

## »» Features

- Heavy duty 30A general purpose Power Relays.
- UL/CUL (UL 508 & 873), VDE safety approvals.
- Optional for open frame, dust cover, sealed type and with and without quick terminal on top, etc.
- High insulation type & high dielectric strength type available.
- Contact gap to 1.9mm, high dielectric strength 4000Vrms.
- High CTI 250 material or product comply with IEC 60335-1 are available.
- Ideal for HVAC, UPS & power supply, Home Appliances.
- Complies with RoHS-Directive 2011/65/EU.
- Optional for explosion-proof version.

## »» Type List

### ◆ 832

Terminal style	Contact form	Insulation system	Designation			
			Open type	Flux tight	Sealed type	Sealed type washable
PCB terminal	1A (SPNO)	-----	832-1A	832-1A-C	832-1A-V	832-1A-S
			832-1AC	832-1AC-C	832-1AC-V	832-1AC-S
	1B (SPNC)	-----	832-1B	832-1B-C	832-1B-V	832-1B-S
			832-1BC	832-1BC-C	832-1BC-V	832-1BC-S
	1C (SPDT)	-----	832-1C	832-1C-C	832-1C-V	832-1C-S
			832-1CC	832-1CC-C	832-1CC-V	832-1CC-S
	1A (SPNO)	F	832-1A-F	832-1A-F-C	832-1A-F-V	832-1A-F-S
			832-1AC-F	832-1AC-F-C	832-1AC-F-V	832-1AC-F-S
	1B (SPNC)	F	832-1B-F	832-1B-F-C	832-1B-F-V	832-1B-F-S
			832-1BC-F	832-1BC-F-C	832-1BC-F-V	832-1BC-F-S
	1C (SPDT)	F	832-1C-F	832-1C-F-C	832-1C-F-V	832-1C-F-S
			832-1CC-F	832-1CC-F-C	832-1CC-F-V	832-1CC-F-S

### ◆ 832A

PCB terminal	1A (SPNO)	-----	832A-1A	832A-1A-C	832A-1A-V	832A-1A-S
			832A-1AC	832A-1AC-C	832A-1AC-V	832A-1AC-S
	1B (SPNC)	-----	832A-1B	832A-1B-C	832A-1B-V	832A-1B-S
			832A-1BC	832A-1BC-C	832A-1BC-V	832A-1BC-S
	1C (SPDT)	-----	832A-1C	832A-1C-C	832A-1C-V	832A-1C-S
			832A-1CC	832A-1CC-C	832A-1CC-V	832A-1CC-S
	1A (SPNO)	F	832A-1A-F	832A-1A-F-C	832A-1A-F-V	832A-1A-F-S
			832A-1AC-F	832A-1AC-F-C	832A-1AC-F-V	832A-1AC-F-S
	1B (SPNC)	F	832A-1B-F	832A-1B-F-C	832A-1B-F-V	832A-1B-F-S
			832A-1BC-F	832A-1BC-F-C	832A-1BC-F-V	832A-1BC-F-S
	1C (SPDT)	F	832A-1C-F	832A-1C-F-C	832A-1C-F-V	832A-1C-F-S
			832A-1CC-F	832A-1CC-F-C	832A-1CC-F-V	832A-1CC-F-S

## ◆ 832AW

Terminal style	Contact form	Insulation system	Designation	
			Flanged cover	Sealed type washable (with flanged cover)
W (Quick terminal)	1A (SPNO)	-----	832AW-1A-C1	832AW-1A-S1
			832AW-1AC-C1	832AW-1AC-S1
	1C (SPDT)	-----	832AW-1C-C1	832AW-1C-S1
			832AW-1CC-C1	832AW-1CC-S1
	1A (SPNO)	F	832AW-1A-F-C1	832AW-1A-F-S1
			832AW-1AC-F-C1	832AW-1AC-F-S1
	1C (SPDT)	F	832AW-1C-F-C1	832AW-1C-F-S1
			832AW-1CC-F-C1	832AW-1CC-F-S1

