JE8 SUBMINIATURE INTERMEDIATE POWER RELAY

c UL us
File No.: E134517

VDE
File No.: 40019452

CQC
File No.: CQC06017016720

Features

- Latching types available
- High sensitive
- High switching capacity
  1A: 8A 250VAC; 2A, 1A + 1B: 5A 250VAC
- 1 Form A, 2 Form A and 1A + 1B contact arrangement
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (20.2 x 11.0 x 10.4)mm

CONTACT DATA

Contact arrangement	1A	2A, 1A + 1B
Contact resistance	No gold plated: 50mΩ (at 1A 6VDC) Gold plated: 30mΩ (at 1A 6VDC)	
Contact material	AgNi	
Contact rating (Res. load)	8A 250VAC 5A 30VDC	5A 250VAC 5A 30VDC
Max. switching voltage	380VAC / 125VDC	
Max. switching current	8A	5A
Max. switching power	2000VA/150W	1250VA/150W
Mechanical endurance	1 x 10^7 OPS	
Electrical endurance	1 x 10^5 OPS	

CHARACTERISTICS

Insulation resistance		1000MΩ (at 500VDC)
Dielectric strength	Between coil & contacts	3000VAC 1min
	Between open contacts	1000VAC 1min
	Between contact sets	2000VAC 1min
Operate time (at nomi. volt.)		10ms max. (Approx. 5ms)
Release time (at nomi. volt.)		5ms max. (Approx. 3ms)
Set time (latching)		10ms max. (Approx. 5ms)
Reset time (latching)		10ms max. (Approx. 4ms)
Shock resistance	Functional	200m/s² (20g)
	Destructive	1000m/s² (100g)
Vibration resistance		10Hz to 55Hz 2.0mm DA
Humidity		5% to 85% RH
Ambient temperature		-40˚C to 70˚C
Termination		PCB
Unit weight		Approx. 4.7g
Construction		Wash tight, Flux proofed

Notes: The data shown above are initial values.

COIL

Coil power	Single side stable	300mW
	1 coil latching	150mW
	2 coils latching	300mW

COIL DATA at 23˚C

Single side stable (300mW)

Order Number	Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC 70˚C	Coil Resistance Ω
3-□□	3	2.4	0.3	3.9	30 x (1±10%)
5-□□	5	4.0	0.5	6.5	83 x (1±10%)
6-□□	6	4.8	0.6	7.8	120 x (1±10%)
9-□□	9	7.2	0.9	11.7	270 x (1±10%)
12-□□	12	9.6	1.2	15.6	480 x (1±10%)
24-□□	24	19.2	2.4	31.2	1920 x (1±10%)

SAFETY APPROVAL RATINGS

UL&CUR	1 Form A	8A 250VAC 5A 30VDC 1/6HP 250VAC
	2 Form A	5A 250VAC 5A 30VDC 1/10HP 250VAC
	1A + 1B	5A 250VAC 5A 30VDC 1/6HP 250VAC
VDE	1 Form A	8A 250VAC 5A 30VDC 5A 250VAC COSØ =0.4
	2 Form A 1A + 1B	5A 250VAC 5A 30VDC 3A 250VAC COSØ =0.4

Notes: Only some typical ratings are listed above. If more details are required, please contact us.

COIL DATA

at 23˚C

1 coil latching (150mW)

Order Number	Nominal Voltage VDC	Set / Reset Voltage VDC	Max. Allowable Voltage VDC 70˚C	Coil Resistance Ω
3-☐☐ -L1	3	2.4	3.9	60 x (1±10%)
5-☐☐ -L1	5	4.0	6.5	167 x (1±10%)
6-☐☐ -L1	6	4.8	7.8	240 x (1±10%)
9-☐☐ -L1	9	7.2	11.7	540 x (1±10%)
12-☐☐ -L1	12	9.6	15.6	960 x (1±10%)
24-☐☐ -L1	24	19.2	31.2	3840 x (1±10%)

2 coils latching (300mW)

Order Number	Nominal Voltage VDC	Set / Reset Voltage VDC	Max. Allowable Voltage VDC 70˚C	Coil Resistance Ω
3-☐☐ -L2	3	2.4	3.9	30 x (1±10%)
5-☐☐ -L2	5	4.0	6.5	83 x (1±10%)
6-☐☐ -L2	6	4.8	7.8	120 x (1±10%)
9-☐☐ -L2	9	7.2	11.7	270 x (1±10%)
12-☐☐ -L2	12	9.6	15.6	480 x (1±10%)
24-☐☐ -L2	24	19.2	31.2	1920 x (1±10%)

ORDERING INFORMATION

JE8 / 12 -1H S G -L2 -R (XXX)

