"ESA Control" Ltd

DIGITAL

TEMPERATURE CONTROLLERS

Bulgaria
5300 Gabrovo
3, Stancionna str.
Tel./fax: +359 66 860543
E-mail: office@esa-control.com
Site: http://www.esa-control.com

Temperature controller TC4-1

Features

The digital single-channel temperature controller TC4-1 is a compact microprocessor device which is used for measuring and regulating temperatures within the range of -99ºC to +650ºC. The temperature controller has one input and one output. The input of the temperature controller is designed for operation with a 2-wire or 3-wire temperature sensor Pt100, and his output is a relay contact. The temperature regulation is carried out in a simple two-position law of control (ON-OFF). To avoid clicks of the relay contact at output switching, there is a factory set limit of its operation speed of 0.5 seconds. By the front panel buttons can be set the desired the temperature of regulate (T), hysteresis (h) and the operating mode (Mode) – heating or cooling, and by changing the value of the coefficient (d) can be compensated the error of the measured temperature, which is obtained from the resistance of the connecting cable of the temperature sensor. The temperature controller is used for automation of industrial, technological and other processes.

Type parameters		
Type	Supply voltage	Consumption
TC4-1 / 220V	220VAC ±10%	16mA (4W)
TC4-1 / 12-24V	11 ÷ 31 VDC 11 ÷ 27 VAC	85mA (2W)

Technical parameters

LED indicator (red), 4 digits	h=14mm (height)
Operating range, T	-99º... +650ºC
Hysteresis, h	0º... 30ºC
Supply voltage, Us	220VAC / 12÷24V ac/dc
Power consumption, P	4W (16mA) / 2W (85mA)
Output - relay, S1	4A / 220VAC
Inputs “in-1”, “in-2, “in-3”, for connection of temperature sensor	Pt100
Temperature measurement error	±0,5º / Ta (+10º...+30ºC)
Ambient temperature, Ta	-20º...+50ºC
Degree of protection	IP40
Joining	Terminal
Sizes	95x49x113mm
Non-volatile memory of the programmable parameters.	

Programmable parameters

Temperature of regulate (T)	-99º... +650ºC
Hysteresis (h)	0º... 30ºC
Operating mode (Mode) - heating / cooling	HEAT / CooL
Correction coefficient (d)	0º... -9,9ºC

Connection schemes

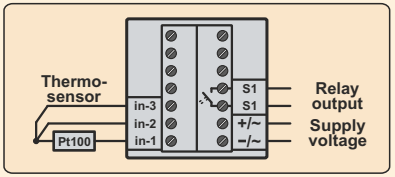


fig.1

Connecting a 3-wire Pt100 sensor

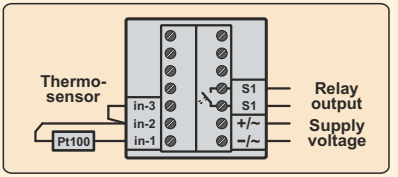


fig.2

Connecting a 2-wire Pt100 sensor

Temperature controller TC4-1L

Features

The digital single-channel temperature controller TC4-1L is a compact microprocessor device designed for M35 DIN-rail mounting. It serves to measure and regulate temperatures in the range from -99ºC to +650ºC. The temperature controller has one input and one output. The input of the temperature controller is designed for operation with a 2-wire or 3-wire temperature sensor Pt100, and his output is a relay contact. The temperature regulation is carried out in a simple two-position law of control (ON-OFF). To avoid clicks of the relay contact at output switching, there is a factory set limit of its operation speed of 0.5 seconds. By the front panel buttons can be set the desired the temperature of regulate (T), hysteresis (h) and the operating mode (Mode) – heating or cooling, and by changing the value of the coefficient (d) can be compensated the error of the measured temperature, which is obtained from the resistance of the connecting cable of the temperature sensor. The temperature controller is used for automation of industrial, technological and other processes.

Type parameters		
Type	Supply voltage	Consumption
TC4-1L / 220V	220VAC ±10%	16mA (4W)
TC4-1L / 12-24V	11 ÷ 31 VDC 11 ÷ 27 VAC	85mA (2W)

Technical parameters

LED indicator (red), 4 digits	h=14mm (height)
Operating range, T	-99º... +650ºC
Hysteresis, h	0º... 30ºC
Supply voltage, Us	220VAC / 12÷24V ac/dc
Power consumption, P	4W (16mA) / 2W (85mA)
Output - relay, S1	4A / 220VAC
Inputs “in-1”, “in-2, “in-3”, for connection of temperature sensor	Pt100
Temperature measurement error	±0,5º / Ta (+10º...+30ºC)
Ambient temperature, Ta	-20º...+50ºC
Degree of protection	IP40
Joining	Terminal
Sizes	86x70x58mm, DIN35-70
Non-volatile memory of the programmable parameters.	

