OMRON

Offering the global standard in safety. Meeting our customers' every need with numerous variations.

Electrical Mechanical Relay



Signal Relay



Power Relay





PCB Relay Types

We largely divide relays based on the maximum switching current value.

Signal Relay

Relays with less than 2 A maximum switching current value

Power Relay

Relays larger than 2 A maximum switching current value

Type Selection List (Best Selection)

Signal Relay

	Item	G5V-1	G5V-2	G6E	G6A	G6S	G6J-Y	G6K	G6K-RF
Contact form	1c	0		0					
Contact form	2c		0		0	0	0	0	0
Switching	1 A	0					0	0	0
current	2 A		0		0	0			
(Max value)	3 A			0					
Latching	1-coil latching relay			0	0	0	0	0	0
function	2-coil latching relay			0	0	0			
Enclosure	Sealed	0	0	0	0	0	0	0	0
rating	Flux protection								
Terminal	PCB terminal	Ó	Ó	Ó	Ó	Ó	Ó	Ó	Ó
rating	Surface-mounting Terminals					0	0	0	0

Power Relay

	Item	G6DN	G5NB(-EL)	G5Q(-EL/- EL2/-EL3)	G6D	G6B	G6RN	G6RL	G5LE	G5CA
	1a	0	0	0	0	0	0	0	0	0
	1c			0			0	0	0	
Contact form	1a1b					0				
	2a					0				
	2b					0				
	3 A		0							
	5 A	0			0	0				
Switching	7 A		0							
current (Max value)	8 A					0	0	0		
	10 A			0				0	0	0
	15 A									0
Latching	1-coil latching relay					0				
function	2-coil latching relay					0				
Enclosure	Sealed	0	0	0	0	0	0	0	0	0
rating	Flux protection		0	0		0		0	0	0
Terminal	PCB terminal	0	0	0	0	0	0	0	0	0
rating	Tab terminal									0

	Item	G6C	G4W	G4A	G2RL	G5RL	G5RL -U/-K	G2RG	G2R	G7L	G7L (-PV/-X)
	1a	0	0	0	0	0	0		0	0	
	1c				0	0	0		0		
Contact form	1a1b	0									
	2a		0		0			0	0	0	0
	2c				0				0		
	4 A								0		
	5 A				0	○ (N.C.)	(N.C.)		0		
	8 A	0						0	0		
	10 A	0	0		0				0		
Switching current	12 A					○ (N.O.)					
(Max value)	15 A		0								
(IVIAX VAIAC)	16 A				0	○ (N.O.)	(N.O.)		0		
	20 A			0						0	
	25 A									0	
	30 A									0	0
Latching	1-coil latching relay	0					0				
function	2-coil latching relay	0					0		0		
E	Sealed	0			0			0	0		
Enclosure rating	Flux protection	0		0	0	0	0		0		0
raung	Enclosed		0							0	0
Terminal	PCB terminal	0	0	0	0	0	0	0	0	0	0
rating	Tab terminal			0					0	0	
raung	Screw terminal									0	

Introduction of Main Types

Signal Relay

Model	G6S	G6J-Y	G6K	G6K(U)-2F(P)-RF(-S,-T)
Features	Small general purpose relay High dielectric strength, high current	Ultra-small slim relay High density application possible	Ultra-small low profile relay Low power consumption	1 GHz/3 GHz range Ultra-small high frequency relay
Shape				reec. Corece 1111
Contact form	2c	2c	2c	2c
Max. switching current	2 A	1 A	1 A	1 A
Coil power consumption	Approx. 140 to 200 mW	Approx. 140 to 230 mW	Approx. 100 mW	Approx. 100 mW
Dielectric strength (Between coil and contacts)	2,000 VAC (Impulse withstand voltage: 2.5 kV)	1,500 VAC (Impulse withstand voltage: 2.5 kV)	1,500 VAC (Impulse withstand voltage: 2.5 kV)	750 VAC

Power Relay

Model	G6DN	G5NB(-EL)	G5Q(-EL/-EL2/-EL3)	G2RL
Features	Small, slim power relay with 1-pole 5 A switching	Small general purpose relay with 1-pole switching at 7 A max	Small power relay with 1-pole 10 A switching	Low profile power relay with 1-pole 10 A/16 A throw/2-pole 5 A switching
Shape	Constant of Lawrence			
Contact form	1a	1a	1a, 1c	1a, 1c, 2a, 2c
Max. switching current	5 A	AC: 7 A, DC: 5 A (-EL) 3 A (standard type)	10 A	10 A/16 A (1a, 1c) 5 A (2a, 2c)
Coil power consumption			5 to 24 VDC: Approx. 400 mW 48 VDC: Approx. 430 mW	
Dielectric strength (Between coil and contacts)	3,000 VAC (Impulse withstand voltage: 6 kV)	4,000 VAC (Impulse withstand voltage: 10 kV)	4,000 VAC (Impulse withstand voltage: 8 kV)	5,000 VAC (Impulse withstand voltage: 10 kV)

Applicable socket list

Model	G6B			G6C		G6D	G7L
Contact form	1a		1a1b, 2a, 2b	1a, 1a1b		1a	1a, 2a
Applicable socket	P6B-04P	P6B-06P (2-coil latching relay)	P6B-26P	P6C-06P	P6C-08P (2-coil latching relay)	P6D-04P	P7LF-06
Shape							

