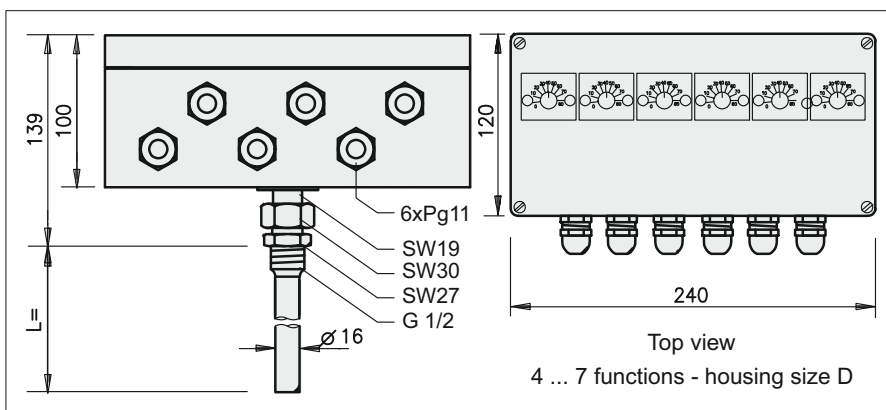
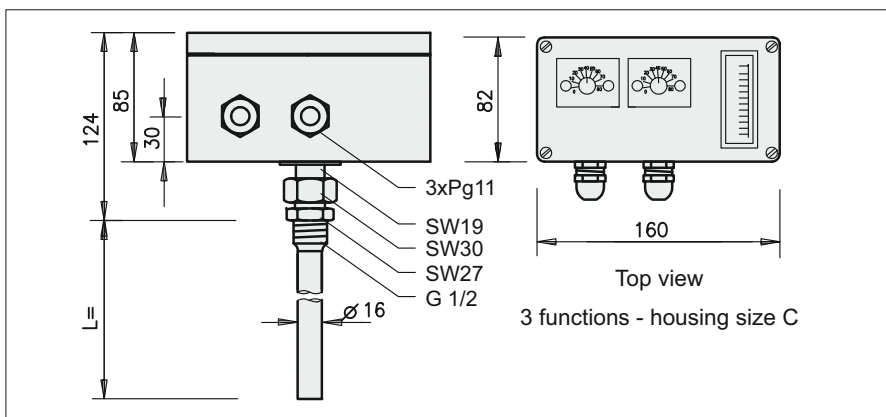
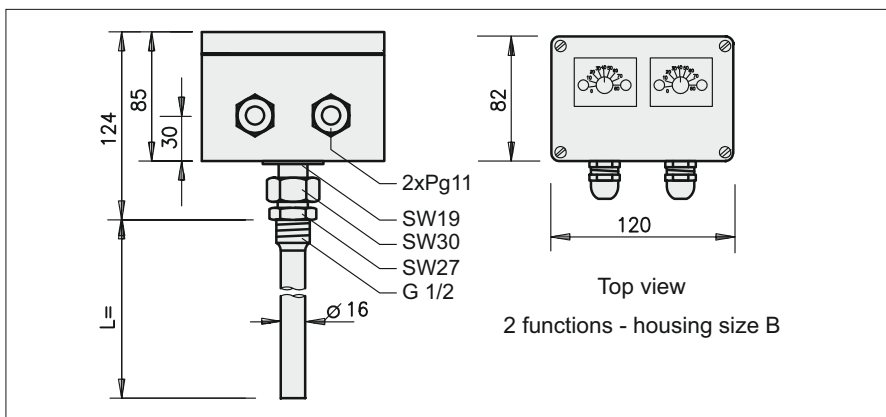
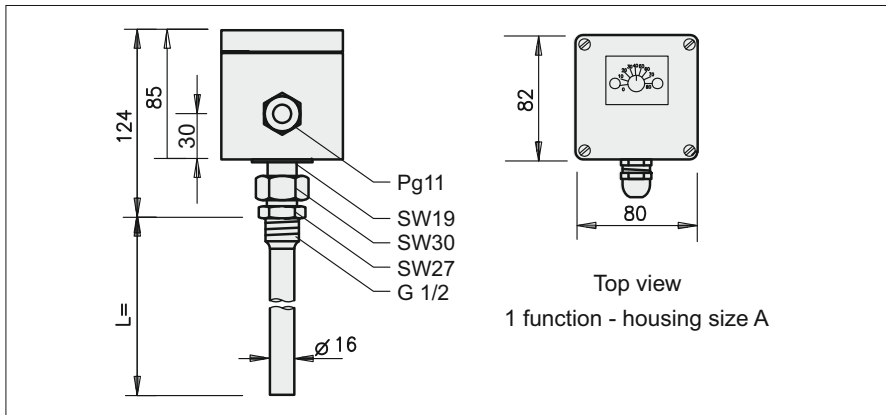




