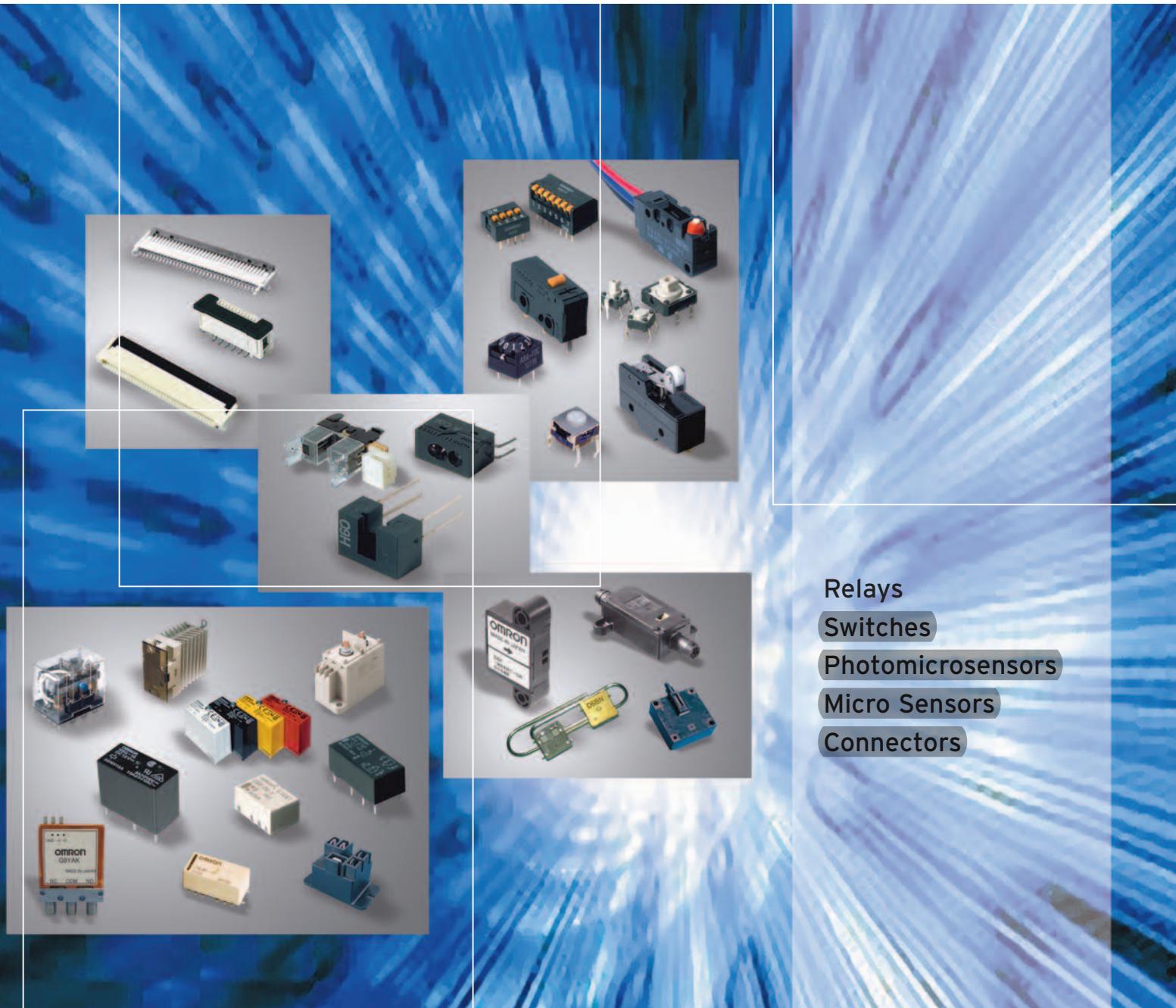


# Electronic Components

## Master Selection Guide



Relays

Switches

Photomicrosensors

Micro Sensors

Connectors

# Relays - MOS FET

General Attributes					
	G3VM-200	G3VM-350	G3VM-400	G3VM High Voltage & Dielectric	G3VM Current Limiting
Dimensions mm (in)	Please refer to specific data sheets for all dimensional information	Please refer to specific data sheets for all dimensional information	Please refer to specific data sheets for all dimensional information	Please refer to specific data sheets for all dimensional information	Please refer to specific data sheets for all dimensional information
Features	<ul style="list-style-type: none"> <li>• 1 &amp; 2 channel configurations</li> <li>• Ideal for Instrumentation, Broadband Systems, Measurement Devices, Data Loggers, Consumer Electronics, Medical Equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Broad product offering</li> <li>• Form A &amp; Form B configurations</li> <li>• Ideal for Instrumentation, Broadband Systems, Measurement Devices, Data loggers, Consumer Electronics, Security Systems, Electronic Automatic Exchange Systems, Industrial Automation Equipment, Medical Equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Broad product offering</li> <li>• 10kV surge withstand models available</li> <li>• Ideal for Instrumentation, Broadband Systems, Measurement Devices, Data Loggers, Consumer Electronics, Security Systems, Electronic Automatic Exchange Systems, Industrial Automation Equipment, Medical Equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Capable of switching loads up to 600V (AC and DC)</li> <li>• 10kV surge withstand</li> <li>• Ideal for Instrumentation, Electronic Automatic Exchange Systems, Industrial Automation Systems, Measurement Devices, Security Systems, Medical Equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Current limiting of 150 to 300mA</li> <li>• Ideal for Electronic Automatic Exchange Systems, Multi-function Telephones, Cordless Telephones, Measurement Devices, Instrumentation</li> </ul>
Load voltage	0-200V (AC or DC)	0-350V (AC or DC)	0-400V (AC or DC)	0-600V (AC or DC)	0-350V (AC or DC)
<b>Maximum Ratings and Electrical Characteristics</b>					
Continuous load current	0-50mA & 0-200mA	0-90mA, 0-100mA, 0-110mA, 0-120mA, 0-150mA	0-120mA	0-100mA	0-120mA
ON resistance (typical)	5Ω & 30Ω	15Ω, 27Ω, 30Ω, 25Ω, 40Ω	17Ω & 18Ω	25Ω	22Ω
Output capacitance	–	–	–	–	–
Available switching configurations	1 Form A, 2 Form A	1 Form A, 1 Form B, 1 Form A + 1 Form B 2 Form A, 2 Form B	1 Form A, 2 Form A	1 Form A	1 Form A, 2 Form A
Leakage current	10nA (max.) & 1.0µA (max.)	1.0µA (max.)	1.0µA (max.)	1.0µA (max.)	1.0µA (max.)
turn-ON time (typical)	40ms & 600ms	0.1ms, 0.25ms, 0.3ms, 0.5ms, 1.0ms	0.3ms & 0.5ms	0.2ms	0.3ms & 0.5ms
turn-OFF time (typical)	100ms	0.1ms, 0.15ms, 0.5ms, 1.0ms, 3.0ms	0.1ms & 0.5ms	0.2ms	0.3ms & 0.5ms
Dielectric strength (AC for 1 minute between input and output)	1,500Vrms (min.)	1,500Vrms (min.) 2,500Vrms (min.)	1,500Vrms (min.) 2,500Vrms (min.) 5,000Vrms (min.)	5,000Vrms (min.)	1,500Vrms (min.) 2,500Vrms (min.)
Available packaging & terminal choices	SOP 4 PIN, 6 PIN, 8 PIN	PCB, SMT, SOP 4 PIN, 6 PIN, 8 PIN	PCB, SMT, SOP 4 PIN, 6 PIN, 8 PIN	PCB & SMT 6 PIN	PCB, SMT & SOP 4 PIN, 6 PIN, 8 PIN
Accessories	Tape & reel	Tape & reel	Tape & reel	Tape & reel	Tape & reel
