

# **EAW**

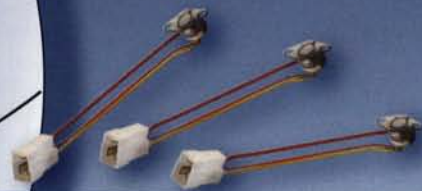
**Thermal Switch**



**1/2" DISC-TYPE THERMOSTATS /  
THERMAL CUT-OUTS / TEMPERATURE LIMITERS**



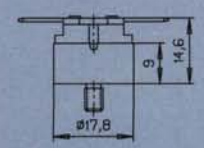
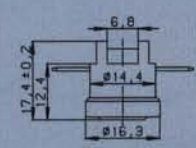
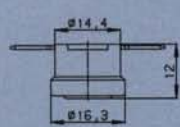
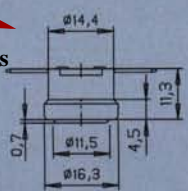
**PROBE THERMOSTATS**




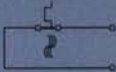
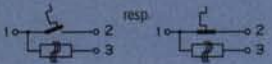
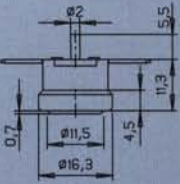
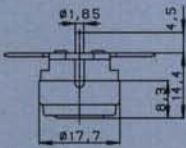
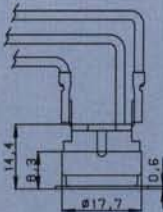


**MULTIFUNCTIONAL THERMOSTATS**

DESIGN	THERMOSTATS		THERMOSTATS	
Type	<b>KO Break Contact KS Make Contact</b>	<b>CO7 Break Contact CS7 Make Contact</b>	<b>CO9 Break Contact CS9 Make Contact</b>	<b>CO Break Contact CS Make Contact</b>
Base Material	Plastic 	Ceramic 	Ceramic 	Ceramic 
Function	Open respectively close an electrical contact at temperature rise resp. at temperature fall 		Open respectively close an electrical contact at temperature rise resp. at temperature fall 	
Reset Type	Automatic reset at preset temperature		Automatic reset at preset temperature	
Ratings	<b>VDE:</b> 250 VAC/10 (1.6) A x 100.000 cycles 250 VAC/16 (6) A x 10.000 cycles <b>UL:</b> 250 VAC/10 A x 100.000 cycles 120 VAC/15 A x 100.000 cycles	<b>VDE:</b> 250 VAC/10 A x 100.000 cycles <b>UL:</b> 250 VAC/16 A x 10.000 cycles	<b>VDE:</b> 250 VAC/10 A x 100.000 cycles <b>UL:</b> 250 VAC/16 A x 10.000 cycles	<b>VDE:</b> 250 VAC/16 (6) A x 10.000 cycles 400 VAC/16 (6) A x 1.000 cycles
Min./Max. Switching Current	Contact Material: • Ag: 50 mA/16 A • Gold-plated Contacts: ≥ 10 mA	Contact Material: • Ag: 50 mA/16 A	Contact Material: • Ag: 50 mA/16 A	Contact Material: • Ag: 50 mA/16 A • Gold-plated Contacts: ≥ 10 mA
Contact Resistance	Contact Material: • Ag: ≤ 25 mΩ • Gold-plated Contacts: ≤ 10 mΩ	Contact Material: • Ag: ≤ 50 mΩ	Contact Material: • Ag: ≤ 50 mΩ	Contact Material: • Ag: ≤ 25 mΩ • Gold-plated Contacts: ≤ 10 mΩ
Dielectric Strength Terminal to Cap	1.250 V <sub>eff</sub> , 50 Hz		1.250 V <sub>eff</sub> , 50 Hz	2.000 V <sub>eff</sub> , 50 Hz
Break-over Voltage, Open Contacts	500 V <sub>eff</sub> , 50 Hz		500 V <sub>eff</sub> , 50 Hz	
Tracking Resistance of Base Material	PTI ≥ 250 V		PTI ≥ 250 V	
Operational Temperature Range; Values Fix Setted	-5°C up to 195°C other values on request	0°C up to 185°C other values on request	0°C up to 185°C other values on request	-5°C up to 200°C other values on request
Tolerance	±3 °C; ±5 °C; ±8 °C other values on request		±3 °C; ±5 °C; ±8 °C other values on request	
Standard Differential	Standard values 10 °C up to 15 °C at least 5 °C, other values on request		Standard values 10 °C up to 15 °C at least 5 °C, other values on request	
Min. Rate of Temp. Rise	0,5 °C/min.		0,5 °C/min.	
Ambient Temperature Limits	0°C up to 200°C	0°C up to 220°C	0°C up to 220°C	0°C up to 200°C
Ingress Protection Rating	IP40		IP40	

