

PRODUCT**CATALOGUE**OUTDOOR





MAGNUM Outdoor Cable 30 Watt/m¹

MAGNUM Outdoor systems offer safety and reliability with a low running cost and no maintenance. Safety prevention and continuity are key concepts that warrant the Installation of frost free fittings. Suitable areas for this type of system are entrance and exit slopes of distribution centres, parking areas, hospitals, fire stations, office buildings or any area that during winter time could create a hazard or disruption.

The extensive concept of heat cables, sensors and regulating units create a compliant reaction to extreme weather in the variable European climates. Great temperature shifts and unexpected snow or hail: with a MAGNUM Outdoor system there is always safe and certain access!

Multistrand cold wire Tin Plated Earth Conductor Return Multistrand Copper Wire Conductor Cable Diameter ± 7 mm Cable Diameter ± 7 mm Cable Diameter ± 7 mm Outer Sheath High Temperature PVC Alu-Screen Primary Insulation PTFE Return Multistrand Copper Wire Conductor Multistrand cold wire Welding Connection Multistrand Heating Wire Tin Plated Earth Conductor Primary Insulation PTFE Alu-Screen Outer Sheath High Temperature PVC

Technical information

Construction:

Solid resistance wire High Temperature XLPE insulation Aluminium Screen XLPE insulation

PVC Outer Sheath

Invisible cold end splice

Diameter: 7mm

Technical data:

- Output range from 300 4200Watt
- Tolerance on element resistance: -5/+10%
- Linear load: 30Watt/m¹
- Lenght of connectionwire: 10m
- Max temp hot asphalt: 250°C Shock temperature
- Min bendig radius: 5 cm
- Connection voltage: 230 V/50Hz
- IEC 60800 and CE standard
- ISO 9001 produced.
- 10 year guarantee











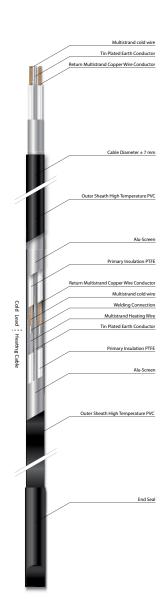
Art. nr.	Туре	Power	Length	Voltage	
191011	MHTC30 XLPE	300 Watt	10 m.	230 Volt	
191012	MHTC30 XLPE	600 Watt	20 m.	230 Volt	
191013	MHTC30 XLPE	900 Watt	30 m.	230 Volt	
191014	MHTC30 XLPE	1200 Watt	40 m.	230 Volt	
191015	MHTC30 XLPE	1500 Watt	50 m.	230 Volt	
191016	MHTC30 XLPE	1800 Watt	60 m.	230 Volt	
191017	MHTC30 XLPE	2100 Watt	70 m.	230 Volt	
191018	MHTC30 XLPE	2400 Watt	80 m.	230 Volt	
191019	MHTC30 XLPE	3000 Watt	100 m.	230 Volt	
191020	MHTC30 XLPE	3600 Watt	120 m.	230 Volt	
191021	MHTC30 XLPE	4200 Watt	140 m.	230 Volt	





MAGNUM Outdoor Mat 300 Watt/m²

Safety, prevention and continuity are the key words that justify the investment for installing a frost protection system. Also for small surfaces or pedestrian areas that need to be kept frost free and safe, MAGNUM Outdoor offers safety and reliability at a low cost. This easy to install outdoor frost protection system works fast in cold and icy conditions. Safety, prevention and continuity are key concepts that warrant the installation of frost free fittings. Entrance and exit slopes of distribution centers, parking garages, hospitals, fire stations, office buildings etc. Anywhere where winter time could create slip hazards, the MAGNUM Outdoor concept offers safety and reliability with a minimal investment or user maintenance cost. The extensive concept of heat cables, sensors and regulating units create a compliant reaction to extreme weather in the variable European climates. Great temperature shifts and unexpected snow or hail: with a MAGNUM Outdoor there is always safe and certain access!



