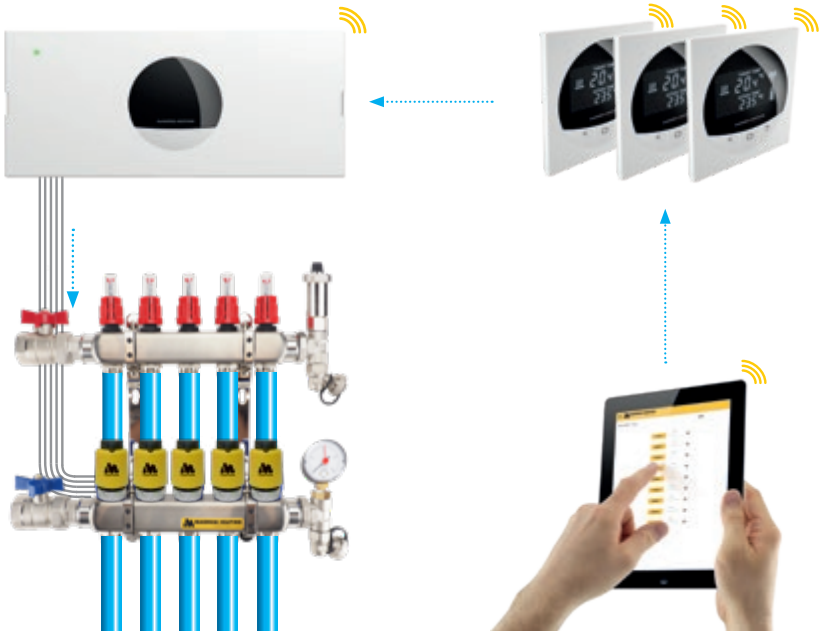
Google Assistant

works with alexa

# 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 thermostats think ahead themselves and calculate the required warm-up times and the amount of energy needed to do so.

Thanks to precise control, an optimal and comfortable living climate is possible everywhere. In addition, our systems can easily be linked to new or existing automation systems, so you no longer have to worry about them. Even when you're not at home.

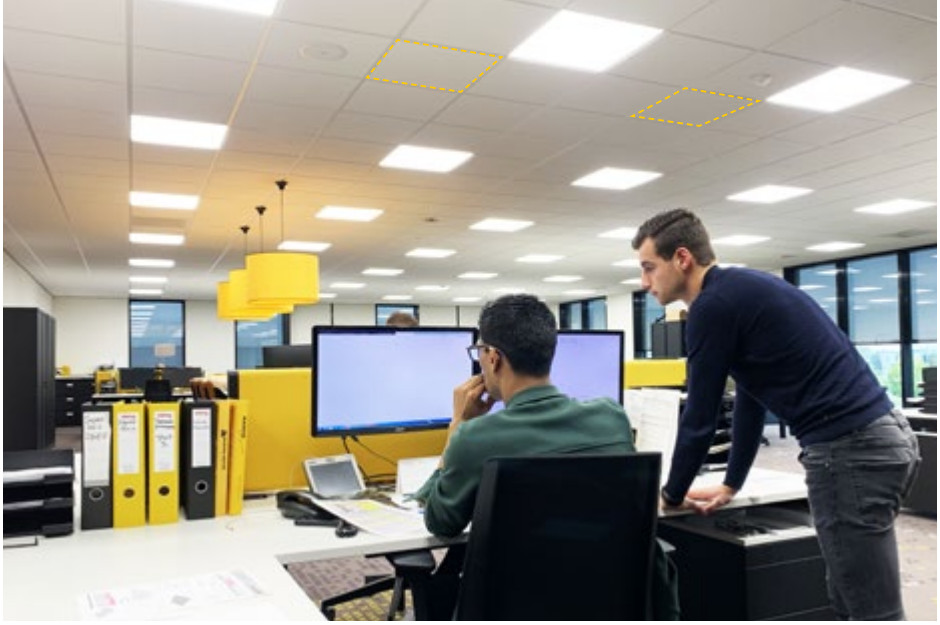
MAGNUM thermostats have been developed in-house and are among the most reliable on the European market.

# 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.

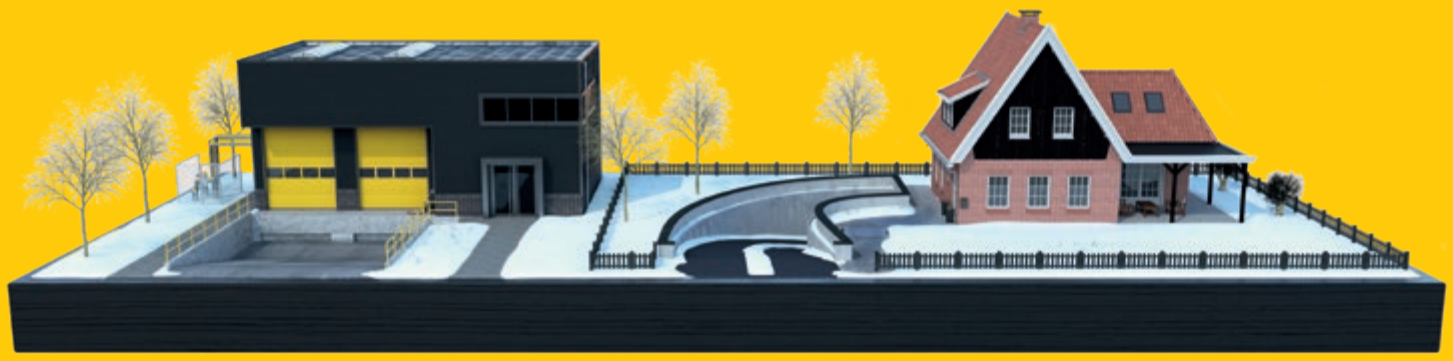


# A clear view

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!

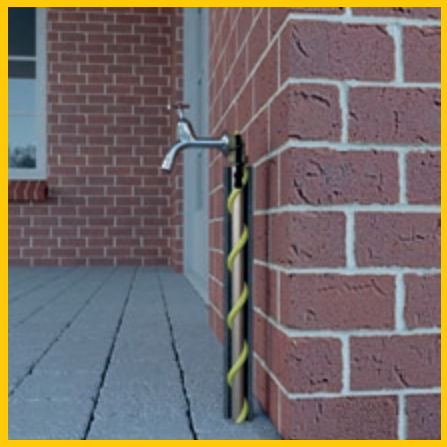
# Safety first. Without compromise.



## 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.

## 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.

## 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.

## 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.

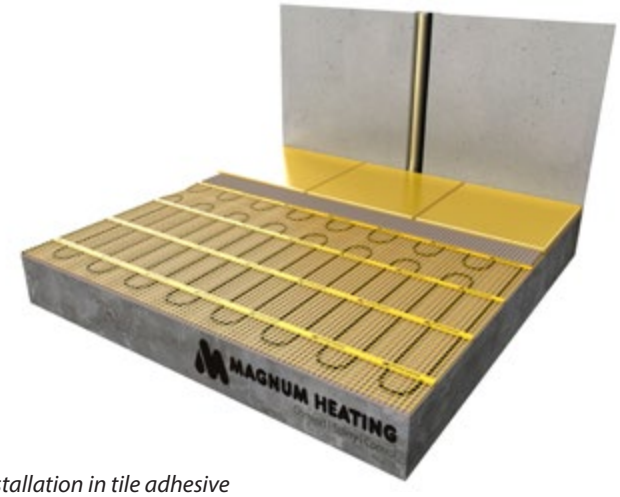
# MAGNUM Mat (Set)

## Underfloor heating mat

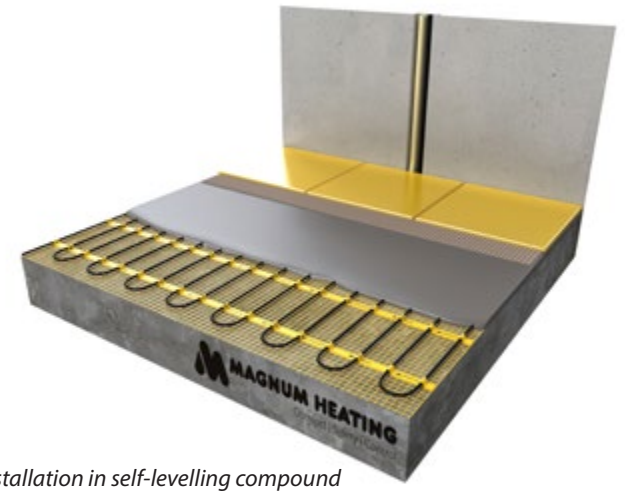
The MAGNUM Mat is a unique underfloor heating mat. The system is designed to allow underfloor heating to be installed over an existing tiled floor or on top of a screed that has already been installed. The mat is approximately 4 mm thin and can be included in an adhesive layer without demolition and 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$^2$. 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.


*Installation in tile adhesive*




*Installation in self-levelling compound*

### 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$^2$ |
| 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 |

CE VDE REG.-Nr. 40041320

*Unieke blinde verbinding tussen verwarmings- en aansluitkabel*

## 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
- 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

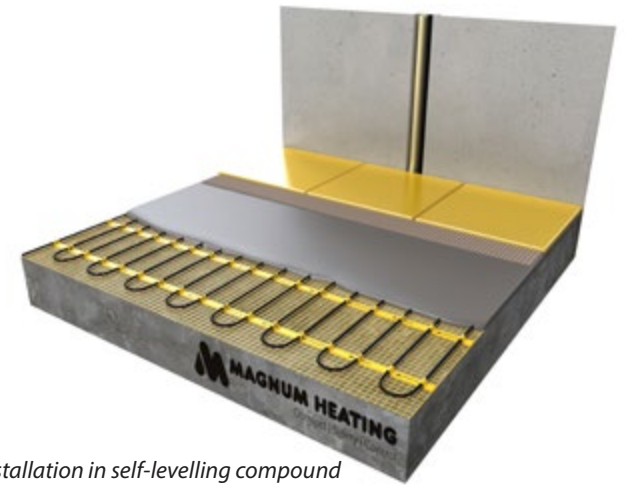
| Art.nr. | Description | m² | Power | W per m² | Amps | Ohm | Dimension |
|---|---|---|---|---|---|---|---|
| 200075 | MAGNUM Mat Set | 0,75 m² | 113 Watt | 150 Watt | 0,6 | 468 | 0,25 x 3,00 m |
| 200205 | MAGNUM Mat Set | 1,0 m² | 150 Watt | 150 Watt | 0,7 | 353 | 0,50 x 2,00 m |
| 200125 | MAGNUM Mat Set | 1,25 m² | 188 Watt | 150 Watt | 0,8 | 281 | 0,25 x 5,00 m |
| 200305 | MAGNUM Mat Set | 1,5 m² | 225 Watt | 150 Watt | 1,0 | 235 | 0,50 x 3,00 m |
| 200175 | MAGNUM Mat Set | 1,75 m² | 263 Watt | 150 Watt | 1,1 | 201 | 0,25 x 7,00 m |
| 200405 | MAGNUM Mat Set | 2,0 m² | 300 Watt | 150 Watt | 1,3 | 176 | 0,50 x 4,00 m |
| 200225 | MAGNUM Mat Set | 2,25 m² | 338 Watt | 150 Watt | 1,5 | 157 | 0,25 x 9,00 m |
| 200505 | MAGNUM Mat Set | 2,5 m² | 375 Watt | 150 Watt | 1,6 | 141 | 0,50 x 5,00 m |
| 200605 | MAGNUM Mat Set | 3,0 m² | 450 Watt | 150 Watt | 2,0 | 117 | 0,50 x 6,00 m |
| 200705 | MAGNUM Mat Set | 3,5 m² | 525 Watt | 150 Watt | 2,3 | 100 | 0,50 x 7,00 m |
| 200805 | MAGNUM Mat Set | 4,0 m² | 600 Watt | 150 Watt | 2,6 | 88 | 0,50 x 8,00 m |
| 200905 | MAGNUM Mat Set | 4,5 m² | 675 Watt | 150 Watt | 2,9 | 78 | 0,50 x 9,00 m |
| 201005 | MAGNUM Mat Set | 5,0 m² | 750 Watt | 150 Watt | 3,3 | 71 | 0,50 x 10,00 m |
| 201205 | MAGNUM Mat Set | 6,0 m² | 900 Watt | 150 Watt | 3,9 | 59 | 0,50 x 12,00 m |
| 201405 | MAGNUM Mat Set | 7,0 m² | 1050 Watt | 150 Watt | 4,6 | 50 | 0,50 x 14,00 m |
| 201605 | MAGNUM Mat Set | 8,0 m² | 1200 Watt | 150 Watt | 5,2 | 44 | 0,50 x 16,00 m |
| 201805 | MAGNUM Mat Set | 9,0 m² | 1350 Watt | 150 Watt | 5,9 | 39 | 0,50 x 18,00 m |
| 202005 | MAGNUM Mat Set | 10,0 m² | 1500 Watt | 150 Watt | 6,5 | 35 | 0,50 x 20,00 m |
| 202405 | MAGNUM Mat Set | 12,0 m² | 1500 Watt | 125 Watt | 6,5 | 35 | 0,50 x 24,00 m |
| 203005 | MAGNUM Mat Set | 15,0 m² | 1875 Watt | 125 Watt | 8,2 | 28 | 0,50 x 30,00 m |
| 204010 | MAGNUM Mat Set | 20,0 m² | 2500 Watt | 125 Watt | 10,8 | 21 | 0,50 x 40,00 m |
| 205010 | MAGNUM Mat Set | 25,0 m² | 3125 Watt | 125 Watt | 13,6 | 17 | 0,50 x 50,00 m |

# MAGNUM Mat

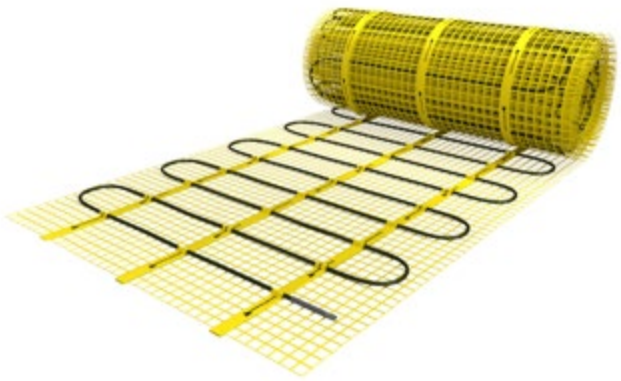
## Underfloor heating mat

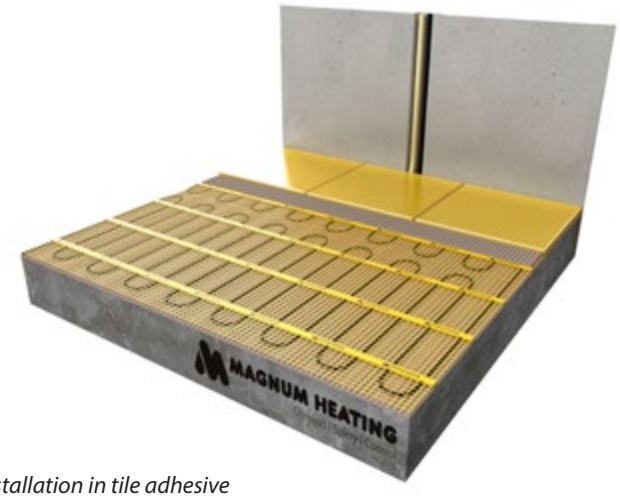
The MAGNUM Mat is a unique underfloor heating mat. The system is designed to allow underfloor heating to be installed over an existing tiled floor or on top of a screed that has already been installed. The mat is approximately 4 mm thin and can be included in an adhesive layer without demolition and 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$^2$. 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.




*Installation in self-levelling compound*






*Installation in tile adhesive*

### 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$^2$ |
| 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 |

CE VDE REG.-Nr. 40041320

*Unique blind connection between heating and connecting cable*

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

# 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/mm² 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 |

CE

| 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 m² | 8 plates of 60 x 100 cm | 6 mm |

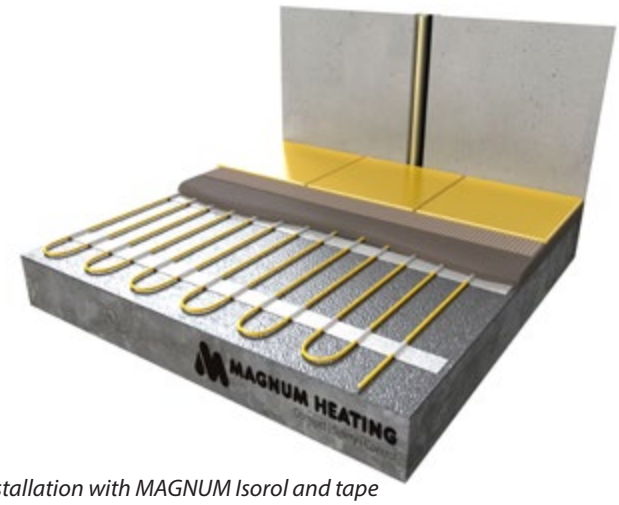
# MAGNUM Cable 17 Watt (Set)

## Underfloor heating cable

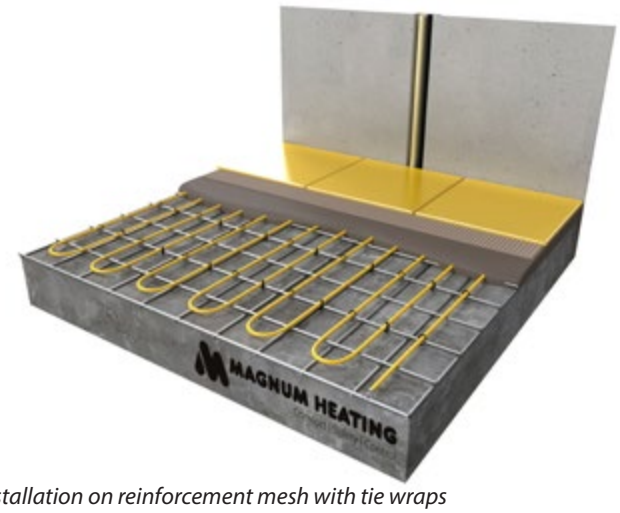
The MAGNUM Cable is specially designed for installation in cement screeds. The mutual cable distance determines the power per m². This gives you the freedom to install more power (faster reaction, higher temperatures) or less power (for constant or low temperatures).

