

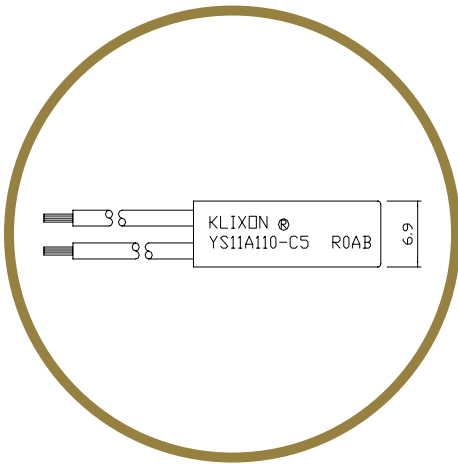


YS11

SMALL THERMAL MOTOR PROTECTOR / THERMAL CUT-OUT

Features

YS11 was developed to protect people and property from accidents or failures that can occur in motors used in fans and washing machines as well as other appliances. It functions as a self-resetting thermal cut-out (Type 2B), thermal motor protector (Type 3C) and thermal protector for ballasts.



The YS11 can be used for on-winding and outside of resin packed motors by clamping or insertion. Since the YS11 has a plastic case, it does not need to be insulated from metal part of the motor.

SPECIFICATIONS

Contact Capacity	TCO, TMP TCO Ballast	7A/250Vac, 10A/125Vac 6A/24Vdc, 15A/18Vdc 2A/250Vac
Temperature Range	Motor Protector and Temp. Control	45 to 150°C
	Ballast protection	45 to 150°C
Tolerance on Open Temp.	± 5K	
Max. Temp. of the Switch Head	150°C	
Operating Time	Continuous	
Pollution Situation	Dirty	
Extent of Sensing Element	Whole Control	
Degree of Protection	IP00	
Electrical Connections	Soldering, Welding	

Construction

YS11 is constructed with simple design and based on the well known thermostat technology of Sensata Technologies, and it has enough sealing capability to withstand varnish process and can be laced on winding.

7.Movable Arm carries current from 1.Lead to 9.Lower Terminal which is insert molded in 6.Lower Block, via 10.Movable Contact and Stationary Contact. 7.Movable Arm, 8.Bimetal Disc and 5.Upper Plate are riveted to secure with 6.Lower Block by 4.Eyelet. This assembly is inserted into 3.Case, and potting Epoxy to seal.

Since trip time to cut off the power depends on the operation temperature of YS11 protector, each rating should be selected properly. Referencing the performance curve, a YS11 can be selected to match a motor.

Application Notes

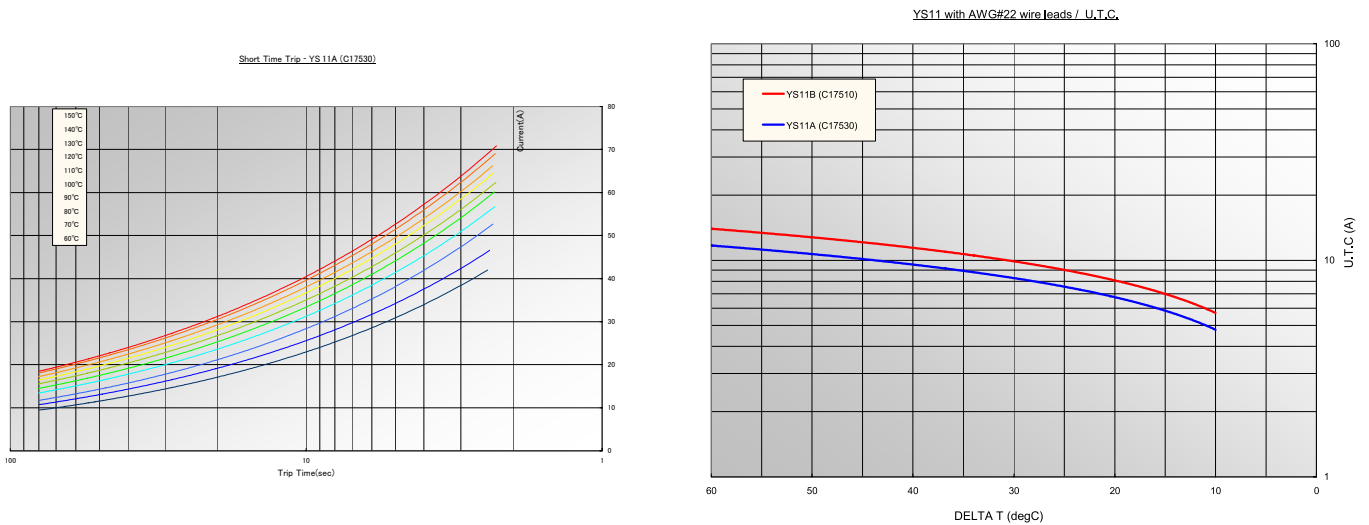
R-type case was developed for Resin Packed Motor and was designed to resist high pressure which may be applied during molding process. Maximum pressure is required to be control within 7.5Mpa. Please note that R-type case does not have enough sealing capability, therefore it should not be applied for winding varnish process. Dimension is 6.0mm x 7.8mm (ellipse) x 23.0mm length.