Mo	del		G5V-1	G5V-2	G6A	G6E
1110					00/1	
Out	er shape	(may, yalua mm)	Name I			
Leng		(max. value mm) h (w) x Height (H)	12.5 x 7.5 x 10	20.5 x 10.1 x 11.5	20.2 x 10.1 x 8.4	16 x 10 x 8
Fea	tures		General purpose low-cost 1-pole signal relay	General purpose low-cost 2-pole signal relay	FCC-standard high-voltage type	Small, high sensitivity 1-pole signal relay
	Contact fo		10	2c	2c	1c
	Contact ty	/pe	Crossbar single 100.000 operations min.	Crossbar twin 100,000 operations min.	Crossbar twin 500,000 operations min.	Crossbar twin 100.000 operations min.
t	Rated	Resistive load	at 125 VAC, 0.5 A 100,000 operations min. at 24 VDC, 1 A	at 125 VAC, 0.5 A 100,000 operations min. at 30 VDC, 2 A (Standard type)	at 125 VAC, 0.5 A 500,000 operations min. at 30 VDC, 2 A	at 125 VAC, 0.4 A 500,000 operations min. at 30 VDC, 2 A
Contact	load	Inductive load COSø=0.4 L/R=7 ms	_	_	500,000 operations min. at 125 VAC, 0.3 A 500,000 operations min. at 30 VDC, 1 A	100,000 operations min. at 125 VAC, 0.2 A 500,000 operations min. at 30 VDC, 1 A
	Max. switcl	hing current (A)	1 A	2 A	2 A	3 A
	Failure rat P level (reference	. ,	5 VDC 1 mA	10 mVDC 10 μA	10 mVDC 10 μA	10 mVDC 10 μA
	Rated volt	/	3 to 24 VDC	3 to 48 VDC	3 to 48 VDC	5 to 48 VDC
	Rated pov consumpt		Approx. 150 mW	Standard type: Approx. 500 to 580 mW High sensitivity type: Approx. 150 to 300 mW	Standard type: Approx. 200 to 235 mW High sensitivity type: Approx. 150 mW	Approx. 200 to 400 mW
Me	chanical er	ndurance	5,000,000 operations min.	15,000,000 operations min.	100,000,000 operations min.	100,000,000 operations min.
	Between of contacts	coil and	1,000 VAC (Impulse withstand voltage 1.5 kV FCC part 68 standard)	1,000 VAC (Impulse withstand voltage 1.5 kV FCC part 68 standard)	1,000 VAC (Impulse withstand voltage 1.5 kV FCC part 68 standard)	1,500 VAC (Impulse withstand voltage 2.5 kV FCC part 68 standard)
stre	Between o different p	contacts of	_	1,000 VAC (Impulse withstand voltage: 1.5 kV)	1,000 VAC	—
ectri		contacts of	400 VAC	750 VAC (Impulse withstand voltage: 1.5 kV)	1,000 VAC	1,000 VAC (Impulse withstand voltage 1.5 kV FCC part 68 standard)
	Between s	set/reset coil	—	—	250 VAC	—
	bient oper perature	ating	-40°C to 70°C (Standard type) -40°C to 90°C (G5V-1-T90)	-25°C to 65°C (High sensitivity between -25 and 70°C)	-40°C to 70°C	-40°C to 70°C
suc	2-coil latc	hing relay	—	—	•	•
Functions	1-coil latc	hing relay	_	—	•	•
	Other		_	—		Ultrasonically cleanable
erating	Enclosed		_	_	_	_
<u>ő</u>	Flux prote Sealed	ction	•	•	•	•
a	PCB term	inal	•		•	
eru	Surface-rr Terminals	Ū.	_	_	_	—
	Tab termin			—	—	
<u> </u>	proved star		UL, CSA 25 pcs/tube	UL, CSA 25 pcs/tube	UL, C-UL 25 pcs/tube	UL, CSA 25 pcs/tube
Wei			Approx. 2 g	Approx. 5 g	Approx. 3.5 g	Approx. 2.7 g
	<u> </u>		G5V-1	G5V-2	G6A-274P	G6E-134P-US G6E-134PL-US
PCI	3 diagram	(Unit: mm)	2.54 6-01 hole 2.54 6-1 hole 2.54 (1.11) 60 0 (1.11) 2.54 (1.11) 2.54 (1.11) 2.54 (1.11) (1.12) (1.11) (1.12) (1.11) (1.11) (1.12) (1.11) (1.12) (1.11) (1.12) (1	2.54 (1.2) 7.62 (1.3) 7.62 (1.3) 7.62 (1.3)	2.54 2.54 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2.54 (1.19)
			(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)
			G5V-1	G5V-2	G6A-274P	G6E-134P-US G6E-134PL-US
inte	ninal array rnal conne gram	/ diagram/ action		Direction indicator 1 - 4 - 6 - 3 1 - 4 - 6 - 3 1 - 1 - 4 - 6 - 3 1 - 1 - 1 - 1 - 1 - 9		
			(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW) (Take note of coil polarity)	(BOTTOM VIEW) (Take note of coil polarity)

Model			G6J-Y			
Model		G6J-2P-Y	G6J-2FS-Y	G6J-2FL-Y		
		PCB terminal	Surface-mounting terminal (short)	Surface-mounting terminal (long)		
Outer shape		TTTTTT.				
Shape (max.						
Length (L) x Width (w) >	(Height (H)	10.9 x 6 x 9.3	10.9 x 6 x 10	10.9 x 6 x 10		
Features Contact form		Ultra-	small ultra-thin surface-mounting 2-pole signa 2c	I relay		
Contact type			Crossbar twin			
Res	sistive		100,000 operations min. at 125 VAC, 0.3 A			
Rated Ind	-	100,000 operations min. at 30 VDC, 1 A				
baol baol go CO	uctive d Sø=0.4 t=7 ms		_			
Max. switching			1 A			
Failure rate (m	A)					
P level (reference valu	e)		10 mVDC 10 μA			
Rated voltage			3 to 24 VDC			
Rated power consumption			Approx. 140 to 230 mW			
Mechanical endura	ance		50,000,000 operations min.			
			1,500 VAC			
Between coil a contacts Between conta	and a	(Imp (Imp)	oulse withstand voltage 2.5 kV Telcordia stand Ilse withstand voltage 1.5 kV FCC part 68 stan	ard) Idard)		
Between conta	acts of	(inpo	1,000 VAC			
different polari		(Impu	Ilse withstand voltage 1.5 kV FCC part 68 stan	idard)		
different polari Between conta the same polar		(Impu	750 VAC Ilse withstand voltage 1.5 kV FCC part 68 stan	idard)		
Between set/re		()				
Ambient operating	J		-40°C to 85°C			
temperature	rolav					
2-coil latching relay 1-coil latching relay			•			
2-coil latching 1-coil latching Other	reiay					
Enclosed Flux protection Sealed	1					
Sealed		•				
DOD I I I		•	-	_		
Surface-mount Terminals	ting	_				
Tab terminal						
Approved standard	ds		UL, C-UL			
Minimum packing	unit	50 pcs/tube		400 pcs/relay		
Weight			Approx. 1.0 g			
PCB diagram (l	Jnit: mm)	G6J-2P-Y	G6J-2FS-Y	G6J-2FL-Y		
Terminal array diaç internal connection diagram		(BOTTOM VIEW) G6J-2P-Y Direction indicator	(TOP VIEW) G6J-2FS-Y Direction indicator 7 6 5 1 - 2 3 4 (TOP VIEW) (Take note of coil polarity)	(TOP VIEW) G6J-2FL-Y Direction indicator		

Model			G6K				
		G6K-2P-Y	G6K-2F-Y	G6K-2G-Y			
		PCB terminal	Outer L shape surface-mounting terminal	Inner L shape surface-mounting terminal			
Outer shape			A STATE	1 States			
Shape Length (L) x Width	(max. value mm) h (w) x Height (H)	10.2 x 6.7 x 5.3	10.2 x 6.7 x 5.4	10.2 x 6.7 x 5.6			
Features		Ultra-small low power of	consumption Ultra-thin low profile surface-mou	inting 2-pole signal relay			
Contact fo			2c				
Contact ty	/pe Resistive		Crossbar twin 100,000 operations min. at 125 VAC, 0.3 A				
	load		100,000 operations min. at 32 VAC, 0.3 A 100,000 operations min. at 30 VDC, 1 A				
Rated load Courtact	Inductive load COSø=0.4 L/R=7 ms	—					
Max. switch Failure rate	hing current (A) e (mA)	1 A 10 mVDC 10 μA					
(reference	value)		το πναθο το μΑ				
Rated volt			3 to 24 VDC				
Bated pov consumpt			Approx. 100 mW				
Mechanical er			50,000,000 operations min.				
Between of contacts Between of different p Between of the same	coil and	(Im (Impi	1,500 VAC pulse withstand voltage 2.5 kV Telcordia stand ulse withstand voltage 1.5 kV FCC part 68 star	ard) idard)			
Between o	contacts of		1,000 VAC				
Ut different p		(Impi	ulse withstand voltage 1.5 kV FCC part 68 star 750 VAC	idard)			
the same Between s	contacts of polarity set/reset coil	(Impulse withstand voltage 1.5 kV FCC part 68 standard) —					
Ambient operature			-40°C to 70°C				
2-coil late							
2-coil latch 1 coil latch Other	hing relay						
Enclosed Flux prote Sealed			_				
Flux prote	ection	_					
PCB termi							
Surface-m Terminals		—					
Tab termin	nal		—				
Approved star			UL, CSA				
Minimum pac Weight	king unit	50 pcs/tube	Approx. 0.7 g	900 pcs/relay			
Weight		G6K-2P-Y	G6K-2F-Y	G6K-2G-Y			
PCB diagram	(Unit: mm)	$7.6 \rightarrow 8-00.85$ hole $3.2 \rightarrow 5.4 \rightarrow 1$ $1 \rightarrow 1 \rightarrow 5.08$ $1 \rightarrow 1 \rightarrow 5.08$ $(1.2) \rightarrow 1 \rightarrow (0.71)$	3.2 -5.4 -1 -1 -1.8 -7 -1 -1.8 -7 -1 -1.8 -7 -1 -1.8 -7 -1 -1.8 -7 -1 -1.8 -7 -1 -1.8 -7 -1 -1 -1.8 -7 -1 -1 -1 -1 -1 -1 -1 -1	3.2 -5.4 -1 -1 -1 -1 -1 -1 -1 -1			
		(BOTTOM VIEW) G6K-2P-Y	(TOP VIEW) G6K-2F-Y	(TOP VIEW) G6K-2G-Y			
Terminal array internal conne diagram	/ diagram/ action	Direction indicator 1 2 3 4 4 4 4 4 4 4 4 4 4	Direction indicator 7 6 5 + 2 3 4	Direction indicator 7 6 5 + 2 3 4			
		(BOTTOM VIEW) (Take note of coil polarity)	(TOP VIEW) (Take note of coil polarity)	(TOP VIEW) (Take note of coil polarity)			

