OMRON

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



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	Ó	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		
Consideration	10 A	0	0		0				0		
Switching current	12 A					○ (N.O.)					
(Max value)	15 A		0								
(,	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
	Enclosed		0							0	0
Terminal	PCB terminal	0	0	0	0	0	0	0	0	0	0
rating	Tab terminal			0					0	0	
	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				e rec Pered
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 state of the s			
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			G	G6C		G7L
Co	ontact form	1a		1a1b, 2a, 2b	1a, 1a1b		1a	1a, 2a
Ap	pplicable socket	P6B-04P	P6B-06P (2-coil latching relay)	P6B-26P	P6C-06P	P6C-08P (2-coil latching relay)	P6D-04P	P7LF-06
Sh	hape							

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
		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		_	•	Liltung amically alapsahla
\rightarrow	Enclosed					Ultrasonically cleanable —
Enclosure rating	Flux prote	ection	_	_	_	_
Enclos	Sealed		•	•	•	•
Terminal	PCB term Surface-m Terminals	nounting	• -	• -	• -	• -
P P	Tab termir		_	_	_	_
	proved sta		UL, CSA	UL, CSA	UL, C-UL	UL, CSA
	imum pac ight	King unit	25 pcs/tube Approx. 2 g	25 pcs/tube Approx. 5 g	25 pcs/tube Approx. 3.5 g	25 pcs/tube Approx. 2.7 g
	·9···		G5V-1	G5V-2	G6A-274P	G6E-134P-US G6E-134PL-US
PCI	PCB diagram (Unit: mm)		2.54 (1.07) (1.11) (2.54 (1.07) (1.07)	2.54 8-of hole (1.2) 7.62 (1.3) 7.62 5.08 5.08 (1.3)	2.54 (1.2) 7.62 (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		TOTAL STATE OF THE PARTY OF THE	The state of the s	Travita and				
Shape (max. value mm)								
Length (L) x Width	h (w) x Height (H)	10.9 x 6 x 9.3	10.9 x 6 x 10	10.9 x 6 x 10				
Features		Ultra-	small ultra-thin surface-mounting 2-pole signa	ıl relay				
Contact for	orm	2c						
Contact ty			Crossbar twin					
	Resistive		100,000 operations min. at 125 VAC, 0.3 A					
+ Rated	load Inductive		100,000 operations min. at 30 VDC, 1 A					
O D D D D D D D D D D D D D D D D D D D	load COSø=0.4 L/R=7 ms		_					
Max. switch	hing current (A)		1 A					
Failure rat	. ,							
P level (reference	/		10 mVDC 10 μA					
Rated volt			3 to 24 VDC					
Rated pov			Approx. 140 to 230 mW					
Mechanical e			50,000,000 operations min.					
			1,500 VAC					
contacts	oon and		oulse withstand voltage 2.5 kV Telcordia stand					
Botwoon (contacts of	(Impl	ulse withstand voltage 1.5 kV FCC part 68 star 1,000 VAC	idard)				
Between of different p Between of different p Between of different p Between of different p		(Impu	I,000 VAC Ilse withstand voltage 1.5 kV FCC part 68 star	ndard)				
Between o	Between contacts of 750 VAC							
the same	the same polarity (Impulse withstand voltage 1.5 kV FCC part 68 standard)							
Between	Between set/reset coll —							
Ambient operating temperature -40°C to 85°C								
<u> </u>	hing relay							
2-00111110								
1-coil late	2-coil latching relay 1-coil latching relay Other		•					
Enclosed Flux prote Sealed								
Flux prote	ection							
Sealed			•					
PCB term	inal	•	-	_				
Surface-m Terminals		_						
Tab terminals			_					
Approved star			UL, C-UL					
Minimum pac		50 pcs/tube		400 pcs/relay				
Weight	Ŭ		Approx. 1.0 g	, ,				
		G6J-2P-Y	G6J-2FS-Y	G6J-2FL-Y				
PCB diagram	(Unit: mm)	7.6 8-e0.85 hole -5.4 3.2 3.2 3.2 (1.5) (1.25)	7.6 -5.4 -3.2 -2.35 4.35 0.8 (1.5)	7.6 — 5.4 — 3.2 — 3.2 — 5.2 — 5.2 — (1.5) — (1.5) — (1.5)				
		(BOTTOM VIEW)	(TOP VIEW)	(TOP VIEW)				
Terminal array internal conne diagram	/ diagram/ ection	Direction indicator 1 2 3 4 + + + + + + + + + + + + + + + + + +	G6J-2FS-Y Direction indicator 8 7 6 5 1 1 2 3 4	G6J-2FL-Y Direction indicator 8 7 6 5				
		(BOTTOM VIEW) (Take note of coil polarity)	(TOP VIEW) (Take note of coil polarity)	(TOP VIEW) (Take note of coil polarity)				

