

# **KEY BENEFITS**

Field proven reliable and repeatable snap-action bimetal actuation.

Low profile shape for close coupling to on- or in-winding application.

On customers request additional sleeve available.

Competitive performance-price ratio



Sensata Technologies builds the 2MM motor protector to meet almost any requirement of protection in a wide range of small motors, small transformers, solenoids, etc.. This compact motor protector is the best solution to protect the wide variety of motors used in industrial and domestic appliances against locked rotor and overload situations.

## Design and operating principles

The motor protector 2MM consists of a metal housing that holds and protects the inner components against infiltration as well as mechanical deformation.

The can contains the calibrated Klixon® disc carrying a silver contact. The fixed contact is placed on the opposite side, separated from the terminal by an insulator. The 2MM is available in two versions: with epoxy insulation and with additional sleeve.

The operating principle of the 2MM is both simple and effective. A current flows through the resistive Klixon® bimetal disc. When a fault condition occurs, the increased current and ambient temperature make the bimetal disc snap open the contacts. The contacts close again automatically as the device cools down to a safe running temperature.

## Applications

**: • : : : : : :** Sensata

**Technologies** 

The 2MM operates as a sensitive safety cut-out for applications like:

- · Small motors
- · Coils
- · Solenoid valves
- · Transformers

In single phase motors it can be mounted directly in the main circuit to serve as on- or in-winding protector. It's compact size provides ease of installation, even in small spaces. At this time there is practically no small motor the 2MM cannot protect against overheating and overloading. Sensata Technologies 2MM provides you with a cost effective solution in terms of maximum quality and reliability.



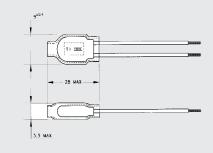


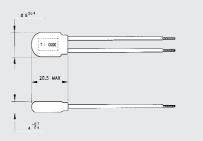
30

25

20

( Open Temperature





## Coding System

•

Sensata

**Technologies** 

ИТ		XXX		
Standard opening				
temperature				
100	130	160		
105	135			
110	140			
115	145			
120	150			
125	155			
	tandard tempe 100 105 110 115 120	tandard openin temperature 100 130 105 135 110 140 115 145 120 150		

YYY	
lead de*	
de*	

Wire co

\* Size and length on customer request

N2MM (naked version)

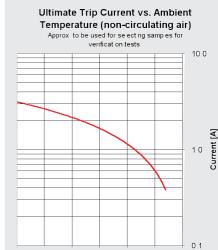
### Available also: Doublet and Triplet types

Specifications	
Standard operating temperature range	from 70°C - 160°C
	in 5K steps
Tolerance on open temperature	± 10K
Max. Ambient temperature	175°C
Differential	20K minimum

Maximum Contact rating		
7.0 (2.0) A 250 Vac (3.000 cycles)		

Certifications			
Agency	File number	Standard	Note
UL / C-UL	E 15962	UL2111 / CSA C22.2 No. 77	Motor protecting device
ENEC	2014531.06	EN60730-2-9	Thermal Cut-Out
ENEC	2014531.06	EN60730-2-2	Thermal Motor Protector

Declarations to EN60730-2-9		Declarations to EN60730-2-2	
Purpose of the control	Thermal Cut-Out	Purpose of the control	Thermal Motorprotector
Construction	Incorporated, non-electronic		
Degree of protection	IP00		
Terminals for ext. conductors	For internal conductors only		
Temperature limits of the			
sw itchhead	175°C		
PTI of insulation materials	Int: PTI 175 Ext: PTI 250	PTI of insulation materials	Int: PTI 175 Ext: PTI 250
Method of mounting	On-winding or by special means	Method of mounting	On-winding or by specia
	in the appliance		means in the appliance
Operating time	For continuous operation		
Type of action	Type 2B	Type of action	Туре 3С
Reset characteristic	Automatic	Reset characteristic	Automatic
Extent of sensing element	Whole control		
Control pollution degree	Epoxy version: Degree 3	Control pollution degree	Epoxy version: Degree 3
	Naked version: Degree 2		Naked version: Degree 2



15

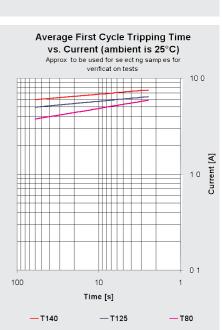
Delta Temperature [K]

10

Amb ent Temperature

0

5



### **TECHNICAL / SALES SUPPORT**

Holland Phone +31 546 879560 Fax +31 546 879204 Internet: www.sensata.com

Email: info-cpe@list.sensata.com

Important Notice: The products and services of Sensata Technologies and its subsidiaries described herein are sold subject to Sensata's standard terms and conditions of sale. Customers are advised to obtain the most current and complete information about Sensata products and services before placing orders. Sensata assumes no liability for applications assistance, customer's applications or product designs, software performance, or infringement of patents. The publication of information regarding any other company's products or services does not constitute Sensata's approval, warranty or endorsement thereof.

#### Printed in Holland, November 2009