Model			G6S				
		G6S-2	G6S-2F	G6S-2G			
		PCB terminal	Outer L shape surface-mounting terminal	Inner L shape surface-mounting terminal			
Outer shape			An ANA	and the			
	(max. value mm)		15 55 64	15 55 64			
Length (L) x Widt	h (w) x Height (H)	15 x 7.5 x 9.4	15 x 7.5 x 9.4	15 x 7.5 x 9.4			
Features		Small general purpose hi	gh dielectric strength, high current surface-mc	punting 2-pole signal relay			
Contact for			2c Crossbar twin				
	Resistive load		100,000 operations min. at 125 VAC, 0.5 A 100,000 operations min. at 30 VDC, 2 A				
ਸ਼ੂ Rated ਬੁ load	Inductive						
load	load COS <i>φ</i> =0.4 L/R=7 ms		—				
Max. switc	hing current (A)		2 A				
Failure rat P level (reference	. ,		10 mVDC 10 μA				
Rated vol	/		3 to 24 VDC				
Rated pov	wer		Approx. 140 to 200 mW				
consump							
Mechanical e			100,000,000 operations min. 2.000 VAC				
£ Between	coil and	(Im	oulse withstand voltage 2.5 kV Telcordia stand	ard)			
to contacts Between		(Impu	Ilse withstand voltage 1.5 kV FCC part 68 star	ndard)			
Between	contacts of	1	1,500 VAC pulse withstand voltage 2.5 kV Telcordia stand	ard			
different p Between the same	olarity	jmi) Jami)	llse withstand voltage 1.5 kV Telcordia stand	ndard)			
Between	contacts of		1,000 VAC				
		(Impu	Ilse withstand voltage 1.5 kV FCC part 68 star	ndard)			
Between set/reset coil			500 VAC				
Ambient oper temperature	ating		-40°C to 85°C				
· · ·	hing relay		•				
U 1-coil latching relay			•				
2-coil lato 1-coil lato Uther	ringreidy						
Enclosed Flux prote Sealed							
Flux prote	ection						
PCB term Surface-n Terminals		• —					
Terminals		—	- •				
Tab termi	nal						
Approved sta			UL, CSA, EN/IEC (BSI certification -Y type)				
Minimum pac	king unit	50 pcs/tube		400 pcs/relay			
Weight		000 0	Approx. 2 g	000.00			
		G6S-2 G6S-2-Y	G6S-2F G6S-2F-Y	G6S-2G G6S-2G-Y			
PCB diagram	(Unit: mm)	2.54 8-o1 hole 2.54 5.08±0.1 (1.05) - 5.08 2.54 (1.11) 2.54					
		(BOTTOM VIEW)	(TOP VIEW)	(TOP VIEW)			
		G6S-2 G6S-2-Y Direction indicator	G6S-2F G6S-2F-Y Direction indicator	G6S-2G G6S-2G-Y Direction indicator			
Terminal array internal conno diagram		$\begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			
		(BOTTOM VIEW) (Take note of coil polarity)	(TOP VIEW) (Take note of coil polarity)	(TOP VIEW) (Take note of coil polarity)			

Mo	del		G6K(U)-2(F/	(P)-BE(-S-T)			
1010		G6K(U)-2F-RF	G6K(U)-2F-RF-S	G6K(U)-2F-RF-T	G6K-2P-RF		
Out	er shape	ar ere	Sec.	To and	NEW		
Ler	Shape (max. value mm) Igth (L) x Width (w) x Height (H)	10.6 x 7.2 x 5.7	11.0 x 7.2 x 5.7	11.0 x 7.2 x 5.7	13.6 x 7.2 x 5.5		
Fea	itures	1 GHz range ultra-small high frequency relay	1 GHz range ultra-small high frequency relay (space-saving type)	3 GHz range ultra-small high frequency relay	Series of PCB terminals		
-	aracteristic resistance		50	Ω 20 dB min. at 1 GHz			
eristic	Isolation (similar poles)	20 dB min	. at 1 GHz	18 dB min. at 3 GHz	20 dB min. at 1 GHz		
aracte	Isolation (different poles)	30 dB min	. at 1 GHz	30 dB min. at 1 GHz 25 dB min. at 3 GHz	30 dB min. at 1 GHz		
High frequency characteristics	Insertion loss	0.2 dB max	x. at 1 GHz	0.2 dB max. at 1 GHz 0.6 dB max. at 3 GHz	0.2 dB max. at 1 GHz		
equer	Return loss	20.8 dB mi	n. at 1 GHz	20.8 dB min. at 1 GHz 15.6 dB min. at 3 GHz	20.8 dB min. at 1 GHz		
ligh fr	V.SWR	1.2 max.	at 1 GHz	1.2 max. at 1 GHz 1.4 max. at 3 GHz	1.2 max. at 1 GHz		
	Contact form		2				
	Contact type		Crossb				
Contact	Rated Resistive load			nin. at 125 VAC, 0.3 A min. at 30 VDC, 1 A min. at 1 GHz, 1 W			
	Inductive load Max. switching current (A)			 A			
Coil	Rated voltage		3 to 24	4 VDC			
	Rated power consumption		Approx.				
	chanical endurance Between coil and		50,000,000 op				
	contacts Between contacts of	/50 VAC					
c stre	different polarity						
	Between contacts of the same polarity 750 VAC						
Diel	Between coil, contact, and earth						
Am	bient operating		-40°C t	to 70°C			
	2-coil latching relay		-	_			
Functions	1-coil latching relay		•		—		
	Other Enclosed						
10	Flux protection						
山	Sealed						
linal	PCB terminal Surface-mounting Terminals Tab terminal				•		
Tem	Tab terminal		-	_			
	proved standards			_	30 pcs/tube		
	ight			. 0.95 g	30 pcs/tube		
	B diagram (Unit: mm)	G6K-2F-RF	G6K-2F-RF-S	G6K-2F-RF-T 	G6K-2P-RF		
	ninal array diagram/ rnal connection diagram	G6K-2F-RF Direction indicator	G6K-2F-RF-S Direction indicator	G6K-2F-RF-T Direction indicator	G6K-2P-RF Direction indicator		