Mode	el			G6K					
mode			G6K-2P-Y	G6K-2F-Y	G6K-2G-Y				
			PCB terminal	Outer L shape surface-mounting terminal	Inner L shape surface-mounting terminal				
Outer	r shape			A CONTRACTOR OF THE PARTY OF TH					
Shape (max. value mm) Length (L) x Width (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				
Featu		Height (H)		onsumption Ultra-thin low profile surface-mou					
С	Contact form		·	2c	<u> </u>				
С	Contact type			Crossbar twin					
	Resi	istive		100,000 operations min. at 125 VAC, 0.3 A 100,000 operations min. at 30 VDC, 1 A					
	oad load COS	uctive I Sø=0.4 =7 ms		_					
	Max. switching c	urrent (A)		1 A					
P (re	ailure rate (mA Plevel reference value	·		10 mVDC 10 μA					
	Rated voltage			3 to 24 VDC					
C	Rated power onsumption			Approx. 100 mW					
Mech	nanical endura	nce		50,000,000 operations min.					
reng	Between coil ar ontacts		(Imp.	1,500 VAC oulse withstand voltage 2.5 kV Telcordia stand ulse withstand voltage 1.5 kV FCC part 68 star	lard) ndard)				
ric a	Between conta- lifferent polarity		(Impu	1,000 VAC Ilse withstand voltage 1.5 kV FCC part 68 star	ndard)				
B	Between conta	cts of		750 VAC					
	ne same polari Between set/re		(Impulse withstand voltage 1.5 kV FCC part 68 standard) —						
	ient operating			-40°C to 70°C					
temp	erature			-40°C to 70°C					
0 ⊢	-coil latching r	-							
ncti 1	1 coil latching relay			•					
-	Other			_					
rating	nclosed								
Ö	lux protection								
	Sealed			•					
nal o	CB terminal Surface-mounti	ina							
	erminals	9	_						
l i	ab terminal								
	oved standard num packing u		50 pcs/tube	UL, CSA	900 pcs/relay				
Weigl		uriit	30 pcs/tube	Approx. 0.7 g	900 pcs/relay				
			G6K-2P-Y	G6K-2F-Y	G6K-2G-Y				
PCB	PCB diagram (Unit: mm)		7.6 8-ø0.85 hole 5.4 - 5.4 - 5.08 (1.2) - (0.71)	3.2 -5.4 - 1.8 7 0.8 - 1.2)	3.2 -5.4 - 1.8 5.7 0.8 (1.2)				
			(BOTTOM VIEW)	(TOP VIEW)	(TOP VIEW)				
			G6K-2P-Y	G6K-2F-Y	G6K-2G-Y				
interr	Terminal array diagram/ internal connection diagram		Direction indicator 1 2 3 4 + 4 4 5 5 5 5 5 6 5 5	Direction indicator 8 7 6 5 + 2 3 4	Direction indicator 8 7 6 5				
			(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 Market	And de de la constitución de la				
Leng		(max. value mm) ı (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						
	Contact fo	rm		2c					
	Contact ty	pe		Crossbar twin					
	Rated	Resistive load		100,000 operations min. at 125 VAC, 0.5 A 100,000 operations min. at 30 VDC, 2 A					
	Rated Inductive load COS ϕ =0.4 L/R=7 ms			_					
	Max. switch	ning current (A)		2 A					
	Failure rate	e (mA)		46 1/20 10 1					
	P level (reference	value)		10 mVDC 10 μA					
-	Rated volt			3 to 24 VDC					
. = 1	Rated pov								
0	consumpt			Approx. 140 to 200 mW					
_	chanical er			100,000,000 operations min.					
	Between o			2,000 VAC					
gth	contacts	on and	(lm	pulse withstand voltage 2.5 kV Telcordia stand	ard)				
ren			(Impu	ulse withstand voltage 1.5 kV FCC part 68 star 1.500 VAC	iuaru)				
ctric	different p	-	(Im ₎ (Impi	pulse withstand voltage 2.5 kV Telcordia stand ulse withstand voltage 1.5 kV FCC part 68 star	ard) idard)				
iele		contacts of	1,000 VAC						
	the same	et/reset coil	(Impulse withstand voltage 1.5 kV FCC part 68 standard) 500 VAC						
_	bient opera								
	perature	9		-40°C to 85°C					
	2-coil latcl	ning relay		•					
1.0 ⊦	1-coil latching relay			•					
l ä	Other	g rolly		<u>_</u>					
\rightarrow									
면	Enclosed								
losarre	Flux prote	ction							
읍	Sealed								
اھ	PCB termi		•						
	Surface-m Terminals	ounting	_						
Ter	Tab termin	al							
	proved star			UL, CSA, EN/IEC (BSI certification -Y type)					
	imum pac		50 pcs/tube		400 pcs/relay				
Wei	•		· 	Approx. 2 g					
			G6S-2 G6S-2-Y	G6S-2F G6S-2F-Y	G6S-2G G6S-2G-Y				
PCI	PCB diagram (Unit: mm)		2.54 8-ø1 hole 2.54 5.08=0.1 (1.05) 5.08 2.54 (1.11)	5.08 2.54 2.54 2.54 2.2 8	5.08 2.54 2.54 2.61				
			(BOTTOM VIEW)	(TOP VIEW)	(TOP VIEW)				
	Terminal array diagram/ internal connection diagram		G6S-2 G6S-2-Y Direction indicator	G6S-2F-Y Direction indicator 12 10 9 8	G6S-2G-Y Direction indicator 12 10 9 8				
			(BOTTOM VIEW)	(TOP VIEW)	(TOP VIEW)				
			(Take note of coil polarity)	(Take note of coil polarity)	(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		
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		
	atures	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		
naracte	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 ch	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 125 VAC, 0.3 A 100,000 operations min. at 30 VDC, 1 A 100,000 operations min. at 1 GHz, 1 W					
	Max. switching current (A)			A			
Coil	Rated voltage Rated power			4 VDC			
	consumption			100 mW perations min.			
	chanical endurance Between coil and						
strength	contacts						
stre	Between contacts of different polarity						
Dielectric	Between contacts of the same polarity						
Die	Between coil, contact, and earth	500 VAC					
	bient operating	-40°C to 70°C					
	2-coil latching relay		-				
Functions	1-coil latching relay		•		_		
	Other			_ 			
nclosure rating	Enclosed Flux protection						
山	Sealed						
inal	PCB terminal		_		•		
Term	PCB terminal Surface-mounting Terminals Tab terminal				_		
Ар	proved standards		_				
	nimum packing unit ight		300 pcs/tray, 300, 900 pcs/relay	a. 0.95 g	30 pcs/tube		
	igni.	G6K-2F-RF	G6K-2F-RF-S	G6K-2F-RF-T	G6K-2P-RF		
PC	B diagram (Unit: mm)	0.5	1.2 + 3.5 4 + 1.8 7 1.8 7 1.8 (TOP VIEW)	1.15 1.1 1.35 1.35 1.35 1.35 1.35 1.35 1	2.54 2.54 12-00.85 hole 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	G6K-2F-RF-T Direction indicator The state of the state o	G6K-2P-RF Direction indicator		

