高登继电器
GOLDEN RELAYS

Http:// www.gd-r.com

产品规格确认书

Specification for approval

文件编号 File No.：GAN202401011

产品名称 Product Name: 继 电 器 RELAY

产品型号 Product model： GAN-1A-24N

发布日期 Date： 2024 年 01 月 11 日

联系人 Contact:

版 本 Version： V1.0

更改单号 Number of Modification:

高登审批签字 Signature by golden			顾客签字或盖章 Stamp or signature by customer
批准 Approved	审核 Check	拟制 Make	负责人 by:
研发部 2024. 01. 11 黄运守	研发部 2024. 01. 11 张鹏林	研发部 2024. 01. 11 周南	日期 date:

变更版记录 Revisions

顾客 Customer		产品型号 Part No. GAN-1A-24N		
变更版 Version No.	变更日期 Change Date	变更内容 Description	原因 Reason	负责人 By

产品规格确认书 Relay Specification for approval

➢ TYPE: GAN SERIES

型号 Type	触点形式 Contact form	外形尺寸 Outline	绝缘系统 Electrical Insulation	触点材料 Contact Material	产品单重 Weight
GAN-1A-24N	1A	29 × 12.5 × 25.5 mm	Class/	AgSnO2	About 17g

➢ 安全标准 Safety Standard

Certified	UL/CUL	CQC	TUV
File No.	E321783	CQC09002030316	R 50160373

上述认证号代表该产品取得相关认证，但具体认证内容请以我公司提交的证书为准。
The authentication number represents the product to obtain the relevant certification, but the specific certification to certificate our company, please submit prevail.

➢ 线圈额定参数 Coil Rating

at 23℃

额定电压 Nominal Voltage Vd.c.	动作电压 Pick-up Voltage Vd.c.	释放电压 Drop-out Voltage Vd.c.	允许最大线圈电压 Max. Allowable Voltage Vd.c.	线圈电阻 Coil Resistance Ω	线圈功耗 Coil Power W
24	≤16.8	≥3.6	40.8	1087×(1±10%)	About 0.53

➢ 触点参数 Contact Specification

触点额定负载（阻性） Contact Rating (Cosφ=1)	最大切换电流 Max. Contact Current	最大切换电压 Max. Contact Voltage	最小适用负载 Min. Applicable Load
16A 250VAC	16A	277VAC	6VDC 1A