Technical information

Construction:

Solid resistance wire

High Temperature XLPE insulation

Aluminium Screen

XLPE insulation

PVC Outer Sheath

Invisible cold end splice

Diameter: 7mm

Technical data:

- Output range from $1m^2$ $20m^2$
- Tolerance on element resistance: -5/+10%
- Linear load: 300Watt/m²
- Lenght of connectionwire: 10m
- Max temp hot asphalt: 250°C Shock temperature
- Min bendig radius: 5 cm
- Connection voltage: 230 V/50Hz
- IEC 60800 and CE standard
- ISO 9001 produced.
- 10 year guarantee











Art.Nr.	230Volt type
190130	MHTM30 XLPE 300 Watt / 1 m ² / 230 Volt
190131	MHTM30 XLPE 600 Watt / 2 m² / 230 Volt
190132	MHTM30 XLPE 900 Watt / 3 m ² / 230 Volt
190133	MHTM30 XLPE 1200 Watt / 4 m² / 230 Volt
190134	MHTM30 XLPE 1500 Watt / 5 m² / 230 Volt
190135	MHTM30 XLPE 1800 Watt / 6 m² / 230 Volt
190136	MHTM30 XLPE 2100 Watt / 7 m ² / 230 Volt
190137	MHTM30 XLPE 2400 Watt / 8 m² / 230 Volt
190138	MHTM30 XLPE 3000 Watt / 10 m² / 230 Volt
190139	MHTM30 XLPE 3600 Watt / 12 m² / 230 Volt
190140	MHTM30 XLPE 4200 Watt / 14 m ² / 230 Volt
Art.Nr.	400Volt type
190160	MHTM30 XLPE 600 Watt / 2 m ² / 400 Volt
190161	MHTM30 XLPE 1500 Watt / 5 m ² / 400 Volt
190162	MHTM30 XLPE 3000 Watt / 10 m ² / 400 Volt
190163	MHTM30 XLPE 4500 Watt / 15 m ² / 400 Volt
190164	MHTM30 XLPE 6000 Watt / 20 m ² / 400 Volt





MAGNUM Control Cabinets For frost protection systems

MAGNUM Outdoor systems offer safety and reliability with a low running cost and no maintenance. Safety prevention and continuity are key concepts that warrant the Installation of frost free fittings. Suitable areas for this type of system are entrance and exit slopes of distribution centres, parking areas, hospitals, fire stations, office buildings or any area that during winter time could create a hazard or disruption.

The extensive concept of heat cables, sensors and regulating units create a compliant reaction to extreme weather in the variable European climates. Great temperature shifts and unexpected snow or hail: with a MAGNUM Outdoor system there is always safe and certain access!

Technical information



Technical specification Control Cabinets:

- Waterproof (IP-66)

Complete and custom made including:

- -Thermostat DIN Rail 0/+5°C 24V-10 Amp.
- Temperature and moist selection
- Necessary relays 230 / 380V
- 2 Ground (floor) sensors



10 year warranty for electro technical function.









