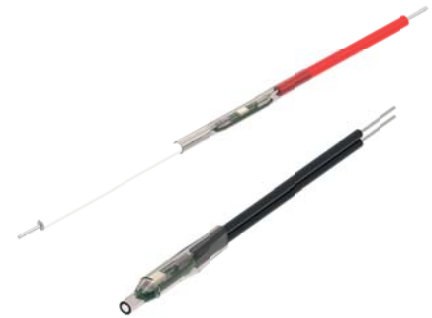


Minisensor

Description

The minisensor is a small but robust design for temperature sensors with any sensor chip (PT / PTC / NTC). The platform offers possibility to connect any chip size 0603 and to contact it via a pair of stranded wires. In the version with heat shrink tubing, very small diameters can be achieved. For more protection one exchanges some space for a more resistant version with housing. Here, one can decide for a housing made of plastic or metal, depending on the application.



Housing Options

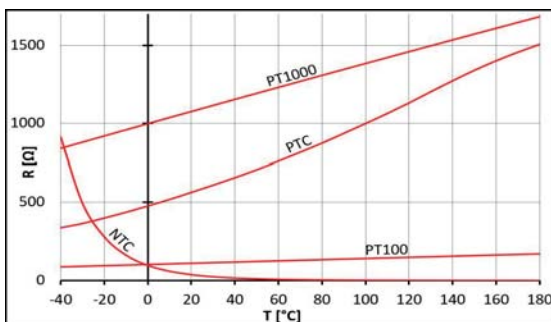
	shrink sleeve radial (diameter approx. 2,5mm - AWG26) AWG 24, 26, 28 (further options on demand)		housing stainless steel potted (diameter approx. 3,0mm) AWG 26, 28 (further options on demand)
	shrink sleeve axial (diameter approx. 2,5mm - AWG24) AWG 24, 26, 28 (further options on demand)		housing PPS potted (diameter approx. 3,0mm) AWG 26, 28 (further options on demand)

The Minisensor is available as PT (e.g. PT100 or PT1000) or as NTC or PTC on request.
Operating temperature range: PT sensors from -40°C to +150°C (+170°C - short term)

NTC and PTC from -40°C to +125°C (up to +150°C on demand)

Internally, the setup has already been tested positively with PT1000 and NTC 10kΩ in a thermal shock test (500 Cycles).

Characteristics curve



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F13 SMD

Description




Switches of the F series with a minimum size are very suitable for the installation in confined conditions. The switching principle consists of a central contact which opens or closes the circuit of the application when there is a temperature input by means of a pressure spring and a thermo-bimetal snap-disc.

Due to the low mass, a very fast response of the switch is possible. The heat is thereby preferably absorbed by the round contact surface of the switch and transmitted to the bimetallic element.

In addition to the direct protection of smaller electrical drives and devices with a rated power of up to approx. 750W, F series switches are often used as thermal sensors.



Technical data

type ratings F13A		control	
version		normally closed	
rated current at 250 V 50/60 Hz (power factor 0.95)		3.0 A	
switching cycles under rated current		10.000	
rated current at 250 V 50/60 Hz (power factor 0.6)		2,5 A	
switching cycles under rated current		5.000	
suitable for PCB mounting		yes	
temperature rating T _A (steps in 5 °C)		70°C ... 190°C / ... 160°C	
tolerances		standard: ± 5 °K	
feature of automatic action		2.C, 1.C	
contact resistance (incl. wire of 100 mm)		< 50 mΩ	
hysteresis		30 K ± 15 °K*	
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	
approvals	VDE / ENEC UL cUL	  	EN 60730-1 / -2-9** UL 60730-1 / -2-9** C22.2 No. 77 / C22.2 No. 24

*further options on request
**registration in process



01/2023-Technical subject to change without notice

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