- Subject to modifications -



Thermo regulator KTR-B

- Regulation and monitoring of temperatures
- optionally with temperature indication
- up to max. 7 functions in one device

Function:

The thermostats work on the principle of liquid expansion. The system is composed of sensor, capillary tube and membrane. When heating up the sensor the expansive liquid is displaced by the capillary tube into the membrane activating there a working stroke. This working stroke actuates the snap switch effecting the opening and closing of the potential-free contact. There are several types of thermostats available. Regulator and display have separate systems, which are placed together in one protective sleeve. The housings can be rotated and fixed in all positions. The housing cap is transparent. For the electrical connection the housing cap (4 screws) and the front plate (4 screws) have to be detached.

Technical data - general:

Protection:	DIN EN 60529 IP65
Ambient temperature:	-40 ... +80 °C
Operating pressure:	max. 16 bar
Material	
Housing	Macrolon
Immersion pipe	1.4301
Electr. connection:	Flat plug 6,3x0,8 (DIN 46244)

Thermostat: T5

Contact material:	Silver
Switch voltage:	max. 250 VUC
Switch current AC / DC:	max. 16 A / 4 A
Switch precision: ¹⁾	±3 °C
Switch difference: ¹⁾	max. 5 °C
Regulation range:	0 ... 80 °C

Thermostat: T10

Contact material:	Silver
Switch voltage:	max. 250 VUC
Switch current AC / DC:	max. 16 A / 4 A
Switch precision: ¹⁾	±5 °C
Switch difference: ¹⁾	max. 10 °C
Regulation range:	10 ... 120 °C

Thermostat: G5

Contact material:	Gold
Switch voltage:	max. 24 VDC
Switch current:	5 mA ... 0,3 A
Switch precision: ¹⁾	±3 °C
Switch difference: ¹⁾	max. 5 °C
Regulation range:	0 ... 80 °C

Temperature display: TA

Measuring range:	0 ... 120 °C
Calibration:	±2 at 70 °C

¹⁾ see reverse)



Plug-in connection X3, X3N
(max. 250 VUC)

Plug-in connection: X3
3-pin +PE, DIN EN 175301-803, form A. Delivery includes cable socket, internally wired. For each thermostat one plug-in connection set is necessary. (X3N = without cable socket)