Mod	Model		G6DN	G5N	В		
				Standard type	-EL		
Out	er	shape			NEW		
Len	qth	Shape (max. value mm) (L) x Width (w) x Height (H)	20.0 x 5.08 x 12.5	20.5 x 7.2 x 15.3	20.5 x 7.2 x 15.3		
	Features		Small, slim power relay with 1-pole 5 A switching	1-pole 3 A switching relay with impulse withstand voltage of 10 kV And EN61010 strengthened insulation	Small power relay with 1-pole 7 A switching and ignition resistance international- standard compatibility		
(Со	ntact form	1a	1a Single			
	ted load	ntact type Resistive load	Crossbar twin 100,000 operations min. at 250 VAC, 3 A (Standard) 100,000 operations min. at 250 VAC, 5 A (Standard) 80,000 operations min. at 250 VAC, 5 A (Standard) 80,000 operations min. at 30 VDC, 5 A (High durability) 100,000 operations min. at 30 VDC, 5 A (High durability) 100,000 operations min. at 250 VAC, 2 A (Standard)	Sing 200,000 operations min. at 125 VAC, 3 A 200,000 operations min. at 30 VDC, 3 A	le 200,000 operations min. at 250 VAC, 5 A 50,000 operations min. at 250 VAC, 7 A 100,000 operations min. at 30 VDC, 5 A		
ŭ		Inductive load COSø=0.4 L/R=7 ms Capacitive load	100,000 operations min. at 30 VDC, 2 A (B(andard) 200,000 operations min. at 250 VAC, 2 A (High durability) 200,000 operations min. at 30 VDC, 2 A (High durability) —				
I	_	x. switching current (A)	5 A	3 A	AC: 7 A, DC: 5 A		
		lure rate (mA) evel (reference value)	0.1 VDC 0.1 mA	5 VDC 1			
		ted voltage	4.5 to 24 VDC	5 to 24 VDC	12 to 24 VDC		
io I	Rat	ted power	Approx. 110 mW	Approx. 2			
		nsumption anical endurance	20,000,000 operations min.	5,000,000 ope			
1	Bet	tween coil and	3,000 VAC	4,000	VAC		
Len	Between contacts of		(Impulse withstand voltage: 6 kV) —	(Impulse withstand voltage: 10 kV) —			
electric	Between contacts of the same polarity Between		750 VAC	750 V.	AC		
	set	/reset coil					
tem	pe	nt operating rature oil latching relay	-40°C to 90°C	-40°C to 70°C	-40°C to 85°C		
- ē		oil latching relay					
unc) Dtł						
		closed					
closure rating	Flu	x protection	_	•	—		
Enclo	Sea	aled	•	•	•		
	-	B terminal	•	•			
j.	Ter	face-mounting minals terminal					
. 5	Sci	rew terminal	_				
<u> </u>		ved standards um packing unit	UL, C-UL, EN/IEC (VDE certification) 25 pcs/tube	UL, CSA, EN/IEC (\ 100 pcs	,		
Wei			Approx. 3 g	Approx			
	PCB diagram (Unit: mm)		G6DN-1A G6DN-1A 2.54 ±0.1 (1.32) G6DN-1A 4-ø1.1 hole ±0.1 (1.28)	G5NB-1A/G5NB-1A4-EL-HA (1.05) (1.15)(
			(BOTTOM VIEW)	(BOTTOM VIEW)			
		al array diagram/ al connection diagram	G6DN-1A		3-1A4-EL-HA		
			(BOTTOM VIEW)	(BOTTOM	I VIEW)		

Moc	lel			G5Q				
		Standa	ird type	-EL	-EL2	-EL3		
	er shape Shape (max. value mm)			NEW NEW		NEW NEW		
	th (L) x Width (w) x Height (H) tures		0.3 x 15.8 n 1-pole 10 A switching	20.3 x 10.3 x 15.8 10 A (250 VAC) high switching capacity with over 100,000 operations and long operating life, with ignition resistance international-standard compatibility	20.3 x 10.3 x 15.8 Switching at 40 A inrush current through inrush- current resistance, with ignition resistance international-standard compatibility	20.3 x 10.3 x 15.8 30 A inrush current and 3 A breaking current motor load switching, with ignition resistance international-standard compatibility		
	Contact form	1a	1c		1a			
	Resistive load	100,000 operations min. at 125 VAC 10 A (N.O.) 200,000 operations min. at 125 VAC 3 A (N.O.) 100,000 operations min. at 250 VAC 3 A (N.O.) 100,000 operations min. at 30 VDC 5 A (N.O.)	200,000 operations min. at 125 VAC 3 A (N.C.) 100,000 operations min. at 250 VAC 3 A (N.C.) 100,000 operations min. at 30 VDC 3 A (N.C.)	Single 100,000 operations min. at 250 VAC, 10 A	_			
Con	Inductive load COSø=0.4 L/R=7 ms	-	_	_	_	Inrush: 30 A/0.5 s, Breaking: 3 A cosø=0.5, 300,000 operations min.		
	Capacitive load			_	250 VAC, Inrush: 40 A/100 μs, Breaking: 1 A, 100,000 operations min.	_		
	Max. switching current (A)	ching current (A) 10 A						
	Failure rate (mA) P level (reference value)			5 VDC 10 mA				
F	Rated voltage	5 to 2	4 VDC	12 VDC, 24 VDC 5 to 24 VDC				
Ю В	Rated power	Approx. 200 mW		Approx. 400 mW				
	consumption	10,000,000 operations min.						
F	Between coil and	4,000 VAC (Impulse withstand voltage: 8 kV)						
stren	contacts Between contacts of different polarity		.,					
Dielect E	Between contacts of he same polarity Between	1,000 VAC						
Amb	et/reset coil pient operating perature	-40°C to 85°C						
∣ō⊢	-coil latching relay -coil latching relay	—						
In C	Other	_						
ating	Enclosed							
Enclosure rating	Flux protection			•	—	—		
Enck	Sealed			—	•	•		
	PCB terminal			•				
	Surface-mounting Terminals			—				
I. F	ab terminal			—				
	Screw terminal	_						
1 P P	roved standards mum packing unit	UL, CSA, EN/IEC (VDE certification) 40 pcs/tube 100 pcs/tray						
Weig				Approx. 6.5 g		100 p03/ 11 dy		
PCE	3 diagram	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$						
	(Unit: mm)	(BOTTOM VIEW)	(BOTTOM VIEW)	<u>+ </u>				
	ninal array diagram/ rnal connection	G5Q-1A G5Q-1A4 ∎11 2■L31	G5Q-1 G5Q-14 ∎ ¹ <u>1</u> ² [−] <u>1</u> ³	G5Q-	1A-EL-HA-VH/G5Q-1A4-EL G5Q-1A4-EL3-HA	2-HA/		
diag		(BOTTOM VIEW)	(BOTTOM VIEW)					
		. /			. /			

