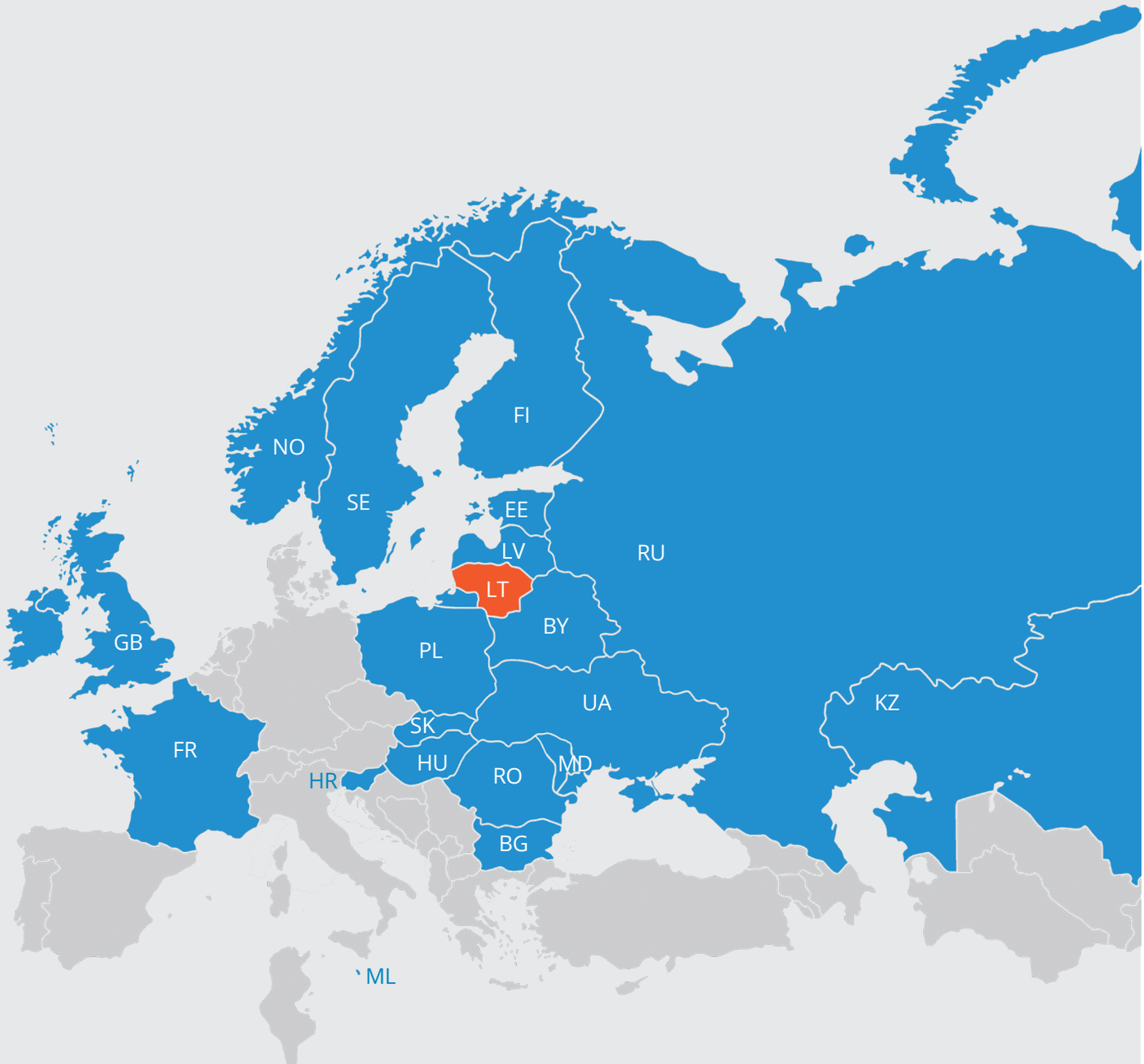
COMFORT HEAT

PRODUCT CATALOG'21



Sales and services:
order@comfortheat.eu
Fax: +370 (5) 270 4498
Phone: +370 (5) 270 4596
Mobile: +370 (686) 08745

Warranty service:
info@comfortheat.eu
Mobile: +370 (611) 37 000

Invoicing and logistics:
logistic@comfortheat.eu
Phone: +370 (5) 270 4596
Mobile: +370 (686) 45 500

Technical consultation:
bru@comfortheat.eu
Phone: +370 (5) 230 1355
Mobile: +370 (687) 39 700

COMFORT HEAT

Comfort Heat is a production and development company of heating cables, mats and control systems. We develop electrical heating systems business in Europe for over 25 years and provide affordable comfort, intelligent solutions for heating systems.

Being an innovative company, **Comfort Heat**, focuses on market demand, the latest technological research and innovation development. In cooperation with the Kaunas University of Technology and leading European electronic manufacturers, **Comfort Heat** invests in R&D – advanced engineering solutions.

We work hard to meet the growing need for energy efficiency, smart solutions and anticipate them. **Comfort Heat** is active in renewable solar energy and works towards sustainable and efficient heating systems for residents and communities.

Comfort Heat manufactures products that are part of commercial building optimization and residential smart home heating systems. Therefore, we design and develop long-lasting and easy to install electric heating applications for:

- The primary and complementary floor heating for domestic and public buildings,
- Ice and snow melting, pipeline frost protection for building and road engineering,
- Temperature maintenance of oil, gas and chemical industry pipelines,
- Black ice prevention for road and railway infrastructure.

Comfort Heat has been serving the electric heating industry's needs in Europe for more than 25 years. We aim to be a reliable and trustworthy business partner for our clients with intelligent solutions that are following the basic principles:

- Reliability,
- Expertise,
- Excellent design,
- Fast and qualified service.

The company continually invests in innovation and smart technologies and contributes to a better sustainable future, environment and green economy.

In 2013 the company introduced the quality management system according to ISO 9001 and ISO 14001 standards to manage performance and identify potential environmental improvements. Today **Comfort Heat** is taking the lead in implementing knowledge management and LEAN systems.

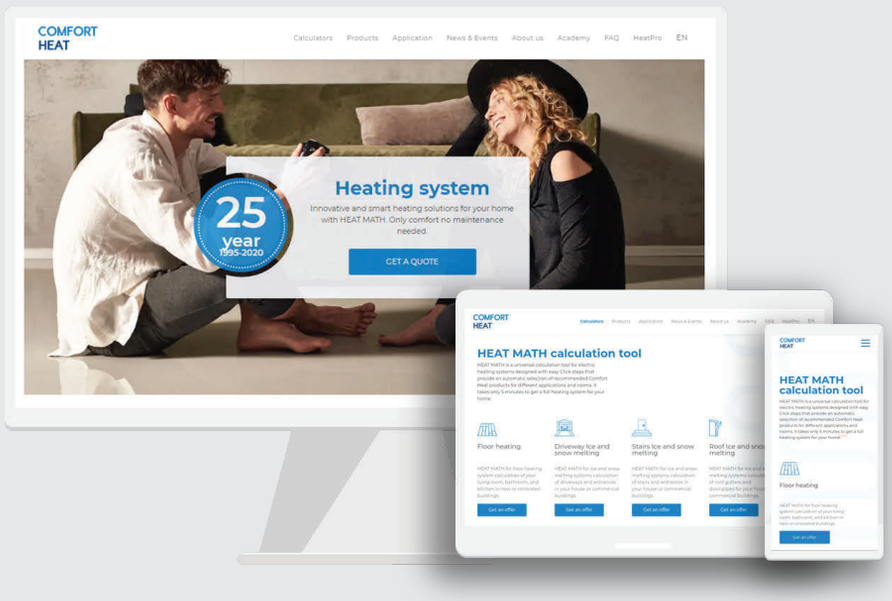
We create smart heating solutions for our clients from diverse industries such as oil and gas, food production, electrical engineering, wholesale and construction material shops, railway and road infrastructure. **Comfort Heat** exports its products to more than 18 countries, such as Baltic and Scandinavian countries, United Kingdom, Malta, Poland, Ukraine, Hungary, Romania, Bulgaria, Slovenia, Croatia, Belarus, Russia, Azerbaijan, and it continues to expand its export markets.

25 YEARS OF EXPERIENCE

25 year 1995-2020

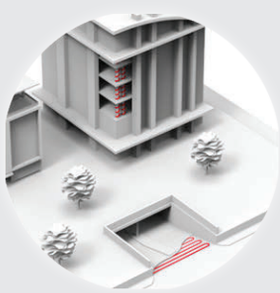
HEAT MATH Calculation tool

Innovative smart heating solutions for your home with **HEAT MATH**.



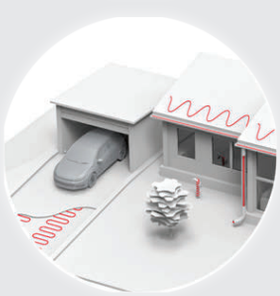
BUILDING APPLICATION

Indoor Heating System. Innovative and smart solutions for your home.



Commercial heating systems. Frost protection, ice and snow melting to keep your building safe and warm.

Outdoor Heating System. Frost protection, ice and snow melting to keep your home safe.



Houses heating systems integrated with a solar power plant. Smart Heating solutions powered by the Sun.

Professional cooperation

Looking towards the future and environment, we develop smart, energy-efficient and user-friendly systems powered by the sun with no maintenance needed. We offer easy to use and custom-made products for smart heating systems.

Comfort Heat has been serving the electric heating industry's need in Europe for more than 25 years. We are a reliable business partner with smart solutions that are based on:

- **20 year warranty 3 year warranty**
- **48/72 h delivery**
- **Customer Service**
- **Comfort Heat Academy training**

We make things simple to last.

www.comfortheat.eu

CONTENT

INDOOR APPLICATIONS

OUTDOOR APPLICATIONS

COMMERCIAL APPLICATIONS

COMFORT HEAT

CTAE-160
twin conductor heating mat

CTAE-160 is a twin conductor heating mat of **160 W/m²** output, with extra aluminium foil braid (with memory), drainage wire and fibreglass mesh. It is self-adhesive on the concrete base. Greenline design, the environmentally friendly heating mat, has no lead.

Floor heating mat CTAE-160 is designed for installation of a new or renewable heated floor. It can be laid directly into the tile adhesive/glue layer.

Installation:

It can be laid directly on concrete or on top of old tiles in a bathroom, kitchen, hall, bedroom and living room, or other living areas, predesigned to be installed under various tiles, marble and granite flooring.

EAC CE

TECHNICAL DATA

Voltage	230 V
Output	160 W/m²
Thickness of mat	4,2 mm
Max temperature	+70 °C
Connection cable	3 m
Min installation temperature	+5 °C
Conductor insulation	Fluoropolymer (FEP)
Overjacket	Polypropylene (XLPE)
Protection class	IP67
Width of mat	50 cm
Warranty	20 year

PRODUCT LIST

Type	Width × Length (m)	Area (m²)	Output (W)	Order No.
CTAE-160	0,5×1	0,5	80	85541000
CTAE-160	0,5×2	1	160	85541002
CTAE-160	0,5×3	1,5	240	85541004
CTAE-160	0,5×4	2	320	85541006
CTAE-160	0,5×5	2,5	400	85541008
CTAE-160	0,5×6	3	480	85541010
CTAE-160	0,5×7	3,5	560	85541012
CTAE-160	0,5×8	4	640	85541014
CTAE-160	0,5×10	5	800	85541016
CTAE-160	0,5×12	6	960	85541018
CTAE-160	0,5×15	7,5	1210	85541020
CTAE-160	0,5×18	9	1400	85541022
CTAE-160	0,5×22	11	1800	85541024
CTAE-160	0,5×27	13,5	2150	85541026
CTAE-160	0,5×33	16,5	2600	85541028

Comfort Heat Ltd. | Phone: + 370 5 2704596 | info@comfortheat.eu

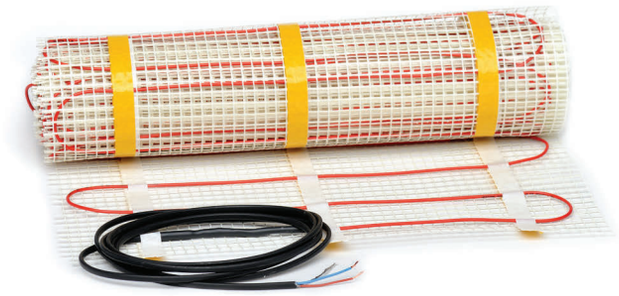
CTAE-100
twin conductor heating mat

COMFORT HEAT

CTAE-100 is a twin conductor heating mat of **100 W/m** output, with extra aluminium foil braid (with memory), drainage wire and fibreglass mesh. It is self-adhesive on the concrete base. Greenline design, the environmentally friendly heating mat, has no lead.

Floor heating mat CTAE-100 is designed for lying under a new floor and is compatible with renewable flooring materials. It can be laid directly into the tile adhesive/ glue layer.

Installation:
It can be laid directly on top of old tiles and under carpet flooring. The heating mat also can be laid under parquet, parquet boards and laminate. It is designed for installation in a kitchen, hall, bedroom and livingroom and other indoor premises.



TECHNICAL DATA

Voltage	230 V
Output	100 W/m^2
Thickness of mat	4,2 mm
Max temperature	+70 °C
Connection cable	3 m
Min installation temperature	+5 °C
Conductor insulation	Fluoropolymer (FEP)
Overjacket	Polypropylene (XLPE)
Protection class	IP67
Width of mat	50 cm
Warranty	20 year

PRODUCT LIST

Type	Width × Length (m)	Area (m^2)	Output (W)	Order No.
CTAE-100	0,5×4	2	220	85541040
CTAE-100	0,5×6	3	290	85541042
CTAE-100	0,5×8	4	410	85541044
CTAE-100	0,5×12	6	560	85541046
CTAE-100	0,5×16	8	820	85541048
CTAE-100	0,5×20	10	1000	85541050
CTAE-100	0,5×24	12	1200	85541052
CTAE-100	0,5×36	18	1800	85541054

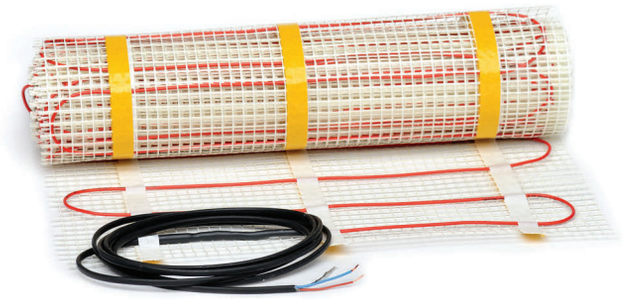
CTAE-200
twin conductor heating mat

COMFORT HEAT

CTAE-200 is a twin conductor heating mat of **200 W/m²** output with extra aluminium foil braid and has a memory. It is self-adhesive on the concrete base. This heating mat is used for floor heating in bathrooms and other densely furnished rooms of little floor space. It is also suitable for floor heating in winter gardens and large conservatories. Greenline design, the environmentally friendly heating mat, has no lead.

Floor heating mat CTAE-200 is designed for easy installation for both new and renewable floor. It can be laid directly into the adhesive/glue tiles layer.

Installation:
It can be laid directly on concrete or old tiles in a bathroom, kitchen, hall, bedroom, living room, winter garden or other premises under tile, carpet, marble and granite flooring.