**ERMEC**  
www.ermec.com  
Distribución de componentes eléctricos y electrónicos

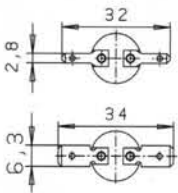


DESIGN	MANUAL RESET THERMAL CUT-OUTS			MULTIFUNCTIONAL THERMOSTATS
Type	<b>KB Break Contact</b>	<b>CB9 Break Contact</b>	<b>CB Break Contact</b>	<b>COH Break Contact CSS Make Contact</b>
Base Material	Plastic 	Ceramic 	Ceramic 	Ceramic 
Function	Open an electrical contact at temperature rise  Distribución de componentes eléctricos y electrónicos 			Open resp. close an electric contact time delayed resp. undelayed 
Reset Type	Manually activated reset required			Interruption from the line voltage of the heating resistor
Ratings	<b>VDE:</b> 250 VAC/10 (1.6) A x 3.000 cycles 250 VAC/16 (6) A x 1.000 cycles  <b>UL:</b> 250 VAC/16 (6) A x 6.000 cycles	<b>Factory-Testing:</b> 250 VAC/10 A x 3.000 cycles  250 VAC/16 A x 1.000 cycles	<b>VDE:</b> 250 VAC/16 (6) A x 1.000 cycles 400 VAC/16 (6) A x 3.000 cycles	<b>VDE:</b> 250 VAC/16 (6) A x 10.000 cycles  <b>Factory-Testing:</b> 250 VAC/3 (1.6) A x 100.000 cycles
Min./Max. Switching Current	Contact Material: • Ag: 50 mA/16 A • Gold-plated Contacts: ≥ 10 mA	Contact Material: • Ag: 50 mA/16 A	Contact Material: • Ag: 50 mA/16 A • Gold-plated Contacts: ≥ 10 mA	Contact Material: • Ag: 50 mA/16 A • Gold-plated Contacts: ≥ 10 mA
Contact Resistance	Contact Material: • Ag: ≤ 25 mΩ • Gold-plated Contacts: ≤ 10 mΩ	Contact Material: • Ag: ≤ 50 mΩ	Contact Material: • Ag: ≤ 25 mΩ • Gold-plated Contacts: ≤ 10 mΩ	Contact Material: • Ag: ≤ 25 mΩ • Gold-plated Contacts: ≤ 10 mΩ
Dielectric Strength Terminal to Cap	1.250 V <sub>eff</sub> , 50 Hz		2.000 V <sub>eff</sub> , 50 Hz	2.000 V <sub>eff</sub> , 50 Hz
Break-over Voltage, Open Contacts	500 V <sub>eff</sub> , 50 Hz			500 V <sub>eff</sub> , 50 Hz
Tracking Resistance of Base Material	PTI ≥ 250 V			PTI ≥ 250 V
Operational Temperature Range; Values Fix Setted	40°C up to 200°C other values on request	40°C up to 185°C other values on request	40°C up to 200°C other values on request	40°C up to 140°C other values on request
Tolerance	±3 °C; ±5 °C; ±8 °C other values on request			±3 °C; ±5 °C; ±8 °C other values on request
Standard Differential	-			Default values 10 up to 15 °C at least 5 °C other values on request
Min. Rate of Temp. Rise	0,5 °C/min.			0,5 °C/min.
Ambient Temperature Limits	-35°C up to 200°C	0°C up to 200°C	-20°C up to 200°C	0°C up to 200°C
Ingress Protection Rating	IP40			IP40
Dimensions				