Programmable parameters

Temperature of regulate (T)	-99º... +650ºC
Hysteresis (h)	0º... 30ºC
Operating mode (Mode) - heating / cooling	HEAT / CooL
Correction coefficient (d)	0º... -9,9ºC

Connection schemes

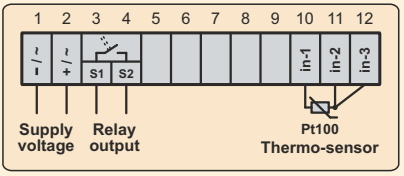


fig.1

Connecting a 3-wire Pt100 sensor

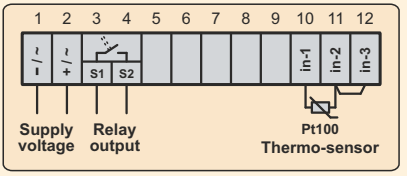


fig.2

Connecting a 2-wire Pt100 sensor

Temperature controller TC4-1F

Features

The digital single-channel temperature controller TC4-1F is a compact microprocessor device which is used for measuring and regulating temperatures within the range of -99ºC to +650ºC. The temperature controller has one input and two outputs. The input of the temperature controller is designed for operation with a 2-wire or 3-wire temperature sensor Pt100. Output "S" (Relay-1) is used to control the heater (cooler), and output "F" (Relay-2) is functional and can be used to turn on alarms, fans and other elements. The temperature regulation is carried out in a simple two-position law of control (ON-OFF). To avoid clicks of the relay contact at output switching, there is a factory set limit of its operation speed of 0.5 seconds. By the front panel buttons can be set the desired the temperature of regulate (T), hysteresis (h) and the operating mode (Mode) – heating or cooling, and by changing the value of the coefficient (d) can be compensated the error of the measured temperature, which is obtained from the resistance of the connecting cable of the temperature sensor. Can be set the temperature (F) and hysteresis (b) to the functional output (Relay-2). The temperature controller is used for automation of industrial, technological and other processes.

Type parameters		
Type	Supply voltage	Consumption
TC4-1F / 220V	220VAC ±10%	16mA (4W)
TC4-1F / 12-24V	11 ÷ 31 VDC 11 ÷ 27 VAC	125mA (3W)

Technical parameters

LED indicator (red), 4 digits	h=14mm (height)
Operating range, T (F)	-99º... +650ºC
Hysteresis, h (b)	0º... 30ºC (0º... 50ºC)
Supply voltage, Us	220VAC / 12÷24V ac/dc
Power consumption, P	4W (16mA) / 3W (125mA)
Output S (Relay-1)	4A / 220VAC (NO)
Output F (Relay-2)	4A / 220VAC (NO+NC)
Inputs “in-1”, “in-2, “in-3”, for connection of temperature sensor	Pt100
Temperature measurement error	±0,5º / Ta (+10º...+30ºC)
Ambient temperature, Ta	-20º...+50ºC
Degree of protection	IP40
Joining	Terminal
Sizes	95x49x113mm
Non-volatile memory of the programmable parameters.	

Programmable parameters

Temperature of regulate (T)	-99º... +650ºC
Temperature of switching on the functional Relay-2 (F)	-99º... +650ºC
Hysteresis of regulate (h)	0º... 30ºC
Hysteresis of the functional Relay-2 (b)	0º... 50ºC
Operating mode (Mode) - heating / cooling	HEAT / CooL
Correction coefficient (d)	0º... -9,9ºC

Connection schemes

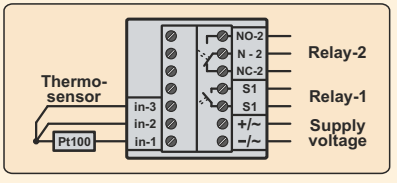


fig.1
Connecting a 3-wire Pt100 sensor

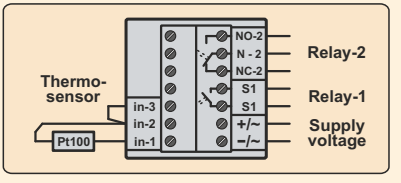


fig.2
Connecting a 2-wire Pt100 sensor

Temperature controller TC4-1LF

Features

The digital single-channel temperature controller TC4-1LF is a compact microprocessor device designed for M35 DIN-rail mounting. It serves to measure and regulate temperatures in the range from -99ºC to +650ºC. The temperature controller has one input and two outputs. The input of the temperature controller is designed for operation with a 2-wire or 3-wire temperature sensor Pt100. Output "S" (Relay-1) is used to control the heater (cooler), and output "F" (Relay-2) is functional and can be used to turn on alarms, fans and other elements. The temperature regulation is carried out in a simple two-position law of control (ON-OFF). To avoid clicks of the relay contact at output switching, there is a factory set limit of its operation speed of 0.5 seconds. By the front panel buttons can be set the desired the temperature of regulate (T), hysteresis (h) and the operating mode (Mode) – heating or cooling, and by changing the value of the coefficient (d) can be compensated the error of the measured temperature, which is obtained from the resistance of the connecting cable of the temperature sensor. Can be set the temperature (F) and hysteresis (b) to the functional output (Relay-2). The temperature controller is used for automation of industrial, technological and other processes.