TECHNICAL DATA

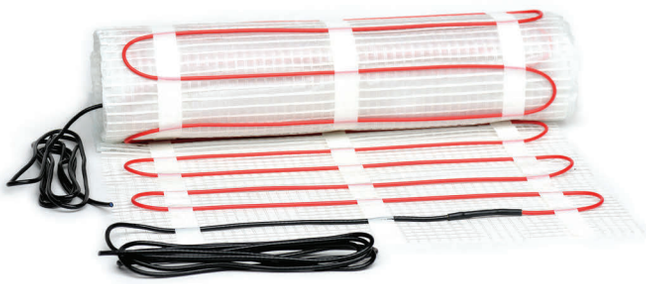
Voltage	230 V
Output	200 W/m²
Thickness of mat	4,2 mm
Max temperature	+70 °C
Connection cable	3 m
Min installation temperature	+5 °C
Conductor insulation	Fluoropolymer (FEP)
Overjacket	Polypropylene (XLPE)
Protection class	IP67
Width of mat	50 cm
Warranty	20 year

PRODUCT LIST

Type	Width × Length (m)	Area(m²)	Output (W)	Order No.
CTAE-200	0,5×2	1	200	85541072
CTAE-200	0,5×3	1,5	300	85541074
CTAE-200	0,5×4	2	400	85541076
CTAE-200	0,5×5	2,5	500	85541078
CTAE-200	0,5×6	3	600	85541080
CTAE-200	0,5×7	3,5	700	85541082
CTAE-200	0,5×8	4	800	85541084
CTAE-200	0,5×10	5	1000	85541086
CTAE-200	0,5×12	6	1200	85541088
CTAE-200	0,5×14	7	1400	85541090
CTAE-200	0,5×16	8	1600	85541092
CTAE-200	0,5×20	10	2000	85541094

COMFORT HEAT

CSCV-150
single conductor heating mat



CSCV-150 is a single conductor heating mat of **150 W/m²** output, with extra aluminium foil braid, drainage wire and tinned copper screen and fibreglass mesh. It is self-adhesive on the concrete base.

Floor heating mat **CSCV-150** is designed for installation for both new and renewable floor. It can be laid directly into the adhesive/ glue tiles layer.

Installation:
It can be laid directly on old tiles in a bathroom, kitchen, hall, bedroom, living room or other premises under tiles, carpet, marble and granite flooring.

EAC CE

TECHNICAL DATA

Voltage	230 V
Output	150 W/m²
Thickness of mat	3,2 mm
Max temperature	+80 °C
Connection cable	2 x 3 m
Min installation temperature	+5 °C
Conductor insulation	Fluoropolymer (FEP)
Overjacket	Polyvinyl chloride (PVC)
Protection class	IP67
Width of mat	50 cm
Warranty	20 year

PRODUCT LIST

Type	Width × Length (m)	Area (m²)	Output (W)	Order No.
CSCV-150	0,5×2	1	150	83020024
CSCV-150	0,5×3	1,5	225	83020025
CSCV-150	0,5×4	2	300	83020026
CSCV-150	0,5×6	3	450	83020028
CSCV-150	0,5×7	3,5	525	83020029
CSCV-150	0,5×8	4	600	83020030
CSCV-150	0,5×10	5	750	83020032
CSCV-150	0,5×12	6	900	83020033
CSCV-150	0,5×14	7	1050	83020034
CSCV-150	0,5×16	8	1200	83020035
CSCV-150	0,5×18	9	1350	83020036
CSCV-150	0,5×20	10	1500	83020037

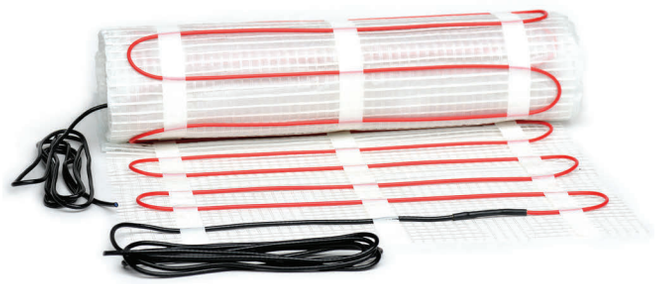
Comfort Heat Ltd. | Phone: + 370 5 2704596 | info@comfortheat.eu

CSCV-100
single conductor heating mat

COMFORT HEAT

CSCV-100 is a single conductor heating mat of **100 W/m²** output, with extra aluminium foil braid (with memory), drainage wire and fibreglass mesh. It is self-adhesive on the concrete base. Floor heating mat **CSCV-100** is suitable for the installation of a new or renewable heated floor. It can be laid directly into the tile adhesive/ glue layer.

Installation:
It can be laid directly on old tiles in a kitchen, hall, room or other premises under the tile, carpet, marble and granite flooring. It can also be laid under wood, parquet, parquet boards and laminated flooring.



TECHNICAL DATA

Voltage	230 V
Output	100 W/m²
Thickness of mat	3,2 mm
Max temperature	+80 °C
Connection cable	2 x 3 m
Min installation temperature	+5 °C
Conductor insulation	Fluoropolymer (FEP)
Overjacket	Polyvinyl chloride (PVC)
Protection class	IP67
Width of mat	50 cm
Warranty	20 year

PRODUCT LIST

Type	Width × Length (m)	Area (m²)	Output (W)	Order No.
CSCV-100	0,5×4	2	200	83020008
CSCV-100	0,5×6	3	300	83020010
CSCV-100	0,5×7	3,5	350	83020011
CSCV-100	0,5×8	4	400	83020012
CSCV-100	0,5×9	4,5	450	83020013
CSCV-100	0,5×10	5	500	83020014
CSCV-100	0,5×12	6	600	83020015
CSCV-100	0,5×14	7	700	83020016
CSCV-100	0,5×16	8	800	83020017
CSCV-100	0,5×18	9	900	83020018
CSCV-100	0,5×20	10	1000	83020019

CATE-80
aluminium heating mat

COMFORT HEAT

CATE-80 is a twin conductor, an aluminium heating mat of **80 W/m²** output for "dry" room heating. It is suitable for the installation of a new or renewable heated floor. It can be laid directly under laminate or parquet using "dry" installation method (without adhesive/ glue).

Installation:

It can be laid directly under parquet, parquet board or laminate in a kitchen, lounge, children's room or other premises.

TECHNICAL DATA

Voltage	230 V
Type	Twin conductor
Output	80 W/m²
Thickness of mat	3 mm
Max temperature	+80 °C
Connection cable	3 m
Min installation temperature	+5 °C
Conductor insulation	Fluoropolymer (FEP)
Protection class	IP67
Width of mat	50 cm
Warranty	10 year

PRODUCT LIST

Type	Width × Length (m)	Area (m²)	Output (W)	Order No.
CATE-80	0,5×6	3	240	83020058
CATE-80	0,5×8	4	320	83020060
CATE-80	0,5×10	5	400	83020062
CATE-80	0,5×12	6	500	83020063
CATE-80	0,5×14	7	560	83020064
CATE-80	0,5×16	8	640	83020065
CATE-80	0,5×18	9	720	83020066
CATE-80	0,5×20	10	800	83020067

COMFORT HEAT

CTAV-10
twin conductor heating cable

CTAV-10 is a twin conductor heating cable of **10 W/m** output, with aluminium tape and tinned copper screen with memory. This thin cable with memory can be laid directly into concrete or directly into tile adhesive/ glue layer for installation of the new or renewable floor. CTAV-10 is accustomed to pipe frost protection whereby the cable is installed on pipe, under thermal insulation layer, compatible within cold stores.

Installation: It can be laid directly on concrete or old tiles in a kitchen, hall, room or other premises under tile, as well as marble, granite, carpet, parquet, parquet boards and laminate flooring. CTAV-10 can also be used for heating installation under wood flooring and pipe frost protection, installing the cable on the pipe under the thermal insulation layer or under the thermal insulation layer in cold stores.

TECHNICAL DATA

Voltage	230 V AC
Output	10 W/m
Diameter	4,6 mm
Max temperature	+70 °C
Connection cable	3 m
Min installation temperature	+5 °C
Conductor insulation	Fluoropolymer (FEP)
Overjacket	Polyvinyl chloride (PVC)
Min bending radius	8 diameters
Protection class	IP67
Warranty	20 year

PRODUCT LIST

Type	Voltage (V)	Length (m)	Output (W)	Order No.
CTAV-10	230	10	120	82244300
CTAV-10	230	20	250	82244305
CTAV-10	230	30	320	82244306
CTAV-10	230	40	400	82244310
CTAV-10	230	50	520	82244315
CTAV-10	230	60	600	82244320
CTAV-10	230	70	750	82244325
CTAV-10	230	90	950	82244330
CTAV-10	230	120	1100	82244335
CTAV-10	230	130	1300	82244340
CTAV-10	230	160	1700	82244345
CTAV-10	230	195	2000	82244350

CTAV-18
twin conductor heating cable

COMFORT HEAT

CTAV-18 is a twin conductor heating cable of **18 W/m** output, with aluminium tape and tinned copper screen. This thin cable "with memory" is used for installing a heating system within thin or thick floor constructions and renewable floor (as main, additional or accumulation heating), as well as for cold zones heating next to large windows. Also, used for frost protection of outdoor steps under stone or tiles (within adhesive/ glue layer of tiles), for frost protection of water, sewerage and technological pipes in unheated premises.

Installation: It can be laid directly onto concrete or old tiles, under tiles, marble, granite, carpet, parquet boards and laminate flooring in a kitchen, hall, bedroom, living room and other premises. This cable can also be installed under stone or tile covering (in tile adhesive/ glue layer), in outdoor steps, as well as for pipe protection, installing it on pipes, under thermal insulation layer.

EAC CE

TECHNICAL DATA

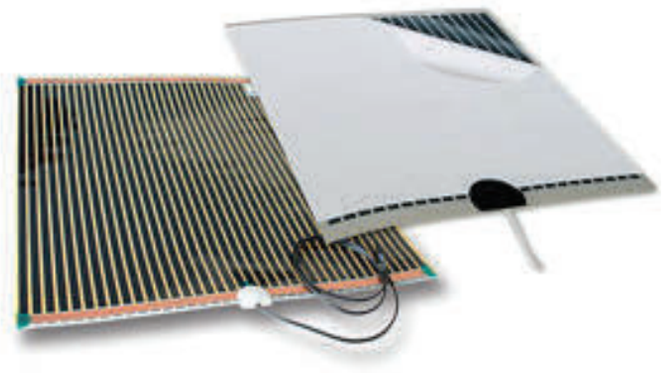
Voltage	230 V AC
Output	18 W/m
Diameter	4,6 mm
Max temperature	+70 °C
Connection cable	3 m
Min installation temperature	+5 °C
Conductor insulation	Fluoropolymer (FEP)
Overjacket	Polyvinyl chloride (PVC)
Min bending radius	8 diameters
Protection class	IP67
Warranty	20 year

PRODUCT LIST

Type	Voltage (V)	Length (m)	Output (W)	Order No.
CTAV-18	230	8	160	82244200
CTAV-18	230	14	260	82244205
CTAV-18	230	18	320	82244206
CTAV-18	230	24	420	82244210
CTAV-18	230	28	520	82244215
CTAV-18	230	34	600	82244220
CTAV-18	230	46	830	82244225
CTAV-18	230	57	1000	82244230
CTAV-18	230	69	1200	82244235
CTAV-18	230	83	1500	82244240
CTAV-18	230	100	1700	82244245
CTAV-18	230	123	2200	82244250
CTAV-18	230	150	2600	82244255
CTAV-18	230	166	2850	82244260

COMFORT HEAT

CAHF-25|50|100 mirror heating foil



Mirror heating foil **CAHF-25|50|100** is used to prevent mirror steam. Whether it is a small or large bathroom, it is an ideal solution to mirror steam in houses, apartments and hotels.

Installation:

It is quick and easily installed, applied on by simply sticking the adhesive foil on the back of a mirror. These products are low - cost and easily installed; designed for new and renewable bathrooms. The heating can be switched on/ off using a switch of a bathroom or mirror light.

CE

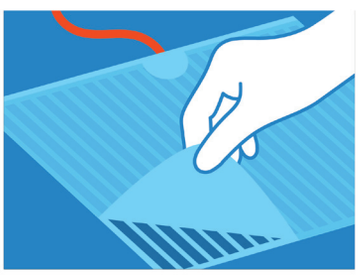
TECHNICAL DATA

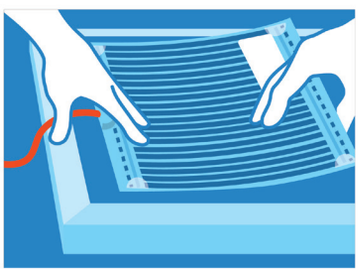
Voltage	230 V
Output	25 W / 50 W / 100 W
Thickness of mat	1 mm
Connection cable	1 m
Protection class	IP44
Warranty	2 year

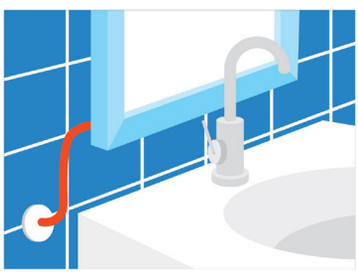
PRODUCT LIST

Type	Output (W)	Dimensions (mm)	Order No.
CAHF-25	25	274x574	96651860
CAHF-50	50	524x519	96651870
CAHF-100	100	524x1004	96651880

INSTALLATION DIAGRAM





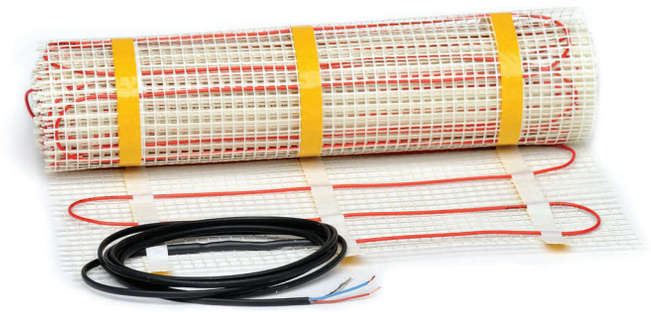


CTAE-160
mirror heating mat

COMFORT HEAT

CTAE-160 is a twin conductor heating mat. It is easily secured to the backside of a mirror and is the ideal solution to mirror steam in a new or renewable house, apartments and hotel bathrooms.

Installation:
It is installed by simply sticking an adhesive mat on the back of a mirror. Low-cost and easy installation. The heating can be switched on/off using a switch of a bathroom or mirror light.



TECHNICAL DATA

Voltage	230 V
Output	80 W / 160 W
Thickness of mat	4,2 mm
Connection cable	3 m
Max temperature	+70 °C
Protection class	IP67
Warranty	20 year

PRODUCT LIST

Type	Output (W)	Dimensions (m)	Area (m^2)	Order No.
CTAE-160	80	0,47x1	0,5	96651820
CTAE-160	160	0,47x2	1,0	96651840

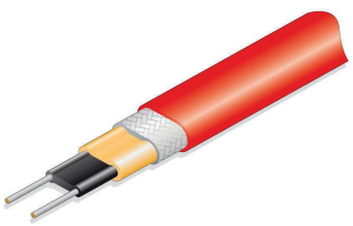
HW R2-T self-regulating cable for water heating

COMFORT HEAT

HW is a self-regulating heating cable designed to compensate for the heat losses from hot water distribution systems. When hot taps are infrequently used, the water residing in the distribution pipework cools and is usually run to waste before hot water from the storage cylinder arrives at the tap. Its power output self-regulates in response to the pipe temperature.

By applying **HW** to the pipework (beneath the thermal insulation), heat losses are eliminated, and the water is maintained at the required temperature (45-70^{0}C).

Installation: HW is quick and simple. The cable can be cut to match the exact length of the pipework. Termination, splicing and power connection components are all provided in convenient kits.



EAC CE

TECHNICAL DATA

Voltage	220/277 V
Output	15W/m (at +55 °C), 15W/m (at +70 °C)
Dimensions	15,4x6,5 mm
Overjacket	Thermoplastic (CT)
Min bending radius	40 mm
Max temperature:	
·Cable switched on	+100 °C
·Cable switched off	+100 °C
Min install. temperature	-40 °C
Maintenance temp.	45 -70°C

MAXIMUM LENGTH OF THE CABLE (M) IN ONE ELECTRICAL CIRCUIT DEPENDS ON THE TEMPERATURE:

Ambient temperature	HW R			HW P		
	230 V					
	6 A	10 A	16 A	6 A	10 A	16 A
+18 °C	32	52	82	24	38	62
0 °C	26	42	68	20	32	50

RECOMMENDED INSULATION THICKNESS (MM):

Ambient temperature		Pipe size (mm)					
		15	22	28	35	42	54
HW R	+60 °C	25	30	40	50	60	75
	+55 °C	20	25	30	40	50	60
	+50°C	15	20	25	30	40	50
HW P	+45-70 °C	30	40	50	60	75	75

PRODUCT LIST

Type	Order No.
31HW R2-T	98300957
45HW P2-T	98300819

ACCESSORIES

Aluminium tape	Connection kit	ETN4-1999	ETI-1221
			

COMFORT
HEAT

C101
electronic thermostat

The electronic thermostat **C101** with a floor temperature sensor has a setback temperature function.