Moc	del		G6D		G6B	
				1	ole	2-pole
				Standard type	High capacity type	Standard type
Outer shape Shape (max. value mm)		(max. value mm)	CHILDRAN ALL AND TAYONG TAYONG TAYONG TAYAN TAYAN			
Lengt		(w) x Height (H)	17.5 x 6.5 x 12.5	20 x 10 x 10	20.2 x 10 x 12.5	20 x 11 x 11
	tures		Small 5 A 1-pole power relay	. ,	contact power relay	Small 5 A 1a1b, 2a, 2b contact power relay
	Contact fo		1a Oinala	1	a Oire ele	1a1b, 2a, 2b
	Contact ty	pe	Single 70,000 operations min. at 250 VAC. 5 A		Single	
	Rated load	Resistive load	70,000 operations min. at 30 VDC, 5 A 300,000 operations min. at 250 VAC, 2 A 300,000 operations min. at 30 VDC, 2 A	100,000 operations min. at 250 VAC, 5 A 100,000 operations min. at 30 VDC, 5 A	100,000 operations min. at 250 VAC, 8 A 100,000 operations min. at 30 VDC, 8 A	100,000 operations min. at 250 VAC, 5 A 100,000 operations min. at 30 VDC, 5 A
		Inductive load COSø=0.4 L/R=7 ms	_	100,000 operations min. at 250 VAC, 2 A 100,000 operations min. at 30 VDC, 2 A	100,000 operations min. at 250 VAC, 2 A 100,000 operations min. at 30 VDC, 2 A	100,000 operations min. at 250 VAC, 1.5 A 100,000 operations min. at 30 VDC, 1.5 A
		ning current (A)	5 A	5 A	8 A	5 A
	Failure rate	e (mA) erence value)	5 VDC 10 mA		5 VDC 10 mA	
	Rated volt	/	5 to 24 VDC		5 to 24 VDC	
		er consumption	Approx. 200 mW	Approx.		Approx. 300 mW
Mec	hanical er	ndurance	20,000,000 operations min.		50,000,000 operations min.	· · ·
E F	Between c	oil and	3,000 VAC		type: 3,000 VAC (impulse withstand e: 2,000 VAC (impulse withstand vo	
atter 1		contacts of	(Impulse withstand voltage: 6 kV) —	Latching type	2,000 VAC	
etric		ontacts of	750 VAC		1,000 VAC	
Diele	the same p			0501/00	1,000 VAC	
1		et/reset coil	-25°C to 70°C	250 VAC	-25°C to 70°C	
	2-coil latch		-25 C 10 70 C		-23 0 10 70 0	
<u>_</u>	1-coil latch	- ·		•		
-unc	Other		_	-	Ultrasonically cleanable	
	Enclosed		_			
121	Flux prote	ction	_		● (G6B-1177P-ND)	_
Enclos	Sealed		•		•	
	PCB termi		•		•	
		mounting Terminals			—	
Ten	Tab termin Screw terr					
	screw terr		UL, CSA, EN/IEC (TÜV certification)		UL, CSA, EN/IEC (TÜV certification)
	mum pacl		25 pcs/tube	100 pcs/tray	20 pcs/tube	100 pcs/tray
Weig		Ŭ _	Approx. 3 g	Approx. 3.5 g	Approx. 4.6 g	Approx. 4.5 g
			G6D-1A-ASI(-AP)	G6B-1114P-US	G6B-1174P-US	G6B-2114P-US G6B-2214P-US G6B-2014P-US
PCE	PCB diagram (Unit: mm)		2.54 4-01.1 (0.71) 2.54 (1.13)	2.54 4-01.1 hole 2.54 4-01.1 hole (1.2) (1.2) (BOTTOM VIEW)	2.54 4-e1.1 hole 4-e1.1 hole (1.2) (1.2) (BOTTOM VIEW)	2.54 (1.1) +++ 10.16 ++7.62+ (BOTTOM VIEW)
Terminal array diagram/ internal connection diagram			G6D-1A-ASI(-AP)	G6B-1114P-US	G6B-1174P-US	G6B-2114P-US G6B-2214P-US G6B-2214P-US G6B-2214P-US G6B-2014P-US G6B-2014P-US
			(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	

Mo	del		G6RN	G6RL	G5LE	G5	CA
						G5CA	G5CA-E
Ou	ter shape	(max. value mm)					
Lenç		h (w) x Height (H)	28.5 x 10 x 15	28.5 x 10 x 12.3	22.5 x 16.5 x 19	22 x 1	6 x 11
Fea	atures		Small 1-pole power relay with 8 A switching and impulse withstand voltage of 10 kV	Low profile 1-pole power relay with 10 A switching and 12.3 mm height	10 A cubic type 1-pole power relay		h 10, 15 A switching
	Contact fo		1a, 1c	1a, 1c	1a, 1c		a
act	Contact ty Rated	Resistive load	Single 50,000 operations min. at 250 VAC, 8 A 50,000 operations min. at 30 VDC, 5 A	Single 50,000 operations min. at 250 VAC, 8 A 50,000 operations min. at 24 VDC, 5 A	Single 100,000 operations min. at 120 VAC, 10 A 100,000 operations min. at 30 VDC, 8 A	300,000 operations min. at 250 VAC, 10 A 100,000 operations min. at 30 VDC, 10 A	100,000 operations min. at 110 VAC, 15 A 100,000 operations min. at 30 VDC, 10 A
Contact	load	Inductive load COSø=0.4 L/R=7 ms	_	_	_	100,000 operations min. at 250 VAC, 3 A 100,000 operations min. at 30 VDC, 3 A	100,000 operations min. at 110 VAC, 5 A 100,000 operations min. at 30 VDC, 3 A
		hing current (A)	8 A	10 A	10 A	10 A	15 A
	Failure rat P level (ref	e (mA) erence value)	5 VDC 10 mA	5 VDC 10 mA	5 VDC 100 mA	5 VDC	100 mA
i	Rated vol		5 to 24 VDC	3 to 48 VDC	5 to 24 VDC	5 to 2	4 VDC
Coil	Rated pov consumpt		Approx. 220 mW	Approx. 220 to 240 mW	Approx. 400 mW	Approx. 150) to 200 mW
Me	chanical e	ndurance	10,000,000 operations min.	10,000,000 operations min.	10,000,000 operations min.	20,000,000 o	perations min.
gth	Between of contacts	coil and	4,000 VAC (Impulse withstand voltage: 10 kV)	5,000 VAC (Impulse withstand voltage: 10 kV)	2,000 VAC (Impulse withstand voltage: 4.5 kV)	2,500 VAC (Impulse wi	thstand voltage: 4.5 kV)
c strength		contacts of olarity				-	_
Dielectric		contacts of	1,000 VAC	1,000 VAC	750 VAC	1,000) VAC
Die	the same Between s	set/reset coil					_
	ibient oper nperature	ating	-40°C to 85°C	-40°C to 85°C	-25°C to 85°C	-25°C to 70°C	
ions	2-coil latc		—	—	—		
Functions	1-coil latc Other	ning relay				-	
ating	Enclosed		_	—	—	-	
osure	Flux prote Sealed	ection		•	•	•	
	PCB term		•	•	•	•	•
Terminal	Surface-mo Tab termir	unting Terminals	—	—	—		
Te	Screw ter						
_ · ·	proved sta		UL, CSA, EN/IEC (VDE certification)			UL, CSA, EN (TÜV certification)	
	nimum pac ight	king unit	20 pcs/tube Approx. 9 g	100 pcs/tray Approx. 7.8 g	100 pcs/tray Approx. 12 g	20 pcs/tube Approx. 8 g (TP type: approx. 9.6 g)	
VVC	ign		G6RN-1A	G6RL-1A (2.9) 18.9±0.1 5±0.1 (1.7) (1.7)	G5LE-1A 4-01.3 ⁺⁰² hole (2.25)		-1A(-E)
PC	B diagram		(1.6) G6RN-1	4-01.3±0.1 hole G6RL-1 (1.5), 18.9±0.1 , 3.2±0.1	G5LE-1	2.54	2-o1 hole
	(Unit: mm)		5-01.3 hole (1.19) 5-01.3 hole (1.19) 5-01.3 hole (1.19) (1.6) 5-01.3 hole (1.19) 5-01.3 hole (1.19) 5-01.3 hole (1.19) 5-01.3 hole (1.19) 5-01.3 hole (1.19) 5-01.3 hole (1.19) 5-01.3 hole (1.19) 5-01.3 hole (1.19) 5-01.3 hole (1.19) 5-01.1 hole (1.19) 5-	5-e1.3±0.1 hole	5-01.3 ⁺⁰² Pole (2.25)	elliptical hole	
			(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)		M VIEW)
	Terminal array diagram/ internal connection		G6RN-1A	G6RL-1A	G5LE-1A	G5CA	-1A(-E)
	gram						<u>1</u>
			(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTO	M VIEW)