Approved standards	UL 1577	UL 1577	UL 1577	UL 1577	UL 1577

# Relays - MOS FET

					
General Attributes	G3VM GR	G3VM LR	G3VM-60	G3VM-80	G3VM-22
Dimensions mm (in)	Please refer to specific data sheets for all dimensional information	Please refer to specific data sheets for all dimensional information	Please refer to specific data sheets for all dimensional information	Please refer to specific data sheets for all dimensional information	Please refer to specific data sheets for all dimensional information
Features	<ul style="list-style-type: none"> <li>C x R characteristics as low as <math>5\text{pF} \cdot \Omega</math></li> <li>Low leakage current</li> <li>Very high operating speed</li> <li>Ideal for IC and Memory Test Equipment, SoC Testers, Measurement Devices, Instrumentation, Medical Equipment, Broadband Systems, Data Loggers, Security Systems</li> </ul>	<ul style="list-style-type: none"> <li>Smallest MOS FET relay on the market</li> <li>C x R characteristics as low as <math>5\text{pF} \cdot \Omega</math></li> <li>Low leakage current</li> <li>Very high operating speed</li> <li>Ideal for IC and Memory Test Equipment, SoC Testers, Measurement Devices, Instrumentation, Medical Equipment, Broadband Systems, Data Loggers, Security Systems</li> </ul>	<ul style="list-style-type: none"> <li>High current switching capability</li> <li>Low ON-resistance</li> <li>Low leakage current</li> <li>Cost effective solutions</li> <li>Ideal for Measurement Devices, Instrumentation, Security Systems, Medical Equipment, Alarm Controls, Consumer Electronics</li> </ul>	<ul style="list-style-type: none"> <li>High current switching capability</li> <li>Low ON-resistance</li> <li>Ideal for Broadband Systems, Measurement Devices, Instrumentation, Medical Equipment, Data Loggers, Consumer Electronics</li> </ul>	<ul style="list-style-type: none"> <li>Single input channel with dual output channels</li> <li>Low ON-resistance</li> <li>Ideal for Inline Interface Applications, Data Loggers, ADSL Modems and Routers, Edge Routers, Data Storage Devices</li> </ul>
Load voltage	0-20V (AC or DC) 0-40V (AC or DC)	0-20V (AC or DC) 0-40V (AC or DC)	0-60V (AC or DC)	0-80V (AC or DC)	0-20V (AC or DC)
<b>Maximum Ratings and Electrical Characteristics</b>	Continuous load current	0-120mA 0-160mA 0-300mA	0-120mA 0-160mA 0-300mA 0-450mA	0-400mA 0-500mA 0-1,000mA 0-2,000mA 0-2,500mA	0-350mA 0-1,250mA
ON resistance (typical)	1Ω, 5Ω, 10Ω	0.8Ω, 1Ω, 5Ω, 10Ω	0.12Ω (max.) 7Ω (max.) 1Ω (typ.)	0.11Ω & 1.0Ω	2Ω
Output capacitance	1.0pF (typ.) 5.0pF (typ.) 10pF (typ.)	0.8pF (typ.) 1.0pF (typ.) 5.0pF (typ.) 10pF (typ.)	–	–	–
Available switching configurations	1 Form A	1 Form A	1 Form A	1 Form A	Dual 1 Form A
Leakage current	1.0nA (max.)	1.0nA (max.)	1.0nA (max.) & 1.0μA (max.)	0.2nA (typ.) & 1.2nA (typ.)	1.0μA (max.)
turn-ON time (typical)	0.3ms	0.3ms	0.8ms 1.0ms 1.4ms	0.3ms 2.0ms	0.5ms
turn-OFF time (typical)	0.3ms	0.3ms	0.1ms 0.2ms 0.6ms	0.3ms 0.7ms	0.5ms
Dielectric strength (AC for 1 minute between input and output)	1,500Vrms (min.)	1,500Vrms (min.)	1,500Vrms (min.) 2,500Vrms (min.)	1,500Vrms (min.)	2,500Vrms (min.)
Available packaging & terminal choices	SOP 4 PIN	SOP 4 PIN	SOP, PCB, SMT 4 PIN, 6 PIN	SOP 4 PIN, 6 PIN	PCB & SMT 8 PIN
Accessories	Tape & reel	Tape & reel	Tape & reel	Tape & reel	Tape & reel
Approved standards	UL 1577	UL 1577	UL 1577	UL 1577	UL 1577

