

Equipment sensor/controller, including immersion sleeve,
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 2014/68/EU.

Mechanical temperature control device/rod thermostat THERMASREG® ETR with switching output, used for monitoring, controlling or limiting the temperatures of liquid or 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

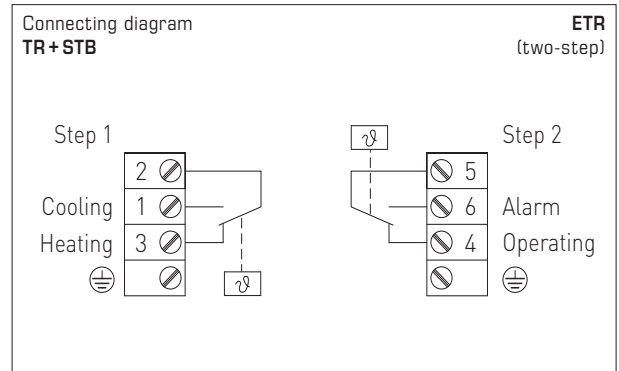
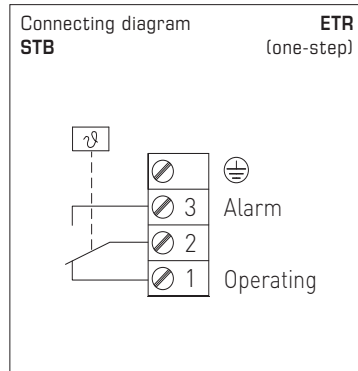
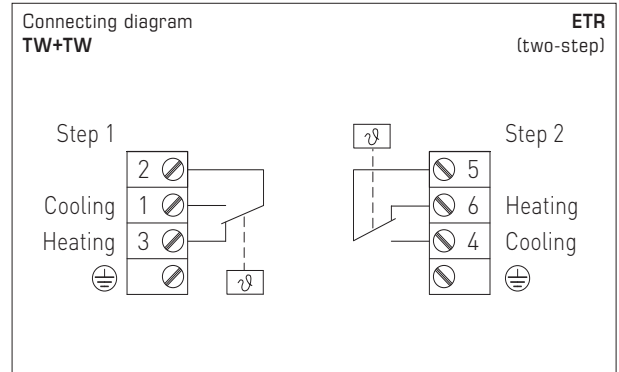
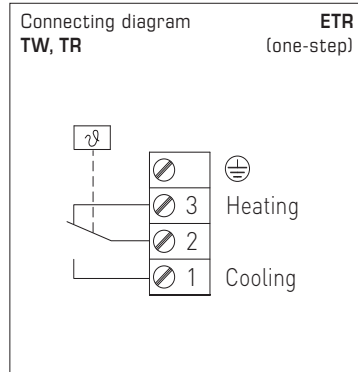
Switching capacity: (Contact load)	24 ... 250 V AC + 10 %, 10 A, cos φ = 1.0 24 ... 250 V AC + 10 %, 1.5 A, cos φ = 0.6 at 24 V AC min. 150 mA
Contact:	dust-proof switch block unit as potential-free single-pole or two-pole changeover contact
Housing:	plastic, UV-resistant, material polyamide, 30% glass-globe reinforced, colour traffic white (similar to RAL 9016)
Housing dimensions:	108 x 70 x 73.5 mm (Thor2)
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 housing
Tolerance:	T _{min} ± 5 K; T _{max} ± 3 K
Immersion sleeves:	THR-ms-08/xx , Single sleeve brass, nickel-plated, Ø = 8 mm, R ½" straight pipe thread, wrench size 22, p _{max} = 10 bar, T _{max} = +150 °C THR-VA-09/xx , Single sleeve stainless steel V4A (1.4571), Ø = 9 mm, G ½" straight pipe thread, wrench size 22, p _{max} = 25 bar, T _{max} = +150 °C THR-VA-17/xx , Double sleeve stainless steel V4A (1.4571), Ø = 17 mm, G ½" straight pipe thread, wrench size 22, p _{max} = 25 bar, T _{max} = +150 °C (Depending on the type, the relevant immersion sleeve is included in the scope of delivery, see table)
Operating medium:	Water, oil, air and exhaust gas
Inserted length:	100 mm / 150 mm / 200 mm (see table)
Process connection:	screwed socket
Electrical connection:	0.14 - 2.5 mm ² via terminal screws
Protection class:	I (according to EN 60 730)
Protection type:	IP 65 (according to EN 60 529)
Standards:	CE conformity according to 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 Q3 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.