Mod	lel	G6DN	G5N	IB	
			Standard type	-EL	
Oute	er shape	The state of the s		NEW	
Lend	Shape (max. value mm) ath (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	
	ures	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		
(Contact type	Crossbar twin	Sing	le	
Contact	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)	_		
A	Capacitive load Max. switching current (A)			AC: 7 A, DC: 5 A	
	ailure rate (mA)				
F	P level (reference value)	0.1 VDC 0.1 mA	5 VDC 1		
F	Rated voltage	4.5 to 24 VDC	5 to 24 VDC	12 to 24 VDC	
	Rated power consumption	Approx. 110 mW	Approx. 2	200 mW	
	hanical endurance	20,000,000 operations min.	5,000,000 ope		
₽E	Between coil and	3,000 VAC	4,000		
<u>ا ح</u> ا	contacts Between contacts of	(Impulse withstand voltage: 6 kV)	(Impulse withstand	d voltage: 10 kV)	
을 E	lifferent polarity Between contacts of the ame polarity	— 750 VAC	750 V	'AC	
Diele	Between	_	_		
S	et/reset coil pient operating				
tem	perature	-40°C to 90°C —	-40°C to 70°C	-40°C to 85°C	
tion 1	-coil latching relay -coil latching relay Other	_			
ļ.	Other	_			
gu F	Inclosed	_			
<u> </u>	lux protection	_	•	_	
nclosi	Sealed	•	•		
	PCB terminal	•	•		
la s	Surface-mounting erminals	_	_		
	ab terminal	_			
-	Screw terminal roved standards	UL, C-UL, EN/IEC (VDE certification)	UL, CSA, EN/IEC (VDE certification\	
	mum packing unit	25 pcs/tube	UL, CSA, EN/IEC (
Wei		Approx. 3 g	Approx		
PCE	3 diagram (Unit: mm)	G6DN-1A	G5NB-1A/G5NB-1A4-EL-HA (1.05) 11.5		
		G6DN-1A	(BOTTON G5NR-1A/G5NR		
	ninal array diagram/ nal connection diagram	GODN-1A	G5NB-1A/G5NB-1A4-EL-HA		
		(BOTTOM VIEW)	(BOTTON	1 VIEW)	