# Relays - Low Signal

					
<b>General Attributes</b>	<b>G6J-Y</b>	<b>G6K</b>	<b>G6H</b>	<b>G6S</b>	<b>G6A</b>
Dimensions mm (in)	10.0 H x 10.6 L x 5.7 W (0.39 x 0.42 x 0.22)	5.30 H x 10.20 L x 6.70 W (0.21 x 0.40 x 0.26)	5.08 H x 13.97 L x 8.89 W (0.20 x 0.55 x 0.35)	9.40 H x 15 L x 7.50 W (0.37 x 0.59 x 0.30)	8.40 H x 20.20 L x 10.10 W (0.33 x 0.80 x 0.40)
<b>Switching</b>	1A max.	1A max.	1A max.	2A max.	2A max.
<b>Features</b>	<ul style="list-style-type: none"> <li>• Slimline, 2 Form C, 1 Amp relay</li> <li>• SMT &amp; PCB versions</li> <li>• 2.5kV surge withstand</li> <li>• Available in SMT &amp; PCB</li> <li>• Latching &amp; non-latching versions</li> <li>• Ideal for Telecom, Test &amp; Measurement, Medical, Security, Computer Peripheral, Office Automation</li> </ul>	<ul style="list-style-type: none"> <li>• Small real estate, 2 Form C, 1 Amp relay</li> <li>• 100mW power consumption</li> <li>• 2.5kV surge withstand</li> <li>• SMT &amp; PCB versions</li> <li>• Latching &amp; non-latching models</li> <li>• Ideal for Telecom, Test &amp; Measurement, Medical, Security, Office Automation, Computer Peripheral</li> </ul>	<ul style="list-style-type: none"> <li>• Low profile (5mm), 2 Form C, 1 Amp relay)</li> <li>• Available in SMT &amp; PCB</li> <li>• 2.5kV surge withstand</li> <li>• 140mW power consumption</li> <li>• Ideal for Telecom, Test &amp; Measurement, Medical, Security, Office Automation, Computer Peripheral</li> </ul>	<ul style="list-style-type: none"> <li>• Industry standard, 2 Form C, 2 Amp relay</li> <li>• 2.5 kV surge withstand</li> <li>• SMT gullwing, SMT inside-L, PCB models</li> <li>• Latching &amp; non-latching versions</li> <li>• European version available (supplementary insulation at 250V at pollution degree 2 per EN60950/EN41003)</li> <li>• Ideal for Telecom, Thermostats, Medical, Test &amp; Measurement, Security</li> </ul>	<ul style="list-style-type: none"> <li>• Industry standard, 2 Form C, 2 Amp relay</li> <li>• 200mW, 400mW versions</li> <li>• 2 Pole &amp; 4 Pole models</li> <li>• Latching &amp; non-latching versions</li> <li>• 1.5kV surge withstand</li> <li>• Ideal for Telecom, Test &amp; Measurement, Security</li> </ul>
<b>Contact Information</b>					
Contact form	2 Form C	2 Form C	2 Form C	2 Form C	2 Form C, 4 Form C
Contact type	Bifurcated crossbar	Bifurcated crossbar	Bifurcated crossbar	Bifurcated crossbar	Bifurcated crossbar
Contact material	Ag with Au alloy clad	Ag with Au clad	Ag with Au clad	Ag with Au clad; AgPd with Au clad	Ag with Au clad; AgPd with Au clad
Rated load (under resistive load)	0.3A @ 125VAC, 1A @ 30VDC	0.3A @ 125VAC, 1A @ 30VDC	0.5A @ 125VAC, 1A @ 30VDC	0.5 @ 125VAC, 2A @ 30VDC	0.3A to 0.5A @ 125VAC, 1A to 2A @ 30VDC
Max. operating voltage	125VAC, 110VDC	125VAC, 60VDC	125VAC, 110VDC	250VAC, 220VDC	250VAC, 220VDC
Max. switching capacity under resistive load	37.5VA, 30W (NO)	37.5VA, 30W	62.5VA, 33W	62.5VA, 60W	125VA, 60W
Min. electrical service life (operations at rated load)	100,000	100,000	100,000	100,000	500,000
Min. permissible load (for reference only)	10µA @ 10mVDC	10µA @ 10mVDC	10µA @ 10mVDC	10µA @ 10mVDC	10µA @ 10mVDC
<b>Coil Information</b>					
Coil voltage	3, 4.5, 5, 12, 24VDC	3, 4.5, 5, 6, 9, 12, 24VDC	3, 5, 6, 9, 12, 24, 48VDC	3, 4.5, 5, 6, 9, 12, 24VDC	3, 5, 6, 9, 12, 24, 48VDC
Power consumption	140mW (230mW for DC24)	100mW (standard and latching)	140mW (standard)	140mW (standard) 140mW, 200mW (latching)	200mW (DPDT standard) 180mW (DPDT latching) 360mW (4PDT standard)
<b>Characteristics</b>					
Dielectric strength between coil & contacts (50/60 Hz for 1 minute)	1,500VAC	1,500VAC	1,000VAC	2,000VAC	1,000VAC
Surge withstand	2.5kV (2 x 10µs)	2.5kV (2 x 10µs)	1.5kV (10 x 160µs)	2.5kV (2 x 10µs)	1.5kV (10 x 160µs)
Terminal choices	SMT Gullwing, PCB	SMT Gullwing, SMT Inside-L, PCB	PCB (G6H), SMT Gullwing (G6H-2F)	SMT Gullwing, SMT Inside-L, PCB	PCB
Packaging	Tape & reel available	Tape & reel available	Tape & reel available	Tape & reel available	—
Approved standards	Bellcore 2.5kV / Telcordia GR-1089-CORE 2.5kV between coil and contacts	Bellcore 2.5kV / Telcordia GR-1089-CORE 2.5kV between coil and contacts	UL, CSA, (FCC Part 68)	Bellcore 2.5 kV / Telcordia GR-1089-CORE 2.5 kV (between coil and contacts)	UL, CSA, (FCC Part 68)