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)



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
Pirmaer Str. 20
90411 Nürnberg**

We herewith certify that the type mentioned below meets the requirements of the Directive 2014/68/EU.
Hiermit wird bescheinigt, dass das unten genannte Baumuster die Anforderungen der Richtlinie 2014/68/EU erfüllt.

Evaluation report No.: **C-T 1382-01/18 dated 2018-02-26**
Prüfbericht Nr.:

Scope of examination: **Safety temperature limiter as safety accessory
type: ETR and KTR (see page 3)
basis of examination and details see page 3**
Geltungsbereich:

Manufacturing plant: **S+S Regeltechnik GmbH
Pirmaer Str. 20
90411 Nürnberg**
Fertigungsstätte:

TUV SÜD Industrie Service GmbH
Certification Body for pressure equipment

München, 26.02.2018
(Place, date)

Johannes Stiegelmeyer
Johannes Stiegelmeyer

089 5190-1027
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Notified Body, No. 0036
Notifizierende Stelle, Kennnummer 0036
TUV SÜD Industrie Service GmbH
Wiesentaldor 199
90568 München
GERMANY

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 08 02 100248356 001
Basis of examination:
VdTUV-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 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

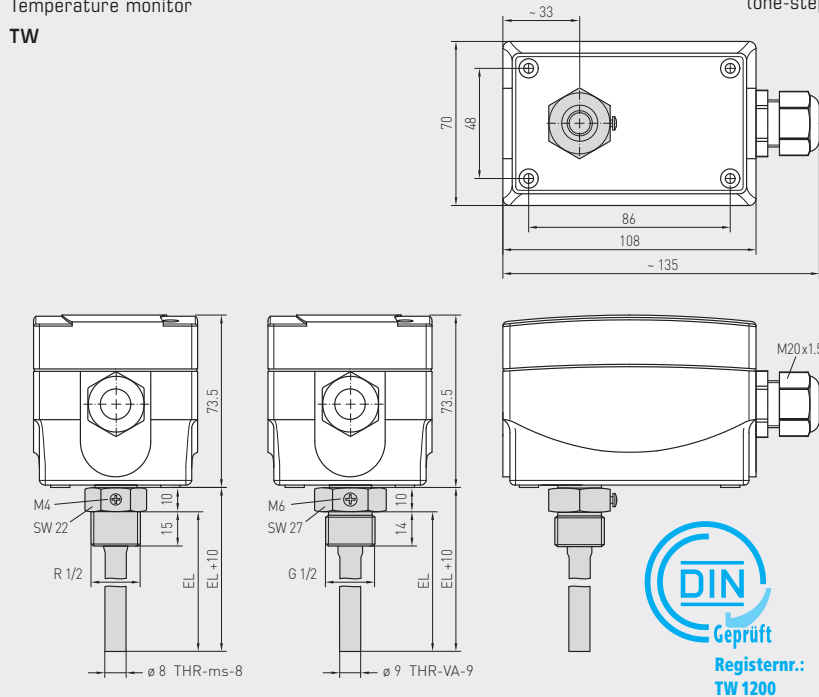
The conditions listed below have to be considered:

- 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

Dimensional drawing
Temperature monitor
TW

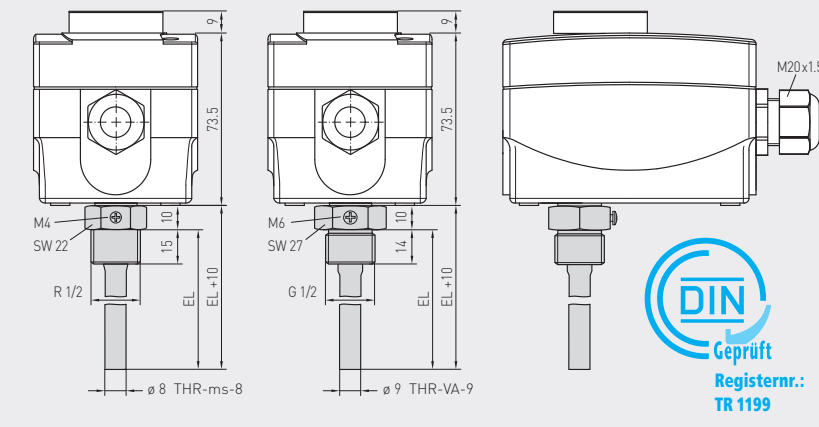
ETR-xx U
(one-step)



