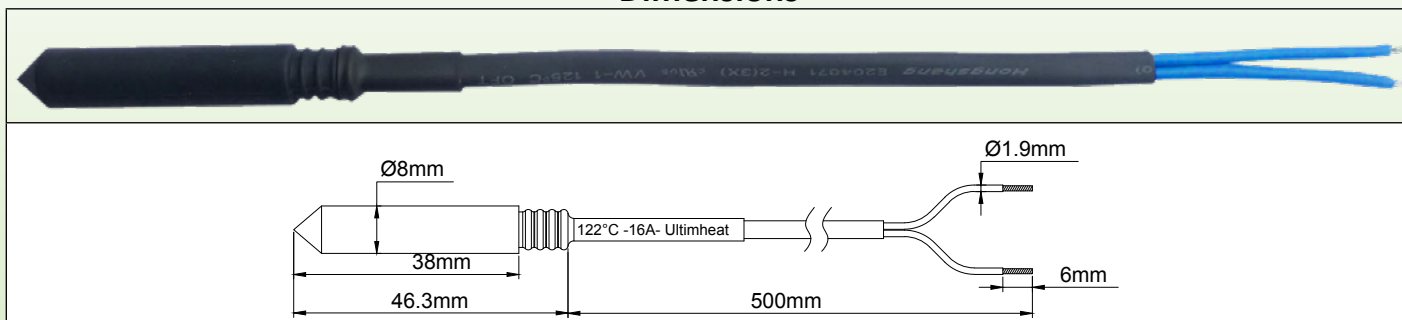




Manual reset and thermal cut-out

Wired thermal fuses, for insertion into 8.5mm I.D. thermowells Type 5MA3-F

Dimensions



Technical features

Applications: Protection against overheating of liquids heaters when dry run condition occurs. These thermal cut outs are designed to fit the pockets with 8.5 ID mounted in standard in the liquids heaters. It may be possible to replace them when they triggered, but it requires a prior full audit of all components of the heater because the important overheating due to lack of water may have damaged other components.

Fusible pellet: Organic compound.

Mechanism: Movable pellet actuated of a spring released by the fusion of the pellet.

Protection: By electrical insulation silicone boot, dia. 8mm.

Locking in the pocket: By silicone grommet

Nominal current rating: 16A 250V

The nominal current rating is the maximum current the fuse can carry without opening or deteriorate when subjected to a temperature known as the "holding temperature" (Th) for a limited time.

Holding temperature (Th): The fuse must not open or be destroyed when subjected to a temperature equal to Th-6°C for a period of 168 hours under nominal voltage and current.

Rated functioning temperature (Tf): It is the opening temperature of the fuse in a calibration oven, when subjected to a current less than 10 mA, when temperature rises at a speed of 0.5 to 1°C / min. The opening temperature must not be lower than Tf-10°C or above Tf under these conditions. This is the operating temperature Tf which is printed on the fuse and the protective sheath external of the leads.

Maximum temperature (Tm): It is the maximum temperature withstood by the fuse after opening without losing its insulating and mechanical properties.

This feature is critical in liquids heaters application, to determine the right position of TCO to avoid its destruction and re-energization of the electrical circuit by high temperature overshoot.

Insulation voltage between open contacts: ≥ 500V

Insulation resistance between open contacts: ≥ 0.2 MΩ @ 500V

Lead lengths: 500mm.

Leads: FEP 300V primary insulation, 1mm² gauge (AWG18), in a polyolefin sheath.

In red: Standard temperatures available from stock.

Main references

Reference	Rated functioning temperature °C/ °F (Tf)	Holding temperature °C/ °F (Th)	Maximum temperature °C/ °F (Tm)
5MA3SPF070F18500	73°C/ 163.4°F	45°C/ 113°F	115°C/ 239°F
5MA3SPF077F18500	79°C/ 174.2°F	52°C/ 125.6°F	125°C/ 257°F
5MA3SPF084F18500	85°C/ 185°F	57°C/ 134.6°F	125°C/ 257°F
5MA3SPF091F18500	94°C/ 201.2°F	66°C/ 150.8°F	140°C/ 284°F
5MA3SPF096F18500	99°C/ 210.2°F	71°C/ 159.8°F	140°C/ 284°F
5MA3SPF106F18500	108°C/ 226.4°F	77°C/ 170.6°F	145°C/ 293°F
5MA3SPF109F18500	113°C/ 235.4°F	84°C/ 183.2°F	150°C/ 302°F
5MA3SPF121F18500	122°C/ 251.6°F	94°C/ 201.2°F	175°C/ 347°F
5MA3SPF129F18500	133°C/ 271.4°F	101°C/ 213.8°F	175°C/ 347°F
5MA3SPF139F18500	142°C/ 287.6°F	114°C/ 237.2°F	185°C/ 365°F
5MA3SPF152F18500	157°C/ 314.6°F	127°C/ 260.6°F	195°C/ 383°F
5MA3SPF165F18500	167°C/ 332.6°F	130°C/ 266°F	205°C/ 401°F
5MA3SPF169F18500	172°C/ 341.6°F	145°C/ 293°F	215°C/ 419°F
5MA3SPF182F18500	184°C/ 363.2°F	156°C/ 312.8°F	225°C/ 437°F
5MA3SPF188F18500	192°C/ 377.6°F	164°C/ 327.2°F	245°C/ 473°F
5MA3SPF216F18500	216°C/ 420.8°F	189°C/ 372.2°F	280°C/ 536°F
5MA3SPF227F18500	227°C/ 440.6°F	190°C/ 374°F	295°C/ 563°F
5MA3SPF240F18500	240°C/ 464°F	190°C/ 374°F	305°C/ 581°F