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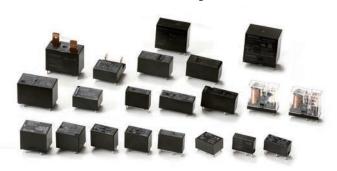
Electrical Mechanical Relay

Selection Guide

Signal Relay



Power Relay



PCB Relay

PCB Relay Types

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

Signal Relay

Power Relay

Relays with less than 2 A maximum switching current value

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	0	0	0	0	0	0	0	0
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		
(IVIAX VAIAC)	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		
Out the letter of	10 A	0	0		0				0		
Switching current	12 A					(N.O.)					
(Max value)	15 A		0								
(max raido)	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		
Enclosure	Sealed	0			0			0	0		
rating	Flux protection	0		0	0	0	0		0		0
raing	Enclosed		0							0	0
Terminal	PCB terminal	0	0	0	0	0	0	0	0	0	0
rating	Tab terminal			0					0	0	
ramig	Screw terminal									0	

Introduction of Main Types

Signal Relay

Model	G6S	G6J-Y	G6K	G6K(U)-2F(P)-RF(-S,-T)
		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
		THE COLUMN		e rec Perece
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	The same of same			
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	Approx. 110 mW	Approx. 200 mW	Approx. 200 mW Approx. 400 mW	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							

Мо	del		G5V-1	G5V-2	G6A	G6E
1410	401		407 1	GOV E	dort	GOL
Out	er shape Shape	(max. value mm)				
Leng		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 Contact fo		General purpose low-cost 1-pole signal relay 1c	General purpose low-cost 2-pole signal relay 2c	FCC-standard high-voltage type	Small, high sensitivity 1-pole signal relay 1c
1	Contact ty		Crossbar single	Crossbar twin	Crossbar twin	Crossbar twin
Contact	Rated load	Resistive load	100,000 operations min. at 125 VAC, 0.5 A 100,000 operations min. at 24 VDC, 1 A	100,000 operations min. at 125 VAC, 0.5 A 100,000 operations min. at 30 VDC, 2 A (Standard type)	500,000 operations min. at 125 VAC, 0.5 A 500,000 operations min. at 30 VDC, 2 A 500,000 operations min.	100,000 operations min. at 125 VAC, 0.4 A 500,000 operations min. at 30 VDC, 2 A 100,000 operations min.
Cor		load COSø=0.4 L/R=7 ms	_	_	at 125 VAC, 0.3 A 500,000 operations min. at 30 VDC, 1 A	at 125 VAC, 0.2 A 500,000 operations min. at 30 VDC, 1 A
	Max. switch	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
Coil	Rated pov	tion	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 e	ndurance	5,000,000 operations min.	15,000,000 operations min.	100,000,000 operations min.	100,000,000 operations min.
ngth	Between 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	contacts of	_	1,000 VAC (Impulse withstand voltage: 1.5 kV)	1,000 VAC	_
Dielectric strength		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	_
tem	bient oper perature	rating	-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
ions	2-coil latc			_	•	•
Functions	1-coil latc Other	hing relay		_	•	Ultrasonically cleanable
\rightarrow	Enclosed		_	_	_	—
Enclosure rating	Flux prote	ection	_	_	_	_
Enclo	Sealed		•	•	•	•
Terminal	PCB term Surface-m Terminals	nounting	<u>•</u>	<u> </u>	<u> </u>	<u> </u>
	Tab termir		_	_	_	_
	oroved sta		UL, CSA 25 pcs/tube	UL, CSA 25 pcs/tube	UL, C-UL 25 pcs/tube	UL, CSA 25 pcs/tube
	ight	ming drift	Approx. 2 g	Approx. 5 g	Approx. 3.5 g	Approx. 2.7 g
			G5V-1	G5V-2	G6A-274P	G6E-134P-US G6E-134PL-US
PCI	PCB diagram (Unit: mn		2.54 (1.11) 5.08±0.1 (1.11) 2.54 (1.07) 10.16±0.1 (1.07)	2.54 (1.2) 7.62 (1.3) (1.3)	2.54 (1.2) 7.62 (1.2) (1.2) (1.2) (1.2) (1.2) (1.2) (1.2)	2.54 (1.19) 7.62 (1.65) - 7.62
			(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)
			G5V-1	G5V-2	G6A-274P	G6E-134P-US G6E-134PL-US
inte	minal array rnal conne gram	/ diagram/ ection	Direction indicator	Direction indicator 1 4 6 7 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Direction indicator 1	Direction indicator
			(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW) (Take note of coil polarity)	(BOTTOM VIEW) (Take note of coil polarity)

Model		G6J-Y				
	G6J-2P-Y	G6J-2FS-Y	G6J-2FL-Y			
	PCB terminal	Surface-mounting terminal (short)	Surface-mounting terminal (long)			
Outer shape		Tree to make	Transition of the same			
Shape (max. value mm						
Length (L) x Width (w) x Height (F	101011011011	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	al relay			
Contact type Resistive load		Crossbar twin 100,000 operations min. at 125 VAC, 0.3 A 100,000 operations min. at 30 VDC, 1 A				
Fated Inductive Ioad Ioad COS@=0.4 L/R=7 ms Max. switching current (A	<u> </u>	1 A				
Failure rate (mA)	9	I A				
P level (reference value)		10 mVDC 10 μA				
Rated voltage Rated power		3 to 24 VDC				
consumption		Approx. 140 to 230 mW				
Mechanical endurance		50,000,000 operations min.				
Between coil and contacts Between contacts of	(Im (Impi	1,500 VAC pulse withstand voltage 2.5 kV Telcordia stand ulse withstand voltage 1.5 kV FCC part 68 star	lard) ndard)			
Between contacts of different polarity	(Imp)	1,000 VAC ulse withstand voltage 1.5 kV FCC part 68 star	ndard)			
different polarity Between contacts of the same polarity	(Impi	750 VAC	idui aj			
the same polarity		ulse withstand voltage 1.5 kV FCC part 68 star	ndard)			
Between set/reset coll						
Ambient operating temperature		-40°C to 85°C				
		_				
1-coil latching relay		•				
2-coil latching relay 1-coil latching relay Other		_				
Enclosed Flux protection Sealed		_ _				
Sealed		•				
DOD to media al	•	-	_			
Surface-mounting Terminals Tab terminal	_					
Terminals Tab terminal		_	-			
Approved standards		UL, C-UL				
Minimum packing unit	50 pcs/tube		400 pcs/relay			
Weight		Approx. 1.0 g				
	G6J-2P-Y	G6J-2FS-Y 7.6 	G6J-2FL-Y 7.6 →-			
PCB diagram (Unit: mm	7.6 — 8-Ø0.85 hole — 5.4 — 3.2 — 3.2 — 3.2 — (1.5) — (1.25)	3.2 2.35 3.2 4.35 0.8 4.35	0.8 (1.5)			
	(BOTTOM VIEW)	(TOP VIEW)	(TOP VIEW)			
Terminal array diagram/ internal connection diagram	G6J-2P-Y Direction indicator 1 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	G6J-2FS-Y Direction indicator	G6J-2FL-Y Direction indicator 8 7 6 5 - 1 2 3 4			
	(BOTTOM VIEW) (Take note of coil polarity)	(TOP VIEW) (Take note of coil polarity)	(TOP VIEW) (Take note of coil polarity)			