Type parameters		
Type	Supply voltage	Consumption
TC4-1LF / 220V	220VAC ±10%	16mA (4W)
TC4-1LF / 12-24V	11 ÷ 31 VDC 11 ÷ 27 VAC	125mA (3W)

Technical parameters

LED indicator (red), 4 digits	h=14mm (height)
Operating range, T (F)	-99º... +650ºC
Hysteresis, h (b)	0º... 30ºC (0º... 50ºC)
Supply voltage, Us	220VAC / 12÷24V ac/dc
Power consumption, P	4W (16mA) / 3W (125mA)
Output S (Relay-1)	4A / 220VAC (NO)
Output F (Relay-2)	4A / 220VAC (NO+NC)
Inputs “in-1”, “in-2, “in-3”, for connection of temperature sensor	Pt100
Temperature measurement error	±0,5º / Ta (+10º...+30ºC)
Ambient temperature, Ta	-20º...+50ºC
Degree of protection	IP40
Joining	Terminal
Sizes	86x70x58mm, DIN35-70
Non-volatile memory of the programmable parameters.	

Programmable parameters

Temperature of regulate (T)	-99º... +650ºC
Temperature of switching on the functional Relay-2 (F)	-99º... +650ºC
Hysteresis of regulate (h)	0º... 30ºC
Hysteresis of the functional Relay-2 (b)	0º... 50ºC
Operating mode (Mode) - heating / cooling	HEAT / CooL
Correction coefficient (d)	0º... -9,9ºC

Connection schemes

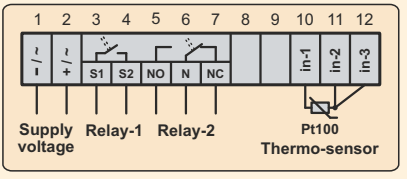


fig.1
Connecting a 3-wire Pt100 sensor

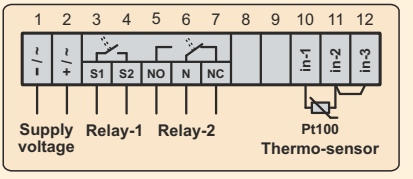


fig.2
Connecting a 2-wire Pt100 sensor

Temperature controller TC4-2

Features

The digital single-channel temperature controller TC4-2 is a compact microprocessor device which is used for measuring and regulating temperatures within the range of -45,0ºC to +125,0ºC. The temperature controller has one input and one output. The input of the temperature controller is designed for operation with a 2-wire or 3-wire temperature sensor Pt100, and his output is a relay contact. The temperature regulation is carried out in a simple two-position law of control (ON-OFF). To avoid clicks of the relay contact at output switching, there is a factory set limit of its operation speed of 0.5 seconds. By the front panel buttons can be set the desired the temperature of regulate (T), hysteresis (h) and the operating mode (Mode) – heating or cooling, and by changing the value of the coefficient (d) can be compensated the error of the measured temperature, which is obtained from the resistance of the connecting cable of the temperature sensor. The temperature controller is used for automation of industrial, technological and other processes.

Type parameters		
Type	Supply voltage	Consumption
TC4-2 / 220V	220VAC ±10%	16mA (4W)
TC4-2 / 12-24V	11 ÷ 31 VDC 11 ÷ 27 VAC	85mA (2W)

Technical parameters

LED indicator (red), 4 digits	h=14mm (height)
Operating range, T	-45,0º... +125,0ºC
Hysteresis, h	0º... 10,0ºC
Supply voltage, Us	220VAC / 12÷24V ac/dc
Power consumption, P	4W (16mA) / 2W (85mA)
Output - relay, S1	4A / 220VAC
Inputs “in-1”, “in-2, “in-3”, for connection of temperature sensor	Pt100
Temperature measurement error	±0,2º / Ta (+10º...+30ºC)
Ambient temperature, Ta	-20º...+50ºC
Degree of protection	IP40
Joining	Terminal
Sizes	95x49x113mm
Non-volatile memory of the programmable parameters.	

Programmable parameters

Temperature of regulate (T)	-45,0º... +125,0ºC
Hysteresis (h)	0º... 10,0ºC
Operating mode (Mode) - heating / cooling	HEAT / CooL
Correction coefficient (d)	0º... -9,9ºC

Schemes of connection

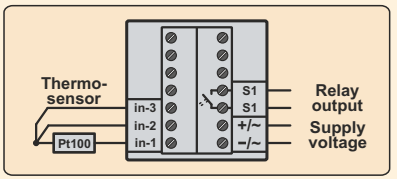


fig.1

Connecting a 3-wire Pt100 sensor

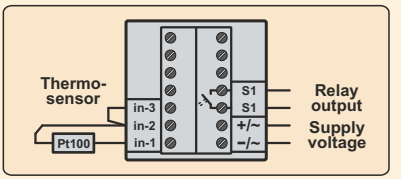


fig.2

Connecting a 2-wire Pt100 sensor

Temperature controller TC4-2L

Features

The digital single-channel temperature controller TC4-2L is a compact microprocessor device designed for M35 DIN-rail mounting. It serves to measure and regulate temperatures in the range from -45,0ºC to +125,0ºC. The temperature controller has one input and one output. The input of the temperature controller is designed for operation with a 2-wire or 3-wire temperature sensor Pt100, and his output is a relay contact. The temperature regulation is carried out in a simple two-position law of control (ON-OFF). To avoid clicks of the relay contact at output switching, there is a factory set limit of its operation speed of 0.5 seconds. By the front panel buttons can be set the desired the temperature of regulate (T), hysteresis (h) and the operating mode (Mode) – heating or cooling, and by changing the value of the coefficient (d) can be compensated the error of the measured temperature, which is obtained from the resistance of the connecting cable of the temperature sensor. The temperature controller is used for automation of industrial, technological and other processes.

