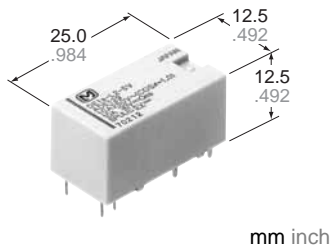


阅读申明

- 1.本站收集的数据手册和产品资料都来自互联网，版权归原作者所有。如读者和版权方有任何异议请及时告之，我们将妥善解决。
- 2.本站提供的中文数据手册是英文数据手册的中文翻译，其目的是协助用户阅读，该译文无法自动跟随原稿更新，同时也可能存在翻译上的不当。建议读者以英文原稿为参考以便获得更精准的信息。
- 3.本站提供的产品资料，来自厂商的技术支持或者使用者的心得体会等，其内容可能存在描述上的差异，建议读者做出适当判断。
- 4.如需与我们联系，请发邮件到marketing@iczoom.com，主题请标有“数据手册”字样。

Read Statement

1. The datasheets and other product information on the site are all from network reference or other public materials, and the copyright belongs to the original author and original published source. If readers and copyright owners have any objections, please contact us and we will deal with it in a timely manner.
2. The Chinese datasheets provided on the website is a Chinese translation of the English datasheets. Its purpose is for reader's learning exchange only and do not involve commercial purposes. The translation cannot be automatically updated with the original manuscript, and there may also be improper translations. Readers are advised to use the English manuscript as a reference for more accurate information.
3. All product information provided on the website refer to solutions from manufacturers' technical support or users the contents may have differences in description, and readers are advised to take the original article as the standard.
4. If you have any questions, please contact us at marketing@iczoom.com and mark the subject with "Datasheets" .



mm inch

FEATURES

- **Conforms to European safety standards (VDE0700 and VDE0631)**
Insulating distance between coil and contacts:
Clearance Min. 8mm .315 inch
Creepage distance Min. 8mm .315 inch
- **Low operating power**
Nominal operating power at 200 mW (Single side stable, 2 coil latching)
- **Compact body saves space**
Size: 12.5(W) × 25.0(L) × 12.5(H) mm .492(W) × .984(L) × .492(H) inch
- **Extensive product line-up**
- **Surge voltage between contact and coil 12 kV**
- **UL/CSA, VDE approved**

SPECIFICATIONS

Contact

Arrangement	1 Form A	1 Form A 1 Form B	2 Form A	
Contact material	AgSnO ₂ type			
Initial contact resistance, max. (By voltage drop 6V DC 1A)	30mΩ			
Rating (resistive load)	Nominal switching capacity	10A 250V AC, 10A 30V DC	8A 250V AC, 8A 30V DC	8A 250V AC, 8A 30V DC
	Max. switching power	2,500 VA*, 300W	2,000 VA*, 240W	2,000 VA*, 240W
	Max. switching voltage	440V AC, 230V DC	440V AC, 230V DC	440V AC, 230V DC
	Max. switching current	10A (16A)*	8A (16A)*	8A (16A)*
	Min. switching capacity#1	100 mA, 5 V DC		
Expected life (min. operations)	Mechanical (at 300cpm)	10 ⁷		
	Electrical (at 20 cpm) (resistive load)	10 ⁵	10 ⁵ (AC) 5 × 10 ⁴ (DC)	
	Electrical (16A / 230 V AC resistive)*	25000	20000	

Coil (at 20°C, 68°F)

	Nominal operating power
Single side stable	200 mW
1 coil latching	100 mW
2 coil latching	200 mW

#1 This value can change due to the switching frequency, environmental conditions, and desired reliability level, therefore it is recommended to check this with the actual load.

Characteristics

Max. operating speed	20 cpm (at rated load)	
Initial insulation resistance*1	Min. 1,000 MΩ (at 500 V DC)	
Initial breakdown voltage*2	Between open contacts	1,000 Vrms
	Between contact sets	4,000 Vrms (2 Form A, 1 Form A 1 Form B)
	Between contact and coil	5,000 Vrms
Surge voltage between contact and coil*3	Min. 12,000 V (initial)	
Operate time [Set time]*4	Max. 10ms (typ. 5ms) [Max. 10ms (typ. 4ms)] (at 20°C 68°F)	
Release time (without diode) [Reset time]*4	Max. 5ms (typ. 2ms) [Max. 10ms (typ. 4ms)] (at 20°C 68°F)	
Temperature rise (at 70°C)*5	Max. 50°C	
Shock resistance	Functional*6	Min. 196 m/s ² {20 G}
	Destructive*7	Min. 980 m/s ² {100 G}
Vibration resistance	Functional*8	10 to 55 Hz at double amplitude of 2 mm
	Destructive	10 to 55 Hz at double amplitude of 3 mm
Conditions for operation, transport and storage*9 (Not freezing and condensing at low temperature)	Ambient temp.	-40°C to 70°C -40°F to 158°F
	Humidity	5 to 85% R.H.
Unit weight	Approx. 7 g .25 oz	