M	ode	3			G5Q			
			Standa	ard type	-EL	-EL2	-EL3	
	Outer shape Shape (max. value mm) Length (L) x Width (w) x Height (H)		20.3 24.10	0.3 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 Contact form			n 1-pole 10 A switching	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 type			Single			
tact	d 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	Rated	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.	_	
	-	ax. switching current (A)			10 A			
		ailure rate (mA) level (reference value)			5 VDC 10 mA			
	Ra	ated voltage	5 to 2	4 VDC	12 VDC, 24 VDC 5 to 24 VDC			
Soil	Ra	ated power	Approx.		Approx. 400 mW			
	CC	onsumption nanical endurance	10,000,000 operations min.					
-	1=	etween coil and	4,000 VAC (Impulse withstand voltage: 8 kV)					
strength	CC	ontacts etween contacts of	.,555 Wie (mpalos maletalia Polago, 5 (V)					
Dielectric str	Be th	fferent polarity etween contacts of e same polarity etween et/reset coil	1,000 VAC					
		ient operating erature	-40°C to 85°C					
_		-coil latching relay						
Inctions		coil latching relay	_					
F	0	ther						
Enclosure rating	Er	nclosed						
nclosure	FI	ux protection ealed			• —		_	
ū	+-	ealed CB terminal			•	-	•	
nal	-	urface-mounting						
Termina	Te	erminals ab terminal						
_	Sc	crew terminal						
_		oved standards		·	CSA, EN/IEC (VDE certificat	ion)	100 "	
_	inin 'eigl	num packing unit ht		40 pc:	s/tube Approx. 6.5 g		100 pcs/tray	
70	219		G5Q-1A G5Q-1A4	G5Q-1 G5Q-14		1A-EL-HA-VH/G5Q-1A4-EL G5Q-1A4-EL3-HA		
P	СВ	diagram (Unit: mm)	(1.19) 7.62±0.1 (BOTTOM VIEW)	(1.19) (1		19) 7.6i 52±0.1 7.6i 10.16±0.1 ±0.	2	
Te	rmi	inal array diagram/ nal connection	G5Q-1A G5Q-1A4	G5Q-1 G5Q-14	G5Q-1	1A-EL-HA-VH/G5Q-1A4-EL G5Q-1A4-EL3-HA	2-HA/	
		am	(BOTTOM VIEW)	(BOTTOM VIEW)		(BOTTOM VIEW)		
	_		•	·	·			

Contect thispe	Мо	del		G6D		G6B	
Contact Stape Tax what ment Tax Sax Tax							
Largent LLV, Width bit Neight High 17.5 x 6.5 x 12.5 29 x 10 x 10 20 2 x 10 x 12.5 20 x 11 x 11	Out	·	(may value mm)	OFFICE AND THE STATE OF THE STA	Standard type	High capacity type	Standard type
Contact from	Lenç			17.5 x 6.5 x 12.5	20 x 10 x 10	20.2 x 10 x 12.5	
Contact type	Fea				. , ,		power relay
Relative A	-				1		1815, 28, 25
COSe=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 switching ourner If (A) 5 A			COSø=0.4	_	100,000 operations min.	100,000 operations min.	100,000 operations min.
Failure rate (mA)		Max. switch		5 A			-
Peter returner busines S to 24 VDC S to 24 VDC Approx. 200 mW Approx. 300 mW Approx. 400 mW		Failure rat	e (mA)			-	
Approx. 200 mW Appr							
Detween contacts of different polarity Detween contacts of different polar	1 0 1				Approx.		Approx. 300 mW
Early contacts Con	Ме						
Ambient operating temperature -25°C to 70°C -25°C to 70°C to 70°	gth		coil and				
Ambient operating temperature -25°C to 70°C -25°C to 70°C to 70°	stren	Between o		—			
Ambient operating temperature -25°C to 70°C -25°C to 70°C to 70°	lectric	Between o	contacts of	750 VAC		1,000 VAC	
Approx de standards Continue	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		otion	_		— (OCD 4477D ND)	
PCB terminal	nclosur		ction	_		,	
Surface-mounting Terminals			inal			`	
Screw terminal	nina	Surface-mounting Terminals Tab terminal		_			
Approx d standards				_			
Minimum packing unit 25 pcs/tube 100 pcs/tray 20 pcs/tube 100 pcs/tray Weight Approx. 3.5 g Approx. 3.5 g Approx. 4.6 g Approx. 4.5 g Ap	_			UIL CSA FN/IFC (TÜV certification)	UL. CSA. EN/IEC (TÜV certification)		<u> </u>
PCB diagram (Unit: mm) G6D-1A-ASI(-AP) G6B-2114P-US							
PCB diagram (Unit: mm) (BOTTOM VIEW) (G6B-2114P-US (G6	_			Approx. 3 g G6D-1A-ASI(-AP)	Approx. 3.5 g		Approx. 4.5 g G6B-2114P-US G6B-2214P-US
Terminal array diagram/internal connection diagram GGB-2014P-US GGB-2014P-US GGB-2014P-US Table 1 3 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	PCI	, and the second		(0.71) 2.54 (0.71) 5.08 (1.13) 10.16 5.08	2.54 (1.2)	2.54 (1.2)	2.54 7.62 (1.11)
	inte	internal connection		G6D-1A-ASI(-AP)	G6B-1114P-US	G6B-1174P-US	G6B-2114P-US T1 3 4 G6B-2214P-US G6B-2214P-US G6B-2014P-US T1 3 4 4 4 4 4 4 4 4 4 4 4 4

