TSR03FV.../KR

TSR04FVL… /KR

Room Thermostat TSR03F…TSR04F

Adjustable room thermostat for heating only or cooling only systems

Room thermostat with manual ON/OFF switch
Two-position control
Switching voltage AC 24…250 V

Use

The TSR03FV..04FV room thermostat is used in heating only or cooling only systems to maintain the selected room temperature.

Typical use:

- Residential buildings
- Light industrial buildings

In conjunction with

- zone valves, thermal valves
- gas or oil burners
- fans
- pumps

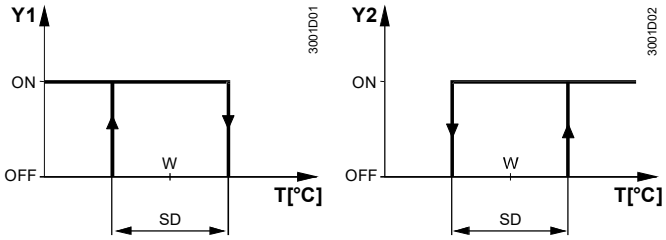
Functions

The front of the unit carries an ON/OFF switch.

OFF In the OFF position, the input voltage is physically separated from the output voltage.

ON The TSR03…,04FV... room thermostat has separate outputs for heating only and cooling only. If the room temperature falls below the selected setpoint, the heating contact will close. If the room temperature exceeds the selected setpoint, the cooling contact will close.

Function diagrams



T	Room temperature
SD	Switching differential
W	Room temperature set-point
Y1	Output signal "Heating"
Y2	Output signal "Cooling"

Type summary

Functionality	Order number (ASN)
Thermostat for heating or cooling application with ON/OFF switch Operating voltage AC 24...250 V	TSR03FV.04/KR
Thermostat for heating or cooling application with ON/OFF switch and operation mode indication (LED) Operating voltage AC 230 V + 10/-15 %.	TSR03FV.04/KR
Thermostat for heating or cooling application with ON/OFF switch and operation mode indication (LED) and independent ON/OFF switch Operating voltage AC 230 V + 10/-15 %.	TSR03FV.04/KR

Equipment combinations

Type of unit	Type reference	Data sheet
Motorized on/off actuators	**VQZ22. STA. ATI, Siemens**	**4**863
Electric actuator (for small valves)	**AQS33. STA. ATI, Siemens**	4865
Thermal actuator (for radiator valves)	**ETA32. STA..ATI, Siemens**	**4**877
Thermal actuator (for small valve 2,5Kvs)	**ETA31. STP..ATI, Siemens**	**4**878

Accessories

Description	Type reference
Adapter plate 106 x 90 mm for 4“ x 4“ conduit boxes	ARG70/ ATI,Siemens

Technical design

Key features of the TSR03F... 04F room thermostat:

- Mechanical same dimension
- Two-position control
- Manual ON/OFF switch
- Electronic controlled

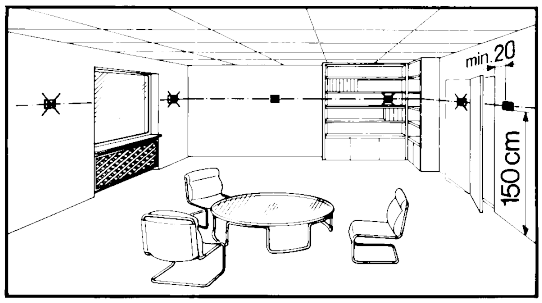
Adjustments

The required temperature is selected by a setpoint adjuster on the front of the thermostat. The setpoint setting range can be mechanically limited by means of setpoint limiter under the cover of TSR03FV.. and for TSR04FVL model the set point button on front of the cover can increase or decrease the setpoint electronically by the micro-processor built in the electronic PCB and accordingly the LCE display shows the digital numbers.

Notes

Mounting, installation and commissioning

The room thermostat should be located where the air temperature can be sensed as accurately as possible, without getting adversely affected by direct solar radiation or other heat or refrigeration sources.
Mounting height is about 1.5 m above the floor.



The unit can be fitted to most commercially available recessed conduit boxes or directly on the wall.

⚠ Only authorized personnel may open the unit to perform service **(Caution: AC 24…250 V).**
The unit must be isolated from the mains supply before opening.

When installing the unit, fix the baseplate first then hook on the thermostat body and make the electrical connections. Then fit the cover and secure it (also refer to separate mounting instructions).
The thermostat must be mounted on a flat wall.
The local electrical regulations must be complied with.
If there are thermostatic radiator valves in the reference room, set them to their fully open position.