Type parameters		
Type	Supply voltage	Consumption
TC4-2L / 220V	220VAC ±10%	16mA (4W)
TC4-2L / 12-24V	11 ÷ 31 VDC 11 ÷ 27 VAC	85mA (2W)

Technical parameters

LED indicator (red), 4 digits	h=14mm (height)
Operating range, T	-45,0º... +125,0ºC
Hysteresis, h	0º... 10,0ºC
Supply voltage, Us	220VAC / 12÷24V ac/dc
Power consumption, P	4W (16mA) / 2W (85mA)
Output - relay, S1	4A / 220VAC
Inputs “in-1”, “in-2, “in-3”, for connection of temperature sensor	Pt100
Temperature measurement error	±0,2º / Ta (+10º...+30ºC)
Ambient temperature, Ta	-20º...+50ºC
Degree of protection	IP40
Joining	Terminal
Sizes	86x70x58mm, DIN35-70
Non-volatile memory of the programmable parameters.	

Programmable parameters

Temperature of regulate (T)	-45,0º... +125,0ºC
Hysteresis (h)	0º... 10,0ºC
Operating mode (Mode) - heating / cooling	HEAT / CooL
Correction coefficient (d)	0º... -9,9ºC

Schemes of connection

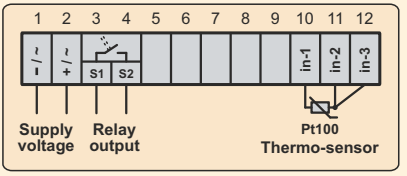


fig.1

Connecting a 3-wire Pt100 sensor

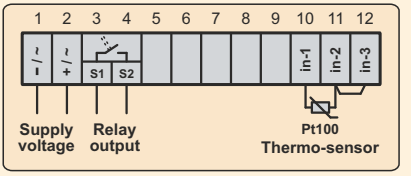


fig.2

Connecting a 2-wire Pt100 sensor

Temperature controller TC4-2F

Features

The digital single-channel temperature controller TC4-2F is a compact microprocessor device which is used for measuring and regulating temperatures within the range of -45,0ºC to +125,0ºC. The temperature controller has one input and two outputs. The input of the temperature controller is designed for operation with a 2-wire or 3-wire temperature sensor Pt100. Output "S" (Relay-1) is used to control the heater (cooler), and output "F" (Relay-2) is functional and can be used to turn on alarms, fans and other elements. The temperature regulation is carried out in a simple two-position law of control (ON-OFF). To avoid clicks of the relay contact at output switching, there is a factory set limit of its operation speed of 0.5 seconds. By the front panel buttons can be set the desired the temperature of regulate (T), hysteresis (h) and the operating mode (Mode) – heating or cooling, and by changing the value of the coefficient (d) can be compensated the error of the measured temperature, which is obtained from the resistance of the connecting cable of the temperature sensor. Can be set the temperature (F) and hysteresis (b) to the functional output (Relay-2). The temperature controller is used for automation of industrial, technological and other processes.

Type parameters		
Type	Supply voltage	Consumption
TC4-2F / 220V	220VAC ±10%	16mA (4W)
TC4-2F / 12-24V	11 ÷ 31 VDC 11 ÷ 27 VAC	125mA (3W)

Technical parameters

LED indicator (red), 4 digits	h=14mm (height)
Operating range, T (F)	-45,0º... +125,0ºC
Hysteresis, h (b)	0º... 10,0ºC (0º... 20,0ºC)
Supply voltage, Us	220VAC / 12÷24V ac/dc
Power consumption, P	4W (16mA) / 3W (125mA)
Output S (Relay-1)	4A / 220VAC (NO)
Output F (Relay-2)	4A / 220VAC (NO+NC)
Inputs “in-1”, “in-2, “in-3”, for connection of temperature sensor	Pt100
Temperature measurement error	±0,2º / Ta (+10º...+30ºC)
Ambient temperature, Ta	-20º...+50ºC
Degree of protection	IP40
Joining	Terminal
Sizes	95x49x113mm
Non-volatile memory of the programmable parameters.	