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*

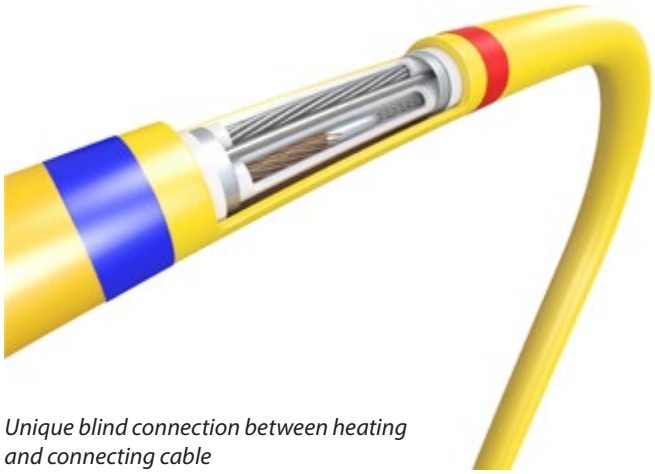




*Installation on reinforcement mesh with tie wraps*

### Specifications

| | |
|---|---|
| System type | Electric |
| System height | 7 mm |
| System width | Variable |
| Min. setting height | 30 mm |
| Installation | Screed |
| Power | 115 - 200W/m² |
| In wet areas | V |
| Tiles | V |
| Wood | V |
| (PVC) Laminate | V |
| Carpet | V |
| Certification | CE, VDE |
| Warranty | Lifetime |

VDE-REG 8741



*Unique blind connection between heating and connecting cable*

**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 $m^2$: (142W/$m^2$)
(7 $m^2$ : 1000 Watt) X 17 W/$m^1$ = 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 $m^2$. 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. | Description | Cable length | Power | Amps | Ohm |
|---|---|---|---|---|---|
| 100305 | MAGNUM Cable Set | 17,6 m | 300 Watt | 1,3 | 177 |
| 100505 | MAGNUM Cable Set | 29,4 m | 500 Watt | 2,2 | 109 |
| 100705 | MAGNUM Cable Set | 41,2 m | 700 Watt | 3 | 76 |
| 101005 | MAGNUM Cable Set | 58,8 m | 1000 Watt | 4,3 | 53 |
| 101255 | MAGNUM Cable Set | 73,5 m | 1250 Watt | 5,5 | 42 |
| 101705 | MAGNUM Cable Set | 100 m | 1700 Watt | 7,4 | 31 |
| 102105 | MAGNUM Cable Set | 123,5 m | 2100 Watt | 9 | 25 |
| 102605 | MAGNUM Cable Set | 152,9 m | 2600 Watt | 11,3 | 20 |
| 102905 | MAGNUM Cable Set | 170,6 m | 2900 Watt | 12,8 | 18 |
| 103305 | MAGNUM Cable Set | 194,1 m | 3300 Watt | 14,3 | 16 |

| Art.nr. | Options | Unit |
|---|---|---|
| 720100 | MAGNUM Stabiliser fibres | Bag of 150 gram |
| 720200 | MAGNUM Aluminium tape | Roll of 22,5 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 $m^2$ (20 x 1,2 m) - 3 mm thick |

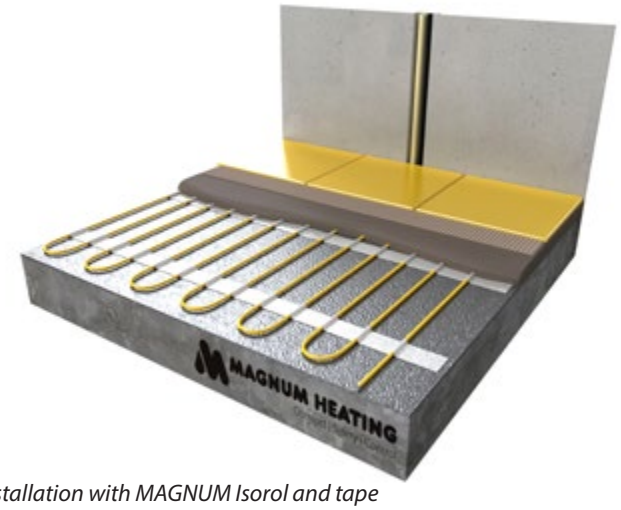
# MAGNUM Cable 17 Watt (Single)

## Underfloor heating cable

The MAGNUM Cable is specially designed for installation in cement screeds. The mutual cable distance determines the power per m². 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).



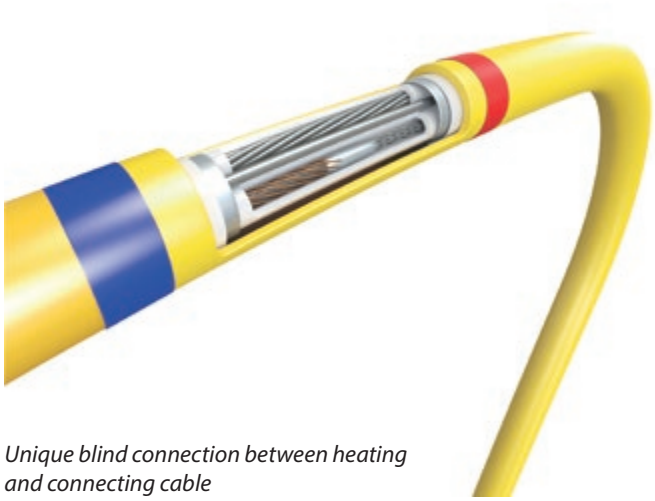

*Installation with MAGNUM Isorol and tape*


*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/m² |
| In wet areas | V |
| Tiles | V |
| Wood | V |
| (PVC) Laminate | V |
| Carpet | V |
| Certification | CE, VDE |
| Warranty | Lifetime |

VDE-REG 8741



*Unique blind connection between heating and connecting cable*

**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 $m^2$: (142W/$m^2$)
(7 $m^2$ : 1000 Watt) X 17 W/$m^1$ = 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 $m^2$. 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 |
|---|---|---|---|---|---|
| 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 |
| 123300 | MAGNUM Cable 17 | 194,1 m | 3300 Watt | 14,3 | 16 |

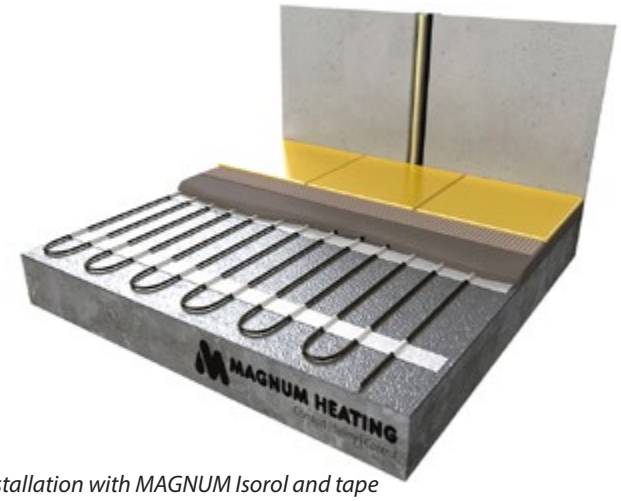
# MAGNUM Cable 10 Watt (Single)

## Underfloor heating cable

The MAGNUM Cable is specially designed for installation in cement screeds. The mutual cable distance determines the power per $m^2$. 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).



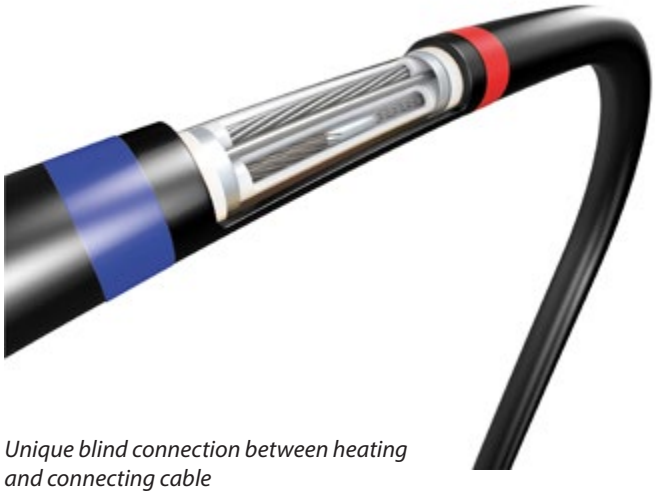

*Installation with MAGNUM Isorol and tape*


*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 | 60 - 200W/$m^2$ |
| In wet areas | V |
| Tiles | V |
| Wood | V |
| (PVC) Laminate | V |
| Carpet | V |
| Certification | CE, VDE |
| Warranty | Lifetime |

VDE-REG 8741



*Unique blind connection between heating and connecting cable*

**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 $m^2$: (166W/$m^2$)
(3 $m^2$ : 500 Watt) X 10 W/$m^1$ = 0,06
Install the cable at 6 cm apart from each other

1000 Watt cable on 7 $m^2$: (142W/$m^2$)
(7 $m^2$ : 1000 Watt) X 10 W/$m^1$ = 0,07
Install the cable at 7 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
- 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 $m^2$. 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 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/m³ |
| EPS foam | | Fire resistant quality |
| Temperature range | | 30°C tot +70°C |
| Insulation value | | 0,036 W/mK |
| Short term compression strength | | With 10% distortion 60kPa |
| 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 > 2mm.
- 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 24m²
- Productsheet

### Specifications

| | |
|---|---|
| Thickness | 3 mm |
| Compressive strength | CS 1: 10 kPA < CS ≤ 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 |

CE

| Art.nr. | Description | m² | Unit | Dimensions | Thickness |
|---|---|---|---|---|---|
| 720502 | MAGNUM Isorol | 24 m² | 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.

### Specifications

| | |
|---|---|
| Roll length | 25 m |
| Foam thickness | 8 mm ± 1 mm |
| Foam width | 150 mm ± 5 mm |
| Material | PE - foam |
| Density | 18 kg/m$^3$ ± 5 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 |

CE

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

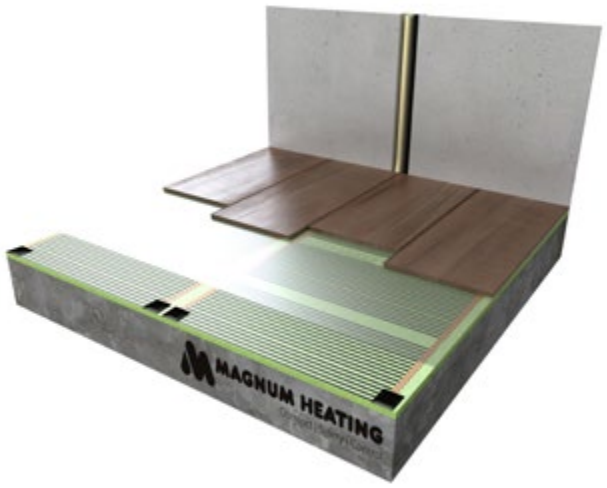
# MAGNUM Foil (Set)

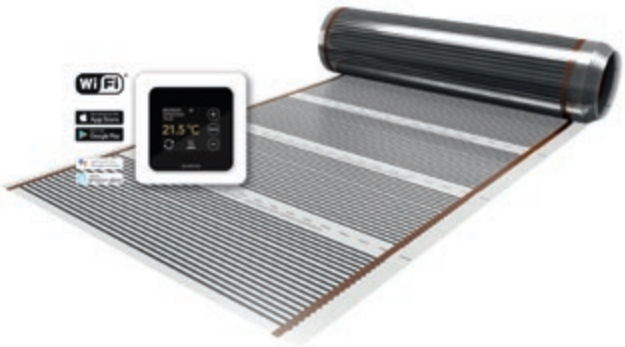
## Underfloor heating foil

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.

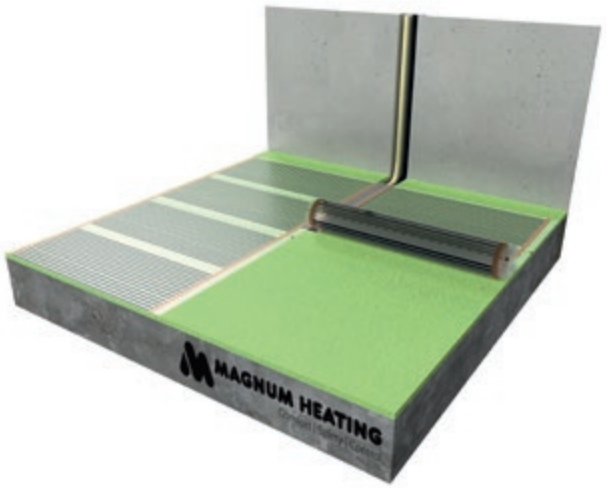
MAGNUM Foil is very easy to cut to size. Safe, comfortable and easy to use: MAGNUM Foil ensures a comfortable living and working environment, even on dry floors!




### Specifications

| | |
|---|---|
| System type | Electric |
| System height | 0,3 mm |
| System width | 600 mm |
| Min. setting height | 1 cm |
| Installation | Dry Construction |
| Power | 120 W/m² |
| In wet areas | X |
| 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 $m^2$ (120 $W/m^2$)
- 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 $m^2$)**
- MAGNUM Isofoam, PS insulation plates, per pack 6 $m^2$
- 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. | Description | Dimensions | Power |
|---|---|---|---|
| 361005 | MAGNUM Foil Set 5 $m^2$ * | 0,6 x 8,4 m | 600 Watt |
| 361010 | MAGNUM Foil Set 10 $m^2$ * | 0,6 x 16,8 m | 1200 Watt |
| 361015 | MAGNUM Foil Set 15 $m^2$ * | 0,6 x 25 m | 1800 Watt |
| 361110 | MAGNUM Foil add-on set 10 $m^2$ ** | 0,6 x 16,8 m | 1200 Watt |

| Art.nr. | Description | Dimensions | Power $m^2$ |
|---|---|---|---|
| 360120 | MAGNUM Foil loose per $m^2$ on roll | 0,6 x ? m | 120 Watt |

| Art.nr. | Options | Dimensions |
|---|---|---|
| 720807 | MAGNUM Vapour barrier film 12 $m^2$ | 4 x 3 m. x 0,1 mm |
| 720810 | MAGNUM Foil pressure divider and crimping pliers | |
| 720815 | MAGNUM Foil connection set for 10 $m^2$ folie ** | |
| 730300 | MAGNUM Isofoam PS Insulation 6 $m^2$ | 10 à 120 x 50 x 0,6 cm |

* Set contains: MAGNUM Foil 120 Watt/$m^2$, MAGNUM Remote Control WiFi thermostat with floor sensor, flexible sensor tube, 2 x 15 m connection wire black/blue, necessary crimp connectors, 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 $m^2$.

# 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 6m²
- Product sheet

**Warranty**

2 year warranty.

### Specifications

| | |
|---|---|
| Thickness | 6 mm |
| Density | 28 kg/m³ |
| Heat resistance | 0,19 m²K/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 |

CE

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

# 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!) 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.

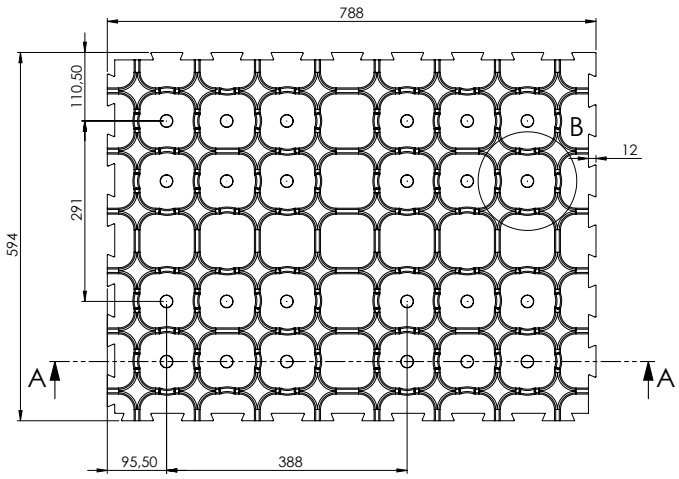
MAGNUM HeatBoard is very easy to cut to size. After this, the HeatBoard Cable can simply be clamped in. Approximately 9 $m^1$ (linear metres) of HeatBoard Cable is required per net/unobstructed area of 1 $m^2$. Safe, comfortable and easy to use: MAGNUM HeatBoard ensures a comfortable living and working 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 |
| System width | 594 mm |
| System length | 778 mm |
| Min. construction height | 20 mm |
| Installation | Floating |
| Power | 60 or 100W/$m^2$ |
| 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 |

VDE-REG 8741




## 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
- Coefficient of thermal conductivity 0,036 W/mK DIN V 4108-10
- Thermal resistance 0,32 $m^2K/W$
- Compressive stress 150 kPa (at 10 % compression)
- Load under tension 45 kPa
- Heat resistance < 80°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, MAGNUM HeatBoard is the thinnest dry construction system of its kind. The boards have a size of 788 x 594 mm (effective: 589 x 778 mm) and are supplied in a set of 11 plates (5 $m^2$).

**Package contents**
- 11 HeatBoard E system plates
- 5$m^2$ Covering felt
- Safety gloves
- Installation instructions

HeatBoard Cable, thermostat and DuoBoard must be ordered separately.

**Warranty**
2 years.

| Art.nr. | Description | $m^2$ | Dimensions | Unit |
|---|---|---|---|---|
| 430010 | MAGNUM HeatBoard 12 mm | 5 $m^2$ | 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!) 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.

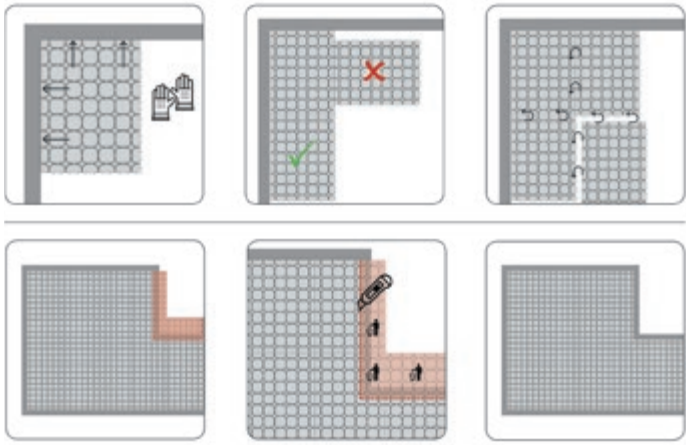
MAGNUM HeatBoard is very easy to cut to size. After this, the HeatBoard Cable can simply be clamped in. Approximately 9 $m^1$ (linear metres) of HeatBoard Cable is required per net/unobstructed area of 1 $m^2$. Safe, comfortable and easy to use: MAGNUM HeatBoard ensures a comfortable living and working 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 |
| System width | from 20 cm |
| System length | 778 mm |
| Min. construction height | 12 mm |
| Installation | Floating |
| Power | 60 or 100W/$m^2$ |
| 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 |

VDE-REG 8741



*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 x 594 mm (effective: 589 x 778 mm) and are supplied in a set of 11 plates (5 $m^2$).

**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 function of the 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 DuoBoard

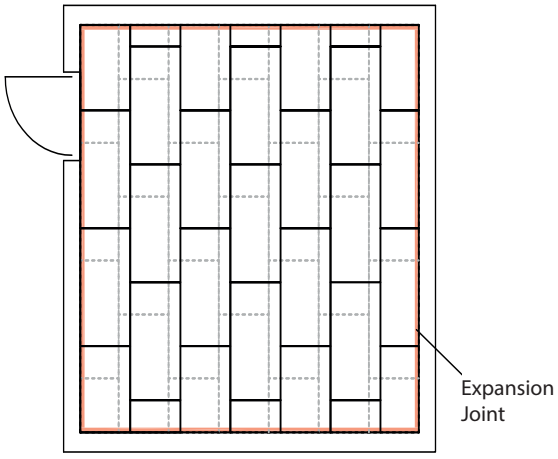
Stable base for soft floor finishes (carpet, PVC, rubber, linoleum, vinyl, cork etc.) over dry floor heating systems.

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 HDF boards (each with dimensions of 1200 x 600 x 3 mm): Base board and Top board.

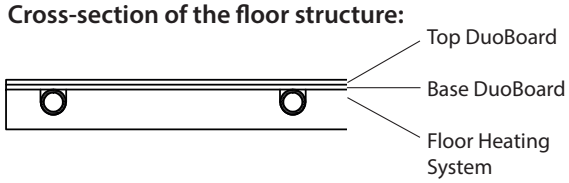
DuoBoards are characterised by a low construction height, great durability and high thermal conductivity. Before installation, the product should be stored for at least 48 hours at a temperature of not less than 18°C and a relative humidity of not more than 60% in the room where the DuoBoard system will 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.

**Example of a laying plan:**




**Cross-section of the floor structure:**




## Specifications

| | |
|---|---|
| Density | 860 (kg/m) |
| Thermal conductivity λ | 0,192 (W/mK) |
| Heat resistance R | 0,037 (m K/W) |
| Bending strength according to EN 310 | ≥ 23 (N/mm) |
| Tensile strength according to EN 319 | ≥ 65 (N/mm) |
| Swelling after 24 hours according to EN 317 | ≤ 60 (%) |
| Formaldehyde content E1 class according to PN-EN 120 | max. 8 (mg/100g) |
| Warranty | 2 years |

CE

| Art.nr. | Description | m² | Material | Dimensions |
|---|---|---|---|---|
| 430030 | MAGNUM DuoBoard 2 x 4 | 2,88 m² | HDF boards | 1200 x 600 x 3 mm |

# MAGNUM Sol

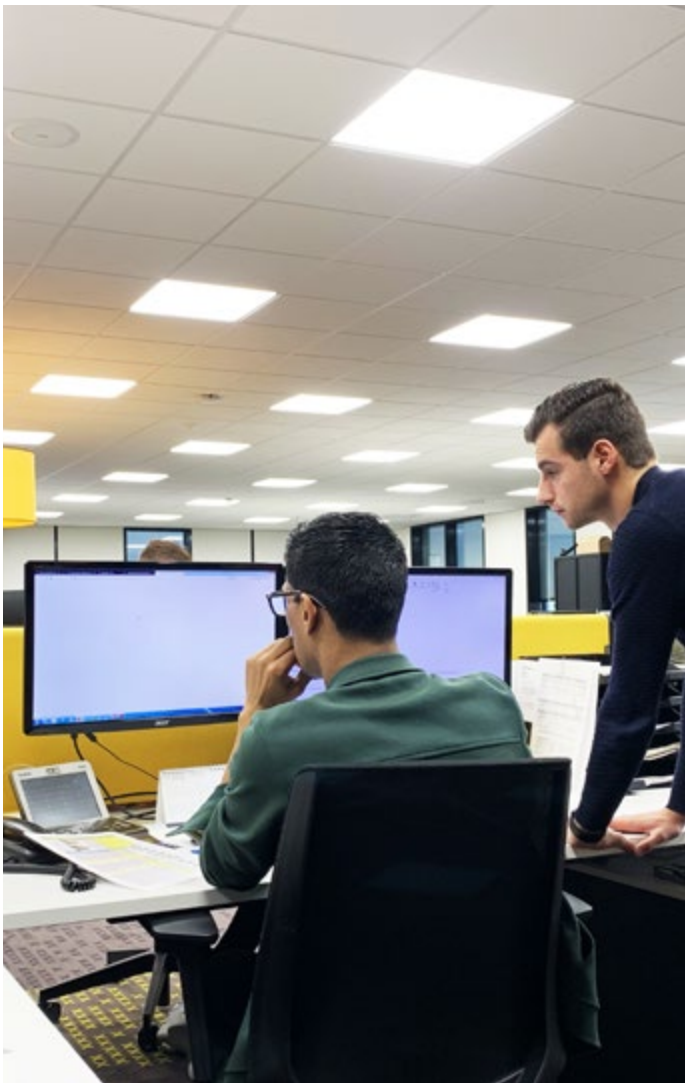
## Ceiling heaters

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.