## ◆ 832AWP

Terminal style	Contact form	Insulation system	Designation		
			Flux tight	Sealed type	Sealed type washable
WP (PCB terminal & Quick terminal)	1A (SPNO)	-----	832AWP-1A-C	832AWP-1A-V	832AWP-1A-S
			832AWP-1AC-C	832AWP-1AC-V	832AWP-1AC-S
	1C (SPDT)	-----	832AWP-1C-C	832AWP-1C-V	832AWP-1C-S
			832AWP-1CC-C	832AWP-1CC-V	832AWP-1CC-S
	1A (SPNO)	F	832AWP-1A-F-C	832AWP-1A-F-V	832AWP-1A-F-S
			832AWP-1AC-F-C	832AWP-1AC-F-V	832AWP-1AC-F-S
	1C (SPDT)	F	832AWP-1C-F-C	832AWP-1C-F-V	832AWP-1C-F-S
			832AWP-1CC-F-C	832AWP-1CC-F-V	832AWP-1CC-F-S

## ◆ 832AWP (Cover with shroud)

Terminal style	Contact form	Insulation system	Designation	
			Flux tight (with shroud)	Sealed type washable (with shroud)
WP (PCB terminal & Quick terminal)	1A (SPNO)	-----	832AWP-1A-CF	832AWP-1A-SF
			832AWP-1AC-CF	832AWP-1AC-SF
	1C (SPDT)	-----	832AWP-1C-CF	832AWP-1C-SF
			832AWP-1CC-CF	832AWP-1CC-SF
	1A (SPNO)	F	832AWP-1A-F-CF	832AWP-1A-F-SF
			832AWP-1AC-F-CF	832AWP-1AC-F-SF
	1C (SPDT)	F	832AWP-1C-F-CF	832AWP-1C-F-SF
			832AWP-1CC-F-CF	832AWP-1CC-F-SF

◆ 832A enlarge contact gap type

Terminal style	Contact form	Special feature	Designation		
			Flux tight	Sealed type	Sealed type washable
PCB terminal	1A (SPNO)	-----	832A-1A-C-H	832A-1A-V-H	832A-1A-S-H
	1A (SPNO)	High dielectric strength type	832A-1A-C-BH	832A-1A-V-BH	832A-1A-S-BH

»» Ordering Information

832   - 1A -  -  -

1 2 3 4 5 6 7 8

- |  |  |
|--|--|
| <p>1. 832 -- Basic series designation</p> <p>2. Blank -- General type (provided with 2 common terminals)<br/>A -- Different type (provided with 1 common terminal)</p> <p>3. Blank -- PCB terminal<br/>W -- Quick terminal<br/>WP -- PCB terminal &amp; Quick terminal</p> <p>4. 1A -- Single pole normally open, contact material AgSnO<br/>1B -- Single pole normally closed, contact material AgSnO<br/>1C -- Single pole double throw, contact material AgSnO<br/>1AC -- Single pole normally open, contact material AgNi<br/>1BC -- Single pole normally closed, contact material AgNi<br/>1CC -- Single pole double throw, contact material AgNi</p> | <p>5. Blank -- Standard type<br/>F -- Class F</p> <p>6. Blank -- Open type<br/>C -- Flux tight<br/>D -- Dust cover<br/>V -- Sealed type<br/>S -- Sealed type washable<br/>C1 -- With flanged cover<br/>S1 -- Sealed type washable with flanged cover<br/>CF -- Flux tight with shroud<br/>SF -- Sealed type washable with shroud</p> <p>7. Blank -- Standard type<br/>B -- With Insulation barrier<br/>BH -- With Insulation barrier and 1.9 mm contact gap (for SPNO type only)<br/>H -- 1.9 mm contact gap (for SPNO type only)<br/>E1 -- Comply with IEC 60335-1</p> <p>8. <input type="checkbox"/> -- Coil voltage (please refer to the coil rating data for the availability)</p> |
|--|--|

## »» Contact Rating

### ◆ 832/832A series

Load type	1A	1B	1C	
			NO	NC
Resistive load	30A 240VAC 20A 30VDC	15A 240VAC	20A 240VAC 20A 30VDC	10A 240VAC 10A 30VDC
Max. switching current	30A	30A	30A	30A
Max. switching voltage	277A	277A	277A	277A
Max. switching capacity	7200A	3600A	4800A	2400A

### ◆ 832/832A H/BH series

Resistive load	20A 250VAC
Max. switching current	30A
Max. switching voltage	277VAC
Max. switching capacity	5000VA