# Relays - Low Signal

					
<b>General Attributes</b>	<b>G5A</b>	<b>G5V-1</b>	<b>G6L</b>	<b>G5V-2</b>	<b>G6E</b>
<b>Dimensions mm (in)</b>	8.38 H x 16 L x 9.9 W (0.33 x 0.63 x 0.39)	10.0 H x 12.50 L x 7.50 W (0.39 x 0.49 x 0.30)	4.5 H x 10.6 L x 7.0 W (0.18 x 0.42 x 0.28)	11.43 H x 20.32 L x 9.91 W (0.45 x 0.80 x 0.39)	8.38 H x 16 L x 9.9 W (0.33 x 0.63 x 0.39)
<b>Switching</b>	1A max.	1A max.	1A max.	2A max.	3A max.
<b>Features</b>	<ul style="list-style-type: none"> <li>General use, 2 Form C, 1 Amp relay</li> <li>Semi-sealed or fully-sealed construction</li> <li>Ideal for Telecom, Security, Computer Peripheral, Office Automation</li> </ul>	<ul style="list-style-type: none"> <li>General use, 1 Form C, 1 Amp relay</li> <li>150mW power consumption</li> <li>1.5kV surge withstand</li> <li>Ideal for Telecom, Security, Computer Peripheral</li> </ul>	<ul style="list-style-type: none"> <li>Very low profile, 1 Form A, 1 Amp relay</li> <li>1.5kV surge withstand</li> <li>SMT &amp; PCB versions</li> <li>Ideal for Security &amp; General Use</li> </ul>	<ul style="list-style-type: none"> <li>2 Form C, 1-2 Amp relay</li> <li>Ideal for general use</li> <li>Industry standard footprint</li> <li>150mW, 360mW &amp; 500mW coil power versions</li> <li>1.5 kV surge withstand</li> </ul>	<ul style="list-style-type: none"> <li>General use, 1 Form C, 3 Amp relay</li> <li>2.5 kV surge withstand</li> <li>200mW, 400mW models</li> <li>Latching and non-latching versions</li> </ul>
<b>Contact Information</b>					
<b>Contact form</b>	2 Form C	1 Form C	1 Form A	2 Form C	1 Form C
<b>Contact type</b>	Bifurcated crossbar	Single crossbar	Single crossbar	Bifurcated crossbar	Bifurcated crossbar
<b>Contact material</b>	Ag with Au clad	Ag with Au clad	Ag with Au clad	Ag with Au clad	Ag with Au clad
<b>Rated load (under resistive load)</b>	0.5A @ 24VAC, 1A @ 24VDC	0.5A @ 125VAC, 1A @ 24VDC	0.3A @ 125VAC, 1A @ 24VDC	0.5A @ 125VAC, 2A @ 30VDC	0.4A @ 125VAC, 2A @ 30VDC
<b>Max. operating voltage</b>	125VAC, 125VDC	125VAC, 60VDC	125VAC, 60VDC	125VAC, 125VDC	250VAC, 220VDC
<b>Max. switching capacity under resistive load</b>	37.5VA, 33W	62.5VA, 30W	37.5VA, 24W	62.5VA, 60W	50VA, 60W
<b>Min. electrical service life (operations at rated load)</b>	100,000	100,000	100,000	300,000	100,000
<b>Min. permissible load (for reference only)</b>	1mA @ 5VDC	1mA @ 5VDC	1mA @ 5VDC	10µA @ 10mVDC	10µA @ 10mVDC
<b>Coil Information</b>					
<b>Coil voltage</b>	5, 6, 9, 12, 24, 48VDC	5, 6, 9, 12, 24VDC	3, 4.5, 5, 12, 24VDC	3, 5, 6, 9, 12, 24, 48VDC	3, 5, 6, 9, 12, 24, 48VDC
<b>Power consumption</b>	200mW (standard & latching)	150mW	180mW (standard)	500mW (standard) 360mW (high-sensitivity) 150mW (ultra-sensitive)	200mW (standard) 400mW (standard)
<b>Characteristics</b>					
<b>Dielectric strength between coil &amp; contacts (50/60 Hz for 1 minute)</b>	1,000VAC	1,000VAC	1,000VAC	1,000VAC	1,500VAC
<b>Surge withstand</b>	–	1.5kV (10 x 160µs)	–	1.5kV (10 x 160µs)	2.5kV (2 x 10µs)
<b>Terminal choices</b>	PCB	PCB	PCB, SMT Gullwing	PCB	PCB
<b>Packaging</b>	–	–	Tape & reel available	–	–
<b>Approved standards</b>	UL, CSA	UL, CSA	UL/CSA (FCC Part 68)	UL, CSA	UL/CSA (FCC Part 68) Bellcore 2.5kV / Telcordia GR-1089-CORE 2.5kV between coil and contacts