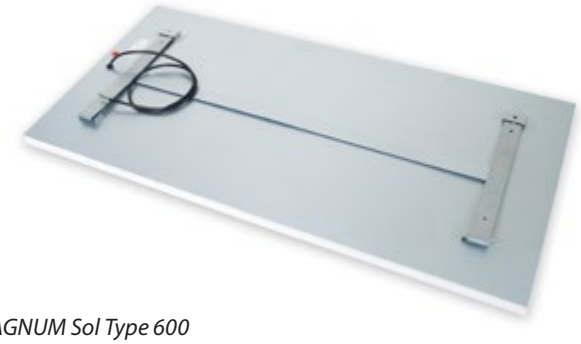


### Specifications

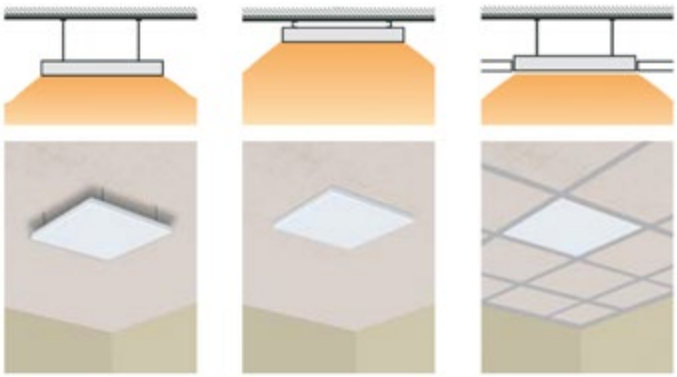
| | |
|---|---|
| System type | Electric |
| System height | 30 mm |
| System width | 590 mm |
| Min. setting height | 1,8 m |
| Installation | Ceiling |
| Power | 300 or 600 Watt |
| In wet areas | X |
| Type of heating | Infrared |
| System ceiling | V |
| Ceiling mounting | V |
| Certification | Kema |
| Warranty | 2 years |

KEMA KEUR CE IP44

*MAGNUM Sol Type 300*



*MAGNUM Sol Type 600*



*Several installation options*

## Technical details

- Available 300 and 600 Watt
- Connection voltage 230V/50Hz
- Class IP44
- Color RAL 9016

**Installation methods**
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.

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 | Type | 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.



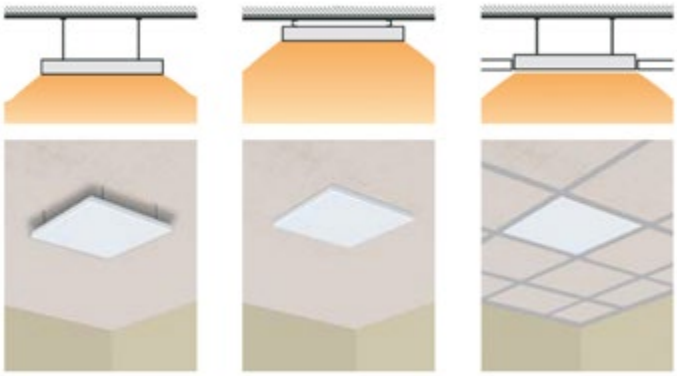
### Specifications

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

KEMA KEUR CE IP54

*MAGNUM Sol Premium Type 300*

*MAGNUM Sol Premium Type 750*



*Several installation options*

## Technical details

- 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 |

** 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.

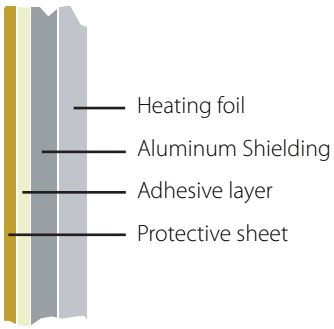
MAGNUM Look mirror heating is a self-adhesive heating foil element that can be applied directly to the back of the mirror. The elements are double insulated and can therefore also be used in humid rooms.

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 |
| Type of heating | Infrared |
| System ceiling | V |
| Ceiling mounting | V |
| Regulation | Light switch (no dimmer) |
| Certification | Kema, CE, Fimko |
| Warranty | 2 years |

*MAGNUM Look circular*




## Technical details

| | |
|---|---|
| • Thickness | 1 mm |
| • Voltage | 230 Volt |
| • Connection | 2-core, double insulated |
| • Class | IP-34, class 2 |
| • Certification | FIMKO, CE marking |
| • Temperatures | 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 metre connection cable
- Installation instructions

**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 Remote Control

## 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.


*Standard: Polar white - RAL 9010*

### Specifications

| | |
|---|---|
| Type | 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 | V 2.4Ghz |
| App | V iOS & Android |
| Voice assistant | Google assistant and Amazon Alexa |
| Programmable | up to 3 periods per day |
| Intelligence | V |
| Wooden floor | V < 28°C |
| Open window | V |
| Slow start | V |

WiFi · Add to Siri · Download on the App Store · GET IT ON Google Play · works with alexa · Google Assistant · IP21


*Optional: Graphite black - RAL 9011*

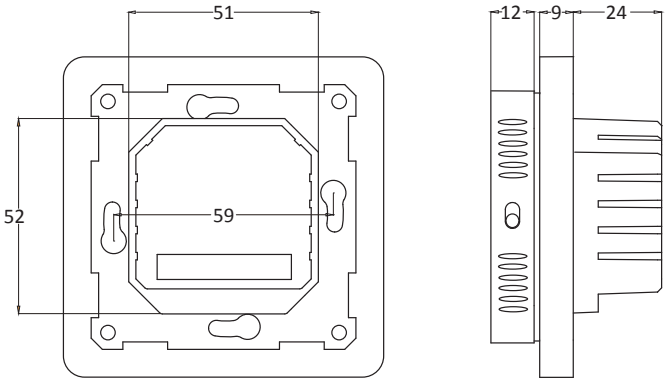
## Technical details

- 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
- 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
- Multi programme function (up to 3 periods p/day)
- Multilingual programming
- Including floor sensor (12K) and room sensor

**Installation method**
Suitable for electric heating systems.

**Package content**
- Thermostat
- Installation instructions
- Manual
- Floor sensor

**Warranty**
2 year guarantee on the electrical operation and floor sensor.




| 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.


### Specifications

| | |
|---|---|
| Type | Smart Z-Wave thermostat |
| Suitable for | Electrical systems |
| Control | Touch buttons |
| Sensors | Room and floor sensor (10K) |
| Voltage | 230V – 50/60Hz |
| Maximum load | 16 A / 230V |
| Temperature range | +5 / +40°C |
| Housing | IP21 |

### Functions

| | |
|---|---|
| WiFi | V |
| App | X through Z-Wave system |
| Voice assistant | X |
| Programmable | V |
| Intelligentie | X |
| Wooden floor | V |
| Open window | X |
| Slow start | X |


*MAGNUM Z-wave all black (optional)*

## Technical details

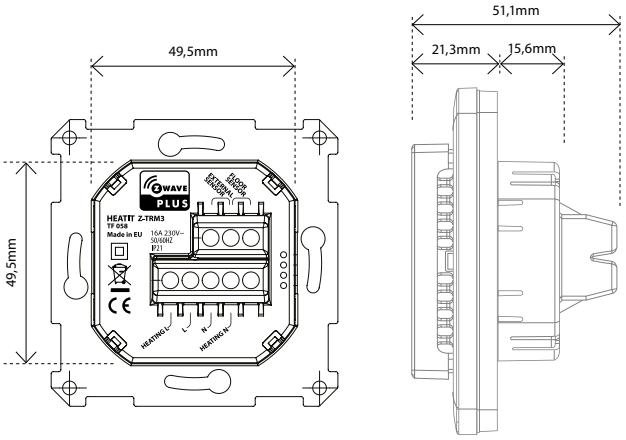
| | |
|---|---|
| • Voltage | 230 Volt - 50/60 Hz |
| • Max. load | 16A / 230 V |
| • Temperature range | +5 / +40°C |
| • Class | IP21 |
| • Color | Polar white (RAL 9010)<br>Black (RAL 9011) |
| • Certification | CE |
| • Power consumption | 1,5W |
| • Min/Max operating temp. | 5°C tot 40°C |
| • Temp.interval floor sensor | 5°C tot 40°C |
| • Temp.interval room sensor | 5°C tot 40°C |
| • Smartstart | Adding the thermostat to a Z-wave network by scanning a supplied QR code |
| • Power metering | Reading consumption |
| • 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**
- Thermostat
- Installation instructions
- Floor sensor

**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.


Download on the App Store

GET IT ON Google Play

### Specifications

| | |
|---|---|
| Type | 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 |
| App | V iOs & Android |
| Voice assistant | Google assistant and Amazon Alexa |
| Programmable | up to 3 periods per day |
| Intelligence | V |
| Wooden floor | V < 28°C |
| Open window | V |
| Slow start | V |
| Pilot Wire | V |

WiFi® Download on the App Store GET IT ON Google Play works with the Google Assistant amazon alexa IP21

Q2-2022

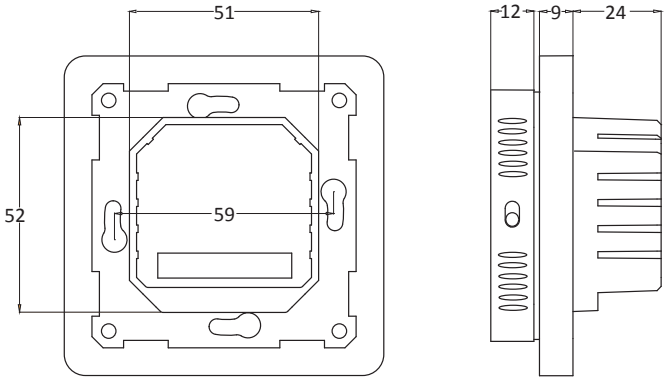

## Technical details

- Housing IP 21
- Voltage 230 Volt - 50/60 Hz
- Temperature range +5°C / +40°C
- Maximum power 16A - 3600 Watt
- Certification FI / CE
- Thermostat with WiFi function
- 7 segment display screen
- Touch-sensitive button control
- Free App available for iOS and Android
- Works with Google Assistant and Amazon Alexa
- Night clock screen saver
- Automatic start-up menu
- Intelligent and self-learning
- Slow start-up function
- Wooden floor function (limited 28°C)
- Pilot wire
- Backup function
- Automatic summer & winter time
- Multi programme function (3 periods p/day)
- Multilingual programming in App

**Installation method**
Suitable for electric heating systems.

**Package content**
- F32 WiFi Thermostat
- Cover frame
- Floor sensor (12K)
- Installation instructions

**Warranty**
2 year guarantee on the electrical operation and floor sensor.




| Art.nr. | Description |
|---|---|
| 825880 | F32 Smart WiFi thermostat incl. floor sensor |

# 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

**Warranty**
2 year guarantee on the electrical operation and floor sensor.

### Specifications

| | |
|---|---|
| Type | 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 |

IP21

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

# MAGNUM SlimFit 10

## Underfloor heating system

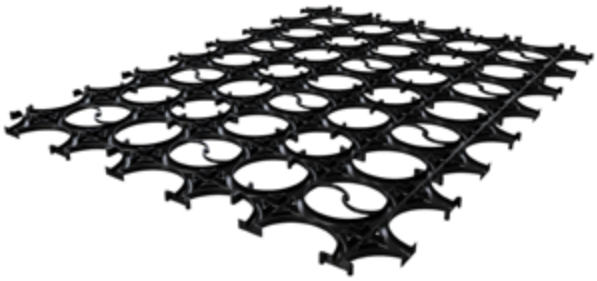
With an installation height from 10 mm, MAGNUM Slimfit is one of the lowest systems of its kind. Can be used for both wall and floor heating.

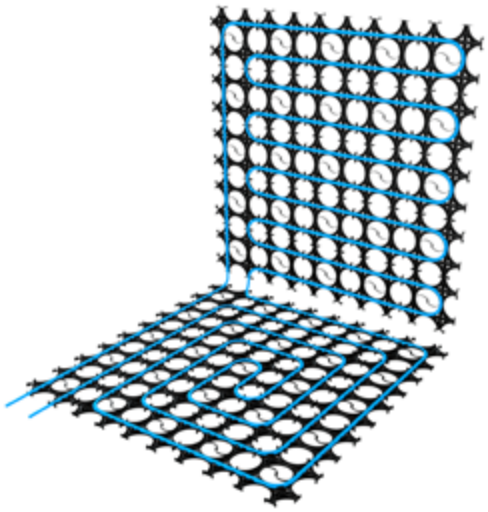
This system consists of plastic mats (tiles) that are simply clicked together. An underfloor heating tube of 10 mm is clamped in the mats with the same ease. The total height of only 12 mm makes this system ideal for renovation projects. Installation is possible both on the floor and in the wall.

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.

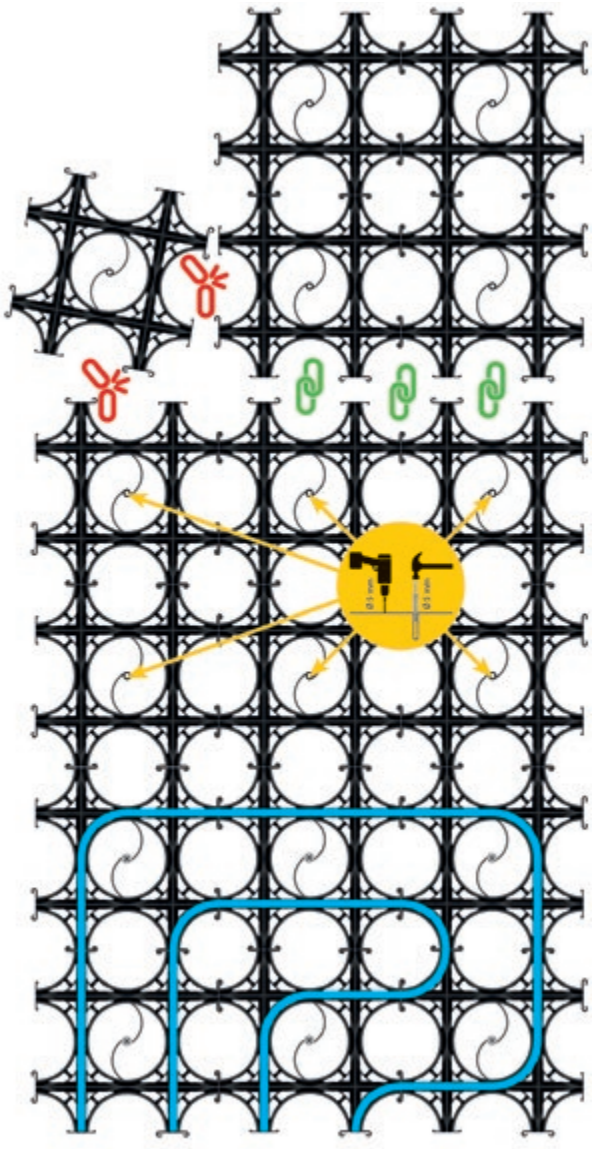
MAGNUM Slimfit 10 was developed for the 10 mm MAGNUM Tube. The 10 mm tube is supplied in lengths of 80 and 240 metres. The maximum tube length per group is 80 metres.



### Specifications

| | |
|---|---|
| System type | Water based |
| System height | 12 mm (incl. tube) |
| System width | from 20 cm |
| Min. setting height | 15 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 |
| Warranty | 50 years |



## Technical details

| | |
|---|---|
| • LxW SlimFit elements | 800 x 600 mm (4x3 components) |
| • Component dimensions | 200 x 200 mm |
| • Surface area per element | 0,48 $m^2$ |
| • Surface area per pack | 2,4 $m^2$ (5 elements) |
| • System installation height | 12 mm |
| • Total mounting height | 15-20 mm |
| • Centre-to-centre distance tube | 100 mm |
| • Suitable for tube size | Ø 10 mm |

**Installation methods**

**For mounting (floor or wall)**

| | |
|---|---|
| Drill size | 5 mm |
| Hammer plug size | 5 mm |

**Pattern**

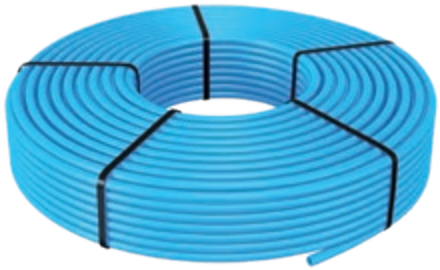
| | |
|---|---|
| Floor | Reverse Spiral |
| Wall | Meander |

**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 | $m^2$ | Dimensions |
|---|---|---|---|
| W61024 | MAGNUM SlimFit 10 system | 2,4 $m^2$ | 5 plates of 60 x 80 cm |

| Art.nr. | Description | m | Dimensions |
|---|---|---|---|
| W10080 | MAGNUM Tube PE-RT | 80 m | 10 x 1,3 mm |
| W10240 | MAGNUM Tube PE-RT | 240 m | 10 x 1,3 mm |

| Art.nr. | Description | Dimensions |
|---|---|---|
| W90010 | MAGNUM Adaptor / Euroconus connection | 10 x 1,3 x 3/4" mm |
| W91001 | PUSH connection set for 1x 80 m tube 10 mm | |
| W91002 | PUSH connection set for 2x 80 m tube 10 mm | |
| W91003 | PUSH connection set for 3x 80 m tube 10 mm | |

# MAGNUM SlimFit 12

## Underfloor heating system

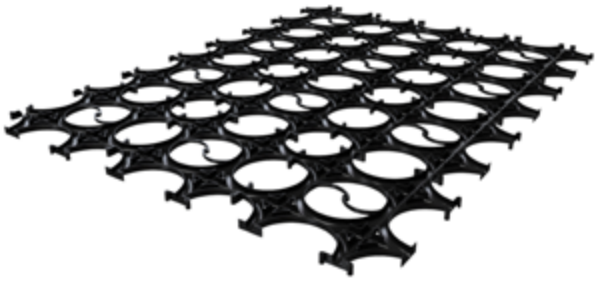
With an installation height from 12 mm, MAGNUM Slimfit is one of the lowest systems of its kind. Can be used for both wall and floor heating.

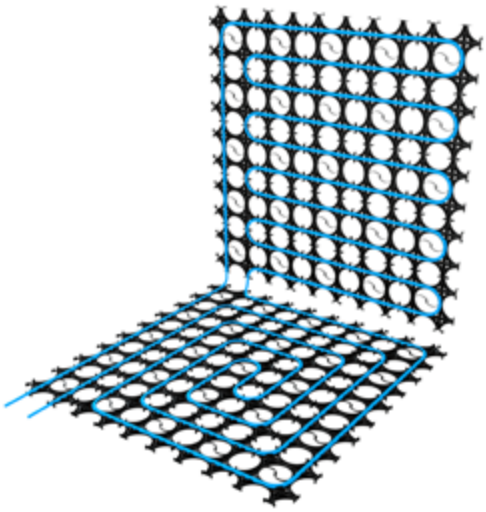
This system consists of plastic mats (tiles) that are simply clicked together. An underfloor heating tube of 12 mm is clamped in the mats with the same ease. The total height of only 14 mm makes this system ideal for renovation projects. Installation is possible both on the floor and in the wall.