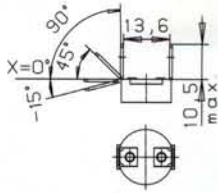
DESIGN	ELECTRIC SELF-HOLD TEMPERATURE LIMITERS		PROBE THERMOSTATS
Type	<b>SO Break Contact</b>	<b>CSO Break Contact</b>	<b>THO Break Contact</b> <b>THS Make Contact</b>
Base Material	Plastic 	Ceramic 	  
Function	Open an electrical contact at temperature rise 		Open respectively close an electrical contact at temperature rise  resp. 
Reset Type	Integrated heat source prevents device from resetting until line voltage is removed from application		Automatic reset at preset temperature
Ratings	<b>VDE:</b> 250 VAC/10 (1.6) A x 3.000 cycles 250 VAC/16 (6) A x 1.000 cycles <b>UL:</b> 250 VAC/16 (6) A x 6.000 cycles	<b>VDE:</b> 250 VAC/16 (6) A x 10.000 cycles	<b>Factory-Testing:</b> up to 50 VDC x 30.000 cycles at max. 130 Watt 250 VAC/8 A x 100.000 cycles  www.ermec.com
Min./Max. Switching Current	Contact Material: • Ag: 50 mA/16 A • Gold-plated Contacts: ≥ 10 mA		Contact Material: • Ag: 50 mA/8 A • Gold-plated Contacts: ≥ 10 mA <b>Distribución de componentes eléctricos y electrónicos</b>
Contact Resistance	Contact Material: • Ag: ≤ 25 mΩ • Gold-plated Contacts: ≤ 10 mΩ		Contact Material: • Ag: ≤ 30 mΩ • Gold-plated Contacts: ≤ 12 mΩ
Dielectric Strength Terminal to Cap	2.000 V <sub>eff</sub> , 50 Hz		up to 2.000 V <sub>eff</sub> , 50 Hz
Break-over Voltage, Open Contacts	-		500 V <sub>eff</sub> , 50 Hz
Tracking Resistance of Base Material	PTI ≥ 250 V		PTI ≥ 250 V
Operational Temperature Range; Values Fix Setted	40°C up to 200°C other values on request		-5°C up to 140°C other values on request
Tolerance	±3 °C; ±5 °C; ±8 °C other values on request		±3 °C; ±5 °C; ±8 °C other values on request
Standard Differential	30 °C up to 150 °C other values on request		Standard values 10 °C up to 15 °C at least 5 °C other values on request
Min. Rate of Temp. Rise	0,5 °C/min.		0,5 °C/min.
Ambient Temperature Limits	0°C up to 200°C		-20°C up to 140°C
Ingress Protection Rating	IP40		IP54
Dimensions			 

# ELECTRICAL CONNECTION

## Quick connect terminal DIN 46244

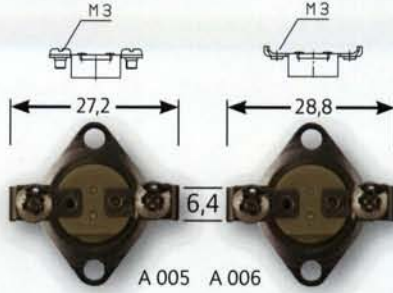


A 001 2,8x0,5-x°  
A 002 2,8x0,8-x°



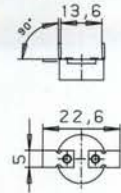
A 010 4,8x0,5-x°  
A 003 4,8x0,8-x°  
A 004 6,3x0,8-x°

## Screw connection

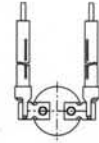


A 005 A 006

## Welding, soldering terminal and wire connection



A 007 Soldering  
A 008 Welding

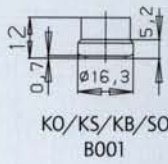


A 009  
Specification  
on request

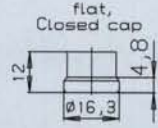


# LOCK CAPS AND FASTENING CONNECTION

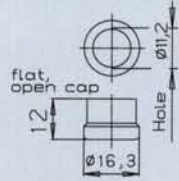
## Lock caps-standard (Material: AL or CrNi)



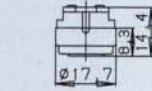
KO/KS/KB/SO  
B001



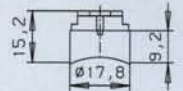
KO/KS/KB/SO  
B002



KO/KS/KB/SO  
B003

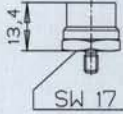


CO/CS/CB/CSO  
B004

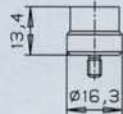


CO/CS/CB/CSO  
B005

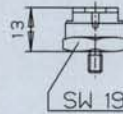
## Lock caps with screw fitting (Material: Brass, threaded pin: Standard M 4x6, other sizes available)