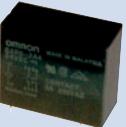
# Relays - Low Signal RF/HF

					
<b>General Attributes</b>	<b>G6W</b>	<b>G6Y</b>	<b>G6Z</b>	<b>G6K-RF</b>	<b>G9YA</b>
<b>Dimensions mm (in)</b>	8.9 H x 20 L x 9.4 W (0.35 x 0.79 x 0.37)	9.20 H x 20.70 L x 11.70 W (0.36 x 0.81 x 0.46)	8.9 H x 20 L x 8.6 W (0.35 x 0.79 x 0.34)	5.4 H x 10.3 L x 6.9 W (0.21 x 0.41 x 0.27)	39.0 H x 34.0 L x 13.2 W (1.54 x 1.34 x 0.52)
<b>Switching</b>	0.5A max.	1A max.	0.5A max.	1A max.	100mA max.
<b>Features</b>	<ul style="list-style-type: none"> <li>• 5GHz+ HF relay</li> <li>• 1 Form C</li> <li>• Tri-plate micro strip line technology</li> <li>• Latching &amp; non-latching models</li> <li>• SMT and PCB versions</li> <li>• Ideal for Base Station LNA &amp; TMA switching, Test &amp; Measurement, Broadcast, FWA</li> </ul>	<ul style="list-style-type: none"> <li>• 900MHz+ HF relay</li> <li>• 1 Form C</li> <li>• Micro strip line technology</li> <li>• Ideal for CATV, Digital TV tuners, Test &amp; Measurement</li> </ul>	<ul style="list-style-type: none"> <li>• 2.6GHz+ HF relay</li> <li>• 1 Form C</li> <li>• Micro strip line technology</li> <li>• 75 Ω &amp; 50 Ω impedance models</li> <li>• Latching &amp; non-latching models</li> <li>• Reverse terminal configurations</li> <li>• Y &amp; E terminal configurations</li> <li>• SMT and PCB versions</li> <li>• Ideal for Base Station LNA &amp; TMA switching, CATV, Digital TV tuners, Test &amp; Measurement, Broadcast, FWA</li> </ul>	<ul style="list-style-type: none"> <li>• 1GHz+ HF relay</li> <li>• 2 Form C</li> <li>• 100mW coil power</li> <li>• Smallest 2 Form C on the market</li> <li>• Ideal for Test &amp; Measurement, CATV, Digital TV tuners</li> </ul>	<ul style="list-style-type: none"> <li>• 26.5GHz bandwidth</li> <li>• Coaxial HF relay</li> <li>• 60dB isolation (26.5GHz)</li> <li>• Contact carry power of 120W at 3GHz</li> <li>• Available in failsafe &amp; TTL-driven models</li> <li>• Also available in non-latching and dual latching configurations</li> <li>• Ideal for Mobile Communications Infrastructure Equipment, Broadcast Equipment, Test and Measurement Equipment, Wireless LAN</li> </ul>
<b>HF Characteristics</b>					
<b>Isolation</b>	65dB (2GHz) 60dB (2.5GHz) 40dB (5.0GHz)	65dB (900MHz)	60 - 65dB (900MHz) 30 - 45dB (2.6GHz)	20 - 30dB (1GHz)	60dB (26.5GHz) 65dB (12.4GHz)
<b>Insertion loss</b>	0.2dB (2GHz) 0.2dB (2.5GHz) 0.4dB (5.0GHz)	0.5dB (900MHz)	0.1 - 0.2dB (900MHz) 0.3 - 0.5dB (2.6GHz)	0.2dB (1GHz)	0.8dB (26.5GHz) 0.4dB (12.4GHz) 0.3dB (8GHz)
<b>VSWR</b>	1.2 (2GHz) 1.2 (2.5GHz) 1.5 (5.0GHz)	1.5 (900MHz)	1.1 - 1.2 (900MHz) 1.3 - 1.5 (2.6GHz)	0.2dB (1GHz)	1.7 (26.5GHz) 1.35 (12.4GHz) 1.25 (8GHz)
<b>Contact Information</b>					
<b>Contact form</b>	1 Form C	1 Form C	1 Form C	2 Form C	1 Form C
<b>Contact type(s)</b>	Twin crossbar	Twin crossbar	Twin crossbar	Bifurcated crossbar	Twin crossbar
<b>Contact material</b>	Au clad Cu alloy	Au clad Cu alloy	Au clad Cu alloy	Au alloy on Ag base	Au clad Cu alloy
<b>Rated load (under resistive load)</b>	10mA @ 30VAC 10mA @ 30VDC 2.5GHz, 10W	10mA @ 30VAC; 10mA @ 30VAC; 900 MHz, 1W	10mA @ 30VAC; 10mA @ 30VDC; 900MHz, 10W	0.3A @ 125VAC; 1A @ 30VDC	100mA @ 30VDC
<b>Max. operating voltage</b>	30VDC, 30VAC	30VDC, 30VAC	30VDC, 30VAC	60VDC, 125VAC	30VDC
<b>Max. switching capacity under resistive load</b>	10VA, 10W	10VA, 10W	10VA, 10W	37.5VA, 30W	120W (3GHz)
<b>Min. electrical service life (operations at rated load)</b>	300,000	300,000	300,000	300,000	5,000,000
<b>Coil Information</b>					
<b>Coil voltage</b>	3, 4.5, 9, 12, 24VDC	3, 4.5, 5, 6, 9, 12, 24VDC	3, 4.5, 5, 9, 12, 24VDC	3, 4.5, 5, 6, 9, 12, 24VDC	4.5, 5, 12, 15, 24, 28VDC
<b>Power consumption</b>	200mW (standard) 200mW (single latching) 360mW (dual latching)	200mW	200mW (standard) 200mW (single latching) 360mW (dual latching)	100mW	500mW (dual latching) 700mW (failsafe)
<b>Characteristics</b>					
<b>Dielectric strength between coil &amp; contacts (50/60 Hz for 1 minute)</b>	1,000VAC	1,000VAC	1,000VAC	750VAC	500VAC
<b>Terminal choices</b>	PCB, SMT Gullwing	PCB	PCB, SMT Gullwing	SMT Gullwing	SMA Terminals, Solder Terminals, Pin Terminals
<b>Packaging / Options</b>	–	–	Tape & reel available	–	Connector Cables