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

Dimensional drawing
Temperature controller
TR

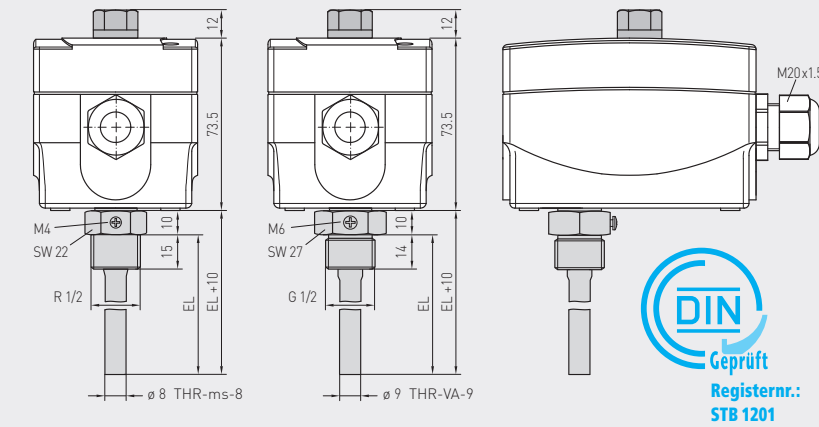
ETR-xx
(one-step)



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

Dimensional drawing
Safety temperature limiter
STB

ETR-Rxx
(one-step)



ETR-R6585
ETR-R90110
(one-step)
STB
selectable



THERMASREG® ETR Equipment sensor / controller, one-step, including immersion sleeve