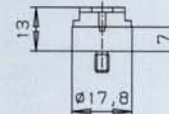
KO/KS/KB/SO  
B006



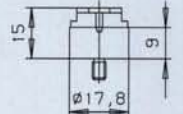
KO/KS/KB/SO  
B007



CO/CS/CB  
B008

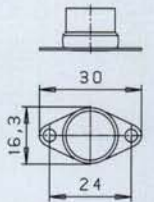


CO/CS/CB  
B009

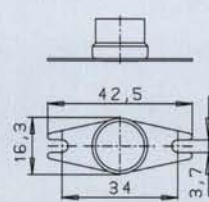


CO/CS/CB/CSO  
B010

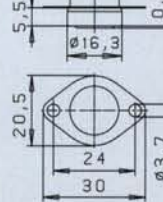
## Lock caps with fastening flange Cap with fixed flange (Material: CrNi) / Air flange cap (Material: AL or CrNi)



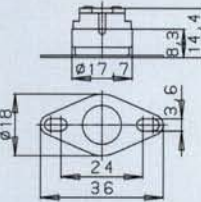
KO/KS/KB/SO  
B011



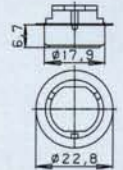
KO/KS/KB/SO  
B012



KO/KS/KB/SO  
B013



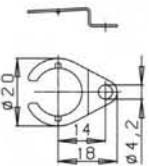
CO/CS/CB/CSO  
B014



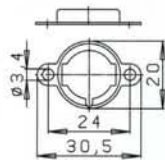
CO/CS/CB  
B021

## FLANGES

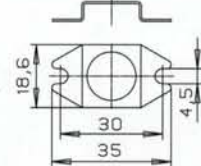
for 90° beut off terminals only



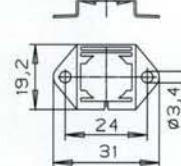
KO/KS/KB/SO  
B016



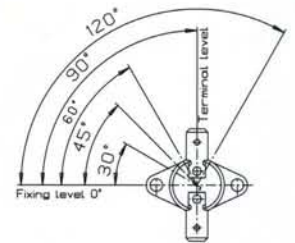
KO/KS/KB/SO  
B017



KO/KS/KB/SO  
B018

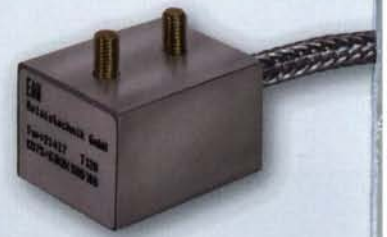


KO/KS/KB/SO  
B019



## SPECIAL DESIGNS

### Thermostats/ Temperature limiters



Special designs with diverse electrical and fastening connections, sealed sleeves, wire connections, trip-free mechanism as well as sensors with NTC-/ PTC-starters are available upon request.

# ERMEC

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Distribución de componentes  
eléctricos y electrónicos

## EAW – YOUR WORLDWIDE PARTNER for your Designs and Developments

EAW Relaistechnik GmbH works for more than forty years in the field of ½" bimetal disc thermostats. Our know-how and experience guarantees you that we can design you the most effective thermostat to an propitious price, either as a temperature limiter or temperature controller for your application. We have available a large number of electric terminals and mounting brackets, which gives you the possibility to fix the thermostat to your application.

All thermostats can be supplied with following operating principals:

- Automatic operation
- Manual reset
- Electric self-holding contacts (for reset, interrupt from the line)
- Single Operation Devices (SOD)

The ratings of the contacts are variable from 10 mAmps / 10 mV up to 16 Amps / 400 VAC.



### Samples

Should you require samples for your application testing, please complete the Sample Request Form found on our website: [www.eaw-relaistechnik.de](http://www.eaw-relaistechnik.de).

### Technical Parameters, Application and Tests

Technical parameters as stated in our data sheets are obtained with test methods and equipments used in our company. Different procedures and equipments may provide different results. The adaptation of our thermostats and the suitability for the intended application must be proved by the orderer. EAW Relaistechnik GmbH does not take over a guarantee for wrong adaptation. Technical data are subject to change.

### Quality Assurance

Quality Management System  
Proved by  
Standard Quality

according to DIN EN ISO 9001 : 2000  
Certificate  
Production based single test  
Voltage test  
Switching temperature test (limit value check)

### CE- and RoHS-Identification

The products of EAW Relaistechnik GmbH are labeled with CE- and RoHS-labels on their devices, packaging or in the documentation.



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