

Temperature controllers

ELECTRIC
HEATING SYSTEMS

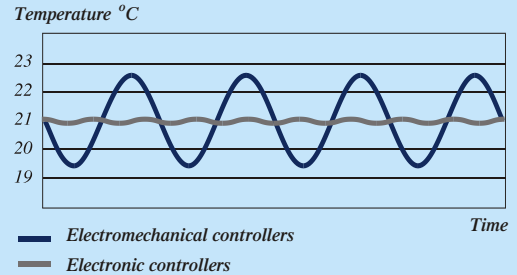


Temperature controllers that guarantee high comfort for users of all heating systems. The control and adjustment contribute to a reduction in operating costs.

COMFORTABLE
PRECISE
SAFETY
ECONOMIC

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

Diagram of electromechanical and electronic controllers operation



ELECTROMECHANICAL CONTROLLERS

These are used mainly in rooms where precise control of temperature is not required. Inertia of these types of controllers does not exceed 5°C. However, controllers that are equipped with a thermal accelerator, increase measurement accuracy by up to 0.5°C. The electromechanical controllers are equipped with air sensors only, and are surface installed. Main advantages include simple structure, simple to operate, and low price.

The Elektra Flash 25616 controller is equipped with a thermal accelerator. The heating system operation is signalled via a diode. Its possible to limit the settings range as well as synchronising the controller with thermometer indications. Temperature within a room can be controlled courtesy of an air sensor (from 5°C to 35°C). Supply 220/240V, 50/60Hz. I insulation class.



ELEKTRA Flash 25616

The Elektra ELR 10 electronic controller can measure temperature in 3 ways. By way of an air sensor, a floor sensor, and an air-floor sensor. The controller with an air-floor sensor measures a room temperature, and the floor sensor measures the floor temperature, to prevent overheating. The operation of the heating system is signalled by a diode.



ELEKTRA ELR-10

ELECTROMECHANICAL CONTROLLERS CHART

NAME	ELEKTRA Flash 25616	ELEKTRA Flash 25801
floor sensor		
air sensor	•	•
installation	surface	surface
supply (V)	220/230	220/230
control range (°C)	from +5 to +35	from +5 to +35
max. load (W)	2300	2300
switch	1 pole	-
protection degree (IP)	30	30
dimensions: height x width x depth (mm)	80 x 80 x 30	80 x 80 x 30

ELECTRONIC CONTROLLERS

These are more commonly used. Their basic advantage is high temperature measurement accuracy ($0.3 \pm 0.1^\circ\text{C}$). 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



ELECTRONIC CONTROLLERS

NAME	ELEKTRA ELR-10	ELEKTRA Microline OTN 1991	ELEKTRA Microline OTN 1999	ELEKTRA Flash 25526
floor sensor	•	•		•
air sensor	•		•	
floor protecting sensor (°C)	+40			
installation	surface	sunk	sunk	surface
supply (V)	220/230	220/230	220/230	220/230
control range (°C)	from +5 to +35	from +5 to +40	from +5 to +40	from +5 to +30
temperature lowering (°C)	-	by 5	by 5	-
max. load (W)	3600	3600	3600	3600
switch	1 pole	1 pole	1 pole	1 pole
protection degree (IP)	20	20	20	30
dimensions: height x width x depth (mm)	80 x 82 x 36	80 x 80 x 50	80 x 80 x 50	80 x 80 x 30

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

The Elektra Digi 2 controller is equipped with three built in programmes. Its also possible to create personal week programmes (individual programming of every day with up to 6 temperature changes within 24hrs). The Elektra Digi 2 also offers many other facilities, including: holiday programme for up to 99 days, telephone control capability, a heating/air conditioning switch, the opportunity to temporarily change temperature without affecting the programme, a device operating time counter that allows control for all seasons, as well as other features.



Elektra DIGI2

The Elektra Euroster 2016p is a controller that can be programmed. It can automatically adapt a room temperature to day level temperature when a user is at home or lower it automatically saving energy in night or when user is outside home. It is enough to set the controller suitably in the memory of which 9 programs exist. A clear LCD makes programming easier with several buttons only.