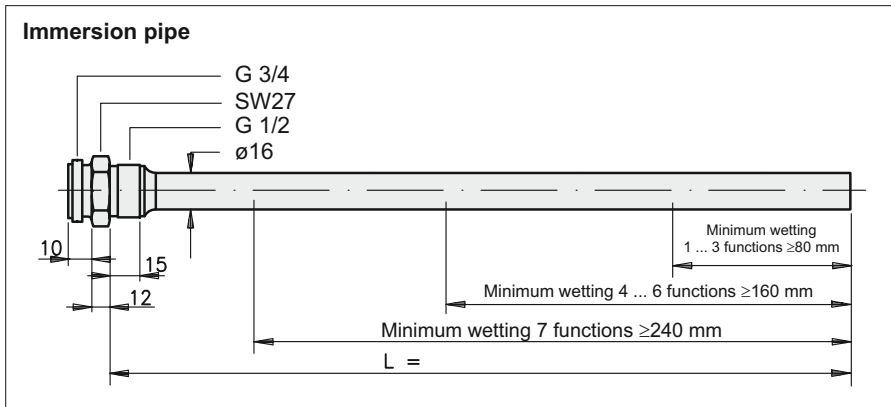
Plug-in connection X6, X6N
(max. 250 VUC)

Plug-in connection: X6
6-pin +PE, DIN EN 175201-804. Delivery includes cable socket, internally wired. For max two thermostates one plug-in connection set is necessary. (X6N = without cable socket)

Plug-in connection X4N
(max. 30 VDC)

not part of the delivery extent

Plug-in connection: X4N
M12x1, 4-pin Delivery without cable socket, internally wired. For each thermostat one plug-in connection set is necessary.

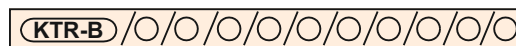


Switching accuracy¹⁾
The given accuracy data are related to an ambient temperature of 25 °C for the thermostat casing and to a temperature changing speed of the medium of $\leq 0,5$ °C/min.

Order example:
Thermo regulator for two thermostates with silver contacts, 1 indicator, immersion pipe 1.4301 L=300 and plug-in connection X3.

Order designation:
KTR-B / 3 / V300 / T5 / T5 / TA / X3

Order designation:



Number of functions	Immersion pipe Length L=	Function							Plug-in connection	
		Location 1	Location 2	Location 3	Location 4	Location 5	Location 6	Location 7		
Housing	L= 100 (V 100)	(T5)	Thermostate with contact silver 0 ... 80 °C hysteresis 5°C							(X3) (X3N) up to 250 VUC
	L= 200 (V 200)	(F5) ²⁾	Thermostate with contact silver 32 ... 176 °F Scale in Fahrenheit							
	L= 300 (V 300)	(T10) ²⁾	Thermostate with contact silver 10 ... 120 °C hysteresis 10°C							
	L= 400 (V 400)	(F10) ²⁾	Thermostate with contact silver 50 ... 248 °F Scale in Fahrenheit							(X6) (X6N) up to 250 VUC
	L= 500 (V 500)	(G5) ²⁾	Thermostate with contact gold 0 ... 80 °C hysteresis 5°C							
	L= 800 (V 800)	(TA)	Temp.display 0 ... 120 °C							
	L= 1000 (V 1000)	(FA)	Temp.display 32 ... 248 °F							
A	1 (1)	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> ²⁾ T10, F10 and G5 length max. 400 </div>							(X4N) up to 30 VDC M12x1 without plug-in connection no order	
B	2 (2)									
C	3 (3)									
	4 (4)									
D	5 (5)									
	6 (6)									
	7 (7)									



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With Directive 2002/95/EC of January 27, 2003, for the limitation of the use of certain hazardous substances in electrical and electronic devices (RoHS) material bans come into effect from July 2006 for electrical and electronic devices newly placed on the market for lead, cadmium, hexavalent chromium, mercury and brominated flame retardants.

In its controls and switching devices, WOERNER only uses materials which fulfil the criteria of EU Directive 2002/95/EC.

To the extent that hexavalent chromium has been used as corrosion protection in the parts which we produce ourselves, it has already been replaced by other environmentally tolerable protective measures.

The mechanical devices supplied by WOERNER are not affected by EU Directive 2002/95/EC.

But as WOERNER is conscious of its responsibility towards the environment, we shall also use materials fulfilling the requirements of the Directive for devices not covered by EU Directive 2002/95/EC as soon as they are generally available and their use is technically possible.