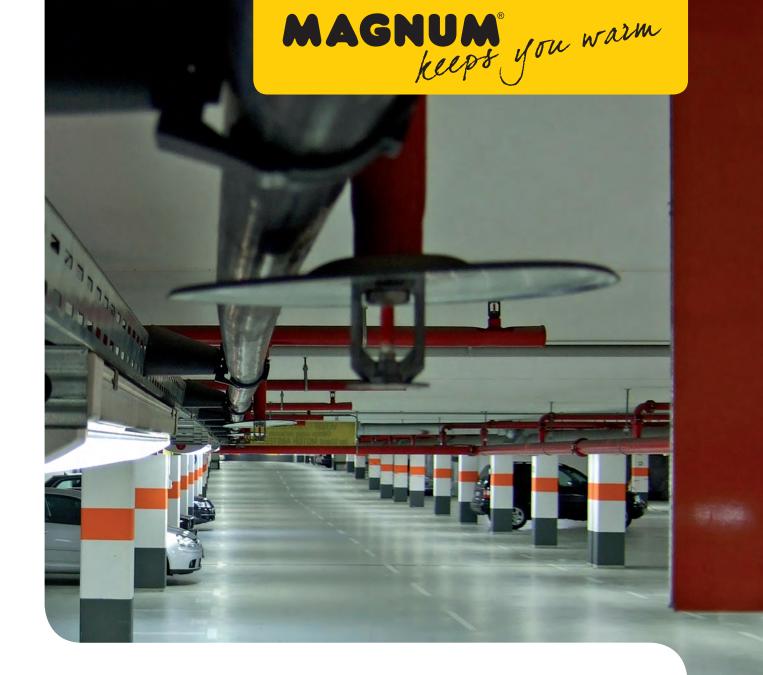


Art. Nr	Туре	H x W x D in cm
900004	Control Cabinet <3,6 kW	40 x 30 x 21
900010	Control Cabinet <10 kW	50 x 40 x 21
900020	Control Cabinet <20 kW	50 x 40 x 21
900030	Control Cabinet <30 kW	72 x 51 x 25
900040	Control Cabinet <40 kW	72 x 51 x 25
900050	Control Cabinet <50 kW	85 x 65 x 30

Higher powers will be calculated on request.

* delivered ready to install (IP-66), including: ETO-4550 Thermostat DIN Rail 0/+5°C 24V-10 Amp., Relays 230 / 380V, 2 Ground (floor) sensors (ETOG-55)

	MAGNUM Outdoor options
893550	ETO-4550 Din rail thermostat temperature / moist 3 x 16A - 230 Volt
900056	ETR-2 Din rail thermostat temperature / moisture 1 x 16A - 230 Volt
890065	ETOG-55 Sensorunit temperature / moist for driveway
900055	ETOR-55 Sensorunit moisture for gutter
901441	ETF-744/99 external outdoor temperature sensor
891551	ETI-1551 Din rail thermostat -10 / + 50 degrees 10A - 230 Volt
860199	ETF-144 Floorsensor
892551	ETN-4 Digital din rail thermostat -20 / + 70 degrees 16A - 230 Volt





MAGNUM Tracing Self regulating ribbon cable

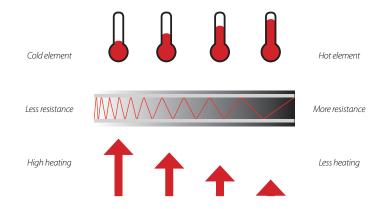
Self-temperature regulating cable consists of two parallel metal bus wires encased in a semiconductive polymer matrix forming a heating unit. As the electric current flows from one of the copper wires, passes the conductive polymer and arrives in the other copper wire, a close circuit is established. The electric power causes PTC polymer to heat up and consequently raises the resistance value. As the temperature of the conductive core increases, so does the electrical resistance. The result is a diminishing output for each temperature increment. In other word, self regulating heating cables adjust their power output in response to the surrounding temperature.



The advantage of Self-regulation Heating Cables

Self-regulation

The self-regulating design of MAGNUM heating cables eliminates worry about overheating or burnouts from overlapping. The conductive polymer core automatically adjusts heat output at each point along the pipe, with no need for thermostats.





Unlike conventional heating cables, MAGNUM heating cables feature parallel circuitry. This means you can cut it at any point along its length without interrupting the heating-cable circuit.

Fast, easy to install

Thanks to their self-regulating, parallel-circuit design, MAGNUM heating cables require no complex installation procedures. They can be straight-traced, spiraled, or overlapped. On the job, you can cut them to the exact length needed and splice or tee them, adapting each heating-cable circuit as the job requires.

Reliable performance

Because they're self-regulating, MAGNUM heating cables require no thermostats, so you're not bothered by breakdowns or callbacks. They will protect against freezing this winter and for many winters to come.

Designed flexibility

Hardwire them or plug them in. With two options of power connection kits, the choice is yours. There's even a preassembled heating cable available in convenient lengths to handle small jobs fast.

Safe on plastic pipes

MAGNUM heating cables can be used on plastic as well as metal pipes. Their self-regulating heating core adjusts automatically, to protect against overheating or developing hot spots when overlapped or covered with insulation.

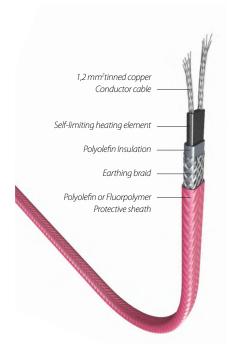
Energy-efficient

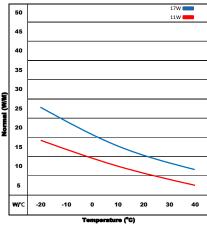
MAGNUM heating cables' self-regulating core generates heat when and where it's needed. The core continuously adjusts its heat output to the environment at every point along the heating cable, thus reducing the overall energy cost for the season.











