

Adjustable Thermostat, Temperature Limiter

Features

- Broad range of applications and electrical loads
- Excellent temperature response
- Temperature and current-sensitivity
- Good heat transfer characteristics
- Suitable for convection and surface mounting

KTR1
RTR1
KTB1
KTW1
KTSR

DESCRIPTION

THERMOSTAT KTR1

A cyclically operating switch, responding to temperature and switching between two adjustable values. Response temperature can be selected from 20°C to 260°C.

KTR1 93410, 93301, 93305, 92480, 92485

ROOM THERMOSTAT RTR1

Thermostat for space heating which, due to the form of its bimetal element, has higher sensitivity and a small reset differential of max. 4°C. Temperature setting is selectable from 0-60°C

RTR1 92671

THERMAL CHANGE-OVER SWITCH KTW1

Thermostat which can break one circuit and simultaneously make another contact when it switches

KTW1 92476

TEMPERATURE LIMITER KTB1

Temperature limit device with manual reset

KTB1 91271

TEMPERATURE-CURRENT-CONTROL KTSR

With additional current sensitivity, which utilises the current flow to give reduced switching hysteresis

KTSR 93410

APPLICATIONS

These thermostats can be used for control or as a limiter in all kinds of heating equipment, for example cooker plates, irons, toasters, driers, ovens, convectors, oil-radiators, water heaters, ironing machines, grills etc.

For use in consumer applications (heating), it is advantageous to increase sensitivity by providing thermal feedback.



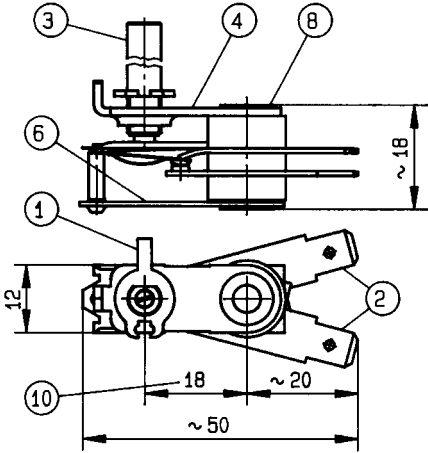
MICROTHERM



Microtherm International Cooperation

Thermostat KTR1 93410

Thermostat with adjustable spindle



Specification example	①	②		③	④	⑤	⑥	⑧	⑩
see page 5	X	3	X 5 X	B 1	X	X	X	X	X

Technical Data

Nominal voltage	250V, 50-60 Hz
Current rating	10A cosφ 1.0
(on request)	16A cosφ 1.0
Current rating for temp/current control	4A-10A cosφ 1.0
Temp control range	20°C – 260°C
Life expectancy	≥ 30000 cycles

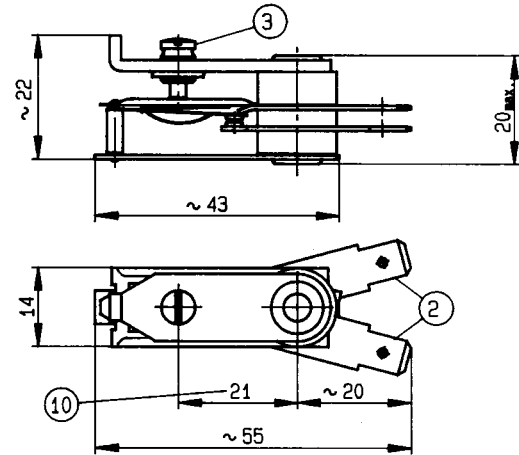
This temperature regulator KTR1 93410 is available with a selection of accessories. These are shown on page 5. Additional variations of connector type (#2) and the spindle ('3) are shown on this and adjoining pages.

Special features

5) bottom plate (denoted by letter B and Z) only included with the temp/current version