Mod	del			G6K				
			G6K-2P-Y	G6K-2F-Y	G6K-2G-Y			
			PCB terminal	Outer L shape surface-mounting terminal	Inner L shape surface-mounting terminal			
Out	er shape			The state of the s	The state of the s			
Long	Shape	(max. value mm)	10.2 x 6.7 x 5.3	10.2 x 6.7 x 5.4	10.2 x 6.7 x 5.6			
	Length (L) x Width (w) x Height (H)			consumption Ultra-thin low profile surface-mou				
	Contact fo	orm	2	2c	3			
	Contact ty	/ре		Crossbar twin				
	Resistive load			100,000 operations min. at 125 VAC, 0.3 A 100,000 operations min. at 30 VDC, 1 A				
	Rated load	Inductive load COSø=0.4		<u> </u>				
		L/R=7 ms hing current (A)	1 A					
	Failure rate P level (reference	` ′		10 mVDC 10 μA				
=	Rated volt			3 to 24 VDC				
	Rated pov consumpt			Approx. 100 mW				
_	chanical er			50,000,000 operations min.				
£	Between o	coil and	(Imi	1,500 VAC pulse withstand voltage 2.5 kV Telcordia stand	lard)			
Dielectric strength	contacts		(IIII) (Impu	ulse withstand voltage 1.5 kV FCC part 68 star	ndard)			
c stı		contacts of	(Impu	1,000 VAC	adard			
ctri	different p	contacts of	(Impt	ulse withstand voltage 1.5 kV FCC part 68 star 750 VAC	idard)			
Siele	the same	polarity	(Impu	ulse withstand voltage 1.5 kV FCC part 68 star	ndard)			
		set/reset coil	_					
	bient opera perature	ating	-40°C to 70°C					
	2-coil latcl	hing relay		_				
1 O F	1 coil latch			•				
I I	Other			_				
-	Enclosed			_				
Enclosure rating	Flux prote	ction	_					
Ence	Sealed		•					
<u>a</u>	PCB termi		-					
	Surface-m Terminals	nounting	_	-				
e	Tab termin	nal		_				
	roved star			UL, CSA				
	imum pac	king unit	50 pcs/tube	1 ,	900 pcs/relay			
Wei	gnı		G6K-2P-Y	Approx. 0.7 g G6K-2F-Y	G6K-2G-Y			
PCE	PCB diagram (Unit: mm) Terminal array diagram/ internal connection diagram		7.6 8-Ø0.85 hole 3.2 5.4 5.08 (1.2) (0.71)	7.6	3.2 + 5.4 + 1.8 5.7 0.8 (1.2)			
			(BOTTOM VIEW) G6K-2P-Y	(TOP VIEW) G6K-2F-Y	(TOP VIEW) G6K-2G-Y			
inte			Direction indicator 1 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Direction indicator	Direction indicator 8 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)			

Mod	del			G6S					
			G6S-2	G6S-2F	G6S-2G				
			PCB terminal	Outer L shape surface-mounting terminal	Inner L shape surface-mounting terminal				
Out	er shape			The state of the s	And de de				
Leng		(max. value mm) (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				
Fea	tures		Small general purpose high dielectric strength, high current surface-mounting 2-pole signal relay						
I -	Contact fo			2c					
	Contact ty	pe Resistive load	Crossbar twin 100,000 operations min. at 125 VAC, 0.5 A 100,000 operations min. at 30 VDC, 2 A						
	Rated load	Inductive load COSφ=0.4 L/R=7 ms	_						
	Max. switch	ning current (A)		2 A					
	Failure rate								
	P level	` ′		10 mVDC 10 μA					
-	(reference			2+0.24 VDC					
	Rated volt Rated pow	0		3 to 24 VDC					
Ó	consumpti			Approx. 140 to 200 mW					
_	chanical er			100,000,000 operations min.					
	Between c			2,000 VAC					
gth	contacts	on and	" (lm _l	pulse withstand voltage 2.5 kV Telcordia stand	ard)				
renç			(Impu	ulse withstand voltage 1.5 kV FCC part 68 stan 1.500 VAC	naara)				
ctric	different p	-	(Im ₎ (Impl	pulse withstand voltage 2.5 kV Telcordia stand ulse withstand voltage 1.5 kV FCC part 68 stan	ard) idard)				
	the same p	ontacts of	1,000 VAC (Impulse withstand voltage 1.5 kV FCC part 68 standard)						
		et/reset coil	500 VAC						
Aml	bient opera		-40°C to 85°C						
tem	perature			-40 U (0 85°U					
Functions	2-coil latch	ning relay		•					
cti	1-coil latch	ning relay		•					
[5]	Other			_					
\rightarrow	Enclosed								
[[[Flux prote	ation	_						
closu		Juon		•					
	Sealed								
na -	PCB termi Surface-m		•	•					
	Surrace-m Terminals	ounting	_						
19	Tab termin	al		_					
App	roved star	ndards		UL, CSA, EN/IEC (BSI certification -Y type)					
Min	imum pacl	king unit	50 pcs/tube		400 pcs/relay				
Wei	ght			Approx. 2 g					
			G6S-2 G6S-2-Y 2.54 8-ø1 hole	G6S-2F G6S-2F-Y	G6S-2G G6S-2G-Y				
PCE	PCB diagram (Unit: mm)		2.54 5.08±0.1 (1.05) 5.08 2.54 (1.11)	5.08 - 2.54 - 2.54 - 2.2 8	2.54 -2				
			(BOTTOM VIEW)	(TOP VIEW)	(TOP VIEW)				
	Terminal array diagram/ internal connection diagram		G6S-2 G6S-2-Y Direction indicator	G6S-2F G6S-2F-Y Direction indicator	G6S-2G G6S-2G-Y Direction indicator				
inte			1 3 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	12 10 9 8	12 10 9 8				
			(BOTTOM VIEW) (Take note of coil polarity)	(TOP VIEW) (Take note of coil polarity)	(TOP VIEW) (Take note of coil polarity)				