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.

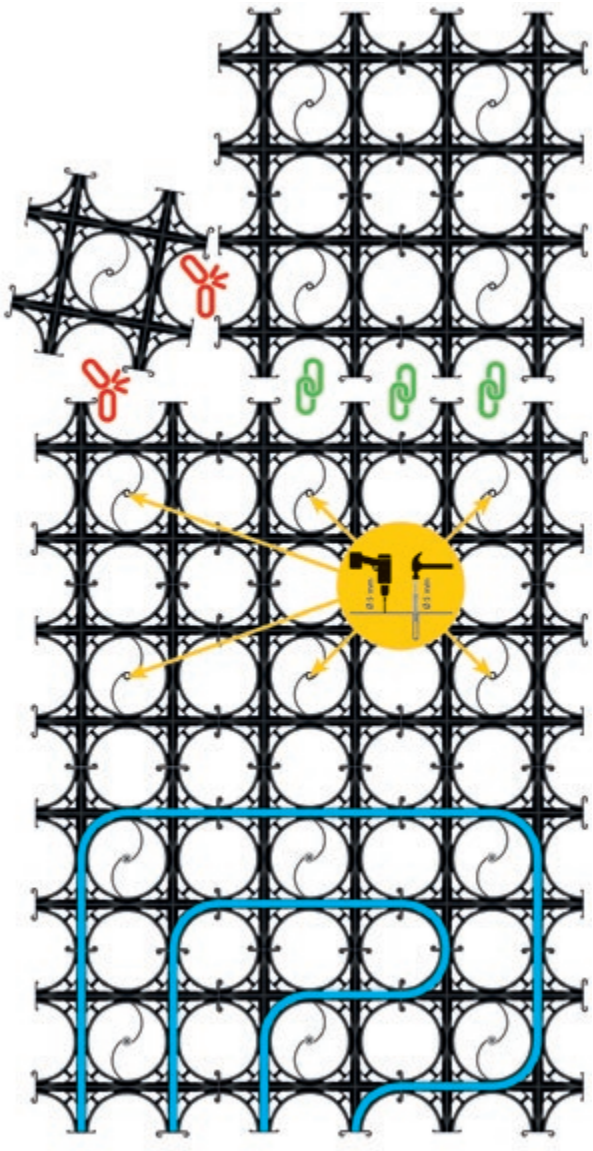
MAGNUM Slimfit 12 is developed for the 12 mm MAGNUM Tube. The 12 mm tube is supplied in lengths of 100 and 300 metres. The maximum tube length per group is 100 metres.



### Specifications

| | |
|---|---|
| System type | Water based |
| System height | 14 mm (incl. tube) |
| System width | from 20 cm |
| Min. setting height | 15 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 |
| Warranty | 50 years |



## Technical details

| | |
|---|---|
| • LxW SlimFit elements | 1000 x 750 mm (4x3 components) |
| • Component dimensions | 250 x 250 mm |
| • Surface area per element | 0,75 $m^2$ |
| • Surface area per pack | 3,75 $m^2$ (5 elements) |
| • System installation height | 14 mm |
| • Total mounting height | 17-22 mm |
| • Centre-to-centre distance tube | 125 mm |
| • Suitable for tube size | Ø 12 mm |

**Installation methods**

**For mounting (floor or wall)**

| | |
|---|---|
| Drill size | 5 mm |
| Hammer plug size | 5 mm |

**Pattern**

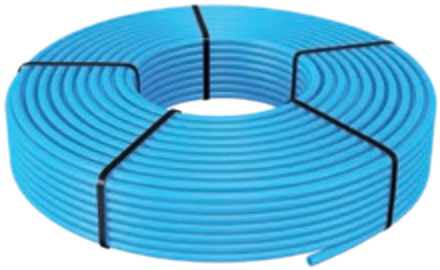
| | |
|---|---|
| Floor | Reverse Spiral |
| Wall | Meander |

**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 | $m^2$ | Dimensions |
|---|---|---|---|
| W61012 | MAGNUM SlimFit 12 system | 3,75 $m^2$ | 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 |

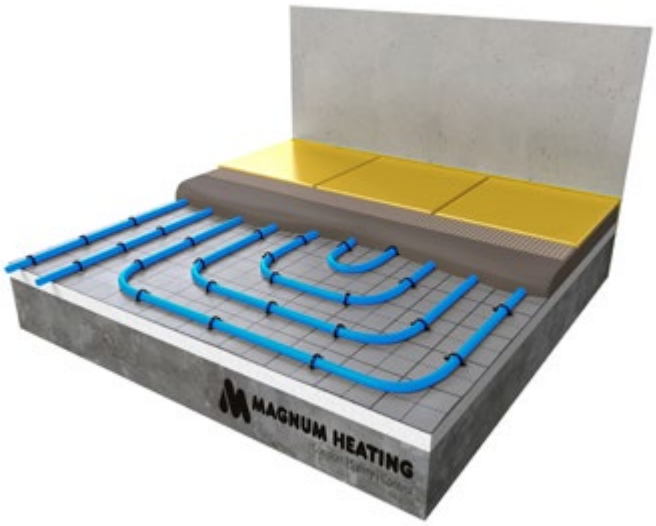
| Art.nr. | Description | Dimensions |
|---|---|---|
| W90012 | MAGNUM Adaptor / Euroconus connection | 12 x 1,5 x 3/4" mm |
| W91201 | PUSH connection set for 1x 80 m tube 12 mm | |
| W91202 | PUSH connection set for 2x 80 m tube 12 mm | |
| W91203 | PUSH connection set for 3x 80 m tube 12 mm | |

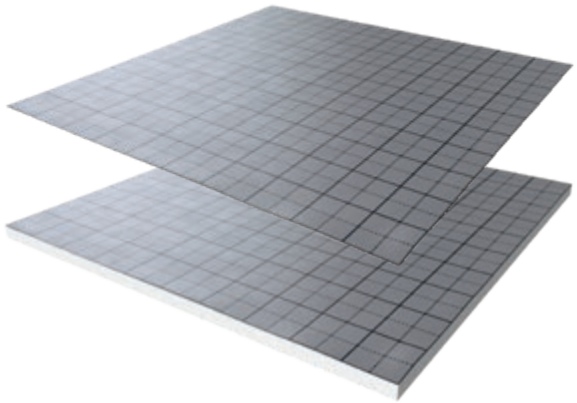
# MAGNUM Tacker system

## 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 cm x 10 cm and an inner grid of 5 cm x 5 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.



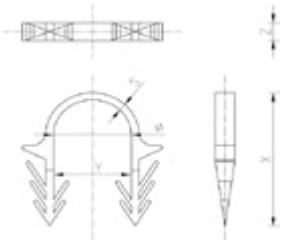



### Specifications

| | |
|---|---|
| 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 |

CE

**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 $m^2K/w$ or 0,667 $m^2K/W$
- Max. traffic load 4 kPA ($kN/m^2$)
- Impact noise improvement 28 dB or 29 dB
- Nominal value according to DIN 4108-4 0,045 W/mK
- Dimensions Tacker staples 38 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 | $m^2$ | Dimensions |
|---|---|---|---|
| W90102 | Tacker Grid foil | 50 $m^2$ | 50 m x 1 m |

| Art.nr. | Description | $m^2$ | |
|---|---|---|---|
| W90103 | MAGNUM Tacker Insulation Plate | 10 $m^2$ | Thermal 20 mm |
| W90104 | MAGNUM Tacker Insulation Plate | 10 $m^2$ | Thermal 30 mm |
| W90122 | MAGNUM Tacker Insulation Plate | 10 $m^2$ | Acoustic 20 mm |
| W90123 | MAGNUM Tacker Insulation Plate | 10 $m^2$ | Acoustic 30 mm |

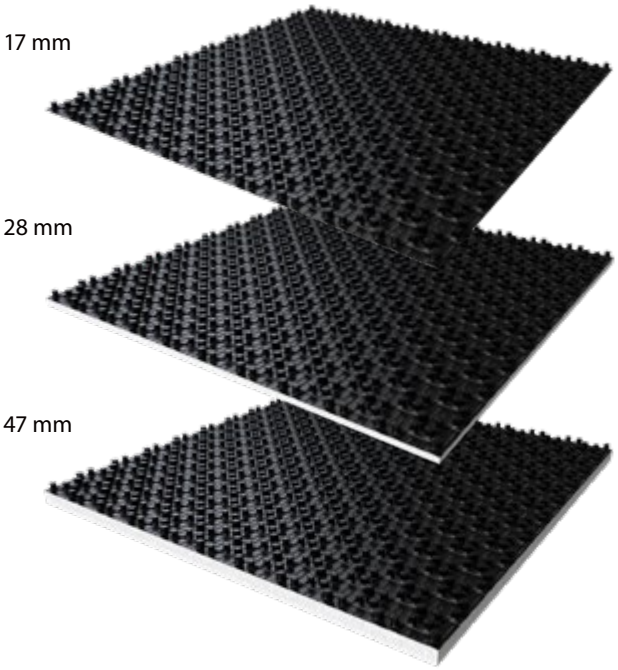
| Art.nr. | Description | |
|---|---|---|
| W90105 | Tacker Staples | 40 mm 300 pieces |
| W90106 | Tacker Staples | 60 mm 300 pieces |

| 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 |

CE

## Technical details

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 $m^2K/W$
- Max. traffic load 150 kPa

**47 mm insulated**

- Thermal resistance 0,75 $m^2K/W$
- Max. traffic load 5 kPa ( $kN/m^2$)
- Impact sound improvement 28 dB
- Nominal value according to DIN 4108-4 0,040 W/mK

**Warranty**

2 years

| Art.nr. | Description | $m^2$ | |
|---|---|---|---|
| W90116 | Castellated plates Uninsulated | 10 $m^2$ | 10 pieces - 17 mm |
| W90108 | Castellated plates Uninsulated | 30 $m^2$ | 30 pieces - 17 mm |

| Art.nr. | Description | $m^2$ | |
|---|---|---|---|
| W90117 | Castellated plates 28 mm | 10 $m^2$ | 11 mm EPS - 10 pieces |
| W90109 | Castellated plates 28 mm | 20 $m^2$ | 11 mm EPS - 20 pieces |
| W90110 | Castellated plates 47 mm | 10 $m^2$ | 30 mm EPS - 10 pieces |

# MAGNUM Heatboard W

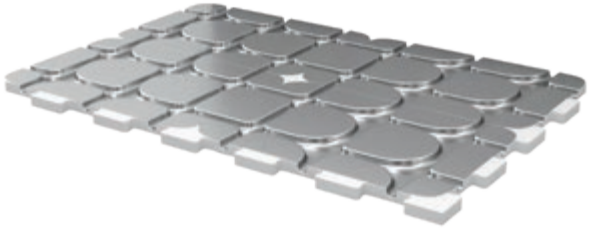
## System plates

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).

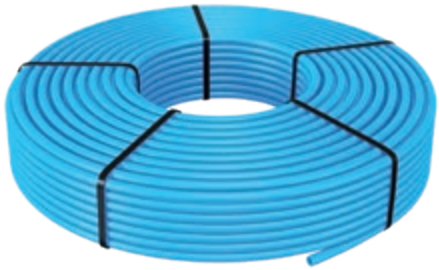
**Ease of installation**
The system boards can be put together like puzzle pieces. They are also easy to cut to size with a hobby knife. Then the 12 mm MAGNUM Tube underfloor heating tube can easily be clamped in. The fixed tube distance is 12,5 cm. Approximately 8 $m^1$ (linear metres) of MAGNUM Tube is needed per 1 $m^2$ . 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 | X |
| Tiles | V (i.c.w. Knauf or Fermacell min. 12mm) |
| Wood | V |
| (PVC) Laminate | V (PVC i.c.w. DuoBoard) |
| Carpet | V (i.c.w. DuoBoard) |
| Certification | CE, KOMO, MPA, SKZ |
| Warranty | 2 years |



## Technical details

- 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 $m^2K/W$
- Compressive stress 150 kPa (at 10 % compression)
- Load under tension 45 kPa
- Heat resistance < 80°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

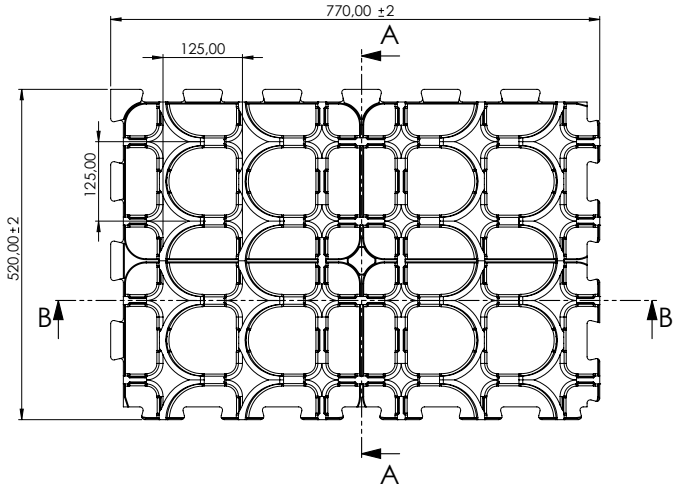
**Package content**

- 13 plates (4,8 $m^2$)
- Felt layer (5 $m^2$)
- 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 | $m^2$ | Dimensions |
|---|---|---|---|
| W63010 | MAGNUM Heatboard 18 mm | 4,8 $m^2$ | 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 HDF plates | 2,88 $m^2$ | 1200 x 600 x 3 mm |

# 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 $m^2$.

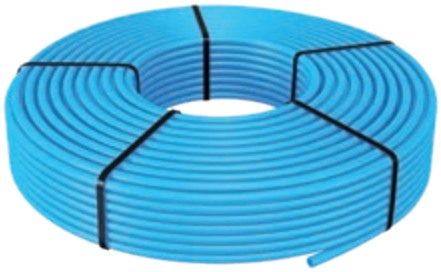
The subfloor on which this system is installed must be stable, level and clean.

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 |

CE



## Technical details

**EPS-insulation plates**

- Dimensions: 0,75 $m^2$ per insulation plate (100 cm x 75 cm)
- Number of pieces per box: 10 plates (7,5 $m^2$)
- 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 $m^2K/W$: 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 $m^2$

**Aluminium Omega profiles**

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

**Warranty**

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

| Art.nr. | Description | $m^2$ | Dimensions |
|---|---|---|---|
| W62075 | MAGNUM DryFloor 25 mm | 7,5 $m^2$ | 100 x 75 cm |
| W62901 | Aluminium Omega Profile 14 mm | | 1000 x 120 x 0,4 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 | 14 x 2 x 3/4" mm |

# MAGNUM Tube

## Underfloor heating tube

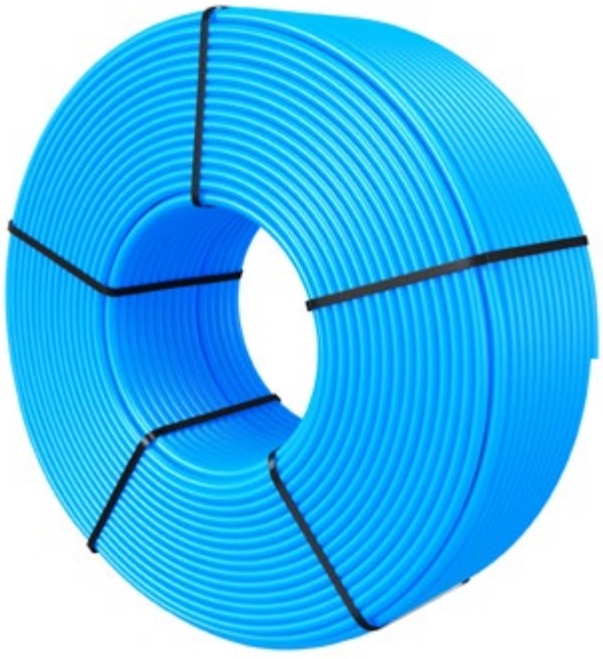
The MAGNUM Tube, floor heating tube, is made of a PE-RT type I and stands for Polyethylene Raised Temperature. This makes the tube also suitable for high temperatures.

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.

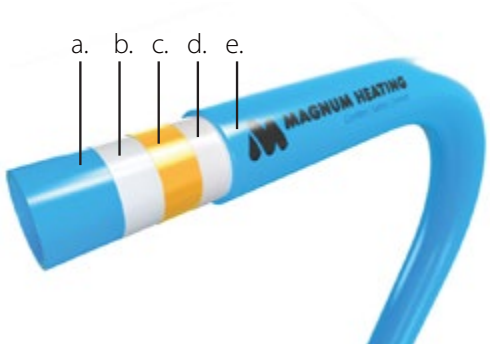
The MAGNUM Tube can be used in a temperature range from 5°C to 80°C. Short-term peak loads of up to 95°C at a maximum internal hydrostatic overpressure of 6 bar can be withstood without any problems.

### Specifications

| | |
|---|---|
| Material | PE-RT Type I |
| Oxygen density | EVOH Low (DIN 4726) |
| 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 W/mK (DIN 52612-1) |
| Deflection point (Vicat) | 122°C (ASTM D-1525) |
| Maximum elongation to failure | > 800% (ISO 527-2) |
| Bending radius | 5 x Diameter |
| Certification | KOMO, MPA and SKZ |
| Warranty | 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) 122°C (ASTM D-1525)
- Maximum elongation to failure > 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 system** | | |
| 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** | | |
| 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 |

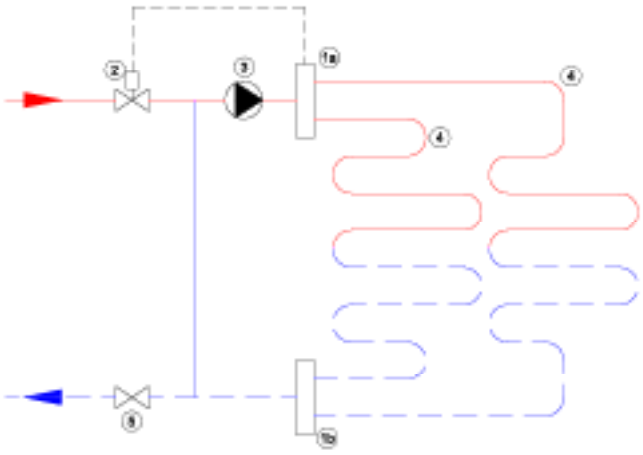
| Art.nr. | Description | Length | Dimensions |
|---|---|---|---|
| | **20 mm** | | |
| W20120 | MAGNUM Tube, underfloor heating tube PE-RT | 120 m | 20 x 2 mm |
| W20240 | MAGNUM Tube, underfloor heating tube PE-RT | 240 m | 20 x 2 mm |
| W20500 | MAGNUM Tube, underfloor heating tube PE-RT | 500 m | 20 x 2 mm |

# MAGNUM Basic Steel

## Floor heating manifold

MAGNUM Basic Steel is a simple, yet very robust control unit that comes standard with the energy-efficient WILO Para HU25/7-50/SC pump with energy label A. This pump has a constant pressure, so that it adjusts itself if 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 |

| Application | |
|---|---|
| Central heating boiler | V |
| Heat pump | X |
| Solar heat (with buffer tank) | X |
| Pellet stove | X |
| District heating | X |

| 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 |

CE

## Technical details

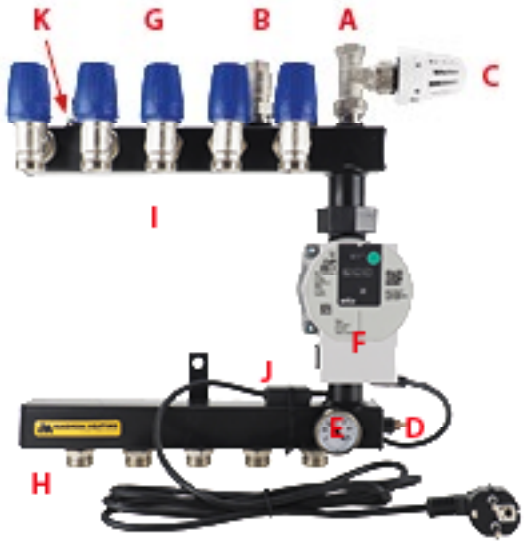
- The body of this manifold is galvanised and epoxy-coated in black RAL 9011
- Equipped with thermostat knob, thermometer, maximum safety device and air vent
- Equipped as standard with an energy-efficient WILO Para HU25/7-50/SC A-rated pump
- Double adjustable thermostatic group valves suitable for MAGNUM actuators
- Group connections suitable for ¾" Euroconus
- Primary connection ½" (from 8 groups ¾")
- Distributor is supplied with mounting material as standard
- Thermostatically prepared valve
- Thermostat knob with cap valve in immersion tube
- Wilo Para HU25/7-50/SC
- Bimetal thermometer incl. DB
- Air vent 1/2"
- Ball valve 1/2" 2-piece blue

**Package content**

- Press report
- Installation instructions
- Warranty certificate

**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

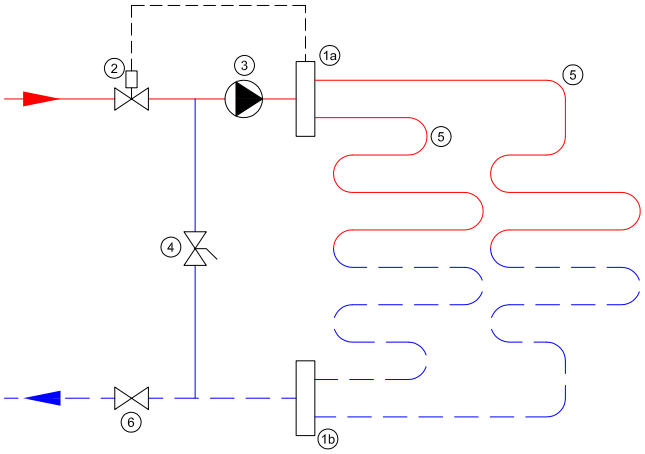
| Art.nr. | Description | Dimensions |
|---|---|---|
| W40001 | MAGNUM Basic Steel 1 Group incl. A-Label Pump | 190 x 390 x 145 mm |
| W40002 | MAGNUM Basic Steel 2 Groups incl. A-Label Pump | 190 x 390 x 145 mm |
| W40003 | MAGNUM Basic Steel 3 Groups incl. A-Label Pump | 245 x 390 x 145 mm |
| W40004 | 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 |

# 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 Grundfos ALPHA2 L 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 hydraulically neutral, which means that the pump of this manifold has no influence on the primary circuit.




