



# Installation instructions for MAGNUM frost-free ribbon cable

**Anti-frost system for keeping (water) pipework and drain pipes safe from freezing.**

## About this Product

MAGNUM frost-free ribbon cable has been developed specially for keeping (water) pipework, stop cocks, waste pipes, etc. safe from freezing. This product offers a relatively economic solution (both in terms of purchase, installation and use) in situations where freezing and frost damage could lead to problems. MAGNUM frost-free ribbon cable is ready to connect. At the end of the ribbon cable (often the coldest spot!) it has a built-in bi-metal thermostat. The thermostat is activated when the pipeline temperature drops below 5°C and switches off automatically when the pipeline temperature rises above 13°C. This prevents freezing and reduces energy consumption to a minimum. The ribbon cable is exceedingly easy to fit to pipework using the supplied PVC tape or plastic quick fasteners (tie wraps). It is recommended to use MAGNUM ribbon cable in combination with (polyethylene) pipework insulation with a minimum wall thickness of 10mm.

## Applications

Anti-frost system for:

- External and internal (water) pipework
- Outdoor stop cocks and waste pipes
- Fire-extinguishing lines
- Sprinkler systems
- Pumps
- Mediterranean trees

## Installation instructions:

- Never switch on MAGNUM frost-free ribbon cable when it is rolled up.
- Never shorten or lengthen MAGNUM frost-free ribbon cable.
- Use MAGNUM frost-free ribbon cable for pipework that reaches a maximum temperature of 85°C.
- Only use MAGNUM frost-free ribbon cable in combination with polyethylene pipework insulation with a minimum wall thickness of 10 mm to ensure optimum protection and operation of the anti-frost-system.
- The flat part of the contact thermostat must be fitted to the pipework, preferably on the coldest part of the pipework. It should then be taped up completely with insulation tape.
- Using plastic piping, an Aluminium tape should be applied directly on the pipe to spread the heat equally.
- If the pipework comes out of the ground, it should be installed up to the frost line.
- The pipework, including MAGNUM frost-free ribbon cable, should be insulated with pipework insulation.
- Never mount MAGNUM frost-free ribbon cross-wise or in overlapping fashion.
- Connect MAGNUM frost-free ribbon cable to a 230 V socket with earth connection.
- Because many places where MAGNUM frost-free ribbon cable must be fitted fall under the regulation concerning the use of an earth-leak switch, it is recommended to take this into account. If this device is not already installed in the system, a movable earth-leak switch can be used.

## Product specifications:

- Available in lengths of 1 - 48 meters.
- Capacity: 10 Watt per meter
- Switching temperature: On  $\sim + 5^{\circ}\text{C}$ , Off  $\sim + 13^{\circ}\text{C}$
- Provided with 2-metre connecting cord with earthed plug and automatic thermostat (bi-metal)
- Including PVC fixing tape.

Art.nr.	Length	Power	Volt
156001	1 meter	10 Watt	230V
156002	2 meter	20 Watt	230V
156004	4 meter	40 Watt	230V
156006	6 meter	60 Watt	230V
156008	8 meter	80 Watt	230V
156010	10 meter	100 Watt	230V
156014	14 meter	140 Watt	230V
156018	18 meter	180 Watt	230V
156022	22 meter	220 Watt	230V
156026	26 meter	260 Watt	230V
156030	30 meter	300 Watt	230V
156034	34 meter	340 Watt	230V
156040	40 meter	400 Watt	230V
156045	45 meter	450 Watt	230V
156048	48 meter	480 Watt	230V

Diameter of Pipework (max)	15mm	20mm	25mm	30mm	40mm	50mm	100mm
Method of Mounting	<b>Protection Factor of water pipework in <math>^{\circ}\text{C}</math></b>						
Linearly (Along Pipe)	<b>-30 C</b>	<b>-30 C</b>	<b>-25 C</b>	<b>-20 C</b>	<b>- 15 C</b>	<b>-10 C</b>	<b>-5 C</b>
10 Windings per Metre			<b>-30 c</b>	<b>-30 c</b>	<b>-25 C</b>	<b>-25 C</b>	<b>- 20 C</b>
20 Windings per Metre					<b>-30 C</b>	<b>-30 C</b>	<b>-30 C</b>
Calculate the cable Length	<b>Length of Pipework x</b>						
10 Windings per Metre (x)	1,25	1,50	1,75	2	2,25	2,5	4
20 Windings per Metre (x)	2	2,25	2,50	2,75	3,25	4	8