Programmable parameters

Temperature of regulate (T)	-45,0º... +125,0ºC
Temperature of switching on the functional Relay-2 (F)	-45,0º... +125,0ºC
Hysteresis of regulate (h)	0º... 10,0ºC
Hysteresis of the functional Relay-2 (b)	0º... 20,0ºC
Operating mode (Mode) - heating / cooling	HEAT / CooL
Correction coefficient (d)	0º... -9,9ºC

Connection schemes

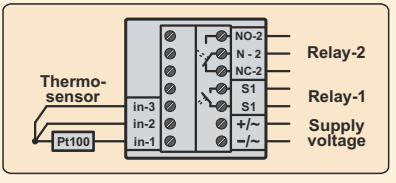


fig.1
Connecting a 3-wire Pt100 sensor

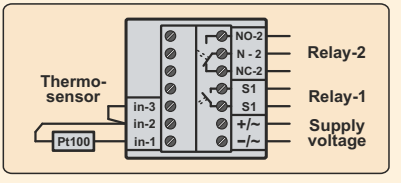


fig.2
Connecting a 2-wire Pt100 sensor

Temperature controller TC4-2LF

Features

The digital single-channel temperature controller TC4-2LF is a compact microprocessor device which is used for measuring and regulating temperatures within the range of -45,0ºC to +125,0ºC. The temperature controller has one input and two outputs. The input of the temperature controller is designed for operation with a 2-wire or 3-wire temperature sensor Pt100. Output "S" (Relay-1) is used to control the heater (cooler), and output "F" (Relay-2) is functional and can be used to turn on alarms, fans and other elements. The temperature regulation is carried out in a simple two-position law of control (ON-OFF). To avoid clicks of the relay contact at output switching, there is a factory set limit of its operation speed of 0.5 seconds. By the front panel buttons can be set the desired the temperature of regulate (T), hysteresis (h) and the operating mode (Mode) – heating or cooling, and by changing the value of the coefficient (d) can be compensated the error of the measured temperature, which is obtained from the resistance of the connecting cable of the temperature sensor. Can be set the temperature (F) and hysteresis (b) to the functional output (Relay-2). The temperature controller is used for automation of industrial, technological and other processes.

Type parameters		
Type	Supply voltage	Consumption
TC4-2LF / 220V	220VAC ±10%	16mA (4W)
TC4-2LF / 12-24V	11 ÷ 31 VDC 11 ÷ 27 VAC	125mA (3W)

Technical parameters

LED indicator (red), 4 digits	h=14mm (height)
Operating range, T (F)	-45,0º... +125,0ºC
Hysteresis, h (b)	0º... 10,0ºC (0º... 20,0ºC)
Supply voltage, Us	220VAC / 12÷24V ac/dc
Power consumption, P	4W (16mA) / 3W (125mA)
Output S (Relay-1)	4A / 220VAC (NO)
Output F (Relay-2)	4A / 220VAC (NO+NC)
Inputs “in-1”, “in-2, “in-3”, for connection of temperature sensor	Pt100
Temperature measurement error	±0,2º / Ta (+10º...+30ºC)
Ambient temperature, Ta	-20º...+50ºC
Degree of protection	IP40
Joining	Terminal
Sizes	86x70x58mm, DIN35-70
Non-volatile memory of the programmable parameters.	

Programmable parameters

Temperature of regulate (T)	-45,0º... +125,0ºC
Temperature of switching on the functional Relay-2 (F)	-45,0º... +125,0ºC
Hysteresis of regulate (h)	0º... 10,0ºC
Hysteresis of the functional Relay-2 (b)	0º... 20,0ºC
Operating mode (Mode) - heating / cooling	HEAT / CooL
Correction coefficient (d)	0º... -9,9ºC

Connection schemes

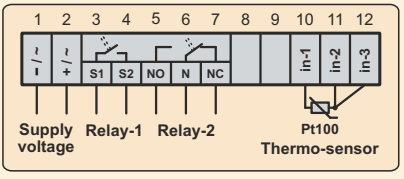


fig.1
Connecting a 3-wire Pt100 sensor

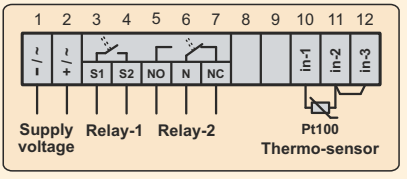


fig.2
Connecting a 2-wire Pt100 sensor

Two-channel temperature controller TC42-1

Features

The two-channel digital temperature controller TC42-1 is a compact microprocessor device that serves to measure and regulate temperatures in the range of -99ºC to +650ºC. In one housing are integrated two independent from each other temperature controllers each of which has one input and one output. The inputs of the temperature controller are designed to work with Pt100 temperature sensors 2-wire, and its outputs are relay contacts. The temperature regulation is carried out by two-position law “on/off”. To prevent flipping through the relay contacts of the outputs when switching, in the process of production is set up a limit to their performance of 0,5 seconds. By the front panel buttons can be set the desired the temperature of regulate (T), hysteresis (h) and the operating mode (Mode) - heating or cooling, and by changing the value of the coefficient (d) can be compensated the error of the measured temperature, which is obtained from the resistance of the connecting cable of the temperature sensors. The temperature controllers are widely used in industrial automation, technological and other processes.