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

### Application

| | |
|---|---|
| Central heating boiler | V |
| Heat pump | X |
| Solar heat (with buffer tank) | V |
| Pellet stove | V |
| District heating | V (on request) |

### 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 | V |
| Stop valve between supply and return | X |

CE

## Technical details

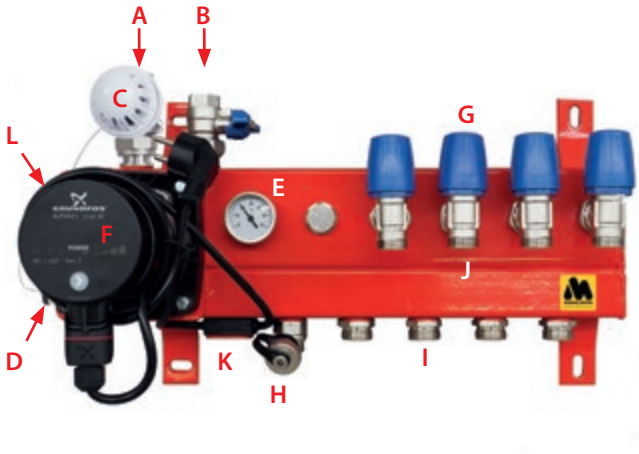
- The body of this manifold is galvanised and epoxied steel
- Equipped with thermometer, air vent and maximum safety device
- Equipped as standard with an energy-efficient Grundfos ALPHA2 L pump
- Thermostatic group valves M30x 1,5 suitable for MAGNUM actuators
- Group connections suitable for ¾" Eurocones
- 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
- Grundfoss Alpha 2 L
- Bimetal thermometer incl. DB
- Air vent 1/2"
- Ball valve 1/2" 2-part blue
- Valve insert LTV manifold

**Package content**

- Press report
- Installation instructions
- Warranty certificate

**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

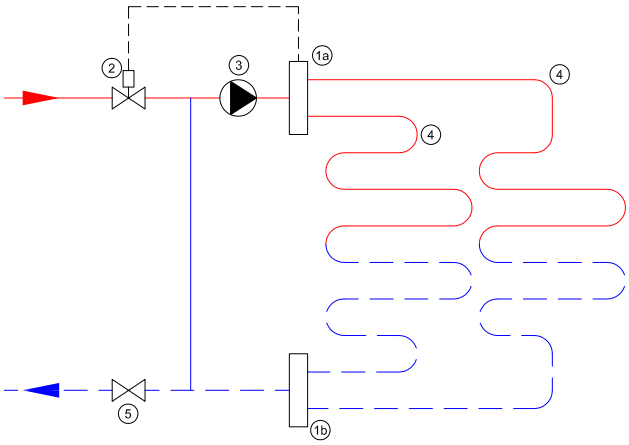
| Art.nr. | Description | Dimensions |
|---|---|---|
| W41001 | MAGNUM Front Steel 1 Group incl. ALPHA2 L | 325 x 235 x 185 mm |
| W41002 | MAGNUM Front Steel 2 Groups incl. ALPHA2 L | 325 x 235 x 185 mm |
| W41003 | MAGNUM Front Steel 3 Groups incl. ALPHA2 L | 375 x 235 x 185 mm |
| W41004 | MAGNUM Front Steel 4 Groups incl. ALPHA2 L | 425 x 235 x 185 mm |
| W41005 | MAGNUM Front Steel 5 Groups incl. ALPHA2 L | 475 x 235 x 185 mm |
| W41006 | MAGNUM Front Steel 6 Groups incl. ALPHA2 L | 525 x 235 x 185 mm |
| W41007 | MAGNUM Front Steel 7 Groups incl. ALPHA2 L | 575 x 235 x 185 mm |
| W41008 | MAGNUM Front Steel 8 Groups incl. ALPHA2 L | 625 x 235 x 185 mm |
| W41009 | MAGNUM Front Steel 9 Groups incl. ALPHA2 L | 675 x 235 x 185 mm |
| W41010 | MAGNUM Front Steel 10 Groups incl. ALPHA2 L | 725 x 235 x 185 mm |
| W41011 | MAGNUM Front Steel 11 Groups incl. ALPHA2 L | 775 x 235 x 185 mm |
| W41012 | MAGNUM Front Steel 12 Groups incl. ALPHA2 L | 825 x 235 x 185 mm |
| W41013 | MAGNUM Front Steel 13 Groups incl. ALPHA2 L | 875 x 235 x 185 mm |
| W41014 | MAGNUM Front Steel 14 Groups incl. ALPHA2 L | 925 x 235 x 185 mm |
| W41015 | MAGNUM Front Steel 15 Groups incl. ALPHA2 L | 975 x 235 x 185 mm |

# 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. This makes the manifold modular.

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 |

### Application

| | |
|---|---|
| Central heating boiler | V |
| Heat pump | X |
| Solar heat (with buffer tank) | V |
| Pellet stove | V |
| District heating | V (on request) |

### Specifications

| | |
|---|---|
| Valve on inlet | V |
| Thermostat on inlet | V |
| Pump | V |
| Flow meter | V |
| Thermometer | V |
| 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 |

CE

## Technical details

- Equipped as standard with an energy-efficient Grundfos ALPHA2 L pump
- Thermostatic group valves M30x 1,5 suitable for MAGNUM actuators
- Group connections suitable for ¾" 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 ¾")
- Thermostat knob with cap valve in immersion tube
- Grundfoss Alpha 2 L
- Flow meter Camflux 2,5 L/m- 1/2"
- Manothermometer 60mm Axiaal incl. DB
- Air vent 1/2"
- Ball valve 1/2" 2-part blue (from 8 groups ¾")

**Installation method**

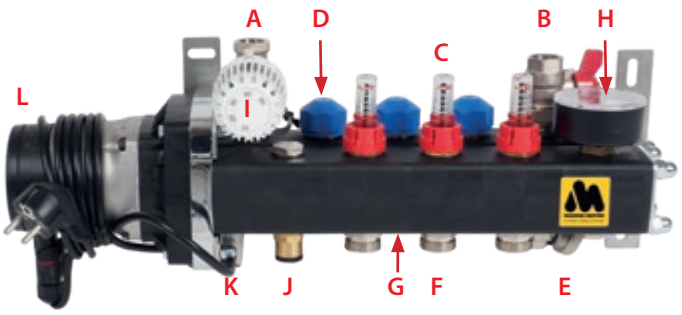
The water temperature can be set with a thermostat head. The manifold is also equipped with a maximum safety device to prevent too hot water being pumped into the floor.

**Package content**

- Press report
- Installation instructions
- Warranty certificate

**Warranty**

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



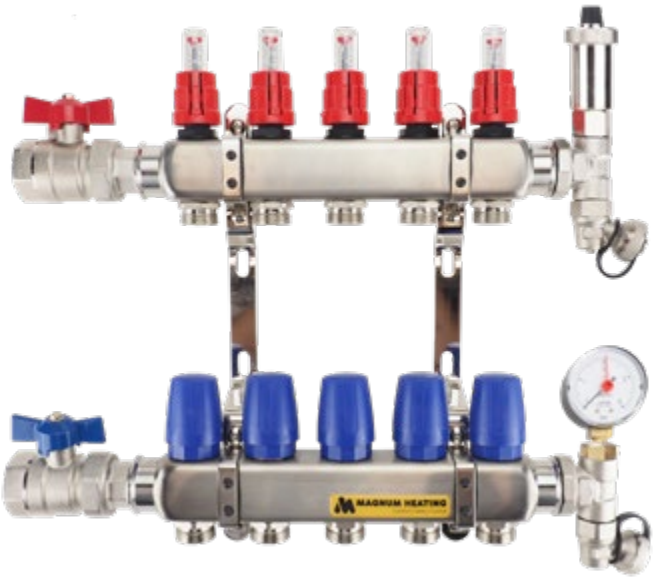

A. Supply pipe (central heating)
B. Return pipe (central heating)
C. Flow meter
D. Group valves
E. Filling nipple
F. Supply MAGNUM Tube
G. Return MAGNUM Tube
H. Pressure gauge
I. Thermostat knob
J. Temperature gauge
K. Maximum protection
L. A-label pump

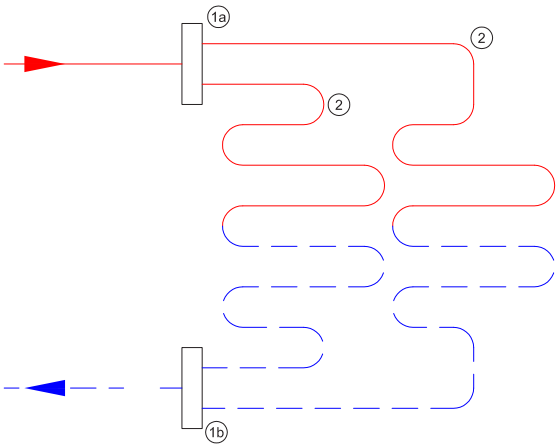
| Art.nr. | Description | Dimensions |
|---|---|---|
| W51001 | MAGNUM Premium Plastic Manifold 1 Group | 390 x 200 x 170 mm |
| W51002 | MAGNUM Premium Plastic Manifold 2 Groups | 445 x 200 x 170 mm |
| W51003 | MAGNUM Premium Plastic Manifold 3 Groups | 500 x 200 x 170 mm |
| W51004 | MAGNUM Premium Plastic Manifold 4 Groups | 555 x 200 x 170 mm |
| W51005 | MAGNUM Premium Plastic Manifold 5 Groups | 610 x 200 x 170 mm |
| W51006 | MAGNUM Premium Plastic Manifold 6 Groups | 665 x 200 x 170 mm |
| W51007 | MAGNUM Premium Plastic Manifold 7 Groups | 720 x 200 x 170 mm |
| W51008 | MAGNUM Premium Plastic Manifold 8 Groups | 775 x 200 x 170 mm |
| W51009 | MAGNUM Premium Plastic Manifold 9 Groups | 830 x 200 x 170 mm |
| W51010 | MAGNUM Premium Plastic Manifold 10 Groups | 885 x 200 x 170 mm |
| W51011 | MAGNUM Premium Plastic Manifold 11 Groups | 940 x 200 x 170 mm |
| W51012 | MAGNUM Premium Plastic Manifold 12 Groups | 995 x 200 x 170 mm |
| W51013 | MAGNUM Premium Plastic Manifold 13 Groups | 1050 x 200 x 170 mm |
| W51014 | MAGNUM Premium Plastic Manifold 14 Groups | 1105 x 200 x 170 mm |
| W51015 | MAGNUM Premium Plastic Manifold 15 Groups | 1160 x 200 x 170 mm |

# 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) |

### Application

| | |
|---|---|
| Central heating boiler | V |
| Heat pump | V |
| Solar heat (with buffer tank) | V |
| Pellet stove | V |
| District heating | V (on request) |

### 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 |

CE

## Technical details

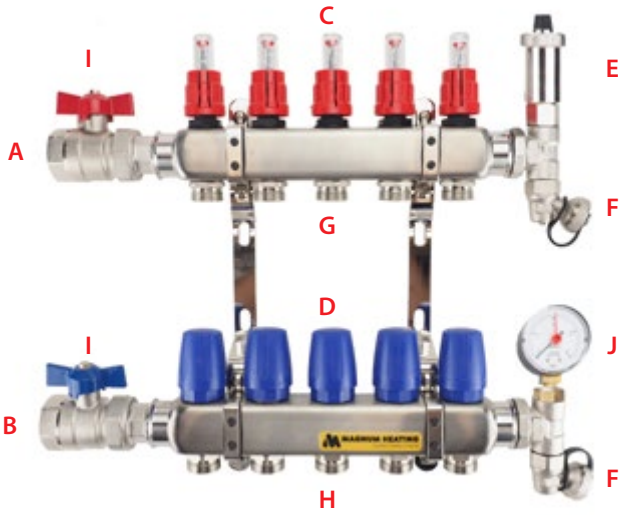
- The body of this manifold is stainless steel 4301
- Thermostatic group valves M30x 1,5 suitable for MAGNUM actuators
- Groups fitted with professional flow meters with a range of 0-2,5L/min
- Group connections suitable for ¾" Eurocones
- Primary connection 1" Sealable by ball valves
- Manifold is supplied 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

**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

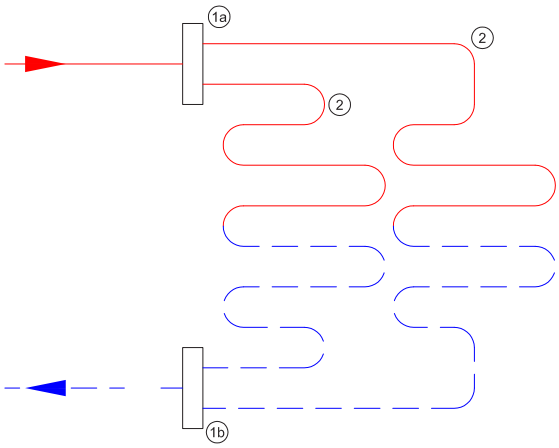
| Art.nr. | Description | Dimensions |
|---|---|---|
| W32002 | MAGNUM Premium Stainless Steel Open LT 2 Groups | 270 x 380 x 100 mm |
| W32003 | MAGNUM Premium Stainless Steel Open LT 3 Groups | 320 x 380 x 100 mm |
| W32004 | MAGNUM Premium Stainless Steel Open LT 4 Groups | 370 x 380 x 100 mm |
| 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. This makes the manifold modular.

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.




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

### Application

| | |
|---|---|
| Central heating boiler | V |
| Heat pump | V |
| Solar heat (with buffer tank) | V |
| Pellet stove | V |
| District heating | V (on request) |

### 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 | X |
| In control valve mixing quantity | X |
| Stop valve between supply and return | X |

CE

## Technical details

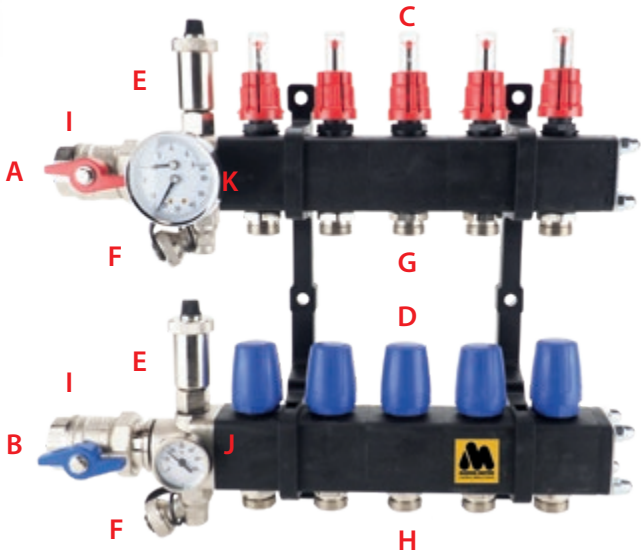
- Constructed from separate plastic elements, with a 10 year guarantee
- Thermostatic group valves M30x 1,5 suitable for MAGNUM actuators
- Groups fitted with a professional flow meter with a range of 0-2,5L/min
- Group connections suitable for ¾" Eurocones
- Primary connection 1" Sealable by ball valves
- 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

**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

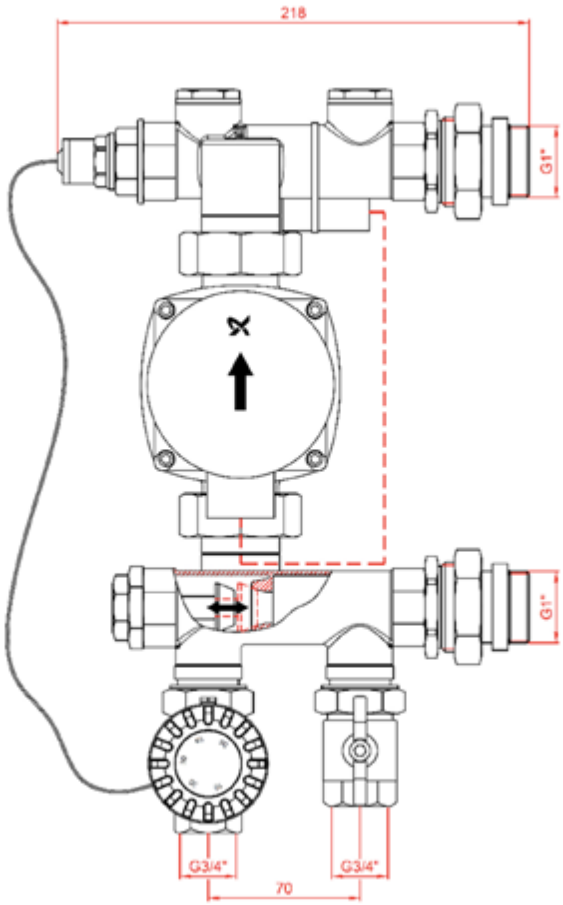
| Art.nr. | Description | Dimensions |
|---|---|---|
| W50002 | MAGNUM Premium Plastic Open LT 2 Groups | 265 x 375 x 125 mm |
| W50003 | MAGNUM Premium Plastic Open LT 3 Groups | 320 x 375 x 125 mm |
| W50004 | MAGNUM Premium Plastic Open LT 4 Groups | 375 x 375 x 125 mm |
| W50005 | MAGNUM Premium 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 | MAGNUM Premium Plastic Open LT 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.