C101 thermostat is designed for floor heating control and is wall-mounted in all rooms. It comes with 3 m length floor temperature sensor cable.

EAC CE

THERMOSTATS FOR INDOOR APPLICATIONS

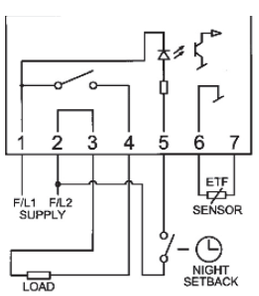
TECHNICAL DATA

Voltage	230 V AC 50/60 Hz
Max load	16A / 3600 W
On / off switch	Built-in interrupter 1pole
Temperature range	+5 °C ... +45 °C
Hysteresis	+/-0,4 °C
Sensor type	Floor (NTC)
Sensor resistance	14,8 kOhm / 20 °C
Temperature setback	fixed 5 °C
Light indicator	LED
Dimensions	84x84x28 mm
Protection class	IP20
Warranty	3 year

PRODUCT LIST

Type	Temperature range	Sensor	Order No.	Model
C 101	+5 °C ... +45 °C	Floor, 3 m	19111801	Elko

WIRING DIAGRAM



Comfort Heat Ltd. | Phone: + 370 5 2704596 | info@comfortheat.eu

C501
electronic thermostat

COMFORT HEAT

The electronic thermostat **C501** with a floor temperature sensor has a night setback option to slack off up to +5 °C. The thermostat is wall-mounted into a standard recessed box.

It comes with 3 m length floor temperature sensor cable.

EAC CE

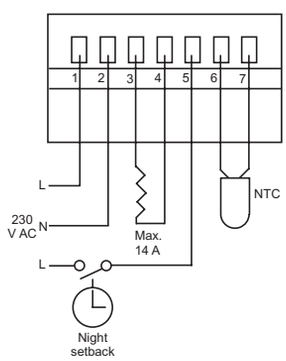
TECHNICAL DATA

Voltage	230 V AC 50/60 Hz
Max load	14 A / 3200 W
On / off switch	Built-in interrupter 1pole
Temperature range	+5 °C ... +40 °C
Hysteresis	+/-0,4 °C
Setting of temperature range	Min / max
Sensor type	Floor (NTC)
Sensor resistance	14,8 kOhm / 20 °C
Temperature setback	fixed 5 °C
Light indicator	LED
Dimensions	80x80x50 mm
Protection class	IP21
Warranty	3 year

PRODUCT LIST

Type	Temperature range	Sensor	Order No.	Model
C 501	+5 °C ... +40 °C	Floor, 3 m	19115952	Jussi

WIRING DIAGRAM



COMFORT HEAT

C501
electronic thermostat

The electronic thermostat **C501** with a floor temperature sensor. The thermostat is wall-mounted into a standard recessed box.

It comes with 3 m length floor temperature sensor cable.

EAC CE

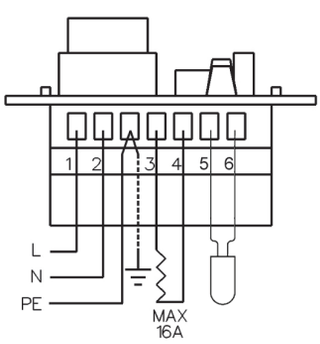
TECHNICAL DATA

Voltage	240 V AC 50/60 Hz
Max load	16 A / 3600 W
On / off switch	Built-in interrupter 2 pole
Temperature range	+10 °C ... +50 °C
Hysteresis	+/-0,4 °C
Setting of temperature range	Min / max
Sensor type	Floor (NTC)
Sensor resistance	14,8 kOhm / 20 °C
Light indicator	LED
Dimensions	84x84x50 mm
Protection class	IP20
Warranty	3 year

PRODUCT LIST

Type	Temperature range	Sensor	Order No.	Model
C 501	+10 °C ... +50 °C	Floor, 3 m	19115953	Elko

WIRING DIAGRAM



Comfort Heat Ltd. | Phone: + 370 5 2704596 | info@comfortheat.eu

Comfort ECO thermostat

COMFORT HEAT

Comfort ECO electronic thermostat with floor sensor is suitable for flush mounting in a standard recessed box. Thermostat provides optimal comfort avoiding cold tiles during spring and autumn, or as protection against damaging wooden floors.

Comfort ECO thermostat has a built-in timer for automatic night setback and possibility to activate night setback or frost protection via external input. With a temperature setting range of 0-40°C, a night setback, frost protection and limit temperatures thermostat ensures comfort and protects property from excessive temperatures. **Comfort ECO** thermostat comes with present heating schedules suitable for most homes.

EAC CE

THERMOSTATS FOR INDOOR APPLICATIONS

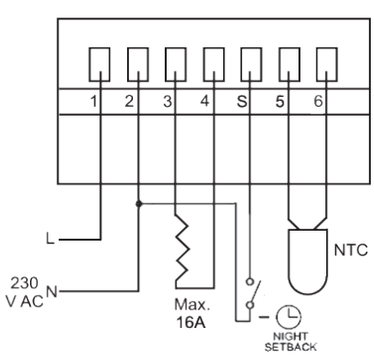
TECHNICAL DATA

Voltage	230 V AC 50/60 Hz
Max load	16 A / 3600 W
Control pollution degree	2
On / off switch	Built-in interrupter 2 pole
Pre- programmed in factory	I-V, VI-VII mode
Design of control	PWM/PI
Output relay	Make contact - SPST - NO
Display	Segment
Stand by power	<0,5 W
Temperature range	+0°C...+40°C
Sensor type	Floor (NTC) and room
Sensor resistance	14,8 kOhm / 20 °C
Dimensions	84x84x20 mm
Protection class	IP21
Warranty	3 year

PRODUCT LIST

Type	Temperature range	Sensor	Order No.	Model
Comfort ECO	+0°C ... +40°C	Floor and room, 3m	19115948	Elko

WIRING DIAGRAM



- Sleek design
- User-friendly / intuitive menu
- Easy installation
- Energy-efficient
- Offset adjustment

C511T
electronic clock thermostat

COMFORT HEAT

Modern, electronic clock thermostat **C511T** with a fine LCD display is designed for floor heating control. The thermostat comes with a floor temperature sensor and integral temperature adjustment control; a pre-set saving function, and includes the energy consumption management system. Pre-programmed factory settings are adjusted to European climate, and weekly mode. Factory settings and data are retrieved beyond power failure.

The thermostat has an adaptive function for work with other producer's sensors.

C511T is a wall-mounted into a standard recessed box.

EAC CE

THERMOSTATS FOR INDOOR APPLICATIONS

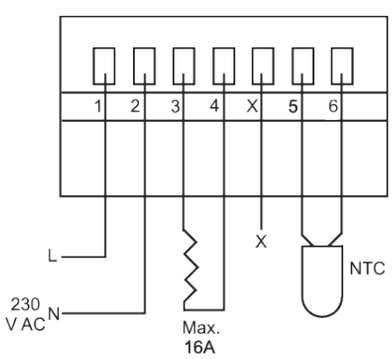
TECHNICAL DATA

Voltage	230 V AC 50/60 Hz
Max load	16 A / 3600 W
On / off switch	Interrupter 2 pole
Temperature range	+5 °C ... +40 °C
Hysteresis	+/-0,4 °C
Saved time	100 hours
Saved programming (ECU)	Unlimited time
Pre-programmed in factory	I-V, VI-VII mode
Sensor type	Floor (NTC)
Sensor resistance	14,8 kOhm at 20 °C
Energy consumption indicator (floor heating time %)	2 days, 30 days, 365 days
Dimensions	84x84x20 mm
Protection class	IP21
Warranty	3 year

PRODUCT LIST

Type	Temperature range	Sensor	Order No.	Model
C511T	+5 °C ... +40 °C	Floor, 3 m	19115966	Elko

WIRING DIAGRAM



COMFORT
HEAT

Comfort Touch thermostat

The electronic clock thermostat **Comfort Touch**, with a fine LCD display, comes with a floor temperature sensor and energy consumption management system.

Comfort Touch thermostat has pre-programmed functions adjusted to Lithuanian climate and weekly mode. Factory settings and data are retrieved beyond power failure.

The thermostat is a wall-mounted into a standard recessed box. Energy consumption management system informs of percentage consumption of adjusted temperature levels, what your monthly consumption is, and upcoming year's expenditure.

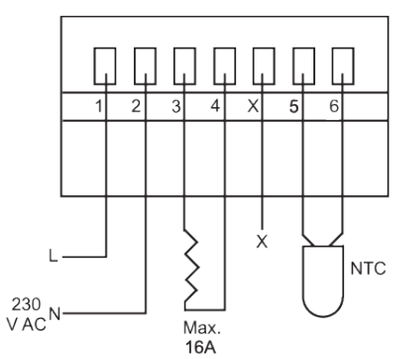
TECHNICAL DATA

Voltage	100-240 V AC 50/60 Hz
Max load	16 A / 3600 W
Screen	2", 176x220 points, touch screen
On / off switch	Built-in interrupter 2 pole
Standby mode energy consumption	< 0,5 W
Temperature range	+5 °C ... +40 °C
Hysteresis	0,4 °C
Energy consumption and saved time memory	5 year
Saved programming	Unlimited time
Sensor type	Floor (NTC) and room
Sensor resistance	14,8 kOhm at 20 °C
Dimensions	84x84x40 mm
Protection class	IP21
Warranty	3 year

PRODUCT LIST

Type	Temperature range	Sensor	Order No.	Model
Comfort Touch White	+5 °C ... +40 °C	Floor and room, 3m	19115967	Elko
Comfort Touch Black	+5 °C ... +40 °C	Floor and room, 3m	19115968	Elko

WIRING DIAGRAM



Comfort Heat Ltd. | Phone: + 370 5 2704596 | info@comfortheat.eu

Comfort WiFi thermostat

COMFORT HEAT

User-friendly **Comfort WiFi** thermostat allows you to control heating via a smartphone with simple and intuitive App from anywhere around the world. **Connecting to the App SWATT takes seconds.** With the **Comfort WiFi** thermostat App, you can control thermostat combined or individual heating zones. The App has multiple User Access and can control several residential houses or apartments. A **Comfort WiFi** thermostat is easily compatible with other producer's sensors. Smart, detailed energy consumption data allows you to manage your energy consumption. Each **Comfort WiFi** thermostat has built-in WiFi, which does not need any additional components such as gateways. The built-in wizard takes you simply through every single step, ensuring trouble-free commissioning.

Download on the App Store | GET IT ON Google Play

EAC CE

THERMOSTATS FOR INDOOR APPLICATIONS

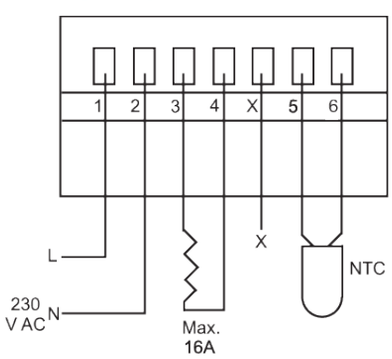
TECHNICAL DATA

Voltage	100-240 V AC AC 50/60 Hz
Max load	16 A / 3600 W
On / off switch	Built-in interrupter 2 pole
Control principle	PWM/PI
Standby mode energy consumption	< 0,5 W
Energy consumption and saved time memory	5 year
Wi-Fi	IEEE 802.11 b/g/n – 2.4GHz
Security	WPA/WPA2
Temperature range	+5°C...+40°C
Sensor type	Floor (NTC) and room
Sensor resistance	14,8 kOhm at 20 °C
Dimensions	84x84x40 mm
Protection class	IP21
Warranty	3 year

PRODUCT LIST

Type	Temperature range	Sensor	Order No.	Model
Comfort WiFi White	+5°C ... +40°C	Floor and room, 3m	19115971	Elko
Comfort WiFi Black	+5°C ... +40°C	Floor and room, 3m	19115972	Elko

WIRING DIAGRAM



Full control. Any time, anywhere.

Key features are

- Trouble-free setup and use
- No Gateway required
- Redundant control - full control at the thermostat
- Full App control of
- Heating Zones
- Individual thermostats
- Heating schedules
- Support of Multiple User Access

Connecting to the app takes seconds.

The user-friendly Comfort Heat app SWATT offers detailed assistance on how to install and connect with the Comfort WiFi thermostat.

Key features are

- Multiple languages for highest user-friendliness
- Wizard guidance for trouble-free installation
- Integrated QR-reader for easiest connection with thermostats
- The full graphical user interfaces for ease of use

CFTAV-300
outdoor heating mat

COMFORT HEAT

CFTAV-300 twin conductor heating mat of **300 W/m²** output, made with double insulation (M2), an aluminium foil and tinned copper screen (with memory), conductor fluoropolymer insulation and polypropylene overjacket. The cable is UV resistant.

It is designed for stairs, pavements, driveways, entrances to car parks, bridges, landing of ramps, etc.), ice prevention, or thawing soil in winter (construction sites).

Installation: CFTAV-300 can be laid into concrete or stone dust layer, directly under tiles, with the purpose of frost protection of entrances, driveways, car parks, ramps, pavements and bridges. It can be laid directly on frozen soil covering it with rock wool mats afterwards.

TECHNICAL DATA

Voltage	230 V
Type	Twin conductor
Output	300 W/m²
Max temperature	+80 °C
Connection cables	1 x 5 m
Min installation temperature	+5 °C
Conductor insulation	Fluoropolymer (FEP) + (XLPE)
Overjacket	Polyvinyl chloride (PVC)
Protection class	IP67
Width of mat	50 cm
Warranty	20 year

PRODUCT LIST

Type	Width × Length (m)	Area (m²)	Output (W)	Order No.
CFTAV-300	0,5×3	1,5	450	85510510
CFTAV-300	0,5×4	2	600	85510515
CFTAV-300	0,5×6	3	900	85510520
CFTAV-300	0,5×8	4	1200	85510525
CFTAV-300	0,5×10	5	1500	85510540
CFTAV-300	0,5×12	6	1800	85510545
CFTAV-300	0,5×14	7	2100	85510550
CFTAV-300	0,5×18	9	2700	85510555
CFTAV-300	0,5×20	10	3000	85510560

COMFORT
HEAT

CFSAV-300
outdoor heating mat

CFSAV-300 single conductor heating mat of **300 W/m²** output, made with double insulation (M2), an aluminium foil and tinned copper screen (with memory), conductor fluoropolymer insulation and polypropylene overjacket. The cable is UV resistant.

It is designed for stairs, pavements, driveways, entrances to car parks, bridges, landing of ramps, etc., ice prevention, or thawing soil in winter (construction sites).

Installation: CFSAV-300 can be laid into concrete or stone dust layer, directly under tiles, with the purpose of frost protection of entrances, driveways, car parks, ramps, pavements and bridges. It can be laid directly on frozen soil covering it with rock wool mats afterwards.

TECHNICAL DATA

Voltage	400 V
Type	Single conductor
Output	300 W/m²
Max temperature	+80 °C
Connection cables	2 x 5 m
Min installation temperature	+5 °C
Conductor insulation	Fluoropolymer (FEP) + (XLPE)
Overjacket	Polyvinyl chloride (PVC)
Protection class	IP67
Width of mat	50 cm
Warranty	20 year

PRODUCT LIST

Type	Width × Length (m)	Area (m²)	Output (W)	Order No.
CFSAV-300	0,5×18	9	2700	85517141
CFSAV-300	0,5×24	12	3600	85517144
CFSAV-300	0,5×28	14	4200	85517145
CFSAV-300	0,5×32	16	4800	85517147
CFSAV-300	0,5×36	18	5400	85517149
CFSAV-300	0,5×44	22	6600	85517151

CTACV-20
twin conductor heating cable

COMFORT HEAT

CTACV-20 is a twin conductor heating cable of **20 W/m** output, and it has double protection (M2), aluminium tape and tinned copper screen with memory, fluoropolymer insulation and polypropylene overjacket. The heating cable is UV resistant. It is designed for roof ice and snow melting systems (roof gutters and downpipes) and the soil frost prevention (ramps, driveways, entrances to car parks, pavements, bridges, stairs, etc.), and frozen soil in winter (construction sites).

