

832



### »» 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 2.0mm, high dielectric strength 4000Vrms.
- UL Insulation Class F.
- Ideal for HVAC, UPS & power supply, Home Appliances.
- Comply with RoHS-Directive 2002/95/EC

### »» 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 A WP - 1C - F - C - B  
 1 2 3 4 5 6 7

- |   |   |
|---|---|
| 1. 832 -- Basic series designation  | 5. Blank -- Standard type<br>F -- Class F   |
| 2. Blank -- General type (provided with 2 common terminals)<br>A -- Different type (provided with 1 common terminal)  | 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 |
| 3. Blank -- PCB terminal<br>W -- Quick terminal<br>WP -- PCB terminal & quick terminal  | 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)  |
| 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 |   |

## »» Contact Rating

### ◆ 832 series

Load type	1A	1B	1C	
			NO	NC
Resistive load	30A 240VAC 20A 30VDC	15A 240VAC	20A 240VAC 20A 30VDC	10A 240VAC 10A 30VDC

### ◆ 832A H/BH

Resistive load	20A 250VAC
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## »» Coil Rating (DC)

### ◆ 832 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	2560				
110	8	13450				

### ◆ 832A H/BH

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 % rated voltage	approx. 1.1W
12	92.3	130				
24	46	524				
48	22.9	2094				

## »» Specification

Contact material	AgSnO / AgNi alloy
Contact gap	1.9 mm Min. (for 832A H/BH)
Contact resistance <sup>(1)</sup>	50 m $\Omega$ Max.
Operate time <sup>(1)</sup>	15 ms Max.
	20 ms Max. (for 832A H/BH)
Release time <sup>(1)</sup>	10 ms Max.
	5 ms Max. (for 832A H/BH)
Insulation resistance <sup>(1)</sup>	1000 M $\Omega$ Min. (DC 500V)
	100 M $\Omega$ Min. (DC 500V) (for 832A H/BH)
Surge voltage withstand	Between contact and coil : 6KV 1.2X50 $\mu$ S (for 832A)

Dielectric strength <sup>(1)</sup>	Between open contact	: 1500Vrms 50/60Hz 1min.
	Between contact and coil	: 1500Vrms 50/60Hz 1min. : 2500Vrms 50/60Hz 1min (for 832A) High dielectric strength type : 4000Vrms 50/60Hz 1 min.
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 operations 5,000,000 operations (for 832A H/BH) (frequency 18,000 operations/hr)
	Electrical	100,000 operations (frequency 1,200 operations/hr) 20,000 operations for 20A/250VAC (for 832A H/BH) 100,000 operations for 10A/250VAC (for 832A H/BH) (frequency 900 operations/hr)
Operating ambient temperature	-55~+85°C (no freezing)	
Weight	Approx. 22 g (open type) · 27g (832A) 36 g (832AWP) · 38g (832AW)	

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)

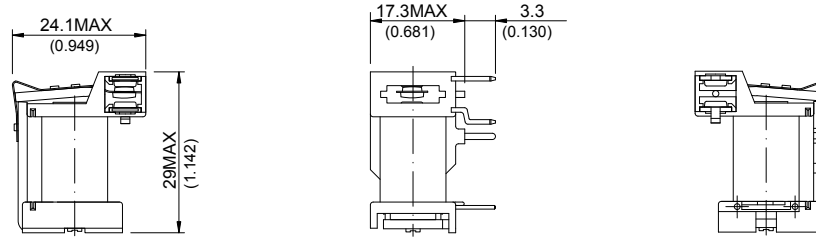
1A	1B	1C
30A 250VAC	20A 250VAC	20A 250VAC

#### ◆ 832A H/BH

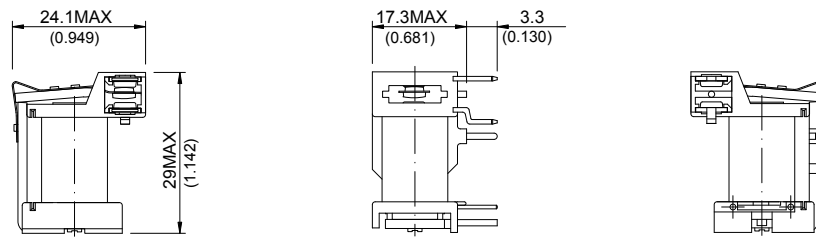
UL / CUL · CSA / CUS	VDE
30A 277VAC 30A 30VDC 1HP, 8FLA 250VAC	20A 250VAC T85