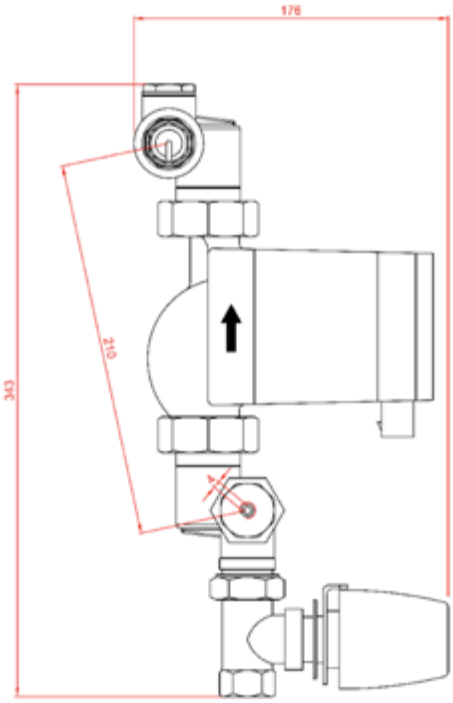
The controller is equipped with an energy-efficient ALPHA2 L pump as standard.




| Suitable for | |
|---|---|
| Basic Steel | X |
| Front Steel | X |
| Premium Plastic Pro | X |
| Premium Stainless Steel Open LT | V |
| Premium Plastic Open LT | V |

| Specifications | |
|---|---|
| Valve on inlet | V |
| Thermostat on inlet | V |
| Pump | V |
| Flow meter | X |
| Thermometer | X |
| Pressure gauge | X |
| Air vent | V |
| Valve on return | V |
| RTL valve on return | X |
| In control valve mixing quantity | V |
| Stop valve between supply and return | X |

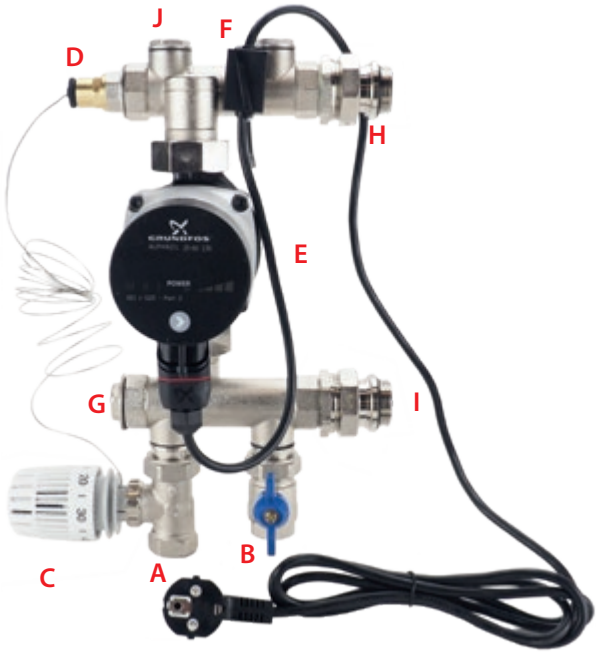
CE




## Technical details

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

**Warranty**
The pump/temperature regulator has a 10 year guarantee on the body, 2 years on the fittings.



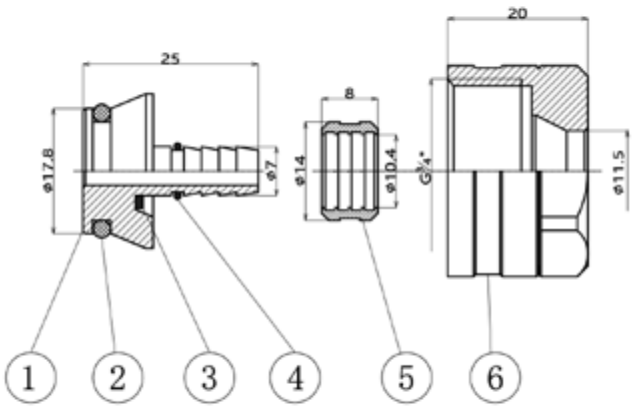

A. Supply primary
B. Primary return
C. Thermostat knob
D. Temperature sensor
E. A-Label Pump
F. Maximum protection
G. LTV mixing valve
H. Underfloor heating supply
I. Underfloor heating return
J. Air vent

| Art.nr. | Description |
|---|---|
| W90002 | Pump/temperature regulator incl. ALPHA2 L |

# 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, 17 mm, 18 mm or 20 mm and a wall thickness up to 2,0 mm (supplied per 2 pieces).




| | |
|---|---|
| 6 | Locking cap |
| 5 | Open ferrule |
| 4 | O-ring |
| 3 | Flat gasket |
| 2 | O-ring |
| 1 | Connector |

### Specifications

| | |
|---|---|
| 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 |

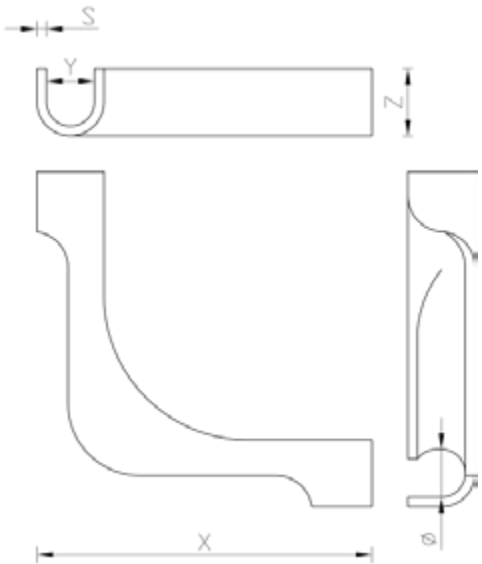
CE

| 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°C bend support holds the heating tubes at an angle of 90°C 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<br>18 - 20 mm |
| Dimensions | 125 x 17 x 25 mm<br>140 x 20 x 39 mm |
| Weight | 37 g<br>45 g |
| Material | PA 6 with glass fibre |
| Operating temperature | 0°C - 65°C |
| Warranty | 2 years |

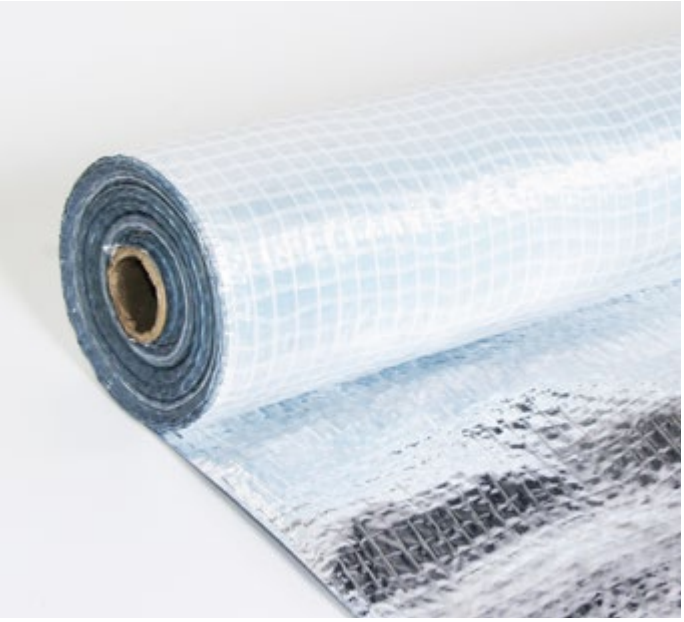
CE

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

### Specifications

| | |
|---|---|
| Surface area | 30 $m^2$ - 75 $m^2$ |
| Length | 20 m - 50 m |
| Width | 1,50 m |
| Thickness | 0,20 mm |
| Weight per area | 90 ± 25% (g/$m^2$) |
| Fire class | Class E |
| Tear resistance | > 100 (N) |
| Max. tensile strength length | > 220 (N/50mm) |
| Max. tensile strength width | > 150 (N/50mm) |
| Elongation at break length | > 12 % |
| Elongation at break width | > 7 % |
| Water vapour transmission (Sd) | 50 ± 30 m |
| Temperature range | -30°C / 70°C |

CE

| Art.nr. | Description | $m^2$ | Dimensions |
|---|---|---|---|
| W90100 | Aluminium reflection foil roll | 30 $m^2$ | 20 x 1,5 m |
| W90101 | Aluminium reflection foil roll | 75 $m^2$ | 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.

### Specifications

| | |
|---|---|
| Roll length | 25 m |
| Foam thickness | 8 mm ± 1 mm |
| Foam width | 150 mm ± 5 mm |
| Material | PE - foam |
| Density | 18 kg/m$^3$ ± 5 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 |

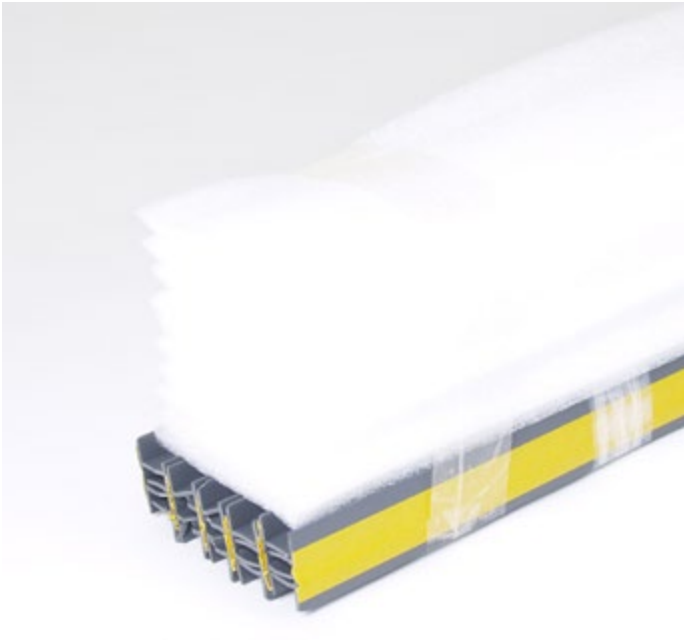
CE

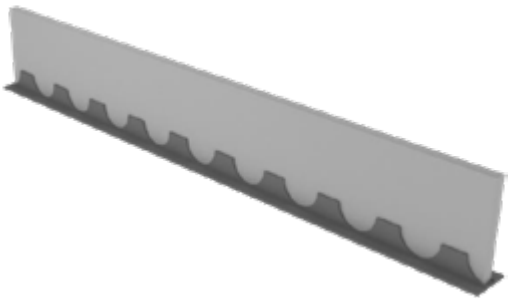
| Art.nr. | Description | Dimensions |
|---|---|---|
| W90111 | Edge insulation | 25 m x 15 cm x 8 mm with flap |

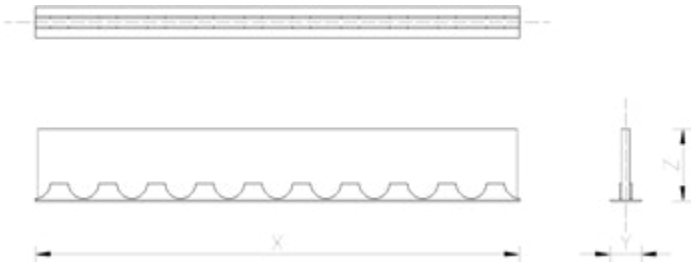
# MAGNUM Expansion profile

## Positioning systems and accessories

**Expansion profile**
In rooms that are larger than 40 $m^2$, 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 |

CE

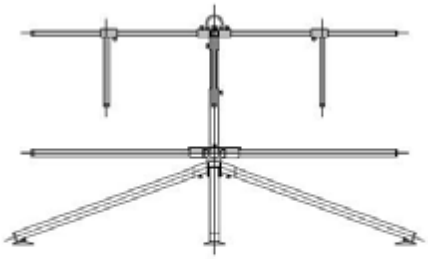
| Art.nr. | Description | Dimensions |
|---|---|---|
| W90112 | Expansion profile - Profile set with adhesive strip | 5 pieces 2 m (10 m/l) |

# 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.



### Specifications

| | |
|---|---|
| Diameter when unfolded | 1040 mm (spiral support), 1200 mm (diameter at the base) |
| Minimum height | 170 mm |
| Maximum height | 520 mm |
| Dimensions | 59 x 23 x 185 cm |
| Weight | 7,4 kg |
| Material | Steel |
| Warranty | 2 years |

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.

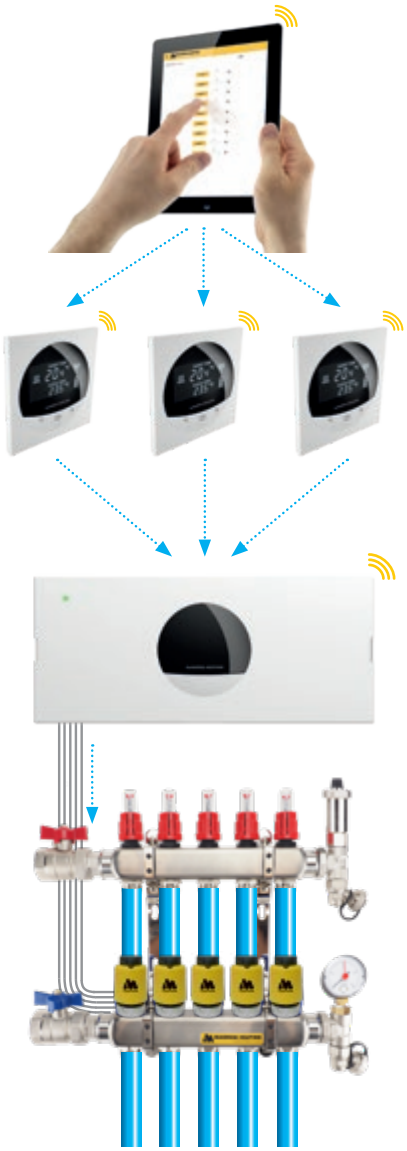
**MAGNUM W - Actuators**
These electrothermal actuators are used to automatically control the stopcocks. When the actuators are mounted on the taps, they automatically shut off the water supply from the boiler. As soon as there is a heat demand from the underfloor heating system, the thermostat, which 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.

## Specifications

| | |
|---|---|
| Type | 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) |
| App | V iOS & Android |
| Voice assistant | X |
| Programmable | up to 2 periods per day |
| Intelligence | V |
| Wooden floor | V < 28°C |



## Technical details

- 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 een bedraad regelsysteem met WiFi functionaliteit voor vloerverwarmings-systemen op waterbasis. De stijlvolle H64-MT thermostaat met WiFi functionaliteit is een programmeerbare thermostaat die ontworpen is om watergedragen vloer-verwarmingssystemen te regelen. Een App is beschikbaar in de Apple App Store en op Google Play. Binnen de App kunt u instellingen programmeren en aanpassen. Om verschillende kamers (groepen) te bedienen kunnen eenvoudig extra H64-ST slave thermostaten worden toegevoegd.

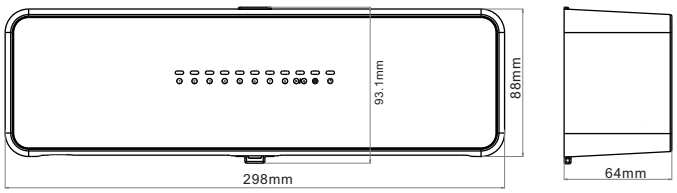
verta

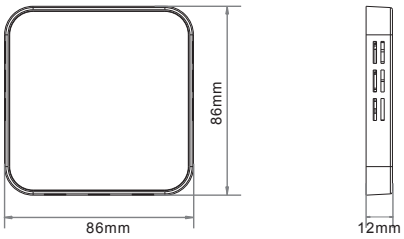
## Specificaties

| | |
|---|---|
| Type | Bedraad regelsysteem met WiFi |
| Geschikt voor | Watergedragen systemen |
| Bediening | Touchscreen |
| Sensoren | Ruimtesensor |
| Voltage | 230V – 50/60Hz |
| Maximale belasting | 16A / 230V |
| Temperatuurbereik | +5°C / +40°C |
| Behuizing | IP21 |

## Functies

| | |
|---|---|
| WiFi | V 2.4Ghz |
| App | V iOs & Android |
| Spraakassistent | Google assistant en Amazon Alexa |
| Programmeerbaar | tot 3 periodes per dag |
| Intelligentie | V |
| Houten vloer | V < 28°C |
| Open raam | V |
| Langzame start | V |
| Pilot Wire | X |




## Technische details

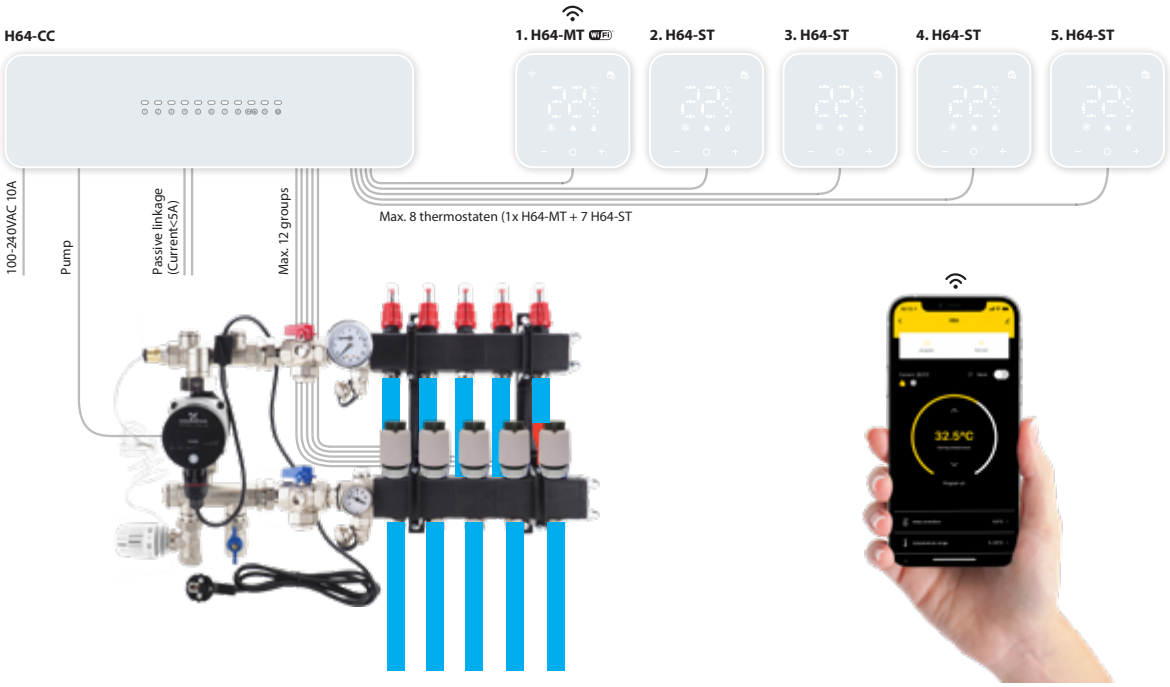
**H64-CC Control Center**
Stroombron 100-240VAC 50/60Hz (max. 10A)
Opslagtemperatuur en -vochtigheid -10 ~ 60 °C, 0 ~ 90% relatieve vochtigheid (niet-condenserend)
Werktemperatuur en -vochtigheid 0 ~ 50 °C, 0 ~ 80% RH (niet-condenserend)
Kleur Wit
Afmetingen 298 x 88 x 64 mm
IP-waarde IP40

**H64-MT Master WiFi Thermostaat***
**H64-ST Slave Thermostaat**
Voeding en signaalingang DC12 ~ 18V carrier niet-polaire ingang
Opslagomgeving temp. & vochtigheid 10 ~ 60°C, 0 ~ 90% RH (niet-condenserend)
Werkomgeving temp. & vochtigheid 0 ~ 50°C, 0 ~ 80% RH (niet-condenserend)
Weergavebereik temperatuur 0 ~ 50°C
Weergave nauwkeurigheid 0.1°C
Kleur Wit

# alen!

- WIFI frequentie 2.4 GHz.
- Draadloze WIFI transmissie afstand 60 meter.

