THERMASREG® KTR

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

S+S REGELTECHNIK

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 2014/68/EU.

Mechanical temperature control device / rod thermostat **THERM**ASREG® **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 φ = 1.0 24…250 V AC +10 %, 1.5 A, cos φ = 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
Housing:	plastic, UV-resistant, material polyamide, 30 % glass-globe reinforced, colour traffic white (similar to RAL 9016)
Housing dimensions:	108 x 70 x 73.5 mm (Thor 2)
Cable gland:	M 20 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 housing
Tolerance:	T_{min} ± 5 K; T_{max} ± 3 K
Operating medium:	Air
Protective tube:	**metal,** material CuZn37 (2.0321), Ø 14 mm, NL = 205 mm
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 mm² via terminal screws
Protection class:	I (according to EN 60 730)
Protection type:	**IP 65** (according to EN 60 529)
Standards:	CE conformity, EMC directive 2014/30/EU, low-voltage directive 2014/35/EU
Tests:	**EC type test (module B) according to directive 2014/68/EU,** certificate No.: IS-TAF-MUC 18 03 2652130 002, 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.

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

Configuration variants:

TW
Temperature monitor
(internal setting)

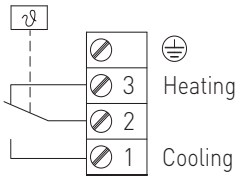
TR
Temperature controller
(external setting)

STB
Safety temperature limiter
(internal setting)

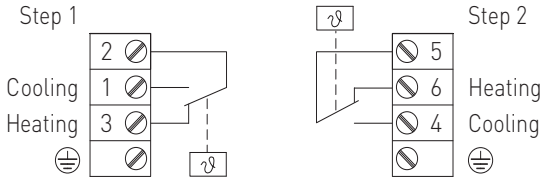
TW+TW
Double temperature monitor
(internal setting)

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

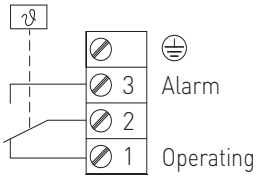
Connecting diagram **TW, TR** **KTR** (one-step)



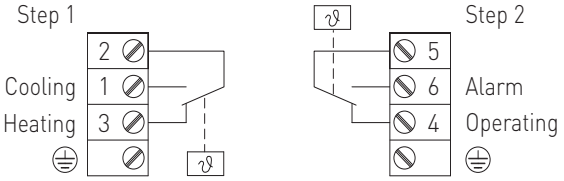
Connecting diagram **TW+TW** **KTR** (two-step)



Connecting diagram **STB** **KTR** (one-step)



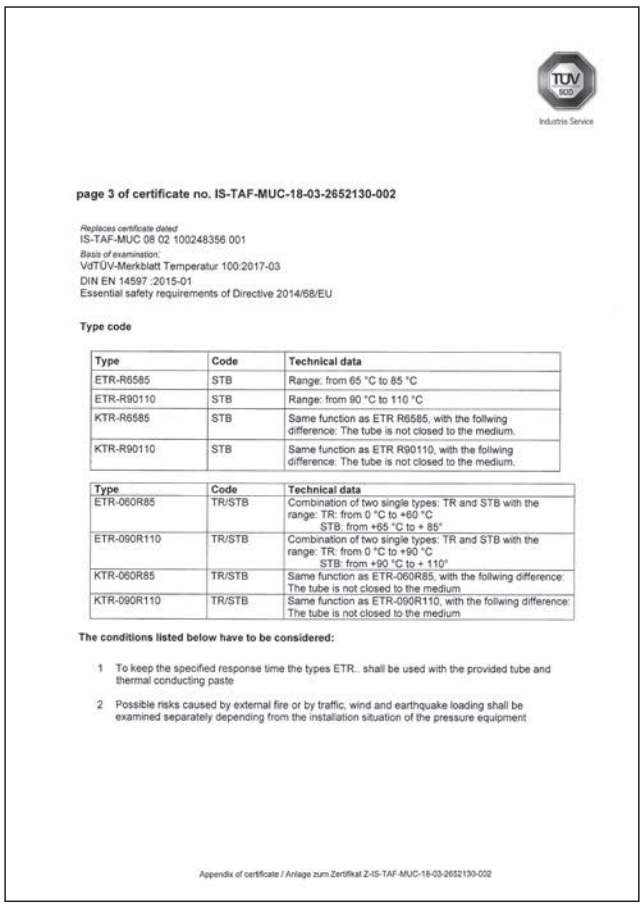
Connecting diagram **TR + STB** **KTR** (two-step)