Installation: It can be laid in roof gutters, downpipes, roof edges and into concrete or stone dust layer under tiles for frost protection of entrances, driveways, car parks, ramps, pavements and bridges. The cable can be laid directly on frozen soil, whereby covering it with rockwool mats.

EAC CE

TECHNICAL DATA

Voltage	230 V
Output	20 W/m
Diameter	5,9 mm
Max temperature	+80 °C
Connection cable	5 m
Min installation temperature	+5 °C
Conductor insulation	Fluoropolymer (FEP) + (XLPE)
Overjacket	Polyvinyl chloride (PVC)
Min bending radius	8 diameters
Protection class	IP67
Warranty	20 year

PRODUCT LIST

Type	Voltage (V)	Length (m)	Output (W)	Order No.
CTACV-20	230	8	160	82000500
CTACV-20	230	14	270	82000505
CTACV-20	230	17	340	82000510
CTACV-20	230	22	450	82000515
CTACV-20	230	27	540	82000520
CTACV-20	230	32	640	82000525
CTACV-20	230	39	780	82000535
CTACV-20	230	44	870	82000540
CTACV-20	230	54	1070	82000550
CTACV-20	230	64	1290	82000555
CTACV-20	230	79	1580	82000560
CTACV-20	230	92	1850	82000565
CTACV-20	230	117	2300	82000570
CTACV-20	230	141	3400	82000575

COMFORT HEAT

CTACV-30
twin conductor heating cable

CTACV-30 is a twin conductor heating cable of **30 W/m** output, and it has double protection (M2), aluminium tape and tinned copper screen with memory, fluoropolymer insulation and polypropylene overjacket. The heating cable is UV resistant.

It is designed for roof ice and snow melting systems (roof gutters and downpipes) and ground frost protection of ground (ramps, driveways, entrances, car parks, pavements, bridges, stairs, etc.), and frozen soil in winter (construction sites).

Installation: It can be laid in roof gutters, downpipes, roof edges and into concrete or stone dust layer under tiles for frost protection of entrances, driveways, car parks, ramps, pavements and bridges. The cable can be laid directly on frozen soil whereby covering it with rock wool mats.

TECHNICAL DATA

Voltage	230 V
Output	30 W/m
Diameter	5,9 mm
Max temperature	+80 °C
Connection cable	5 m
Min installation temperature	+5 °C
Conductor insulation	Fluoropolymer (FEP) + (XLPE)
Overjacket	Polyvinyl chloride (PVC)
Min bending radius	8 diameters
Protection class	IP67
Warranty	20 year

PRODUCT LIST

Type	Voltage (V)	Length (m)	Output (W)	Order No.
CTACV-30	230	7	195	82253505
CTACV-30	230	11	340	82253510
CTACV-30	230	14	420	82253515
CTACV-30	230	18	560	82253520
CTACV-30	230	22	670	82253525
CTACV-30	230	26	800	82253530
CTACV-30	230	32	970	82253535
CTACV-30	230	36	1060	82253540
CTACV-30	230	44	1300	82253545
CTACV-30	230	52	1600	82253550
CTACV-30	230	65	1940	82253555
CTACV-30	230	76	2250	82253560
CTACV-30	230	96	2800	82253565
CTACV-30	230	114	3400	82253570

CTACV-30
twin conductor heating cable

COMFORT HEAT

CTACV-30 is a twin conductor heating cable of **30 W/m** output, and it has double protection (M2), aluminium tape and tinned copper screen with memory, fluoropolymer insulation and polypropylene overjacket. The heating cable is UV resistant. It is designed for roof ice and snow melting systems (roof gutters and downpipes) and ground frost prevention (ramps, driveways, entrances to car parks, pavements, bridges, stairs, etc.), and frozen soil in winter (construction sites).

Installation: It can be laid in roof gutters, downpipes, roof edges and into concrete or stone dust layer under tiles for frost protection of entrances, driveways, car parks, ramps, pavements and bridges. The cable can be laid directly on frozen soil whereby covering it with rock wool mats.

EAC CE

TECHNICAL DATA

Voltage	400 V
Output	30 W/m
Diameter	5,9 mm
Max temperature	+80 °C
Connection cable	5 m
Min installation temperature	+5 °C
Conductor insulation	Fluoropolymer (FEP) + (XPLE)
Overjacket	Polyvinyl chloride (PVC)
Min bending radius	8 diameters
Protection class	IP67
Warranty	20 year

PRODUCT LIST

Type	Voltage (V)	Length (m)	Output (W)	Order No.
CTACV-30	400	12	360	82253605
CTACV-30	400	20	600	82253610
CTACV-30	400	24	720	82253615
CTACV-30	400	32	960	82253620
CTACV-30	400	39	1170	82253625
CTACV-30	400	46	1380	82253630
CTACV-30	400	56	1680	82253635
CTACV-30	400	63	1890	82253640
CTACV-30	400	76	2280	82253645
CTACV-30	400	92	2760	82253650
CTACV-30	400	114	3320	82253655
CTACV-30	400	132	3960	82253660
CTACV-30	400	163	4890	82253665
CTACV-30	400	196	5880	82253670

COMFORT HEAT

PipeHeat-10
self-regulating heating cable with plug

PipeHeat-10 is a self-regulating heating cable with a plug, of **10 W/m** output, and Adflex (polyolefin) overjacket. **PipeHeat-10** can be installed directly on a pipe's surface or inserted into pipe through a metal fitting otherwise.

PLUG and PLAY. **PipeHeat-10** is designed for a direct connection: just plug it into a socket. When the temperature gets below 5 °C, plug in the cable, or install a temperature control system, save your time and money. The wide range of **PipeHeat-10** cables serves your choice for a proper length and power output that stops pipes from freezing.

EAC CE

TECHNICAL DATA

Voltage	230 V, +10/-15 %
Type	Self-regulating
Dimensions	7,9x5,6 mm
Connection cable	1,5m with plug
Max operational temperature	+65 °C (cable switched on)
Min ambient temperature	-30 °C
Overjacket	Adflex (polyethylene)
Min bending radius	35 mm
Protection class	IP67
Warranty	2 year

PRODUCT LIST

Type	Cable length (m)	Output (W)	Order No.
PipeHeat-10	1	10	33761001
PipeHeat-10	2	20	33761002
PipeHeat-10	3	30	33761003
PipeHeat-10	4	40	33761004
PipeHeat-10	5	50	33761005
PipeHeat-10	6	60	33761006
PipeHeat-10	7	70	33761007
PipeHeat-10	8	80	33761008
PipeHeat-10	9	90	33761009
PipeHeat-10	10	100	33761010
PipeHeat-10	11	110	33761011
PipeHeat-10	12	120	33761012
PipeHeat-10	15	150	33761015
PipeHeat-10	17	170	33761017
PipeHeat-10	20	200	33761020

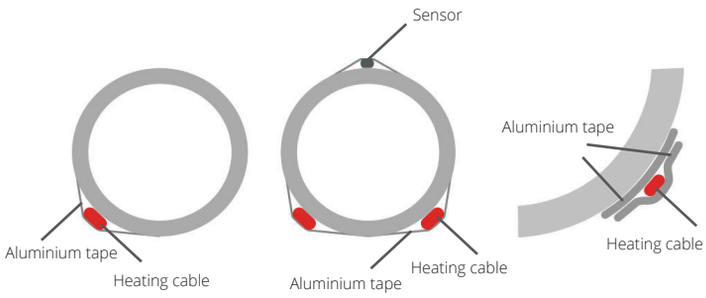
ACCESSORIES

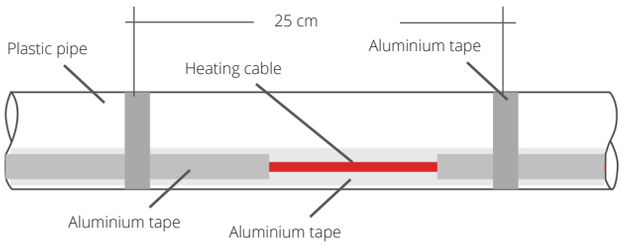
Aluminium tape	Metal fitting M20/25	Thermostat ETV-1991
		

PipeHeat-10
pipe frost protection and intsallation

COMFORT HEAT

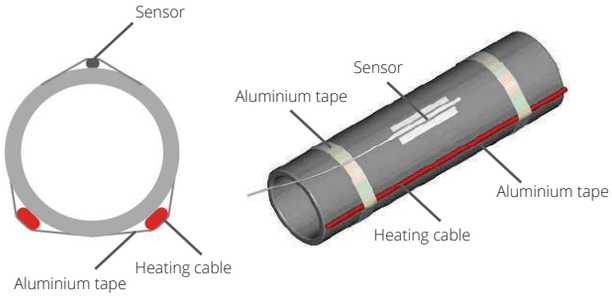
PLASTIC PIPE FROST PROTECTION

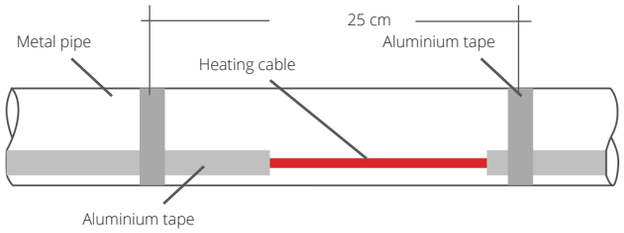




Mounting the **PipeHeat-10** on a ***plastic pipe***, attach the aluminium tape along the pipe for better heat distribution between the cable and pipe. Then fix the **PipeHeat-10** with aluminium tape through all cable length. To make sure the cable is fixed correctly and will not get loose, fix the cable with aluminium tape around the pipe each 25 cm. We recommend the control system with a sensor that measures the pipe's temperature and switches the heating ON/OFF at 5 ^{0}C to minimise energy consumption.

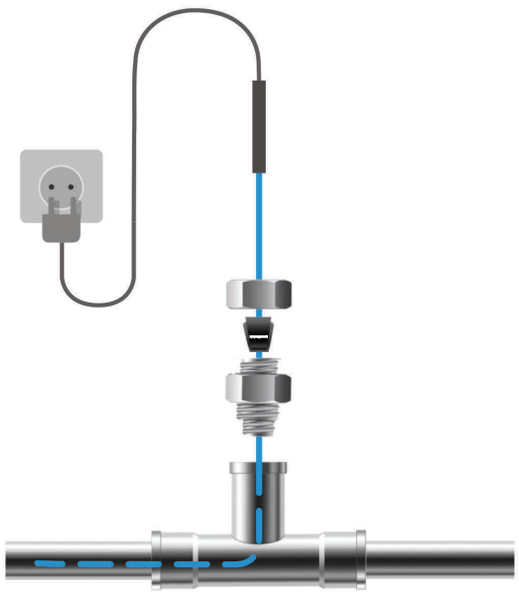
METAL PIPE FROST PROTECTION

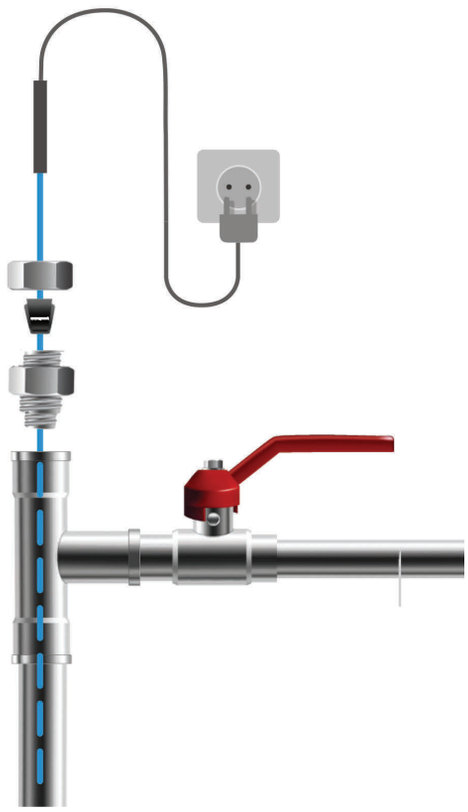




Mounting the **PipeHeat-10** on a ***metal pipe***, fix the **PipeHeat-10** with aluminium tape through all cable length. If the diameter of the pipe is large, 2 or 3 paralel lines of the **PipeHeat-10** can be installed. To make sure the cable is fixed correctly and will not get loose, fix the cable with aluminium tape around the pipe each 25 cm. We recommend the control system with a sensor that measures the pipe's temperature and switches the heating ON/OFF at 5 ^{0}C to minimise energy consumption.

PipeHeat-10 installation inside the pipe





RoofHeat
self-regulating heating cable with a plug

COMFORT HEAT

RoofHeat is a self-regulating cable with a connection cable and a plug of **18/36 W/m** output for ice protection of roof gutters and downpipes and frost protection of roof systems. Self-regulating cable automatically adjusts its output to ambient temperature. **RoofHeat** is UV resistant and ensures durable frost protection of roof systems.

TECHNICAL DATA

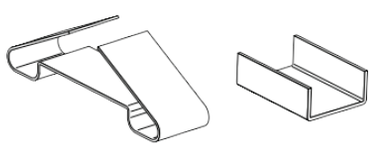
Voltage	230 V, +10/-15 %
Type	Self-regulating
Dimensions	12,95x5,95 mm
Connection cable	1,5 m
Max operational temperature	+60 °C (cable switched on)
Max withstanding temperature	+60 °C (cable switched off)
Min ambient temperature	-40 °C
Overjacket	Thermoplastic
Jacket	UV resistant
Min bending radius	35 mm
Protection class	IP67
Warranty	2 year

PRODUCT LIST

Type	Cable length (m)	Voltage (V)	Order No.
RoofHeat-18/36	3	230	33763003
RoofHeat-18/36	5	230	33763005
RoofHeat-18/36	7	230	33763007
RoofHeat-18/36	9	230	33763009
RoofHeat-18/36	12	230	33763012
RoofHeat-18/36	15	230	33763015
RoofHeat-18/36	20	230	33763020
RoofHeat-18/36	22	230	33763022
RoofHeat-18/36	25	230	33763025
RoofHeat-18/36	30	230	33763030

ACCESSORIES

Fixing bracket FB/GT	FB/GT/S fixing clip	Thermostat DTR-E 3102



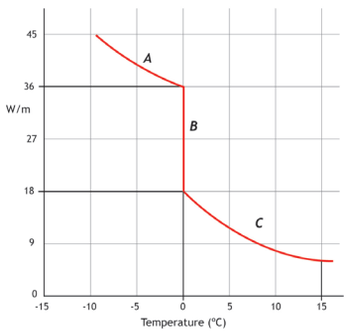
COMFORT HEAT

GT2 | GT2-F
self-regulating heating cable for downpipe protection

GT2 is a self-regulating heating cable of **18/36 W/m** output for ice protection of roof gutters and downpipes and frost protection of drain systems. It automatically adjusts its output in response to ambient temperature. The cable is UV resistant. The cable is produced with nanotechnologies, ensuring for long-lasting properties benefits of roof systems.

GT2-F self-regulating heating cable with fluoropolymer overjacket can be installed in chemically hazardous zones, such as gutters and downpipes of bitumen roofs, car parking areas and sewerage systems. The cable is available in 200-300 m reels.

TECHNICAL DATA



Output	18 W/m (at 0 °C) 36 W/m (in ice at 0 °C)
Voltage	220/240 V AC
Dimensions	12,59x5,95; 12,65x5,65
Overjacket	UV resistant
GT2	Thermoplastic
GT2-F	Fluoropolymer (F)
Min bending radius	35 mm
Max temperature	+60°C ON or OFF
Min install. temperature	-40°C

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

MAXIMUM LENGTH OF THE CABLE (M) IN ONE ELECTRICAL CIRCUIT DEPENDS ON THE TEMPERATURE:

Ambient temperature	230 V				
	6 A	10 A	16 A	20 A	32 A
+10 °C	26	42	68	84	90
0 °C	24	38	62	78	86
-15 °C	20	34	54	68	80

PRODUCT LIST

Type	Order No.
GT2	30116023
GT2-F	30116024

ACCESSORIES

Self-regulating cable junction seal	FB/GT fixing bracket	FC/GT/R fixing bracket	Thermostat ETO2-4550
			

GT2
self-regulating heating cable with connection cable

COMFORT HEAT

GT2 is a self-regulating cable with connection cable of **18/36 W/m** output for ice protection of roof gutters and downpipes and frost protection of roof systems. Self-regulating cable automatically adjusts its output to ambient temperature. **GT2** is UV resistant and ensures durable frost protection of roof systems.