Remarks

- * 16A possible for one contact set only with max. 4000 VA switching power.
- *1 Measurement at same location as "Initial breakdown voltage" section.
- *2 Detection current: 10mA
- *3 Wave is standard shock voltage of ±1.2 × 50μs according to JEC-212-1981
- *4 Nominal operating voltage applied to the coil, excluding contact bounce time.
- *5 By resistive method
- *6 Half-wave pulse of sine wave: 11ms, detection time: 10ms.
- *7 Half-wave pulse of sine wave: 6ms
- *8 Detection time: 10ms
- *9 Refer to "6. Usage, Storage and Transport Conditions" in [AMBIENT ENVIRONMENT](#) section in [Relay Technical Information](#).

TYPICAL APPLICATIONS

- Temperature controller
- Automatic meter reading
- OA equipment
- FA equipment

ORDERING INFORMATION

Ex. DE — 1a — L — 3 V

Product name	Contact arrangement	Operating function	Coil voltage, V DC
DE	1a: 1 Form A 1a1b: 1 Form A 1 Form B 2a: 2 Form A	Nil: Single side stable L: 1 coil latching L2: 2 coil latching	1.5, 3, 4.5, 5, 6, 9, 12, 24, 48**

Notes: 1) Standard packing; Carton (tube package)
20 pcs. Case 500 pcs.

**just for single side stable

2) UL/CSA, VDE approved type is standard.

TYPES AND COIL DATA (at 20°C 68°F)

• Single side stable type

1 Form A, 1 Form A 1 Form B, 2 Form A

Part No.	Nominal voltage, V DC	Pick-up voltage, V DC (max.) (initial)	Drop-out voltage, V DC (min.) (initial)	Coil resistance, Ω ($\pm 10\%$)	Nominal operating current, mA ($\pm 10\%$)	Nominal operating power, mW	Max. allowable voltage, V DC
DE□-1.5V	1.5	1.05	0.15	11.3	132.7	200	1.95
DE□-3V	3	2.1	0.3	45	66.6	200	3.9
DE□-4.5V	4.5	3.15	0.45	101	44.5	200	5.85
DE□-5V	5	3.5	0.5	125	40	200	6.5
DE□-6V	6	4.2	0.6	180	33.3	200	7.8
DE□-9V	9	6.3	0.9	405	22.2	200	11.7
DE□-12V	12	8.4	1.2	720	16.6	200	15.6
DE□-24V	24	16.8	2.4	2,880	8.3	200	31.2
DE□-48V	48	33.6	4.8	11,520	4.2	200	62.4

• 1 coil latching type

1 Form A

Part No.	Nominal voltage, V DC	Set voltage, V DC (max.) (initial)	Reset voltage, V DC (min.) (initial)	Coil resistance, Ω ($\pm 10\%$)	Nominal operating current, mA ($\pm 10\%$)	Nominal operating power, mW	Max. allowable voltage, V DC
DE□-L-1.5V	1.5	1.05	1.05	22.5	66.6	100	1.95
DE□-L-3V	3	2.1	2.1	90	33.3	100	3.9
DE□-L-4.5V	4.5	3.15	3.15	202	22.3	100	5.85
DE□-L-5V	5	3.5	3.5	250	20	100	6.5
DE□-L-6V	6	4.2	4.2	360	16.7	100	7.8
DE□-L-9V	9	6.3	6.3	812	11.1	100	11.7
DE□-L-12V	12	8.4	8.4	1,440	8.3	100	15.6
DE□-L-24V	24	16.8	16.8	5,760	4.2	100	31.2