Мо	del		G6K(U)-2(F/	/P)-RF(-S,-T)		
		G6K(U)-2F-RF	G6K(U)-2F-RF-S	G6K(U)-2F-RF-T	G6K-2P-RF	
Ou	ter shape Shape (max. value mm)	To rock	C. C.C.C.	- ann	NEW NEW	
Ler	ngth (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	
Features		GHz range ultra-small high frequency relay	GHz range ultra-small high frequency relay (space-saving type)	3 GHz range ultra-small high frequency relay	Series of PCB terminals	
-	aracteristic resistance			Ω Ω 20 dB min. at 1 GHz		
eristic	Isolation (similar poles)	20 dB min	n. at 1 GHz	18 dB min. at 3 GHz	20 dB min. at 1 GHz	
naract	Isolation (different poles)	30 dB min	n. at 1 GHz	30 dB min. at 1 GHz 25 dB min. at 3 GHz	30 dB min. at 1 GHz	
ncy cl	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	
High frequency characteristics	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	
High	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			2c		
ct	Contact type			par twin nin. at 125 VAC, 0.3 A		
Contact	Rated load Resistive load Inductive load		100,000 operations	min. at 123 VDC, 1 A min. at 1 GHz, 1 W		
	Max. switching current (A)		1	A		
Coil	Rated voltage		3 to 2	4 VDC		
	Rated power consumption			100 mW		
	chanical endurance Between coil and			perations min.		
strength	contacts		750	VAC		
stre	Between contacts of different polarity		750	VAC		
Dielectric	Between contacts of the same polarity		750 VAC			
Diele	Between coil, contact, and earth	500 VAC				
	bient operating		-40°C t	to 70°C		
	2-coil latching relay		-			
Functions	1-coil latching relay		•	_		
	Other					
nclosure rating	Enclosed Flux protection					
Enclose	Sealed					
ınal	PCB terminal				•	
Fermi	PCB terminal Surface-mounting Terminals Tab terminal		<u> </u>		_	
	proved standards					
	imum packing unit		300 pcs/tray, 300, 900 pcs/relay	0.05	30 pcs/tube	
vve	ight	G6K-2F-RF	G6K-2F-RF-S	c. 0.95 g G6K-2F-RF-T	G6K-2P-RF	
PC	B diagram (Unit: mm)	0.5	1.2 + 3.5 +	7.6 + 5.4 + 1.35	2.54 12-e0.85 hole 2.54 5.08 (0.3) 12.7 (0.89)	
	minal array diagram/ ernal connection diagram	G6K-2F-RF Direction indicator 8 7 6 5 1 2 3 4 (TOP VIEW)	G6K-2F-RF-S Direction indicator T G G K G G K G G G K G G G G G G G G G	G6K-2F-RF-T Direction indicator The state of the state o	G6K-2P-RF Direction indicator 1 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	

Mod	el	G6DN	G5N	IB		
	-		Standard type	-EL		
Oute	er shape	The state of the s		NEW		
Shape (max. value mm) Length (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		
Feat	(,	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		
Contact form		1a	1a			
С	Contact type	Crossbar twin	Single			
Contact Bated load	Resistive load	100,000 operations min. at 250 VAC, 3 A (Standard) 100,000 operations min. at 30 VDC, 3 A (Standard) 80,000 operations min. at 250 VAC, 5 A (Standard) 80,000 operations min. at 30 VDC, 5 A (Standard) 100,000 operations min. at 250 VAC, 5 A (High durability) 100,000 operations min. at 30 VDC, 5 A (High durability)	200,000 operations min. at 125 VAC, 3 A 200,000 operations min. at 30 VDC, 3 A	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		
Cor	COSø=0.4 L/R=7 ms	100,000 operations min. at 250 VAC, 2 A (Standard) 100,000 operations min. at 30 VDC, 2 A (Standard) 200,000 operations min. at 250 VAC, 2 A (High durability) 200,000 operations min. at 30 VDC, 2 A (High durability)	_			
N	Capacitive load fax. switching current (A)			AC: 7 A, DC: 5 A		
F	ailure rate (mA)	0.1 VDC 0.1 mA	5 VDC 1			
P	level (reference value)					
-	lated voltage lated power	4.5 to 24 VDC	5 to 24 VDC	12 to 24 VDC		
C	onsumption	Approx. 110 mW	Approx. 2	00 mW		
	hanical endurance	20,000,000 operations min.	5,000,000 ope			
를 를 B	Between coil and 3,000 VAC contacts (Impulse withstand voltage: 6 kV)		4,000 VAC (Impulse withstand voltage: 10 kV)			
	Setween contacts of	(impulse withstalla voltage: 0 kV)	—			
를 달	ifferent polarity between contacts of the ame polarity	750 VAC	750 V	'AC		
Diele	Setween	_	_			
S	et/reset coil ient operating					
temp	perature	-40°C to 90°C	-40°C to 70°C	-40°C to 85°C		
tion	-coil latching relay -coil latching relay Other	_				
oun c	thor	_				
90 E	inclosed					
<u></u>	lux protection	_		_		
nclosu	ealed					
	CB terminal	•	•			
a s	durface-mounting ferminals	_				
	ab terminal	_	_			
-	crew terminal	——————————————————————————————————————		(DE		
	roved standards mum packing unit	UL, C-UL, EN/IEC (VDE certification) 25 pcs/tube	UL, CSA, EN/IEC (\ 100 pcs			
Weig		Approx. 3 g	Approx			
	diagram (Unit: mm)	G6DN-1A	G5NB-1A/G5NB-1A4-EL-HA (1.05) 11.5 (1.15) 4.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7			
		(BOTTOM VIEW)	(BOTTON			
	ninal array diagram/ nal connection diagram	G6DN-1A	G5NB-1A/G5NB-1A4-EL-HA			
		(BOTTOM VIEW)	(BOTTOM	1 VIEW)		