MAGNUM Trace Micro

MTM Self-Regulating heating tape < 65°C

- Automatically adjusts heat output in response to increasing or decreasing pipe temperature
- Protective tinned copper braiding
- Can be cut-to-length with no wastage
- Will not overheat or burnout, even when overlapped

MAGNUM Trace Micro - MTM is an industrial grade self-regulating heating tape that can be used for freeze protection or temperature maintenance of pipework and vessels. It is particularly suited to small diameter pipes and instruments. It can be cut-to-length at site to match exact piping lengths without any complicated design considerations. It's self-regulating characteristics improve safety and reliability. This MTM will not overheat or burnout, even when overlapped upon itself. It's power output self-regulates in response to the pipe temperature. MTM is available with a corrosion resistant thermoplastic outer jacket and when greater corrosion resistance is required with a fluorpolymer outer jacket (MTM-Fluorpolymer).

Applications:

Cold water pipes, drains, fire and sprinkler pipes, oil pipes.

Additional information:

The height of heat loss is dependent of the pipe diameter, surrounding temperature and flow of liquid. Additional insulation applied on to the heated pipe or vessel is recommended. Using an additional temperature controller reduces the energy consumption.

Approvals:

CE /RU, According to DIN EN 62395-1

Technical data:

Maximum temperature de-energized 65 ° C

Min work temperature -30°C

Max. resistance 18 Ohm/km.

Volts 230V

Outer jacket Tinned copper

Coating Thermoplastic or Fluor polymer water resistant

 $\begin{array}{ll} \mbox{Dimensions} & 8 \times 5 \mbox{ mm}. \\ \mbox{Minimum bending radius} & 25 \mbox{mm} \\ \mbox{Weight} & 7 \mbox{ kg/100 m}. \end{array}$

Color MTM 11 en 17 watt Red MTM- Fluorpolymer Blue

Maximum recommended length at 230VAC at use of Type-C relays:

Category	Switch On power relay				
Reference	Temperature	6 Amp	10 Amp	16 Amp	20 Amp
11MTM	+5°C	70m.	100m.	110m.	-
	0°C	65m.	95m.	105m.	-
	-20°C	44m.	77m.	90m.	-
	-30°C	38m.	67m.	80m.	-
17MTM	+5°C	39m.	60m.	70m.	-
	0°℃	37m.	58m.	65m.	-
	-20°C	25m.	44m.	50m.	-
	-30°C	23m.	41m.	47m.	-
17MTM	-20°C -30°C +5°C 0°C -20°C	44m. 38m. 39m. 37m. 25m.	77m. 67m. 60m. 58m. 44m.	90m. 80m. 70m. 65m. 50m.	- - - -

ArtNr.	Туре
150211	MTM 11 Watt pro Meter @ 10°C
150217	MTM 17 Watt pro Meter @ 10°C
150311	MTM-Fluorpolymer - 11 Watt pro Meter @ 10°C
150317	MTM-Fluorpolymer - 17 Watt pro Meter @ 10°C





MAGNUM Trace Regular

MTR Self-Regulating heating tape < 85°C

- Automatically adjusts heat output in response to increasing or decreasing pipe temperature
- Double insulated and protective tinned copper braiding
- Can be cut-to-length with no wastage
- Will not overheat or burnout, even when overlapped

MAGNUM trace Regular - MTR is an industrial grade self-regulating heating tape that can be used for freeze protection or temperature maintenance of pipework and vessels up to 85°C. For use in Non-hazardous, hazardous and corrosive areas. It can be cut-to-length at site to match exact piping lengths without any complicated design considerations. It's self-regulating characteristics improve safety and reliability. This MTR will not overheat or burnout, even when overlapped upon itself. It's power output self-regulates in response to the pipe temperature. MTR is available with a corrosion resistant thermoplastic outer jacket .

Applications:

Cold water pipes, drains, fire and sprinkler pipes, oil pipes

Additional information:

The height of heat loss is dependent of the pipe diameter, surrounding temperature and flow of liquid. Additional insulation applied on to the heated pipe or vessel is recommended. Using an additional temperature controller reduces the energy consumption.

