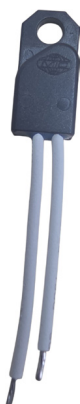


**RoHS
Compliant**



U250



U293

Description

Switches of the T1 type series are based on a two-contact system. A thermobimetal snap-disc, which is influenced by temperature, switches on or closes a circuit when the permanently set switching temperature is reached. In this case, the electr. current directly through the bimetallic discharge element, and thus allows a combination of temperature and current sensitive monitoring.

The temperature will thereby be applied to the inner precision switching unit from all sides. The current sensitivity of the switching element is particularly effective when the motor is blocked, and the current flow is considerably higher: the drive is switched off very quickly and thus damage to the device is prevented through an increased temperature. Beside the standard counters in single implementation the protectors are also offered in twin and triplet configuration.

Applications

- Motors
- Transformers
- Coils
- Electronics, sensors

Features

- Temperature and current sensitive or only temperature sensitive
- Small dimensions
- High power rating
- No vibration noise

Technical data

Description	Characteristics
Version	Normally closed
Rated current at 250 V 50/60 Hz (power factor 0.95 / 0.6)	6,3 (1) A
Switching cycles under rated current	10,000
Max. Current under failure conditions at 250 V 50/60 Hz (Power factor 0.95)	8 (2) A
Switching cycles under Max. Current	1.000
Temperature rating TA (steps in 5°C)	(50) 70°C to 180°C ¹⁾
Tolerances	Standard: ± 5 °K
Feature of automatic action	1.C.M, 2.C
Contact resistance (incl. wire of 100mm)	< 50 mΩ
Hysteresis	30°K ± 15°K ^{3) 4)}
Dielectric strength (standard insulation)	2 kV
Vibration resistance (10 to 60 Hz)	100 m/s ²
Resistances to impregnation	Tight against ordinary resins and lacquers
Degrees of protection provided by enclosures (EN 60529	IP00
Suitable for use in protection category	I, II

1) TA up to 50°C on request, 2) approval to EN60730-2-2 up to 180°C, 3) with ± 3 K tolerances and smaller hysteresis on request, 4) at the TA (upper and lower) limits the hysteresis could deviate, 5) on request

The variety of our product variations is nearly infinite. Microtherm distinguishes itself by a high expert's know-how in the area of customised developments. We will be pleased to give you specific advice during a personal consultation and present you all the options suitable for your application:

- Application of plug connectors
- Unique packaging and overmolding variations
- Specific cable assemblies and many more



Versions

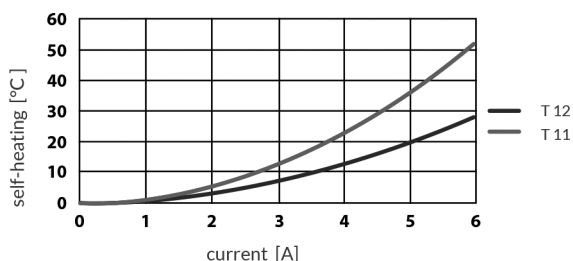
Control type	n.c.	n.o.	Code	Illustration	Drawing dimensions (mm)*	Technical Specification	Approvals
MP11A	A	B	U250			Shrink cap, potted	VDE, UL, cUL
			U293			Housing of PPS, potted	VDE, UL, cUL

* The overall height depends on the max. outer diameter of the connecting cable used. The actual max. overall height is available on request.

Standard wire

Lead	Code	Temp. max.	Operating voltage	Approx. diameter insulation	Approx. cross section / diameter	UL style
Stranded white	L310	150°C	300V	1.82mm	AWG20 / 0.5mm ²	3398
	L360	200°C	600V	1,10 mm	AWG24 / 0,25 mm ²	10086

Heating by current



The characteristic curve in the diagram is measured with a thermal switch without any insulation in an oil bath.

Note: The self-heating depends on the thermal conduction of the control to the equipment or part which should be protected

Part Number Table

Description	Contact Type	TRIP Temperature	Code	Leads	Part Number
Thermostat Switch MP-11A	N/C	70+/-5°C	U250	L310 Leads X 100mm	MP-11A07005L310100U250
		80+/-5°C			MP-11A08005L310100U250
		90+/-5°C			MP-11A09005L310100U250
		100+/-5°C			MP-11A10005L310100U250
		110+/-5°C			MP-11A11005L310100U250
		120+/-5°C			MP-11A12005L310100U250
		130+/-5°C			MP-11A13005L310100U250
		140+/-5°C			MP-11A14005L310100U250
		150+/-5°C		L360 Leads X 100mm	MP-11A15005L360100U250
		160+/-5°C			MP-11A16005L360100U250
		180+/-5°C			MP-11A18005L360100U250
		70+/-5°C	U293	L310 Leads X 100mm	MP-11A07005L310100U293
		80+/-5°C			MP-11A08005L310100U293
		90+/-5°C			MP-11A09005L310100U293
		100+/-5°C			MP-11A10005L310100U293
		110+/-5°C			MP-11A11005L310100U293
		120+/-5°C			MP-11A12005L310100U293
		130+/-5°C			MP-11A13005L310100U293
		140+/-5°C			MP-11A14005L310100U293
		150+/-5°C		L360 Leads X 100mm	MP-11A15005L360100U293
		160+/-5°C			MP-11A16005L360100U293
		180+/-5°C			MP-11A18005L360100U293

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