

»» 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 F -- Class F |
| 2. Blank -- General type (provided with 2 common terminals) A -- Different type (provided with 1 common terminal) | 6. Blank -- Open type C -- Flux tight D -- Dust cover V -- Sealed type S -- Sealed type washable C1 -- With flanged cover S1 -- Sealed type washable with flanged cover CF -- Flux tight with shroud SF -- Sealed type washable with shroud |
| 3. Blank -- PCB terminal W -- Quick terminal WP -- PCB terminal & quick terminal | 7. Blank -- Standard type B -- With Insulation barrier BH -- With Insulation barrier and 2 mm Contact gap (for SPNO type only) H -- 2 mm contact gap (for SPNO type only) |
| 4.1A -- Single pole normally open, contact material AgSnO 1B -- Single pole normally closed, contact material AgSnO 1C -- Single pole double throw, contact material AgSnO 1AC -- Single pole normally open, contact material AgNi 1BC -- Single pole normally closed, contact material AgNi 1CC -- Single pole double throw, contact material AgNi | |

»» Contact Rating

◆ 832 series

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

◆ 832A (H/BH)

| | |
|----------------|------------|
| Resistive load | 20A 250VAC |
|----------------|------------|

»» Coil Rating (DC)

◆ 832 series

| Rated voltage (V) | Rated current $\pm 10\%$ at 23°C (mA) | Coil resistance $\pm 10\%$ at 23°C (Ω) | 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 (Ω) | 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 | 2094 | | | | |

»» Specification

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

| | | |
|------------------------------------|--|--|
| Dielectric strength ⁽¹⁾ | 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)

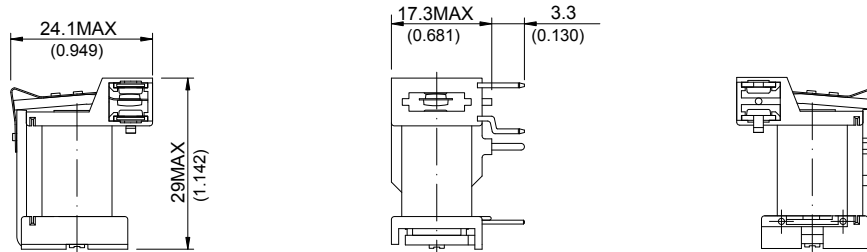
| 1A | 1B | 1C |
|------------|------------|------------|
| 30A 250VAC | 20A 250VAC | 20A 250VAC |

◆ 832A (H/BH)

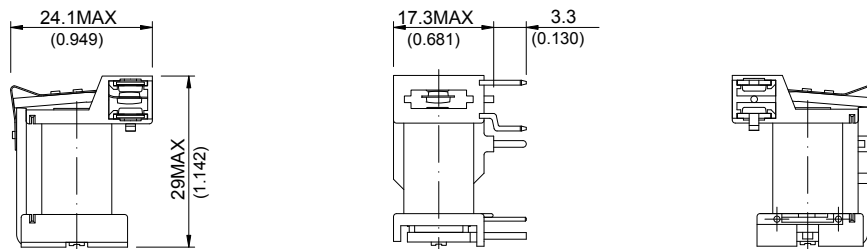
| UL / CUL · CSA / CUS | VDE |
|---|----------------|
| 30A 277VAC 30A 30VDC 1HP, 8FLA 250VAC | 20A 250VAC T85 |

»» Outline Dimensions

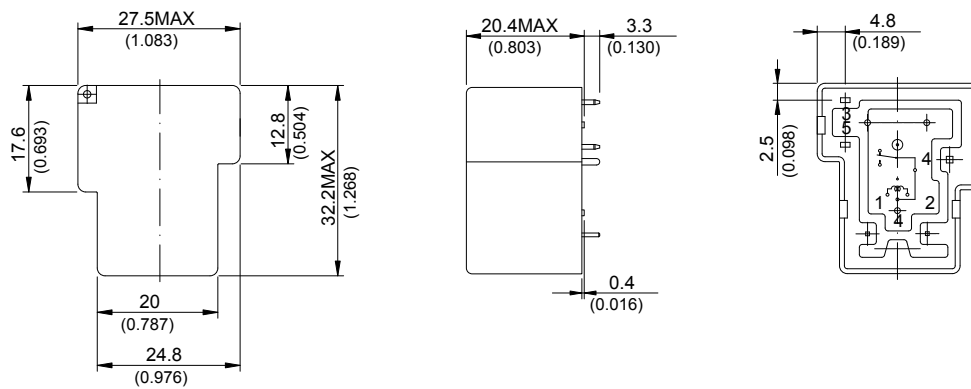
◆ 832A(OPEN)