Mo	del		G	6C	G4	1W	G4A
				•	1-pole	2-pole	
Out	Outer shape Shape (max. value mm)						GA-YA-E GA-YA-YA-GA-YA-YA-YA-YA-YA-YA-YA-YA-YA-YA-YA-YA-YA
Leng		th (w) x Height (H)	20 x 1	5 x 10	30.5 x 19.5 x 30.5	30.5 x 19.5 x 30.5	30.5 x 16 x 23.5
Fea	tures		Small 1-pole 10 A (1a	a1b, 8 A) power relay	For switching wi	Itage 10 kV ith power source ectric strength	Optimal for air conditioner compressor load and inverter load 1-pole power relay
	Contact fo		1a	1a1b	1a	2a	1a
act	Contact ty Rated	Resistive load	100,000 operations min. at 250 VAC, 10 A 100,000 operations min. at 30 VDC, 10 A	gle 100,000 operations min. at 250 VAC, 8 A 100,000 operations min. at 30 VDC, 8 A	100,000 operations min. at 250 VAC, 15 A 100,000 operations min. at 24 VAC, 15 A	gle 100,000 operations min. at 250 VAC, 10 A 100,000 operations min. at 24 VAC, 10 A	Single 100,000 operations min. at 250 VAC, 20 A
Contact	load	Inductive load COSø=0.4 L/R=7 ms	100,000 operations min. at 250 VAC, 5 A 100,000 operations min. at 30 VDC, 5 A	100,000 operations min. at 250 VAC, 3.5 A 100,000 operations min. at 30 VDC, 3.5 A	100,000 operations min. at 250 VAC, 10 A 100,000 operations min. at 24 VDC, 7.5 A	100,000 operations min. at 250 VAC, 7.5 A 100,000 operations min. at 24 VDC, 5 A	-
	Max. switc Failure rat	te (mA)	10 A	8 A	15 A	10 A	20 A
	P level (ref	ference value)		10 mA		100 mA	5 VDC 100 mA
	Rated vol Rated pov			4 VDC		800 mW	12 VDC, 24 VDC
	consumpt	tion		200 mW		800 mW	Approx. 900 mW
	chanical e Between			perations min. ithstand voltage: 6 kV)		perations min. thstand voltage: 10 kV)	2,000,000 operations min. 4,500 VAC (Impulse
	contacts Between	contacts of		<u> </u>			withstand voltage: 8.5 kV)
tric st	different p	oolarity		2,000 VAC	2,000) VAC	_
ielec	the same	contacts of polarity	1,000) VAC	1,500) VAC	1,000 VAC
	Between : bient oper	set/reset coil rating	250 VAC				—
tem	perature		-25°C to 70°C		-25°C to 55°C		-25°C to 60°C
Functions		ching relay			-		
Func	Other	ining relay	Ultrasonical	ly cleanable	Full wave r	ectification	
	Enclosed		-	_			_
ő	Flux prote	ection			-		•
E	Sealed PCB term	ninal		<u> </u>	-		
erminal	Surface-n	nounting		_	-	_	_
Term	Terminals Tab termir			_			•(#250)
	Screw ter	minal		- A/DE contification)		- (VDE certification).	UL, CSA,
	proved sta		EN/IEC (TÜV	(VDE certification), certification)	EN/IEC (TÜV	certification)	EN/IEC (VDE certification)
	imum pac ght	cking unit		cs/tray K. 5.6 g	50 pcs/tray Approx. 29 g		50 pcs/tray Approx. 23 g
	<u></u>		G6C-1114P-US	G6C-2114P-US	G4W-1112P-US-TV8	G4W-2212P-US-TV5	G4A-1A-E
PCI	PCB diagram (Unit: mm)		2.54 4-01.1 hole 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2.54 6-01.1 hole 1 2.54 1 1 1 1 1 1 1 1 1 1 1 1 1	2-91.8 hole 2-91.8 hole 2-91.8 hole 2-91.8 hole 1 4(5.97) 1 1 4(5.97) 1 1 4(5.97) 1 1 4(5.97) 1 1 4(5.97) 1 1 4(5.97) 1 1 1 1 1 1 1 1 1 1 1 1 1	1 2-54 2-54 2-54 2-54 	4-01.8 ⁺ 8 ⁺ 1 6.25±0.1 12±0.05 -22±0.1 -27.6±0.1
			(BOTTOM VIEW) G6C-1114P-US	(BOTTOM VIEW) G6C-2114P-US	(BOTTOM VIEW) G4W-1112P-US-TV8	(BOTTOM VIEW) G4W-2212P-US-TV5	(BOTTOM VIEW) G4A-1A-E
inte	ninal array rnal conne gram	y diagram/ ection					Tab terminal side
			(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	(TOP VIEW) (BOTTOM VIEW)

Mo	del			G2	RL				
			1-pole	1-pole (high capacity type)	1-Pole (TV-3 rating)	2-pole			
Out	ter shape				NEW NEW				
Shape (max. value mm) Length (L) x Width (w) x Height (H)			29.0 x 12.7 x 15.7	29.0 x 12.7 x 15.7	29.0 x 12.7 x 15.7	29.0 x 12.7 x 15.7			
Fea	atures		1-pole 10 A general purpose type	16 A high current type	TV-3 compatible type	2-pole 5 A general purpose type			
	Contact form Contact type		1a,	, 1c	1a 1a	2a, 2c			
	Contact ty	pe		G2RL-1(A)-E, C	igle 32BI -1A-F-ASI				
Contact	Rated load	Resistive load	50,000 operations min. at 250 VAC, 12 A 30,000 operations min. at 24 VDC, 12 A	30,000 operations m 30,000 operations m G2RL-1 50,000 operations min. a	30,000 operations min. at 250 VAC, 8 A 30,000 operations min. at 24 VDC, 8 A				
Co		Inductive load COSø=0.4 L/R=7 ms	_	_	_	_			
		ning current (A)	12 A	16	6 A	8 A			
		erèncé value)			2 40 mA				
Coil	Rated volt			5 to 4					
	consumpt	ion			W, 48 VDC: Approx. 430 mW				
	chanical er			20,000,000 o	perations min.				
strength	Between of contacts	Coll and		5,000 VAC (Impulse wi	thstand voltage: 10 kV)				
ic stre	different p			_		2,500 VAC			
Dielectric	Between of the same	contacts of polarity		1,000) VAC				
	Between s bient opera	set/reset coil ating	-40°C to 85°C, -40°C to 105°C (-CV type)						
	perature		-+0 0 10 00 0, -+0 0 10 100 0 (-01 type)						
Functions	2-coil latc		_						
	Other		_						
Enclosure rating	Enclosed Flux prote	ction							
Enclos	Sealed								
nal	PCB termi Surface-m								
Terminal	Terminals Tab termin								
	Screw terr								
<u> </u>	proved star				(VDE certification) s/tube				
	ight				x. 12 g				
			G2RL-1A	G2RL-1A-E	G2RL-1A-E-ASI	G2RL-2A			
PC	B diagram	(Unit: mm)	(2.3) G2RL-1 3.5 3.5 5-01.3 hole	(2.3) G2RL-1-E 5 5 8-c1 3 bolo	(2.3) 20	G2RL-2			
	, ,					75 (2.3) (2.3)			
	Terminal array diagram/		(BOTTOM VIEW) G2RL-1A	(BOTTOM VIEW) G2RL-1A-E	(BOTTOM VIEW) G2RL-1A-E-ASI	(BOTTOM VIEW) G2RL-2A			
inte	ernal conné gram					G2RL-2			
			(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)			

