

# 9700 PROTECTOR

## THERMAL PROTECTOR FOR MOTOR/FLUORESCENT BALLASTS AND TEMPERATURE SENSING CONTROLS

### Introduction

The Klixon® 9700 protector is a field proven miniature protector developed to protect shaded pole and permanent split capacitor motors, fluorescent ballasts, solenoids, transformers and other electrical equipment against overheating.



In addition to being small and lightweight, the unit is both temperature and current sensitive. Since the 9700 is sealed to withstand varnish dipping, it can be mounted directly in windings where it can best sense the true temperature of the electrical equipment. As a result, over-temperature protection is assured.

Since the case is not electrically insulated, the protector is furnished with a durable Mylar insulating sleeve. Shrinkable and non-shrinkable sleeves are available.

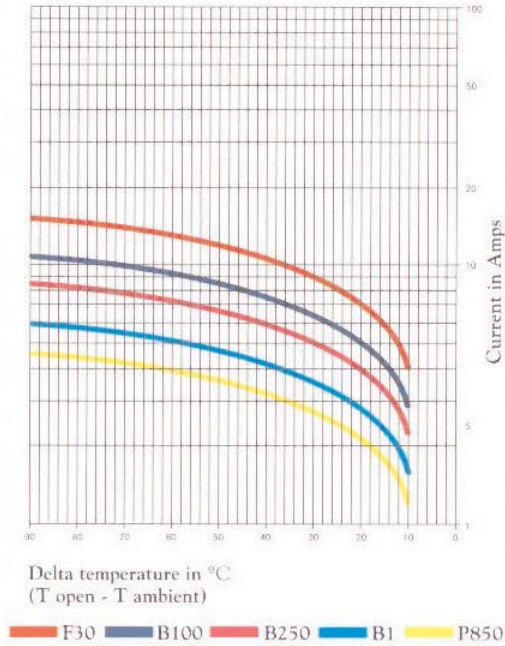
### TECHNICAL SPECIFICATIONS

<b>Purpose of the Control</b>	Thermal Motor Protector (TMP) Thermal Ballast Protector (TBP) Thermal Cut-Out (TCO)
<b>Contact Capacity</b>	250VAC 13A for TCO 250VAC 2A for TBP
<b>Temperature Range</b>	60°C to 150°C for TCO and TMP 60°C to 135°C for TBP
<b>Tolerance on Open Temp.</b>	+/- 5K or +/- 8K
<b>Automatic Action</b>	Type 3C for TMP Type 2C for TBP and TCO
<b>Operating Time</b>	Continuous
<b>Pollition Station</b>	Normal
<b>Extent of Sensing Element</b>	Whole Control
<b>PTI of the Insulation</b>	175
<b>Enclosure Protection Degree</b>	IP00

## CURVES

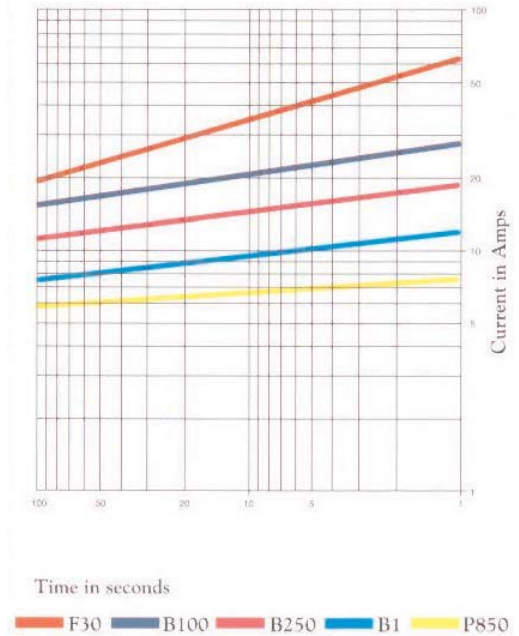
### Ultimate trip current vs ambient temperature