## »» Outline Dimensions

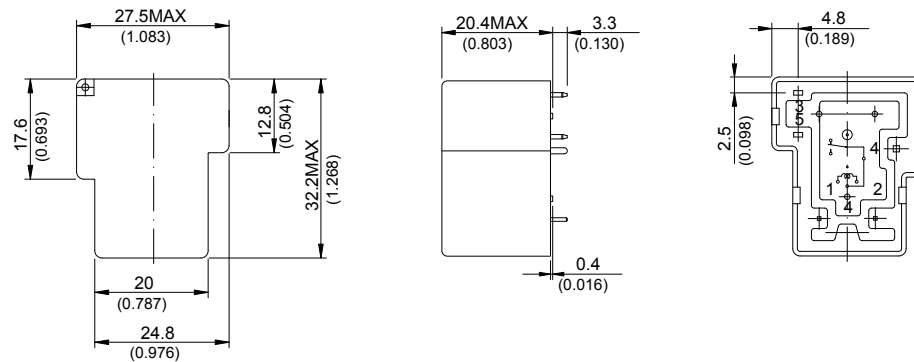
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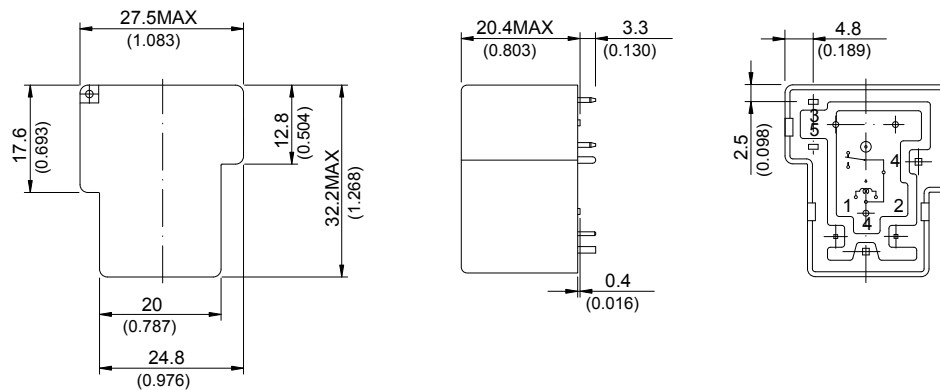
### ◆ 832(OPEN)