Model			G5RL			U/-K
		Standard (quiet)	High capacity (quiet)	High capacity (TV-8 rating)	1-coil latching relay	2-coil latching relay
Outer shape	()	Strate State	The second	NEW NEW	and the second se	NEW
Shape (max. value mm) Length (L) x Width (w) x Height (H)		29.0 x 12.7 x 15.7	29.0 x 12.7 x 15.7	29.0 x 12.7 x 15.7	29.0 x 12	2.7 x 15.7
Features		Low profile po	wer relay with a TV-8 rating	and low noise		ay with low profile
Contact f	orm		1a			switching , 1c
Contact t	-		Single			ngle
ter Rated	Resistive load	100,000 operations min. at 250 VAC, 12 A 100,000 operations min. at 24 VDC, 12 A		nin. at 250 VAC, 16 A nin. at 24 VDC, 16 A	50,000 operations min 50,000 operations min	at 250 VAC 16 A (N.O.) at 250 VAC 5 A (N.C.) at 24 VDC 16 A (N.O.) at 24 VDC 5 A (N.C.)
Rated load	Inductive load COSø=0.4 L/R=7 ms		—		-	_
	ching current (A)	12 A	16	6 A	16 A (N.O.), 5 A (N.C.)
Failure ra	te (mA) ference value)		5 VDC 100 mA		-	_
Rated vo	· · · · ·	5 to 24	4 VDC	5 to 48 VDC	3 to 24 VDC	5 to 24 VDC
Rated po consump		Approx.	530 mW	Approx. 400 mW (Approx. 430 mW with 48 VDC only)	Approx. 600 mW	Approx. 750 mW (Approx. 840 mW with 24 VDC only)
Mechanical e	endurance	1,000,000 op	erations min.	10,000,000 operations min.	5,000,000 op	perations min.
E Between		6.000 VA	C (Impulse withstand voltage		6,000 VAC (Impulse w	ithstand voltage: 10 kV)
Between contacts Between different p Between the same	contacts of		, providence contra			
different	oolarity					
ਹਿੱ Between	contacts of		1,000 VAC		1,000	O VAC
Between	set/reset coil					
Ambient ope	rating		-40°C to 85°C		-40°C to 85°C	
temperature	ching relay					
0	ching relay		_		•	_
			—		-	
Enclosed Flux prote Sealed					-	
Flux prote	ection					
PCB torn	ninal		•			
	ounting Terminals		—			
Tab termi						
Approved sta		UL, C-UL, EN/IEC	(/DE aastification)	UL, CSA, EN/IEC		(VDE certification)
			. ,	(VDE certification)		
Minimum pao Weight	CKING UNIT		100 pcs/tray Approx. 10 g			cs/tray x. 10 g
PCB diagram	ı (Unit: mm)	G5RL-1A-LN	11 0	G5RL-1A-E-TV8	G5RL-U1A-E 4-01.3-01 7.5-01 (2.3) - 20-01 G5RL-U1-E 8-01.3-01 5-01 G5RL-U1-E	G5RL-K1A-E (3.75) 7-01.3-01 7.5-0.1 3.75-0.1 (2.3) 20-0.1 G5RL-K1-E (3.75) 9-01.3-01 G5RL-K1-E
		(BOTTOM VIEW) G5RL-1A-LN	(BOTTOM VIEW) G5RL-1A-E-LN/G5RL-1A-E-TV8		(2.3) → → → 20.03 → → (BOTTOM VIEW) G5RL-U1A-E	(BOTTOM VIEW) G5RL-K1A-E
Terminal array diagram/ internal connection diagram					Note: Take note of coil polarity. $G5RL-U1-E$ $\int_{a}^{1+} - \frac{2}{6} + \frac{3}{5}$ Note: Take note of coil polarity.	Note: Take note of coil polarity. $G5RL-K1-E$ $\boxed{1}_{6}$ $=$ $\frac{1}{7}$ $=$ $\frac{1}{6}$ $=$ $\frac{1}{7}$ $=$ $\frac{1}{6}$ $=$ $\frac{1}{7}$ $=$ $\frac{1}{6}$ $=$ $=$ $\frac{1}{7}$ $=$ $=$ $\frac{1}{6}$ $=$ $=$ $=$ $=$ $=$ $=$ $=$ $=$ $=$ $=$
		(BOTTOM VIEW)		M VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)
				··· ··································		

Мо	del		G2RG		G2R	
				1-pole	1-pole (high capacity type)	2-pole
Ou	ter shape	(may value mm)				
Len	Shape (max. value mm)Length (L) x Width (w) x Height (H)29.0 x 13.5 x 2			29 x 13	x 25.5	29 x 13 x 25.5
Features			Small power relay with high voltage 5 A switching at 110 VDC (1a contact with 2-pole series wiring at 1.5 mm)	1-pole 10 A general purpose type	16 A high capacity type	2-pole 5 A general purpose type
	Contact for		2a	1a,		2a, 2c
	Contact type		Single	100.000	Single	100.000
Contact	Rated load	Resistive load Inductive load COSø=0.4 L/R=7 ms	10,000 operations min. at 250 VAC 8 A 10,000 operations min. at 110 VDC 5 A (with 2-pole series wiring) —	100,000 operations min. at 250 VAC, 10 A 100,000 operations min. at 30 VDC, 10 A (Flux protection) 100,000 operations min. at 250 VAC, 7.5 A 100,000 operations min. at 30 VDC, 5 A (Flux protection)	100,000 operations min. at 250 VAC, 16 A 100,000 operations min. at 30 VDC, 16 A 100,000 operations min. at 250 VAC, 8 A 100,000 operations min. at 30 VDC, 8 A	100,000 operations min. at 250 VAC, 5 A 100,000 operations min. at 30 VDC, 5 A (Flux protection) 100,000 operations min. at 250 VAC, 2 A 100,000 operations min. at 30 VDC, 3 A (Flux protection)
	Max. switc	hing current (A)	8 A	10 A (Flux protection) 8 A (Sealed)	16 A	5 A (Flux protection) 4 A (Sealed)
	Max. switching current (A) Failure rate (mA) P level (reference value) Rated voltage		5 VDC 10 mA	5 VDC -	100 mA	5 VDC 10 mA
			12 VDC, 24 VDC		5 to 100 VDC, 12 to 200 VAC	
Coil	Rated pov	wer	Approx. 800 mW	DC: A	Approx. 530 mW, AC: Approx. 900	mVA
Me	consumpt chanical e		1,000,000 operations min.) operations min., AC coil specifica	
-	Between o		5,000 VAC		VAC (Impulse withstand voltage: 1	· · · ·
Dielectric strength	contacts Between o	contacts of	(Impulse withstand voltage: 10 kV)	5,000	wio (mpuise withstand voltage.	,
ric st	different p	olarity	3,000 VAC		_	3,000 VAC
electi	Between of the same	contacts of polarity	1,000 VAC		1,000 VAC	
ă		set/reset coil	—	1,000 VAC	—	1,000 VAC
	ibient oper	ating	-40°C to 70°C		-40°C to 70°C	
	2-coil latc	hing relay		•		•
Functions	1-coil latc	hing relay	_			
				Ultrasonically cleana (Tab terminal) 	able, full wave rectification (excludin -	– – – – – – – – – – – – – – – – – – –
Endosure rating	Flux protection		_		•	
End	Sealed PCB term	inal	•			•
linal		unting Terminals	—		—	
Terminal	Tab termir		—	● (#187)	-	_
	Screw terr		UL, CSA, EN/IEC (VDE certification)			certification)
<u> </u>	nimum pac		50 pcs/tray		pcs/tray (100 pcs/tray for tab termi	· · · · · · · · · · · · · · · · · · ·
	ight		Approx. 17.2 g	Appr	rox. 17 g (Approx. 20 g for tab term	ninal)
PC	PCB diagram (Unit: mm)		G2RG-2A4	G2R-1A	G2R-1A-E f 6-01.3 hole f f f f f f f f f f	$\begin{array}{c} G2R-2A \\ \hline \\ 25 \\ \hline \\ 25 \\ \hline \\ 1 \\ \hline \\ (2.1) \\ \hline \\ \hline \\ \\ (2.1) \\ \hline \\ \hline \\ (2.1) \\ \hline \\ \hline \\ \hline \\ \\ (2.1) \\ \hline \\ \hline \\ \hline \\ \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline $
			(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)
inte	minal array ernal conne gram		G2RG-2A4	$\begin{array}{c} G2RL-1A \\ \hline \\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $	G2R-1A-E $G2R-1A-E$ $G2RL-1-E$ $G2RL-1-E$	$ \begin{array}{c} G2R-2A \\ \hline $
			(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)

