



The **ELEKTRA** heating cables

ELECTRIC
FLOOR
HEATING



**UNSEEN
COMFORTABLE
SAFE**

**ECONOMIC
GUARANTEED FOR
10 YEARS**

- Floor heating for houses, apartments, cottages, garages, warehouses, stores, churches... a contemporary alternative to traditional systems!
- Heating for selected rooms, or additional heating for tile or stone floors in bathrooms, kitchens, living rooms, even workshops!
- Heating for greenhouses, barns, farm buildings, cold stores...
- An anti-freeze solution for gutters, down pipes, pipelines, water tanks...



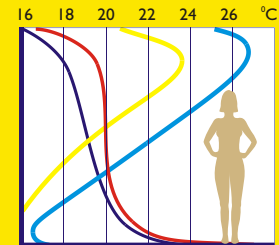
FLOOR HEATING

Scientific research has proved that electric floor heating **is the best heating system** for people, as it considers the physiological temperature distribution inside the human body.

The other advantages of electric floor heating are:

- low investment costs and - thanks to easy temperature control - low operating costs;
- pleasant microclimate - no dust circulation in the room;
- high aesthetic value - thanks to the absence of radiators, commonly used in traditional central heating systems.

VERTICAL DISTRIBUTION OF TEMPERATURE IN A ROOM FOR THE VARIOUS TYPES OF HEATING



— Electric floor heating
— Ideal profile
— Heaters situated next to internal walls
— Air heating



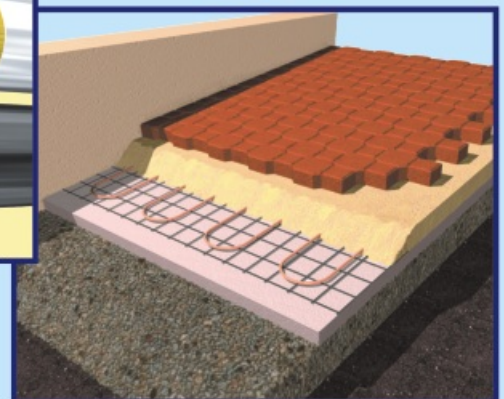
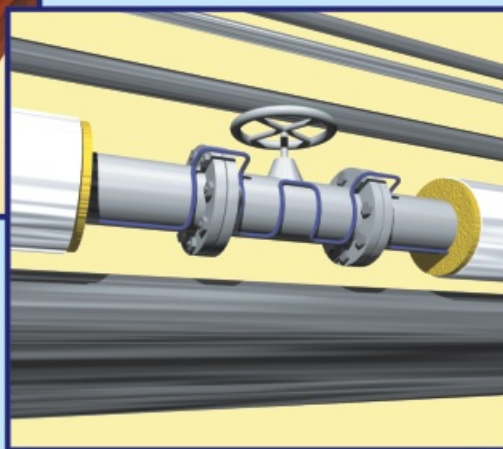
A correctly designed, installed, and operated ELEKTRA floor heating system, has a long life span, and is failure-free. The only maintenance necessary is an inspection just once a year, and electric heating is a simple, economic and modern heating system. The experience gathered in recent years shows the constant development of electric floor heating, and the advances in technology and materials, have allowed still further improvements in the heating cable design, all of which contributes to an even easier installation process, and trouble-free operation.



The ELEKTRA heating cables are also used to provide facilities such as pipelines with a controlled temperature. The ELEKTRA heating cables provide frost protection for any type of water supply lines, guttering, sewage lines, garage ramps etc. Thanks to the ELEKTRA heating cables, you are protected against breakdowns caused by water frozen in pipelines, ramps covered with ice etc.

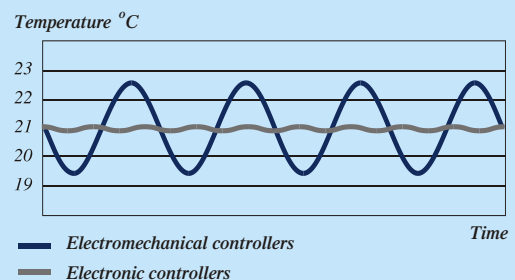
OTHER APPLICATIONS

ELEKTRA heating cables are used not only for room heating, but also in any place where a protection against freezing, ice or snow is necessary.



With correctly selected controllers you could make energy savings of up to **30%**

Diagram of electromechanical and electronic controllers operation



CONTROLLERS WITH PROGRAMMER

These combine the advantages of electronic controllers, with digital circuit "intelligence", and the ability to programme temperature settings in 24hr and weekly cycles. The LCD offers the opportunity to read data such as: true room temperature, previously programmed comfort and economy temperatures, heating system operating time, programme number and graphic images. Selected models have a function that allows the temperature controller to calculate itself the optimum time to switch off the heating when the desired temperature has been reached at a programmed time. Load up to 3600W.