Type parameters		
Type	Supply voltage	Consumption
TC42-1 / 220V	220VAC ±10%	16mA (4W)
TC42-1 / 12-24V	11 ÷ 31 VDC 11 ÷ 27 VAC	125mA (3W)

Technical parameters

LED indicator (red), 2 x 4 digits	h=9mm (height)
Operating range, T1 (T2)	-99º... +650ºC
Hysteresis, h1 (h2)	0º... 30ºC
Supply voltage, Us	220VAC / 12÷24V ac/dc
Power consumption, P	4W (16mA) / 3W (125mA)
Outputs - Relay, S1 (S2)	2 x 4A/220VAC (NO)
Inputs in-1, (in-2) for connection of temperature sensors	Pt100
Temperature measurement error	±0,5º / Ta (+10º...+30ºC)
Ambient temperature, Ta	-20º...+50ºC
Degree of protection	IP40
Joining	Terminal
Sizes	95x49x113mm
Non-volatile memory for the programmable parameters.	

Programmable parameters

Temperature of regulate (T1, T2)	-99º... +650ºC
Hysteresis (h1, h2)	0º... 30ºC
Operating mode (Mode-1, Mode-2) - heating / cooling	HEAT / CooL
Correction coefficient (d1, d2)	0º... -9,9ºC

Schemes of connection

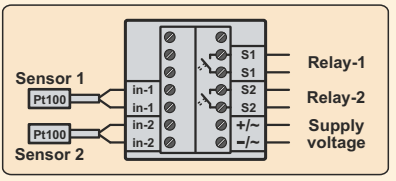


fig.1

Connecting two 2-wire Pt100 temperature sensors

Temperature controller with timer — TCT42-1A

Features

The digital temperature controller with timer TCT42-1A is a compact microprocessor device that serves to regulate temperatures in the range of -99ºC to + 650ºC. With the timer is set the operating time of the thermal controller from the moment of reaching the set temperature until the expiration of the operating time. The input of the thermal controller is designed to work with a 2-wire Pt100 temperature sensor. Output "S" (Relay-1) is used to control the heater (cooler), and output “F” (Relay-2) is functional and can be used to switch on various actuators. The output "F" is switched on when the set temperature is reached and switched off when the set time has elapsed. The temperature is regulated according to a simple two-position control law (ON-OFF). Using the buttons located on the front panel can be set to the desired temperature adjustment (T), the hysteresis (h) and the operating mode (Mode) - heating or cooling, and by changing the value of the coefficient (d) the error of the measured temperature caused by the resistance of the connecting cable of the temperature sensor can be compensated. Can be set the time (t) of operation of thermocontroller and activation of the alarm signal (A) after the expiration of the operational time. The temperature controller is suitable for sterilizing products, baking pasta in ovens or for controlling other temperature processes.

Type parameters		
Type	Supply voltage	Consumption
TCT42-1A / 220V	220VAC ±10%	16mA (4W)
TCT42-1A / 12-24V	11 ÷ 31 VDC 11 ÷ 27 VAC	125mA (3W)

Technical parameters

LED indicator (red), 2 x 4 digits	h = 9mm (height)
Operating temperature range, T	-99º... +650ºC
Operating time range, t - min/sec (h/min)	0 - 99:20min (0 - 99:20h)
Supply voltage, Us	220Vac / 12÷24V ac/dc
Power consumption, P	4W (16mA) / 3W (125mA)
Output S - Relay-1 (heater / cooler)	4A / 220Vac (NO)
Output F - Relay-2 (functional)	4A / 220Vac (NO+NC)
Input in-1, for connecting a temperature sensor	Pt100
Temperature measurement error	±0,5º / Ta (+10º...+30ºC)
Ambient temperature, Ta	-20º...+50ºC
Degree of protection	IP40
Joining	Terminal
Sizes	95x49x113mm
Non-volatile memory for the programmable parameters.	

Programmable parameters - temperature controller

Temperature of regulate, T	-99º... +650ºC
Hysteresis, h	0º... 10ºC
Operating mode, Mode (heating / cooling)	HEAT / CooL
Correction coefficient, d	0º... -9,9ºC

Programmable parameters - timer

Operating time, t		0.01 ... 99.20
Timer mode	(ON - enabled) / (OFF - disabled)	On / OFF
Time range	(0.01 ... 99.20 min/sec) / (0.01 ... 99.20 h/min)	t - 1’’ / t - 1’
Alarm, A	(number of beeps)	0 ... 10

Connection scheme

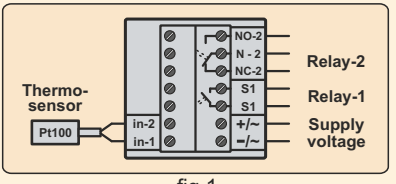
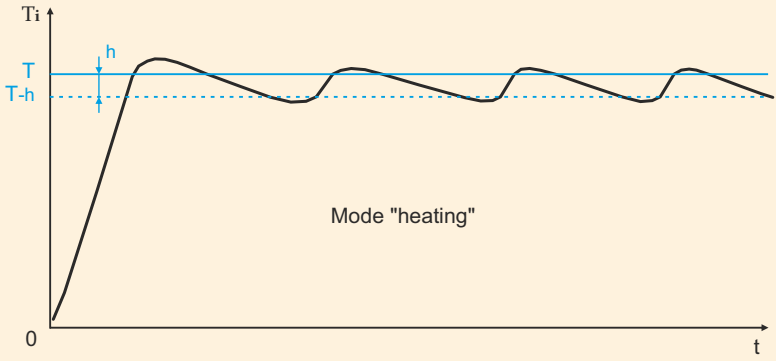
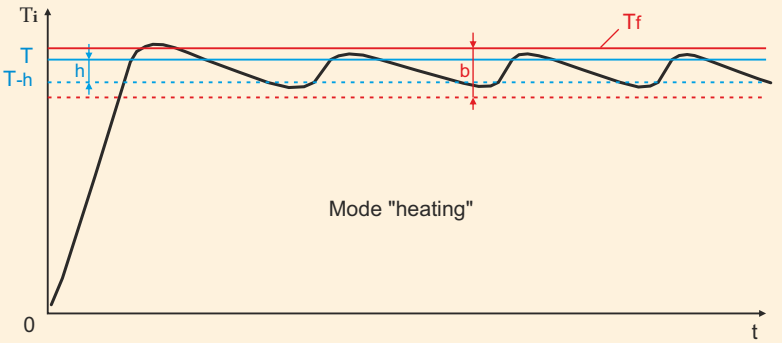