# Relays - Power PCB

				
<b>General Attributes</b>	<b>G5NB</b>	<b>G5NB-E</b>	<b>G5SB</b>	<b>G6D-ASI</b>
<b>Dimensions mm (in)</b>	15.3 H x 20.5 L x 7.2 W (0.60 x 0.81 x 0.28)	15.3 H x 20.5 L x 7.2 W (0.60 x 0.81 x 0.28) max.	15.8 H x 20.3 L x 10.3 W (0.62 x 0.80 x 0.41)	12.5 H x 17.5 L x 6.5 W (0.49 x 0.69 x 0.26)
<b>Switching</b>	3A/5A	3A/5A	5A(NO)/3A(NC)	5A
<b>Features</b>	<ul style="list-style-type: none"> <li>High capacity 5A version available</li> <li>Meets EN tracking resistance CTI&gt;250</li> <li>HA version for home appliances</li> </ul>	<ul style="list-style-type: none"> <li>Small compact form for 10 kV impulse and 5A switching capability</li> <li>Meets EN tracking resistance CTI&gt;250</li> </ul>	<ul style="list-style-type: none"> <li>High insulation between coil &amp; contact</li> <li>Impulse withstand of 8kV</li> <li>Fully Sealed</li> <li>Incorporates 5A NO contact</li> </ul>	<ul style="list-style-type: none"> <li>Subminiature, slim lightweight design</li> <li>Low power consumption</li> <li>Fully Sealed</li> </ul>
<b>Contact Information</b>				
<b>Contact form</b>	1 Form A	1 Form A	1 Form A	1 Form A
<b>Contact type(s)</b>	Single button	Single button	Single button	Single button
<b>Contact material(s)</b>	AgNi	AgSnIn	AgNi/AgSnIn	AgNi/AgSnIn
<b>Electrical service life (@ 1800 ops./hr.)</b>	(resistive load) 200,000 (resistive): 3A @ 125VAC/30VDC	200,000 (resistive): 3A @ 30VDC 100,000: 5A @ 250VAC	For resistive loads: 200,000: 3 A (NO)/3 A (NC) at 125 VAC; 50,000: 5 A (NO)/3 A (NC) at 125 VAC; 50,000: 5 A (NO) at 250 VAC; 10,000: 3 A (NC) at 250 VAC; 10,000: 5 A (NO)/3 A (NC) at 30 VDC	300,000: 2A @ 30VDC/250VAC 70,000: 5A @ 30VDC/250VAC
<b>Max. switching capacity (and resistive load)</b>	375VA, 90W	1,250VA, 90W	1,250VA, 150W(NO) 750VA, 30W(NC)	1,250VA, 150W
<b>Minimum permissible load (for reference only)</b>	10mA @ 5VDC	10mA @ 5VDC	10mA @ 5VDC	10mA @ 5VDC
<b>Coil Information</b>				
<b>Coil voltage</b>	5, 12, 18, 24VDC	5, 12, 18, 24VDC	5, 9, 12, 24VDC	5, 12, 24, 48, 110/120VDC
<b>Power consumption</b>	200mW	200mW	400mW	200mW
<b>Insulation class</b>	Class A	Class B	Class B	Class B
<b>Characteristics</b>				
<b>Operating temperature</b>	-40 to +70°C	-40 to +85°C	-40 to +70°C	-25 to +70°C
<b>Impulse withstand voltage (1.2 x 50μ sec. unless noted)</b>	10kV	10kV	8kV	6kV
<b>Dielectric strength (50/60 Hz for 1 minute)</b>	4,000VAC (coil-contact) 750VAC (open contacts)	4,000VAC (coil-contact) 750VAC (open contacts)	4,000VAC (coil-contact) 1,000VAC (open contacts)	3,000VAC (coil-contact) 750VAC (open contacts)
<b>Terminal choices</b>	PCB	PCB	PCB	PCB
<b>Protection level</b>	Semi-sealed	Semi-sealed	Semi-sealed	Semi-sealed
<b>Accessories</b>	N/A	N/A	N/A	Socket for back connecting, sockets with PCB terminals
<b>Approved standards</b>	UL, CSA, VDE	UL, CSA, VDE	UL, CSA, VDE	UL, CSA, TUV, SEV