Elektra Euroster 2016p

ELECTRONIC CONTROLLERS WITH PROGRAMMER

NAME	ELEKTRA DIGI2	ELEKTRA DIGI2p	ELEKTRA Microline OCC2 1991	ELEKTRA Microline OCC2 1999	ELEKTRA Microline OCC2 1999
floor sensor		•	•		•
air sensor	•			•	•
floor protecting sensor (°C)					from +5 to +55
installation	surface	surface	sunk	sunk	sunk
supply (V)	battery 2 x R6	battery 2 x R6	220/230	220/230	220/230
control range (°C)	from +5 to +30	from +5 to +30	from +5 to +40	from +5 to +40	from +5 to +40
temperature lowering (°C)	from +5 to +30	from +5 to +30	from +5 to +40	from +5 to +40	from +5 to +40
max. load (W)	1800 (250V)	1800 (250V)	3600	3600	3600
protection degree (IP)	30	30	21	21	21
dimensions: height x width x depth (mm)	85 x 115 x 30	85 x 115 x 30	80 x 80 x 48	80 x 80 x 48	80 x 80 x 48

ELECTRONIC CONTROLLERS WITH PROGRAMMER

NAME	ELEKTRA Euroster 2000/2005	ELEKTRA Euroster 2000p/2005p	ELEKTRA Euroster 2016	ELEKTRA Euroster 2016p
floor sensor		•		•
air sensor	•		•	
installation	surface	surface	surface	surface
supply (V)	battery 2 x R6	battery 2 x R6	battery 2 x R6	battery 2 x R6
control range (°C)	from +5 to +30	from +5 to +30	from +5 to +30	from +5 to +30
temperature lowering (°C)	from +5 to +30	from +5 to +30	from +5 to +30	from +5 to +30
max. load (W)	1100 (230V)	1100 (230V)	3600 (230V)	3600 (230V)
protection degree (IP)	20	20	20	20
dimensions: height x width x depth (mm)	80 x 154 x 30	80 x 154 x 30	80 x 154 x 30	80 x 154 x 30

DIN BUS CONTROLLERS

This offer covers controllers with adjusted hysteresis as well as the ones that operate with a humidity detector. Their application is very wide, from temperature control in apartment buildings through anti-freezing protection (gutters, pipes, valves, access roads, gates, stairs) up to industrial pipeline protection.

The ETR controller is used at so called critical temperatures. The setting of two temperature levels: lower (-10°C up to 0°C) and upper (0°C up to +10°C) initiates the economic operation of heating cables that effectively prevent gutters, roofs, terraces, access roads icing. The controller is equipped with diodes that signal a current operating system state, protecting against frost.



ELEKTRA Microline ETR

DIN BUS CONTROLLERS

NAME	ELEKTRA Microline ETR		ELEKTRA Microline ETN		ELEKTRA Microline ETV		ELEKTRA Microline ETOG 55	ELEKTRA Microline ETOR 55
	1447	1441	1441	1449	1991	1999		
floor sensor		•	•		•		humidity detector and temp. sensor installed in base	humidity detector and temp. sensor installed in gutters
air sensor	in a separate casing			in a separate casing		in a separate casing		
installation	eurobus		eurobus		eurobus		eurobus or surface installed	eurobus or surface installed
supply (V)	220/230		220/230		220/230		220/230	220/230
control range (°C)	lower from -10 to 0 upper from 0 to +10		from 0 to +35		from 0 to +40		from 0 to +5	from 0 to +5
temperature lowering (°C)	-		from +3 to +10		by 5		-	-
max. load (W)	3600		3600		3600		8000	8000
switch	-		2-fields		-		-	-
hysteresis (K)	0,4		from 0,3 to 6		0,4		0,3	0,3
dimensions: height x width x depth (mm)	86 x 52,5 x 58		86 x 52,5 x 58		86 x 36 x 58		90 x 156 x 45	90 x 156 x 45

ELEKTRA

ul. Marynarska 14, 02-674 Warsaw, Poland
 tel.: (+48 22) 843 32 82, fax: (+48 22) 843 47 52
 e-mail: office@elektra.pl www.elektra-heating.com

