

# LK Electronic Thermostat TR 26

## DESIGN

The LK Electronic Thermostat TR 26 is designed for under floor heating installations in particularly demanding environments such as industrial and agricultural wash down areas. The thermostat is used with sensors for regulating floor or air temperature. Up to 10 psc LK 24V AC actuators or 10 psc LK 24V AC manifold actuators can be controlled from the TR26. Out put is from a 230v/24v transformer. The thermostat must fully enclosed by the LK Thermostat Housing. We recommend the housing is located next to the manifold or other suitable location.

## FLOOR TEMPERATURE REGULATION

TR26 is used with LK Floor Sensor FK133/4, length 4M. The sensor can be extended as shown in the table below. The floor sensor should be encapsulated in conduit between two under floor heating pipes and in a location representative of the entire floor surface. If overall temperature regulation of the surface is required, several sensors can be linked together in a specific pattern (see connection diagram below). The sensor cable must not be laid alongside a power cable.

## AIR TEMPERATURE REGULATION

TR 26 is also used with LK Room Temperature Sensor FS 103, which should be fitted away from sunlight or other heat sources. If overall temperature regulation is required, several sensors can be linked together in a specific pattern (see connection diagram below). The sensor cable must not be laid alongside a power cable.

### 1. LK Electronic Thermostat TR 26

- a. Temperature setting 0 - 60 °C
- b. Mode Indication.
- c. "Heating on" indicator
- d.  $\Delta t$  adjuster – range 0.5 to 5K.

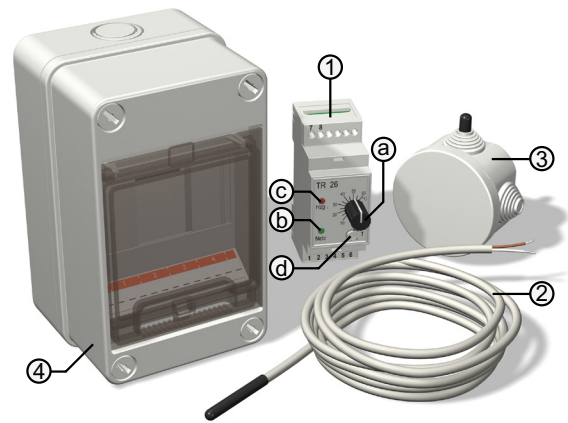
### 2. LK Floor Sensor FK133/4 (4M lg.)

### 3. LK Room Temperature Sensor FS 103

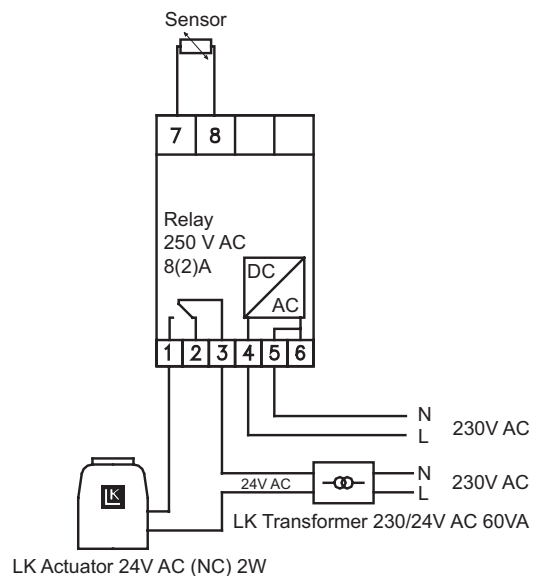
### 4. LK Thermostat Housing with DIN rails; space for two thermostats.

#### NOTE:

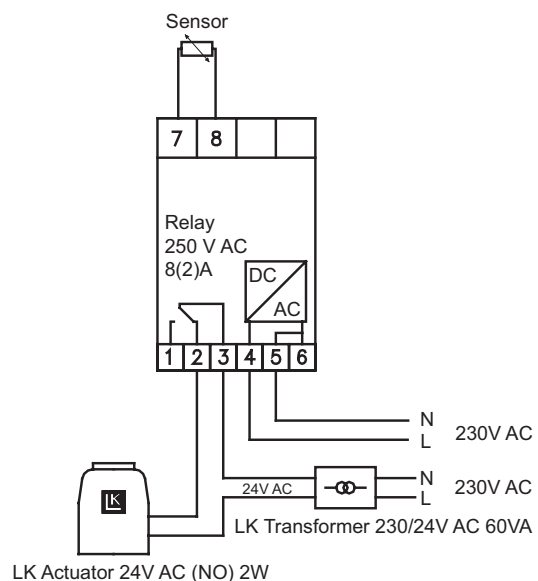
The items must be ordered using separate item numbers (see technical data).



## CONNECTION DIAGRAM WITH LK ACTUATOR NORMALLY CLOSED (NC)



## CONNECTION DIAGRAM WITH LK ACTUATOR NORMALLY OPEN (NO)



### CABLE SIZE WHEN EXTENDING

Cable size when extending sensor cable for FK133/4 and cable size for connection of FS 103.