EAC CE

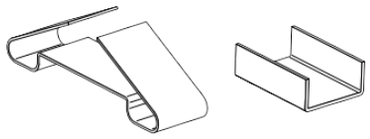
TECHNICAL DATA

Voltage	230 V, +10/-15 %
Type	Self-regulating
Dimensions	12,95x5,95 mm
Connection cable	5 m
Max operational temperature	+60 °C (cable switched on)
Max withstanding temperature	+60 °C (cable switched off)
Min ambient temperature	-40 °C
Overjacket	Thermoplastic
Jacket	UV resistant
Min bending radius	35 mm
Protection class	IP67
Warranty	2 year

PRODUCT LIST

Type	Cable length (m)	Voltage (V)	Order No.
GT2-18/36	3	230	33762003
GT2-18/36	5	230	33762005
GT2-18/36	7	230	33762007
GT2-18/36	9	230	33762009
GT2-18/36	12	230	33762012
GT2-18/36	15	230	33762015
GT2-18/36	20	230	33762020
GT2-18/36	22	230	33762022
GT2-18/36	25	230	33762025
GT2-18/36	30	230	33762030

ACCESSORIES

FB/GT Fixing bracket	FC/GT/S fixing clip	Thermostat DTR-E 3102
		

ComfortTrace
self-regulating heating cable for frost protection and temperature maintenance

COMFORT HEAT

ComfortTrace is all in one cable for frost protection and temperature maintenance applications in the commercial and industrial markets. **ComfortTrace** is a self-regulating heating cable specifically designed to be used within several enviroments, including: air, water/ice, metal pipes/ surfaces (insulated) and plastic pipes.

ComfortTrace is a new technology upgraded product, the cable construction consists of integrated conductors to achieve longer life expectancy through improved matrix contact with age. Self-regulating heating cable is inherently temperature safe with its self-regulating properties preventing overheating.

ComfortTrace has a UV stable and corrosion resistant fluoropolymer outer jacket, this system is durable and reliable.

TECHNICAL DATA

Output	17/35 W/m (air/in ice at 0 °C)
Voltage	220-250 V AC
Dimensions	9,70x5,10mm
Overjacket	UV resistant
Overjacket	Fluoropolymer (F)
Maximum Exposure Temp.	60°C
Minimum Start Up Temp.	0°C
Minimum Bending Radius	35mm
Min install. temperature	-40°C

MAXIMUM LENGTH OF THE CABLE (M) IN ONE ELECTRICAL CIRCUIT AT 230V:

Environement	Stat-up temperature	230 V				
		6 A	10 A	16 A	20 A	25 A
Air	0 °C	58	96	116	-	-
Ice / Water	0 °C	18	32	50	62	66
Metal Pipes / Surface (insulated)	0°C	40	66	96	-	-
Plastic Pipe (Unfoiled & Insulated)	0°C	46	78	102	-	-

PRODUCT LIST

Type	Order No.
ComfortTrace	30116025

ACCESSORIES

Self-regulating cable junction seal	Aluminium tape	FB/GT fixing bracket	Thermostat ETR/F-1447A
			

ETV-1991
thermostat (0 °C...+40 °C)

COMFORT HEAT

ETV-1991 is an electronic thermostat designed for the DIN rail mounting. It comes with ETF 144/99 temperature sensor.

The thermostat is produced for heating system control, industrial pipeline tracing and pipe frost protection. The thermostat has an option of temperature setback of up to 5 degrees (–5 °C), which can be activated with the help of an additional relay.

THERMOSTATS FOR OUTDOOR APPLICATIONS

TECHNICAL DATA

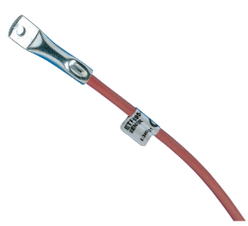
Voltage	230 V AC 50/60 Hz
Max load	16 A / 3600 W
Temperature range	0 °C ... +40 °C
Hysteresis	+/-0,4 °C
Sensor type	NTC
Sensor resistance	14,8 kOhm at 20 °C
Setback mode	-5 °C
Heating off in case of sensor's defect	yes
Light indicator	LED
Dimensions	86x36x58 mm
Protection class	IP20
Warranty	3 year

PRODUCT LIST

Type	Temperature range	Jutiklis	Sensor
ETV 1991	0 °C ... +40 °C	External	19113689
Sensor ETF 144/99A*	-20 °C ... +70 °C	External	19121438
Sensor ETF 144/99T**	-20 °C ... +70 °C	External	19121439
Sensor ETF 622**	-40 °C ... +120 °C	External	19121436

***the sensor is included; **the sensor is supplied additionally**

ACCESSORIES

Sensor ETF 144/99A*	Sensor ETF 622**
	

ETI-1221
thermostat (+10 °C...+110 °C)

ETI-1221 is an electronic thermostat with variable temperature differentials, an independent control relay, and DIN rail - mounted contacts built-in panel.

The thermostat is designed for pipe tracing of high-temperature industrial lines temperature and other heating systems control. The thermostat has an applicable sensor (*) **ETF 144/99** or **ETF-622**, it depends on controlled temperature requirements. Both sensors can be prolonged with a 100 m cable.

TECHNICAL DATA

Voltage	230 V AC 50/60 Hz
Max load	10 A / 2200 W
Temperature range	+10 °C ... +110 °C
Hysteresis	+/-0,4 °C
Setback mode	0,5...10 °C
Sensor type (selected*)	NTC
Heating off in case of sensor's defect	Yes
Light indicator	LED
Dimensions	86x36x58 mm
Protection class	IP20
Warranty	3 year

PRODUCT LIST

Type	Temperature range	Sensor	Order No.
ETI 1221	+10 °C ... +110 °C	External	19113680
Sensor ETF 144/99A**	–20 °C ... +70 °C	External	19121438
Sensor ETF 622**	–40 °C ... +120 °C	External	19121436

****the sensor is supplied additionally**

ACCESSORIES

SensorETF 144/99A*	Sensor ETF 622**
	

UTR-20|60
thermostat (-40 °C...+20 °C|0...+60°C)

COMFORT HEAT

UTR Universal temperature regulator. For universal use, for example, for direct floor, floor space, open space heating, pool control, air conditioning systems. The device is suitable for heating and cooling functions, and features an adjustable hysteresis of 0.5 to 10 K. A temporary reduction in temperature (for example, night drop) by 5 K can by a connection of a timer switch on the potential-free contacts can be realized. A green LED indicates when the relay has attracted, a red LED indicates a probe break.

THERMOSTATS FOR OUTDOOR APPLICATIONS

TECHNICAL DATA

Voltage	230 V AC 48/62 Hz
Max load	16 A / 3600 W
Temperature range	-40 °C ... +20 °C/ 0 °C ... +60 °C
Ambient temperature	-20 °C ... +50 °C
Contact (Relay)	1 change-over, voltage free
Switching differential	~+/-0,5...5K°C (T≤100 °C) (adjustable under cover)
Temperature set back	~5K, fixed
Light indicator	Relay ON/sensor failure
Dimensions	86x36x58 mm
Protection class	IP65
Warranty	3 year

PRODUCT LIST

Type	Temperature range	Sensor	Order No.
URT 20	-40 °C ... +20 °C	Internal and external	19113686
URT 60	0 °C ... +60 °C	Internal and external	19113687
Sensor F 891000	–25 °C ... +70 °C	Internal and external, 3m	19121435

ACCESSORIES

Sensor F 891 000

COMFORT HEAT

ETN4-1999
electronic thermostat with LCD screen (–19,5 °C...+70 °C)

ETN4-1999 is an electronic thermostat with LCD display, temperature differentials adjustment, independent control relay, and DIN rail - mounted contacts built in a panel. The thermostat made to control both, heating or cooling systems, with support of one or two sensors. The thermostat comes with **ETF 144/99** sensor.

ETN4-1999 is designed to control the temperature of room heating systems, pipe tracing, and made for roof gutters and downpipes frost protection, soil frost protection and stores floor frost protection. Additionally, it comes with a high temperature control sensor (*) **ETF-622** and can be prolonged with a 100 m cable.

TECHNICAL DATA

Voltage	230 V AC 50/60 Hz
Max load	16 A / 3600 W
On / off switch	Build-in interrupter 2 pole
Hysteresis	+/-0,4 °C
Temperature range	-19,5 °C ... +70 °C
Sensor type	NTC
Sensor resistance	14,8 kOhm at 20 °C
Ambient temperature	-20 °C ... +55 °C
Night setback	-19,5 °C ... +30 °C
Setback mode	0-100 %
Frost protection	0 °C ... +10 °C
Protection class	IP20
LCD	25x38 mm
Dimensions	88x53x58 mm
Warranty	3 year

PRODUCT LIST

Type	Temperature range	Sensor	Order No.
ETN4-1999	–19,5 °C ... +70 °C	External	19113682
Sensor ETF 144/99A*	–20 °C ... +70 °C	External	19121438
Sensor ETF 622**	–40 °C ... +120 °C	External	19121436

***the sensor is supplied additionally **the sensor is supplied additionally**

ACCESSORIES

Sensor ETF 144/99A*	Sensor ETF 622**
	

ETR/F-1447A
electronic thermostat for snow melting system control

COMFORT HEAT

The **ETR** is a thermostat for economical control of de-icing cables in gutters in smaller buildings e.g. family houses. Icicles are formed within certain temperature ranges, and to neutralize this, heating cables are used where there is a tendency for ice to form. The critical temperature may be different from one building to another, or one position to another. The **ETR** is easy adjustable, and LED indicators assist in setting up the correct temperatures.

Additional functions: ETR is an electronic on/off thermostat with control of temperature by means of an NTC sensor. The heating output is switched on and off with a differential of only 0.4°C. Red LED indicates when heating is on.

The **ETR** is not RoHS compliant.

Used for: frost protection of roof gutters and downpipes; ice and snow protection.

EAC CE

THERMOSTATS FOR OUTDOOR APPLICATIONS

TECHNICAL DATA

Voltage	250 V AC 50/60 Hz
Max load	16 A S.P.S.T contact
Hysteresis	fixed 0,4 °C
Temperature setting for LOW/HIGH	-15 °C / +10 °C
Ambient temperature	-20 °C / +50°C
Red light diode	Relay activated
Yellow light diode	Sensor temperature is above chosen set point
Green light diode	Sensor temperature is below chosen set point
Protection class	IP20
Dimensions	86×52,5×58 mm
Warranty	3 year

PRODUCT LIST

Type	Temperature range	Order No.
ETR/F2-1447A	–20 °C ... +50 °C	19117910
Sensor ETF 744/99**	–20 °C ... +70 °C	19116054
Sensor ETF 144/99A**	–20 °C ... +70 °C	19121438

****the sensor is supplied additionally**

ACCESSORIES

Sensor ETF 144/99A**	Sensor ETF 744/99**
	

ETO2-4550
microprocessor based thermostat for snow melting system control

ETO2-4550 is a programmed microprocessor controller for ice and snow melting systems. It controls two independent zones according to the data from two separate sensors (one roof sensor **ETOR-55, ETF-744/99** and one ground sensor **ETOG-55**) or two similar sensors (2 roof sensors **ETOR-55, ETF-744/99** or 2 ground sensors **ETOG-55**). Optimal operation ensured by output control which makes the system effective and economical. The thermostat is DIN rail-mounted in a panel or wall-mounted with a cover box.

Additional functions: control of electric or water-based ice and snow melting systems, efficient control – minimising energy consumptions, alarm relay with an external signal, time an extension of residual heating and language options.

Remote control: ETO2 thermostat can be controlled from a distance via external signal: system: switch ON/ OFF, or heating period extension switch ON option.

Used for: frost protection on roof gutters and downpipes; frost protection of steps, entrances, driveways, parking lots, ramps, sideways and bridges.

TECHNICAL DATA

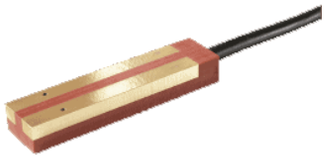
Voltage	120/240 V AC 50/60 Hz
Three outlet relays	3 × 16 A / 11 kW
Signal relay	Max 5 A
Control valve signal	0-10 V DC
Supply voltage (valve)	24 V AC/100 mA
Temperature range	-20 °C ... +50 °C
Hysteresis	+/-1 °C
Sensor type (selected*)	Ground or roof / temperature
Ambient temperature	0 °C ... +40 °C
Extension of heating time	0–6 hours
Ambient humidity	10-95 %
Protection class	IP20
Dimensions	90x156x45 mm
Warranty	3 year

PRODUCT LIST

Type	Temperature range	Order No.
ETO2-4550	–20 °C ... +10 °C	19117900
Sensor ETOG-55**	–50 °C ... +70 °C	19122035
Sensor ETOR-55**	–50 °C ... +70 °C	19122045
Sensor ETF 744/99**	–20 °C ... +70 °C	19116054

****the sensor is supplied additionally**

ACCESSORIES

Sensor ETOG-55**	Sensor ETOR-55**	Sensor ETF 744/99**
		

ETR2-1550
electronic thermostat for snow melting system control

COMFORT HEAT

ETR2-1550 is an electronic thermostat which comes with temperature and moisture sensors designed for ice and snow melting systems control. It controls one zone according to roof sensor data (**ETOR-55, ETF-744/99***) or ground sensor data **(ETOG-55*)**. It can reach up to 16A (ON / OFF up to 3600 W). Optimal operation function linked to output control in different weather conditions, which makes the system effective and economical. The thermostat is DIN rail - mounted in a panel.

Additional functions: indication of heating operation, temperature, humidity and period extension of residual heating.

Used for: frost protection of roof gutters and downpipes; ice and snow protection of steps, entrances, driveways, parking lots, ramps, pathways, bridges and small ground areas.

EAC CE

THERMOSTATS FOR OUTDOOR APPLICATIONS

TECHNICAL DATA

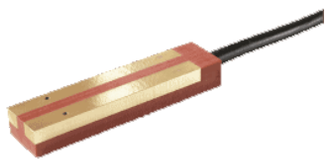
Voltage	230 V AC 50/60 Hz
Max load	16 A / 3600 W
Hysteresis	+/–0,3 °C
Temperature setting for startup	0 °C ... +10 °C
Sensor type (selected*)	Ground or roof / temperature
Ambient temperature	-10 °C / +50 °C
Extension of heating time	0–5 hours
Ambient humidity	10–95 %
Protection class	IP20
Dimensions	86×52×59 mm
Warranty	3 year

PRODUCT LIST

Type	Temperature range	Order No.
ETR2-1550	–10 °C ... +50 °C	19117909
Sensor ETOG-55**	–50 °C ... +70 °C	19122035
Sensor ETOR-55**	–50 °C ... +70 °C	19122045
Sensor ETF 744/99**	–20 °C ... +70 °C	19116054

****the sensor is supplied additionally**

ACCESSORIES

Sensor ETOG-55**	Sensor ETOR-55**	Sensor ETF 744/99**
		

ETOP-4770
Smart controller for Snow & Ice melt with remote control option

Protected Controller ETOP is designed for outdoor and indoor installation, maintaining integrity level NEMA4x/IP 66. The controller will withstand temperatures down to -50°C. Sensors ensure energy-efficient operation by only triggering the **ETOP** system when moisture is detected.

Easy installation, mount the controller with four screws and then connect the cables. Define sensor use and after run time. Run the system test program. Be at ease—quick setup and operation. Easy operation swipe the ETOP with a magnet to see the status. Not what you need? Then swipe again. No need to remove the cover, read long instructions or even check on the system every day.

