Resistance thermostat: limiter: KW



Description

The very compact KW resistance thermostat is designed for current loads of up to 16A and has a wide range of applications. It opens at the required temperature and switches over to an internal heating resistor (self-holding). Reset occurs on cooling by switching off the device. This ensures that the user must manually disconnect the device from power supply.

The KW thermostat is used everywhere where overheating protection is required in minimum space.

- Domestic appliances
- Coffee machines
- Air humidifiers
- Electrical equipment
- Heaters
 - Heat exchangers
 - Fans



General dimensions*



*) Detailed dimensions and a key to the order numbers are given on the following pages.

Technical specifications Switching performance 16 (4) A 250V ac 1000 cycles Maximum switching temperature 150 °C Electrical insulation > 2800 V As per EN 60730 Design • microinterrupter • type 1 Heating resistor Customer-specific, based on: • temperature voltage (250/110 V) Contact material Silver alloy Approval VDE etc.



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Connection Variants



Fig. 4 Flat plugs 6.3 x 0.8



Fig. 6 Flat plugs 6.3 x 0.8 turned up vertically

*) Size of the manual reset: cf. general dimensions on previous page



bent sideways



Fig. 11 Flange with bilateral mounting, cranked



Fig. 16 Flange with bilateral mounting, recessed 4 mm



Fig. 13 Cover with arresting flange



Fig. 8 Insulated strand 0.5 mm², Lengths L=150, 300, 600 mm



Fig. 9 Connections onside/upstairs without cable



Fig. 10 «Crimp-lugs» onside 0.5 mm



Fig. 15 Special longitudinal flange for 2 thermostats



Fig. 14 Special

for M-4 screws

longitudinal flange

Fig. 18 Encapsulated bimetallic disk



Fig. 19 Uncovered bimetallic disk



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Fig. 17 Screw mounting

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Fig. 19

Uncovered bimetallic disk ------

				$\begin{array}{cccc} x & x & x \\ x & x & x \\ T & T & T \end{array}$	$\frac{x \times x \pm x}{x \times x} \pm \frac{x}{x}$	x x		
						Tolerance ± 10 °K	Tolerance ± 5 °K	Tolerance ± 3 °K
						°C	°C	°C
				I		_		
				1		_		
Fig. 4	Flat plugs	6.3 x (0.8 bent sideways	1	060		_	60°
Fig. 6	Flat plugs	6.3 × 0.8 tu	urned up vertically	3	067		_	67°
Fig. 7	Flat plugs 4.8 × 0.8 turr		urned up vertically	4	071 ———		71°	71°
Fig. 8	Insulated strand	0.5 mm ²	L=150 mm	6	075 ———		-	75°
Fig. 8	Insulated strand	0.5 mm ²	L=300 mm	7	080	- 80°	80°	80°
Fig. 8	Insulated strand 0.5 mm ² L =600 mm			8	085		-	85°
Fig. 9	Connections onside without cable				090 ———		90°	90°
Fig. 9	Connections upstairs without cable				095 ———		-	95°
Fig. 10	«Crimp-lugs»			Ċ	100 ———	- 100°	100°	100°
					106		-	106°
	Flat cover without	ut flange ———		0	112		112°	112°
Fig. 11	Flange with bilateral mounting		cranked	1	118 ———		-	118°
Fig. 13	Cover with arres	ting flange	90° -	3	125 ———	— 125°	125°	125°
Fig. 13	Cover with arres	ting flange	45°		132 ———		-	132°
Fig. 13	Cover with arres	ting flange	30° -	9	140 ———		140°	140°
Fig. 13	Cover with arres	ting flange	parallel	Þ	150 ———		150°	_
Fig. 14	Special longitudinal flange for M-4 screws							
Fig. 15	Special longitudinal flange for 2 thermostatsB							
Fig. 16	Flange with bilateral mounting, recessed 4 mm —— C							
Fig. 17	Screw mounting		M4 x 6 mm	—— 4				
Fig. 17	Screw mounting		M4 x 10 mm	6				
Fig. 17	Screw mounting		M4 x 16 mm	Ź				
Fig. 17	Screw mounting		M5 x 6 mm	5				
Fig. 18	Encapsulated bimetallic disk ————0							
Fig. 19	Uncovered bime	tallic disk ———		1				

Specimen order: KW 140 071 ± 05 = Limiter: Flat plugs 6.3 x 0.8 bent sideways; screw mounting M4 x 6 mm; encapsulated bimetallic disk; trigger temperature 71 °C ± 5 °K



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Mode of action

The KW thermostat operates at a fixed temperature that is determined by a snap-action bimetallic disk. The action of the bimetallic disk is mechanically transmitted to a bridge contact via a transfer pin, so that the electrical circuit is either open or closed, depending on the state of the bimetallic disk.

When the switch is open, the resistor is connected to the applied voltage; its heat output ensures that the bimetallic disk cannot snap back.

The sizing of the resistor depends on the required switching temperature and the applied voltage.

After disconnection of the power supply, the bimetallic disk cools and snaps back, closing the electrical circuit again.



Key:

- 1 = Terminal
- 2 = Contact plate
- 3 = Double-break contact
- 4 = Housing
- 5 = Bimetallic disk 6 = Heat transfer plate
- 7 = Fastening screw
- 8 = Switching pin
- 9 = Resistor
- 10 = Cover
- 11 = Spring

Note

It is the responsibility of the customer to verify the suitability of the intended use. We can provide no guarantees in this regard. However, we will be happy to advise you.





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