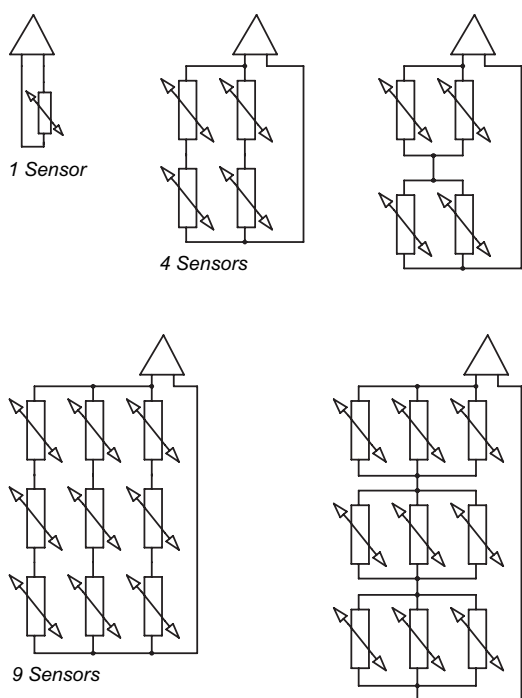
30 m	2 x 0,50 mm <sup>2</sup>
45 m	2 x 0,75 mm <sup>2</sup>
60 m	2 x 1,00 mm <sup>2</sup>
90 m	2 x 1,50 mm <sup>2</sup>

### OHM TABLE

Ohm table for sensor FK133/4 and FS 103.

-5 °C	1525 Ohm
0 °C	1592 Ohm
+5 °C	1661 Ohm
+10 °C	1732 Ohm
+15 °C	1805 Ohm
+20 °C	1879 Ohm
+25 °C	1956 Ohm
+30 °C	2035 Ohm
+35 °C	2115 Ohm
+40 °C	2197 Ohm
+45 °C	2282 Ohm
+50 °C	2368 Ohm
+55 °C	2456 Ohm
+60 °C	2546 Ohm
+65 °C	2638 Ohm

### CONNECTION OF SENSORS FOR AVERAGE TEMPERATURE REGULATION



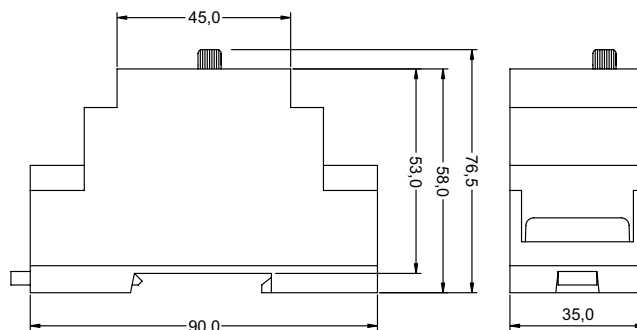
### TECHNICAL DATA

LK Electronic Thermostat TR 26

Article no.	241 81 48
Temperature range	+0 – +60 C°
Δt adjustment	0,5 – 5 K
Power loss	2,5 VA
Operating voltage	230 V AC
Change-over contact, volt free	24/230 V AC
Max. load	8 (2) A, 250 V AC
Insulation class	IP20
Assembly	DIN EN 60715 mounting for rail
Dimensions	35 x 90 x 76,5 mm

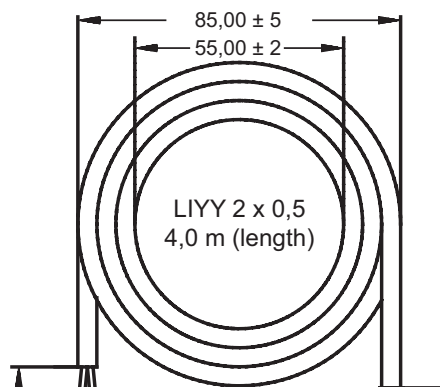
Energy declaration in accordance with EU 811/2013.

Temperature regulator class	I
Temperature regulator's contribution to seasonal space heating energy efficiency	1%



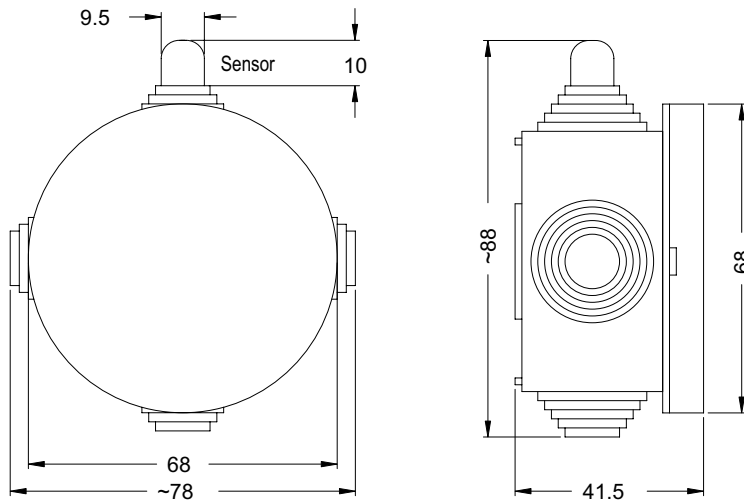
### LK Cable Sensor FK 133/4

Article no	241 81 49
Sensor element	KTY semi-conductor
Sensor cable	PVC 2 x 0.5 mm <sup>2</sup>
Length	4 m
Diameter/length of sensor section	6 x 43 mm



### LK Room Temperature Sensor FS 103

Article no	241 81 74
Sensor element	KTY semi-conductor
Enclosure	PVC box
Insulation class	IP55
Dimensions (LxWxD)	78 x 88 x 41.5 mm



### LK DIN Box

Article no	241 81 75
Insulation class	IP55
Number of thermostats TR26	2
Dimensions (LxWxD)	105 x 170 x 98 mm