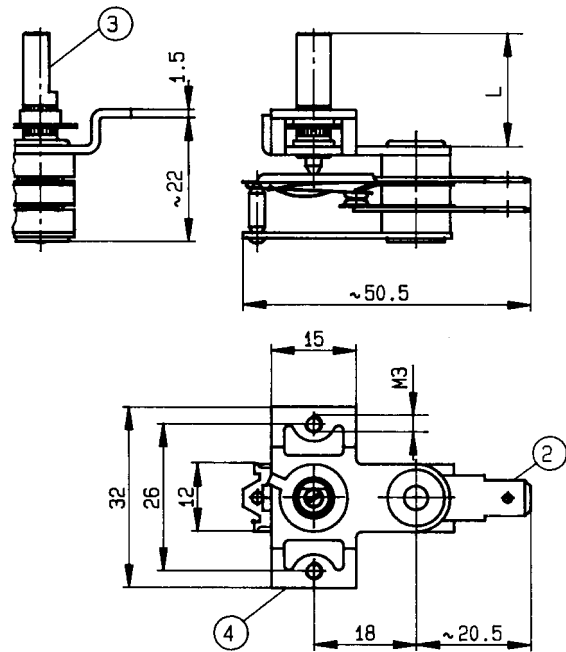
6) separate thermo-bimetal (denoted by letter A) only included with the temp/current version

Thermostat with fixed spindle



Specification example	①	②		③	④	⑤	⑥	⑧	⑩
see page 5	Y	3	X 5 X	A 6	1	X	X	X	L

Thermostat with 2-screw fixing



Specification example	①	②		③	④	⑤	⑥	⑧	⑩
see page 5	B	3	X 5 A	B 1	B	X	X	X	X

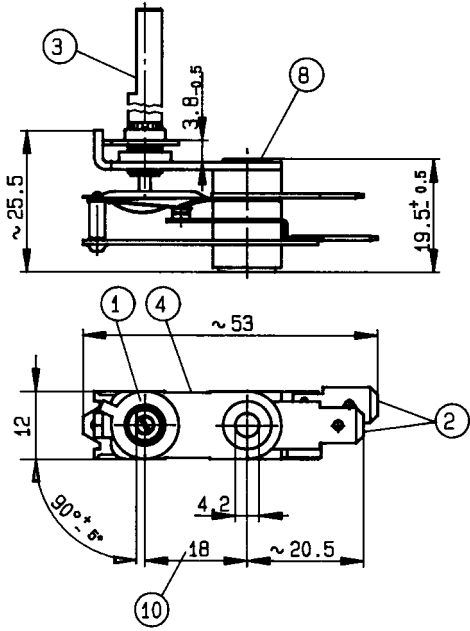
Pos. ②

STANDARD CONNECTORS (other types available on request)

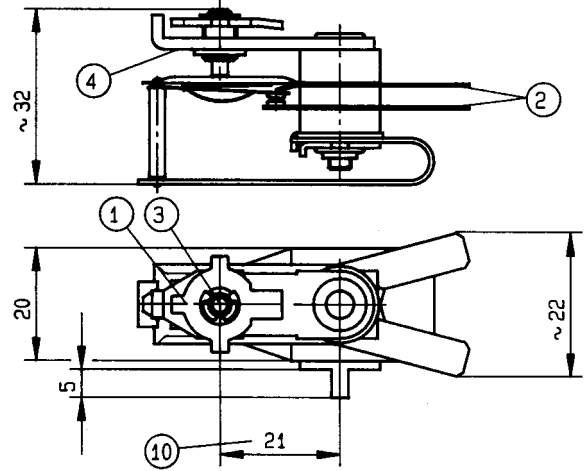
Item 2. Connector Angle	
X = 0°	
F = 45°	
G = 90°	
H = -45°	
I = -90°	

Item 3. Connector Size	X	1	2	4	5	6
	6.3	M3.5	6	4.8 x 0.8	6.3 x 0.8	6.2
	strip connector	screw terminal	crimp	4.8mm push-on tabs	6.3mm push-on tabs	rolled tags