CE /RU (15MTR and 33MTR: CE / RU / FM / EX), According to DIN EN 62395-1

Technical data:

Color

Maximum temperature de-energized 85 ° C / energized 65 ° C

-30°C Min work temperature

18,2 Ohm/km Max. resistance

Voltage 230V (115V at request)

Outer jacket Tinned copper

Coating Optional (Fluor polymer)

Water resistant 100%

dimensions 13 x 6,8 mm

Minimum bending radius 25mm

Weight 12 kg/100 m

T-Rating 10, 15, 25 W/m Т6 T-Rating 33 W/m T5

Switch Category Reference **Temperature** 10MTR +10°C 40

205m -15°C 140m 186m 195m -25°C 123m 165m 15MTR +10°C 145m 162m 93m 125m 160m -15°C -25°C 82m 111m 160m 25MTR +10°C 88m 117m 126m -15°C 60m 75m 117m 50m 70m 105m -25°C 70m 33MTR +10°C 90m 108m 50m 65m 95m -15°C

Grey

Maximum recommended length of cable at 230VAC while using van Type-C relays:

230V

16A

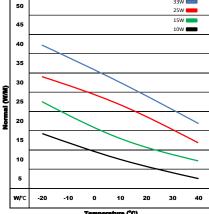
45m

20A

58m

30A

85m



ArtNr.	Туре
151010	MTR- 10 Watt pro Meter @ 10°C
151015	MTR- 15 Watt pro Meter @ 10°C
151025	MTR- 25 Watt pro Meter @ 10°C
151033	MTR- 33 Watt pro Meter @ 10°C

-25°C





MAGNUM Trace Plug & Go

MTM-PG 11Watt per meter @ 10°C

Ready made plug and go heating elements. Included male and female connector IP68

Heating elements that can be used for frost protection of waterpipes, drains, flushes, ect. No overheat due to it's self regulating effect.

IP67 protected using a heating cable with additional earth braiding for the best protection. Fixed heating elements with Male and Female connector and therefore extendable until a maximum of 90mtr.

- Heating tape 11W/mtr @ 10°C. 230V
- Frost protection of waterpipes, drains and flushes.
- IP67 connection, and braided cable.
- Extendable until 90mtr.

Connection cable

- 3 Lead connection cable 2mtr.
- Included Female connector with end cap.
- Available with or without thermostat.
- Thermostat controlled switches on at ≤5°C

Approvals:

CE, According to DIN EN 62395-1



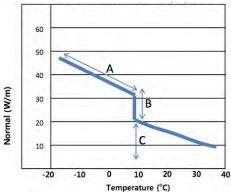




Art.nr.	Туре
159703	MTM-PG 3mtr. unit 33Watt @ 10°C
159705	MTM-PG 5mtr. unit 55Watt @ 10℃
159709	MTM-PG 9mtr. unit 99Watt @ 10℃
159715	MTM-PG 15mtr. unit 165Watt @ 10°C
159722	MTM-PG 22mtr. unit 242Watt @ 10°C
159701	Power cable 2meter without thermostat, female connector and end cap.
159702	Power cable 2meter with thermostat, female connector and end cap. Switch $< 5^{\circ}$ C







- A: In snow and ice water, the heating tape will operate at full power
- B : As the snow begins to melt and the water drains away, the heating tape self-regulates to half power while it dries
- C : As it gets warmer, the heating tape will reduce its power output

MAGNUM Trace Gutter Heat

MTGH Self-Regulating heating tape for gutters

< 85°C

MAGNUM Trace Gutter Heat (MTGH) is a self-regulating heating cable specifically designed to prevent snow and ice build on roofs, in gutters and downfalls. In snow and icy water the cable operates at full power. As the snow melts and the water drains away MTGH self regulates to half power while it dries, As it gets warmer it gradually reduces it's output. It can be cut-to-length during installation. The MTGH is a self-regulation cable and therefore prevents overheating. It can even be installed directly into plastic gutters and with a black, corrosion stable and UV stable outer jackets the system is durable and reliable.

The installation of MTGH is quick and simple and requires no special skills or tools. Termination, splicing and power connection components are available.

