

Duct temperature controllers, including mounting flange,
EC type-tested, TÜV tested,
with switching output

DIN-tested German quality product. Temperature control and limiting device for heat generation plants in accordance with DIN EN 14597. Safety temperature limiter (STB) with EC type test (module B) according to directive 97 / 23 / EC.

Mechanical temperature control device / rod thermostat THERMASREG® KTR with switching output, used for monitoring, controlling or limiting the temperatures of gaseous media as a boiler controller or in heating, air conditioning technology as well as in mechanical and apparatus engineering and in heat generation plants.

It is available as one-step or two-step device, as adjustable temperature controller TR, temperature monitor TW, or as safety temperature limiter STB.



TECHNICAL DATA

Switching capacity: (Contact load)	24...250 V AC +10%, 10 A, $\cos \varphi = 1.0$ 24...250 V AC +10%, 1.5 A, $\cos \varphi = 0.6$ at 24 V AC min. 150 mA
Contact:	dust-proof switch block unit as potential-free, single-pole or two-pole changeover contact
Enclosure:	plastic, UV-stabilised, material polyamide, 30 % glass-globe reinforced, colour traffic white (similar to RAL 9016)
Enclosure dimensions:	108 x 70 x 73.5 mm (Thor 2)
Cable gland:	M20 x 1.5; including strain relief
Measuring element:	torsion meter with liquid filling, liquid expansion temperature feeler
Mounting position:	arbitrary
Ambient temperature:	-10...+65 °C at the switch block enclosure
Tolerance:	$T_{\min} \pm 5 \text{ K}$; $T_{\max} \pm 3 \text{ K}$
Operating medium:	Air
Inserted length:	approx. 205 mm (with flange); approx. 184 mm (without flange)
Process connection:	by mounting flange (included in the scope of delivery)
Electrical connection:	0.14 - 2.5 mm ² via terminal screws
Protection class:	I (according to EN 60730)
Protection type:	IP 65 (according to EN 60529)
Standards:	CE conformity, EMC directive 2014 / 30 / EU, low-voltage directive 2014 / 35 / EU
Tests:	EC type test (module B) according to directive 97 / 23 / EC, certificate No.: IS-TAF-MUC 08 02 100248356 001, DIN EN 14597, register Nos.: STB 1201, TR / STB 1202

FUNCTION

TW, TR:

Contact 2-3 breaks when temperature rises to the preset value.

STB:

Contact 2-1 or 5-4 (two-step) breaks when temperature rises to the preset value. Restart is possible only after cooling off by approx. 15 K- 20 K by pressing the reset button.





S+S REGELTECHNIK

THERMASREG® KTR

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Configuration variants:

TW

Temperature monitor
(internal setting)

TR

Temperature controller
(external setting)

STB

Safety temperature limiter
(internal setting)

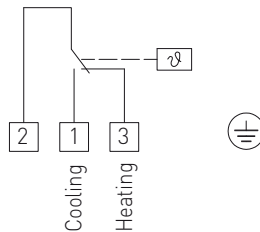
TW+TW

Double temperature monitor
(internal setting)

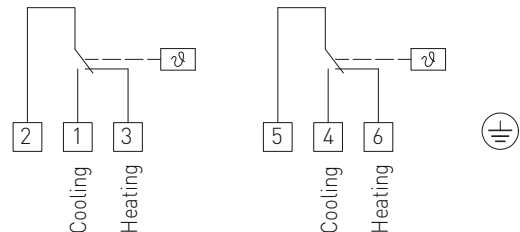
TR+STB

Temperature controller
(external setting) +
Safety temperature limiter
(internal setting)

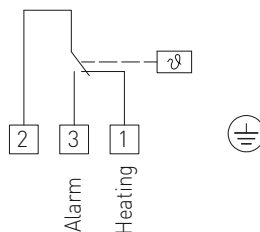
Connecting diagram
TW, TR KTR
(one-step)



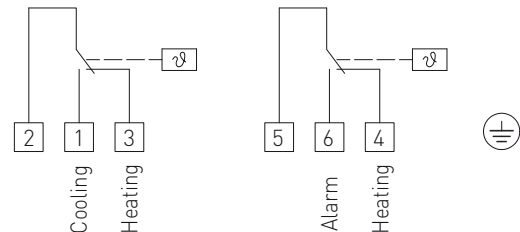
Connecting diagram
TW+TW KTR
(two-step)



Connecting diagram
STB KTR
(one-step)



Connecting diagram
TR+STB KTR
(two-step)



