

GSR
MINI POWER MAGNETIC RELAY

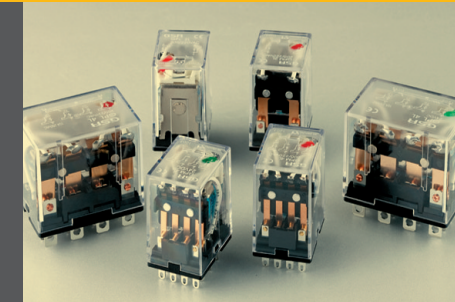


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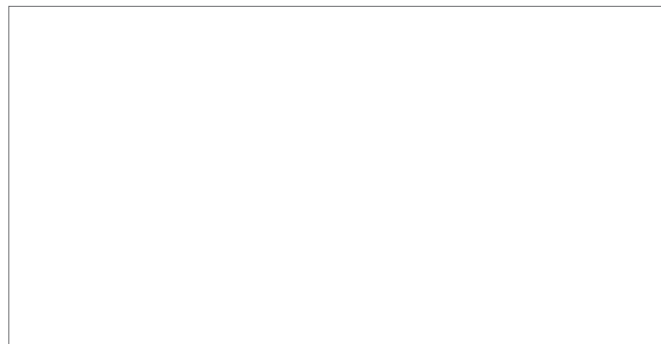
Gold Star Protech

<http://www.gs-relay.co.kr>



GPM Series
GPL Series

대/리/점



<http://www.gs-relay.co.kr>

고객문의_080-937-3333

※주의사항 : 본 카다록은 제품 성능을 위하여 예고없이 변경될 수 있습니다.



Gold Star Protech

<http://www.gs-relay.co.kr>

FEATURES

- Wide-ranging Applications From Power To Sequency Controls
- Designed small, 2- and 3-pole types break 5A loads and 4-pole type, 3A.
- High reliability and long life
- Ultra high sensitivity with quick response
- High vibration / shock resistance



AVAILABLE TYPES

Mounting Style	Terminal	Contact from	Type	Standard	Operation indicator selfcontained	Test selfcontained	Diode Contained	LED & Diode Contained
Standard bracker mounting	plug-in & Solder		DPDT	GPM2	GPM2 L	-	GPM2 D	GPM2 A
			4PDT	GPM4	GPM4 L	-	GPM4 D	GPM4 A
	P.C.B		DPDT	GPM2 P	GPM2 LP	-	GPM2 DP	GPM2 AP
			4PDT	GPM4 P	GPM4 LP	-	GPM4 DP	GPM4 AP

NOMENCLATURE BREAKDOWN

GSR	GPM A	<p>B C</p> <p>A : Contact configuration 2 : DPDT 4 : 4PDT</p> <p>B : Type Blank : Standard L : Operation indicator self-contained D : Diode-contained A : LED & Diode-contained</p> <p>C : Terminal Blank : Plug-in & solder P : P.C.B</p>
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SPECIFICATIONS

● COIL RATINGS

Rated Voltage (V)	Rated current (mA)		Coil resistance (Ω)	Coil inductance (ref. value) (H)		Must operate voltage % of rated voltage	Must dropout voltage	Maximum voltage	Power consumption (VA, W)
	50Hz	60Hz		Armature OFF	Armature ON				
AC	6	214.1	183	12.2	0.04	0.08	80 max.	30 min.	Approx. 1.2
	12	106.5	91	46	0.17	0.33			
	24	53.8	46	180	0.69	1.30			
	50	25.7	22	788	3.22	5.66			
	100/110	11.9/12.9	10/11	3,750	14.54	24.6			
DC	6	150	40	0.17	0.33	10 min.	110	Approx. 0.9	
	12	75	160	0.73	1.37				
	24	36.9	650	3.20	5.72				
	48	18.5	2,600	10.60	21.00				
	100	9.1	11,000	45.60	86.20				

Note : The rated current, coil resistance and inductance are measured at a coil temperature of 20° C with tolerances of +15%, -20% for AC rated current and ± 15% for DC rated current, and ± 15% for rated coil resistance.