Additional information:

- It is recommended that an additional temperature controller is used. A controller that measures the ambient temperature and the presence of snow or moisture is the most efficient.
- This cable should not be placed on Bitume surfaces.

Approvals:

CE, According to DIN EN 62395-1

Technical data:

Structure Aluminium foil with UV-resistant TPE-O sheath.

Bus leads Nickel plated copper wire
Power output Air at 10 ° C - 20W / Ice at 30W

Maximum temperature de-energized 85 $^{\circ}$ C / energized 65 $^{\circ}$ C Rated Voltage 230V

Minimum bending radius
Lowest installation temp.

Dimension (mm)

Weight
Cable color

25 mm
-45 ° C
10.5 X 5.9
7,4 kg/100 m.
Black / UV stable

Maximum length (m) vs. Circuit breaker size:

Category	Start-up	230V			
Reference	Temperature	6A	10A	16A	20A
MTGH-20	10°C	44	72	80	-
	0°C	36	58	80	-

MTGH-Kit

Ready to use and plug Gutter heat elements with build in Thermostat. For easy use and direct installation. Equipped with a thermostat that switches on below 5° C and switches of below -10° C.

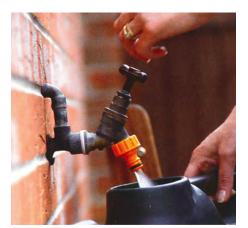
Creating an operation temperaturerange preventing ice or snow build-up.

- Included 3mtr. connection cable, clips and supports for downpipe.
- IP67 protected



ArtNr.	Туре
151020	MTGH - 20Watt - pro Meter @ 10°C
	Kits
159605	MTGH-kit 5m
159610	MTGH-kit 10m
159615	MTGH-kit 15m
159625	MTGH-kit 25m







MAGNUM Trace Water

MTW Self-Regulating heating tape for waterpipes < 65°C

MAGNUM Trace Water is a self-regulating heating cable that can be used for internal as well as external frost protection of water pipes. It can be cut to length at site and exact piping lengths can be matched without any complicated design considerations. It's self-regulating characteristics improve safety and reliability as regulates the heat output in relation with the pipe temperature. The MAGNUM Trace Water cable is supplied as complete kits that includes an installed watertight end-seal, 3/4" brass cable lead and pipe connector and power lead connection kit. The MAGNUM Trace Water is equipped with a Polyolefin outer jacket that covers all requirements and therefore safely to be used in combination with drinking water.

Additional information:

The height of heat loss is dependent of the pipe diameter, surrounding temperature and flow of liquid. Additional insulation applied on to the heated pipe or vessel is recommended. Using an additional temperature controller reduces the energy consumption.

Kit includes:

- MTW self regulating cable with end seal
- ¾" Brass cable lead and pipe connector
- Power lead connection kit

Approvals:

CE, According to DIN EN 62395-1

Technical data:

Maximum temperature de-energized 65 ° C

Rated Voltage 230V

Minimum bending radius 25 mm

Lowest installation temperature.

Dimension (mm)

Max. cable length

Weight

Color



-40 ° C

Violet

8 X 5,9 mm.

7,3 kg/100 m.

100 meter with 16 amp circuit breaker

ArtNr.	Туре
159000	MTW - 10 Watt pro Meter @ 10°C
	Kits
159002	MTW-Kit 2m 20 Watt @ 10°C
159003	MTW-Kit 3m 30 Watt @ 10°C
159004	MTW-Kit 4m 40 Watt @ 10°C
159005	MTW-Kit 5m 50 Watt @ 10°C
159006	MTW-Kit 6m 60 Watt @ 10°C
159008	MTW-Kit 8m 80 Watt @ 10°C
159010	MTW-Kit 10m 100 Watt @ 10℃
159013	MTW-Kit 13m 130 Watt @ 10℃
159020	MTW-Kit 20m 200 Watt @ 10℃
159025	MTW-Kit 25m 250 Watt @ 10°C





1,2 mm²tinned copper Conductor cable Self-limiting heating element Bonded-Jacket-Insulation Polyolefin insulation Earthing braid Polyolefin protective sheath

MAGNUM Trace Hot Water

MTHW Self-Regulating heating tape for hot water systems < 85°C

MTHW is a self-regulating heating cable designed to compensate for the heat losses from hot water distribution systems.