Type / WG02	Inserted Length (EL)	Temperature Ranges (adjustable)	Thermal Operating Difference (fixed) approx.	Maximum Capillary Temp.	Item No.	Price
ETR-060 U						TW
ETR-060 U MS/100	100 mm	0...+60 °C	3K	+75 °C	1102-2010-2100-380	75,87 €
ETR-060 U MS/150	150 mm	0...+60 °C	3K	+75 °C	1102-2010-2100-310	78,43 €
ETR-060 U MS/200	200 mm	0...+60 °C	3K	+75 °C	1102-2010-2100-320	82,91 €
ETR-060 U VA/100	100 mm	0...+60 °C	3K	+75 °C	1102-2010-2100-390	105,47 €
ETR-060 U VA/150	150 mm	0...+60 °C	3K	+75 °C	1102-2010-2100-330	107,99 €
ETR-060 U VA/200	200 mm	0...+60 °C	3K	+75 °C	1102-2010-2100-340	112,51 €
ETR-090 U						TW
ETR-090 U MS/100	100 mm	0...+90 °C	3K	+120 °C	1102-2010-2100-480	75,87 €
ETR-090 U MS/150	150 mm	0...+90 °C	3K	+120 °C	1102-2010-2100-410	78,43 €
ETR-090 U MS/200	200 mm	0...+90 °C	3K	+120 °C	1102-2010-2100-420	82,91 €
ETR-090 U VA/100	100 mm	0...+90 °C	3K	+120 °C	1102-2010-2100-490	105,47 €
ETR-090 U VA/150	150 mm	0...+90 °C	3K	+120 °C	1102-2010-2100-430	107,99 €
ETR-090 U VA/200	200 mm	0...+90 °C	3K	+120 °C	1102-2010-2100-440	112,51 €
ETR-1						TR
ETR-1 MS/100	100 mm	-35...+35 °C	3K	+75 °C	1102-2010-1100-180	75,87 €
ETR-1 MS/150	150 mm	-35...+35 °C	3K	+75 °C	1102-2010-1100-110	78,43 €
ETR-1 MS/200	200 mm	-35...+35 °C	3K	+75 °C	1102-2010-1100-120	82,91 €
ETR-1 VA/100	100 mm	-35...+35 °C	3K	+75 °C	1102-2010-1100-190	105,47 €
ETR-1 VA/150	150 mm	-35...+35 °C	3K	+75 °C	1102-2010-1100-130	107,99 €
ETR-1 VA/200	200 mm	-35...+35 °C	3K	+75 °C	1102-2010-1100-140	112,51 €
ETR-060						TR
ETR-060 MS/100	100 mm	0...+60 °C	3K	+75 °C	1102-2010-1100-380	75,87 €
ETR-060 MS/150	150 mm	0...+60 °C	3K	+75 °C	1102-2010-1100-310	78,43 €
ETR-060 MS/200	200 mm	0...+60 °C	3K	+75 °C	1102-2010-1100-320	82,91 €
ETR-060 VA/100	100 mm	0...+60 °C	3K	+75 °C	1102-2010-1100-390	105,47 €
ETR-060 VA/150	150 mm	0...+60 °C	3K	+75 °C	1102-2010-1100-330	107,99 €
ETR-060 VA/200	200 mm	0...+60 °C	3K	+75 °C	1102-2010-1100-340	112,51 €
ETR-090						TR
ETR-090 MS/100	100 mm	0...+90 °C	3K	+120 °C	1102-2010-1100-480	75,87 €
ETR-090 MS/150	150 mm	0...+90 °C	3K	+120 °C	1102-2010-1100-410	78,43 €
ETR-090 MS/200	200 mm	0...+90 °C	3K	+120 °C	1102-2010-1100-420	82,91 €
ETR-090 VA/100	100 mm	0...+90 °C	3K	+120 °C	1102-2010-1100-490	105,47 €
ETR-090 VA/150	150 mm	0...+90 °C	3K	+120 °C	1102-2010-1100-430	107,99 €
ETR-090 VA/200	200 mm	0...+90 °C	3K	+120 °C	1102-2010-1100-440	112,51 €
ETR-0120						TR
ETR-0120 MS/100	100 mm	0...+120 °C	5K	+135 °C	1102-2010-1100-580	75,87 €
ETR-0120 MS/150	150 mm	0...+120 °C	5K	+135 °C	1102-2010-1100-510	78,43 €
ETR-0120 MS/200	200 mm	0...+120 °C	5K	+135 °C	1102-2010-1100-520	82,91 €
ETR-0120 VA/100	100 mm	0...+120 °C	5K	+135 °C	1102-2010-1100-590	105,47 €
ETR-0120 VA/150	150 mm	0...+120 °C	5K	+135 °C	1102-2010-1100-530	107,99 €
ETR-0120 VA/200	200 mm	0...+120 °C	5K	+135 °C	1102-2010-1100-540	112,51 €
ETR-50140						TR
ETR-50140 MS/100	100 mm	+50...+140 °C	5K	+150 °C	1102-2010-1100-680	75,87 €
ETR-50140 MS/150	150 mm	+50...+140 °C	5K	+150 °C	1102-2010-1100-610	78,43 €
ETR-50140 MS/200	200 mm	+50...+140 °C	5K	+150 °C	1102-2010-1100-620	82,91 €
ETR-50140 VA/100	100 mm	+50...+140 °C	5K	+150 °C	1102-2010-1100-690	105,47 €
ETR-50140 VA/150	150 mm	+50...+140 °C	5K	+150 °C	1102-2010-1100-630	107,99 €
ETR-50140 VA/200	200 mm	+50...+140 °C	5K	+150 °C	1102-2010-1100-640	112,51 €
ETR-R6585						STB
ETR-R6585 MS/100	100 mm	+65...+85 °C	+0 / -15...20 K	+120 °C	1102-2010-6100-780	91,43 €
ETR-R6585 MS/150	150 mm	+65...+85 °C	+0 / -15...20 K	+120 °C	1102-2010-6100-710	93,97 €
ETR-R6585 MS/200	200 mm	+65...+85 °C	+0 / -15...20 K	+120 °C	1102-2010-6100-720	102,55 €
ETR-R6585 VA/100	100 mm	+65...+85 °C	+0 / -15...20 K	+120 °C	1102-2010-6100-790	110,77 €
ETR-R6585 VA/150	150 mm	+65...+85 °C	+0 / -15...20 K	+120 °C	1102-2010-6100-730	113,31 €
ETR-R6585 VA/200	200 mm	+65...+85 °C	+0 / -15...20 K	+120 °C	1102-2010-6100-740	117,96 €
ETR-R90110						STB
ETR-R90110 MS/100	100 mm	+90...+110 °C	+0 / -15...20 K	+120 °C	1102-2010-6100-880	91,43 €
ETR-R90110 MS/150	150 mm	+90...+110 °C	+0 / -15...20 K	+120 °C	1102-2010-6100-810	93,97 €
ETR-R90110 MS/200	200 mm	+90...+110 °C	+0 / -15...20 K	+120 °C	1102-2010-6100-820	102,55 €
ETR-R90110 VA/100	100 mm	+90...+110 °C	+0 / -15...20 K	+120 °C	1102-2010-6100-890	110,77 €
ETR-R90110 VA/150	150 mm	+90...+110 °C	+0 / -15...20 K	+120 °C	1102-2010-6100-830	113,31 €
ETR-R90110 VA/200	200 mm	+90...+110 °C	+0 / -15...20 K	+120 °C	1102-2010-6100-840	117,96 €