					G7L		
Mo	odel			G7L		G7L-PV	G7L-X (standard) G7L-X-L (general purpose)
Outer shape Shape (max. value mm)					52.5 x 35.5 x 41	52.5 x 35.5 x 41	
	atures	h (w) x Height (H)	 Multi polar power 	2.5 x 35.5 x 41 (PCB termina r relay, strong against sudde	n drops in voltage	Solar system	600 to 1,000 VDC isolation/switching
10	Contact fo	orm	•Wide 1a (-T□, B□ type)	e range with 100 V and 200 V 2a (-T, B type)	/ coils 1a, 2a (-P type)	Relay for PV inverter 2a	thanks to 2-pole series wiring 2a
Contact	Contact ty Rated load	Resistive load	100,000 operations min. at 220 VAC, 30 A	Double break 100,000 operations min. at 220 VAC, 25 A	100,000 operations min. at 220 VAC, 20 A	Double break 30,000 operations min. at 280 VAC, 30 A	Double break 100 operations at 1,000 VDC 25 A (standard) 6,000 operations at 600 VDC 25 A (standard) 100 operations at 1,000 VDC 20 A (general purpose) 6,000 operations at 600 VDC 20 A (general purpose)
0		Inductive load COSø=0.4 L/R=7 ms	100,000 operations r	nin. at 220 VAC, 25 A	100,000 operations min. at 220 VAC, 20 A	30,000 operations min. at 280 VAC, 30 A (COSø=0.8)	_
	Max. switch	hing current (A)	30 A	25 A	20 A	30 A	25 A (standard), 20 A (general purpose)
	Failure rate P level (refe	e (mA) erence value)		5 VDC 100 mA		5 VDC 100 mA	5 VDC 100 mA
Coil	Rated volt	,		o 100 VDC, 12 to 200/240 V rox. 1.9 W, AC: Approx. 1.7		12 VDC, 24 VDC 2.3 W	12 VDC, 24 VDC Approx. 2.3 W
	chanical er		DC. App	1,000,000 operations min.	10 2.5 VA	1,000,000 operations min.	
ngth	Between c contacts	coil and	4,000 VA	C (Impulse withstand voltag	je: 10 kV)	4,000 VAC	4,000 VAC (Impulse withstand voltage: 10 kV)
ic stre	Between o different p	contacts of olarity	—	2,000) VAC	2,000 VAC	2,000 VAC
Dielectric strength	Between of the same	contacts of polarity		2,000 VAC		2,000 VAC	2,000 VAC
		set/reset coil ng temperature		-25°C to 60°C			
	2-coil latcl	<u> </u>					-
Functions	1-coil latcl Other	hing relay	Test button (excluding P type)				—
	Enclosed					•	_
Enclosure rating	Flux prote Sealed	ction				• -	
1	PCB termi		-	_	•	•	•
erminal	Surface-m Terminals			_	r		—
Tel	Tab termin Screw terr				—		
<u> </u>	proved star	ndards		L, CSA, EN (TÜV certificatio	n)	UL, VDE	UL, EN/IEC (VDE certification)
	nimum pac light	king unit	Approx, 90 g (tab terminal), a	20 pcs/tray approx. 120 g (screw terminal),	approx, 100 g (PCB terminal)	20 pcs/tray Approx. 100 g	20 pcs/tray Approx. 100 g
	PCB diagram (Unit: mm)		G7L-1A- 3.2-++	P 	G7L-2A-P 	G7L-2A-P-PV 3.2	G7L-2A-X(-L) 3.2 + (8.4) 1.2 + (8.4) 1.2 + (8.9) 6-1.2 × 3.2 square hole (BOTTOM VIEW)
int	Terminal array diagram/ internal connection diagram		G7L-1A-		G7L-2A-P	G7L-2A-P-PV	G7L-2A-X(-L)
			(BOTTOM V	IEW) (BO	TTOM VIEW)	(BOTTOM VIEW)	Use this product in a 2-pole series connection. (BOTTOM VIEW)

Applications

For many devices and applications in every field

From household use to public infrastructure, these products can be used in every field and for all purposes with many variations.

Signal Relay

You can use single relays in the following devices for system switching, signal switching, and more.

Communication equipment

Telephone switchboard, PBX⁺¹, fax machines IP telephones, various modems Network devices (switches, routers, etc.)

Applications: system switching,

dial pulse transmission

*1.Private Branch exchange



PBX, switching equipment

Medical and health-related equipment

Ultrasonic echography equipment, various treatment devices Various health and beauty devices

Applications: sensor switching, system switching



Ultrasonic echography equipment

Security devices

Gas detectors and other disaster prevention devices Alarm systems and other crime prevention devices Applications: alarm output



Broadcasting and video equipment

Broadcasting equipment Satellite broadcasting receivers

Applications: redundancy switching, system switching





Wireless devices

Various wireless devices, GPS^{*2} devices, etc.

Applications: system switching *2.Global Positioning System



Testing and measurement equipment

Satellite broadcasting device

Various oscilloscope measurement devices Various IC tester inspection equipment

Applications: input/output switching, power switching, etc.





Oscilloscope

Industrial equipment

Machine tools, molding machines, welding machines Mounters and other industrial robots

Applications: system switching, control switching



Entertainment devices

Game machines, peripheral equipment, etc. Applications: information output



Game machine

Other devices

OA devices, AV devices, electric appliances Applications: system switching, etc.



Multifunction machine

Applications

Power Relay

Can be used in a wide range of fields where power relays directly switch the loads, such as in motors, lamps, heaters, etc.

Industrial equipment

Machine tools, molding machines, welding machines, mounters and other industrial robots

Applications: control of motors, heaters, etc.



Machine tool



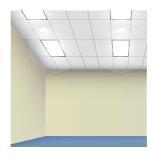
Robot

Household appliances

Shutter doors, lights

Applications: control of motors, lighting, etc.





Automatic shutter door

Lights

Power equipment

UPS, switching power Applications: power control



UPS



Switching power





Air conditioner

Washing machine

Household devices

Air conditioners, washing machines, refrigerators, etc. Applications: control of compressors, pumps, motors, heaters, etc.

Refrigerator

FA equipment

PLC, temperature regulators, timers, various I/O devices

Applications: control external device load











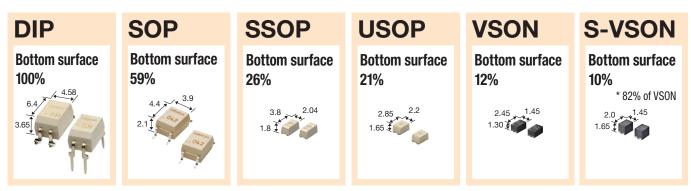
Various I/O devices

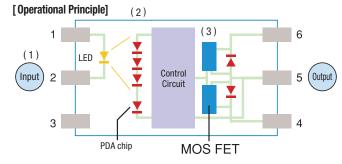
PLC



MOS FET Relay (G3VM) Introduction

Contributing to reduction in size and maintenance reduction
 Over 160 varieties of products with 6 packages (DIP/SOP/SSOP/USOP/VSON/S-VSON)





(1) The LED lights up when the current is connected at the input side.

(2) The light sent by the LED will be converted into voltage when it is received by the photodiode.

(3) This voltage will be the gate voltage to drive the MOS FET via control circuit.



G3VM Series MOS FET Relay Selection Guide (Cat. No. Y112)



G3VM Series MOS FET Relay General Catalog (Cat. No. X083)

Application examples provided in this document are for reference only. In actual applications, confirm equipment functions and safety before using the product.
 Consult your OMRON representative before using the product under conditions which are not described in the manual or applying the product to nuclear control systems, railroad systems, aviation systems, vehicles, combustion systems, medical equipment, amusement machines, safety equipment, and other systems or equipment that may have a serious influence on lives and property if used improperty. Make sure that the ratings and performance characteristics of the product provide a margin of safety for the system or equipment, and be sure to provide the system or equipment with double safety mechanisms.

Note: Do not use this document to operate the Unit.