## »» Coil Rating (DC)

### ◆ 832/832A series

Rated voltage (V)	Rated current $\pm 10\%$ at 23°C (mA)	Coil resistance $\pm 10\%$ at 23°C ( $\Omega$ )	Max. continuous voltage at 85°C	Pick up voltage(Max.) at 23°C	Drop out voltage(Min.) at 23°C	Power consumption at rated voltage
5	185	27	130 % of rated voltage	75 % of rated voltage	10 % of rated voltage	approx. 0.93W
6	150	40				
9	93	97				
12	77	155				
24	36	660				
48	18	2,560				
110	8	13,450				

### ◆ 832/832A H/BH series

Rated voltage (V)	Rated current $\pm 10\%$ at 23°C (mA)	Coil resistance $\pm 10\%$ at 23°C ( $\Omega$ )	Max. continuous voltage at 60°C	Pick up voltage(Max.) at 23°C	Drop out voltage(Min.) at 23°C	Power consumption at rated voltage
6	183	32.7	130 % of rated voltage	80 % of rated voltage	10 % of rated voltage	approx. 1.1W
12	92.3	130				
24	46	524				
48	22.9	2,094				

## »» Specification

Contact material	AgSnO / AgNi alloy
Contact gap	1.9 mm Min. (for 832/832A H/BH)
Contact resistance <sup>(1)</sup>	50m $\Omega$ Max. (at 1A/6VDC by 4-wire resistance measurement)

Operate time <sup>(1)</sup>	15 ms Max.	
	20 ms Max. (for 832/832A H/BH)	
Release time <sup>(1)</sup>	10 ms Max.	
	5 ms Max. (for 832/832A H/BH)	
Vibration resistance	Operating extremes	10~55Hz , amplitude 1.5 mm
	Damage limits	10~55Hz , amplitude 1.5 mm
Shock resistance	Operating extremes	10G
	Damage limits	100G
Life expectancy	Mechanical	10,000,000 ops. 5,000,000 ops. (for 832/832A H/BH) (frequency 18,000 ops./hr)
	Electrical	100,000 ops. (frequency 1,200 ops./hr)
832/832A H/BH series :		
		20,000 ops. for 20A/250VAC
		100,000 ops. for 10A/250VAC
		(frequency 900 ops./hr)
Operating ambient temperature	-55~+85°C (no freezing)	
Weight	Approx. 22g (open type) · 27g (832A) · 36g (832AWP) · 38g (832AW)	

Note : (1) Initial value. Operate and release time excluding contact bounce.

(2) Unless otherwise specified, all tests are under room temperature and humidity.

(3) Consider the heat of PCB is necessary, please check the actual condition of PCB.

(4) Applying no diode to this relay. The life expectancy will be lower when a diode is used. To use a varistor (ZNR) could absorb the coil surge of relay that is recommended.

(5) Do not use the relay exceeding the coil rating, contact rating and life expectancy, or this may cause the risk of overheating.

(6) To assure optimum performance, avoid the relay from dropping, hitting, or other unnecessary shocks.

(7) Do not switch the contacts without any load as the contact resistance may become increased rapidly.

(8) Flux tight version is recommended. If there is cleaning process and sealed type is selected, the vent-hole should be removed after the process.

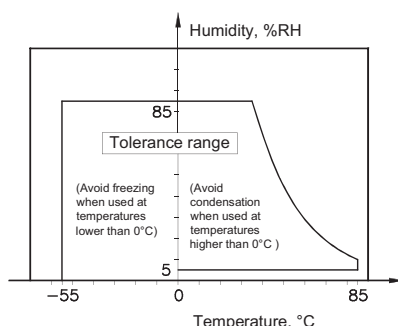
(9) Use suitable harnesses and bus bars according to the current as below :

20A type : Min. 3.0 mm<sup>2</sup>

30A type : Min. 6.0 mm<sup>2</sup>

(10) Usage, transport and storage conditions

- 1. Temperature: -55~+85°C
- 2. Humidity: 5 to 85% R.H.
- 3. Pressure: 86 to 106 kPa
- Furthermore, the humidity range varies with the temperature. So, use relays within the range indicated in the graph below.



(11) Please contact Song Chuan for the detailed information.