● CONTACT RATINGS

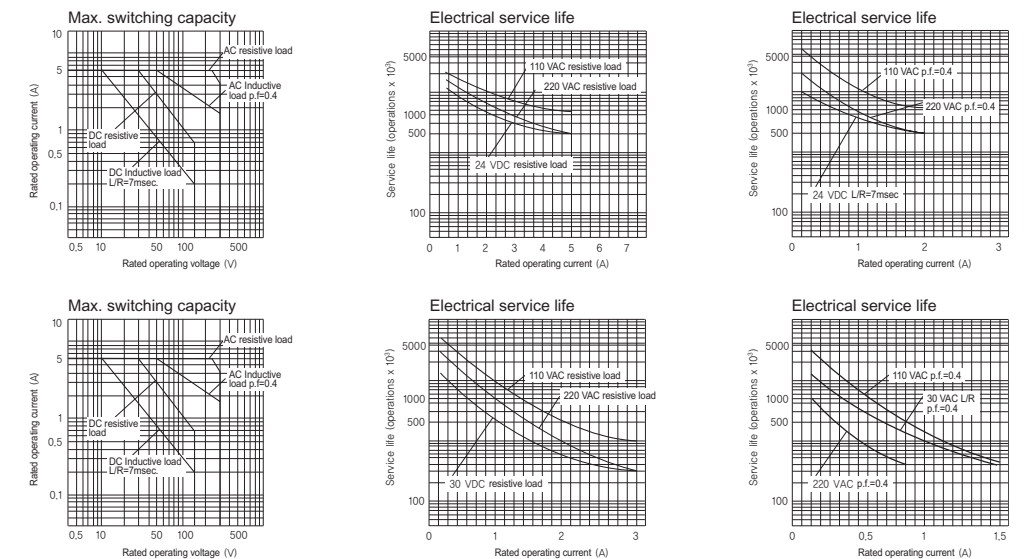
Type	DPDT		unsealed 4PDT	
	Resistive load (p.f.=1)	Inductive load (p.f.=0.4, τ=7msec)	Resistive load (p.f.=1)	Inductive load (p.f.=0.4, τ=7msec)
Rated load	220 VAC 5A 24 VDC 5A	220 VAC 2A 24 VDC 2A	220 VAC 3A 24 VDC 3A	220 VAC 0.8A 24 VDC 1.5A
Carry current	5A		3A	
Max. operating voltage	250 VAC : 125 VDC			
Max. operating current	5A		3A	
Max. switching capacity	110VA 120W	440VA 48W	660VA 72W	176VA 36W
minimum permissible load (ref.value)	5 VDC 1mA		1 VDC 1mA	

● CHARACTERISTICS

Contact resistance	50mΩ max.
Operate time	20m sec max.
Release time	20m sec max.
Operating frequency	Mechanically : 18,000 operations / hour Under rated load : 1,800 operations / hour
Insulation resistance	100mΩ min. (at 500 VDC)
Dielectric strength	2,000 VAC. 50 / 60Hz for 1 minute (1,000 VAC, 50 / 60Hz / for 1 minute between non-continuous contacts)
Vibration	Mechanically durability : 10 to 55Hz ; 1.0mm double amplitude Malfunction durability : 10 to 55Hz ; 1.0mm double amplitude
Shock	Mechanically durability : 1,000m/sec ² (approx. 100G s) Malfunction durability : 200m/sec ² (approx. 20G s)
Ambient temperature	Operating : -25 to +60° C
Humidity	45 to 85% RH
Service life	Mechanically : AC : 50,000,000 operation min. (at operating frequency of 18,000 operations / hour) DC : 100,000,000 operation min. (at operating frequency of 18,000 operations / hour) Electrically : See CHARACTERISTIC DATA
Weight	Approx. 35gf

Note : The data shown above are of initial value.