CERTIFICATE
valid until: 25.02.2028
ZERTIFIKAT
gültig bis: 25.02.2028
EU Type examination (module B) - production type - according to Directive 2014/68/EU
EU-Baumusterprüfung (Modul B) - Baumuster - nach Richtlinie 2014/68/EU

Certificate No.: Z-IS-TAF-MUC-18-03-2652130-002
Name and address of manufacturer: S+S Regeltechnik GmbH, Pirnaer Str. 20, 90411 Nürnberg
We herewith certify that the type mentioned below meets the requirements of the Directive 2014/68/EU.
Evaluation report No.: C-T 1382-01/18 dated 2018-02-26
Scope of examination: Safety temperature limiter as safety accessory type: ETR and KTR (see page 3) basis of examination and details see page 3
Manufacturing plant: S+S Regeltechnik GmbH, Pirnaer Str. 20, 90411 Nürnberg
München, 26.02.2018 (Place, date)
TÜV SÜD Industrie Service GmbH Certification Body for pressure equipment
Johannes Steiglechner
089 5190-1027
feuerung@tuev-sued.de
Notified Body, No. 0036
Page 1 of the certificate No. / Seite 1 zum Zertifikat Nr. Z-IS-TAF-MUC-18-03-2652130-002



page 3 of certificate no. IS-TAF-MUC-18-03-2652130-002

Replaces certificate dated
IS-TAF-MUC 06 02 100248356 001
Basis of examination:
VdTÜV-Merkblatt Temperatur 100:2017-03
DIN EN 14597 :2015-01
Essential safety requirements of Directive 2014/68/EU

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 follwing difference: The tube is not closed to the medium.
KTR-R90110	STB	Same function as ETR R90110, with the follwing 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 follwing difference: The tube is not closed to the medium
KTR-090R110	TR/STB	Same function as ETR-090R110, with the follwing difference: The tube is not closed to the medium

The conditions listed below have to be considered:

1 To keep the specified response time the types ETR.. shall be used with the provided tube and thermal conducting paste

2 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

Appendix of certificate / Anlage zum Zertifikat Z-IS-TAF-MUC-18-03-2652130-002

THERMASREG® KTR

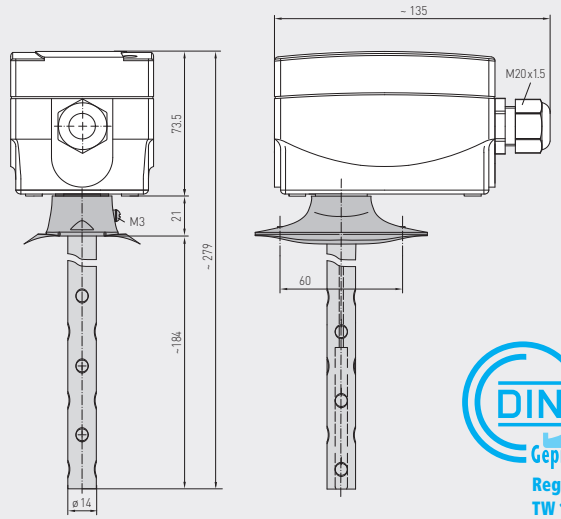
one-step

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

S+S REGELTECHNIK

Dimensional drawing
Temperature monitor
TW

KTR-xxU
(one-step)



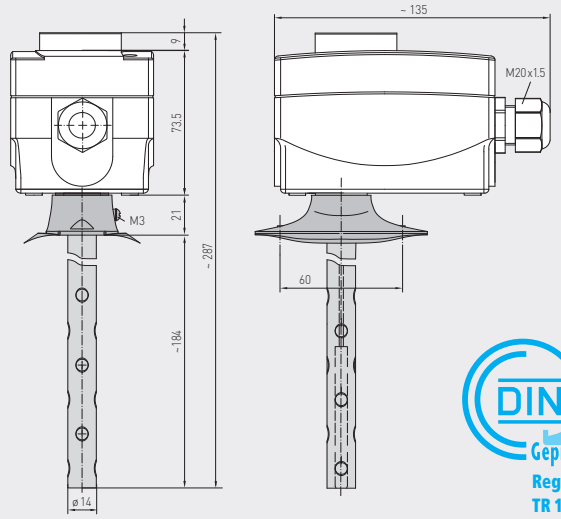
DIN Geprüft
Registernr.:
TW 1200



KTR-060U
KTR-090U
(one-step)
TW

Dimensional drawing
Temperature controller
TR

KTR-xx
(one-step)



