

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

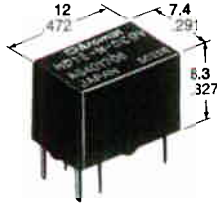
1. The datasheets and other product information on the site are all from network reference or other public materials, and the copyright belongs to the original author and original published source. If readers and copyright owners have any objections, please contact us and we will deal with it in a timely 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" .

NAIS

ULTRA-MINIATURE SINGLE POLE RELAY

HD-RELAYS

3



mm inch

UL File No.: E57521

CSA File No.: LR26550

- Ideal for portable devices! Only 1.7 g.
- Dimensions:
8.3 mm height × 12 mm length × 7.4 mm width
.327 inch height × .472 inch length × .291 inch width
- High sensitivity: 280 mW nominal operating power
- Gold-clad bifurcated contact for high reliability
- Sealed construction

SPECIFICATIONS

Contact			
Arrangement	1 Form C		
Initial contact resistance, max. (By voltage drop 6 V DC 1 A)	100 mΩ		
Contact material	Gold-clad silver		
Rating (resistive)	Max. switching power	30 W, 50 VA	
	Max. switching voltage	60 V DC, 125 V AC	
	Max. switching current	1 A DC, AC	
	Max. carrying current	2 A DC, AC	
UL/CSA rating	1 A 30 V DC		
Expected life (min. operations)	Mechanical (at 180 cpm)	5×10 ⁶	
	Electrical (at 20 cpm)	1 A 30 V DC	10 ⁵
		0.5 A 100 V AC	10 ⁵
Coil (at 25°C 77°F)			
Minimum operating power	179 to 192 mW		
Nominal operating power	280 to 330 mW		

Characteristics (at 25°C 77°F, 50% Relative humidity)

Max. operating speed	20 cpm (at nominal voltage)	
Initial insulation resistance* ¹	Min. 100 MΩ at 500 V DC	
Initial break-down voltage* ²	Between open contacts	500 Vrms
	Between contact and coil	500 Vrms
Operate time (without diode)* ³ (at nominal voltage)	Max. 10 ms (Approx. 3 ms)	
Release time (without diode)* ³ (at nominal voltage)	Max. 5 ms (Approx. 3 ms)	
Temperature rise (at nominal voltage)	Max. 50°C with nominal coil voltage and at maximum switching current	
Shock resistance	Functional* ⁴	Min. 98 m/s ² {10 G}
	Destructive* ⁵	Min. 980 m/s ² {100 G}
Vibration resistance	Functional* ⁶	58.8 m/s ² {6 G}, 10 to 55 Hz at double amplitude of 1 mm
	Destructive	117.6 m/s ² {12 G}, 10 to 55 Hz at double amplitude of 2 mm
Conditions for operation, transport and storage* ⁷ (Not freezing and condensing at low temperature)	Ambient temp.	-25°C to +60°C -13°F to +140°F
	Humidity	5 to 85% R.H.
Unit weight	1.7 g .06 oz	

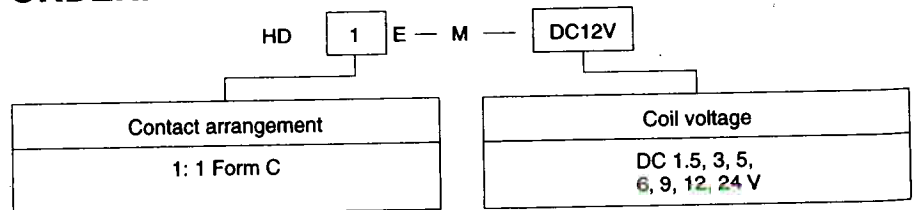
Remarks

- *¹ Measurement at same location as "Initial breakdown voltage" section
- *² Detection current: 10mA
- *³ Excluding contact bounce time
- *⁴ Half-wave pulse of sine wave: 11ms; detection time: 10μs
- *⁵ Half-wave pulse of sine wave: 6ms
- *⁶ Detection time: 10μs
- *⁷ Refer to 5. Conditions for operation, transport and storage mentioned in AMBIENT ENVIRONMENT (Page 45)

TYPICAL APPLICATION

1. Low voltage signal change-over in portable VCR, camera, audio, and other small household devices.
2. Use in lap top computers and other small computer and peripheral devices (printers, plotters, etc.).

ORDERING INFORMATION



Note: Standard packing; Carton: 100 pcs. Case: 500 pcs.

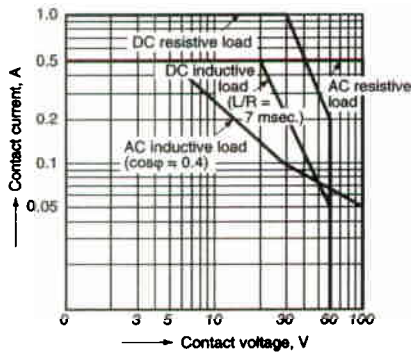
TYPES AND COIL DATA (at 20°C 68°F)