● CHARACTERISTIC DATA



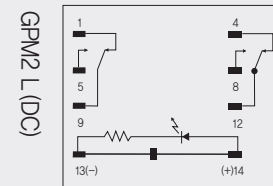
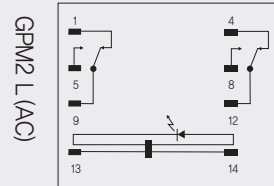
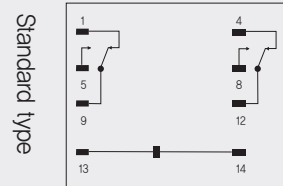
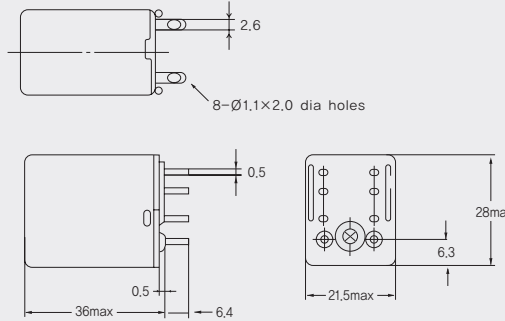
Self-coil load service life (Unit : mA)

Rated voltage	No. of load relays				
	1	2	3	5	10
110 VAC	12	24	36	60	120
24 VDC	36.9	73.8	110.7	184.5	369.0

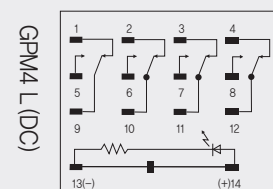
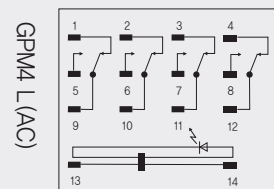
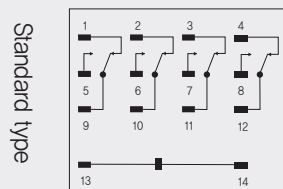
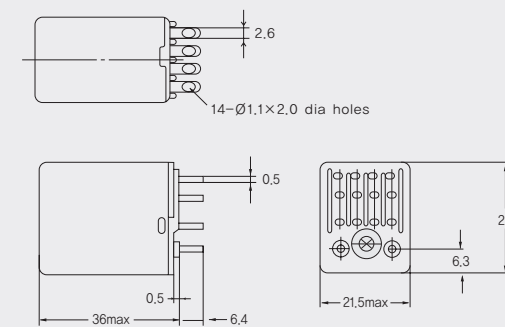


● DIMENSIONS

● GPM2



● GPM4



FEATURES

- Small, General-purpose 10A Relay For Various Applications
- High shock and vibration resistance (20G s and 0 to 6g)
- High contact deposition resistance with silver cadmium (Ag-CdO) contacts
- Arc barrier equipped for interpole arcing prevention
- High dielectric strength (2,000 VAC) with armature insulation base and terminal base made of diallyphtalate resin



NOMENCLATURE BREAKDOWN

GSR	GPL A	B C
	A : Contact configuration 2 : DPDT 4 : 4PDT	B : Type Blank : Standard L : Operation indicator self-contained D : Diode-contained A : LED & Diode-contained C : Terminal Blank : Plug-in & solder P : P.C.B

AVAILABLE TYPES

Mounting Style	Terminal	Contact from	Type	
			Standard	Operation indicator self-contained
Standard bracket mounting	Solder & plug-in	DPDT	GPL2	GPL2 L
		4PDT	GPL4	GPL4 L
	P.C.B	DPDT	GPL2 P	-
		4PDT	GPL4 P	-