• 2 coil latching type

1 Form A

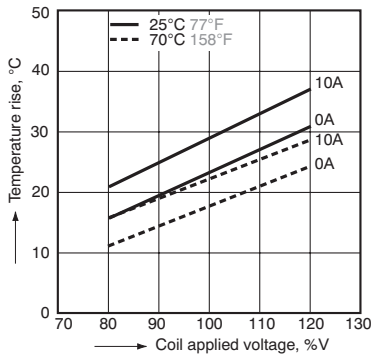
Part No.	Nominal voltage, V DC	Set voltage, V DC (max.) (initial)	Reset voltage, V DC (min.) (initial)	Coil resistance, Ω ($\pm 10\%$)		Nominal operating current, mA ($\pm 10\%$)		Nominal operating power, mW		Max. allowable voltage, V DC
				Set coil	Reset coil	Set coil	Reset coil	Set coil	Reset coil	
DE□-L2-1.5V	1.5	1.05	1.05	11.3	11.3	66.6	66.6	200	200	1.95
DE□-L2-3V	3	2.1	2.1	45	45	66.6	66.6	200	200	3.9
DE□-L2-4.5V	4.5	3.15	3.15	101	101	44.5	44.5	200	200	5.85
DE□-L2-5V	5	3.5	3.5	125	125	40	40	200	200	6.5
DE□-L2-6V	6	4.2	4.2	180	180	33.3	33.3	200	200	7.8
DE□-L2-9V	9	6.3	6.3	405	405	22.2	22.2	200	200	11.7
DE□-L2-12V	12	8.4	8.4	720	720	16.6	16.6	200	200	15.6
DE□-L2-24V	24	16.8	16.8	2,880	2,880	8.3	8.3	200	200	31.2

Note: Insert contact arrangement, e.g. 1a, 1a1b, 2a, in □ for contact form required.

DE (ADE)

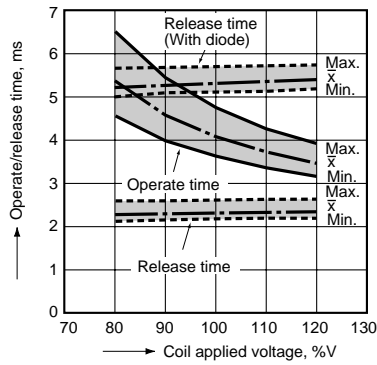
4-1. Operate/release time (1 Form A)

Tested sample: DE1a-5V
Quantity: n=5



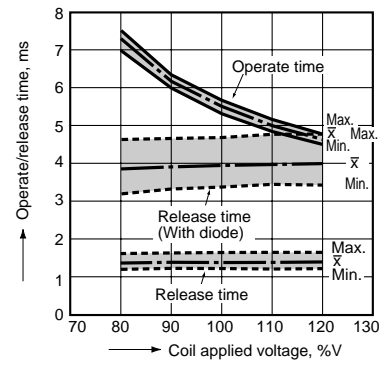
4-2. Operate/release time (1 Form A 1 Form B)

Tested sample: DE1a1b-5V, Quantity: n=5



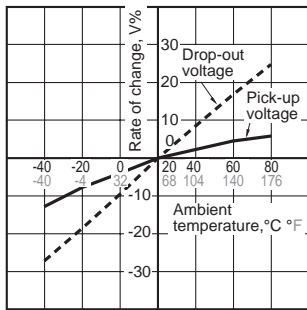
4-3. Operate/release time (2 Form A)

Tested sample: DE2a-5V, Quantity: n=5



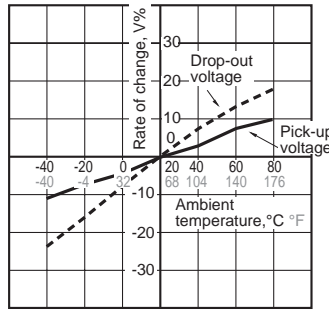
5-1. Ambient temperature characteristics (1 Form A)

Tested sample: DE1a-5V, Ambient temperature: -40°C to 80°C -40°F to 176°F, Quantity: n=6



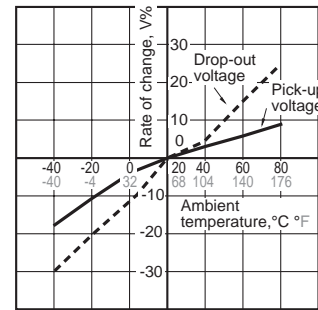
5-2. Ambient temperature characteristics (1 Form A 1 Form B)

Tested sample: DE1a1b-5V, Ambient temperature: -40°C to 80°C -40°F to 176°F, Quantity: n=6

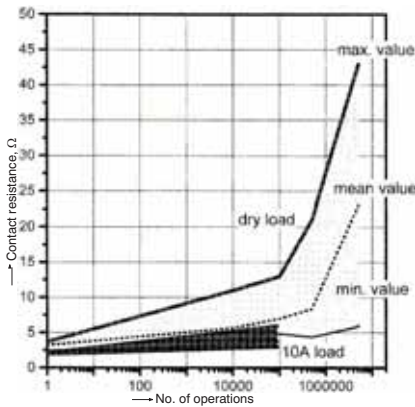


5-3. Ambient temperature characteristics (2 Form A)

Tested sample: DE2a-5V, Ambient temperature: -40°C to 80°C -40°F to 176°F, Quantity: n=6



6. Change of contact resistance



For Cautions for Use, see [Relay Technical Information](#).