Maintenance
The room thermostat is maintenance-free.

Mechanical design
The diaphragm is filled with environmentally friendly gas.
The thermostat housing is made of plastic.

Technical Data

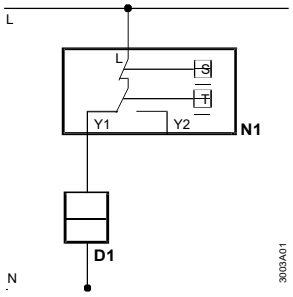
⚠

	Switching capacity	
	Voltage	
	• TSR03FVL...	AC 24...250 V
	• TSR04F./KR /	AC 230 V +10/-15 %
	Power consumption of each	0.5 VA (Only Option)
	LED Current	0.2…6 (2) A
	Frequency	50 or 60 Hz
Operational data	Switching differential SD	≤1K
	Setpoint setting range	8…30 °C
Environmental conditions	Operation	to IEC 60721-3-3
	Climatic conditions	class 3K5
	Temperature	0…+50 °C
	Humidity	<95 % rh.
	Pollution degree	Normal, to EN 60730
	Transport / storage	to IEC 60721-3-2
	Climatic conditions	class 2K3/1K3
	Temperature	-20…+50 °C
	Humidity	<95 % rh.
	Mechanical conditions	class 2M2

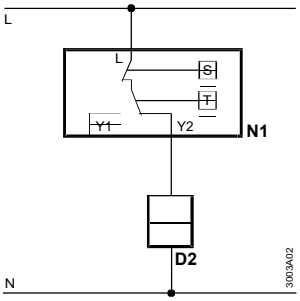
Norms and standards

CE conformity	
Low voltage directive	2006/95/EEC
Product standard	EN 60730
N474 **C-Tick** conformity to EMC emission standard	AS/NSZ 4251.1:1994
Safety standard	II to EN 60730
Degree of protection	IP30 to EN 60529
Screw terminals for	2 x 1.5 mm^2 or 1 x 2.5 mm^2, min. (0.5 mm^2)
Weight	0.14 kg
Color of top cover	white, NCS 50502-G (RAL 9003)

Connection diagrams

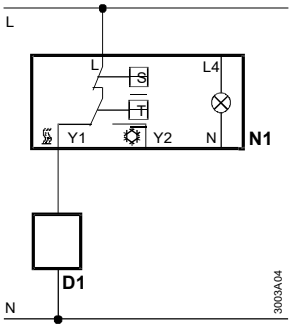


TSR03FX – Heating mode

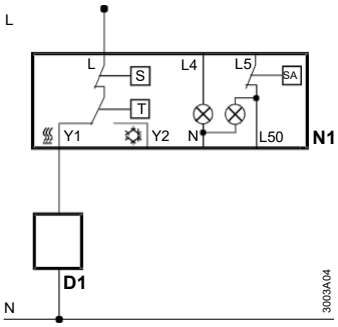


TSR03FX – Cooling mode

D1 Zone valve or thermal valve for heating
D2 Zone valve or thermal valve for cooling
L Switching voltage
AC 24…250 V (TSR03FX only)
AC 230 V
(TSR03FX.16/KR / 26/KR only)
N1 Room thermostat
S ON/OFF switch
Y1 Control output "Heating",
AC 24…250 V (TSR03FV only)
AC230V
(TSR03FV.16/KR / 26/KR only)
Y2 Control output "Cooling",
AC 24…250 V (TSR03FV only)
AC230V
(TSR03FV.16/KR / 26/KR only)
N Neutral
T Thermostat element
(gas-filled diaphragm)