Used with the S-Type Case in higher ambient temperature and same configuration as standard case. Housing material is used PPS (RTI:240°C) which is same as R-type case, so that it can resist high temperature for short time. This case is not guaranteed for varnish process as well.

Rating should be selected properly to protect Motors and other equipment. Short time trip current and time is described in "Performance" page which helps to choose most adequate operating temperature. Must hold current is also one of important performances, it can be selected from UTC performance curve as well.

Curves (Performance)

Short time trip performance and Ultimate trip current as reference.

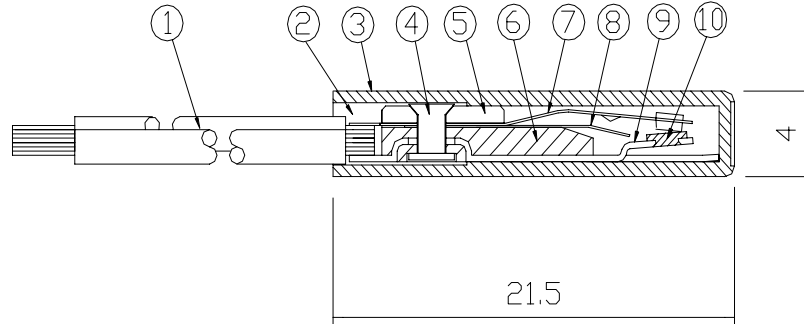




DIMENSIONS

Standard Type Case :

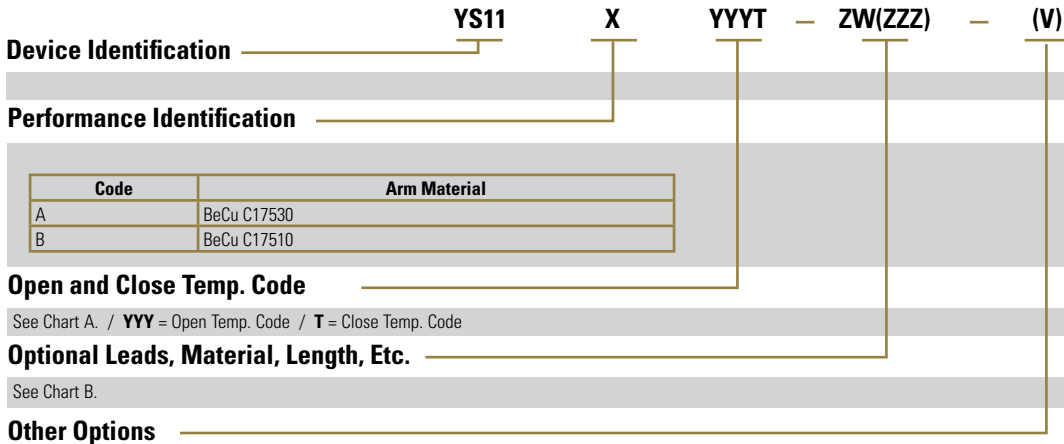
Width 6.9 x Length 21.5 x Height 4.0mm excluding leads.