### » Insulation Data

Insulation resistance <sup>(1)</sup>	1000 MΩ Min. (DC 500V)
	100 MΩ Min. (DC 500V) (for 832/832A H/BH)
Surge voltage withstand	Between contact and coil : 6KV 1.2X50 μ S (for 832A)
Dielectric strength <sup>(1)</sup>	Between open contact : AC 1500V , 50/60Hz 1min.
	Between contact and coil : AC 1500V , 50/60Hz 1min.
	: AC 2500V , 50/60Hz 1min (for 832A) High dielectric strength type : AC 4000V , 50/60Hz 1min.
Insulation of IEC 61810-1	
Clearance / creepage distances	Between coil to contact : Basic, ≥ 1.5mm / ≥ 2.5mm
	Between open contact : Functional
Rated insulation voltage	250V
Rated impulse withstand voltage	2500V
Pollution degree	2
Rated voltage	230 / 400V
Overvoltage category	II

Note : (1) Initial value.

### » Safety Approval

Certified	UL / CUL	CSA / CUS	VDE
File No.	E88991	1429333	6615

### » Safety Approval Rating

#### ◆ 832 series (UL/CUL · CSA/CUS)

Contact material (AgSnO)		Contact material (AgNi)	
NO	NC	NO	NC
30A 277VAC 20A 30VDC 2HP 250VAC 1HP 125VAC 30 FLA, 80LRA 240VAC 16 FLA, 96LRA 250VAC TV-5	30A 250VAC 15A 277VAC 15A 30VDC 1/2HP, 4.9FLA 250VAC 1/4HP, 5.8FLA 125VAC 12 FLA, 33LRA 250VAC	30A 277VAC 24A 240VAC	30A 277VAC 24A 240VAC

#### ◆ 832 series (VDE)

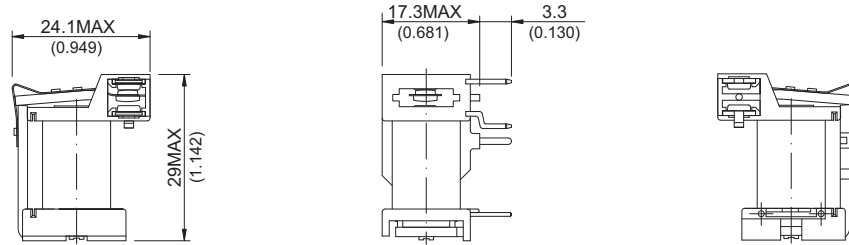
1A	1B	1C
30A 250VAC	20A 250VAC	20A 250VAC

#### ◆ 832A H/BH

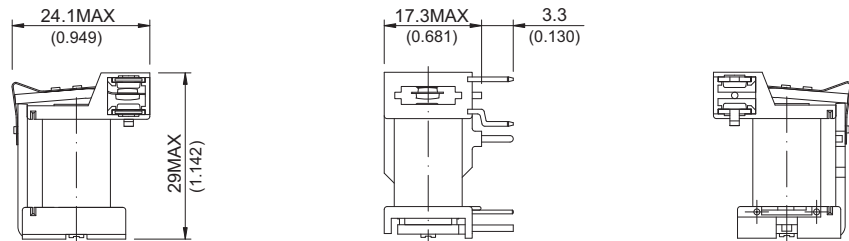
UL / CUL · CSA / CUS	VDE
30A 277VAC 30A 30VDC 1HP, 8FLA 250VAC	20A 250VAC T85

## »» Outline Dimensions

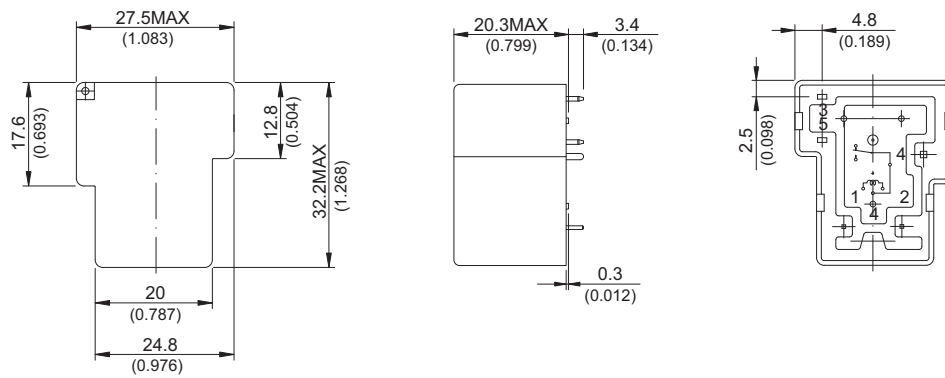
### ◆ 832A(OPEN)