Part No.	Nominal voltage V DC	Pick-up voltage, VDC (max.)	Drop-out voltage, V DC (min.)	Coil resistance Ω ($\pm 10\%$)	Nominal operating current, mA	Nominal operating power, mW	Max. allowable voltage, V DC (at 60°C 140°C)
HD1E-M-DC1.5V	1.5	1.2	0.15	8	187.5	280	1.65
HD1E-M-DC3V	3	2.4	0.3	32	93.7	280	3.3
HD1E-M-DC5V	5	4.0	0.5	89	56.1	280	5.5
HD1E-M-DC6V	6	4.8	0.6	128	46.8	280	6.6
HD1E-M-DC9V	9	7.2	0.9	270	33.3	280	9.9
HD1E-M-DC12V	12	9.6	1.2	515	23.5	280	13.2
HD1E-M-DC24V	24	19.2	2.4	2,060	11.6	280	26.4

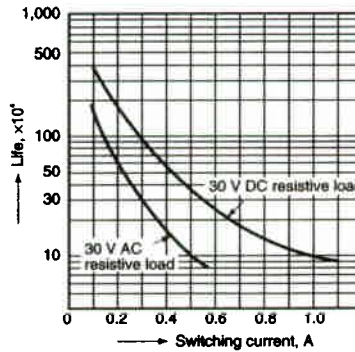
3

REFERENCE DATA

1. Maximum switching power

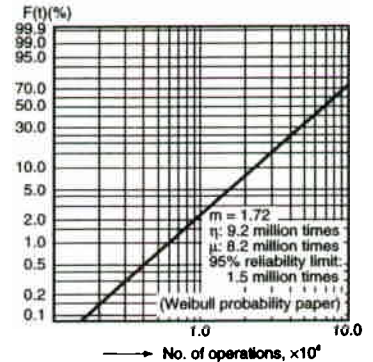


2. Life curve

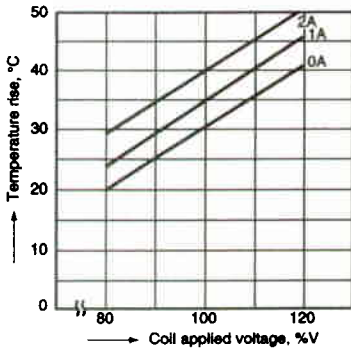


3. Contact reliability test

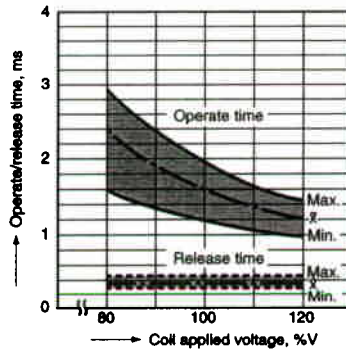
Condition: 1 V, 1 mA, 1 kHz AC
 Detection level (5 Ω)
 Sample: HD1E-M-9VDC, 10 pcs.



4. Coil temperature rise

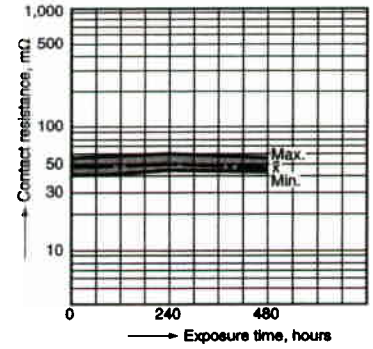


5. Operate/release time

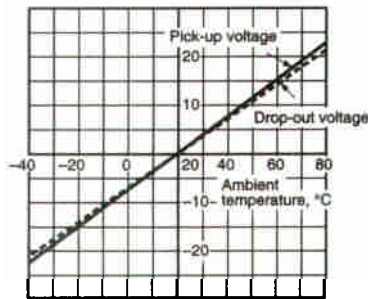


6. H₂S gas test

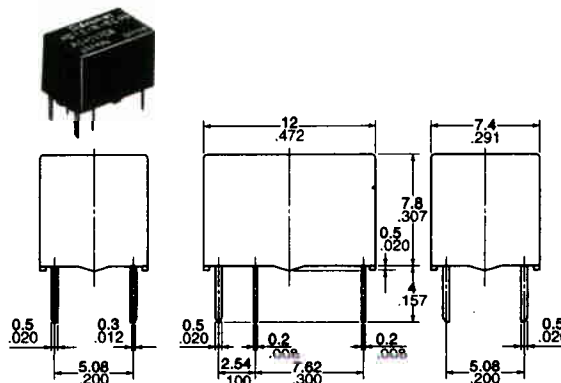
Gas density: 2 to 5 ppm
 Ambient temperature 35 to 37°C 95 to 99°F
 Humidity: 35 to 85% RH



7. Ambient temperature characteristics

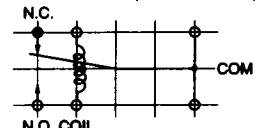


DIMENSIONS

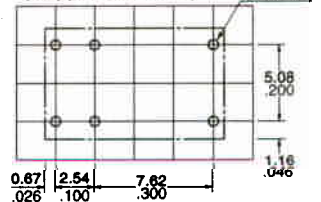


mm inch

Schematic (Bottom view)



PC board pattern (Copper-side view)



General tolerance: $\pm 0.3 \pm 0.12$

Tolerance: $\pm 0.1 \pm 0.04$

For Cautions for Use, see Relay Technical Information (Page 32 to 60).