TECHNICAL DATA

Voltage	3~230/400 V AC 50 Hz
Three outlet relays	3 × 30A / 6900 W
Max. pre-fuse	32 A
Max. load/supply	3 × 6900 W at 230/400 VAC
Output voltage to heating element for moisture	28 V AC/125mA
Temperature range	-30 °C ... +30 °C
Ambient temperature	-50 °C ... +50 °C
Rated impulse voltage	4kV
Ambient humidity	10-95 %
Nema Class	4X
Protection class	IP66
Dimensions	90x156x45 mm
Warranty	3 year

PRODUCT LIST

Type	Temperature range	Order No.
ETOP-4770	–30 °C ... +30 °C	19117901
ETOP-R**	0 °C ... +50 °C	19122033
Sensor ETOG-55**	–50 °C ... +70 °C	19122035
Sensor ETOR-55**	–50 °C ... +70 °C	19122045
Sensor ETF 744/99**	–20 °C ... +70 °C	19116054

****the controller or sensor is supplied additionally**

ACCESSORIES

Sensor ETOG-55**	Sensor ETOR-55**	Sensor ETF 744/99**
		

ETOP-R
Ice & Snow melting remote control for ETOP

COMFORT HEAT

Cost and Energy Control. If you install the remote controller you will have the capability of viewing and changing system status from the comfort of indoors.

Cost and Energy Control. When you have turned on your system it still helps you conserve energy and costs. No heating when the temperature is high or the weather is dry. Only heating when needed.

The remote unit ETOP-R gives you the control features of the ETOP added to outdoor temperature and system feedback.

TECHNICAL DATA

Voltage	230 V AC 50/60 Hz
Max load	16 A / 3600 W
Hysteresis	+/–0,3 °C
Temperature setting for startup	0 °C ... +10 °C
Sensor type (selected*)	Ground or roof / temperature
Ambient temperature	-10 °C / +50 °C
Extension of heating time	0–5 hours
Ambient humidity	10–95 %
Protection class	IP20
Dimensions	86×52×59 mm
Warranty	3 year

PRODUCT LIST

Type	Temperature range	Order No.
ETOP-R	0 °C ... +50 °C	19122033
ETOP-4770**	–30 °C ... +30 °C	19117901
Sensor ETOG-55**	–50 °C ... +70 °C	19122035
Sensor ETOR-55**	–50 °C ... +70 °C	19122045
Sensor ETF 744/99**	–20 °C ... +70 °C	19116054

****the controller or sensor is supplied additionally**

ACCESSORIES

Sensor ETOG-55**	Sensor ETOR-55**	Sensor ETF 744/99**
		

COMFORT HEAT

DTR-E 3102
thermostat for snow melting system control

CE

DTR-E 3102 is a bimetallic thermostat with an upper and lower temperature range. The thermostat used for snow melting and frost protection systems control.

DTR-E 3102 thermostat is designed for frost protection system management of icicle formation on small roofs, gutters and downpipes. The systems are applied in residential houses on stairs, at entrances and on driveways.

TECHNICAL DATA

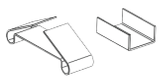
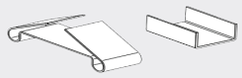
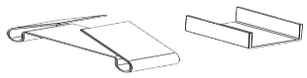
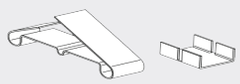
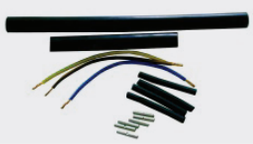
Voltage	230 V AC 50/60 Hz
Max load	16 A
Hysteresis	+/-0,3 °C
Sensor type	Bimetal
Temperature range	-20 °C ... +25 °C
Ambient temperature	-25 °C ... +55 °C
Switch temperature diff.	1- 3K
Protection class	IP65
Dimensions	122x120x55 mm
Warranty	3 year

PRODUCT LIST

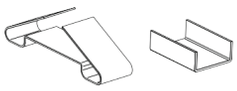
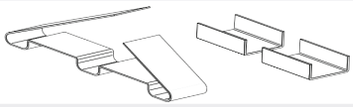
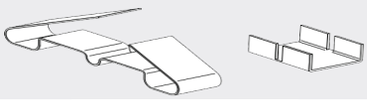
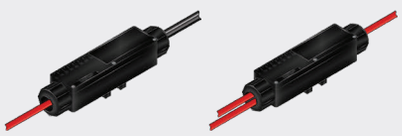
Type	Temperature range	Order No.
DTR-E 3102	-20 °C ... +25 °C	19113688

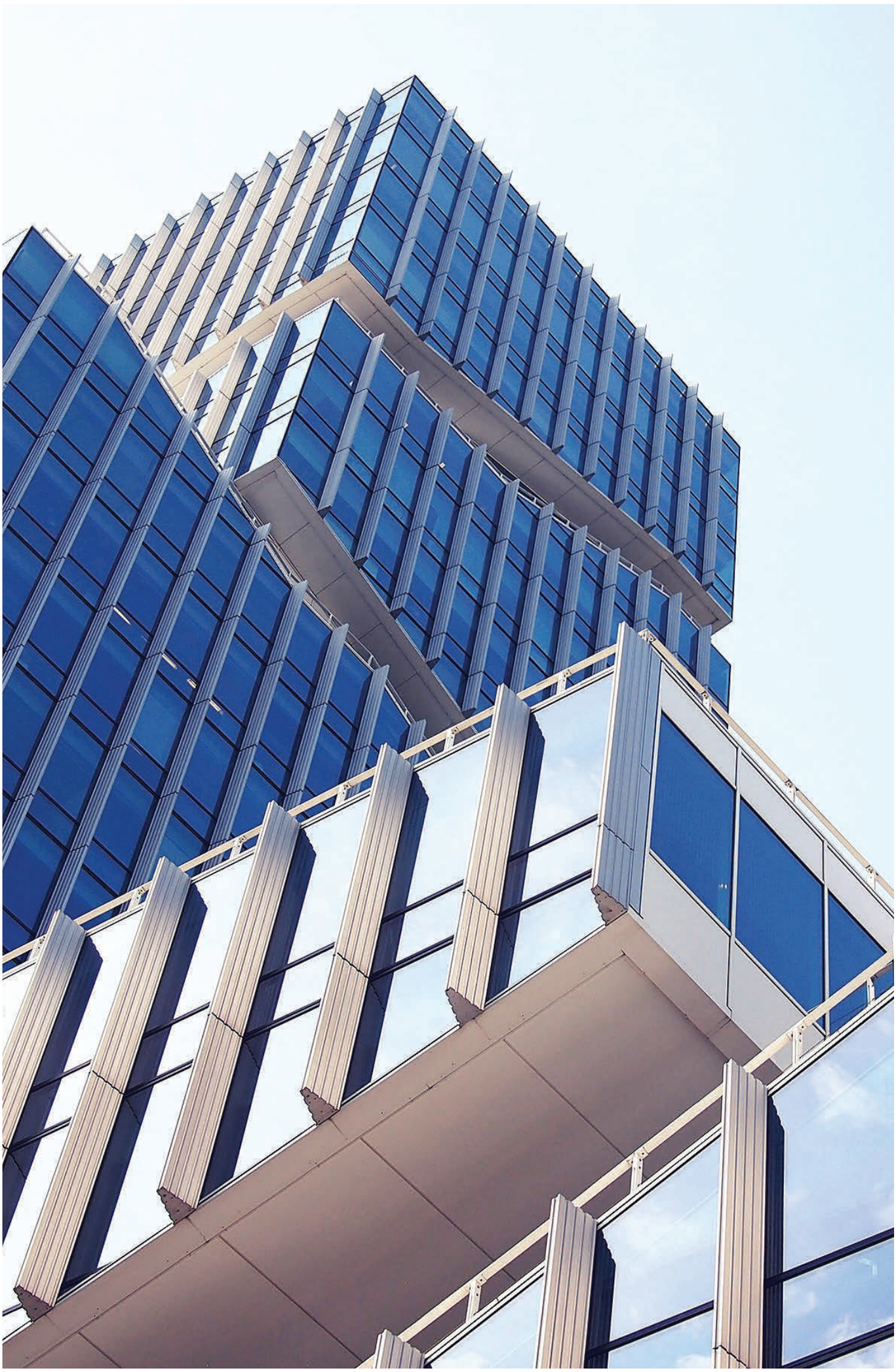
Installation accessories for heating cables

COMFORT HEAT

Type		Order No.
Installation tape (21mm × 5m), galvanized Installation tape (21mm × 20m), galvanized Installation tape (21mm × 20m), stainless steel		19808188 19808193 19808222
ComfortFast installation tape (18mm × 5m), galvanized **ComfortFast** installation tape (18mm × 20m), galvanized		19808195 19808196
ComfortFast installation tape for heating cable in Gutter (50mm × 20m), galvanized		19808210
ComfortFast installation tape for heating cable in Gutter (50mm × 20m), stainless steel		19808211
ComfortFast installation tape for heating cable in Gutter (50mm × 20m), copper		19808212
Aluminium tape (50mm × 50m), temperature resistant up to +180 °C		19805077
Roof gutter clip (25 pcs.)		19805191
Downpipe clip (25 pcs.)		19805258
ComfortClip S Small (25mm) for fixing heating cable in Downpipe (20 pcs.)		19805260
ComfortClip M Medium (50mm) for fixing heating cable in Gutter (20 pcs.)		19805261
ComfortClip L Large (75mm) for fixing heating cable in Gutter (20 pcs.)		19805262
ComfortClip V Medium (50mm) for fixing heating cable in Valley and Downpipe (20 pcs.)		19805263
Galvanized chain (4mm)		19805241
Stainless steel chain holder		19805243
Corrugated tube (12mm × 2m) with end cape		19151005
Repair kit for heating cables and mats		18055228

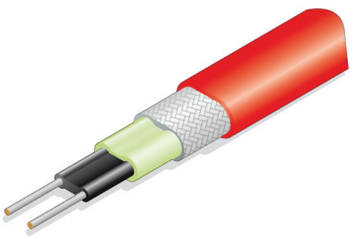
Installation accessories for self-regulating heating cables

Type		Order No.
FB/GT Fixing bracket		19805746
FB/GT/R Fixing Bracket for self-regulating cable on Roof (20 pcs.)		19805747
FC/GT/S Fixing Clip Small (50mm) for fixing self-regulating cable in Gutter and Downpipe (20 pcs.)		19805748
FC/GT/L Fixing Clip Large (100mm) for fixing self-regulating cable in Gutter (20 pcs.)		19805749
FC/GT/U Fixing Clip Universal (100mm) for fixing self-regulating cable in Gutter (20 pcs.)		19805750
FC/GT/V Fixing Clip (100mm) for fixing self-regulating cable in Valley (20 pcs.)		19805751
ComfortFast installation tape for self-regulating cable in Gutter (65mm × 20m), galvanized		19808215
Junction seal **SF-P** for connection of one self-regulating cable with power cable. Junction seal **SF-T** for connection of three self-regulating cables		30376009 30376010
Self-regulating cable junction seal (for connection with power cable)		19805761
SF-E (Blue) stripFree end seal for use with cable: FSM-CT|CF **SF-E (Red)** stripFree end seal for use with cable: FSR-CT|CF, FSE-CT|CF, FSEw-CT|CF		30301025 30301026
Metal fitting **M20/25** (1" and 3/4") for self-regulating cable		19805368



COMFORT HEAT

FSM-CT | CF self-regulating heating cable up to +65 °C



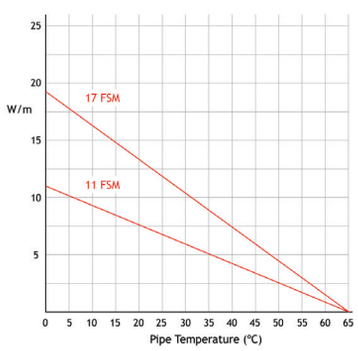
FSM2-CT self-regulating heating cable of **11 W/m** and **17 W/m** output can be used for heating, temperature maintenance and frost protection of pipes. The cable is produced with nanotechnologies, ensuring durable benefits; it withstands the temperature of **up to +85 °C** (switched OFF). It can be installed in residential, public and commercial buildings and within industrial hazardous (Ex) areas.

FSM2-CF cable is made with fluoropolymer over jacket resistant to chemically hazardous environments of bitumen, oil, food industry oils and other chemical products production.

Installation: the cable is laid onto small diameter pipes under thermal insulation layer.

TECHNICAL DATA

Voltage	220/240 V AC
Output	11W/m and 17W/m (at+10 °C)
Dimensions	10,5x5,9 mm
Overjacket	Thermoplastic(CT) Fluoropolymer (CF)
Min bending radius	35 mm
Max temperature: •Cable switched on •Cable switched off	 +65 °C +85 °C
Min install. temperature	-40 °C
Temperature class	T6



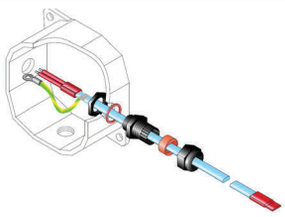
MAXIMUM LENGTH OF THE CABLE (M) IN ONE ELECTRICAL CIRCUIT DEPENDS ON THE TEMPERATURE:

Ambient temperature	11FSM				17FSM			
	230 V							
	6 A	10 A	16 A	20 A	6A	10 A	16 A	20 A
+5 °C	76	126	128	-	54	88	102	-
0 °C	70	118	128	-	50	84	102	-
-20 °C	46	78	124	128	34	56	88	102
-40 °C	36	60	96	120	26	42	68	86

PRODUCT LIST

Type	Order No.
11FSM2-CT	30111010
11FSM2-CF	30111021
17FSM2-CT	30111030
17FSM2-CF	30111029

ACCESSORIES

UTK 144	DESTU	DJB 9000	Aluminium tape
			

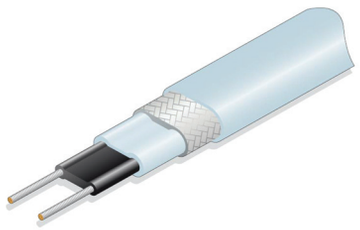
FSR-CT | CF self-regulating heating cable up to +85 °C

COMFORT HEAT

FSR2-CT self-regulating heating cable of **17 W/m, 25 W/m, 31 W/m** and **40 W/m** output can be used for heating, temperature maintenance and frost protection of pipes. The cable is produced by nanotechnologies, ensuring durable benefits. The cable withstands the temperature of **up to +85 °C** (ON or OFF). It can be installed in residential, public and commercial buildings and within industrial hazardous (Ex) areas.

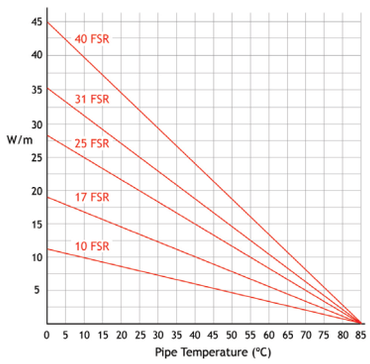
FSR-CF cable is made with fluoropolymer over jacket resistant to chemically hazardous environments of bitumen, oil, food industry oils and other chemical products production.

Installation: the cable is laid onto medium diameter pipes under thermal insulation layer.



TECHNICAL DATA

Voltage	220/240 V
Output	17W/m, 25W/m, 31W/m, 40W/m (at +10 °C)
Dimensions	12,95x5,95 mm
Overjacket	Thermoplastic (CT) Fluoropolymer (CF)
Min bending radius	35 mm
Max temperature: •Cable switched on •Cable switched off	 +85 °C +85 °C
Min install. temperature	-40 °C
Temperature class	T4, T6



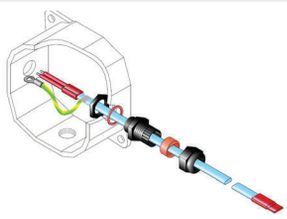
MAXIMUM LENGTH OF THE CABLE (M) IN ONE ELECTRICAL CIRCUIT DEPENDS ON THE TEMPERATURE:

Ambient temperature	17FSR		25FSR		31FSR		40FSR	
	230 V							
	16 A	20 A	16 A	20 A	16 A	20 A	16 A	20 A
+10 °C	148	152	118	124	92	112	74	92
0 °C	134	144	108	120	84	104	66	84
-20 °C	118	136	94	112	74	92	58	74
-40 °C	106	128	84	106	66	82	52	66

PRODUCT LIST

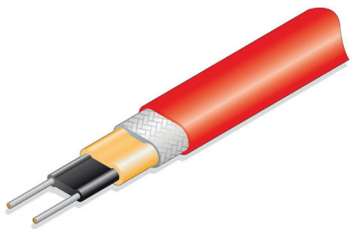
Type	Order No.
17FSR2-CT	30113033
17FSR2-CF	30113034
25FSR2-CT	30113036
25FSR2-CF	30113046
31FSR2-CT	30113040
31FSR2-CF	30113047
40FSR2-CT	30113039
40FSR2-CF	30113041

ACCESSORIES

UTK 144	DESTU	DJB 9000	ETV-1991
			

COMFORT HEAT

FSE-CF|CT, FSEw-CF|CT self-regulating heating cable up to +100 °C



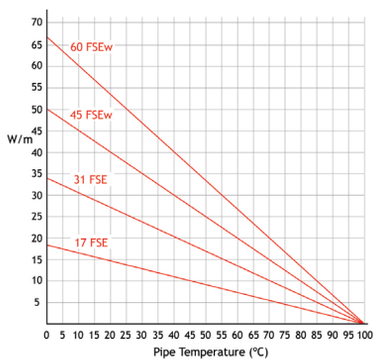
FSE2-CT, FSEw2-CT self-regulating heating cable, of **17 W/m, 31 W/m, 45 W/m** and **60 W/m** output for heating and frost protection of industrial pipes, can be installed in both, safe and hazardous (Ex) areas. The cable is produced by nanotechnologies, ensuring long-lasting benefits, withstands the temperature of **up to 100 °C** (swithed ON or OFF).