М	ode				G5Q			
			Standa	rd type	-EL	-EL2	-EL3	
	Outer shape Shape (max. value mm) Length (L) x Width (w) x Height (H)		20.3 x 10.3 x 15.8		NEW 20.3 x 10.3 x 15.8	NEW 20.3 x 10.3 x 15.8	NEW 20.3 x 10.3 x 15.8	
	Features		Small power relay with		10 A (250 VAC) high switching capacity with over 100,000 operations and long operating life, with ignition resistance international-standard compatibility	Switching at 40 A inrush current through inrush-current resistance, with ignition resistance international-standard compatibility 1a	30 A inrush current and 3 A breaking current motor load switching, with ignition resistance international-standard compatibility	
	-	ontact form ontact type	Id	IC IC	Single			
tact	Rated load	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.)	100,000 operations min. at 250 VAC, 10 A	_		
Contact	Rate	Inductive load COSø=0.4 L/R=7 ms	-	_	_	_	Motor load 250 VAC, 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.	_	
	Ma	ax. switching current (A)			10 A	, ,		
		illure rate (mA) evel (reference value)			5 VDC 10 mA			
=	_	ated voltage	5 to 2	4 VDC	12 VDC, 24 VDC 5 to 24 VDC		5 to 24 VDC	
S		ated power	Approx. 200 mW		Approx. 400 mW			
M	_	anical endurance	10,000,000 operations min.					
ج	Ве	etween coil and	4,000 VAC (Impulse withstand voltage: 8 kV)					
c strenath	-	etween contacts of ferent polarity						
Dielectri	the	etween contacts of e same polarity etween t/reset coil	1,000 VAC —					
te	mp	ent operating erature	-40°C to 85°C					
nctions	\vdash	coil latching relay						
Func	-	coil latching relay	<u> </u>					
_	-	iclosed						
urerati	Flu	ux protection		•	•	_	_	
Enclosure rating	Se	ealed			_	•	•	
	PC	CB terminal			•			
Termina		ırface-mounting rminals			_			
Terr	Та	b terminal			_			
Λ.	_	crew terminal oved standards						
_		num packing unit	UL, CSA, EN/IEC (VDE certification) 40 pcs/tube 100 pcs/tra					
_	eigh				Approx. 6.5 g			
P	PCB diagram (Unit: mm)		G5Q-1A G5Q-1A4 (1.19) (1.18) (1.19) (1.18) (1.19) (7.62 10.16±0.1 (1.19) (1.19) (1.19) (1.19) (1.19) (1.19)	G5Q-1 G5Q-14 (1.19) 7.62±0.1 (BOTTOM VIEW)	(1.19) 7.62±0.1 7.62 ±0.1		2	
in	Terminal array diagram/ internal connection diagram		G5Q-1A G5Q-1A4	G5Q-1 G5Q-14 2 3 1 5 4 1 (BOTTOM VIEW)	(BOTTOM VIEW) G5Q-1A-EL-HA-VH/G5Q-1A4-EL2-HA/ G5Q-1A4-EL3-HA [1] 2 2 3 1 [5] (BOTTOM VIEW)		2-HA/	

Continue	Мо	del		G6D		G6B		
Contact from								
Legyn LL With the K-Right III 17.5 x 6.5 x 12.5 20 x 10 x 10 20 2 x 10 x 12.5 20 x 110 x 12.5 20 x 110 x 10 20 2 x 10 x 12.5 20 x 110 x 10 20 x 10 x 12.5 20 x 110 x 10 20 x 10 x 12.5 20 x 110 x 10 20 x 10 x 12.5 20 x 110 x 10 20 x 10 x 12.5 20 x 10 x	Out	·	(may value mm)	OTHERS AND DATE OF THE PARTY OF	Standard type	High capacity type	Standard type	
Contact form				17.5 x 6.5 x 12.5	20 x 10 x 10 20.2 x 10 x 12.5			
Contact type	Fea			1 1 7	` '		power relay	
Relative A	-				1		1815, 28, 25	
COS8=0.4	Contact	Rated	Resistive load	70,000 operations min. at 250 VAC, 5 A 70,000 operations min. at 30 VDC, 5 A 300,000 operations min. at 250 VAC, 2 A 300,000 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	at 250 VAC, 5 A 100,000 operations min. at 30 VDC, 5 A	
Mass whiching current (A) 5 A 5 A 8 A 5 A 5 A 8 A 5 A 5 A 8 A 5 A			COSø=0.4	_	100,000 operations min.	100,000 operations min.	100,000 operations min.	
Fallur rate (m/A) 1 1 2 4 1 1 2 4 1 1 2 4 1 2 4 4 4 4 4 4 4 4 4		Max. switch		5 A	,			
Pasted voltage S to 24 VDC Approx. 200 mW Approx. 300 mW Approx. 300 mW Approx. 300 mW Approx. 200 mW Approx. 300 mW Approx.		Failure rat	e (mA)			-		
Approx. 200 mW Approx. 200 mW Approx. 200 mW Approx. 300 mW Appr	=							
Single stable type: 3.000 VAC (impulse withstand voltage 6 kV) Larching type: 2.000 VAC (impulse withstand voltage 6 kV) Larching type: 2.000 VAC (impulse withstand voltage 6 kV) 2.000 VAC 1.000 VAC 2.000 VAC	1 0 1				Approx.		Approx. 300 mW	
Between contacts of different polarity Canada Canad	Ме							
Ambient operating imprenature -25°C to 70°C to 70°	gth		coil and					
Ambient operating imprenature -25°C to 70°C to 70°	stren	Between o		—	— — — — —			
Ambient operating imprenature -25°C to 70°C to 70°	ectric	Between o						
2-col latching relay	Die			_	250 VAC	_		
Enclosed	_			-25°C to 70°C		-25°C to 70°C		
Enclosed	ons	2-coil latc	hing relay	_	•	-	-	
Enclosed	ncti			_	•	_		
PCB terminal	-			_		Ultrasonically cleanable		
PCB terminal	erating		-41	_		— (OCD 11770 ND)		
PCB terminal	nclosur		ction	_	_	,		
Surface-mounting Terminals			inal			`		
Approved standards	nina							
Approved standards		_		_				
Minimum packing unit 25 pcs/tube	_			- LII CSA EN/IEC (TI'IV cortification)			<u> </u>	
PCB diagram								
PCB diagram (Unit: mm) (BOTTOM VIEW) (G6B-2114P-US (G6B-2114P-US (G6B-2114P-US (G6B-2114P-US (G6B-2014P-US (G6B-201	_		V	Approx. 3 g G6D-1A-ASI(-AP)	Approx. 3.5 g	Approx. 4.6 g	Approx. 4.5 g G6B-2114P-US G6B-2214P-US	
Terminal array diagram/internal connection diagram GGB-2214P-US Time and the state of the stat	PC	B diagram	(Unit: mm)	(1.13) - 10.16 - 5.08	2.54 (1.2)	2.54	2.54 7.62 (1.11)	
	inte	internal connection		,	G6B-1114P-US	G6B-1174P-US	G6B-2114P-US 1 3 4 4 5 5 6 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6	