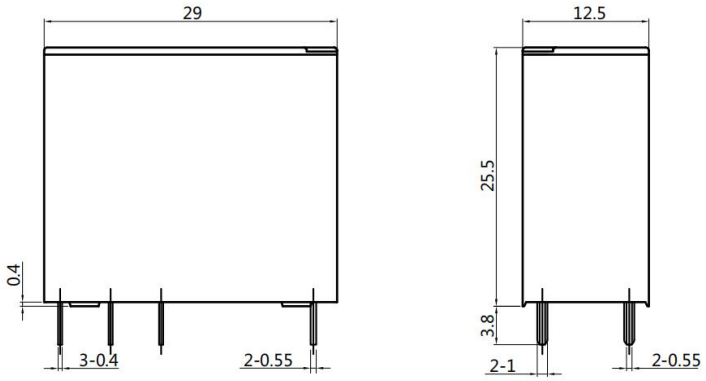
➢ 性能 Performance

接触电阻 Contact resistance	≤100 mΩ（6VDC 1A）
动作时间 Operate time	15 ms Max.
释放时间 Release time	5 ms Max.
绝缘电阻 Insulation resistance	1000 MΩ Min.(DC 500V)
工作温度 ambient temperature	-40～85 ℃
工作湿度 Operating humidity	5~85%RH
储藏温度 Storage temperature	-40～85 ℃
储藏湿度 Storage humidity	5~85%RH
介质耐压 Dielectric strength (1)	触点触点间 Between open contact :AC 1000 V, 50/60Hz 1min.
	触点线圈间 Between contact & coil: AC 5000 V, 50/60Hz 1min.
振动 Vibration resistance	1).抗误动作能力 动作/释放状态下，继电器在三个轴向耐受频率 10～55Hz，双振幅 1.5mm 5 分钟,触点误动作不超过 1 毫秒。 1). Capability to function during vibration. No opening or closing of any closed or opened contact circuit respectively exceed 1ms when the relay is subjected to vibration of 10～55Hz，1.5 mm dual amplitude in each of three mutually perpendicular axes for 5 minutes respectively. while it is in operate condition and in release condition. 2).振动耐久能力 继电器在三个轴向双振幅 1.5mm 及频率 10~55Hz 的振动各 2 小时，产品构造和性能无异常发生。 2). Capability to function after vibration. No trouble on structure and characteristics after the relay is subjected to vibration of 10~55 Hz and 1.5 mm dual amplitude in each of three mutually perpendicular axes for 2 hours respectively.
冲击 Shock resistance	1).抗误动作能力 动作/释放状态下，继电器在三轴六方向耐受加速度 100 m/s^2 及作用时间 11 毫秒的冲击各 3 次，触点误动作不超过 1 毫秒。 1). Capability to function during shock No opening or closing of any closed or opened contact circuit respectively exceed 1ms when the relay is subjected to shock of 100 m/s^2 for 11ms in both directions of each of three mutually perpendicular axes for 3 times respectively, while it is in operate condition and in release condition

	2)振动耐久能力 继电器在三个轴向耐受加速度 1000 m/s^2 及作用时间 6 毫秒的冲击各 3 次，产品构造和性能无异常发生。 2). Capability to function during shock No construction trouble when shocks is from 3 directions 3 times (at peak acceleration 1000 m/s^2 Duration 6ms)	
引出端 terminal	PCB 式引出端 PCB type terminal	
端子强度 Terminal robustness	继电器引出端承受 5 牛顿的轴向压入、拔出力，延时 10 秒，构造和性能无异常。 No trouble on structure and characteristics after endure axial pushing/pulling force of 5 N for 10 seconds.	
耐低温 Cold resistance	-40℃中放置 240 小时并在标准大气条件中恢复 2 小时后继电器构造和特性无异常。 No trouble on structure and characteristics after placed at -40℃ for 240 hours and 2 hours recovery in standard atmospheric conditions.	
耐高温 Thermal resistance	85℃中放置 24 小时并在标准大气条件中恢复 2 小时后继电器构造和特性无异常。 No trouble on structure and characteristics after placed at 85℃ for 24 hours and 2 hours recovery in standard atmospheric conditions.	
耐湿度 Humidity resistance	40℃及 95%相对湿度中放置 24 小时并在标准大气条件中恢复 2 小时后继电器构造和特性无异常。 No trouble on structure and characteristics after placed at 40℃&95%RH for 24 hours and 2 hours recovery in standard atmospheric conditions.	
耐冷热冲击 Thermal shock resistance	-40℃和 85℃中各放置 0.5 小时为一个温度周期，循环 10 次，在标准大气条件中恢复 2 小时后继电器构造和特性无异常。 No trouble on structure and characteristics after endure 10 cycles of cyclic temperature and 2 hours recovery in standard atmospheric conditions, which the temperature cycle consists of -40℃ for 0.5 hour and 85℃ for 0.5 hour.	
寿命 Life cycles	机械寿命 Mechanical	10,000,000 operations (frequency 18,000 operations/h)
	电气寿命 Electrical	100,000 operations (frequency 360 operations/h 1S ON:9S OFF)
温升 Temperature Rise	线圈 (Coil)	阻性法，线圈加额定电压触点电流：0.1A 温度≤△70℃。 △70℃ Max.by resistance method at Contact:0.1A, Coil：rated voltage
	端子(Terminal)	测温法，线圈加额定电压触点电流：16A 温度≤△70℃。 △70℃ Max .by temperature measuring method at Contact:16A,Coil：rated voltage
焊接性能 Soldering Ability	焊接温度 Soldering temperature	(260±3)℃
	焊接温度 Soldering time	(3±0.5)s