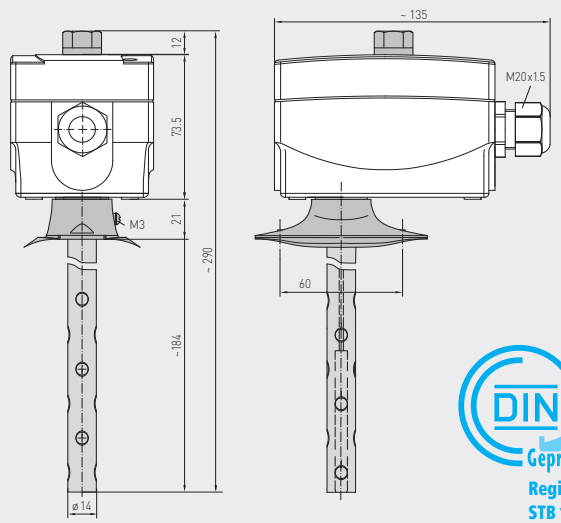
DIN Geprüft
Registernr.:
TR 1199



KTR-1
KTR-060
KTR-090
KTR-0120
KTR-50140
(one-step)
TR

Dimensional drawing
Safety temperature limiter
STB

KTR-Rxx
(one-step)



DIN Geprüft
Registernr.:
STB 1201



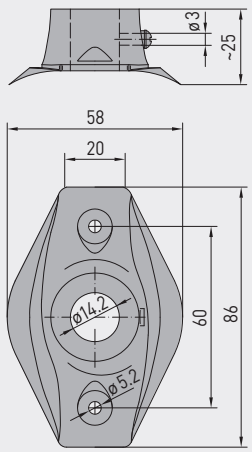
KTR-R6585
KTR-R90110
(one-step)
STB
adjustable

THERMASREG® KTR	Duct temperature controllers, one-step					
Type / WG02	**Ø mm**	**Temperature Ranges (adjustable)**	**Thermal Operating Difference (fixed) approx.**	**Maximum Capillary Temp.**	**Item No.**	**Price**
KTR-060 U / 090 U					**TW**	
KTR-060 U	14	0...+60 °C	3 K	+75 °C	1102-3010-2100-350	**78,80 €**
KTR-090 U	14	0...+90 °C	3 K	+120 °C	1102-3010-2100-450	**78,80 €**
KTR-xx					**TR**	
KTR-1	14	–35...+35 °C	3 K	+75 °C	1102-3010-1100-150	**78,80 €**
KTR-060	14	0...+60 °C	3 K	+75 °C	1102-3010-1100-350	**78,80 €**
KTR-090	14	0...+90 °C	3 K	+120 °C	1102-3010-1100-450	**78,80 €**
KTR-0120	14	0...+120 °C	5 K	+135 °C	1102-3010-1100-550	**78,80 €**
KTR-50140	14	+50...+140 °C	5 K	+150 °C	1102-3010-1100-650	**78,80 €**
KTR-R6585 / R90110					**STB**	
KTR-R6585	14	+65...+85 °C	+0 / –15...20 K	+120 °C	1102-3010-6100-750	**93,42 €**
KTR-R90110	14	+90...+110 °C	+0 / –15...20 K	+120 °C	1102-3010-6100-850	**93,42 €**

Extra charge:	**U** = Internal setting, unless included in a certain type **/2** = 2 steps, unless included in a certain type	on request	**10,25 €**
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 2014 / 68 / EU**		

ACCESSORIES			
MF-14-K	**Mounting flange**, plastic	7100-0030-2000-000	**9,85 €**
	For further information see last chapter!		