Мо	del		G6RN	G6RL	G5LE	G5	CA
				_		G5CA	G5CA-E
Ou	ter shape	(max. value mm)					
Len		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	Features		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	Flat power relay with	n 10, 15 A switching
	Contact fo		1a, 1c	1a, 1c	1a, 1c	1	
	Contact t	ype	Single 50,000 operations min.	Single 50,000 operations min.	Single 100,000 operations min.	Sin 300,000 operations min.	gle 100,000 operations min.
Contact	Rated load	Resistive load	at 250 VAC, 8 A 50,000 operations min. at 30 VDC, 5 A	at 250 VAC, 8 A 50,000 operations min. at 24 VDC, 5 A	at 120 VAC, 10 A 100,000 operations min. at 30 VDC, 8 A	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 100,000 operations min.
Col		load COSø=0.4 L/R=7 ms	_	_	_	at 250 VAC, 3 A 100,000 operations min. at 30 VDC, 3 A	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	te (mA) ference value)	5 VDC 10 mA	5 VDC 10 mA	5 VDC 100 mA	5 VDC	100 mA
=	Rated vol	tage	5 to 24 VDC	3 to 48 VDC	5 to 24 VDC	5 to 24	4 VDC
Soil	Rated pov		Approx. 220 mW	Approx. 220 to 240 mW	Approx. 400 mW	Approx. 150	to 200 mW
Me	chanical e		10,000,000 operations min.	10,000,000 operations min.	10,000,000 operations min.	20,000,000 op	perations min.
Jth.	Between 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 wit	
trenç	Between	contacts of	—	—		<u> </u>	<u> </u>
tric s	different p		_	_	_		
Dielectric strength	the same		1,000 VAC	1,000 VAC	750 VAC	1,000	VAC
		set/reset coil	_	_	_		
	bient oper	allig	-40°C to 85°C	-40°C to 85°C	-25°C to 85°C	-25°C t	o 70°C
ions	2-coil late			_	_	_	
Functions	1-coil latc	hing relay	<u> </u>		_ _		- -
	Enclosed		_	_	_		
Enclosure rating	Flux prote	ection	<u> </u>	•	•		_
	PCB term	inal	•	•	•	•	•
Terminal		ounting Terminals			_		-
Ter	Tab termin		_				●(#187) TP type -
Ap			_				
Mir	proved sta	ndards	UL, CSA,	UL, C-UL,	UL, CSA, EN/IEC (VDE certification),	UL, CSA, EN (T	ÜV certification)
	nimum pac		UL, CSA, EN/IEC (VDE certification) 20 pcs/tube	UL, C-UL, EN/IEC (VDE certification) 100 pcs/tray	UL, CSA, EN/IEC (VDE certification), EN/IEC (TÜV certification) 100 pcs/tray	UL, CSA, EN (T	
			EN/IEC (VDE certification) 20 pcs/tube Approx. 9 g	EN/IEC (VDE certification) 100 pcs/tray Approx. 7.8 g	EN/IEC (TÜV certification) 100 pcs/tray Approx. 12 g	20 pc: Approx. 8 g (TP ty	s/tube rpe: approx. 9.6 g)
	nimum pac		EN/IEC (VDE certification) 20 pcs/tube Approx. 9 g G6RN-1A	EN/IEC (VDE certification) 100 pcs/tray	EN/IEC (TÜV certification) 100 pcs/tray	20 pc:	s/tube rpe: approx. 9.6 g) -1A(-E)
	nimum pac	king unit	EN/IEC (VDE certification) 20 pcs/tube Approx. 9 g G6RN-1A 4-ø1.3 hole 17.62±0.1 19±0.1 15.1±0.1 (2.8)	EN/IEC (VDE certification) 100 pcs/tray Approx. 7.8 g G6RL-1A (2.9) 18.9±0.1 5±0.1 (1.7) 4-e1.3±0.1 hole	EN/IEC (TÜV certification) 100 pcs/tray Approx. 12 g G5LE-1A 4-01.3+0-2hole (2.25) 12 (2.55)2 (5.75) (2.25)	20 pc: Approx. 8 g (TP ty	s/tube rpe: approx. 9.6 g)
	nimum pac	king unit	EN/IEC (VDE certification) 20 pcs/tube Approx. 9 g G6RN-1A 4-e1,3 hole (1.19) 7,62261 (1.19) G6RN-1	EN/IEC (VDE certification) 100 pcs/tray Approx. 7.8 g G6RL-1A (2.9) 18.9±0.1 5±0.1 (1.7)	EN/IEC (TÜV certification) 100 pcs/tray Approx. 12 g G5LE-1A 4-e1.3+02*hole (2.25)	Approx. 8 g (TP ty G5CA-	s/tube rpe: approx. 9.6 g) -1A(-E)
	nimum pac	sking unit	EN/IEC (VDE certification) 20 pcs/tube Approx. 9 g G6RN-1A 4-e1.3 hole 19a0.1 5.1a0.1 (2.8) G6RN-1 G6RN-1	EN/IEC (VDE certification) 100 pcs/tray Approx. 7.8 g G6RL-1A 18.9±0.1 5±0.1 (1.7) 4-01.3±0.1 hole G6RL-1 (1.5) 18.9±0.1 3.2±0.1 (1.7) 5-01.3±0.1 hole	EN/IEC (TÜV certification) 100 pcs/tray Approx. 12 g G5LE-1A 4-6-1.3+0-2 hole (2.25) G5LE-1 5-6-1.3+0-2 hole (2.25) G5LE-1 5-6-1.3+0-2 hole (2.25) (2.55)2 (2.55)2 (2.55)2 (2.55)2 (2.55)2	Approx. 8 g (TP ty G5CA- 2.54	s/tube rpe: approx. 9.6 g) -1A(-E) 2-o1 hole
	nimum pac	sking unit	EN/IEC (VDE certification) 20 pcs/tube Approx. 9 g G6RN-1A 4-e1.3 hole 17.62±0.1 (1.19) G6RN-1 G6RN-1 5-e1.3 hole 19±0.1 1-62±0.1 19	EN/IEC (VDE certification) 100 pcs/tray Approx. 7.8 g G6RL-1A (2.9) 18.9±0.1 5±0.1 4-91.3±0.1 hole G6RL-1 (1.5) 18.9±0.1 3.2±0.1 (1.7) 4-91.3±0.1 hole G6RL-1 (1.7) (1.7) 4-91.3±0.1 hole	EN/IEC (TÜV certification) 100 pcs/tray Approx. 12 g G5LE-1 4-0-1.3+0-2 hole (2.25) G5LE-1 5-0-1.3+0-2 hole (2.25) G5LE-1 5-0-1.3+0-2 hole (2.25) (2.55)2 12.2-1.2 (2.55) (BOTTOM VIEW)	Approx. 8 g (TP ty G5CA- 2.54	s/tube pe: approx. 9.6 g) -1A(-E) 2-o1 hole 12.7 -2 -78
PC	nimum pacight B diagram	(Unit: mm)	EN/IEC (VDE certification) 20 pcs/tube Approx. 9 g G6RN-1A 4-e1.3 hole 19a0.1 5.1a0.1 (2.8) G6RN-1 G6RN-1	EN/IEC (VDE certification) 100 pcs/tray Approx. 7.8 g G6RL-1A 18.9±0.1 5±0.1 (1.7) 4-01.3±0.1 hole G6RL-1 (1.5) 18.9±0.1 3.2±0.1 (1.7) 5-01.3±0.1 hole	EN/IEC (TÜV certification) 100 pcs/tray Approx. 12 g G5LE-1A 4-6-1.3+0-2 hole (2.25) G5LE-1 5-6-1.3+0-2 hole (2.25) G5LE-1 5-6-1.3+0-2 hole (2.25) (2.55)2 (2.55)2 (2.55)2 (2.55)2 (2.55)2	Approx. 8 g (TP ty G5CA- 2.54	s/tube pe: approx. 9.6 g) -1A(-E) 2-o1 hole 12.7 -2 -78
PC	nimum pacight B diagram	(Unit: mm)	EN/IEC (VDE certification) 20 pcs/tube Approx. 9 g G6RN-1A 4-e1.3 hole 19a0.1 5.1a0.1 (2.8) G6RN-1 G6RN-1 (BOTTOM VIEW) G6RN-1A	EN/IEC (VDE certification) 100 pcs/tray Approx. 7.8 g G6RL-1A 18.9±0.1 4-01.3±0.1 hole G6RL-1 (1.5) 18.9±0.1 3.2±0.1 (1.7) 4-01.3±0.1 hole G6RL-1 (1.7) G6RL-1 (1.7) 4-01.3±0.1 hole G6RL-1 (1.7) 4-01.3±0.1 hole G6RL-1 (1.7)	EN/IEC (TÜV certification) 100 pcs/tray Approx. 12 g G5LE-1 4-0-1.3+0-1010(2.25) G5LE-1 5-0-1.3+0-1010(2.25) G5LE-1 5-0-1.3+0-1010(2.25) (2.55)2 (BOTTOM VIEW) G5LE-1A	Approx. 8 g (TP ty G5CA- 2.54	s/tube pe: approx. 9.6 g) -1A(-E) 2-o1 hole 12.7 -2 -78 M VIEW)

