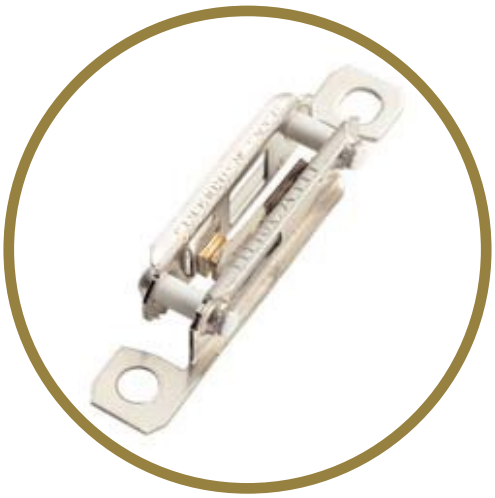
| TH10
THERMAL CUT-OUT

Introduction

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.



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 Value
- **Low Price**:
  The Particular Design Provides High Competitivity

Applications

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

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

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

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.

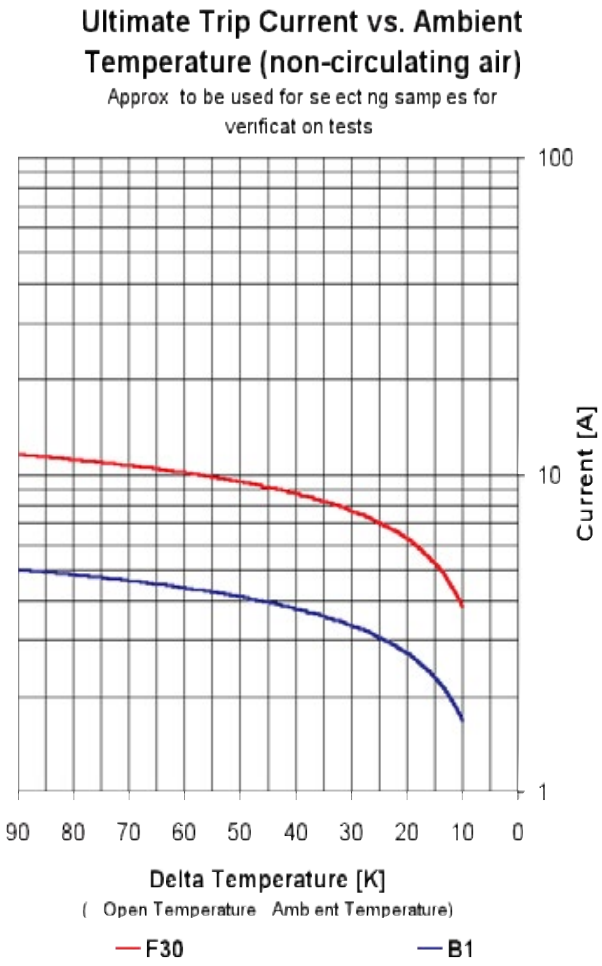
SPECIFICATIONS

Standard Operating Temperature Range	From 45°C to 170°C
Max. Ambient Temperature	200°C
Tolerance on Open Temperature	±5K

Declarations

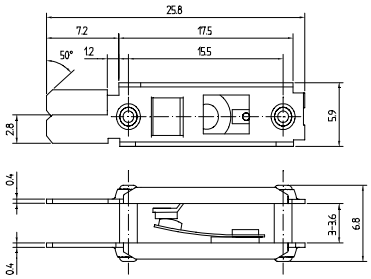
Declarations to EN60730-2-9		**Declarations to EN60730-2-2**
Purpose of the Control	Thermal Cut-Out	Thermal Motorprotector
Construction	Incorporated, non-electric	
Degree of Protection	IP00	
Terminals for Ext. Conductors	For internal conductors only	
Method of (Dis)Connection of Terminals	Riveting, soldering, 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	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	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	Type 3C
Reset Characteristic	Automatic	Automatic
Extent of Sensing Element	Whole control	
Control Pollution Degree	Degree 2	Degree 2

Curves

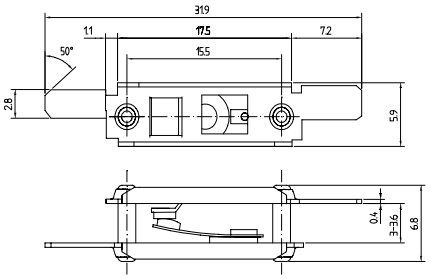


DIMENSION AND TYPES

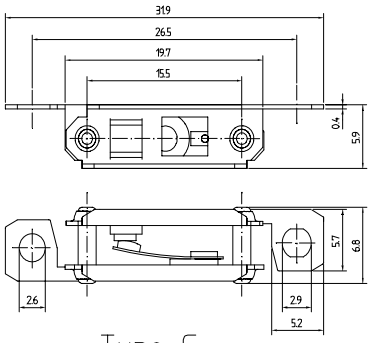
Dimensions in mm



Type A



Type B



Type C

ORDERING OPTIONS

Example : TH10 C A 101

Terminals on Opposite End (With Holes), Nickel Plated Steel, Standard Operating Temp 95°C, Low Resistivity Bimetal Disc (F30) 101, High Resistivity Bimetal Disc (B1) 105)

TH10 – X – Y – Z

Product Line

Terminal Configuration

Code	Max. Ambient Temperature
A	Terminals on Same End
B	Terminals on Opposite End
C	Terminals on Opposite End (with holes)

Disc and Contact Support Material

Code	Material
A	Nickel Plated Steel

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

KLIXON®

AGENCY APPROVALS & CERTIFICATIONS

Agency	ENEC
File Number	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

c UL us LISTED

Agency	UL
File Number	E54813

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