Temperature/current control

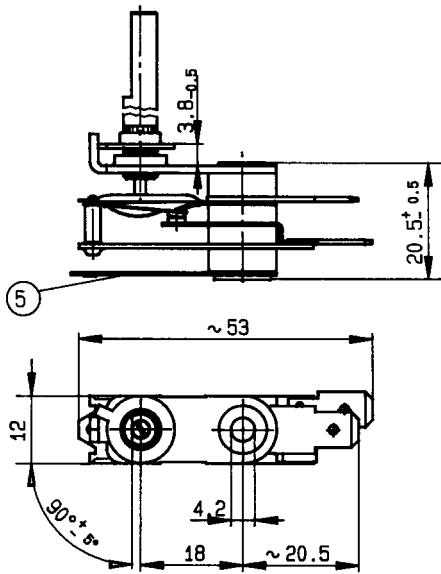


Specification example	①	②		③	④	⑤	⑥	⑧	⑩		
see page 5	B	3	X	5	A	B	1	X	X	X	X



Specification example	①	②			③	④	⑩		
see page 5	B	X	X	X	X	A	5	X	L

Temperature/current control with bottom plate



Specification example	①	②		③	④	⑤	⑥	⑧	⑩		
see page 5	B	3	X	5	A	B	1	X	B	X	X

Technical Data

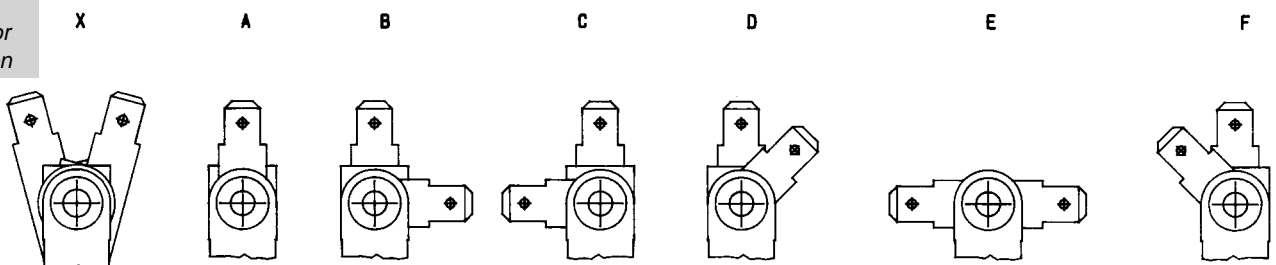
Nominal voltage	250V, 50-60 Hz
Current rating	10A cosφ 1.0
(on request)	16A cosφ 1.0
Switching temp.range	0°C – 60°C
Control range	min. 30°C
Life expectancy	≥ 30000 cycles

Sensitivity max. 4°C at a rate of rise of temperature 2°C / min

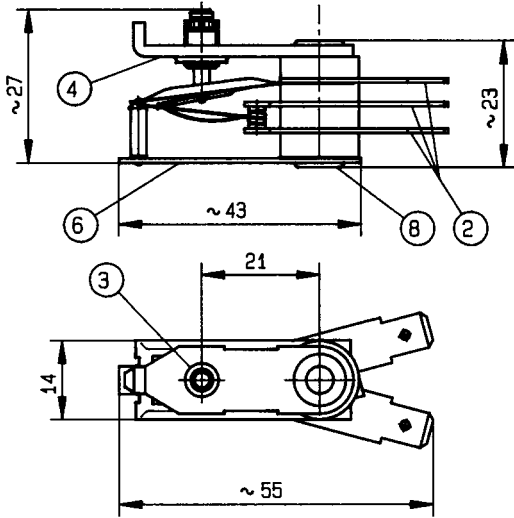
This space-heating thermostat KTR1 92671 is available with a selection of accessories. These are shown on page 5. Additional variations of connector type (#2) and the spindle (#3) are shown on this and adjoining pages.

Connector Positions / Orientation (other versions on request)

Item 3.
Connector orientation



**THERMAL CHANGE-OVER SWITCH
KTW1 92476**



Specification example	①	②		③	④	⑤	⑥	⑧			
see page 5	Y	3	X	5	X	A	5	1	X	X	X

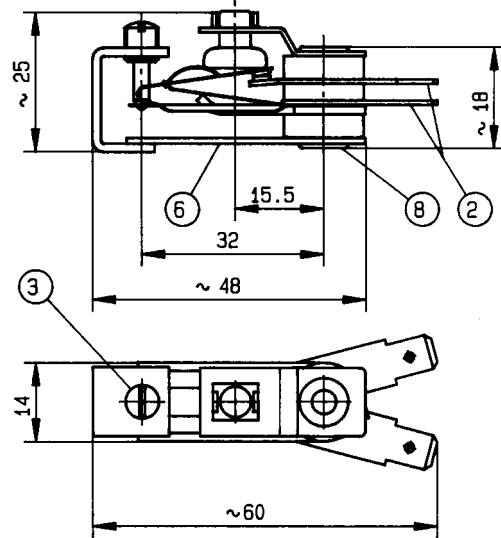
Technical Data

Nominal voltage	250V, 50-60 Hz
Current rating	10A cosφ 1.0
Control range	20°C – 250°C
Life expectancy	30000 cycles

The standard thermal switch is provided with a switching temperature of 40°C ± 2°C

This change-over switch, designated KTW1 92476, is available with a selection of accessories. These are shown on page 5. Additional variations of connector type (#2) and spindle (#3) are shown on this and adjoining pages.