Mo	del		G6RN	G6RL	G5LE	G5	CA
						G5CA	G5CA-E
Out	er shape Shape	(max. value mm)					
Leng		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 wit	n 10, 15 A switching
	Contact fo		1a, 1c	1a, 1c	1a, 1c		a
ct	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	Sir 300,000 operations min. at 250 VAC, 10 A 100,000 operations min. at 30 VDC, 10 A	gle 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	<u> </u>	_	_	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
	Rated volt	tage	5 to 24 VDC	3 to 48 VDC	5 to 24 VDC	5 to 2	4 VDC
	Rated pov		Approx. 220 mW	Approx. 220 to 240 mW	Approx. 400 mW	Approx. 150) to 200 mW
_	chanical e		10,000,000 operations min.	10,000,000 operations min.	10,000,000 operations min.	20,000,000 o	perations min.
닱	Between o	coil and	4,000 VAC (Impulse withstand voltage: 10 kV)	5,000 VAC (Impulse	2,000 VAC (Impulse withstand voltage: 4.5 kV)		hstand voltage: 4.5 kV)
treng	contacts Between	contacts of	withstand voitage: 10 KV)	withstand voltage: 10 kV)	wiiristand voitage: 4.5 KV)	. , , , , , , , , , , , , , , , , , , ,	
tric s	different p	olarity	_	_	_		_
	the same		1,000 VAC	1,000 VAC	750 VAC	1,000	VAC
	Between s bient oper	set/reset coil	<u> </u>	_	_		_
tem	perature		-40°C to 85°C	-40°C to 85°C	-25°C to 85°C	-25°C 1	to 70°C
	2-coil latc 1-coil latc		<u> </u>		<u> </u>		
Func	Other	ig rolay	_	_	_		
rating	Enclosed		_				_
0 -	Flux prote Sealed	ection	<u> </u>	•	•	•	_
	PCB term		•	•	•	•	•
Terminal	Surface-mo Tab termir	unting Terminals	<u> </u>	<u> </u>	<u> </u>	<u> </u>	— ●(#187) TP type
Te -	Screw teri			_	_		— (π101) 1F type
App	proved sta	ndards	UL, CSA, EN/IEC (VDE certification)	UL, C-UL, EN/IEC (VDE certification)	UL, CSA, EN/IEC (VDE certification), EN/IEC (TÜV certification)	UL, CSA, EN (T	ÜV certification)
	imum pac	king unit	20 pcs/tube	100 pcs/tray	100 pcs/tray	20 pcs/tube	
Wei	ght		Approx. 9 g G6RN-1A	Approx. 7.8 g G6RL-1A (2.9) 5±0.1 (1.7) (1.7)	Approx. 12 g G5LE-1A 4-01.3+02*hole (2.25)	Approx. 8 g (TP ty G5CA	rpe: approx. 9.6 g) -1A(-E)
PCI	3 diagram		7.62±0.1 (1.19) (1.6) 19±0.1 5.1±0.1 (2.8)	4-91.3±0.1 hole	(2.55)2 (2.25)	2.54	2-e1 hole
	ŭ	(Unit: mm)	G6RN-1 5-01.3 hole (1:19) (1:6) 19±0.1 3.2±0.	G6RL-1 (1.5) 18.9±0.1 3.2±0.1 (1.7) (1.7) 5-e1.3±0.1 hole	G5LE-1 5-o1.3 ^{+0.2} hole (2.25)	2-o1 elliptical hole —10.16	-2
			(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTO	M VIEW)
			G6RN-1A	G6RL-1A	G5LE-1A	•	-1A(-E)
inte	minal array rnal conne gram	/ diagram/ ection	G6RN-1	G6RL-1	G5LE-1		- 2
			(POTTOM VIEW)	(POTTON) (TO)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	(DOTTO	
			(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	(80110	M VIEW)