When hot taps are not continuous used, the water in the distribution pipework cools and is usually run to waste before hot water from the source arrives at the tap.

MTHW will not overheat or burnout, even when overlapped upon itself. It's power output self-regulates in response to the pipe temperature. It's self-regulating characteristics improve safety and reliability.

By applying to the pipework (beneath the thermal insulation), heat losses are eliminated and the water is maintained at the required temperature. Further savings are achieved by removing the recirculating pipework together with pumps and valves.

The installation of MTHW is quick and simple and the cable can be cut to match the exact length of the pipework. It requires no special skills or tools. Termination, splicing and power connection is available separately..

Approvals:

CE, According to DIN EN 62395-1

Technical Data:

Maximum temperature de-energized 85 ° C / energized 65 ° C

Intermittent 1000 cumulative hours

Nominal voltage 230V (120V available to order)

Minimum bending radius 25mm Minimum installation temp. -30°C

Maximum resistance of braid 18.2 Ohms/km
Dimension (mm) 13 x 6,8 mm.
Weight 12 kg/100 m
Color Brown

Maximum length (m) vs. Circuit breaker size:

Category	Start-up	230V			
Reference	Temperature	6A	10A	16A	20A
MTHW-9	18°C	56	92	128	-
	0°⊂	38	64	102	128
MTHW-12	18°C	34	56	90	94
	0°⊂	24	40	64	80

For use with Type C circuit breakers to BS EN60898:1991

Recommended insulation thickness (mm):

Category	Maintain	Pipe Size	e (mm)				
Reference	Temp.	15	22	28	35	42	54
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

The above figures are based on the thermal insulation having a K-value of 0.038W/mK at 36°C mid-point temperature.

ArtNr.	Туре
159555	MTHW 9 Watt pro Meter @ 55°C
159565	MTHW 12 Watt pro Meter @ 65°C

Thermostats for MAGNUM tracing



893550 ETO2-4550 Din rail thermostat temperature / moisture 3 x 16A - 230 Volt

An intelligent all-in-one solution for ice and snow melting usable for all applications within hydronic as well as electrical heating. Optimal operation is ensured due to output control which makes the system both effective and economical. ETO2 offers you the possibility of snow melting - the green way.

- •Electronic on/off control up to 11 KW
- •2 zone control, individually controlled at the same time
- •Economical control minimising energy consumption
- •Adjustable moisture sensitivity
- •Detection of temperature and moisture
- •Display and ""knob wheel"" for easy programming
- •Control of electrical or waterbased ice and snow melting systems
- ·Language options



900056 ETR-2 Din rail thermostat temperature / moisture 1 x 16A - 230 Volt

The ETR2 gives an economical control of ice-and snow melting for all smaller applications. With focus on power consumption and easy installation, the ETR2 keeps gutters and small ground areas free of ice and snow.

- •Economical control of ice and snow melting in the outdoor area and gutters
- •Detection of temperature and moisture
- •Electronic on/off control up to 3600 Watt
- •For roof or gutter applications
- •Easy to install
- •Adjustable moisture sensitivity (Product Note)
- •Possibility to activate forced heat



892551 ETN-4 Digital din rail thermostat -20/+70 °C 16A - 230 Volt + floor sensor

DIN Rail Thermostat - ETN4 all-in-one Thermostat

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

- •The "all-in-one" thermostat is perfect for:
- Electrical floor heating
- Frost protection
- Ice & Snow melting
- Cooling
- •Extended temperature range: -19.5° 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 ensuring the fastest and easiest set-up
- Big backlit display
- $\bullet \text{Delivered with new thin floor sensor makes mounting of sensor more comfortable than ever } \\$



891551 ETI-1551 Din rail thermostat -10/+50°C, 230V 10A

For frost protection applications for pipes, MAGNUM provides thermostat ETI along with temperature sensor for pipe ETF-622.

The ETI is an ON/OFF thermostat with adjustable differential temperature for control of temperature. When the sensor temperature is below the temperature set -1/2 differential the potential free relay is activated and heating is switched on. When the sensor temperature exceeds the temperature set +1/2 differential the relay breaks and the heating element is switched out and the LED is turned off. As the ETI is supplied with a change-over relay, the thermostat can also be used as a cooling thermostat.