Model		Ge	6C	G	1W	G4A
		- Co		1-pole	2-pole	
Outer shape Shape (max. value mm) Length (L) x Width (w) x Height (H)		20 x 15 x 10		30.5 x 19.5 x 30.5	30.5 × 19.5 × 30.5	30.5 x 16 x 23.5
Features	car (v) x roight (r)	Small 1-pole 10 A (1a		Impulse vo For switching wi with 4 kV diele	Itage 10 kV th power source	Optimal for air conditioner compressor load and inverter load
Contact	form	1a	1a1b	1a	2a	1-pole power relay
Contact	type	Sin	gle	Sin	gle	Single
Rated	Resistive	100,000 operations min. at 250 VAC, 10 A 100,000 operations min. at 30 VDC, 10 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, 15 A 100,000 operations min. at 24 VAC, 15 A	100,000 operations min. at 250 VAC, 10 A 100,000 operations min. at 24 VAC, 10 A	100,000 operations min. at 250 VAC, 20 A
Rated 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	_
	tching current (A) ate (mA)	10 A	8 A	15 A	10 A	20 A
P level (r	referencé value)		10 mA		100 mA	5 VDC 100 mA
Rated vo		3 to 24		12 to 1		12 VDC, 24 VDC
consum		Approx.	200 mW	Approx.	800 mW	Approx. 900 mW
Mechanical Between contacts	n coil and	50,000,000 op 2,000 VAC (Impulse w	perations min. ithstand voltage: 6 kV)	5,000,000 op 4,000 VAC (Impulse wi	erations min. thstand voltage: 10 kV)	2,000,000 operations min. 4,500 VAC (Impulse withstand voltage: 8.5 kV)
Between different	n contacts of	_	2,000 VAC	2,000 VAC		_
Between the same	n contacts of e polarity	1,000		1,500	VAC	1,000 VAC
Ambient operature		250 VAC -25°C to 70°C		-25°C 1	 to 55°C	-25°C to 60°C
	tching relay	•		_		_
2-coil la 1-coil la Other	tching relay			-	_	_
Other		Ultrasonical	ly cleanable	Full wave r	ectification	_
Enclose	d	_	_			_
Enclose Flux pro Sealed	tection			_	_	•
			<u> </u>	-		_
PCB ten	minai -mounting		<u>, </u>		•	•
Terminal	ls		-	-	-	_
<u>™</u> lab term		_	_	_	_	(#250)
Screw to		UL. CSA. EN/IEC	VDE certification),	UL, CSA, EN/IEC	VDE certification).	UL. CSA.
	/ed standards EN/IEC (TÜV certification)		EN/IEC (TÜV		EN/IEC (VDE certification)	
Minimum pa Weight	acking unit		cs/tray k. 5.6 g	50 pcs/tray Approx. 29 g		50 pcs/tray Approx. 23 g
		G6C-1114P-US	G6C-2114P-US	G4W-1112P-US-TV8	G4W-2212P-US-TV5	G4A-1A-E
PCB diagral	m (Unit: mm)	2.54 4-o1.1 hole 2.54 4-o1.1 hole (2.4)	2.54 	2-61.8 hole 2-61.8 hole 2-61.8 hole 2-61.8 hole 4.6.71	2.54 2.01.2 hole 4-01.8 hole 2.54 1.0 hole 4-01.8 hole	4-61.8°6.1 6.25±0.1 5.75±0.1 12:0.05 27.6±0.1
		(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)
		G6C-1114P-US	G6C-2114P-US	G4W-1112P-US-TV8	G4W-2212P-US-TV5	G4A-1A-E
Terminal arrainternal con diagram	ay diagram/ nection	1 3 4	3 4		5 3 T 1 T 1 T 1 T 1 T 1 T 1 T 1 T 1 T 1 T	Tab terminal side PCB terminal side
		(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	(TOP VIEW) (BOTTOM VIEW)