SPECIFICATIONS

● COIL RATINGS

Rated Voltage (V)	Rated current (mA)				Coil resistance (Ω)		Coil inductance (ref.value) (H)				Must operate voltage	Must dropout voltage	Maximum voltage	Power consumption (VA,W)		
	DPDT		4PDT		DPDT	4PDT	Armature OFF	Armature ON	Armature OFF	Armature ON				% of rated voltage	DPDT	4PDT
	50Hz	60Hz	50Hz	60Hz												
AC	6	214.1	183	386	330	12.2	5	0.04	0.08	0.02	0.04	80 max.	30 min.	110	Approx. 1.2	Approx. 1.95
	12	106.5	91	199	170	46	20	0.17	0.33	0.10	0.17					
	24	53.8	46	93.6	80	180	78	0.69	1.30	0.38	0.67					
	50	25.7	22	46.8	40	788	350	3.22	5.66	174	288					
	100/110	11.7/12.9	10/11	22.5/25.5	19/21.8	3,750	1,800	14.54	24.6	10.5	15.1					
	110/120	9.9/10.8	8.4/9.2	-	-	4,430	-	19.2	32.1	-	-					
DC	200/220	6.2/6.8	5.3/5.8	11.5/13.1	9.8/11.2	12,950	6,700	54.75	94.07	33.1	61.4	10 min.	Approx. 0.9	Approx. 1.5		
	220/240	4.8/5.3	4.2/4.6	-	-	18,790	-	83.50	136.4	-	-					
	6	150	240	40	25	0.16	0.33	0.09	0.21							
	12	75	120	160	100	0.73	1.37	0.39	0.84							
	24	36.9	69	650	350	3.20	5.72	1.41	2.91							
48	18.5	30	2,600	1,600	10.6	21.0	6.39	13.6								
100	9.1	15	11,000	6,900	45.6	86.2	32	63.7								

Note : The rated current, coil resistance and inductance are measured at coil temperature of 20° C with tolerances of +15%, -20% for AC rated current and ±15% for DC rated current, and ±15% for rated coil resistance.

● CHARACTERISTICS

Contact resistance	50mΩ max.
Operate time	20msec. max.
Release time	20msec. max.
Operating frequency	Mechanically : 18,000 operations / hour Under rated load : 1,800 operations / hour
Insulation resistance	100mΩ min. (at 500 VDC)
Dielectric strength	2,000 VAC, 50 / 60Hz for 1 minute (1,000 VAC, 50 / 60Hz / for 1 minute between non-continuous contacts)
Vibration	Mechanical durability : 10 to 55Hz ; 1.0mm double amplitude Malfunction durability : 10 to 55Hz ; 1.0mm double amplitude
Shock	Mechanical durability : 1,000m / sec ² (Approx. 100G s) Malfunction durability : 200m / sec ² (Approx. 20G s)
Ambient temperature	Operating : -25 to 40°C
Humidity	45 to 85% RH
Service life	Mechanically : AC : 50,000,000 operations min. (at operating frequency of 18,000 operations / hour) DC : 100,000,000 operations min. (at operating frequency of 18,000 operations / hour) Electrically : See CHARACTERISTIC DATA
Weight	DPDT : Approx. 40gf / 4PDT : Approx. 70gf

Note : The data shown above are of initial value.

● CONTACT RATINGS

Type	DPDT, 4PDT	
	Resistive load (p.f.=1)	Inductive load (p.f=0.4, L/R=7msec)
Rated load	110 VAC 10A 24 VDC 10A	110 VAC 7.5A 24 VDC 5A
Carry current	10A	
Max. operating voltage	250 VAC 125 VDC	
Max. operating current	10A	
Max. switching capacity	1,100VA 240W	830VA 120W
minimum permissible load (ref. value)	5 VDC 1mA	

● CHARACTERISTIC DATA

Max. switching capacity

Electrical service life

Max. switching capacity

Electrical service life

● DIMENSIONS