Sensors for MAGNUM tracing



900055 ETOR-55 Sensorunit moisture for gutter + 10mtr connection cable

The sensor type ETOR is designed for mounting in gutters and down pipes etc. ETOR detects moisture. It is mounted in combination with outdoor sensor type ETF-744/99



901441 ETF-744/99 external outdoor temperature sensor

Outdoor sensor ETF detects temperature. It is used in combination with gutter sensor ETOR, but can also be used separately only for temperature detection.



891651 ETF-622 Pipe sensor -40/+120°C

It is used in combination with a din rail thermostat. This sensor has a wide temperature range and therefore widely applicable. The metal sensor casing ensures a quick and acurate measurement of temperature.



860199 ETF-144 floor sensor -20/+70°C

Standard floor sensor NTC for floor temperature detection.

Connections for MAGNUM tracing



910060 MT-Cable Gel Joint kit

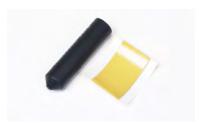
A universal termination accessory, suitable for any type of self-regulating heating cable with and without screen. Extremely reliable, without shelf life and without the need of any particular tool during installation. It allows to realize:





160100 MT-Crimp sleeve joint kit

To Joint cable lengts, or to repair possible cable damagings. It contains all the components required, including connectors and end seal. One kit for each cable



160103 MT-Crimp end / termination kit

For the termination and sealing of a cable end. Heat schrinkable components. One set for each cable end.



159001 MT-3/4" Brass cable lead and pipe connector for MTW

Brass connection for a watertight entry into a water pipe. Straight cable entry for a water pipe with a minimum diameter of 22mm.



160105 MT-Connection Box IP 55

Box IP55 complete with terminals. It allows the entry of one or more heating cables. This enables to connect, or split a heating cable into multiple cables.



160109 MT-Cable gland for MTM, MTW, MTR, MTGH self regulating heating cables160110 MT-Cable gland for MTHW self regulating heating cables

To allow the cable to enter boxes to pass through walls etc. One per cable



910033 MT-Glass fibre tape 25mm 33mtr

To fix the cable to the pipe. 3 turns every 0,3m of pipe. Self adhesive. In rolls of 33mtr.

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720200 MT-alu self-Adhesive tape 5 cm x 22,5mtr.

for cable fixing and increased heat dispersion in case of plastic pipes.



160107 MT-Support bracket for gutter 3 pcs.

It supports and fixes the cable in gutters and downpipes. In large gutters, requiring 2 cables laid longitude, it maintains the cable at the right distance.



160108 MT-Gutter clips per package 10pcs.

Gutter clips that fixate the heating cable into the gutter. Used 2 per meter.



160113 MT-Warning Sticker per set of 5pcs.

To be applied for warning over traced items.

Art.Nr.	Thermostats, Sensors and Connection materials for MAGNUM tracing
893550	ETO-4550 Din rail thermostat temperature / moisture 3 x 16A - 230 Volt
900056	ETR-2 Din rail thermostat temperature / moisture 1 x 16A - 230 Volt
892551	ETN-4 Digital din rail thermostat -20 / + 70 degrees 16A - 230 Volt + floor sensor
891551	ETI-1551 Din rail thermostat -10/+50°C, 230V 10A
900055	ETOR-55 Sensorunit moisture for gutter + 10mtr connecion cable
901441	ETF-744/99 external outdoor temperature sensor
891651	ETF-622 Pipe sensor -40/+120°C
860199	ETF-144 floor sensor
910060	MT-Cable Gel Joint kit
160100	MT-Crimp sleeve joint kit
160103	MT-Crimp end / termination kit
159001	MT-¾" Brass cable lead and pipe connector for MTW
160105	MT-Connection Box IP 55
160109	MT-Cable gland for MTM, MTW, MTR and MTGH self regulating heating cables (20mm)
160110	MT-Cable gland for MTHW self regulating heating cable (25mm)
910033	MT-Glass fibre tape 25mm 33mtr
720200	MT-alu self-Adhesive tape 5 cm x 22,5mtr.
160107	MT-Support bracket for gutter 3 pcs.
160108	MT-Gutter Clips per package 10pcs.
160113	MT-Warning Sticker per set of 5pcs.