MICROTHERM
sentronic

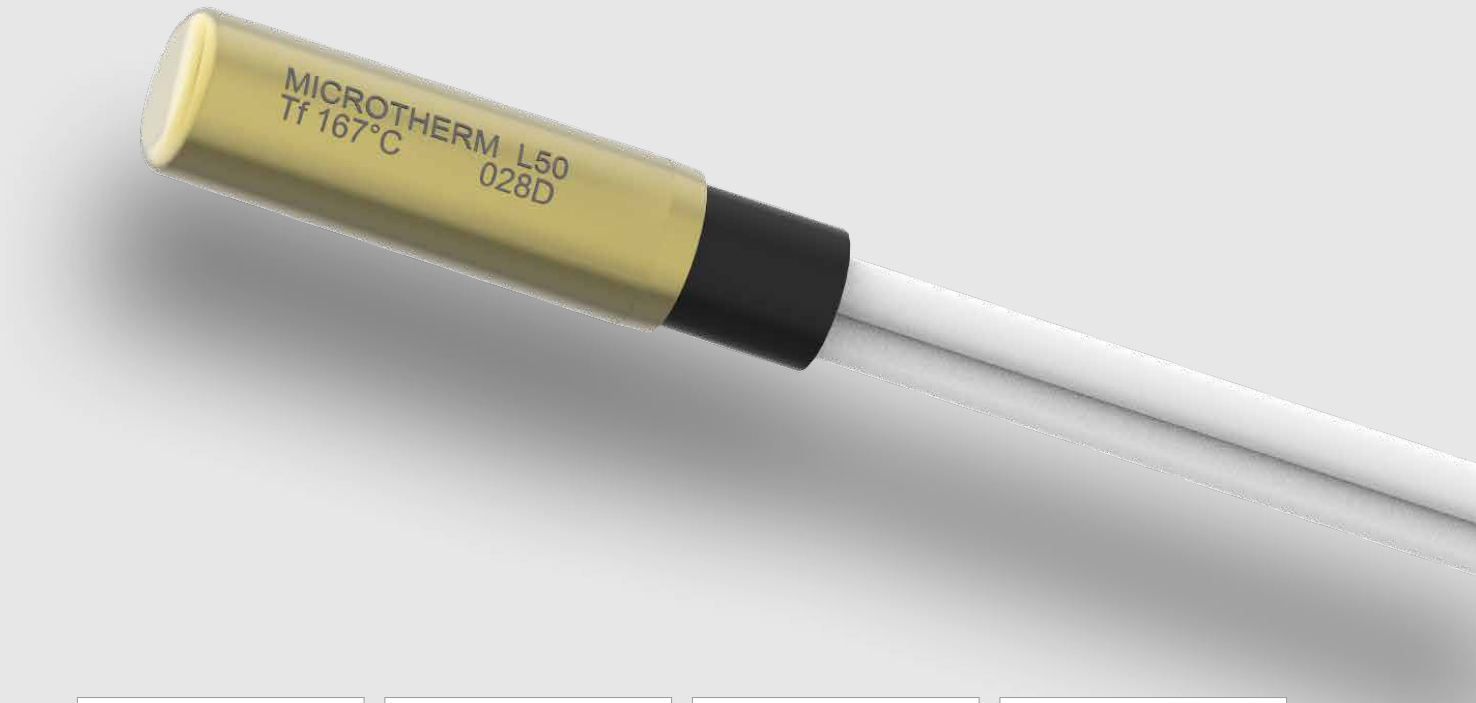
L

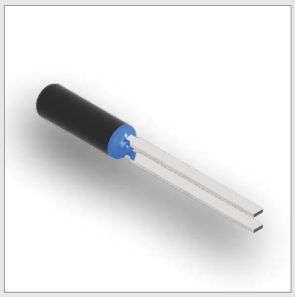
10

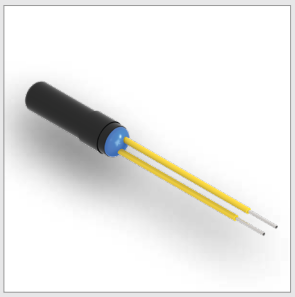
50

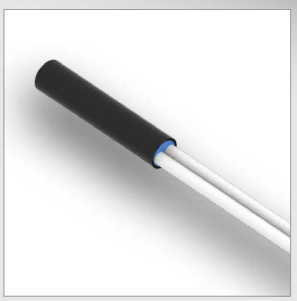
Temperature probe

Thermal cutout









Applications

- electronic applications
- E-car plug connectors
- Room ventilation and fire protection system sensor
- Heating elements protection