fig.1



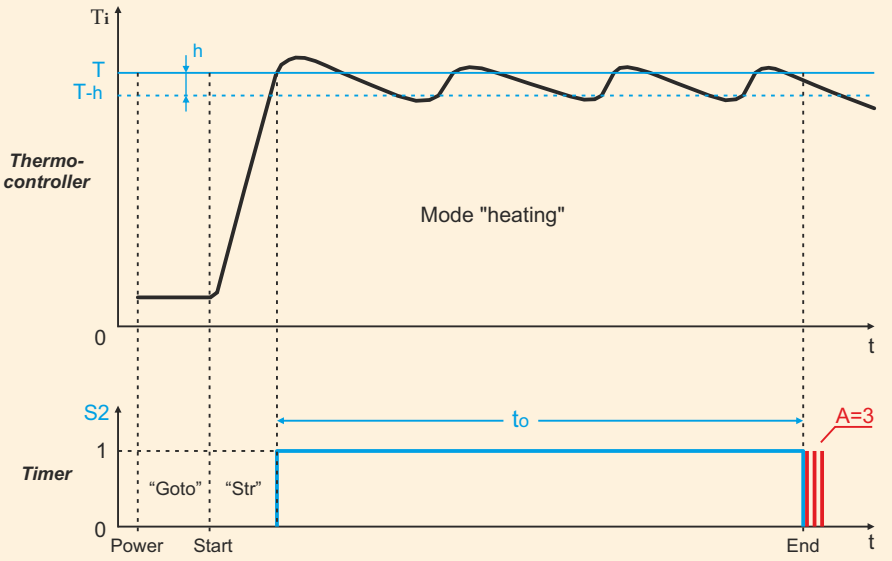
T - regulation temperature, h - hysteresis
Ti - current temperature, t - time

Process a temperature regulation “on/off”
of thermocontrollers TC4-1, TC4-1L, TC4-2, TC4-2L, TC42-1



T - regulation temperature, h - hysteresis
Tf - temperature of switching on the functional output, b - hysteresis of the functional output
Ti - current temperature, t - time

Process a temperature regulation “on/off”
of thermocontrollers TC4-1F, TC4-1LF, TC4-2F, TC4-2LF



T - regulation temperature, h - hysteresis,
S2 - output (relay-2), to - operating time,
A - alarm (three beeps),
Ti - current temperature, t - time

Process of regulating the temperature "on / off" of the thermocontroller TCT42-1A at a set operating time to.

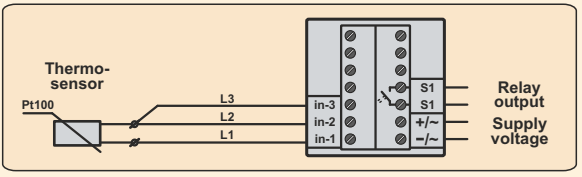


fig.3

Recommended way to extend the 2-wire Pt100 sensor with 3-wire cable ($R_{L1} = R_{L2} = R_{L3} < 150\Omega$)

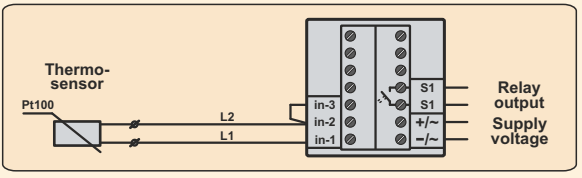


fig.4

Extension of 2-wire Pt100 sensor with 2-wire cable, ($R_{L1} + R_{L2} < 4\Omega$)

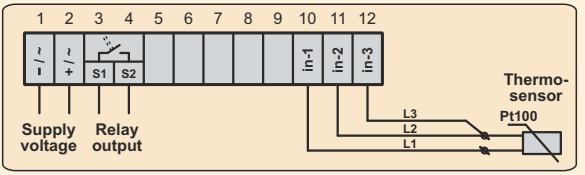


fig.3

Recommended way to extend the 2-wire Pt100 sensor with 3-wire cable ($R_{L1} = R_{L2} = R_{L3} < 150\Omega$)