ZERTIFIKAT ◆ CERTIFICATE ◆ 合格証書 ◆ CERTIFICADO ◆ CERTIFICAT

ZERTIFIKAT Certificate

EG-Baumusterprüfung (Modul B) nach Richtlinie 97/23/EG
EC Type-examination (Module B) according to Directive 97/23/EC

Zertifikat-Nr.: IS-TAF-MUC 08 02 100248356 001
Certificate No.:

Name und Anschrift des Herstellers: S+S Regeltechnik GmbH
Klingenhofstraße 11
90411 Nürnberg
Name and Postal Address of Manufacturer:

Hiermit wird bescheinigt, daß das unten genannte EG-Baumuster die Anforderungen der Richtlinie 97/23/EG erfüllt.
We herewith certify that the type mentioned below meets the requirements of the Directive 97/23/EC.

Produktart Safety temperature limiter as safety accessory
product category

Typ, Ausführung ETR and KTR
type, model
(The listing of the single types, see page 2)

Prüfgrundlage Essential safety requirements of Directive 97/23/EC of the
basis of examination European Parliament and of the Council of 29. May 1997,
annex I for safety accessories according Article 3 paragraph 1.4.
DIN EN 14597:2005-12.

Prüfbericht Nr. C-T 1382-00/08 of 2008-02-22
test report no. TÜV SÜD Industrie Service GmbH

Fertigungsstätte S+S Regeltechnik GmbH
manufacturing plant Klingenhofstraße 11
90411 Nürnberg, Germany

(Location, Date) Munich, 2008-02-22

Bitte beachten Sie die umseitigen Hinweise.
Please note the remarks on the second page.

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Feuerungs- und Wärmetechnik Fax: +49 89 51 90 - 33 07
Rödenstraße 55 E-Mail: feuerung@tuv-sued.de
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Benannte Stelle, Kennnummer 0030
Notified Body, No. 0030

Mitglied der
CONFÉDÉRATION EUROPÉENNE
CEOC
D'ORGANISMES DE CONTRÔLE

Seite 2 zum Zertifikat Nr.
page 2 of certificate no.
IS-TAF-MUC 08 02 100248356 001

Type code

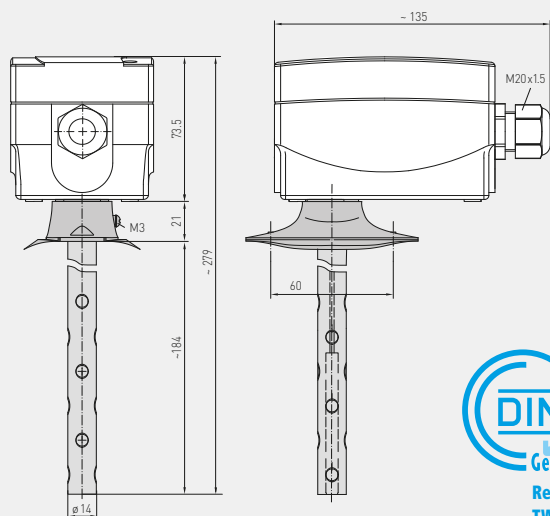
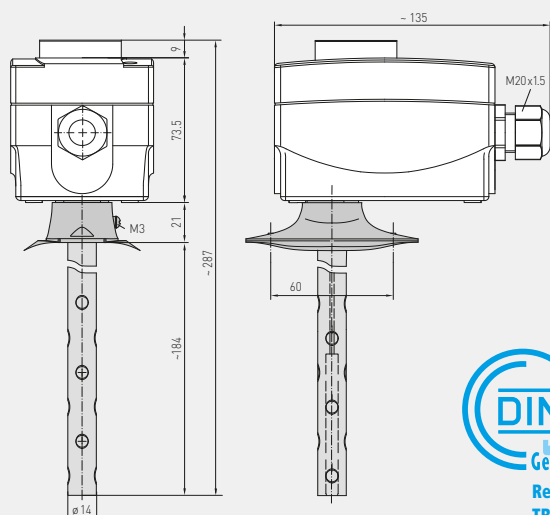
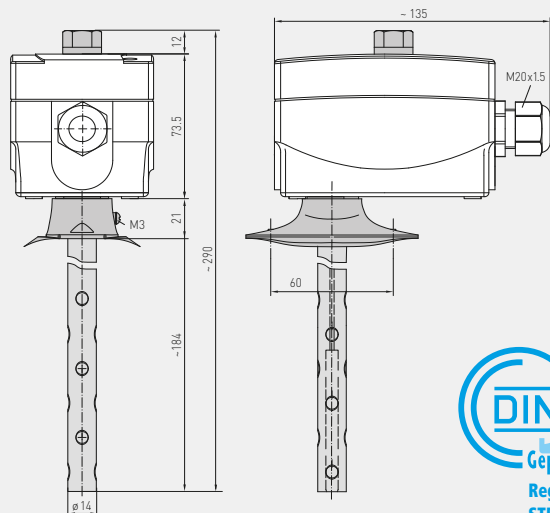
Type	Code	Technical data
ETR-R6585	STB	Range: from 65 °C to 85 °C
ETR-R90110	STB	Range: from 90 °C to 110 °C
KTR-R6585	STB	Same function as ETR R6585, with the following difference: The tube is not closed to the medium.
KTR-R90110	STB	Same function as ETR R90110, with the following difference: The tube is not closed to the medium.