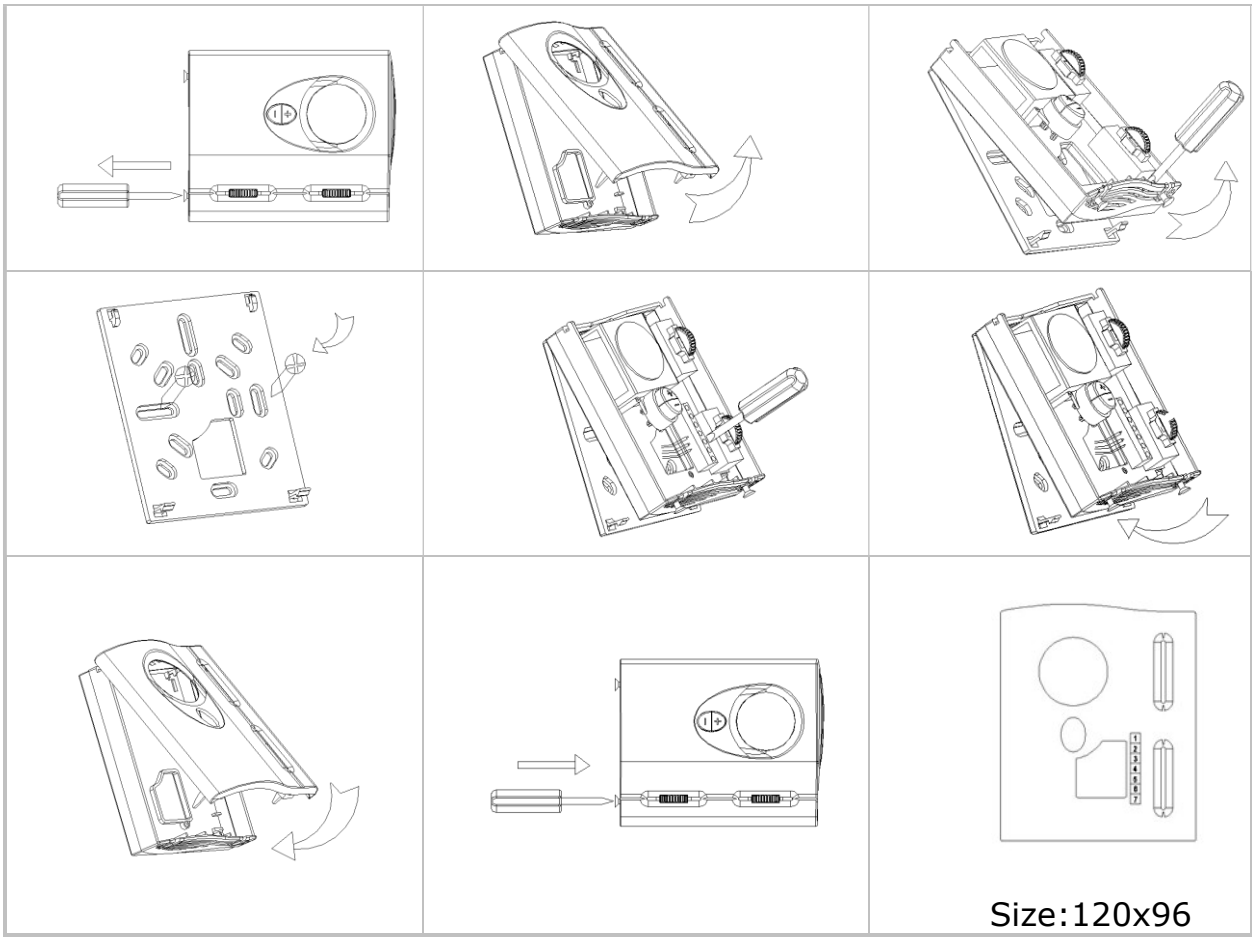


TSR03FV.16/KR – Heating mode

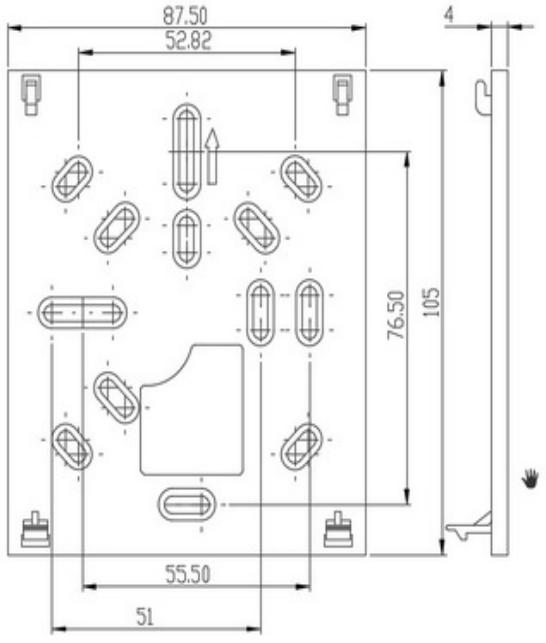


TSR0FV.26/KR – Heating mode

L4, L5 Input AC 230 V
L50 Output
SA Auxiliary switch



Dimensions



Base plate(Mounting plate)