Мо	del		GG	6C	G ₄	1W	G4A
			- Ci		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 x 19.5 x 30.5	30.5 x 16 x 23.5
,	atures	ar (w) x rieight (ri)	Small 1-pole 10 A (1		Impulse vo For switching wi	Itage 10 kV ith power source ectric strength	Optimal for air conditioner compressor load and inverter load
	Contact for	ovm	1a	1a1b	1a	2a	1-pole power relay 1a
	Contact to		Sin			igle Za	Single
tact	Rated	Resistive load	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
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	te (mA)	10 A	8 A	15 A	10 A	20 A
	P level (ref	ferèncé value)		10 mA		100 mA	5 VDC 100 mA
Coil	Rated vol		3 to 2		12 to 1		12 VDC, 24 VDC
	consump	tion	Approx.	200 mW	Approx.	800 mW	Approx. 900 mW
	chanical e Between contacts		50,000,000 op 2,000 VAC (Impulse w			perations min. thstand voltage: 10 kV)	2,000,000 operations min. 4,500 VAC (Impulse withstand voltage: 8.5 kV)
stre		Detween contacts of 2,000 VAC		2,000	2,000 VAC		
Dielectric strength	Between the same	contacts of polarity	1,000		1,500 VAC		1,000 VAC
	Between : bient oper	set/reset coil	250				
tem	perature		-25°C to 70°C		-25°C to 55°C		-25°C to 60°C
Functions		ching relay			_	<u> </u>	_
nuct		ching relay	Lilterannian	h, alaanahla	- Full wave r		_
-	Other Enclosed		Ultrasonical	у стеапарте	Full wave r	ectification	_
ıre ratir	Flux prote				_		
Enclosure rating	Sealed	5011011			_		_
	PCB term	ninal		•			•
erminal	Surface-n Terminals		_	_	_	_	_
Term	Tab termin				_		(#250)
	Screw ter		_		-		_
App	oroved sta	ındards	UL, CSA, EN/IEC EN/IEC (TÜV	(VDE certification), certification)	UL, CSA, EN/IEC EN/IEC (TÜV	(VDE certification), ' certification)	UL, CSA, EN/IEC (VDE certification)
Mir	nimum pac	cking unit	100 pc	cs/tray	50 pcs/tray		50 pcs/tray
We	ight			c. 5.6 g		x. 29 g	Approx. 23 g
			G6C-1114P-US	G6C-2114P-US	G4W-1112P-US-TV8	G4W-2212P-US-TV5	G4A-1A-E
PC	PCB diagram (Unit: m		4-01.1 hole 2.54 1	2.54 -10.16-+7.62 -11.10-16-17.62	2.54 2-01.2 hole 2-01.8 hole 2-01.8 hole 4.67)	2.54 2-o1.2 hole 4-o1.8 hole 2.54 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.25±0.1 5.75±0.1 12±0.05 -22±0.1 -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
inte	minal array ernal conno gram	y diagram/ ection	1 3 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		5 1	5 3 1 1	Tab terminal side PCB terminal side
			(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	(TOP VIEW) (BOTTOM VIEW)

Мс	odel			G2	PRL				
			1-pole	1-pole (high capacity type)	1-Pole (TV-3 rating)	2-pole			
Ou	iter 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	I			
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 in 30,000 operations r G2RL-1	azRL-1A-E-ASI inin. 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				
Soil	Rated pov								
	consumpt	tion			W, 48 VDC: Approx. 430 mW				
Ме	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			
ect	Between of the same	contacts of		1,000) VAC				
ä		set/reset coil		_	_				
	bient opera		-40°C to 85°C, -40°C to 105°C (-CV type)						
	nperature	him ar malar r							
Functions	2-coil late	<u> </u>							
ᆵ	Other	Tilling relay							
ating	Enclosed		_						
Enclosure rating	Flux prote	ection	•						
Ell	Sealed								
<u></u>	PCB termi		<u> </u>						
Terminal	Terminals	louriting	_						
Tel.	Tab termin	nal	_						
_	Screw terr								
	proved star				(VDE certification) s/tube				
	eight	Kirig uriit		<u> </u>	x. 12 g				
	<u>,,9,,,</u>		G2RL-1A	G2RL-1A-E	G2RL-1A-E-ASI	G2RL-2A			
PC	CB diagram		3.5 4-01.3 hole 7.5 (2.5) 7.5 (2.3) G2RL-1	7.5 6-61.3 hole (2.5) (2.3) 20 G2RL-1-E	7.5 6-01,3 hole (2.5) 7.5 (2.3)	7,5 6-Ø1.3 hole (2.5) 7,5 (2.3) 20 G2RL-2			
	(Unit: mm		3.5 3.5 5-01.3 hole (2.5) 7.5 (2.3) (BOTTOM VIEW)	5 5 8-01.3 hole (2.5) 7.5 20 (BOTTOM VIEW)	(BOTTOM VIEW)	7.5 8-01.3 hole (2.5) 7.5 (2.3) (2.3) (BOTTOM VIEW)			
inte	rminal array ernal conne gram		G2RL-1A G2RL-1	G2RL-1A-E	G2RL-1A-E-ASI	G2RL-2A 1			
uia	.g.am		(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)			