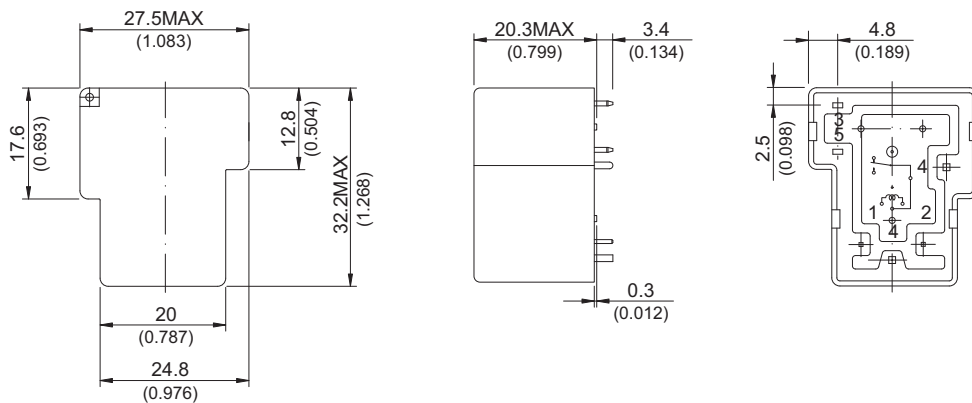
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### ◆ 832A

