

# Air heater thermostat JTL-2 ...-11, 2 functions, TÜV tested Product class D



## Technical data

**Switching capacity:** 15 (8) A, 24–250 V~, at 24 V~ min. 150 mA  
**Control range fan:** 20 ... 70° C  
**Control range burner:** 70 ... 100° C  
**Contact:** 2 microswitches acting as potential-free change-over contact (reversing switch)  
**Degree of protection:** IP 40  
**Protection class:** I  
**Ambient temperature:** –15 ... +80° C  
**Sensor:** liquid type sensor made of Cu, active on this entire length  
**Max. sensor temperature:** 200° C  
**Colour:** grey  
**TÜV tested (Technical Control Association), DIN 3440 compliant**  
 Registration no.: TW 65796/STB 658896  
 For warm air heaters according to DIN 4794

## Application

Used either as minimum or as maximum thermostat for supervision of additional air and fan control in ventilating units and air conditioning systems. Overheating protection thermostat for electric heating spirals and directly oil and gas fired air heaters. The switch "MAN-AUTO" enables to use the fan for ventilation during summer. In summer, the fan can be used for ventilating by means of the switch "MAN-AUTO".

Type	Art.-No.	Switching difference fan	Switching difference burner	Type*	Length of capillary	Equipment**
JTL-2	E 6110013	8...30 K	8 K	TW	350 mm	Intrinsic safety/ cold protection
JTL-4	E 6110037	8...30 K	External manual reset	STB	350 mm	Intrinsic safety/ cold protection
JTL-8	E 6110049	8...30 K	External manual reset	STB	350 mm	Intrinsic safety/cold protection overheating protection
JTL-11	E 6110064	8...30 K	8 K	TW	1250 mm	Intrinsic safety/ cold protection

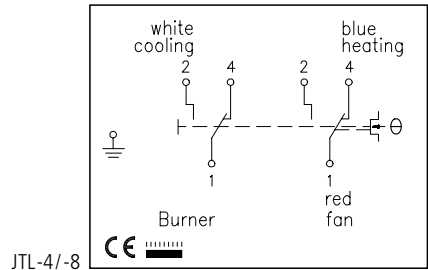
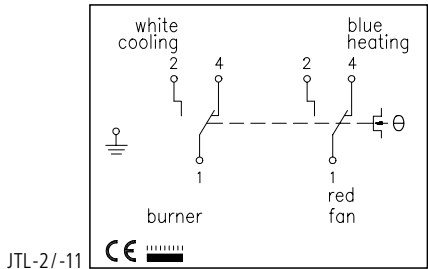
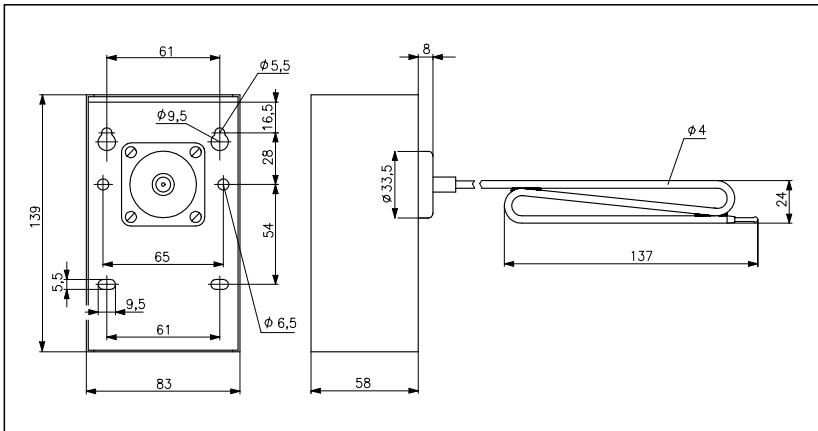
\* TW = temperature controller, STB = safety temperature limiter

\*\* **Intrinsic safety/cold protection:** all devices are fail-safe, i.e. the burner is deactivated if the sensor medium gets lost, e.g. in the event of a sensor breakdown. As minus temperatures may cause the same effect due to a volume reduction of the sensor medium used, the device can be adjusted using the "cold screw" provided for this purpose in such manner that the burner is only deactivated at temperature levels below –15° C. In this event, restart is possible only using the manual reset key and only at temperature levels higher than –5° C.

\*\* **Overheating protection:**

The device protects against uncontrolled overheating, e.g. caused by heat accumulation or if the overheating is due to the fact that the medium the capillary tubes are filled with disappears because the sensor or the capillary tube has suffered invisible damages etc. Upon the attainment of a temperature of 220° C, the safety solder in the sensor melts and the device, due to the loss of the medium it was filled with, deactivates the burner in a fail-safe manner. After that, the burner cannot be restarted. The device is now unserviceable and, in this condition, serves to provide evidence of the fact that an excess temperature of at least 220° C had been reached.

