

Ceramic Thermostat CO/CS/CB

Ceramic Thermostat with snap-action disk: regulator, automatic controller, limiter



Applications

The very compact ceramic-bodied thermostats are designed for current loads of up to 16A and have a wide range of applications. These thermostats can be used in regulator applications to maintain a constant temperature (normally closed or normally open); they can be used as thermal switches in monitoring applications (normally closed or normally open); or they can be used as limiters (normally closed) with mechanical resetting.

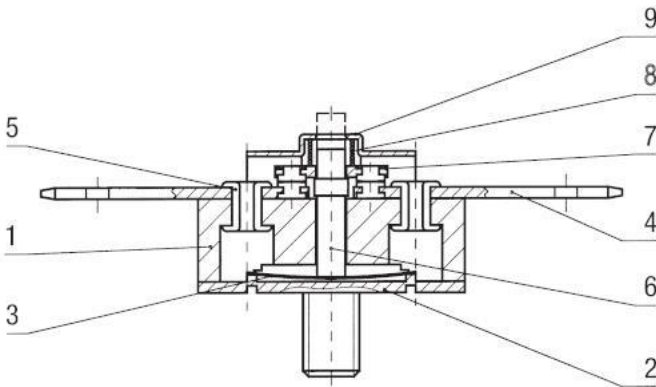
The thermostats are used everywhere where overheating protection is required in a minimum of space.

- domestic appliances
- heating appliances
- heat exchangers
- electrical equipment
- hotplates



Mode of action

The thermostats respond to 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.



- 1 = Housing (Ceramic)
- 2 = Heat-conducting plate
- 3 = Bimetall element
- 4 = Connection terminals
- 5 = Rivet
- 6 = Switching pin
- 7 = Bridge Contact
- 8 = Spring
- 9 = Cover

Technical specifications

Switching performance (CCA)	16 (2.5) A 250 V ac	
CS	1000 switches	
	16 (2.5) A 400 V ac	
	CO	1000 switches
		10 (1.5) A 250 V ac
CB	30000 switches	
	max. 300 °	
	16 (2.5) A 250 V ac	
	1000 switches	
CB	16 (2.5) A 400 V ac	
	1000 switches	
CB	max. 350 °	
	Maximum speed of temperature change	20 °K/min
Differential gap	30 ° – 60 °C (smaller values on request)	
Maximum switching temperature	350 °C	
Electr. insulation	> 2800 V	
Design	As per EN 60730	
	• micro-contact-breaker	
	• type 1CL	
Contact material	Silver alloy	
Approval	VDE	
	UL for 250 V	

VDE approval above 300 °C only with welding of the connection contacts



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Connection variants

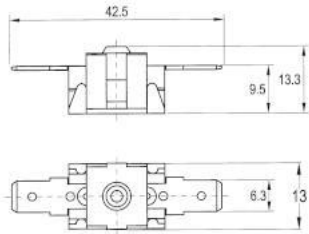


Fig. 1 Connectors
6.3 x 0.8 horizontal

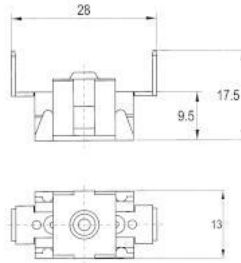


Fig. 2 Connectors
6.3 x 0.8 vertically

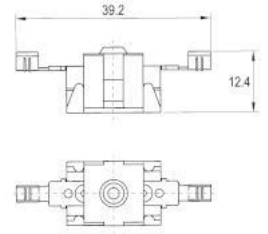


Fig. 3 Crimp Connectors

Mounting variants

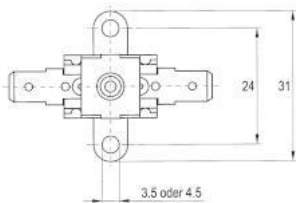


Fig. 4 Flange with
fixing lugs both sides

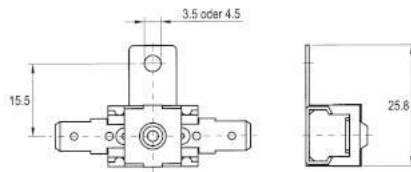


Fig. 5 Flange with
fixing lugs one side

D	L
M4	6
M5	10

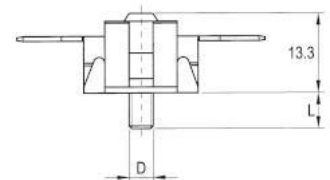


Fig. 6 Flange with
threaded fixing stud

Ordering Code

CO=Normally Closed, CS=Normally Open, CB=Limiter

CO: Contact opens on temperature rise
CS: Contact closes on temperature rise
CB: Contact opens on temperature rise,
manual reset.

		x	x	x	x	x	x	x	x	Tolerance ± 5 °K	Tolerance ± 10 °K	Tolerance ± 20 °K
										°C	°C	°C
Fig. 1	Connectors	6.3 x 0.8 horizontal	1							120°	120°	-
Fig. 2	Connectors	6.3 x 0.8 vertically	3							140°	140°	-
Fig. 3	Crimp Connectors		C							150°	150°	150°
Fig. 4	with fixing lugs	both sides Ø3.5 mm	1*)							-	180°	180°
Fig. 4	with fixing lugs	both sides Ø4.5 mm	1*)							-	200°	200°
Fig. 5	with fixing lugs	one side Ø3.5 mm	2*)							-	220°	220°
Fig. 5	with fixing lugs	one side Ø4.5 mm	2*)							-	250°	250°
Fig. 6	with threaded fixing stud	M4 x 6 mm	4							-	-	280°
Fig. 7	with threaded fixing stud	M5 x 6 mm	5							-	-	300° *
	encapsulated bimetal		0							-	-	320° *
	exposed bimetal		1							-	-	350° *

*) By ordering please specify the diameter

* VDE approval above 300 °C only with welding of the connection contacts

Ordering example: CO 111 250 ± 10 Ø3.5 = Normally closed, connectors 6.3 x 0.8 horizontal, double fixing lugs Ø3.5, exposed bimetal element, trigger temperature 250 °C ± 10 °K



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