No.	Part Description	Material
1	Leads	Refer Ordering Options
2	Epoxy	
3	Case	PBT or PPS
4	Eyelet	Brass
5	Upper Plate	Brass
6	Lower Block	PBT
7	Movable Arm	Refer Ordering Options
8	Bimetal Disc	
9	Lower Terminal	Brass
10	Stationary Contact	AgNi alloy



YS11 with C17530 material Movable Arm. 130°C open, 100°C Close temperature. UL 3398 AWG22 55mm length leads



Code	Arm Material
A	BeCu C17530
B	BeCu C17510

Open and Close Temp. Code
See Chart A. / **YYY** = Open Temp. Code / **T** = Close Temp. Code

Optional Leads, Material, Length, Etc.
See Chart B.

- Other Options**
- Omit:** No Option
 - R:** Reinforced Case
 - S:** PPS Case
 - T:** Groove Contact (For DC Rating Only)
 - U:** Groove Contact and CDA C19220 for lower terminal (For DC Rating Only)

Chart A.

YYY		T	
Code	Open (°C)	Close (°C) *1	
		A	B
45 *2	45	>35	> 35
50 *2	50	>35	> 35
55 *2	55	>35	> 35
60 *2	60	>35	> 35
65 *2	65	>35	> 35
70	70	40	40
75	75	45	45
80	80	50	50
85	85	55	55
90	90	59	60
95	95	62	65
100	100	64	70
105	105	67	75
110	110	70	80
115	115	73	85
120	120	76	90
125	125	79	95
130	130	83	100
135	135	86	105
140	140	90	110
145	145	94	115
150	150	96	120

*1 = Close Temp. For Reference
*2 = A is for Snap Open/Close guaranteed.
B is for Snap Open guaranteed.

Chart B.

Z = Leads material can be selected from table below as standard rating:

A	UL style 3266 AWG22 Tin coated-BL
B	UL style 1430 AWG22-WH
C	UL style 3398 AWG22 Tin coated-YL(Kurabe)
D	UL style 3398 AWG22-YL(Kurabe)
E	UL style 3266 AWG22-BK
F	Copper Solid Wire D=0.8mm
G	UL style 3266 AWG22 Tin coated-WH

W = Leads length can be selected from Table below as standard rating.

5mm Length		10mm Strip	
W	Length	W	Length
1	25	11	25
2	30	12	30
3	35	13	35
4	40	14	40
5	45	15	45
6	50	16	50
7	55	17	55
8	60	18	60
9	65	19	65
10	70	20	70

(ZZZ) = Other than above standard combination, 2 or 3 digits of number or letter is assigned as customized one.



AGENCY APPROVALS & CERTIFICATIONS



Series	
UL	E15962 for Motor Protector E34618 for Temp Indicating & Regulating
ENEC	2014531.17 for thermal cut-out, motor and ballast protector
CQC	CQC02002001340/CQC02002001341 Protectors are not applied in CCC(China Compulsory Certification) at present. So YS11 can not have CCC but CQC. CQC (China Quality Certification Centre) is a national certification body for appliance in China.

Sensata Technologies, Inc. ("Sensata") data sheets are solely intended to assist designers ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products. Sensata data sheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular data sheet. Sensata may make corrections, enhancements, improvements and other changes to its data sheets or components without notice.

Buyers are authorized to use Sensata data sheets with the Sensata component(s) identified in each particular data sheet. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATA SHEETS ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATA SHEETS OR USE OF THE DATA SHEETS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATA SHEETS OR USE THEREOF.

All products are sold subject to Sensata's terms and conditions of sale supplied at www.sensata.com SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.

Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.

CONTACT US

Americas

+1 508 236 2551
electrical-protection-sales@
sensata.com

Europe, Middle East & Africa

+3 174 357 8156
info-sse@list.sensata.com

Asia Pacific

EP_Asia_Public@list.sensata.com

China +86 (21)2306 1651

India +91 (40)4033 9611

Japan +81 (45)277 7104

Korea +82 (53) 644 9685

Rest of Asia +65(6478)6860