W51 series

Rocker-Actuated Thermal Circuit Breaker/Power Switch With Optional Indicator Lamp

Features

- Compact, trip-free, rocker-actuated design.
- 5 to 20 amp ratings.
- Provides circuit protection and power switching in a single unit.
- Available with optional indicator lamp.
- Snaps into the same cutout as many common power switches.
- Various color, marking and termination options.

Interrupt Capacity: 1,000 amps in accordance with UL standard 1077.
Resettable Overload Capacity: Ten times rated current.
Switch Endurance Cycling: Typically 6,000 operations at 100% of rating.
Reset Time: 60 seconds.

Agency Approvals

W51 series is UL 1077 Recognized as Supplementary Protectors, File E69543, for Canada and the United States. Approved to VDE 0642/EN60934 (Circuit Breakers for Equipment) License Number 40017023 (for AC loads only). CCC mark compliant, certificate 2004010307123223.

Users should thoroughly review the technical data before selecting a product part number. It is recommended that users also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

Typical Resistance vs. Current Rating @ +25°C

Current Rating in Amps	Typical Resistance in Ohms	Current Rating in Amps	Typical Resistance in Ohms
5.0	0.050	10.0	0.025
6.0	0.042	15.0	0.017
7.0	0.036	20.0	0.0125
8.0	0.031		

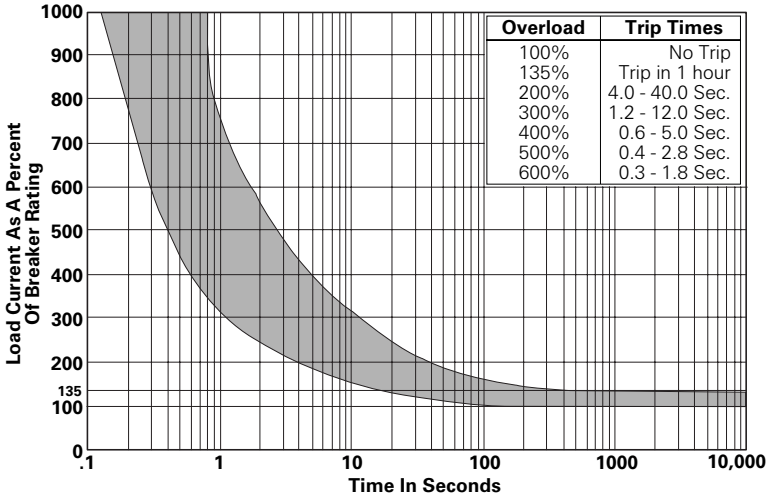
Electrical Data @ 25°C

Calibration: Will continuously carry 100% of rating.
May trip between 101% and 134%, but must trip at 135% of rating within one hour at +25°C.
Dielectric Strength: 1,500VAC (60 seconds).
Insulation Resistance: 100 megohms.
Maximum Operating Voltages: 50VDC; 125 or 250VAC, 50/60 Hz. (model dependent).

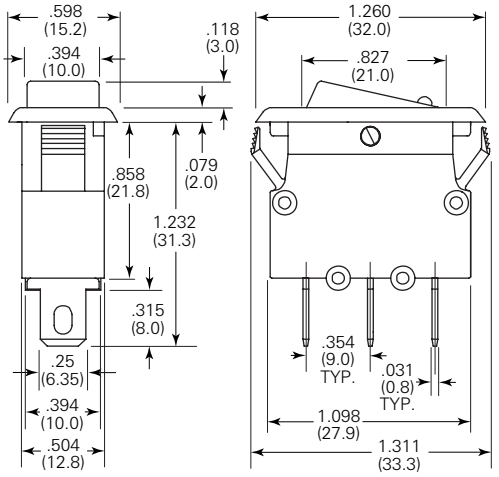
Mechanical/Environmental Data

Operating Temperature Range: 0°C to +60°C.
Termination: .250" (6.35mm) quick connects, solder terminals or right angle PC terminals.
Mounting: Snaps into 1.122 x .531 (28.5 x 13.5) panel cutout.
Approximate Weight: 0.37 oz. (10.5g).