Four events: waking up, leaving, returning and the night mode. Time and temperature may be programmed individually for each of those events. Such an innovative solution allows for programming even four various temperature levels at different times. A large LCD and graphic symbols make the programming process a child's play. Features an adaptation function. Can be installed in a double frame, for instance with a light switch.



ELEKTRA Microline OCC2

ELECTRONIC CONTROLLERS

These are more commonly used. Their basic advantage is high temperature measurement accuracy (0.3 ÷ 0.1°C). They operate noiselessly, and are equipped with an air sensor, a floor sensor, or an air-floor sensor with floor overheat protection. They can be surface or sunk installed. Load up to 3600W. Working in conjunction with a control timer could mean energy savings of up to 30%.

The Elektra Microline OTN with temperature lowering can be connected to an external "day/week" timer which can programme temperature time and temperature lowering. By means of the rings hidden under a knob it is possible to limit mechanically the knob rotation range i.e. a minimum and maximum temperature setting. The OTN thermostat is delivered as a set with floor sensor or built in air sensor. It is possible to install a separate air sensor.



ELEKTRA Microline OTN

TECHNICAL DATA

HEATING CABLES

Double-core cables (single-side power supply)

10 W/m			17 W/m			25 W/m		
CABLE TYPE	LENGTH	POWER	CABLE TYPE	LENGTH	POWER	CABLE TYPE	LENGTH	POWER
DOUBLE-CORE CABLES			DOUBLE-CORE CABLES			DOUBLE-CORE CABLES		
SYMBOL	m	W	SYMBOL	m	W	SYMBOL	m	W
VCD 10/70	7	70	VCD 17/100	6	100	VCD 25/100	4	100
VCD 10/90	9	90	VCD 17/135	8	135	VCD 25/175	7	175
VCD 10/110	11	110	VCD 17/170	10	170	VCD 25/250	10	250
VCD 10/130	13	130	VCD 17/220	13	220	VCD 25/300	12	300
VCD 10/170	17	170	VCD 17/255	15	255	VCD 25/350	14	350
VCD 10/200	20	200	VCD 17/285	17	285	VCD 25/400	16	400
VCD 10/230	23	230	VCD 17/340	20	340	VCD 25/475	19	475
VCD 10/260	26	260	VCD 17/390	23	390	VCD 25/550	22	550
VCD 10/310	31	310	VCD 17/460	27	460	VCD 25/650	26	650
VCD 10/360	36	360	VCD 17/530	31	530	VCD 25/700	28	700
VCD 10/410	41	410	VCD 17/595	35	595	VCD 25/875	35	875
VCD 10/460	46	460	VCD 17/710	42	710	VCD 25/1100	44	1100
VCD 10/550	55	550	VCD 17/915	54	915	VCD 25/1425	57	1425
VCD 10/710	71	710	VCD 17/1170	69	1170	VCD 25/1750	70	1750
VCD 10/900	90	900	VCD 17/1425	84	1425	VCD 25/1925	77	1925
VCD 10/1100	110	1100	VCD 17/1595	94	1595	VCD 25/2250	90	2250
VCD 10/1220	122	1220	VCD 17/1920	113	1920	VCD 25/2450	98	2450
VCD 10/1470	147	1470	VCD 17/2040	120	2040	VCD 25/2750	110	2750
VCD 10/1560	156	1560	VCD 17/2260	133	2260	VCD 25/3000	120	3000
VCD 10/1730	173	1730	VCD 17/2480	146	2480	VCD 25/3250	130	3250
VCD 10/1900	190	1900	VCD 17/2720	160	2720	VCD 25/3550	142	3550
VCD 10/2070	207	2070	VCD 17/2920	172	2920			
VCD 10/2250	225	2250						

ATTENTION! Data in the table may vary up to 5%

CONTROLLERS

TYPE	ELEKTRA Microline OTN 1991	ELEKTRA Microline OTN 1999	ELEKTRA Microline OCC2 1991	ELEKTRA Microline OCC2 1999
floor sensor	•		•	
air sensor		•		•
installation	sunk	sunk	sunk	sunk
supply (V)	220/230	220/230	220/230	220/230
control range (°C)	from +5 to +40	from +5 to +40	from +5 to +40	from +5 to +40
temperature lowering (°C)	by 5	by 5	from +5 to +40	from +5 to +40
max. load (W)	3600	3600	3600	3600
switch	1 pole	1 pole	1 pole	1 pole
protection degree (IP)	20	20	21	21
dimensions: height x width x depth (mm)	80 x 80 x 50	80 x 80 x 50	80 x 80 x 48	80 x 80 x 48

ELEKTRA

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