TEMPERATURE LIMITER KTB1 91271



Specification example	②	③	⑥	⑧				
see page 5	3	X	5	X	A	6	K	X

Technical Data

Nominal voltage	250V, 50-60 Hz
Current rating	10A cosφ 1.0
(on request)	16A cosφ 1.0
Control range	20°C – 120°C
Life expectancy	≥10000 cycles

This temperature limiter KTB1 91271 is available with a selection of accessories. These are shown on page 5. Additional variations of connector type (#2) and spindle (#3) are shown on this and adjoining pages.

Special Features

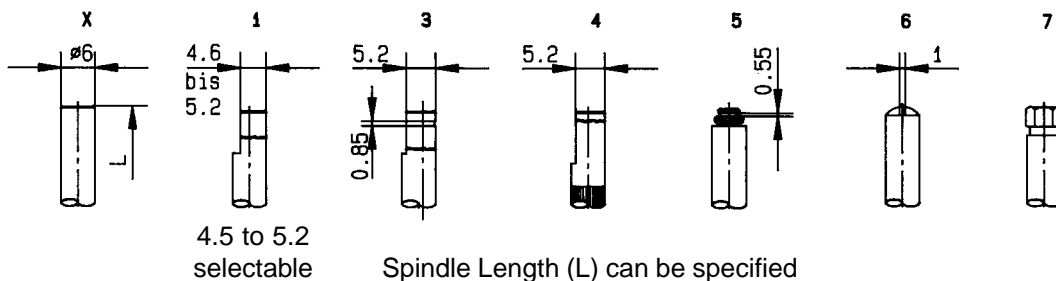
Spindle – only one short version (letter A) of the spindle is available

Thermo-bimetal – for the temperature limiter there is a choice between a flat frontal bimetal (letter K) and a special version (letter L)

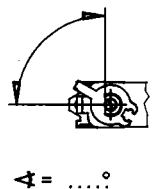
Pos. ③

Spindle (other versions available on request)

**Item 2a.
Spindle Style**



**Item 2b.
Stop Collar Angle**



Customisation Options

Version	Item	Identifier	Description	
<input type="checkbox"/>	1.	Stop collar for 6mm spindle		
		A	short	
		X	long	
		B	special (several options)	
		Y	without collar	
<input type="checkbox"/>	2.	Connector (180° rotation)		
		X	strip (nickel-plated steel)	
		1	special	
		2	crimp connector (nickel-plated steel)	
		3	male tabs DIN 46244 (nickel-plated steel)	
<input type="checkbox"/>	3.	Spindle		
		A	short	
		X	long	
		B	long, with flat side (angle between spindle position and collar-stop)	
		1st column	Rotating angle 306° standard	
<input type="checkbox"/>	4.	Mounting		
		X (306°)	central fixing (12mm)	
		B (306°)	2-hole fixing (15mm / 12mm)	
		1 (316°)	central fixing (narrow)	
		2	special fixing	
<input type="checkbox"/>	5.	Bottom plate		
		X	without bottom plate	
		B	with bottom plate	
		Z	customer specific bottom plate	
<input type="checkbox"/>	6.	Thermo-bimetal		
		X	standard bimetal	
		A	split bimetal (for current sensitive thermostats)	
		H	standard extra bimetal	
		K	flat frontal bimetal	
		L	special version	
<input type="checkbox"/>	8.	Central rivet		
		X	round-head	
		1	flat-head	
		3	special version	
<input type="checkbox"/>	10.	Spindle stand-off		
		X	18mm (standard)	
		L	21mm	

↑ Please enter your selection in this column and send this sheet with your enquiry or order

Ordering information

Quantity	Type	Version	Special items
1000	KTR 1	93410	

Head office address:

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Taschenwaldstraße 3
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Phone: +49 (0) 72 31 787-0

Fax: +49 (0) 72 31 787-155

Internet: www.microtherm.de

eMail: mic-pforzheim@microtherm.de

MICROTHERM GmbH
Taschenwaldstraße 3

D-75181 Pforzheim

Sender:

Firm _____

Name _____

Street _____

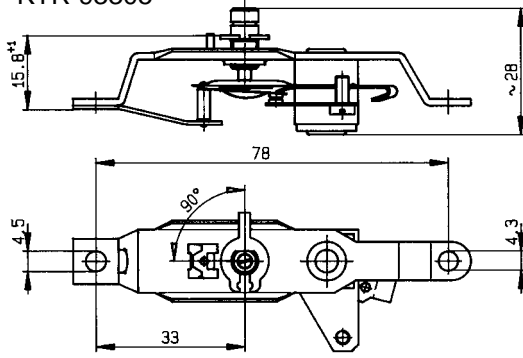
Town/City _____

Our service to you : simply place this in a window envelope and post it back to us.