FSE2-CF, FSEw2-CF cables are made with fluoropolymer over jacket resistant to chemically hazardous environments of bitumen, oil, food industry oils and other chemical products production.

Installation: the cables are used for the installation of commercial, industrial pipelines.

TECHNICAL DATA

Voltage	220/240 V
Output	17 W/m, 31 W/m, 45 W/m and 60W/m (at +10 °C)
Dimensions	12,4x5,65 mm 15,1x6,2mm
Overjacket	Thermoplastic (CT), Fluoropolymer (CF)
Min bending radius	35 mm
Max temperature: ·Cable switched on ·Cable switched off	 +100 °C +100 °C
Min install. temperature	-40 °C
Temperature class	T4, T3



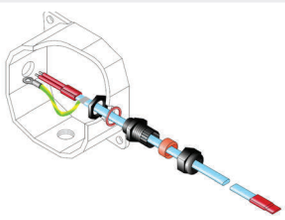
MAXIMUM LENGTH OF THE CABLE (M) IN ONE ELECTRICAL CIRCUIT DEPENDS ON THE TEMPERATURE:

Ambient temperature	17FSE		31FSE		45FSEw		60FSEw	
	230 V							
	16 A	20 A	16 A	20 A	16 A	20 A	16 A	20 A
+10 °C	148	-	104	110	76	96	66	82
0 °C	122	148	84	106	64	80	56	70
-20 °C	82	102	56	70	42	52	40	50
-40 °C	56	68	38	48	28	34	28	34

PRODUCT LIST

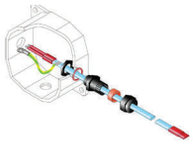
Type	Order No.
17FSE2-CF	312286906
31FSE2-CF	312286905
45FSEw2-CT	312286907
45FSEw2-CF	312286904
60FSEw2-CT	312286902

ACCESSORIES

UTK 344	DESTU	DJB 9000	ETN4-1999
			

Installation accessories for pipe tracing

COMFORT HEAT

Type		Order No.
Termination kit for self-regulating cables in hazardous (EX) zone: **UTK 144 (ComfortTrace, FSM-CT|CF)** **UTK 344 (GT, FSR-CT|CF, FSE-CT|CF)** **UTK 555 (FSEw-CT|CF)**		30301016 30301002 30301004
Junction box **DJB 9000**		30302112
DESTU direct entry sealed termination unit for DJB 9000		30302180
DESTU/T connection for additional heating cable with **DJB 9000**		30302181
DESTU seal **DS5 (FSM-CT|CF, FSR-CT|CF, FSE-CT|CF, FSEw-CT|CF)**		30302185
Lagging Entry Kit **LEK/U**		30376100
End seal **SF-E** (Red) for self-regulating cables **GT**, **FSR-CT|CF**, **FSE-CT|CF, FSEw-CT|CF**		30301026
End seal **SF-E** (Blue) for self-regulating cables **ComfortTrace, FSM-CT|CF**		3030125
Junction seal **SF-P** for connection of one self-regulating cable with electric cable Junction seal **SF-T** for connection of three self-regulating cables		30376009 30376010
Aluminium tape (50mm × 50m), temperature resistant up to +140 °C		19805077
Glass tape (50m) **FT/HTS**, temperature resistant		30302002
Caution label (self adhesive)		30376021
Fixing strap **PFS 25** Fixing strap **PFS 100** Fixing strap **PFS 200**		30302020 30302022 30302023
Installation tape 20m (C-C 25mm) galvanized Installation tape 20m (C-C 25mm) stainless steel		19808193 19808222

ComfortFoil
underfloor heating foil

COMFORT HEAT

ComfortFoil provides easy and quick electrical underfloor heating to living rooms, bedrooms, hallways, lofts or almost anywhere a laminate or engineered wood floor laid. **ComfortFoil** heating foil is designed for floor heating in dry structures - under engineered wood floors or with the use of supplementary underlays under PVC and carpets. The **ComfortFoil** of **60** and **80 W/m²** output comes in a range of 600 and 1000 mm width.

Installation:

NOTE that any other flooring layers cannot be glued directly onto the heating foil. When installing **ComfortFoil**, ***the floor tiles cannot be used***. However, carpets and PVC flooring can be used with additional underlays.

EAC CE

TECHNICAL DATA

Voltage	230 V
Output	60/80 W/m²
Thickness of mat	0,4 mm
Max temperature	+80 °C
Overjacket	Polyethylene/polyester foil
Width of mat	60/100 cm
Warranty	10 year

PRODUCT LIST

Type	Width total (cm)	Width active (cm)	Output (W²)	Package (m)	Order No.
ComfortFoil - 60	60	57	60	100	96652301
ComfortFoil - 60	60	57	80	100	96652303
ComfortFoil - 100	100	97	60	50	96652305
ComfortFoil - 100	100	97	80	50	96652307

ACCESSSORIES LIST

Type	Amount supplied	Order No.
Crimp connector for ComfortFoil	1 pack	36651030
Cold lead AV 1.5/Ø 3mm for ComfortFoil **brown** (max 10A/20m)	1 pack	36651040
Cold lead AV 1.5/Ø 3mm for ComfortFoil **blue** (max 10A/20m)	1 pack	36651060
Cold lead AV 2.5/Ø 4mm for ComfortFoil **brown** (>10A/20m)	1 pack	36651045
Cold lead AV 2.5/Ø 4mm for ComfortFoil **blue** (>10A/20m)	1 pack	36651065
Fixing tape for sealing cut edges of the ComfortFoil (38mm × 33m)	1 roll	36651076
Mastic tape insulation for ComfortFoil (38mm × 6m), 1 connector requires 0,1 m	1 roll	36651075

COMFORT
HEAT

DELTA
fan heater

DELTA fan heater is robust, reliable, quickly and easily creates pleasant air conditions, while maintaining a required temperature level within premises. It is easily transportable and can be used for permanent and local heating. The DELTA fan heater comes in two sizes: 3-9 kW, small, and 15-21 kW, large. The fan heater with timer T has a time delay function (24 hours).

Use: heating large premises, warehouses, workshops, sports halls, factories or garages, construction sites and ships; **DELTA** fan heater can be used both, temporarily and permanently.

TECHNICAL DATA

Voltage	3x400 V AC
Output	6 kW... 21 kW
Temperature range	0 °C...+40 °C
Max temperature	+80 °C
Regulation levels	5 positions
Timer	24 hours
Dimensions	410x435x420 mm 505x540x510 mm
Protection class	IPX4
Warranty	2 year

DELTA FAN HEATER PROGRAM TABLE (ACCORDING TO TEMPERATURE AND ROOM SIZE)

Description	ΔT = 5 °C	ΔT = 10 °C	ΔT = 15 °C	ΔT = 20 °C	ΔT = 25 °C	ΔT = 30 °C
DELTA 6000	1200/1680 m³	600/840 m³	400/560 m³	300/420 m³	240/360 m³	200/300 m³
DELTA 9000	2000/2800 m³	1000/1400 m³	680/940 m³	600/700 m³	400/600 m³	350/500 m³
DELTA 15000	3000/4200 m³	15000/2100 m³	1000/1400 m³	750/1050 m³	600/900 m³	500/750 m³
DELTA 21000	4200/5800 m³	2100/2900 m³	1400/1960 m³	1050/1460 m³	840/1260 m³	700/1050 m³

PRODUCT LIST

Description	Output (kW)	Air circulation (m³/h)	ΔT (°C)	Weight (kg)	Order No.
DELTA 6000	3/6	400/600	21/28	13,6	69820058
DELTA 9000	4,5/9	500/800	25/32	14,6	69820074
DELTA 15000	7,5/15	800/1400	26/30	23,6	69820090
DELTA 21000	10,5/21	800/1400	37/42	25,7	69820116

SB
Infrared heater

COMFORT HEAT

SB Radiant Panels are an ideal way of providing thermal comfort in commercial and industrial buildings. SB infrared heaters are used to heat offices, sports halls, churches, industrial and agricultural structures. They are specifically designed for high-level mounting. The infrared heater transmits energy and warms up people and surfaces in a room.

Installation: They are only 60mm deep, and typical applications include churches, workshops, separate workspaces in office, department stores, farms and other premises where conventional warm air convection system heating systems should be uneconomic.

CE

TECHNICAL DATA

Voltage	230 V AC
Output	900 W... 3600 kW
Colour	White (RAL 9002)
Protection class	IP44
Warranty	2 year

PRODUCT LIST

Description	Length (mm)	Width (mm)	Height (mm)	Voltage (V)	Output (W)	Order No.
SB 09	1500	150	60	230	900	95401609
SB 12	1500	150	60	230	1200	95401518
SB 18	1500	250	60	230/400	1800	95401618
SB 24	1500	250	60	230/400	2400	95401524
SB 30	1500	350	60	230/400	3000	95401530
SB 36	1500	350	60	230/400	3600	95401436

Calculations of cable output for pipe frost protection

Insulation thickness	Pipe diameter												
	1/2 "	3/4 "	1 "	1/4 "	1 1/2 "	2 "	2 1/2 "	3 "	4 "	6 "	8 "	10 "	12 "
	15 mm	20 mm	25 mm	32 mm	40 mm	50 mm	65 mm	80 mm	100 mm	150 mm	200 mm	250 mm	300 mm
10 mm	17 W/m	25 W/m	25W/m	31 W/m	31 W/m	40 W/m	45 W/m	60 W/m					
20 mm	11 W/m	17 W/m	17W/m	25 W/m	25 W/m	25 W/m	31 W/m	31 W/m	40 W/m	60 W/m			
30 mm	11W/m	11 W/m	17W/m	17 W/m	17 W/m	17 W/m	25 W/m	25 W/m	31 W/m	40 W/m	60 W/m	60 W/m	
40 mm	11 W/m	11 W/m	11 W/m	11 W/m	17 W/m	17 W/m	17 W/m	25 W/m	25 W/m	31 W/m	40 W/m	45 W/m	60 W/m
50 mm	11 W/m	11 W/m	11 W/m	11 W/m	11 W/m	17 W/m	17 W/m	17 W/m	17 W/m	31 W/m	31 W/m	40 W/m	60 W/m
75 mm	11 W/m	11 W/m	11 W/m	11 W/m	11 W/m	11 W/m	17 W/m	17 W/m	17 W/m	25 W/m	25 W/m	25 W/m	40 W/m
100 mm	11 W/m	11 W/m	11 W/m	11 W/m	11 W/m	11 W/m	11 W/m	11 W/m	17 W/m	17 W/m	25 W/m	25 W/m	25 W/m

COMFORT HEAT

Interpolation calculations of pipe heat losses (W/m)

Calculations of heat losses (W/m) for pipes with different diameters, insulation and temperature regimes

Insulation thickness	ΔT (°C)	"	1/2 "	3/4 "	1 "	1/4 "	1 1/2 "	2 "	2 1/2 "	3 "	4 "	6 "	8 "	10 "	12 "	14 "	16 "	18 "	20 "
		mm	15	20	25	32	40	50	65	80	100	150	200	250	300	350	400	450	500
10 mm	20		7,2	8,4	10	12	13,4	16,2	19	23	29	41	52	64	74	81	92	103	115
	30		10,7	12,6	15	18	20,2	24,4	29	34	43	61	78	95	111	121	138	155	172
	40		14,3	16,8	20	24	26,8	32,5	38	45	57	81	104	127	148	162	184	207	229
	60		21,5	25,2	30	36	40,2	48,7	58	68	86	122	156	191	222	243	276	310	343
	80		28,6	33,7	40	48,1	53,6	65	77	90	114	163	208	255	295	323	368	413	458
	100		36	42,4	50,3	60,5	67,4	81,7	97	114	144	205	261	320	372	407	463	520	576
	120		44,5	52,3	62,2	74,8	83,4	101	119	140	177	253	322	395	459	502	572	641	711
20 mm	20		4,6	5,3	6,1	7,2	7,9	9,4	11	13	16	22	29	34	40	44	50	56	61
	30		6,8	7,9	9,1	10,8	11,9	14,2	16	19	24	33	42	51	60	66	75	83	92
	40		9,1	10,6	12,2	14,4	15,8	18,8	22	25	32	44	56	68	80	88	99	111	123
	60		13,6	15,7	18,2	21,6	23,9	28,2	33	38	48	67	84	103	120	131	149	167	184
	80		18,2	21	24,4	28,8	31,8	37,7	44	51	63	89	113	137	160	175	199	222	246
	100		23	26,4	30,7	36,2	40	47,4	55	64	80	112	142	172	202	220	250	280	310
	120		28,4	32,8	37,9	44,9	49,4	58,7	68	79	99	138	175	212	249	272	309	346	383
30 mm	20		3,6	4,1	4,7	5,5	6	7	8	9	11	16	20	24	28	31	34	38	43
	30		5,4	6,1	7,1	8,2	9	10,6	12	14	17	24	30	36	42	46	52	58	64
	40		7,3	8,3	9,5	10,9	12	14	16	19	23	31	40	48	56	61	69	77	85
	60		10,9	12,4	14,2	16,4	18	21	24	28	34	47	59	72	84	91	103	116	128
	80		14,5	16,4	18,8	21,8	24	28	32	37	46	63	79	96	112	122	138	154	170
	100		18,2	20,8	23,8	27,6	30,1	35,3	41	47	57	79	100	121	141	153	174	194	214
	120		22,7	25,7	29,4	34,1	37,3	43,6	50	58	71	98	123	149	174	190	215	240	265
40 mm	20		3,1	3,5	4	4,6	4,9	5,8	7	8	9	12	16	19	22	24	27	29	33
	30		4,7	5,3	6	6,8	7,4	8,6	10	11	14	19	23	28	33	35	40	44	49
	40		6,2	7,1	7,9	9,1	10	11,5	13	15	18	25	31	37	43	47	53	59	66
	60		9,4	10,6	12	13,7	14,9	17,3	20	22	27	37	46	56	65	71	80	89	98
	80		12,5	14	16	18,2	19,9	23	26	30	37	50	62	75	87	94	107	119	131
	100		15,7	17,6	20	23	25,1	28,9	33	38	46	63	78	94	109	119	134	150	165
	120		19,6	22	24,8	28,4	31	35,9	41	47	57	72	96	116	135	147	166	185	204
50 mm	20		2,8	3,1	3,5	4	4,3	5	6	7	8	10	13	16	18	19	22	24	27
	30		4,2	4,7	5,3	6	6,5	7,4	9	10	12	16	19	23	27	29	33	37	40
	40		5,6	6,2	7,1	8	8,6	10	11	13	16	21	26	31	36	39	44	49	66
	60		8,4	9,4	10,6	12	13,8	15	17	19	23	31	39	46	54	58	66	73	80
	80		11,3	12,5	14	16,1	17,4	19,9	23	26	31	42	51	62	72	78	88	97	107
	100		14,2	15,7	17,8	20,2	21,8	25,1	28	32	39	52	65	78	90	98	110	123	135
	120		17,5	19,6	22	25	27	31,1	35	40	48	65	80	96	112	121	136	152	167
75 mm	20		2,4	2,6	2,9	3,2	3,5	3,9	5	6	7	8	9	11	13	14	15	17	19
	30		3,5	3,8	4,3	4,8	5,2	5,9	6	7	9	11	14	17	19	21	23	26	28
	40		4,7	5,2	5,8	6,5	7	7,8	9	10	12	15	19	22	26	28	31	34	38
	60		7,1	7,8	8,6	9,7	10,4	11,8	13	15	17	23	28	33	38	41	46	51	56
	80		9,4	10,3	11,5	12,9	13,8	15,6	18	20	23	30	37	44	51	55	62	68	75
	100		11,9	13,1	14,5	16,2	17,4	19,7	22	25	29	38	47	56	64	69	78	88	94
	120		14,6	16,1	17,9	20	21,6	24,4	27	31	36	48	58	68	80	86	96	107	117
	130		16,1	17,8	19,7	22,1	23,8	26,8	30	34	40	52	64	76	87	95	106	117	129
100 mm	20		2	2,3	2,5	2,8	3	3,4	4	5	6	7	8	9	10	11	12	13	15
	30		3,1	3,5	3,7	4,2	4,4	4,8	5	6	7	9	11	13	15	16	18	20	22
	40		4,2	4,6	5	5,6	6	6,7	7	8	10	12	15	18	20	23	24	27	29
	60		6,2	6,8	7,6	8,4	8	10,1	11	12	15	19	23	27	30	33	36	40	44
	80		8,4	9,1	10,1	11,2	12	13,4	15	16	19	25	30	35	41	44	49	54	59
	100		10,5	11,5	12,7	14,2	15	16,8	19	21	24	31	38	45	51	55	61	68	74
	120		13,1	14,3	15,7	17,5	18,6	20,9	23	26	30	39	47	55	63	68	76	84	91
	130		14,4	15,7	17,3	19,2	20,5	22,9	25	28	33	43	51	61	69	75	83	92	101

ΔT= T1 – T2, T1 – pipe maintenance temperature, T2 – prospective annual lowest ambient temeprature.