Type designation:

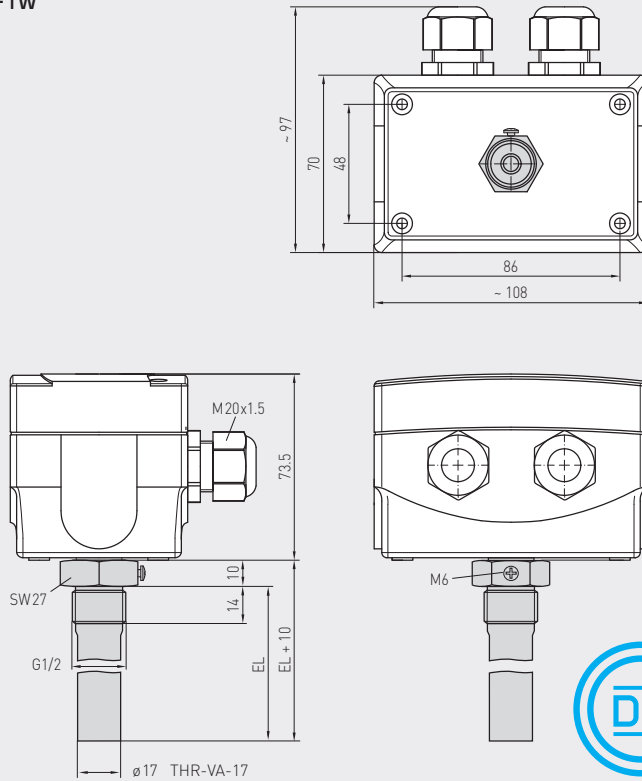
ETR-xx_immersion sleeve material / inserted length (mm)

MS = Brass nickel-plated, VA = Stainless steel V4A (1.4571)

For further information and accessories see next page...

Dimensional drawing
Double temperature monitor
TW + TW

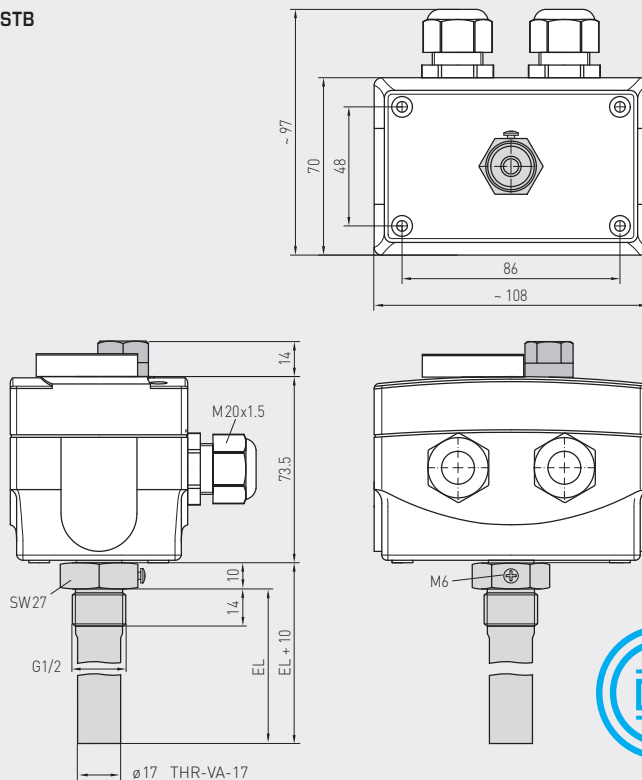
ETR-xx U
(two-step)



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

Dimensional drawing
Temperature controller +
safety temperature limiter
TR + STB

ETR-xx Rxx
(two-step)