Approx., to be used only for selecting samples for verification tests



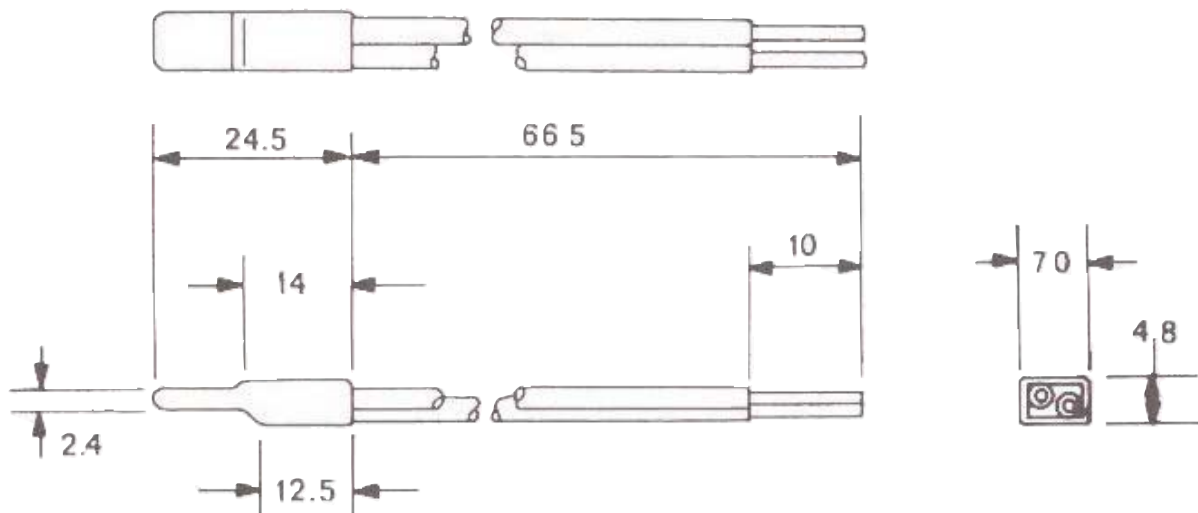
### Average first cycle tripping time vs current 25°C. ambient

Approx., to be used only for selecting samples for verification tests



## DIMENSIONS

Dimensions in mm [Inch]





Bimetal of 30 ohms/cm, 120°C Operating Temperature, ±5K Tolerance with AWG#18 (UL3343 125°C -600V), 66.7mm Length Leads, Thick 0.15mm, Dia. 6.9mm, Length 34mm, Mylar Sleeve.

9700 - X X YY - ZZZZ

Device Identification

9700

Contact Material Combination

Serial Number is assigned for each desired temperature and resistance rating.

Code	Stationally Contact	Movable Contact
K	AgNi + Silver Cadmium Oxide	Steel + Copper + Silver Cadmium Oxide
H	Brass + Fine Silver	Steel + Copper + Silver Cadmium Oxide

Note: We only provide H / K Type Devices. K type when new part number is defined and setup.

Open Temperature Tolerance

: ± 5K, 2: ±8K

Operating Temperature and Actuation Disc Material

Serial Number is assigned for each desired temperature and resistance rating.

Nominal Operating Temperature	Resistance of Actuation Disc (ohms.cm)				
	30	250	850	100	475
	Temperature Code				
60	56	57	58	59	60
80	91	92	93	94	95
90	21	22	23	24	25
100	26	27	28	29	30
110	36	37	38	39	40
120	1	2	3	4	5
130	11	12	13	14	15
140	66	67	68	69	70
150	46	47	48	49	50

This is a typical temperature code. There is a temperature code at each 5°C in a step from 60 to 150°C

Wire Lead and Sleeve

Serial number is assigned for each lead and sleeve configuration, i.e. wire type, length, AWG#, stripped length, sleeve type, and length.



## AGENCY APPROVALS & CERTIFICATIONS



Agency	File Number	Standard	Note
<b>UL</b>	E 15962	UL2111	Motor protector
<b>ENEC</b>	2014531.10	EN60730-2-9	Thermal cut-out
<b>ENEC</b>	2014531.10	EN60730-2-2	Thermal motor protector
<b>ENEC</b>	2014531.10	EN60730-2-3	Thermal Ballast Protector
<b>CQC</b>	CQC0200	2001344	

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