### ◆ 832A

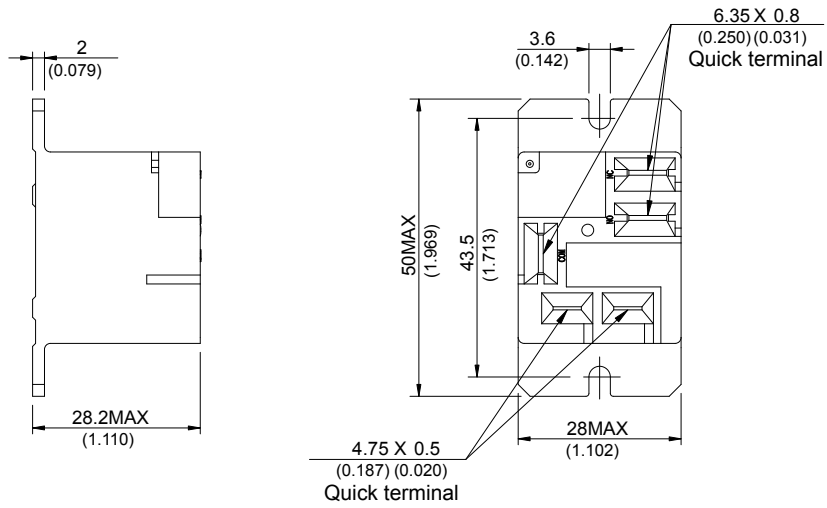


### ◆ 832

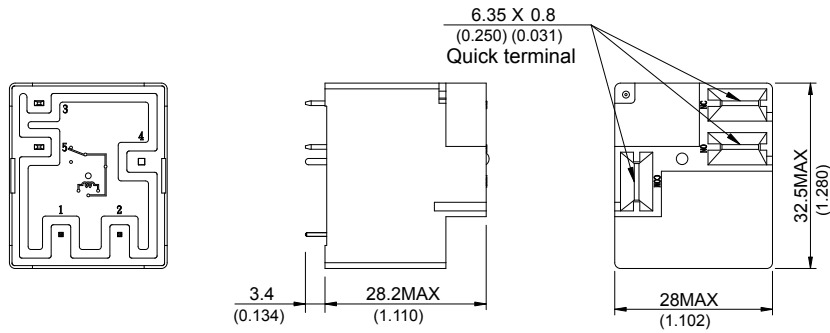


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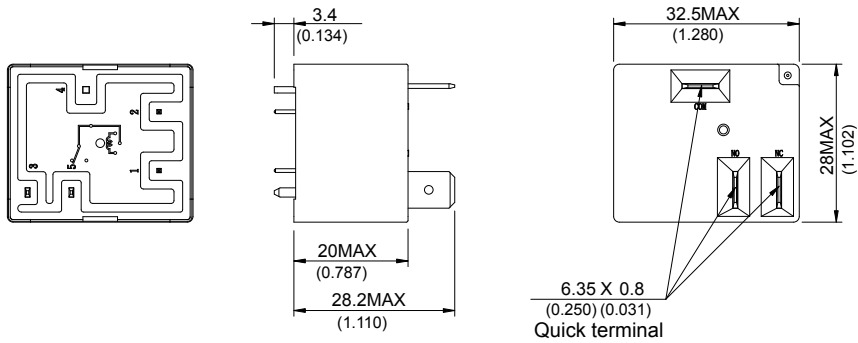
◆832AW



◆832AWP(Cover with shroud)

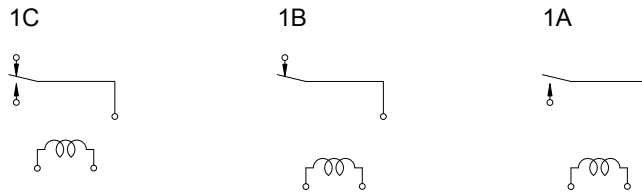


◆832AWP

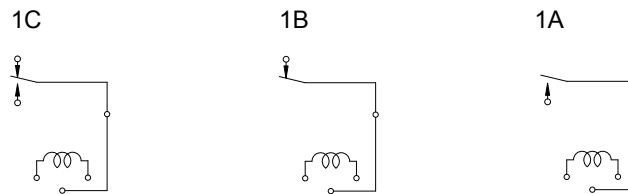


## »» Wiring Diagram BOTTOM VIEW

◆832A

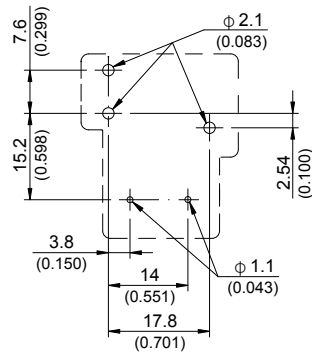


◆832

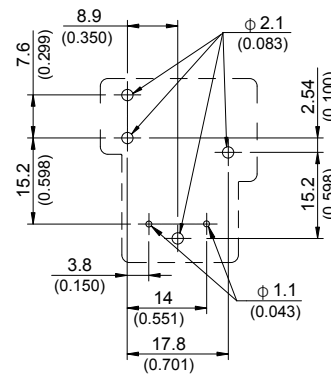


## »» PC Board Layout BOTTOM VIEW

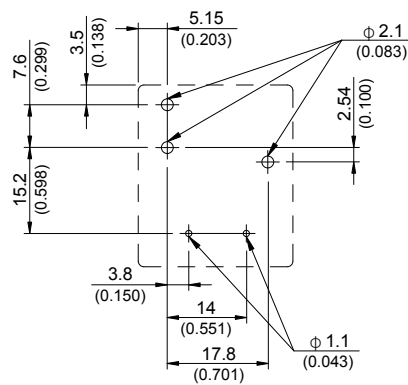
◆832A



◆832



◆832AWP





## »» Engineering Data