ETR-060 R 85
ETR-090 R 110
(two-step)
TR + STB
selectable



THERMASREG® ETR Equipment sensor / controller, two-step, including immersion sleeve

Type / WG02	Inserted Length (EL)	Temperature Ranges (adjustable)		Thermal Operating Difference (fixed) approx.		Maximum Capillary Temp.	Item No.	Price
		1.	2.	1.	2.			
ETR-090090 U								TW + TW
ETR-090090 U VA/150	150 mm	0...+90 °C	0...+90 °C	3K	3K	+120 °C	1102-2010-2205-130	156,83 €
ETR-090090 U VA/200	200 mm	0...+90 °C	0...+90 °C	3K	3K	+120 °C	1102-2010-2205-140	170,47 €
ETR-060R85								TR + STB
ETR-060R85 VA/150	150 mm	0...+60 °C	+65...+85 °C	3K	+0 / -15...20K	+120 °C	1102-2010-7205-230	156,83 €
ETR-060R85 VA/200	200 mm	0...+60 °C	+65...+85 °C	3K	+0 / -15...20K	+120 °C	1102-2010-7205-240	170,47 €
ETR-090R110								TR + STB
ETR-090R110 VA/150	150 mm	0...+90 °C	+90...+110 °C	3K	+0 / -15...20K	+135 °C	1102-2010-7205-330	156,83 €
ETR-090R110 VA/200	200 mm	0...+90 °C	+90...+110 °C	3K	+0 / -15...20K	+135 °C	1102-2010-7205-340	170,47 €

Type designation:	ETR-xx_immersion sleeve material / inserted length (mm) MS = Brass nickel-plated, VA = Stainless steel V4A (1.4571)		
Extra charge:	U = Internal setting, unless included in a certain type /2 = 2 steps, unless included in a certain type		10,66 € on request
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...20K below switching temperature (+0K / - 15...20K); with EC type test (module B) according to directive 2014 / 68 / EU		
Note:	To ensure accurate responsiveness series ETR devices must only be used in connection with the immersion sleeves included in the scope of delivery while applying heat-conductive paste		

ACCESSORIES			
WLP-1	Heat-conductive paste, silicone-free	7100-0060-1000-000	4,98 €
For further information see last chapter!			

THERMASGARD® THR Immersion sleeve Ø 8 / 9 / 17 mm

Type / WG01	p _{max} (static)	T _{max}	Time Constant for Medium:			Inserted Length (EL)	Item No. Ø	Price
			Air	Water	Oil			
THR-ms-08 / xx Brass nickel-plated Ø 8 x 0.5 mm								
THR-MS-08/100	10 bar	+150 °C	106 s	18 s	53 s	100 mm	7100-0011-3022-000	16,52 €
THR-MS-08/150	10 bar	+150 °C	106 s	18 s	53 s	150 mm	7100-0011-3404-000	16,66 €
THR-MS-08/200	10 bar	+150 °C	106 s	18 s	53 s	200 mm	7100-0011-3403-000	19,78 €
THR-VA-09 / xx Stainless steel V4A (1.4571) Ø 9 x 1.0 mm								
THR-VA-09/100	25 bar	+150 °C	92 s	17 s	41 s	100 mm	7100-0012-3022-000	42,55 €
THR-VA-09/150	25 bar	+150 °C	92 s	17 s	41 s	150 mm	7100-0012-3032-000	43,91 €
THR-VA-09/200	25 bar	+150 °C	92 s	17 s	41 s	200 mm	7100-0012-3042-000	47,05 €
THR-VA-17 / xx Stainless steel V4A (1.4571) Ø 17 x 1.0 mm								
THR-VA-17/150	25 bar	+150 °C	-	45 s	55 s	150 mm	7100-0012-3033-000	43,91 €
THR-VA-17/200	25 bar	+150 °C	-	45 s	55 s	200 mm	7100-0012-3404-000	47,05 €
Ordering example:	THR - ms - 08 / 100 (Brass immersion sleeve, Ø = 8 mm, EL = 100 mm) THR - VA - 09 / 150 (Stainless steel immersion sleeve, Ø = 9 mm, EL = 150 mm) THR - VA - 17 / 200 (Stainless steel immersion sleeve, Ø = 17 mm, EL = 200 mm)							
Note:	inner diameter of socket 15.0 mm							