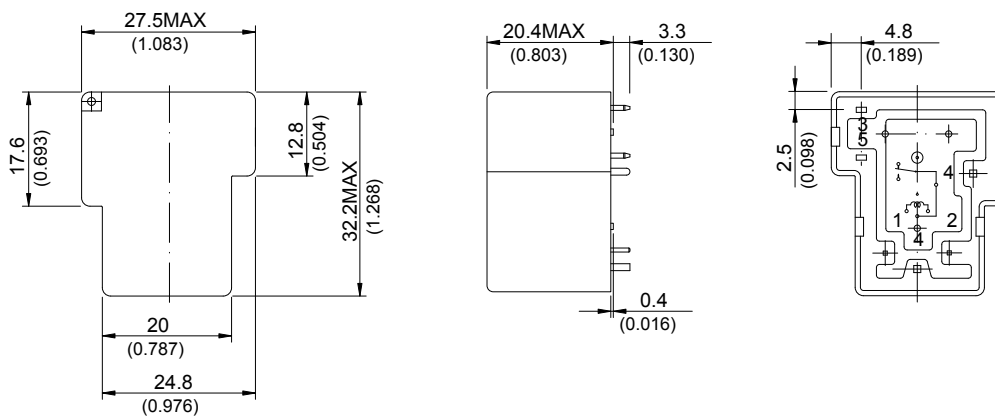
◆ 832(OPEN)



