

## M1 Series Rocker-Actuated, Trip-Free Cycling Thermal Circuit Breaker/ Power Switch With Option Indicator Lamp Multiple Patent

### Features

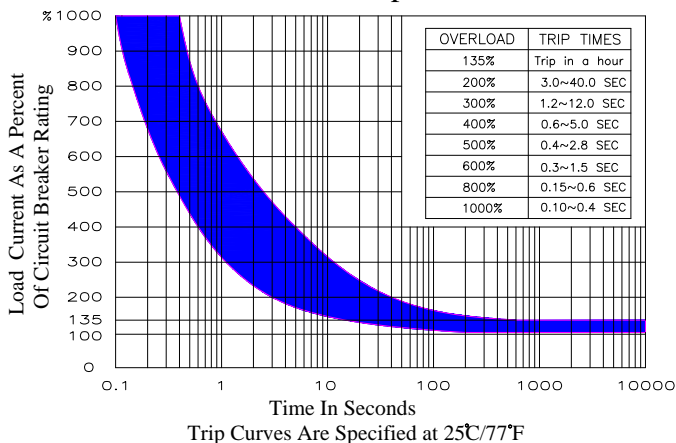
- Compact, trip-free cycling, rocker-actuated design.
- 5 to 20 amp ratings.
- Provides circuit protection and power switching in a single unit.
- Available with optional indicator lamp.
- Snaps into the same cutout as many common power switches.
- Various color, marking and termination options.

### Technical data

Rated voltage	AC 125/250V DC 50V
Rated current	5-20 A
Interrupt Capacity	1000A 250V (UL1077)
Dielectric strength	AC 1500V (1min)
Insulation resistance	≥ 100 MΩ, 500VDC
Resettable Overload Capacity	Ten times rated current
Switch Endurance Cycling	Over 6,000 operations at rating current
Weight:	Approx 10.5g

### Time vs. Current Trip Curve@ +25°C

#### 5~20A Trip Curves



### 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	1.615	1.25

The unit is calibrated for an ambient temperature of +25°C. To determine the rated current for a lower or higher ambient temperature, use a correction factor to the left.

### Approval

Approval & File No.	Rated current range	Rated voltage
UL\CUL E95802	5-20 A	125/250VAC 50VDC
CCC 2003010307097858	5-20 A	125/250VAC
VDE 40015302	5-20 A	250VAC

### 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	0.05	13.0	0.020
7.0	0.036	15.0	0.017
10.0	0.025	20.0	0.0125
12.0	0.022		

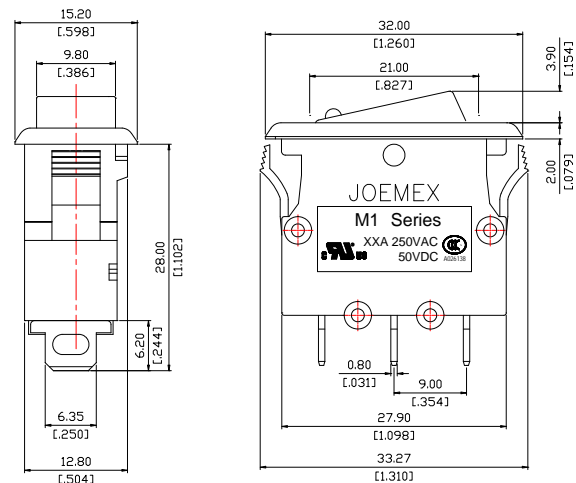
### Mechanical/Environmental Data

Operating Temperature Range: 0 °C to +50 °C.

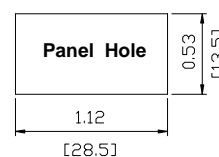
Termination: 250"(6.35 mm) quick connects, solder terminals

Mounting: Snaps into 1.122" x. 531" (28.5 X 13.5) panel cutout .

### Outline Dimensions



### Recommended Panel Cutout



Panel thickness

M1 series circuit breakers accommodate panel thickness from 0.03 in. to 0.118 in. (0.75mm-3.0mm)

## Ordering Information

Typical Part No. ▶ **M 1 15- A 1 1 2 0 1**

### 1. Model No.:

M1=M1 Non Illuminated M1L=Illuminated

### 2. Rating:

05=5A 06=6A 16=16A ..... 20=20A

### 3. Voltage:

A=125AVC/50VDC B=250VAC/50VDC C=24VDC

### 4. Terminals:

1=1#2# terminal is Solder Lug (9.5mm Length Outcrop), 3# terminal is .250 Tab (9.5mm Length Outcrop) 2=Solder Lug (5.2mm Length Outcrop)  
 4= Solder Lug (6.2mm Length Outcrop) 5=.250 Tab (9.5mm Length Outcrop)  
 6=.250 Tab (4.3~4.4 oval hole) 7=Solder Lug (no hole)

### 5. Base Color:

1=Black 2=White Base 3=灰白 Base 4=深灰 Base 5=灰 Base(432C)+Black cover  
 A=灰 Base(432C)+White cover (G020/W005) B=黑色弧形面板本體  
 D=灰 Base(432C)+Black cover (G018/W005) E=灰不明本體(G071)  
 E=灰色本體(G085) G=灰色弧形刻字本體(G084)

### 6. Rocker Color:

#### 6.1 Clear color

2=Red 3=Green 4=transparent milky 8=Ming Gree 9=clear blue D=maurette  
 F=bright yellow G=colorless transparent H=orange

#### 6.2 Opaque color

5=Black 6=Red 7=Gray E=blue S=dark gray U=gray(432C) V=gray unknown(G068)  
 W=gray unknown curved superstrure(G045)

#### 6.3 Two-color

R=Black With Red T=Black With Green

### 7. Marking option:

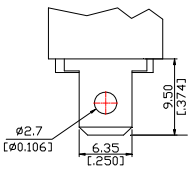
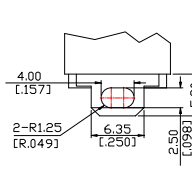
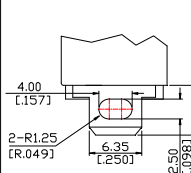
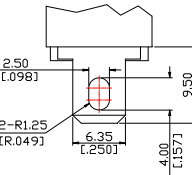
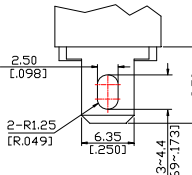
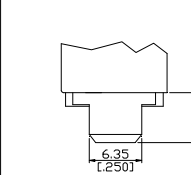
Type I (Printing) Type II ( molded)

### 8. Note:


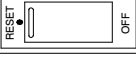

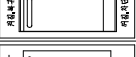

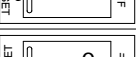
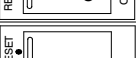


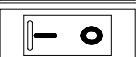
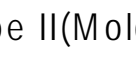
## Ordering Note:

Some option illustrated below are not listed in the "Ordering Information" chart above. Options denoted by "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. Due to ongoing technological advances, consult factory for certification specifics.

## Terminal Types:

 <p>9.5mm Solder Lug</p>	 <p>Solder Lug (5.2mm Length Outcrop)</p>	 <p>Solder Lug (6.2mm Length Outcrop)</p>
A Type	B Type	D Type
 <p>.250 Tab (9.5mm Length Outcrop)</p>	 <p>.250 Tab (4.3-4.4 over hole)</p>	 <p>Solder Lug (no hole)</p>
E Type	F Type	G Type

## Marking Options:

代字	定義	備注
Type I(Printing)		
0		
1		
2		
A		
B		
4		
5		
6		
7		
8		
9		
Type II(Molded)		
3	