Benefits

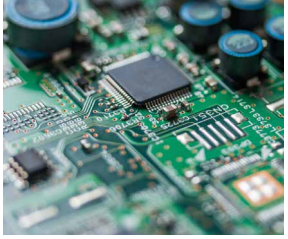
- Fully insulated solution
- Plug-in capable
- Direct or indirect shutdown of device
- Smallest and customized design

Description

Thermal cutouts and probes of these types are universally applicable due to their small design and wide range of variations.

Basically, they are divided in the L10 series for applications in the area of signal currents up to max. 8A and the L50 series with up to max. 25A and 240°C. The elements are very easy to apply, characterized by their given constructive electrical insulation, the mechanical robustness and the already existing lead wire connection. When triggered by temperature – thanks to their small size – they react very quickly.

The internal structure of the elements is based on a melting element, which will liquefy when reaching a certain temperature level. The internal contact spring will relax and thus separate the electric contact system.



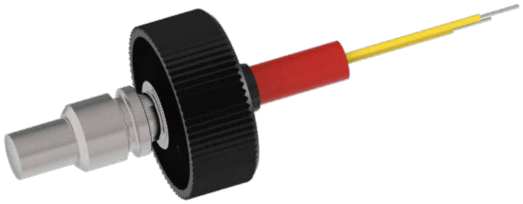
Standard wire

type	lead	code	temperature max.	operating voltage max.	approx. diameter insulation	approx. cross section / diameter	UL- Style
L10	stranded white	L360	200°C	600 V	1,10 mm	AWG24 / 0,25 mm²	10086
L10 G911		L370			1,50 mm	AWG20 / 0,50 mm²	
L50		L380			1,70 mm	AWG18 / 0,82 mm²	
L50	solid yellow	L440		300 V	1,54 mm	AWG20 / 0,80 mm	1332

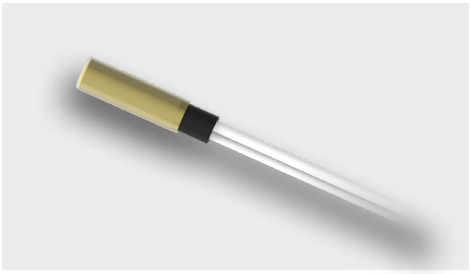
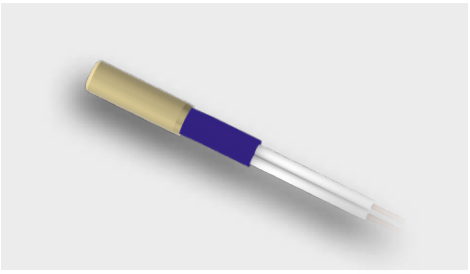
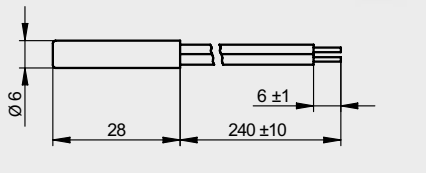
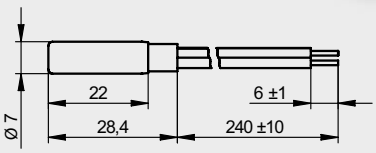
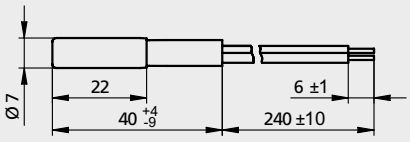
L50: Standard length 240mm, stripped 6 ± 1mm
L10: Standard length 40mm, stripped 6 ± 1mm

T_f	**Fuse tripping temperature:** The maximum temperature at which the thermal fuse changes its state from closed (= connected) to open (= interrupted). Note: Depending on the current intensity, self-heating of the component occurs, which should be considered to avoid premature tripping.
T_h	**Continuous operating temperature:** Maximum temperature of the fuse, measured at the head end of the component, which can be maintained for a period of 168h (= 1 week) without triggering an unwanted contact opening. Above this temperature, the tripping temperature may drop, causing premature tripping is possible. Note: It is recommended not to expose the fuses to continuous operating temperatures above Th.
T_m	**Maximum limit temperature:** Maximum temperature above which a defect can occur with the opened thermal fuse. From here on, the function can no longer be guaranteed, which may result in an undesired short circuit (reclosing).