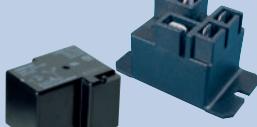
# Relays - Power PCB

	<b>NEW!</b> 	<b>NEW!</b> 		
<b>General Attributes</b>	<b>G6DS</b>	<b>G6M</b>	<b>G2RG</b>	<b>G6B</b>
<b>Dimensions mm (in)</b>	12.4 H x 20 L x 5.0 W (0.60 x 0.81 x 0.28)	17.7 H x 20.3 L x 5.08 W (0.70 x 0.80 x 0.20)	25.5 H x 29 L x 13 W (1.00 x 1.14 x 0.51)	9.91 H x 20.07 L x 9.91 W (0.39 x 0.79 x 0.39)
<b>Switching</b>	5A	5A	8A	8A/5A
<b>Features</b>	<ul style="list-style-type: none"> <li>• Slim 5mm for max. density mounting</li> <li>• High sensitive coil option reduces power consumption</li> <li>• Meets EN reinforced insulation requirement for control equipment</li> <li>• Fully sealed</li> <li>• Resistant to mechanical shock</li> </ul>	<ul style="list-style-type: none"> <li>• Slim 5mm width, &amp; reduced PCB area (103mm<sup>2</sup>) ideal for high-density mounting</li> <li>• Highly efficient magnetic circuit for high sensitivity</li> <li>• UL Class I, Division II approved for hazardous locations</li> </ul>	<ul style="list-style-type: none"> <li>• 1.5mm contact gap x 2 poles=3mm total gap meeting UPS standards</li> <li>• Dimensions &amp; mounting holes are same as G2R relay series</li> <li>• Sealed construction, standard</li> <li>• Meets EN tracking resistance CTI &gt; 250</li> <li>• UL508/CSA 22.2</li> </ul>	<ul style="list-style-type: none"> <li>• Subminiature and low power</li> <li>• Sealed construction standard</li> <li>• Single &amp; dual coil latching available</li> </ul>
<b>Contact Information</b>				
<b>Contact form</b>	1 Form A	1 Form A	2 Form A	1 Form A, 2 Form A, 2 Form B 1 Form A + 1 Form B
<b>Contact type(s)</b>	Single button	Single button	Single button	Single button
<b>Contact material(s)</b>	AgNi	Ag-Alloy	AgSnO <sub>2</sub>	AgSnO <sub>2</sub>
<b>Electrical service life (@ 1800 ops./hr.) (resistive load)</b>	100,000: 5A @ 30VDC/250VAC 80,000 (high sensitivity): 5A @ 30VDC/250VAC	100,000: 3A @ 30VDC/250VAC 6,000: 5A @ 250VAC/24VDC	10,000: 8A @ 250VAC	100,000: 5A @ 30 VDC/250VAC 8A @ 30 VDC/250VAC (high-capacity)
<b>Max. switching capacity (resistive load)</b>	1,250VA, 150W	750VA, 90W	2,000 VA	1,250VA, 150W 2,000VA, 240W (high-capacity type)
<b>Minimum permissible load (for reference only)</b>	5mA @ 24VDC	10mA @ 5VDC	10mA @ 5VDC	10mA @ 5VDC
<b>Coil Information</b>				
<b>Coil voltage</b>	5, 12, 24VDC	5, 12, 24VDC	12, 24VDC	5, 6, 12, 24VDC
<b>Power consumption</b>	180mW 120mW (high-sensitivity)	120mW	800mW	200mW (1 pole) 300mW (2 pole)
<b>Insulation class</b>	Class B	Class B	Class B	Class A
<b>Characteristics</b>				
<b>Operating temperature</b>	-40 to +85°C	-40 to +85°C	-40 to +70°C	-25 to +70°C