Type	
Coil voltage	3, 5, 6, 9, 12, 24VDC
Contact form	**1H:** 1 Form A **2H:** 2 Form A **1HD:** 1A + 1B
Construction 1)	**S:** Wash tight **Nil**: Flux proofed
Contact plating	**G:** Gold plated **Nil**: No gold plated
Sort	**L1:** 1 coil latching **L2:** 2 coils latching **Nil:** Single side stable
Polarity	**R:** Reverse polarity **Nil:** Standard polarity
Customer special code 2)	Only for special requirements, e.g. (555) stands for RoHS compliant

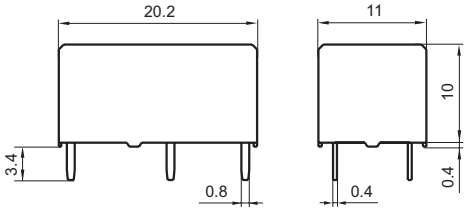
Notes: 1) Under the ambience with dangerous gas like H_2S, SO_2 or NO_2, wash tight type is recommended; please test the relay in real applications. If the ambience allows, flux proofed is preferentially recommended.
2) JE8 is an environmental friendly product. Please mark a special code (555) when ordering.

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

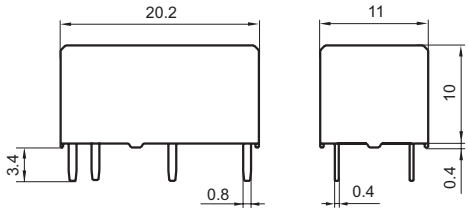
Unit: mm

Outline Dimensions

Single side stable & 1 coil latching



2 coils latching



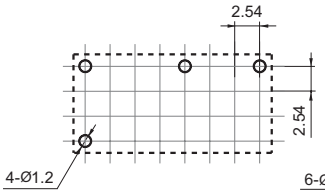
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

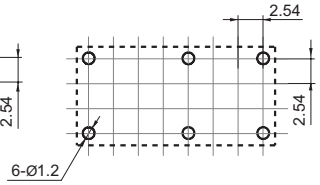
PCB Layout
(Bottom view)

Single side stable & 1 coil latching

1 Form A

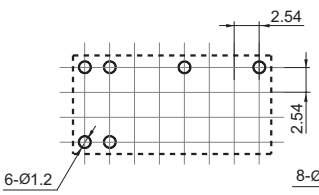


2 Form A, 1A + 1B

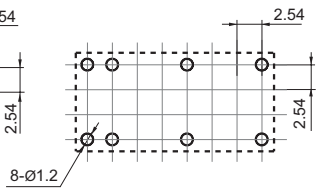


2 coils latching

1 Form A



2 Form A, 1A + 1B

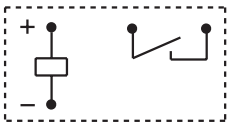


Remark: 1) In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.
2) The tolerance without indicating for PCB layout is always ±0.1mm.
3) The width of the gridding is 2.54mm.

Wiring Diagram (Bottom view)

Single side stable (Deenergized condition)

1 Form A



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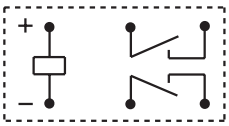
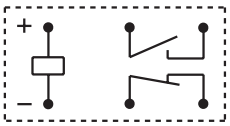
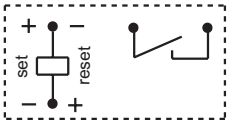


1A + 1B

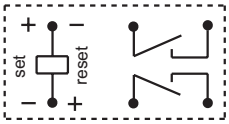


1 coil latching (Reset condition)

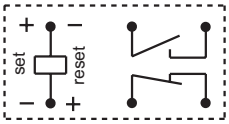
1 Form A



2 Form A

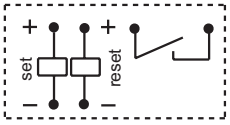


1A + 1B

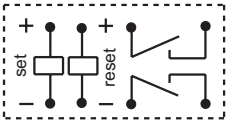


2 coils latching (Reset condition)

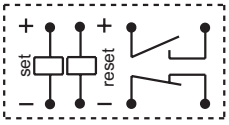
1 Form A



2 Form A



1A + 1B



Notice

1. Relay is on the “reset” status when being released from stock, with the consideration of shock risen from transit and relay mounting, relay would be changed to “set” status, therefore, when application (connecting the power supply), please reset the relay to “set” or “reset” status on request.
2. In order to maintain “set” or “reset” status, energized voltage to coil should reach the rated voltage, impulse width should be 5 times more than “set” or “reset” time. Do not energize voltage to “set” coil and “reset” coil simultaneously. And also long energized time (more than 1 min) should be avoided.
3. In order to avoid changing operate voltage, products should not be kept in strong magnetic field during transportation, storage and application.

Disclaimer

This datasheet is for the customers’ reference. All the specifications are subject to change without notice.
We could not evaluate all the performance and all the parameters for every possible application. Thus the user should be in a right position to choose the suitable product for their own application. If there is any query, please contact Hongfa for the technical service. However, it is the user’s responsibility to determine which product should be used only.

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