Мс	del			G2	PRL					
			1-pole	1-pole (high capacity type)	1-Pole (TV-3 rating)	2-pole				
Ou	ter shape	(max. value mm)			NEW					
Len		h (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 for		1a,	, 1c	1a	2a, 2c				
	Contact ty	/pe			ngle G2RL-1A-E-ASI	T				
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 n 30,000 operations r G2RL-1	nin. at 250 VAC, 16 A nin. at 24 VDC, 16 A IA-E-CV tt 250 VAC, 16 A at 105°C	30,000 operations min. at 250 VAC, 8 A 30,000 operations min. at 24 VDC, 8 A				
8		Inductive load COSø=0.4 L/R=7 ms	_	_	_	_				
	Max. switch	hing current (A)	12 A	16	S A	8 A				
	Failure rat			24 VD0	C 40 mA					
	Rated volt	erence value)			8 VDC					
Coil	Rated pov									
	consumpt	tion			W, 48 VDC: Approx. 430 mW					
Me	echanical er			20,000,000 o	perations min.					
ogth	Between of contacts	coll and		5,000 VAC (Impulse wi	thstand voltage: 10 kV)					
Dielectric strength	Between o			_		2,500 VAC				
Sect	Between of the same	contacts of polarity		1,000	VAC					
ä		set/reset coil		-						
	bient oper			-40°C to 85°C, -40°C to 105°C (-CV type)						
	nperature	latina na malana	-40 0 to 60 0, -40 0 to 100 0 (-0v type)							
Functions	2-coil latc									
Fund	Other	Tilling Telay	_							
ating	Enclosed		_							
Enclosure rating	Flux prote	ection	•							
굡	Sealed		•							
<u></u>	PCB term Surface-m				<u> </u>					
Terminal	Terminals	louriting		_						
Tell	Tab termir	nal		_						
	Screw teri									
	proved star		UL, CSA, EN/IEC (VDE certification)							
	eight	KING UNIT	20 pcs/tube Approx. 12 g							
			G2RL-1A	G2RL-1A-E	G2RL-1A-E-ASI	G2RL-2A				
PC	:B diagram		3.5 4-e1.3 hole 7.5 (2.5) 7.5 (2.3) G2RL-1	7.5 6-61.3 hole 7.5 (2.5) 7.5 (2.5) 7.5 (2.3)	7.5 6-01.3 hole (2.5)	7.5 6-01.3 hole (2.5) 7.5 (2.3) G2RL-2				
		(Unit: mm)	3.5 3.5 5-e1.3 hole (2.5) 7.5 (2.3) (BOTTOM VIEW)	7.5 8-01.3 hole (2.5) 7.5 (2.3) (2.7)	(BOTTOM VIEW)	7.5 8-91.3 hole (2.5) 7.5 (2.3) (BOTTOM VIEW)				
			G2RL-1A	G2RL-1A-E	G2RL-1A-E-ASI	G2RL-2A				
inte	minal array ernal conne		G2RL-1A	G2RL-1A-E	G2RL-1A-E-ASI	G2RL-2A 1				
dia	gram		(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 shap			The state of the s	NEW NEW		<u>NEW</u>
	ape (max. value mm) Nidth (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 1	2.7 x 15.7
Features		Low profile po	wer relay with a TV-8 rating	and low noise		ay with low profile
Contac	et form	' '	1a	<u></u>		switching , 1c
Contac			Single			ngle
	Resistive load	100,000 operations min. at 250 VAC, 12 A 100,000 operations min. at 24 VDC, 12 A	50,000 operations n	nin. at 250 VAC, 16 A min. at 24 VDC, 16 A	50,000 operations min 50,000 operations mir 50,000 operations mir	. at 250 VAC 16 A (N.O.) n. at 250 VAC 5 A (N.C.) n. at 24 VDC 16 A (N.O.) n. at 24 VDC 5 A (N.C.)
Rated load	Inductive load COSø=0.4 L/R=7 ms		_		-	_
	witching current (A)	12 A	16	6 A	16 A (N.O.), 5 A (N.C.)
	rate (mA) (reference value)		5 VDC 100 mA		-	_
	voltage	5 to 24	4 VDC	5 to 48 VDC	3 to 24 VDC	5 to 24 VDC
Rated consur	power	Approx.		Approx. 400 mW (Approx. 430 mW with 48 VDC only)	Approx. 600 mW	Approx. 750 mW (Approx. 840 mW with 24 VDC only)
Mechanica	al endurance	1,000,000 op	erations min.	10,000,000 operations min.	5,000,000 o	perations min.
Between contact	en coil and	6,000 VA	C (Impulse withstand volta		6,000 VAC (Impulse w	ithstand voltage: 10 kV)
Betwee	en contacts of nt polarity		_		-	
Between the sar	en contacts of me polarity		1,000 VAC		1,000 VAC	
Betwee	en set/reset coil		-		_	
temperatui	re		-40°C to 85°C		-40°C	to 85°C
2-coil l	latching relay					•
2-coil la 1-coil la Other	latching relay				•	<u> </u>
	sed					
Enclose Flux pr	rotection		•		(•
			_		-	_
PCB te			•			•
Surface- Tab ter	-mounting Terminals				-	
Screw	terminal		_		-	_
Approved	standards	UL, C-UL, EN/IEC	(VDE certification)	UL, CSA, EN/IEC (VDE certification)	UL, CSA, EN/IEC	(VDE certification)
Minimum p	packing unit		100 pcs/tray	(100 p	cs/tray
Weight			Approx. 10 g		Appro	x. 10 g
PCB diagra	am (Unit: mm)	G5RL-1A-LN 4-01.3±0.11 7.5±0.1 1 1 1 1 1 1 1 1 1	6-01.3±0.1 		G5RL-U1A-E 4-01,3±0.1 7,5±0.1 (2,3)	G5RL-K1A-E (3.75) 7-91.3±0.1 7.5±0.1 3.75±0.1 (2.3) G5RL-K1-E 9-91.3±0.1 5±0.1
		(BOTTOM VIEW)	<u></u>	OM VIEW)	(8OTTOM VIEW)	7.5.0.1 3.75.0.1 (2.3) 20.0.1 (BOTTOM VIEW)
Terminal array diagram/ internal connection diagram		G5RL-1A-LN	G5RL-1A-E-LN/G5RL-1A-E-TV8		G5RL-U1A-E 1	G5RL-K1A-E 1 TR 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
		(BOTTOM VIEW)	(ВОТТС	DM VIEW)	Note: Take note of coil polarity. (BOTTOM VIEW)	Note: Take note of coil polarity. (BOTTOM VIEW)

Mod	el		G2RG		G2R	
			_	1-pole	1-pole (high capacity type)	2-pole
Oute	er shape	(mov value mm)	1			STATE OF STA
Lengtl		(max. value mm) n (w) x Height (H)	29.0 x 13.5 x 25.5	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)			2-pole 5 A general purpose type
C	Contact form Contact type		2a	1a,	1c	2a, 2c
			Single		Single	
act	Rated oad	Resistive load	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, 16 A 100,000 operations min. at 30 VDC, 16 A	100,000 operations min. at 250 VAC, 5 A 100,000 operations min. at 30 VDC, 5 A (Flux protection)
Contact	oau	Inductive load COSø=0.4 L/R=7 ms	_	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, 8 A 100,000 operations min. at 30 VDC, 8 A	100,000 operations min. at 250 VAC, 2 A 100,000 operations min. at 30 VDC, 3 A (Flux protection)
N	Max. switch	ning current (A)	8 A	10 A (Flux protection) 8 A (Sealed)	16 A	5 A (Flux protection) 4 A (Sealed)
	ailure rate	e (mA) erence value)	5 VDC 10 mA	5 VDC	100 mA	5 VDC 10 mA
F	Rated volt	age	12 VDC, 24 VDC		5 to 100 VDC, 12 to 200 VAC	1
	Rated pow consumpti		Approx. 800 mW	DC: A	Approx. 530 mW, AC: Approx. 900	mVA
	hanical er		1,000,000 operations min.	DC coil specifications: 20,000,000	operations min., AC coil specifica	ations: 10,000,000 operations min.
ngth E	Between contacts	coil and	5,000 VAC (Impulse withstand voltage: 10 kV)	5,000	VAC (Impulse withstand voltage:	10 kV)
	Between o	contacts of olarity	3,000 VAC	_	_	3,000 VAC
lectric		contacts of	1,000 VAC		1,000 VAC	1
		set/reset coil	_	1,000 VAC		1,000 VAC
	ient opera	ating	-40°C to 70°C	,	-40°C to 70°C	,
	perature 2-coil latch	ning relay	_	•	_	•
	l-coil latch	ning relay	_	110 2 2 2	——————————————————————————————————————	
	Other Enclosed		<u> </u>	Ultrasonically cleana (Tab terminal)	able, full wave rectification (excluding	ng nigh current type)
<u>ख</u> ⊢	Flux prote	ction	_	- (rab torrining)	•	
	Sealed		•	•		•
inal	PCB termi Surface-mou	nal Inting Terminals	_			
T g	ab termin	al	_	● (#187)	-	_
	Screw terr roved star		UL, CSA, EN/IEC (VDE certification)	III CSA EN		certification)
	mum pack		50 pcs/tray		pcs/tray (100 pcs/tray for tab termi	
Weig			Approx. 17.2 g	Appr	rox. 17 g (Approx. 20 g for tab term	ninal)
PCB	diagram	(Unit: mm)	G2RG-2A4	G2RL-1A 3.5 7.5 4-91.3 hole G2R-1 G2R-1	G2R-1A-E 6-01.3 hole 2.5	G2R-2A 1
			(BOTTOM VIEW)	7.5 - 3 - 5-91.3 hole (2.1) - 20 - (BOTTOM VIEW)	(BOTTOM VIEW)	(2.1)
			G2RG-2A4	G2RL-1A	G2R-1A-E	G2R-2A
	nal conne	diagram/ ection		G2R-1	G2RL-1-E	37 J ⁴ 8 6 J 5
			(100770111171171171171171717171717171717			
			(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)