**Garantie**
2 jaar garantie op de elektrotechnische werking.




| Art.nr. | Omschrijving |
|---|---|
| W81000 | H64 Kit 1x H64-CC Control Center + 1x H64-MT Master WiFi Thermostaat |
| W81003 | H64-ST Slave Thermostaat |

# 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**
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 | V |
| Concrete | V |
| 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[1] |
| Connection voltage | 230 V/50Hz |
| Certification | IEC 800, CE, ISO 9001, IPX7 |
| Warranty | 10 year |

VDE-REG 8741

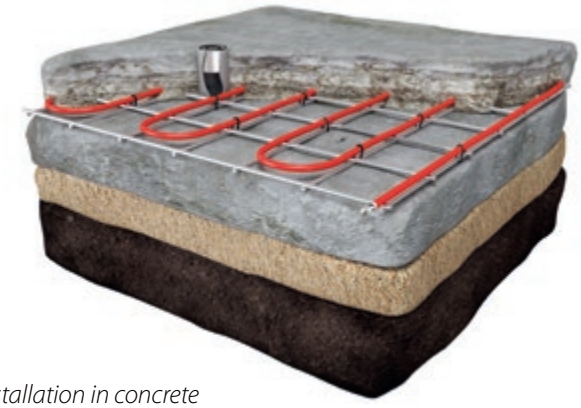
*Unique blind connection*

## Technical details

- Power 30 Watt/m[1]
- Cables available from 600 to 3400 Watt
- Connection voltage 230 V/50Hz
- Standards IEC 800 and CE
- Certification ISO 9001
- Class IPX7
- Core insulation 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 concrete*

*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[1] | 20 m | 10 m | 600 Watt | 230V | 2,6 | 88,2 |
| 125012 | MAGNUM Outdoor Cable Asphalt 30W/m[1] | 40 m | 10 m | 1200 Watt | 230V | 5,2 | 44,1 |
| 125019 | MAGNUM Outdoor Cable Asphalt 30W/m[1] | 63,3 m | 10 m | 1900 Watt | 230V | 8,3 | 27,8 |
| 125034 | MAGNUM Outdoor Cable Asphalt 30W/m[1] | 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[1] |
| Connection voltage | 230 V/50Hz |
| Certification | IEC 800, CE, ISO 9001, IPX7 |
| Warranty | 10 year |

VDE-REG 8741

*Unique blind connection!*

*Installation in sand bed under paving stones*

## Technical details

- Power 30 Watt/m[1]
- Cables available from 300 to 4200 Watt
- Connection voltage 230 V/50Hz
- Standards IEC 800 and CE
- Certification ISO 9001
- Class IPX7
- Core insulation 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.

| Art.nr. | Description | Length | Length connecting wire | Power | Volt | Amps | Ohm |
|---|---|---|---|---|---|---|---|
| 120308 | MAGNUM Outdoor Cable Concrete 30W/m[1] | 10 m | 4 m | 300 Watt | 230V | 1,3 | 176 |
| 120458 | MAGNUM Outdoor Cable Concrete 30W/m[1] | 15 m | 4 m | 450 Watt | 230V | 2,0 | 118 |
| 120608 | MAGNUM Outdoor Cable Concrete 30W/m[1] | 20 m | 4 m | 600 Watt | 230V | 2,6 | 88 |
| 120758 | MAGNUM Outdoor Cable Concrete 30W/m[1] | 25 m | 4 m | 750 Watt | 230V | 3,3 | 71 |
| 120908 | MAGNUM Outdoor Cable Concrete 30W/m[1] | 30 m | 4 m | 900 Watt | 230V | 3,9 | 59 |
| 121208 | MAGNUM Outdoor Cable Concrete 30W/m[1] | 40 m | 4 m | 1200 Watt | 230V | 5,2 | 44 |
| 121508 | MAGNUM Outdoor Cable Concrete 30W/m[1] | 50 m | 4 m | 1500 Watt | 230V | 6,5 | 35 |
| 121808 | MAGNUM Outdoor Cable Concrete 30W/m[1] | 60 m | 4 m | 1800 Watt | 230V | 7,8 | 29 |
| 122108 | MAGNUM Outdoor Cable Concrete 30W/m[1] | 70 m | 4 m | 2100 Watt | 230V | 9,1 | 25 |
| 122408 | MAGNUM Outdoor Cable Concrete 30W/m[1] | 80 m | 4 m | 2400 Watt | 230V | 10,4 | 22 |
| 123008 | MAGNUM Outdoor Cable Concrete 30W/m[1] | 100 m | 4 m | 3000 Watt | 230V | 13,0 | 18 |
| 123408 | MAGNUM Outdoor Cable Concrete 30W/m[1] | 113 m | 4 m | 3400 Watt | 230V | 14,8 | 16 |
| 123608 | MAGNUM Outdoor Cable Concrete 30W/m[1] | 120 m | 4 m | 3600 Watt | 230V | 15,7 | 15 |
| 124208 | MAGNUM Outdoor Cable Concrete 30W/m[1] | 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 | V |
| Concrete | V |
| 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[1] |
| Connection voltage | 230 V/50Hz |
| Certification | IEC 800, CE, ISO 9001, IPX7 |
| Warranty | 10 year |

VDE-REG 8741

*Unique blind connection*

*Installation in concrete*

*Installation under paving stones*

## Technical details

- Power 300 Watt/m²
- Dimensions 2, 5, 8 & 10 m²
- Connection voltage 230 V/50Hz
- Standards IEC 800 and CE
- Certification ISO 9001
- Class IPX7
- Core insulation 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 Mat has a 10 year warranty on the electrical function of the cable.

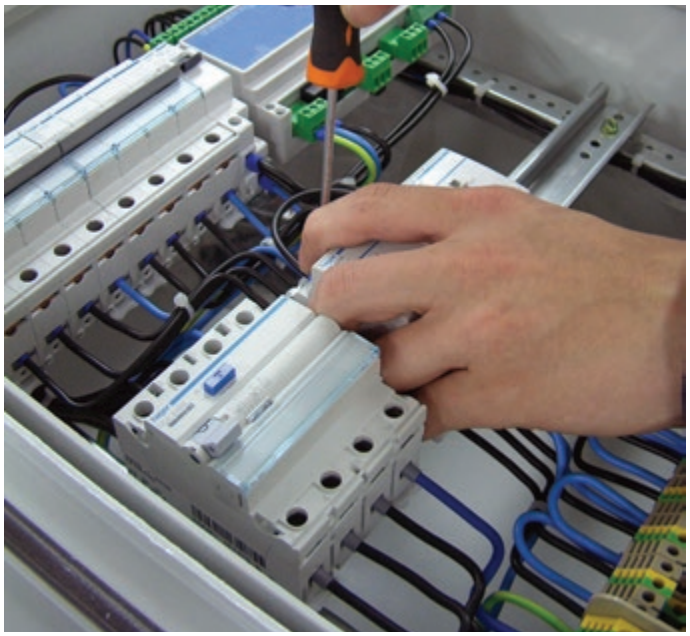
| Art.nr. | Description | m² | Dimensions | Power | Volt | Amps | Ohm |
|---|---|---|---|---|---|---|---|
| 126002 | MAGNUM Outdoor Mat | 2 m² | 0,5 x 4 m | 600 Watt | 230V | 2,6 | 88,2 |
| 126005 | MAGNUM Outdoor Mat | 5 m² | 0,5 x 10 m | 1500 Watt | 230V | 6,5 | 35,3 |
| 126008 | MAGNUM Outdoor Mat | 8 m² | 0,5 x 16 m | 2400 Watt | 230V | 10,4 | 22 |
| 126010 | MAGNUM Outdoor Mat | 10 m² | 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 |

CE

| 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.

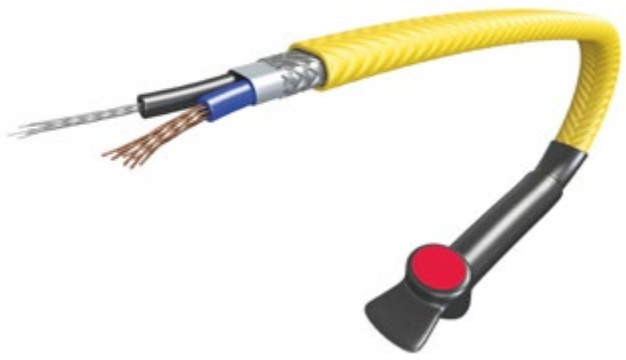
MAGNUM Ideal frost-free ribbons are ready to use (with a 2 metre long connecting cable and earthed plug) and equipped with temperature control through bi-metal. MAGNUM Ideal frost-free ribbons are available in lengths from 1 to 48 metres. The ribbon switches on at a temperature below +5°C and switches 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, Kema, IPX7 |
| Warranty | 2 year |

KEMA KEUR CE VDE REG.-Nr. 40042300



## Technical details

- 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 cable.

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 °C | -30 °C | -25 °C | -20 °C | -15 °C | -10 °C | -5 °C |
| 10 windings per m. | -- | -- | -30 °C | -30 °C | -25 °C | -25 °C | -20 °C |
| 20 windings per m. | -- | -- | -- | -- | -30 °C | -30 °C | -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

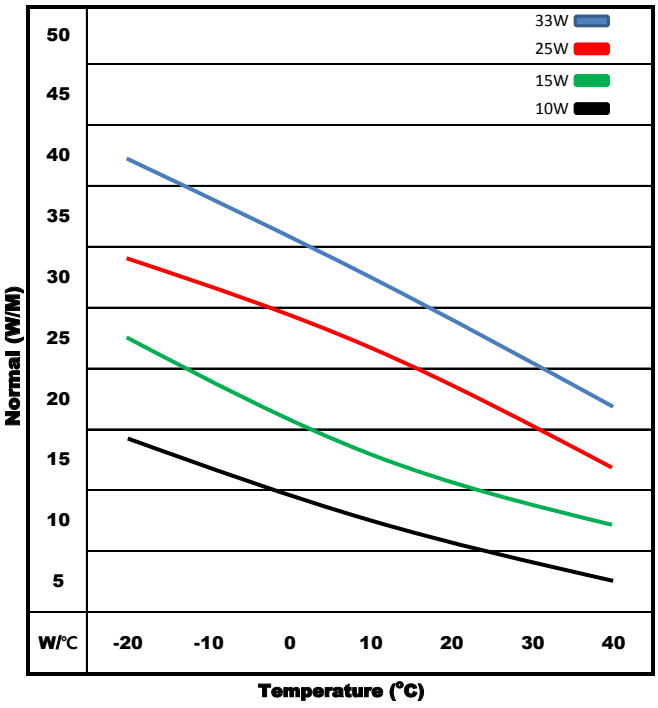
## Self regulating heating ribbon < 85°C

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.




## Specifications

| | |
|---|---|
| Max. temperature | Without voltage 85°C<br>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<br>15MTR & 33MTR: CE/RU/ FM/EX,according to DIN EN 62395-1 |
| Warranty | 2 year |

CE VDE REG.-Nr. 40040697


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

| Categorie<br>Reference | Switch<br>16A | <br>20A | 230V<br>20A | <br>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°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
- 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.

| 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

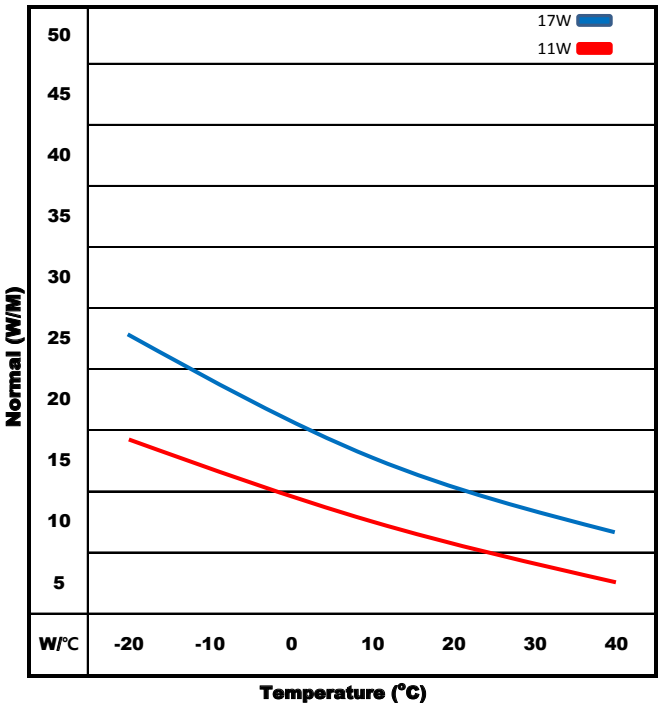
## Self regulating heating ribbon < 65°C

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.

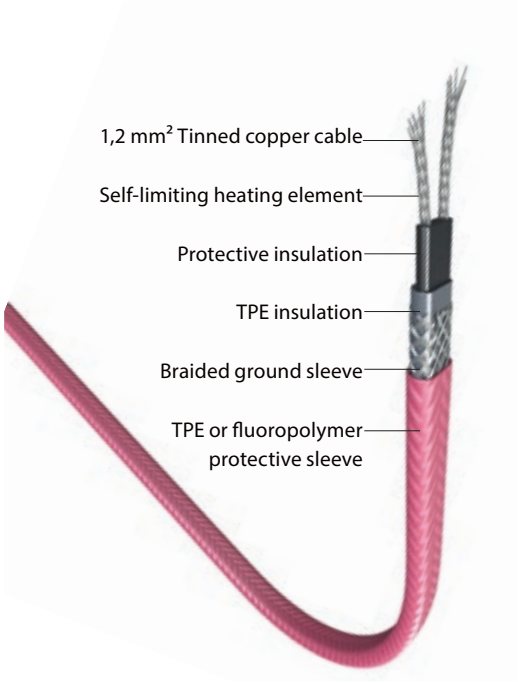
For a heat loss calculation and applicable cable, please contact the calculation department of MAGNUM Heating.




### 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)<br>MTM 11 & 17 Watt Fluoropolymer (Blue) |
| Certification | CE /RU, according to DIN EN 62395-1 |
| Warranty | 2 year |

VDE REG.-Nr. 40040697




## 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.

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

| Categorie Referentie | Switch Temp. | 6A | 230V 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.

*Fluoropolymer*

| 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

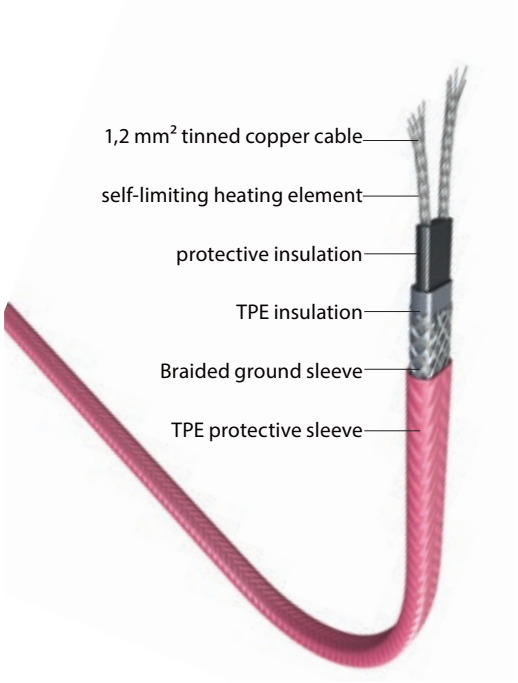
**Additional Information**
The amount of heat loss depends on the diameter of the pipeline, ambient temperature and flow rate of the fluid. Additional insulation is recommended. The use of a temperature controller reduces energy consumption.

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)<br>MTM 11 & 17 Watt Fluoropolymer (Blue) |
| Certification | CE /RU, according to DIN EN 62395-1 |
| Warranty | 2 year |

CE VDE REG.-Nr. 40040697




## Technical details

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

| | |
|---|---|
| • 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 |

**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.

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

| Categorie Referentie | Switch Temp. | 6A | 230V 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.

| Art.nr. | Description | Length | Power | Volt |
|---|---|---|---|---|
| 159711 | MAGNUM Trace Micro Plug & Go 1 | 1 m | 11 Watt @ 10°C | 230V |
| 159703 | MAGNUM Trace Micro Plug & Go 3 | 3 m | 33 Watt @ 10°C | 230V |
| 159705 | MAGNUM Trace Micro Plug & Go 5 | 5 m | 55 Watt @ 10°C | 230V |
| 159709 | MAGNUM Trace Micro Plug & Go 9 | 9 m | 99 Watt @ 10°C | 230V |
| 159715 | MAGNUM Trace Micro Plug & Go 15 | 15 m | 165 Watt @ 10°C | 230V |
| 159722 | MAGNUM Trace Micro Plug & Go 22 | 22 m | 242 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°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.

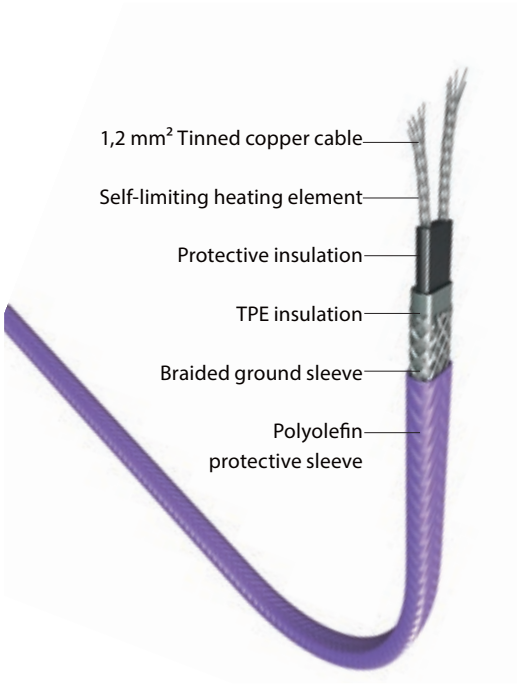
For a heat loss calculation and applicable cable, please contact the calculation department of MAGNUM Heating.

*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 |
| Warranty | 2 year |

CE VDE REG.-Nr. 40040697




## Technical details

| | |
|---|---|
| • 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 |
| • 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.

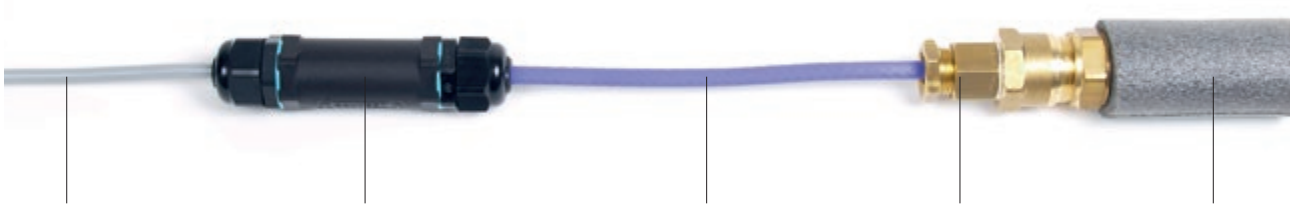
**Set contents**

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:**

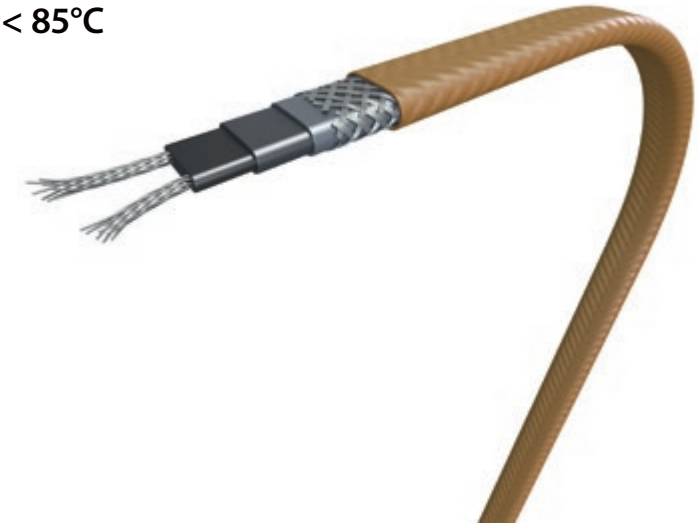



| Art.nr. | Description | Length | Power per metre | Volt |
|---|---|---|---|---|
| 159000 | MAGNUM Trace Water | Per metre | 10 Watt @ 10°C | 230V |

| 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.

**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 | Without voltage 85°C<br>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 | 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 EN 62395-1 |
| Warranty | 2 year |

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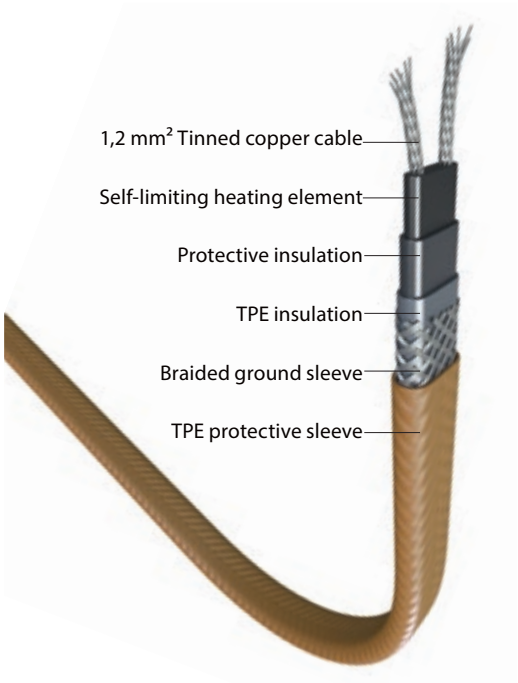



## Technical details

| | |
|---|---|
| • Max. temperature | Without voltage 85°C<br>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 | 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<br>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.