Мо	odel			G5RL		G5RL	
			Standard (quiet)	High capacity (quiet)	High capacity (TV-8 rating)	1-coil latching relay	2-coil latching relay
Ou	iter shape	(may value mm)	West of the state		NEW NEW		<u>NEW</u>
Len		(max. value mm) 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	2.7 x 15.7
Fea	atures		Low profile po	wer relay with a TV-8 rating	and low noise		ay with low profile
	Contact for	orm		1a			switching , 1c
	Contact ty			Single			ngle
Contact	Rated load	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 min. 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.)
ပိ		load COSø=0.4 L/R=7 ms		_		-	_
	Max. switc	hing current (A)	12 A		6 A	16 A (N.O.)), 5 A (N.C.)
		e (mA) erence value)		5 VDC 100 mA		-	_
	Rated volt	tage	5 to 24	4 VDC	5 to 48 VDC	3 to 24 VDC	5 to 24 VDC
Coil	Rated pov		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)
Ме	echanical e	ndurance	1,000,000 op	erations min.	10,000,000 operations min.	5,000,000 op	perations min.
gth	Between o	coil and	6,000 VA	C (Impulse withstand voltaç	'	6,000 VAC (Impulse wi	thstand voltage: 10 kV)
Dielectric strength		contacts of olarity		_		-	_
ielectri	Between of the same	contacts of polarity		1,000 VAC		1,000 VAC	
	Between s	set/reset coil rating		-40°C to 85°C		-40°C to 85°C	
	nperature	bing valou				-40°C	10 65 C
Functions	2-coil latc	<u> </u>				_	_
	Other			_			
Enclosure rating	Enclosed Flux prote	ection		<u> </u>			_
Enclose	Sealed	Jolion				-	_
ıal	PCB term						
Terminal	Tab termir	unting Terminals					
Te	Screw ten			_		-	
Ар	proved sta	ndards	UL, C-UL, EN/IEC	(VDE certification)	UL, CSA, EN/IEC (VDE certification)	UL, CSA, EN/IEC	(VDE certification)
Mir	nimum pac	king unit		100 pcs/tray	(VD2 continuation)	<u>.</u>	cs/tray
We	eight		OFFIL 4A LAL	Approx. 10 g	/G5RL-1A-E-TV8		x. 10 g G5RL-K1A-E
			G5RL-1A-LN	6-01.3±0.1	 -	G5RL-U1A-E	(3.75) 7-01.3-0.1 5-0.1 7.5-0.1 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
PC	B diagram		7.5±0.1	7.5±0.1		G5RL-U1-E	G5RL-K1-E
		(Unit: mm)	(2.3), 20±0.1 ±0.1	(2.3)	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		(3.75) 9-01.3±0.1 5±0.15±0.1 7.5±0.1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Terminal array diagram/ internal connection diagram		(BOTTOM VIEW) G5RL-1A-LN	(BOTTOM VIEW) G5RL-1A-E-LN/G5RL-1A-E-TV8		(BOTTOM VIEW) G5RL-U1A-E	(BOTTOM VIEW) G5RL-K1A-E
					1 -	Note: Take note of coil polarity.	Note: Take note of coil polarity.
inte			01 05 04	91 -	3 0 4 0 1	G5RL-U1-E	G5RL-K1-E
			:			Note: Take note of coil polarity.	Note: Take note of coil polarity.
			(BOTTOM VIEW)	(вотто	M VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)