Type	Code	Technical data
ETR-060R85	TR/STB	Combination of two single types: TR and STB with the range: TR: from 0 °C to +60 °C STB: from +65 °C to + 85°
ETR-090R110	TR/STB	Combination of two single types: TR and STB with the range: TR: from 0 °C to +90 °C STB: from +90 °C to + 110°
KTR-060R85	TR/STB	Same function as ETR-060R85, with the following difference: The tube is not closed to the medium
KTR-090R110	TR/STB	Same function as ETR-090R110, with the following difference: The tube is not closed to the medium

The conditions listed below have to be considered:

- To keep the specified response time the types ETR.. shall be used with the provided tube and thermal conducting paste
- Possible risks caused by external fire or by traffic, wind and earthquake loading shall be examined separately depending from the installation situation of the pressure equipment.

Industrie Service

**Dimensional drawing
Temperature monitor
TW**
**KTR-xx U
(one-step)**

**KTR-060 U
KTR-090 U
(one-step)
TW**
**Dimensional drawing
Temperature controller
TR**
**KTR-xx
(one-step)**

**KTR-1
KTR-060
KTR-090
KTR-0120
KTR-50140
(one-step)
TR**
**Dimensional drawing
Safety temperature limiter
STB**
**KTR-Rxx
(one-step)**

**KTR-R6585
KTR-R90110
(one-step)
STB
adjustable**



S+S REGELTECHNIK

THERMASREG® KTR

one-step

Duct temperature controllers, including mounting flange,
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THERMASREG® KTR – Duct temperature controllers, one-step

Type / WG02	Ø mm	Temperature Ranges (adjustable)	Thermal Operating Difference (fixed) approx.	Maximum Capillary Temp.	Item No.
KTR-060 U / 090 U					TW
KTR-060 U	14	0...+60 °C	3 K	+75 °C	1102-3010-2100-350
KTR-090 U	14	0...+90 °C	3 K	+120 °C	1102-3010-2100-450
KTR-xx					TR
KTR-1	14	-35...+35 °C	3 K	+75 °C	1102-3010-1100-150
KTR-060	14	0...+60 °C	3 K	+75 °C	1102-3010-1100-350
KTR-090	14	0...+90 °C	3 K	+120 °C	1102-3010-1100-450
KTR-0120	14	0...+120 °C	5 K	+135 °C	1102-3010-1100-550
KTR-50140	14	+50...+140 °C	5 K	+150 °C	1102-3010-1100-650
KTR-R6585 / R90110					STB
KTR-R6585	14	+65...+85 °C	+0 / -15...20 K	+120 °C	1102-3010-6100-750
KTR-R90110	14	+90...+110 °C	+0 / -15...20 K	+120 °C	1102-3010-6100-850

Extra charge:	U = Internal setting, unless included in a certain type /2 = 2 steps, unless included in a certain type	on request
Equipment:	FT = Manual reset when temperature drops ST = Manual reset when temperature rises TR = Temperature controller (external setting) TB = Temperature limiter (internal setting) TW = Temperature monitor (internal setting) STB = Safety temperature limiter (internal setting), selectable , with external switchpoint confirmation and restart interlock, restart by reset button at approx. 15...20 K below switching temperature (+ 0 K / - 15...20 K) with EC type test (module B) according to directive 97 / 23 / EC	

Accessories

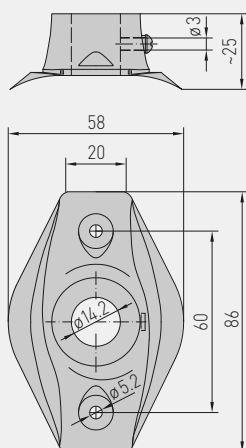
MF-14-K	Mounting flange, plastic	7100-0030-2000-000
For further information see last chapter!		