					G7L		
Мо	del			G7L	G/L	G7L-PV	G7L-X (standard) G7L-X-L (general purpose)
Outer shape Shape (max. value mm)		(max_value_mm)				Service Servic	NEW
	gth (L) x Width	n (w) x Height (H)		2.5 x 35.5 x 41 (PCB termina r relay, strong against sudde		52.5 x 35.5 x 41 Solar system	52.5 x 35.5 x 41 600 to 1,000 VDC isolation/switching
Fea	Features		·Wide	range with 100 V and 200 V	/ coils	Relay for PV inverter	thanks to 2-pole series wiring
-	Contact to		1a (-T□, B□ type)	2a (-T□, B□ type) Double break	1a, 2a (-P type)	2a Double break	2a Double break
Contact	Rated load	Resistive load	100,000 operations min. at 220 VAC, 30 A	100,000 operations min. at 220 VAC, 25 A	100,000 operations min. at 220 VAC, 20 A	30,000 operations min. at 280 VAC, 30 A	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 n	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)	_
		hing current (A)	30 A	25 A	20 A	30 A	25 A (standard), 20 A (general purpose)
	Failure rate P level (refe	(mA) erence value)		5 VDC 100 mA		5 VDC 100 mA	5 VDC 100 mA
ie .	Rated volt	age		o 100 VDC, 12 to 200/240 V		12 VDC, 24 VDC	12 VDC, 24 VDC
	Rated powe chanical er	er consumption	DC: App	rox. 1.9 W, AC: Approx. 1.7 1,000,000 operations min.	to 2.5 VA	2.3 W 1,000,000 operations min.	Approx. 2.3 W 1,000,000 operations min.
	Between of contacts		4,000 VA	4,000 VAC (Impulse withstand voltage: 10 kV)		4,000 VAC	4,000 VAC (Impulse withstand voltage: 10 kV)
	Between o	contacts of olarity	_	— 2,000 VAC		2,000 VAC	2,000 VAC
ielectr	the same			2,000 VAC		2,000 VAC	2,000 VAC
Amk	oient operation	set/reset coil ng temperature		-25°C to 60°C			-40°C to 85°C
1 O F	2-coil latcl		<u>_</u>				_
Func	Other	riirig relay	Test button (excluding P type)			_	_
rating	Enclosed		•			•	_
	Flux prote Sealed	ction					_
	PCB termi	inal			•	•	•
	Surface-m Terminals	nounting		_		_	_
	Tab termin				_	_	_
Apr	Screw terrored star		U	L, CSA, EN (TÜV certificatio	nn) —	UL, VDE	UL, EN/IEC (VDE certification)
	imum pac			20 pcs/tray	,	20 pcs/tray	20 pcs/tray
Wei	ight		G7L-1A-l	approx. 120 g (screw terminal),	G7L-2A-P	Approx. 100 g G7L-2A-P-PV	Approx. 100 g G7L-2A-X(-L)
PC	PCB diagram (Unit: mm)		3.2 - 36.8 - 36.	IEW) (BO	36.8 (8.4) 	3.2 3.8 (8.4) 1.2 14.4 17.7 (8.9) 6-1.2 x 3.2 square hole (BOTTOM VIEW)	3.2 - 36.8 - (8.4) 1.2 14.4 17.7 1.2 (8.9) 6-1.2 x 3.2 square hole (BOTTOM VIEW)
inte	minal array ernal conne gram		G7L-1A-I	1	G7L-2A-P	G7L-2A-P-PV	G7L-2A-X(-L) O O O O O O O O O O O O O O O O O O O

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



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



Medical and health-related equipment

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

Applications: sensor switching, system switching



Ultrasonic echography equipment

Testing and measurement equipment

Satellite broadcasting device

Various oscilloscope measurement devices Various IC tester inspection equipment

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



ATE (Automated Test Equipment)



Entertainment devices

Game machines, peripheral equipment, etc.

Applications: information output



Game machine

Security devices

Gas detectors and other disaster prevention devices Alarm systems and other crime prevention devices

Applications: alarm output



Industrial equipment

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

Applications: system switching, control switching



Other devices

OA devices, AV devices, electric appliancesApplications: 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

Household devices

Air conditioners, washing machines, refrigerators, etc.

Applications: control of compressors, pumps, motors, heaters, etc.



Air conditioner



Washing machine



Refrigerator

FA equipment

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

Applications: control external device load









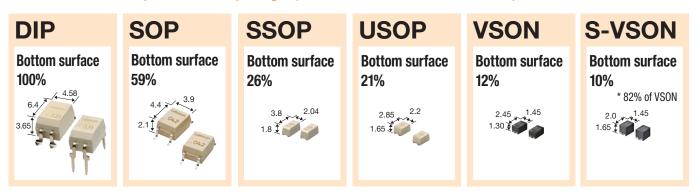


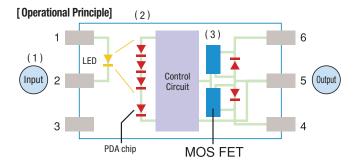
PLC Temperature regulator Timer

Various I/O devices

MOS FET Relay (G3VM) Introduction

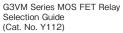
Contributing to reduction in size and maintenance reduction
 Over 160 varieties of products with 6 packages (DIP/SOP/SSOP/USOP/VSON/S-VSON)





- (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 General Catalog (Cat. No. X083)

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

Contact: www.omron.com/ecb

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

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 improperly. 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.