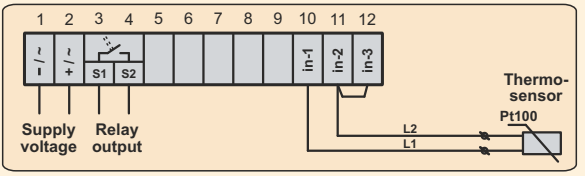


fig.4

Extension of 2-wire Pt100 sensor with 2-wire cable, ($R_{L1} + R_{L2} < 4\Omega$)

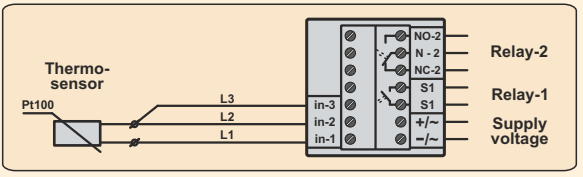


fig.3

Recommended way to extend the 2-wire Pt100 sensor with 3-wire cable ($R_{L1} = R_{L2} = R_{L3} < 150\Omega$)

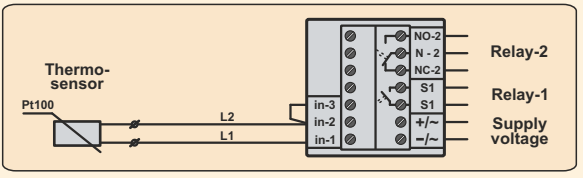


fig.4

Extension of 2-wire Pt100 sensor with 2-wire cable, ($R_{L1} + R_{L2} < 4\Omega$)

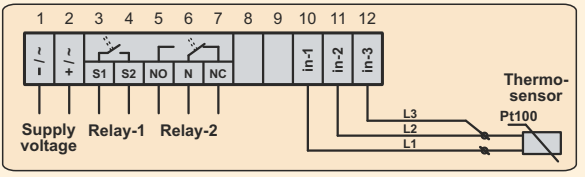


fig.3

Recommended way to extend the 2-wire Pt100 sensor with 3-wire cable ($R_{L1} = R_{L2} = R_{L3} < 150\Omega$)

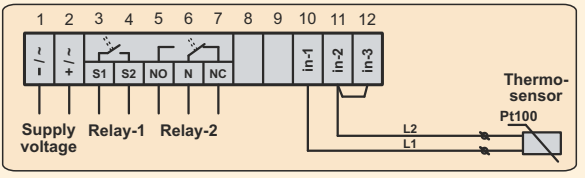
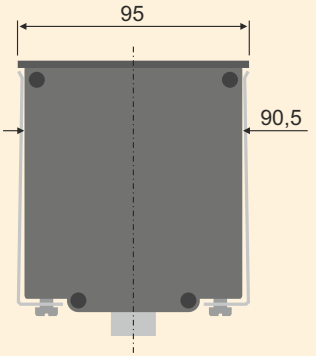
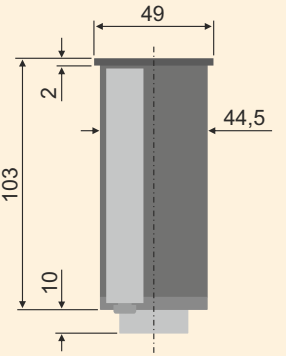
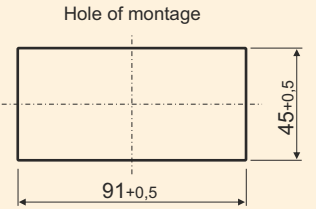


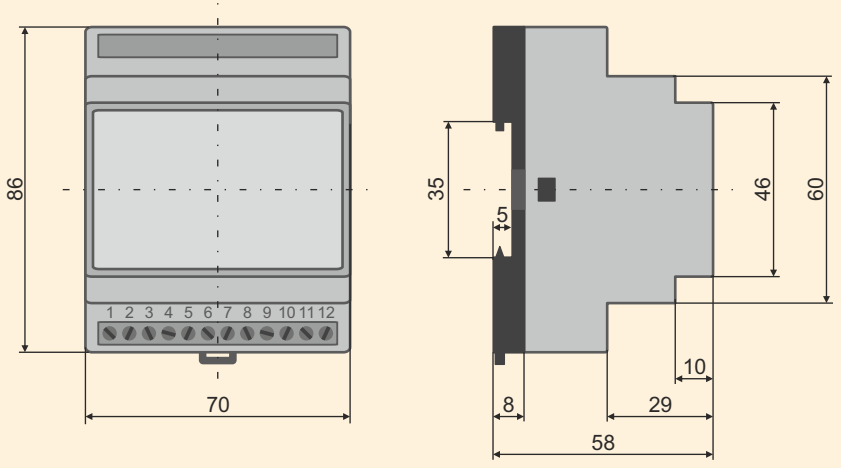
fig.4

Extension of 2-wire Pt100 sensor with 2-wire cable, ($R_{L1} + R_{L2} < 4\Omega$)


95
90,5


49
2
44,5
103
10


Hole of montage
45+0,5
91+0,5


86
1 2 3 4 5 6 7 8 9 10 11 12
70
35
5
46
60
10
8
29
58