JTL



# Air heater thermostat JTL-4 NR-17 NR, 3 functions,

TÜV tested

Product class D



JTL-8 NR



JTL-17 NR

## Technical data

<b>Switching capacity:</b>	15 (8) A, 24–250 V~, at 24 V~ min. 150 mA
<b>Control range fan:</b>	20 ... 70° C
<b>Control range burner:</b>	70 ... 95° C
<b>Switch-off temperature STB:</b>	100° C, external manual reset
<b>Contact:</b>	3 microswitches acting as potential-free change-over contact (reversing switch)
<b>Degree of protection:</b>	IP 40
<b>Protection class:</b>	I
<b>Ambient temperature:</b>	–15 ... +80° C
<b>Sensor:</b>	liquid type sensor made of Cu, active on its entire length
<b>Max. sensor temperature:</b>	200° C
<b>Colour:</b>	grey

## TÜV tested (Technical Control Association), DIN 3440 compliant

Register no.: TW/STB 70196

For warm air heaters according to DIN 4794

## Application

Temperature regulated fan control, burner supervision and safety temperature limiter, 3 functions. Used either as minimum or as maximum thermostat for supervision of additional air and fan control in ventilation plants and air conditioning systems. Overheating protection thermostat for electric heating spirals and directly oil and gas fired air heaters. In summer, the fan can be used for ventilating by means of the switch "MAN-AUTO".

Type	Art.-No.	Switching difference fan	Switching difference burner	Type*	Length of capillary	Equipment**
JTL-4 NR	E 6120180	8...30 K	8 K	TW/STB	350 mm	Intrinsic safety/cold protection
JTL-8 NR	E 6120038	8...30 K	8 K	TW/STB	350 mm	Intrinsic safety/cold protection overheating protection
JTL-17 NR	E 6120077	8...30 K	8 K	TW/STB	1250 mm	Intrinsic safety/cold protection overheating protection

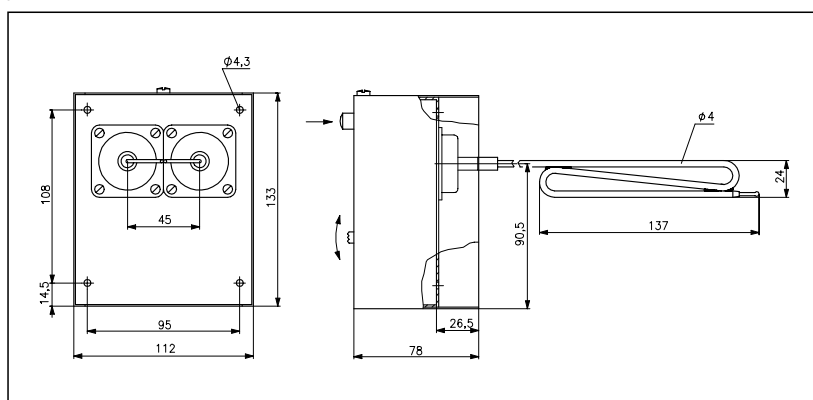
\* TW = temperature controller, STB = safety temperature limiter

\*\* **Intrinsic safety/cold protection:** all devices are fail-safe, i.e. the burner is deactivated if the sensor medium gets lost, e.g. in the event of a sensor breakdown. As minus temperatures may cause the same effect due to a volume reduction of the sensor medium used, the device can be adjusted using the "cold screw" provided for this purpose in such manner that the burner is only deactivated at temperature levels below –15° C. In this event, restart is possible only using the manual reset key and only at temperature levels higher than –5° C.

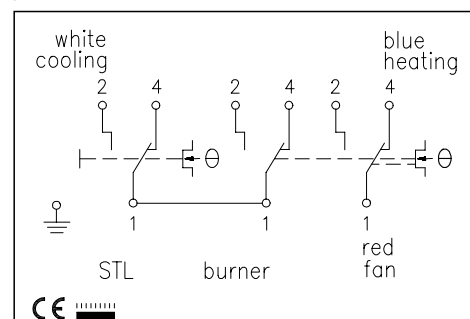
### \*\* Overheating protection:

The device protects against uncontrolled overheating, e.g. caused by heat accumulation or if the overheating is due to the fact that the medium the capillary tubes are filled with disappears because the sensor or the capillary tube has suffered invisible damages etc. Upon the attainment of a temperature of 220° C, the safety solder in the sensor melts and the device, due to the loss of the medium it was filled with, deactivates the burner in a fail-safe manner. After that, the burner cannot be restarted. The device is now unserviceable and, in this condition, serves to provide evidence of the fact that an excess temperature of at least 220° C had been reached.

JTL-..NR



JTL-..NR



All mentioned technical data was determined using our methods and equipment; the data shown is guaranteed in this respect only. It is the responsibility of the customers to ensure suitability for proposed application or for operating according to conditions of use. Subject to change without notice.