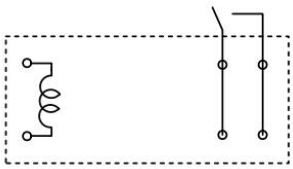
➢ 产品结构 Configuration

外形图 OUTLINE DIMENSIONS

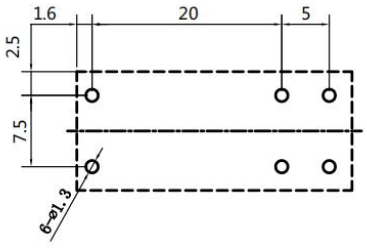


产品外形尺寸未注尺寸公差 Outline dimensions hadn't specified tolerance	
外形尺寸 Outline Dimensions	公差 Tolerance
≤1	±0.2
> 1 ~ 5	±0.3
> 5	±0.4

接线图（底视图）WIRING DIAGRAM(Bottom View)



安装孔位图（底视图） Terminal (Bottom View)



TOLERANCE: ±0.1

➢ 订货标记 Ordering Information

GAN 命名规则

GAN | -2 | A | -12 | D | H | G1 | C | F | XXX

- XXX：特殊说明:无--标准型,字母或数字--特殊说明
- F：绝缘等级：无--Class B；F--Class F
- C：密封方式：无--塑封防尘型；C--全密封型；S--防水型
- G1：触点间隙：无--标准型(For N)；G1--Gap≥1.5mm(For L)；G2--Gap≥2.0mm(For D)
- H：触点负载：无--标准负载（1P:16A；2P:8A/10A）；H--高负载（1P:20A/25A;2P:12A）；M--高负载（1P:32A;2P:16A）
- D：线圈额定功率：N--0.53W；L--0.8W；D--1.4W
- -12：线圈额定电压（VDC）：3，5，6，9，12，18，24，48，60，110
- A：接触形式：A--常开型；B--常闭型；C--转换型
- -2：触点组数：2--2组触点　1--1组触点
- GAN：型号：GAN

➢ Marking and Packing

		Eng. Change	
标识 Logo	GOLDEN C2201-14A1 CQC 16A 277VAC 24VDC GAN-1A-24N	Initial Issued	2023-7-8
NOTE: Marking "C2102-AA1" isthe production date and batch number; The meaning of the marking according to below: 批号.注释：C 18 07 - A A 1 班别标识：1或2, 1:白班，2:夜班 线别标识：A~Z大写英文字母，A:1线，B:2线，W:外购品 周别：A:第一周，B:第二周，C:第三周，D:第四周 月份标识：01~12分别代表生产产品时所处的月份 年份标识：2018年用18标识，2019年用19标识 C：Made in China May have no the marking if customer have no demand;		Add the batch number according the demand of customer.	
		装箱数量 Packing 500 PCS/Box	

➢ 其他 Others

1.规格书内的各项性能参数是基于标准测试条件下测得的初始值

All the performance data listed in the datasets are the initial values tested under standard testing condition.

2.非塑封继电器需要防止助焊剂或污染物进入继电器

Unsealed relays should be hand soldered to avoid flux contamination of the relay.

3.避免在强磁场条件下使用继电器，外界强磁场会造成继电器动作和释放等参数发生变化。

To avoid using relays under strong magnetic field because it will change the parameters of relay such as pull-in and drop-out voltage.

4.为了保持继电器的性能，请注意不要使继电器掉落或受到强冲击。掉落后的继电器建议不再使用。

To maintain the performances of relays, please do not make the relay drop or be shocked strongly. Suggest that the relays dropped not be used.

5.环保产品(符合 RoHS 2.0)

Environmental product (compliance with RoHS 2.0)