In addition to the executions shown below, many other customized solutions are available, e.g. with clip or screw-in housings. Please contact us.



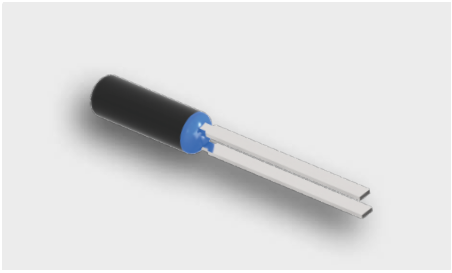
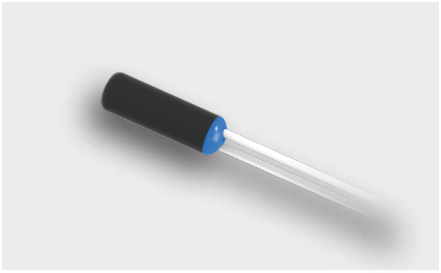
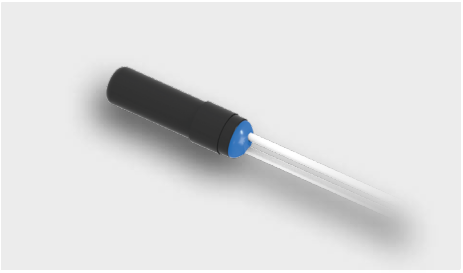
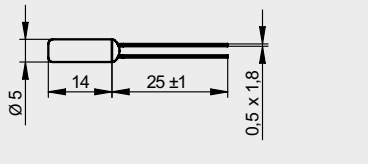
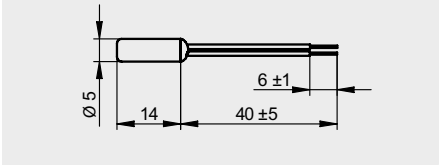
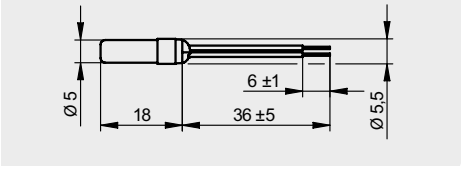
L50 Series

L50N G900 (max. 184 °C)	L50N G902 (max. 184 °C)	L50N G913 (max. 240 °C)
		
		

	L50N 10A (Standard)		L50N 20A	
T_f (Tolerance +0 / -10°C)	T_h	T_m	T_h	T_m
72	57	100	57	175
77	62	125	62	200
84	69	125	69	200
93	78	140	78	215
98	83	140	83	215
104	89	150	89	225
110	95	150	95	225
117	102	160	102	235
121	106	160	106	235
128	113	205	113	235
144	129	240	129	250
152	137	205	137	250
167	152	240	152	285
172	157	240	157	350
184	169	210	169	350
190	175	310	175	350
192	177	210	177	350
205	190	310	190	375
216	200	375	200	375
229	200	375	200	375
240	200	450	200	375

Note: For the technical selection of temperature cutouts in the L50 series, especially in applications with high currents, it is necessary to consider the self-heating of the components. This self-heating effect depends on the thermal connection of the cutout to the environment. The inner cutout elements are UL and VDE approved. Details on request.

L10 Series

L10N (Lead frame terminals, 8A)	L10N (Leads or solid wires, 3A)	L10N G911 (Add. mechan. support, leads or solid wires, 8A)
		
		

	L10N 3A, 8A	
T_f (Tolerance +0 / -10°C)	T_h	T_m
71	55	175
77	55	175
85	55	175
90	60	175
100	70	175
108	78	175
118	88	175
130	100	175
140	110	175
150	120	175

Ordering example

L50N | 072 | +0 / -10 | L360 | 500 | G900 | 10A

- 10A — ampere
- G900 — housing
- 500 — length 500 mm
- L360 — lead wire
- +0 / -10 — tolerance
- 072 — temperature
- L50N — type

Marking

L50N	type
Tf 072	rated functioning temperature (72°C)
056D	date of production (may 2016) country (D = germany)

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