

Features

- Prevents freezing of pipes and lines
- Ready-for-connection with Schuko plug
- Automatic switch-on and off by integrated thermostat depending on the workpiece temperature
- Easy to install
- Rated voltage 230 V AC

Description

Application

ETM PRO is an anti-freeze heating circuit ready-to-use based on a twin-core heating cable. The heating cable compensates for the heat loss from the pipe during the cold season, reliably preventing the pipe from freezing and protecting it from damage. This extends the service life of the pipeline and reduces repair and operating costs. Via the bimetal thermostat installed in the connection coupling, the heating circuit switches on automatically at +3 °C and switches off again at +12 °C, depending on the workpiece temperature.

Construction

The ETM PRO heating circuit consists of a series resistance heating cable with a UV-resistant polyolefin outer sheath and is equipped with a power-supply cable (2m length) with a plug, a connection coupling with an integrated bimetal thermostat and an end termination. The factory-made, molded connection coupling and the end termination are reliably and tightly sealed. The sheathing of the heating conductors with aluminum tape with 100% coverage inside the cable provides additional mechanical strength and, together with a copper drain wire, provides earth screen for safe use.

Application

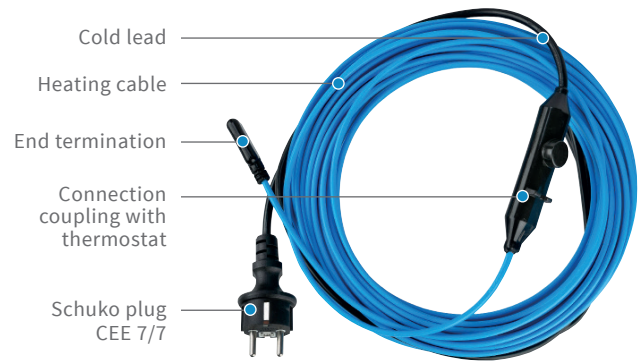
Application	Installation
Open area	Concrete (sand embedding)
Roof	Under hot asphalt (short-time)
Gutter & Drain pipe	Open (UV resistant)
Pipes & Lines	

Ordering information

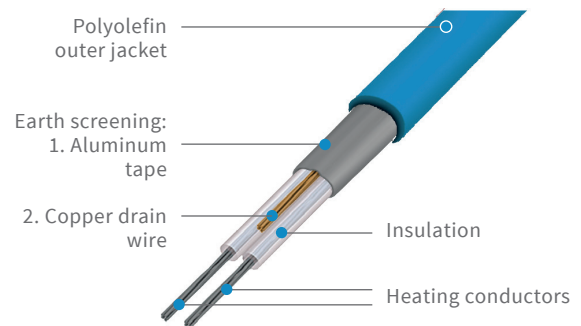
ETM PRO-4.0

Heating section type _____
Section length, m _____

Design



Cable design



Technical data

Rated voltage	230 V AC, 50 Hz
Nom. power output	~ 15 W/m
Temperature range *	
switch ON	+3 °C
switch OFF	+12 °C
Maximum operation temperature	+105 °C
Minimum operation temperature	-15 °C
Minimum storage temperature	-30 °C
Minimum installation temperature	-10 °C
Minimum bending radius at installation	6D (6-times heating cable diameter)
Cold lead length	2 m
Plug type	CEE 7/7 (type E/F)
IP protection class	IPX7
Mechanical class	M2 (acc. IEC 60800)
Heating cable colour	blue
Certifications	RoHS

* Temperature controlled bimetal switch included in the connection coupling.

Products

Antifreeze heating cable ETM PRO					
Type	Length, m	Rated power, W	Nominal power output, W/m	Total resistance (Ω), Nom. @ +20°C (-5%, +10%)	Current, A
ETM PRO-2.0	2	33	16.5	1603.0	0.14
ETM PRO-4.0	4	60	15.0	881.7	0.26
ETM PRO-8.0	8	120	15.0	440.8	0.52
ETM PRO-12.0	12	180	15.0	293.9	0.78
ETM PRO-14.0	14	215	15.4	246.1	0.93
ETM PRO-18.0	18	245	13.6	215.9	1.07
ETM PRO-25.0	25	365	14.6	144.9	1.59
ETM PRO-36.0	36	600	16.6	88.2	2.61
ETM PRO-48.0	48	790	16.5	67.0	3.43

Installation

The bimetal thermostat integrated in the connection coupling must be able to measure the pipe temperature at all times and should always be positioned at the coldest point of the pipe. The heating cable is installed lengthwise on the underside of the pipe. After the heating cable has been fixed, the pipe needs to be wrapped with standard insulation material. If applicable, insulate the bimetal thermostat moderately. Plastic pipes must be covered completely with an aluminum adhesive tape before installation of the heating cable. After the heating cable has been properly attached to the pipe, simply plug into the socket for operation. Applicable norms and rules as well as installation manual must be observed.