Dimensional drawing **MF-14-K**



MF-14-K

Mounting flange,
plastic



THERMASREG® KTR

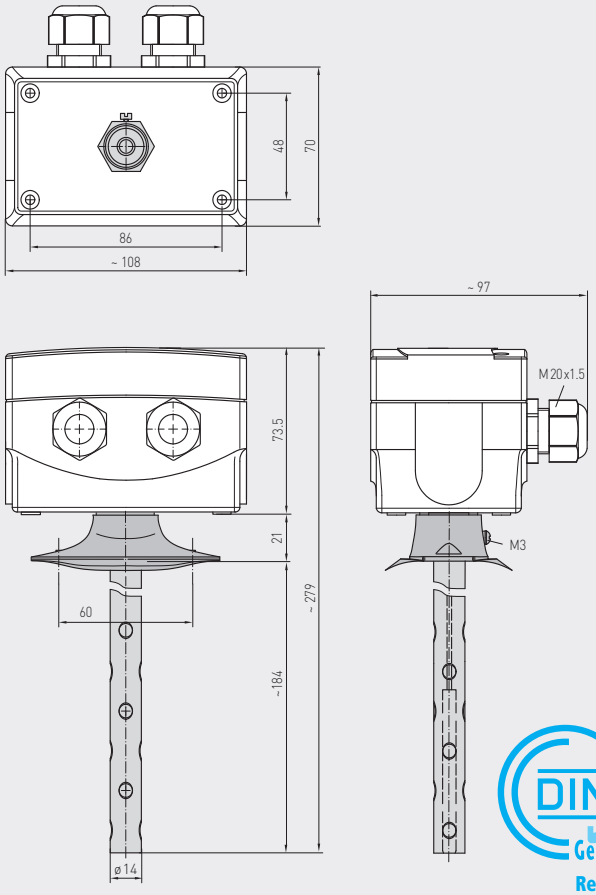
two-step

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

S+S REGELTECHNIK

Dimensional drawing
Double temperature monitor
TW + TW

KTR-xx U
(two-step)



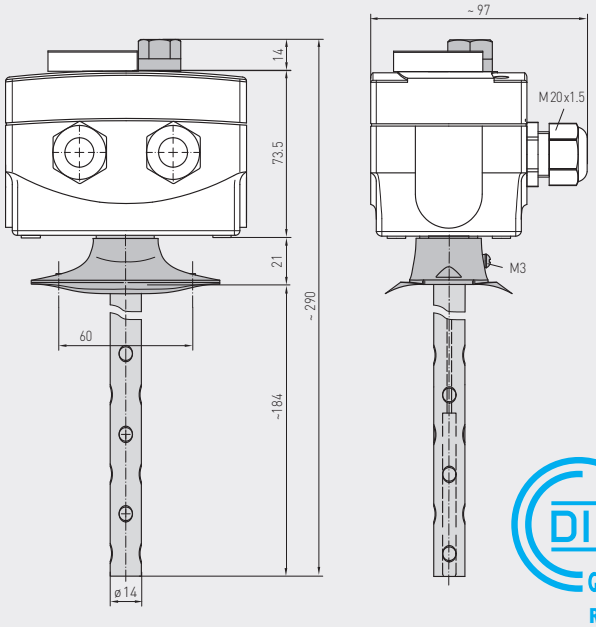
DIN Geprüft
Registernr.:
TW / TW 1241



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

Dimensional drawing
Temperature controller +
safety temperature limiter
TR + STB

KTR-xx R xx
(two-step)



DIN Geprüft
Registernr.:
TR / STB 1202



KTR-060 R 85
KTR-090 R 110
(two-step)
TR + STB
adjustable

THERMASREG® KTR Duct temperature controllers, two-step

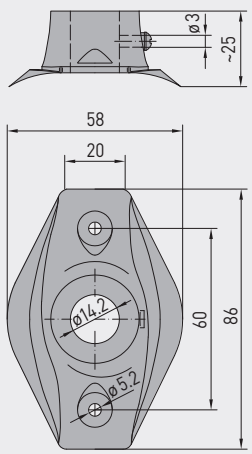
Type / WG02	Ø mm	Temperature Ranges (adjustable) 1.	2.	Thermal Operating Difference (fixed) approx. 1.	2.	Maximum Capillary Temp.	Item No.	Price
KTR-090090 U							**TW + TW**	
KTR-090090 U	14	0...+90 °C	0...+90 °C	3 K	3K	+120 °C	1102-3010-2205-150	**117,16 €**
KTR-060 R 85							**TR + STB**	
KTR-060R85	14	0...+60 °C	+65...+85 °C	3 K	+0 / –15...20 K	+120 °C	1102-3010-7205-250	**117,16 €**
KTR-090 R110							**TR + STB**	
KTR-090R110	14	0...+90 °C	+90...+110 °C	3 K	+0 / –15...20 K	+135 °C	1102-3010-7205-350	**117,16 €**

Extra charge:	**U** = Internal setting, unless included in a certain type **/2 = 2 steps, unless included in a certain type**	on request	**10,25 €**
Features:	**TR** = Temperature controller (**external 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 2014 / 68 / EU**		

ACCESSORIES

MF-14-K	**Mounting flange**, plastic	7100-0030-2000-000	**9,85 €**
	For further information see last chapter!		

Dimensional drawing **MF-14-K**



MF-14-K

Mounting flange,
plastic