Comfort Heat Ltd. | Phone: + 370 5 2704596 | info@comfortheat.eu

Technical data specification for pipe tracing

COMFORT HEAT

Company name	.....		
	Contact person ..... Position:		
	Phone ..... E-mail:		
General project data	**Project name**		
	Project location		
Technical project data	**Application type:**	☐ Frost protection ☐ Temperature maintenance ☐ Heat raise temperature from _____ to _____ °C ☐ Heat raise time _____ hours	
Temperature	Required temperature		..... °C
	Ambient temperature:	Min..... °C	Max..... °C
	Normal technological temperature*		..... °C
	Maximum technological temperature		..... °C
	Maximum process temperature		..... °C
	Start up temperature**		..... °C
	Steam cleaning ☐ yes ☐ no	Steam temperature ..... °C	
Voltage	☐ 230 V	☐ 400 V	☐ Other V
Installation	☐ Outdoor	☐ Indoor	
Thermal insulation	☐ Mineral wool (blenket), ☐ Mineral wool (section), ☐ Polyurethane ☐ Other ..... , thermal conductivity rate λ (at 10 °C) .....W/m K		
Area classification	Ex hazardous: ☐ – 0 zone	☐ – 1 zone ☐ – 2 zone	☐ Not Ex hazardous
Temperature classification	☐ T1 ☐ T2 ☐ T3	☐ T4 ☐ T5	☐ T6
Pipe material	☐ Carbon steel ☐ Stainless steel	☐ Plastic	☐ Other .....
Fluid material	.....		
Persentage full	..... %		

Pipelines

No.	Length of pipe, m	Diameter, mm	Thermal insulation thickness, mm	Valves, pcs.	Filters, pcs.	Pumps, pcs.	Supports pcs.,
1							
2							
3							
4							
5							

* Product temperature under normal exploitation conditions

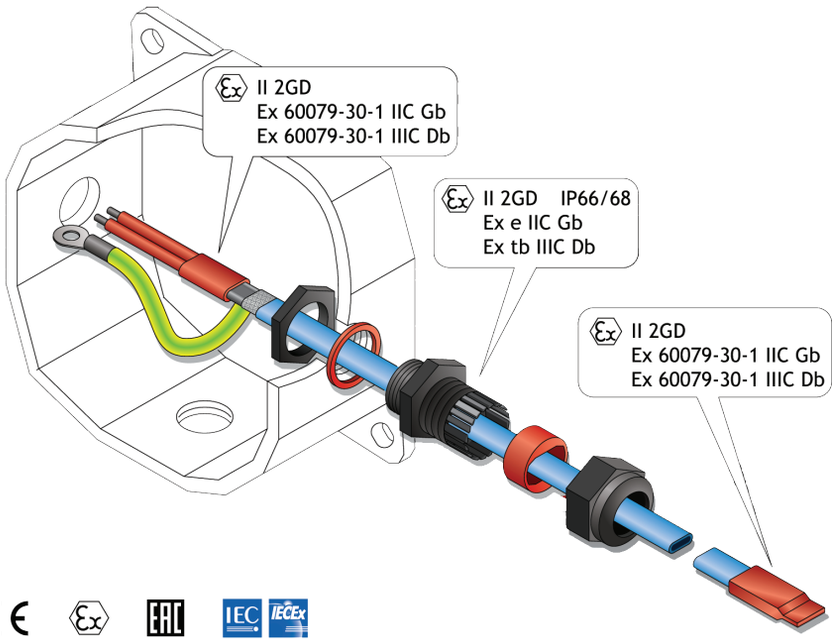
** The lowest temperature at which the system should switch on

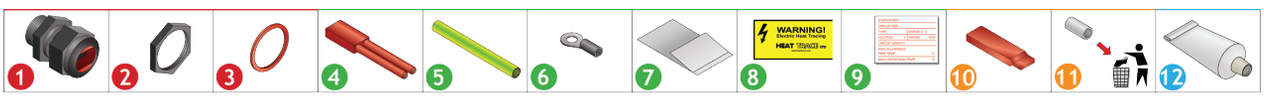
Heater selections: ☐ Constant power cables ☐ Self-regulating cables

Technical data provided by (name surname): _____ signature: _____ date: _____

COMFORT HEAT

UTK 144|344|555 Self-regulating heating cable termination kit for entering cabinet boxes or enclosures

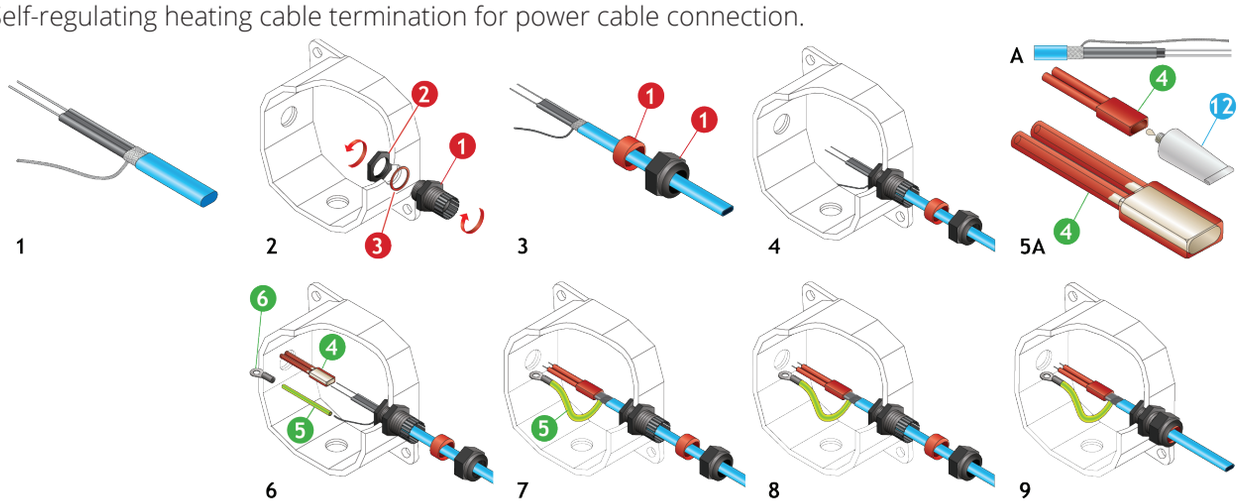




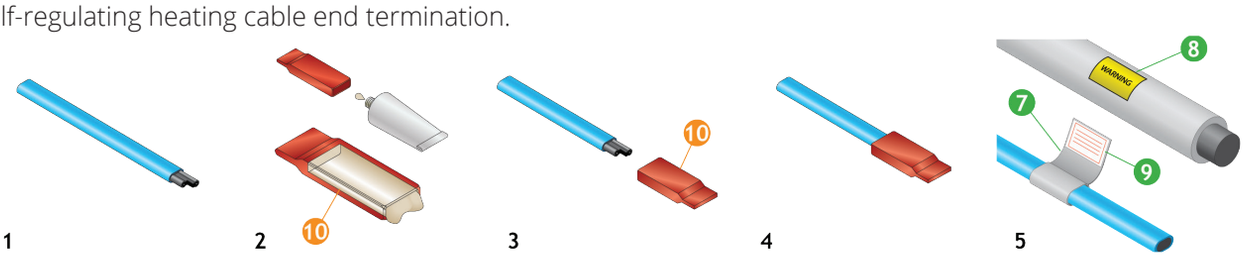
SPECIAL CONDITIONS FOR SAFE USE:

The cable glands are only suitable for fixed installations.
These termination kits and the cable that enters them shall be fixed to a secure mounting point.
The component shall only be used with self-regulating trace heating cables within the following ranges: -40°C to 180°C (Standard RTV).
This is particularly relevant when the trace heating cable is installed on pipework outside the insulation; then, the installer shall ensure that they are not exposed to UV radiation.

Self-regulating heating cable termination for power cable connection.



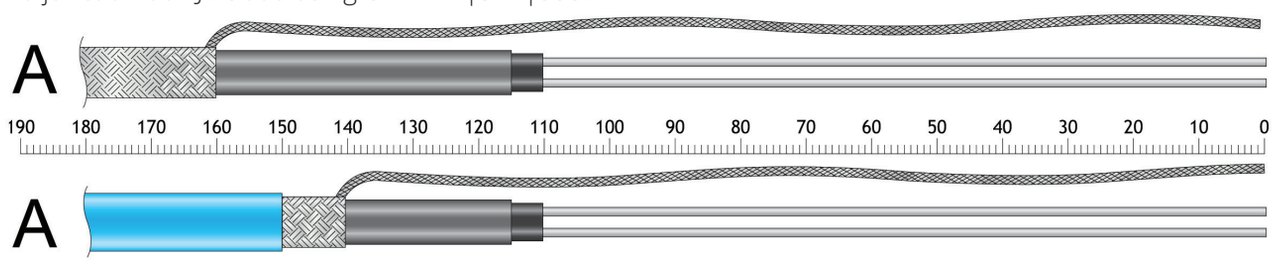
Self-regulating heating cable end termination.

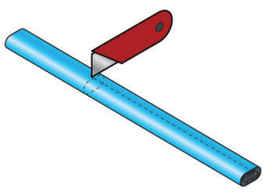


Self-regulating cable termination for power connection and end seal

COMFORT HEAT

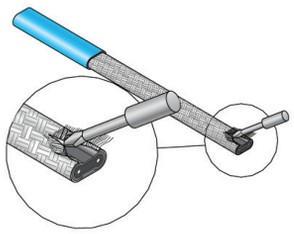
This is particularly relevant when the self-regulating heating cable is installed on pipework inside and outside via junction box JB 9000 using UTK 144|344|555.





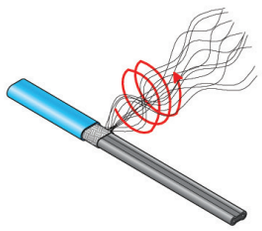
1

Measure 110mm from end of cable and using a stanley knife, score around outer jacket.



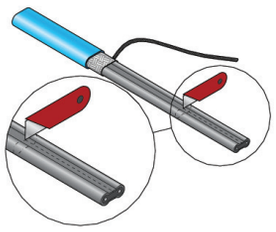
2

Peel back the screen from the self-regulating cable.



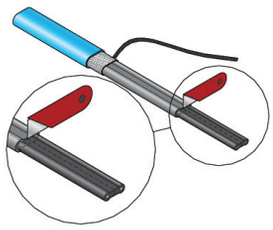
3

Twist the screen of self-regulating cable.



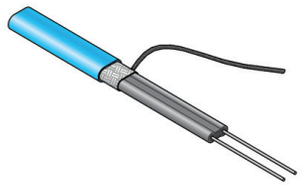
4

Using a stanley knife, score and peel the self-regulating cable isolation.



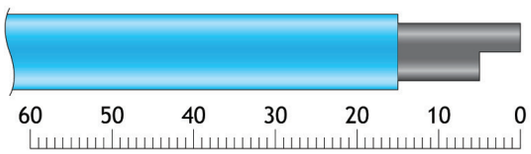
5

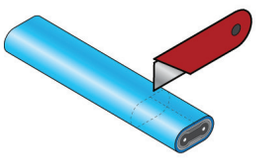
Using a stanley knife, peel back and cut away the self-regulating cable matrix to expose the two coductors.



6

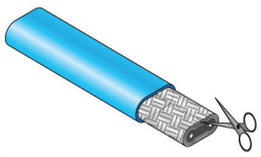
Self-regulating cable is ready for the connection.





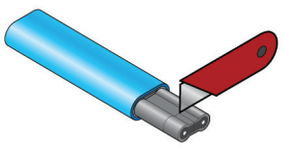
1

Measure 60mm from end of cable and using a stanley knife, score around outer jacket, and remove the screen.

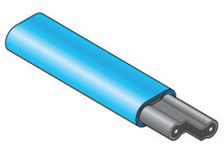


2

Using a stanley knife, cut away 5mm of one conductor through the insulation and matrix.



3

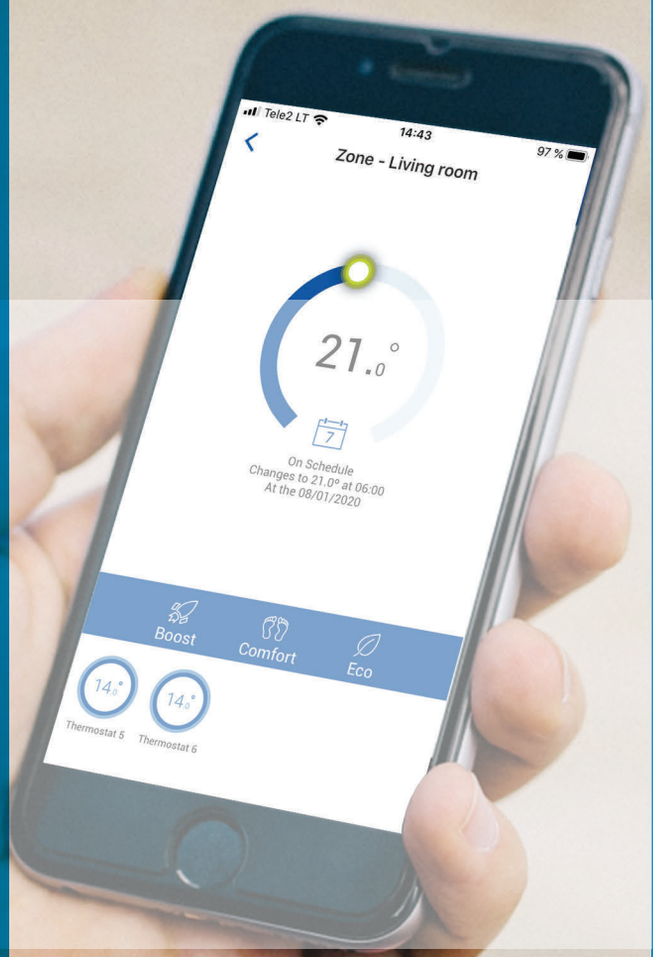


4

Self-regulating cable is ready for the end seal.

Innovative control at your fingertips

Control it any time and anywhere.



The Comfort Wi-Fi thermostat allows to control the heating system with a smartphone.

Wi-Fi technology: Wireless connection provides the ability to monitor and control you home heating from a distance.

Smart Control: Easily manage your home heating via smartphone or computer at home or anywhere around the world.

Programming: Easy programming and control of room temperature will allow you to maintain optimal heat at you home at the right time.

Energy control: Constant monitoring of energy consumption will reduce your heating costs.