Dimensional drawing

MF-14-K

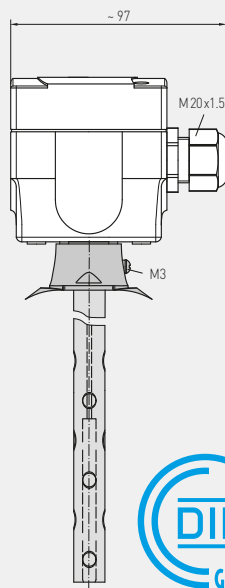
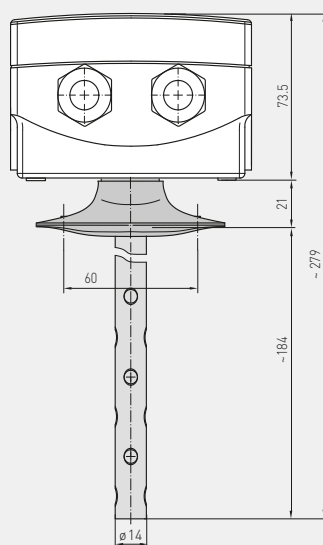
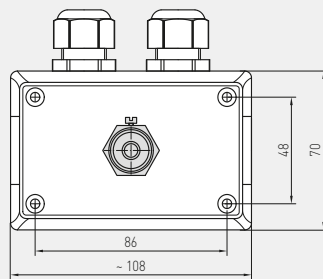
MF-14-K

Mounting flange,
plastic



Dimensional drawing
Double temperature monitor
TW + TW

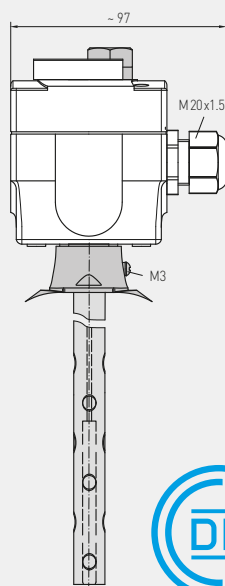
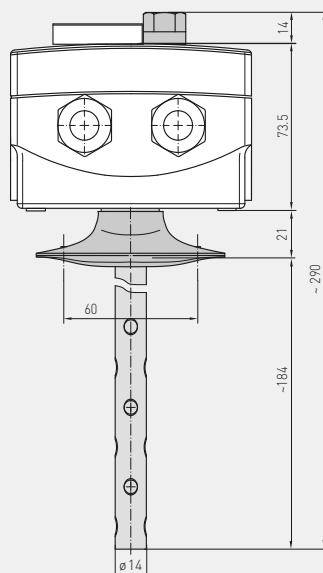
KTR-xx U
(two-step)



KTR-090090 U
(two-step)
TW + TW

Dimensional drawing
Temperature controller +
safety temperature limiter
TR + STB

KTR-xx R xx
(two-step)



KTR-060R85
KTR-090R110
(two-step)
TR + STB
adjustable



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THERMASREG® KTR

two-step

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THERMASREG® KTR – Duct temperature controllers, two-step

Type / WG02	Ø mm	Temperature Ranges (adjustable)		Thermal Operating Difference (fixed) approx.		Maximum Capillary Temp.	Item No.
		1.	2.	1.	2.		
KTR-090090 U							TW + TW
KTR-090090 U	14	0...+90 °C	0...+90 °C	3 K	3K	+120 °C	1102-3010-2205-150
KTR-060R85							TR + STB
KTR-060R85	14	0...+60 °C	+65...+85 °C	3 K	+0 / −15...20 K	+120 °C	1102-3010-7205-250
KTR-090R110							TR + STB
KTR-090R110	14	0...+90 °C	+90...+110 °C	3 K	+0 / −15...20 K	+135 °C	1102-3010-7205-350

Extra charge: U = Internal setting, unless included in a certain type
/2 = **2 steps, unless included in a certain type** on request

Features:

- FT = Manual reset when temperature drops
- ST = Manual reset when temperature rises
- TR = Temperature controller (**external setting**)
- TB = Temperature limiter (**internal setting**)
- TW = Temperature monitor (**internal setting**)
- STB = Safety temperature limiter (**internal setting**), selectable, with external switchpoint confirmation and restart interlock, restart by reset button at approx. 15...20 K below switching temperature (+ 0 K / - 15...20 K) with EC type test (module B) according to directive 97 / 23 / EC

Accessories

MF-14-K Mounting flange, plastic 7100-0030-2000-000

For further information see last chapter!

Dimensional drawing

MF-14-K

MF-14-K

Mounting flange,
plastic