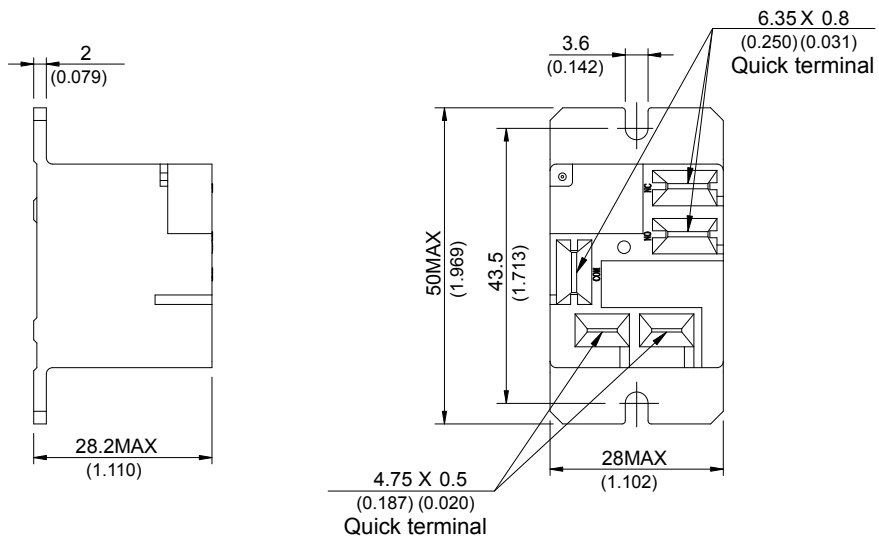
◆ 832A



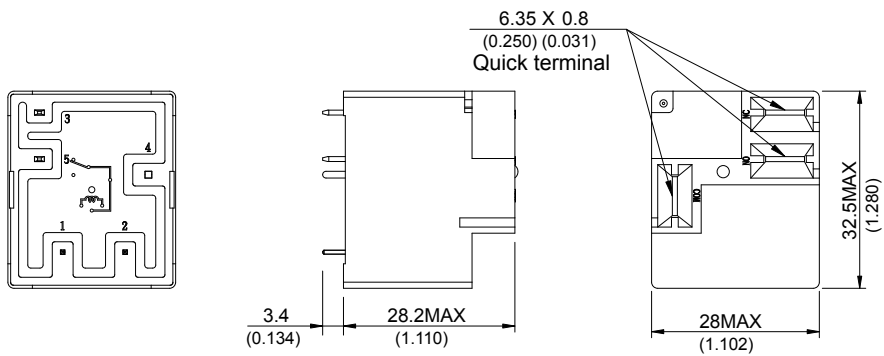
◆ 832



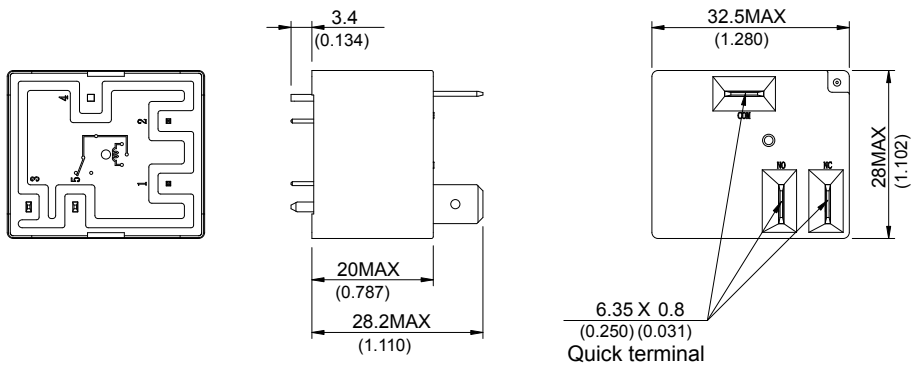
◆832AW



◆832AWP(Cover with shroud)



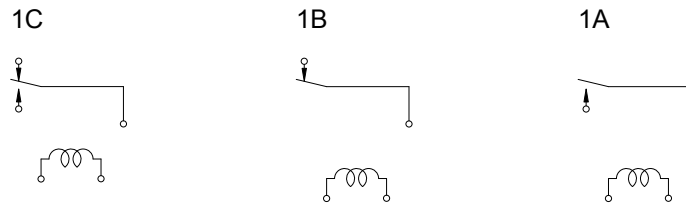
◆832AWP



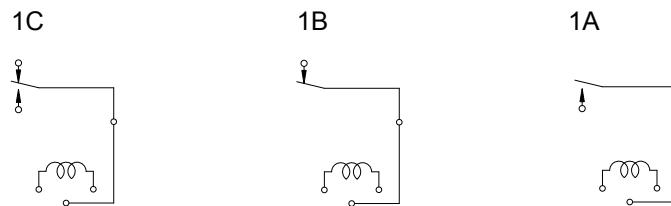
Wiring Diagram

BOTTOM VIEW

◆832A



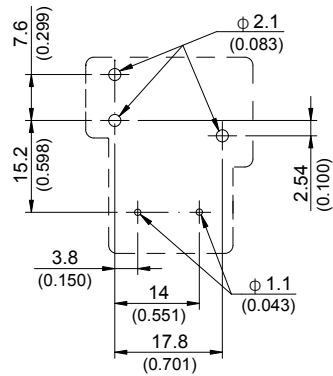
◆832



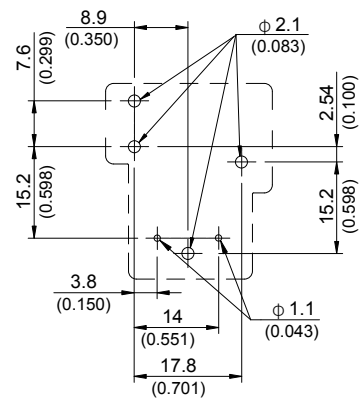
PC Board Layout

BOTTOM VIEW

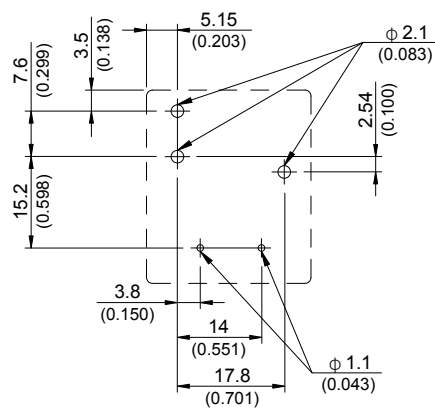
◆832A



◆832



◆832AWP



»» Engineering Data

