



## Klixon® | TH10 THERMAL CUT-OUT

### KEY BENEFITS

Flexible mounting:  
3 terminal configurations available

Robust design:  
The bimetal disc is protected by  
the metal support

Full automated live:  
Provides stable setting values

Low price:  
The particular design provides  
high competitiveness

Sensata Technologies has developed the TH10 temperature cut-out to respond to the need of increasing power of heating and personal care appliances. As a result of this, Sensata Technologies has further established its leading position in the worldwide thermal protection market.

### Design and operating principles

The TH10 consists of two nickelplated supports, held together with ceramic pins. One support holds the high performance Klixon® bimetal disc, which, in combination with the sophisticated contact system, provides superior cycling performance. For self-hold versions see TH11/21. A wide temperature range, standard 5K tolerance, different bimetal resistivity, plus optional terminal configurations make the TH10 suitable for a very wide range of applications.

The operating principle of the TH10 is simple and effective. A current flows through the resistive Klixon® bimetal disc. When a fault condition occurs, the increased ambient temperature causes the bimetal disc to snap open the contacts. As the device cools down to a safe temperature again, the contacts will automatically reset.

### Applications

The TH10 operates as a sensitive power cut-out for:

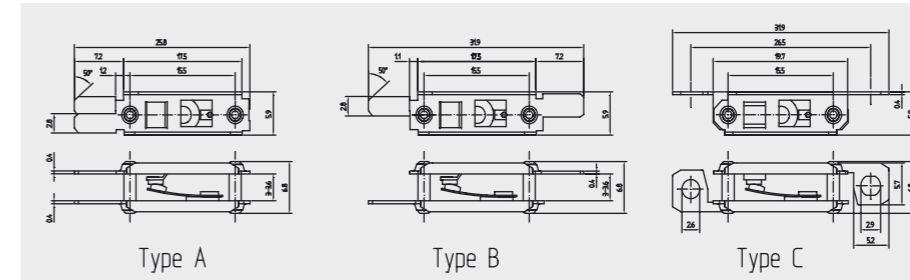
- Hair dryers
- Fan heaters
- Convector heaters
- Transformers
- Hand dryers

and various other applications. With the TH10 Sensata Technologies provides you with cost-effective protection while offering superior quality and reliability.

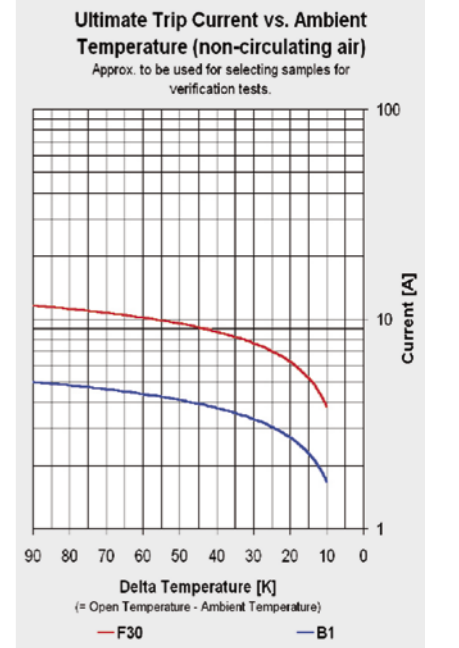


### Certifications:

Agency: ENEC  
 Filenumber: 2014531.14  
 Rating: 13(2)A 250 Vac @ 30.000 cycles, 30(5)A 250 Vac @ 3.000 cycles  
 Standard: EN60730-2-9, EN60730-2-2, EN60730-1  
 Agency: UL  
 Filenumber: E54813



| Coding System                |  |                                    |                     |
|------------------------------|--|------------------------------------|---------------------|
| TH 10                        |  | C                                  | A                   |
| Terminal Configuration       |  | Disc and contact support material  |                     |
| Code                         | Terminals                              | Code                               | Material            |
| A                            | Terminals on same end                  | A                                  | Nickel plated steel |
| B                            | Terminals on opposite end              |                                    |                     |
| C                            | Terminals on opposite end (with holes) |                                    |                     |
| Standard opening temperature |  |                                    |                     |
| Operating Temp.              | Low resistivity bimetal disc (F30)     | High resistivity bimetal disc (B1) |                     |
| 60°C                         | 031                                    | 035                                |                     |
| 65°C                         | 041                                    | 045                                |                     |
| 70°C                         | 051                                    | 055                                |                     |
| 75°C                         | 061                                    | 065                                |                     |
| 80°C                         | 071                                    | 075                                |                     |
| 85°C                         | 081                                    | 085                                |                     |
| 90°C                         | 091                                    | 095                                |                     |
| 95°C                         | 101                                    | 105                                |                     |
| 100°C                        | 111                                    | 115                                |                     |
| 105°C                        | 121                                    | 125                                |                     |
| 110°C                        | 131                                    | 135                                |                     |
| 115°C                        | 141                                    | 145                                |                     |
| 120°C                        | 151                                    | 155                                |                     |
| 125°C                        | 161                                    | 165                                |                     |
| 130°C                        | 171                                    | 175                                |                     |
| 135°C                        | 181                                    | 185                                |                     |
| 140°C                        | 191                                    | 195                                |                     |
| 145°C                        | 201                                    | 205                                |                     |
| 150°C                        | 211                                    | 215                                |                     |
| 170°C                        |  | 255                                |                     |



| Specifications                       |                   |
|--------------------------------------|-------------------|
| Standard operating temperature range | from 45°C - 170°C |
| Max. Ambient temperature             | 200°C             |
| Tolerance on open temperature        | ± 5K              |

| Declarations                                  |   |
|---|---|
| Declarations to EN60730-2-9                   | Declarations to EN60730-2-2   |
| Purpose of the control                        | Thermal Cut-Out   |
| Construction                                  | Incorporated, non-electronic  |
| Degree of protection                          | IP00  |
| Terminals for ext. conductors                 | For internal conductors only  |
| Method of (dis) connection of terminals       | Riveting, soldering, spotwelding, springloaded contacting   |
| Details for terminals for internal conductors | Insulation of conductors used by OEM's must be able to withstand the operating temperatures in normal usage   |
| Temperature limits of the switchhead          | 200°C   |
| PTI of insulation materials                   | PTI 250   |
| Method of mounting                            | By various means in conjunction with (holes in) terminals, such that adequate creepage and clearance distances are maintained between live parts and accessible metal parts |
| Operating time                                | For continuous operation  |
| Type of action                                | Type 2B   |
| Reset characteristic                          | Automatic   |
| Extent of sensing element                     | Whole control   |
| Control pollution degree                      | Degree 2  |
| Purpose of the control                        | Thermal Motorprotector  |
| PTI of insulation materials                   | PTI 250   |
| Method of mounting                            | By various means in conjunction with (holes in) terminals, such that adequate creepage and clearance distances are maintained between live parts and accessible metal parts |
| Type of action                                | Type 3C   |
| Reset characteristic                          | Automatic   |
| Control pollution degree                      | Degree 2  |