Please indicate for which products you would like more information, or include your drawing if you have special requirements.

Special Versions

KTR 93305

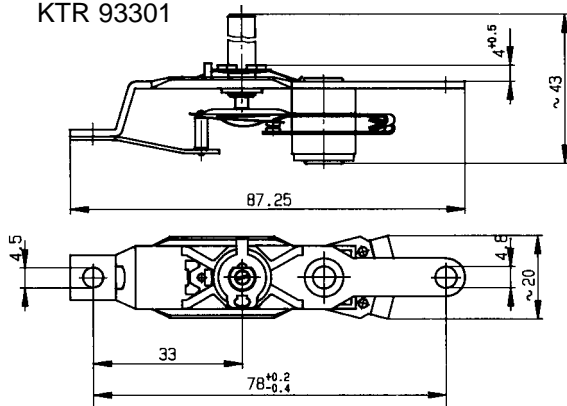


Technical Data

Nominal voltage	250V, 50-60 Hz
Current rating	6A cosφ 1.0
Control range	20°C – 250°C
Life expectancy	≥30000 cycles

- 2-hole fixing for M4
- crimp connectors

KTR 93301



Technical Data

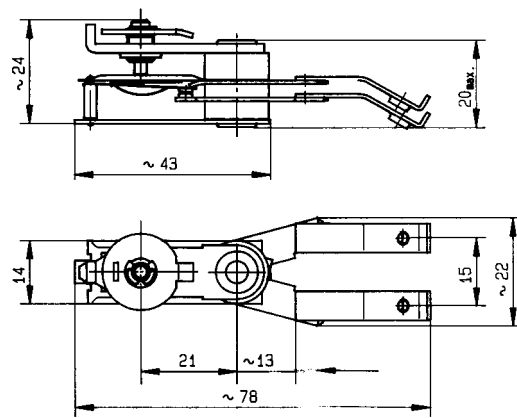
Nominal voltage	250V, 50-60 Hz
Current rating	6A cosφ 1.0
Control range	20°C – 250°C
Life expectancy	≥30000 cycles

- 2-hole fixing for M4
- crimp connectors

Special Versions / Customisation

- round or flat spindle or spindle with slot
- various spindle lengths
- adjustable or fixed temperature settings
- selection of push-on, crimp, strip, solder- or formed connections
- temperatures from 5°C to 300°C, 10 A 250 V AC
- temperatures from 5°C to 230°C, 16 A 250 V AC
- combined with thermal fuse (one-shot device)
- rotating angle 270°
- collar for stop at right or at left
- with auxiliary contact terminal 6.3 x 0,8

KTR 92480

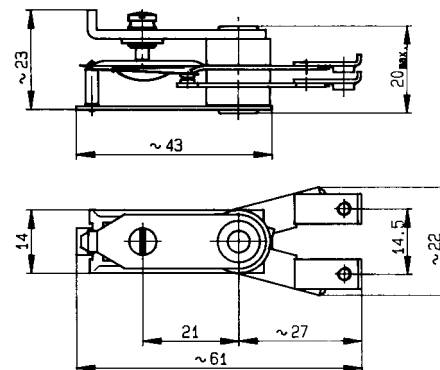


Technical Data

Nominal voltage	250V, 50-60 Hz
Current rating	6A cosφ 1.0
Control range	20°C – 250°C
Life expectancy	≥30000 cycles

- screw connectors M 3.5

KTR 92485



Technical Data

Nominal voltage	250V, 50-60 Hz
Current rating	6A cosφ 1.0
Control range	20°C – 250°C
Life expectancy	≥30000 cycles

- screw connectors M 3.5

Quality

Production sample testing ; voltage, switching function, nominal temperature range
Quality standard as per DGQ- sampling procedure P90/P10 (DIN 40080)

Ordering information

Quantity	Type	Version
50000	KTR 1	Y 93410 X X

We reserve the right to alter technical data and specifications without prior notice.

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