Мо	del		G2RG		G2R	
			_	1-pole	1-pole (high capacity type)	2-pole
Out	Outer shape		1			STATE OF STA
Leng		(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
Fea	tures		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 fo	orm	2a	1a,	1c	2a, 2c
	Contact ty	pe	Single		Single	
act	Rated load	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	load	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)
	Max. switch	ning current (A)	8 A	10 A (Flux protection) 8 A (Sealed)	16 A	5 A (Flux protection) 4 A (Sealed)
	Failure rate	e (mA) erence value)	5 VDC 10 mA	5 VDC	100 mA	5 VDC 10 mA
	Rated volt	age	12 VDC, 24 VDC		5 to 100 VDC, 12 to 200 VAC	1
	Rated pov consumpt		Approx. 800 mW	DC: A	Approx. 530 mW, AC: Approx. 900	mVA
Ме	chanical er	ndurance	1,000,000 operations min.	DC coil specifications: 20,000,000	operations min., AC coil specifica	ations: 10,000,000 operations min.
ngth	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	Between c	contacts of	1,000 VAC		1	
Die	the same p Between s	set/reset coil	<u> </u>	1,000 VAC —		1,000 VAC
	bient opera		-40°C to 70°C		-40°C to 70°C	
	perature 2-coil latch	ning relay	_	•	_	•
Functions	1-coil latch	ning relay	_	110 2 2 2	——————————————————————————————————————	
\rightarrow	Other Enclosed			Ultrasonically cleana (Tab terminal)	able, full wave rectification (excluding	ng nigh current type)
<u> 22</u>	Flux prote	ction	_	- (rab torrinina)	•	
\rightarrow	Sealed		•	•		•
inal	PCB termi Surface-mou	nal Inting Terminals	<u> </u>			
lerm	Tab termin	ial	_	● (#187)	-	_
	Screw terroroved star		UL, CSA, EN/IEC (VDE certification)	III CSA EN		certification)
	imum pacl		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)
PCI	B 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)	(BOTTOM VIEW)	(BOTTOM VIEW)	(2.1)————————————————————————————————————
			G2RG-2A4	G2RL-1A	G2R-1A-E	G2R-2A
inte	minal array rnal conne gram			G2R-1	G2RL-1-E	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
			(0077011)		7 6 5 5 5 CONTONNISTAN	
			(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		(max. value mm)				Service Servic	NEW
Lenç		n (w) x Height (H)		2.5 x 35.5 x 41 (PCB termina		52.5 x 35.5 x 41	52.5 x 35.5 x 41
Fea	tures		·Wide	r relay, strong against sudde e range with 100 V and 200 \	/ coils	Solar system Relay for PV inverter	600 to 1,000 VDC isolation/switching 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)
Ŏ		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)	_
		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
-	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 ndurance	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.
ıgth	Between o	coil and	4,000 VA	C (Impulse withstand voltage	ge: 10 kV)	4,000 VAC	4,000 VAC (Impulse withstand voltage: 10 kV)
c strer	Between o	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
	Between set/reset coil Ambient operating temperature			-25°C to 60°C		-25°C to 85°C	-40°C to 85°C
suoi	2-coil latcl				_	_	
Functions	1-coil latcl Other	hing relay	Test button (excluding P type)			_	_
erating	Enclosed		•			•	_
	Flux prote Sealed	ction					_
_	PCB termi		-		•	•	•
Ţ.	Surface-m Terminals			_	T.	_	_
Te	Tab termin Screw terr						_
	oroved star	ndards	U	L, CSA, EN (TÜV certificatio	n)	UL, VDE	UL, EN/IEC (VDE certification)
	imum pac ight	king unit	Approx 90 a (tab terminal)	20 pcs/tray approx. 120 g (screw terminal),	approx 100 a (PCR terminal)	20 pcs/tray Approx. 100 g	20 pcs/tray Approx. 100 g
vve	igrit		G7L-1A-		G7L-2A-P	G7L-2A-P-PV 3.2 → 36.8 →	G7L-2A-X(-L)
PC	PCB diagram (Unit: mm)		1.2 1.4.4 4-1.2 x 3.2 squar (BOTTOM V		(8.4) 14.4 17.7 17.7 (8.9) .2 x 3.2 square hole TTOM VIEW)	1.2 14.4 17.7 17.7 (8.9) 6-1.2 x 3.2 square hole (BOTTOM VIEW)	1.2 14.4 17.7 18.9 6-1.2 x 3.2 square hole (BOTTOM VIEW)
inte	minal array rnal conne gram		G7L-1A-	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



Wireless device

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.







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.

 $\label{lem:policy} \mbox{Applications: control of compressors, pumps, motors, heaters, etc.}$



Air conditioner



Washing machine



Refrigerator

FA equipment

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

Applications: control external device load



280







PLC

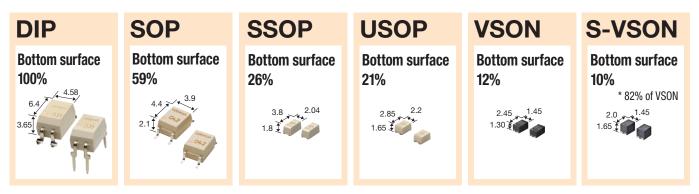
Temperature regulator

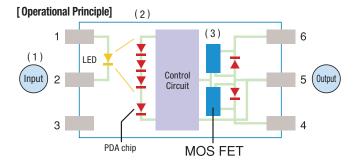
Timer

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 Selection Guide (Cat. No. Y112)



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 OMBON representative before using the product under conditions which are not described in the manual or applying the product to nuclear conditions.

[•] 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.