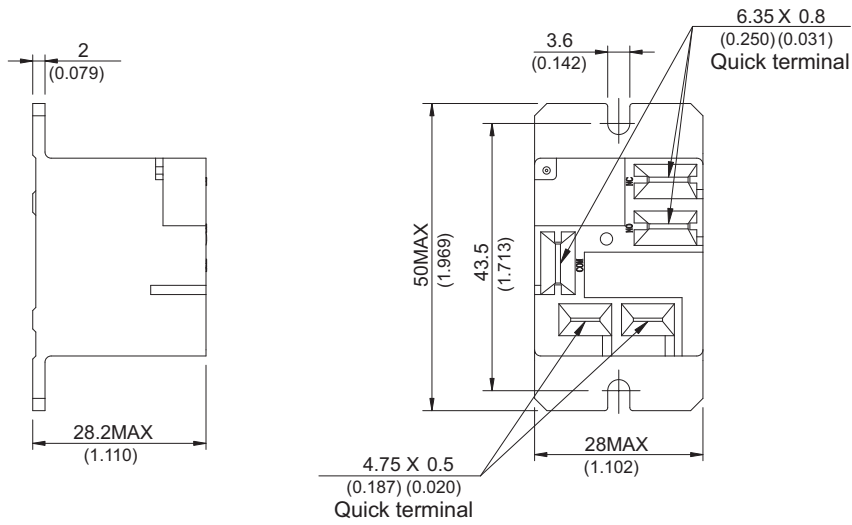


### ◆ 832

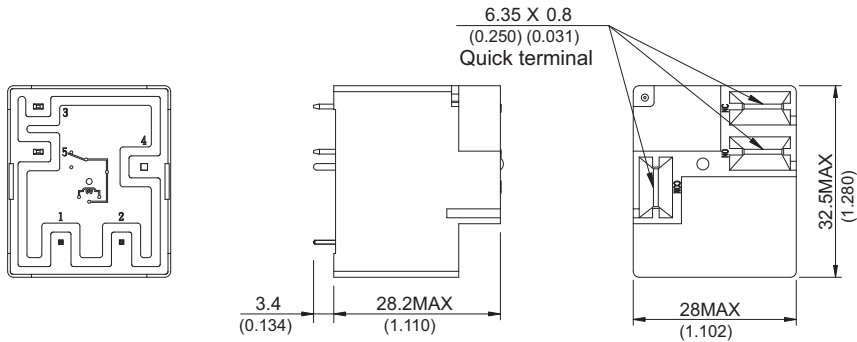


# 832

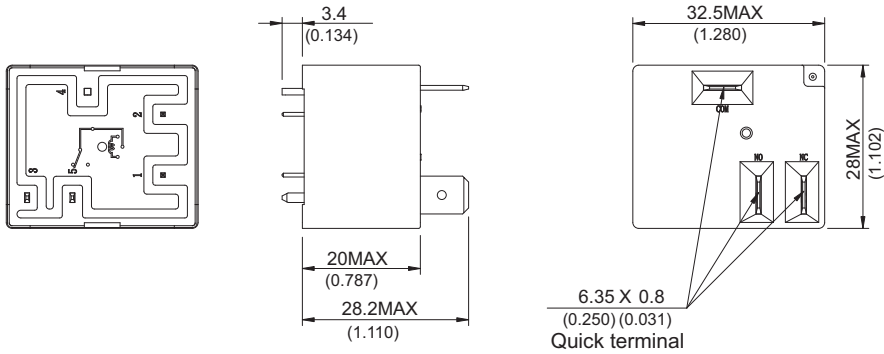
◆832AW



◆832AWP(Cover with shroud)



◆832AWP



TOLERANCE:  
 LESS THAN: 1(0.039) ±0.1(0.004)  
 5(0.197) ±0.3(0.012)  
 20(0.787) ±0.5(0.020)  
 MORE THAN: 20(0.787) ±1(0.039)

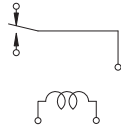


## Wiring Diagram

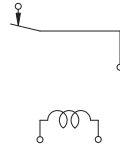
BOTTOM VIEW

◆832A

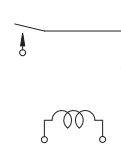
1C



1B

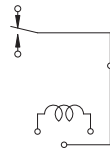


1A

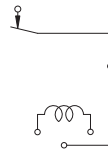


◆832

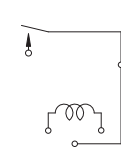
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1B



1A

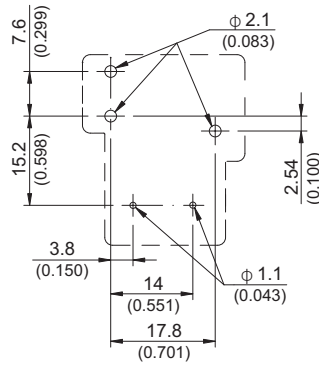


## PC Board Layout

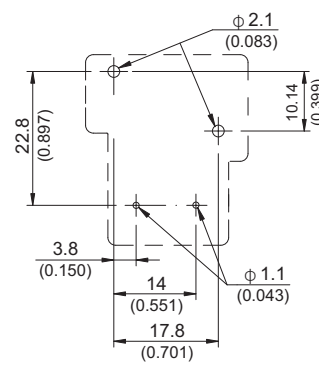
BOTTOM VIEW

◆832A

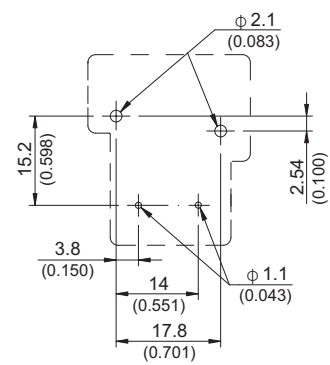
1C



1B

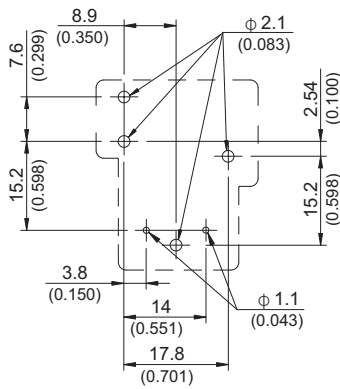


1A

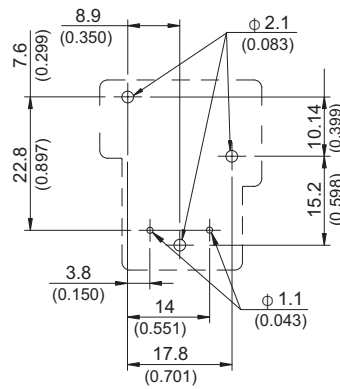


◆832

1C



1B



1A