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

| Categorie Referentie | Switch Temp. | 6A | 230V 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.

| 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

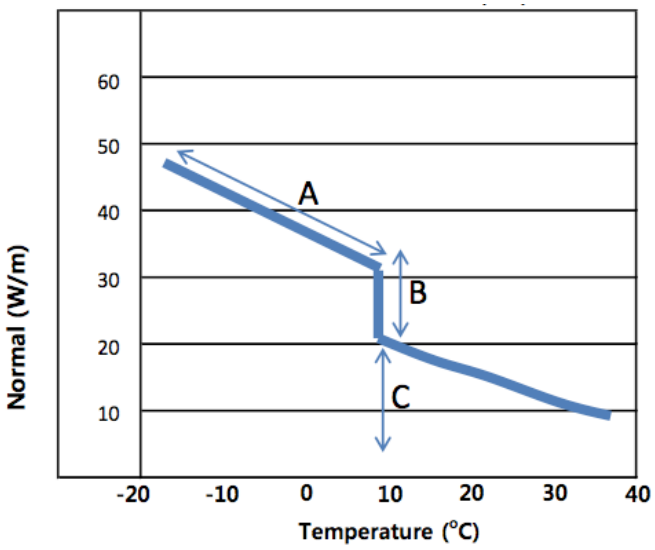
## Self-regulating heating ribbon for gutters < 85°C

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.

**Additional Information**
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.

### Specifications

| | |
|---|---|
| Max. temperature | Without voltage 85°C<br>With voltage 65°C |
| Min. operating temperature | - 45°C |
| Max. resistance | 18,2 Ohm/km |
| Power output | Air at 10°C 20W<br>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 |
| Warranty | 2 year |

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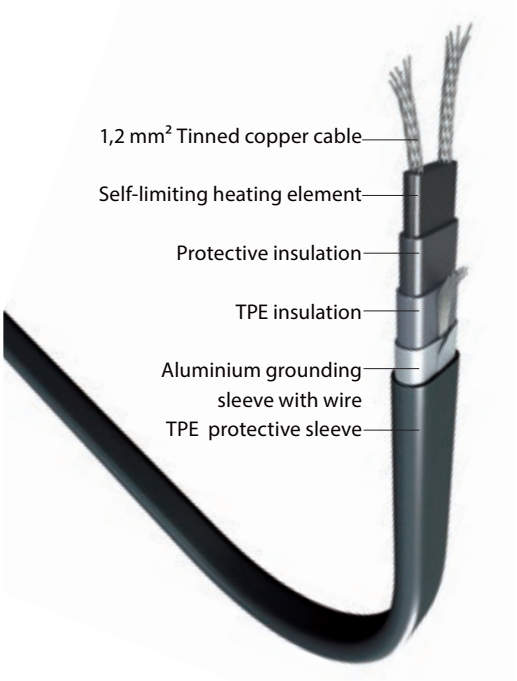



## Technical details

| | |
|---|---|
| • Max. temperature | Without voltage 85°C<br>With voltage 65°C |
| • Min. operating temperature | - 45°C |
| • Max. resistance | 18,2 Ohm/km |
| • Power output | Air at 10°C 20W<br>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 |
| • Warranty | 2 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 Reference | Switch Temp. | 6A | 230V 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 |

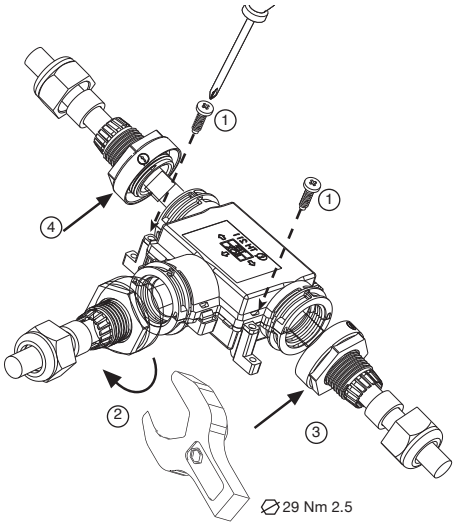
# MAGNUM Outdoor Control

## 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.


*Connecting T - Connection*


*T - Junction*




*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 |

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| 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

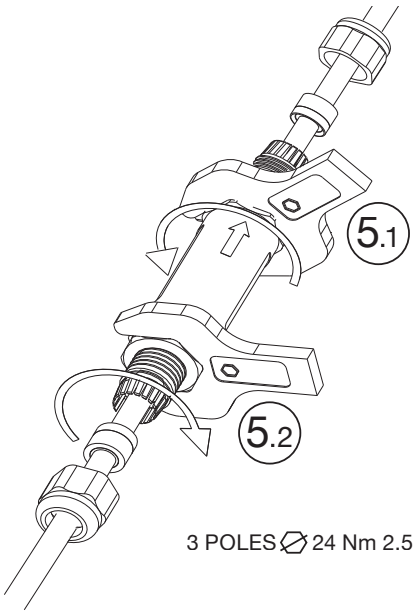
## Connection materials for MAGNUM Tracing

**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.

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

*Connection cable*

*Extend cable*




### Specifications

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

CE

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

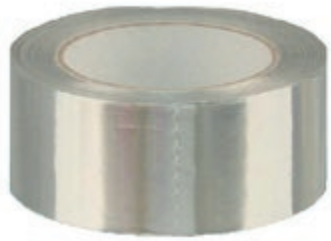
# MAGNUM Outdoor Control

## 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 |



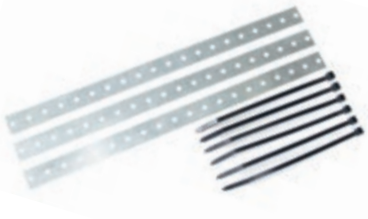
**Aluminium tape 50 mm x 10 metres**
Especially for wrapping plastic pipework where a tracing cable is required. This tape provides increased heat dissipation in plastic pipes.

**Technical details**

| | |
|---|---|
| Width tape | 50 mm |
| Length tape | 10 metres |

**MT - 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 - 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 - ¾" 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.


**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 - ¾" 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) |

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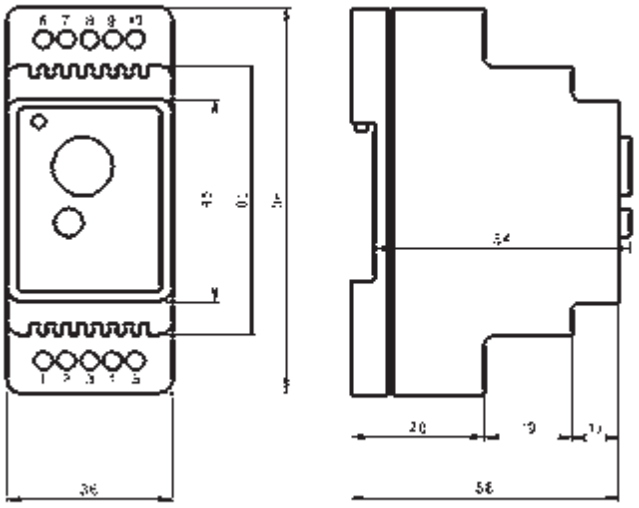
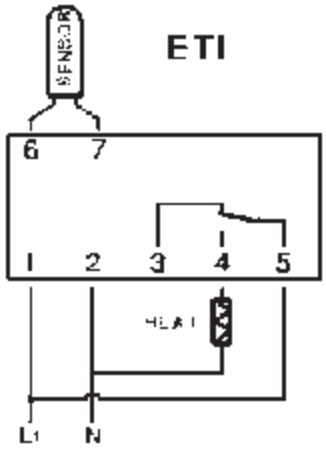





## Technical details

**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.

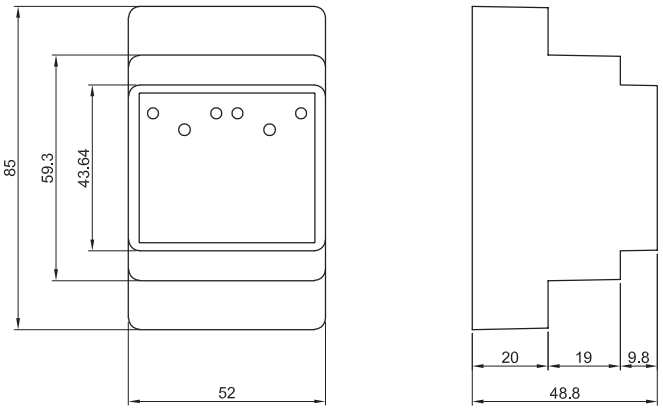
**Functions:**

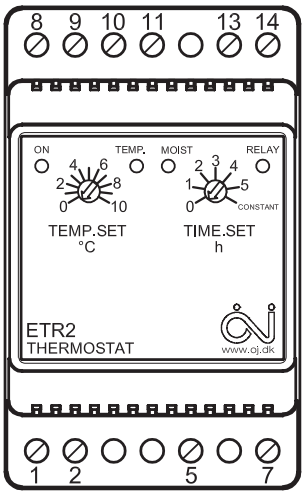
- Economical control of ice and snow melting in the outdoor area and gutters
- Detection of temperature and moisture
- Electronic on/off control up to 3,600W
- For roof or gutter applications
- Easy to install
- Adjustable moisture sensitivity
- Possibility to activate forced heat

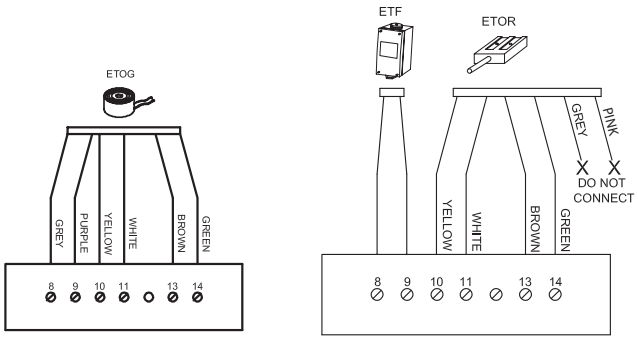
### Specifications

| | |
|---|---|
| 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<br>Red + moist: Moisture detected<br>Red + temp.: Temp. below setpoint<br>Red + relay: Output on |

CE




# 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.

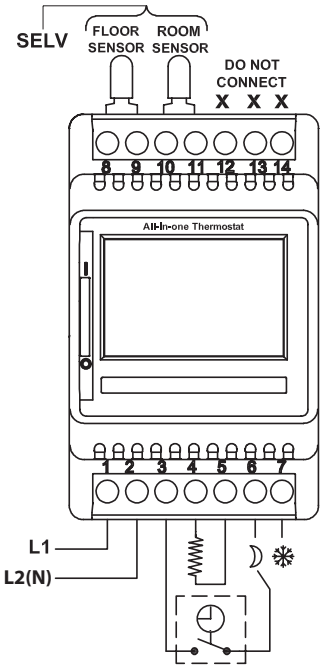
The “all-in-one” thermostat comes with room sensing, room sensing and floor limitation, floor sensing mode only and regulator mode. If you need a thermostat for floor heating control, sauna, frost protection of pipes or cooling applications, the ETN4-1999 is an obvious choise.

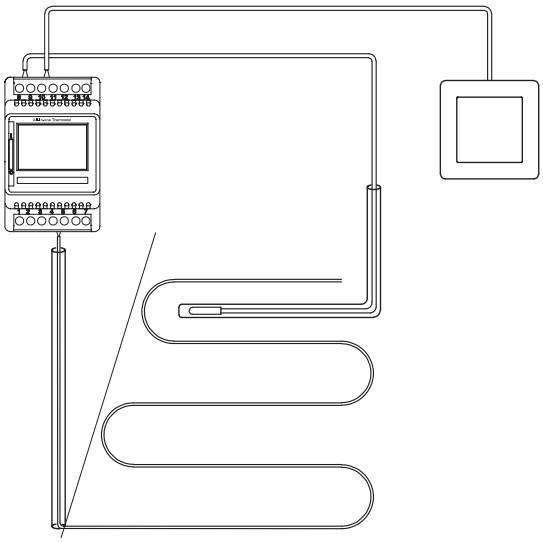
**Large differential temperature range**
The thermostat has a large differential temperature range of 6°C, for either lowering the cycle time of the relay or specifically to reduce the number of start cycles.


### Specifications

| | |
|---|---|
| Supply voltage | 230V AC ±10% 50/60Hz |
| Standby power | 0,5 Watt |
| Output relay SPST | 16A, resistive load or<br>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<br>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) |

CE



## 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.

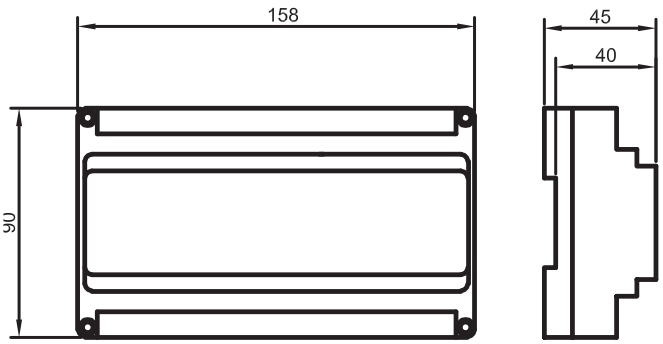
**Functions:**

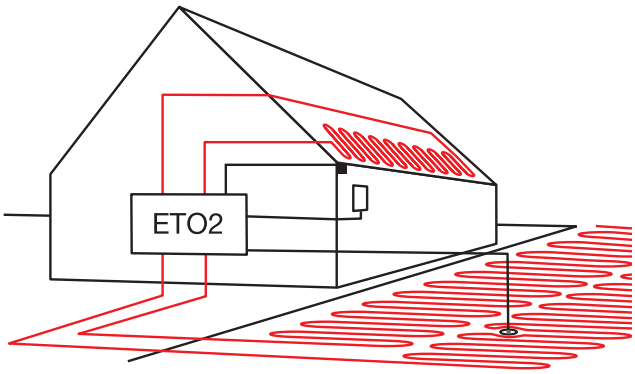
- Temperature & humidity 3 x 16A - 230V
- Electronic on/off control up to 11kW
- 2 zone control, at the same time individually controllable
- Economic control, minimum energy consumption
- Adjustable moisture sensitivity
- Measurement of both temperature and moisture
- Control of hydronic or electric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

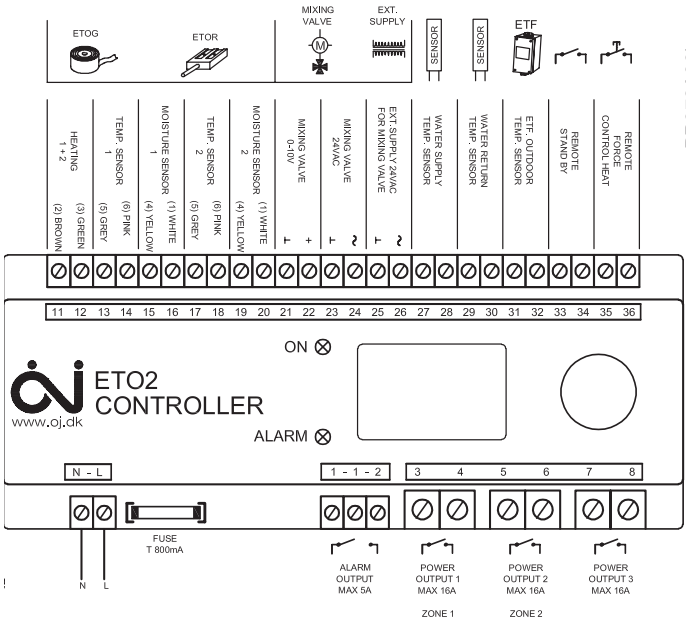

### Specifications

| | |
|---|---|
| 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<br>Red: Error |

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 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 |
|---|---|---|
| 893550 | MAGNUM Thermostat ETO2-4550 DIN-rail temp./moisture 3 x 16A | 230V |

# MAGNUM ETOG-56

## Sensor for MAGNUM Outdoor systems

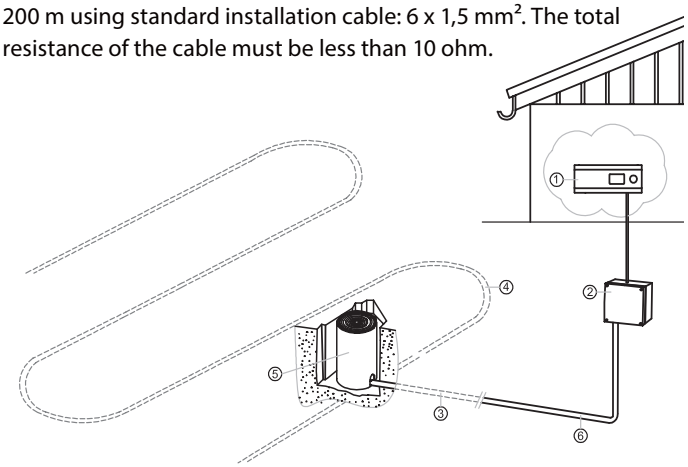

**Ground sensor type ETOG-56**
Designed for embedding in the outdoor surface using the ETOK-1 sensor tube. Detects both temperature and moisture.

**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$^2$. The total resistance of the cable must be less than 10 ohm.




### Specifications

| | |
|---|---|
| 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<br>-2 °C : 39 K/Ohm<br>0 °C : 35 K/Ohm<br>2 °C : 32.4 K/Ohm<br>4 °C : 29.8 K/Ohm<br>5 °C : 27 K/Ohm<br>10 °C : 22 K/Ohm |

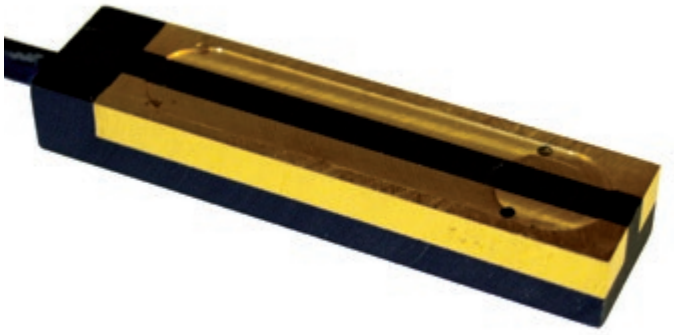
CE

| Art.nr. | Description |
|---|---|
| 890065 | MAGNUM Sensor unit ETOG-56 temp./humidity for road surfaces |

# MAGNUM ETOR-55

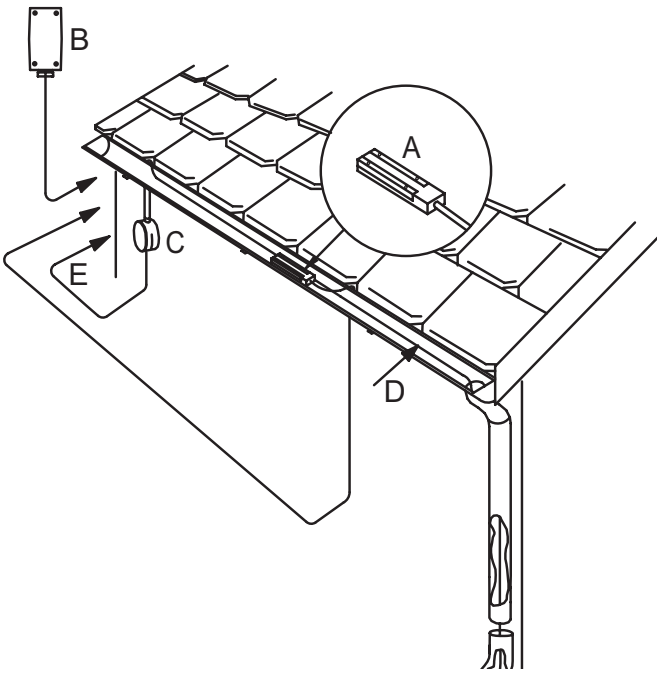
## Sensor for MAGNUM Outdoor systems

**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$^2$. 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) |

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) |

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 |
| Type | 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 |

CE

| 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**
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 |
| Mounting | Floor |
| Cable length | 2,5 m |
| Enclosure rating | IP54 |
| Temp. range (ambient) | -20°C / +70°C |

CE

| Art.nr. | Description |
|---|---|
| 860199 | MAGNUM Sensor unit ETF-144 Floor sensor -20°C/+70°C |

# Notes

# Notes

# Notes

MAGNUM HEATING

Comfort | Safety | Control

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