Time vs. Current Trip Curve @ +25°C



Outline Dimensions

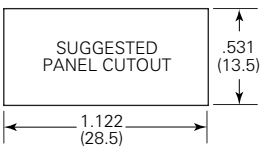


Ambient Compensation Table

Ambient Temperature in °C	Rating Correction Factor	
	5-6A Models	7-20A Models
10	.80	.80
20	.90	.90
25	1.00	1.00
30	1.10	1.05
40	1.25	1.15
50	1.61	1.25
60	2.15	1.40

To use this chart: Divide the breaker rating by the correction factor to determine the compensated rating. Calculate the overloads in terms of the compensated rating to use the published trip curve.
Do not use these devices outside their specified operating temperature ranges.

Recommended Panel Cutout



Panel Thickness
W51 series circuit breakers accommodate panel thicknesses from 0.030 in. to 0.118 in. (0.75 mm - 3.0 mm).

Dimensions are shown for reference purposes only.
Dimensions are in inches over (millimeters) unless otherwise specified.
Specifications and availability subject to change.
www.tycoelectronics.com
Technical support:
Refer to inside back cover.

Ordering Information

Typical Part No. ▶	W	51	-A	1	2	1	B	1	-5

1. Designator:
W = Circuit breaker

2. Series Number:
51 = Switchable, Single Pole, Rocker-Actuated Thermal Model

3. Terminals:
A = Quick connect .250" (6.35mm) straight
C = Printed Circuit - right angle

4. Breaker Style & Base Color:
1 = Angular button design (see drawing below), black base color
B = Countoured button design (see drawing below), black base color

5. Rocker Color:
1 = Amber (translucent)
2 = Red (translucent)
3 = Green (translucent)
4 = White (opaque - for use on non-illuminated models)
5 = Black (opaque - for use on non-illuminated models)
6 = Red (opaque - for use on non-illuminated models)
7 = Gray (opaque - for use on non-illuminated models)
8 = Black (opaque) with red (translucent) indicator (only available on model with contoured button)
9 = Black (opaque) with green (translucent) indicator (only available on model with contoured button)

6. Maximum Operating Voltage (AC):
1 = 125VAC
2 = 250VAC

7. Light:
A = Non-illuminated
B = Illuminated

8. Marking option:
0 = No marking
1 = RESET/OFF printed
2 = RESET/OFF molded (only available on model with contoured button)

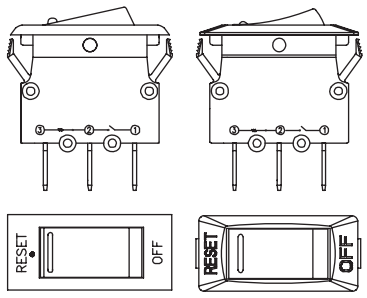
9. Specify Amp Rating:
5 6 7 8 10 15 20

Our authorized distributors are more likely to stock the following items for immediate delivery.

W51-A121B1-5	W51-A121B1-15	W51-A122B1-5	W51-A122B1-15	W51-A152A1-5	W51-A152A1-15
W51-A121B1-10	W51-A121B1-20	W51-A122B1-10	W51-A122B1-20	W51-A152A1-10	W51-A152A1-20

ORDERING NOTE: Some options illustrated below are not listed in the "Ordering Information" chart above. Options denoted by "Special" or "Special Order" in their descriptions are only offered on a special order basis. Other base and button colors and intermediate amp ratings are also available on a special order basis. All special order items are subject to extended leadtimes and significant minimum order quantities. Your Tyco Electronics sales engineer must consult with the factory before providing price and availability information regarding items with these options.

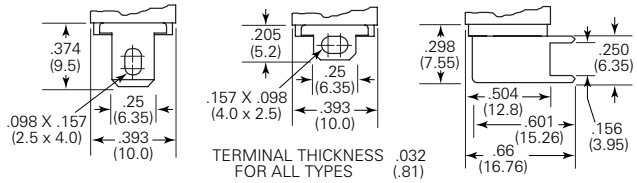
Case Styles



Angular Button Design

Contoured Button Design

Terminal Types



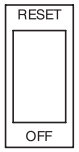
Standard – .250 Quick Connect Terminal

Special Order - Solder Terminal

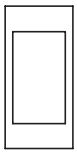
Standard – Right Angle PC Terminal

Marking Options

For Angular Button Design (Printed)

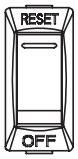


Standard - RESET/OFF Printed on Bezel



Standard - No Marking

For Contoured Button Design (Molded)



Standard - RESET/OFF Molded into bezel

Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001
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Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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