<b>Impulse withstand voltage (1.2 x 50μ sec. unless noted)</b>	6kV	5.08kV	10kV	—
<b>Dielectric strength (50/60 Hz for 1 minute)</b>	3,000VAC (coil-contacts) 750VAC (open contacts)	3,000VAC, (coil-contact) 750VAC, (open contacts)	5,000VAC, (coil-contact) 3,000VAC, (contacts pole-pole) 1,000VAC (open contacts)	4,000VAC (coil-contact) 2,000VAC (contacts pole-pole) 1,000VAC (open contacts)
<b>Terminal choices</b>	PCB	PCB	PCB	PCB
<b>Protection level</b>	Fully Sealed	Fully sealed	Fully sealed	Fully sealed
<b>Accessories</b>	Socket for back connecting, sockets with PCB terminals	N/A	N/A	Sockets & clips for back connecting sockets with PCB terminals
<b>Approved standards</b>	UL, CSA, VDE	UL, CSA, VDE, EN, IEC 61131-2, IEC 61010	UL, CSA, VDE (0700/0110)	UL, CSA, (FCC Part 68) SEV, TUV, IEC

# Relays - Power PCB

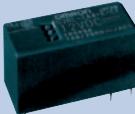
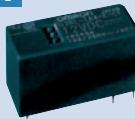
		<b>NEW!</b>	<b>NEW!</b>	
<b>General Attributes</b>	<b>G6RN</b>	<b>G5LE/E</b>	<b>G5LB/25</b>	<b>G5Q</b>
<b>Dimensions mm (in)</b>	15 H x 28.5 L x 10 W (0.59 x 1.12 x 0.39)	19 H x 22.5 L x 16.5 W (0.75 x 0.89 x 0.65)	15.2 H x 19.6 L x 15.6 W (0.60 x 0.77 x 0.61)	15.8 H x 20.3 L x 10.3 W (0.62 x 0.80 x 0.41)
<b>Switching</b>	8A	10A (16A for Semi-sealed "E" type)	10A	10A (NO contacts)
<b>Features</b>	<ul style="list-style-type: none"> <li>• 8 mm coil/contact creepage</li> <li>• Low profile</li> <li>• Sealed construction standard</li> <li>• Ideal for switching contactors, solenoids &amp; motors</li> </ul>	<ul style="list-style-type: none"> <li>• Small "sugar cube" size used as common platform</li> <li>• Sealed construction optional</li> <li>• High capacity contacts:-E</li> <li>• Increased (0.8) contact gap:-G8</li> <li>• Special application versions available</li> </ul>	<ul style="list-style-type: none"> <li>• Sealed construction optional</li> <li>• 10A switching in low profile "sugar cube" package</li> <li>• Optional -25 type meets stringent EU requirements, including tracking resistance CTI &gt; 250 &amp; extended life</li> <li>• 4.5kV impulse withstand</li> <li>• Low power consumption</li> </ul>	<ul style="list-style-type: none"> <li>• Compact PCB relay with high insulation</li> <li>• Withstands impulse of 8kV coil-contacts</li> <li>• Meets EN tracking resistance CTI &gt;250</li> <li>• Class F coil insulation standard</li> <li>• Low power consumption</li> </ul>
<b>Contact Information</b>	1 Form A, 1 Form C	1 Form A, 1 Form C	1 Form A, 1 Form C	1 Form A, 1 Form C
<b>Contact form</b>	Single button	Single button	Single button	Single button
<b>Contact type(s)</b>	AgNi +gold plating	AgSnO <sub>2</sub> /AgSnIn (either with gold plating option)	AgSnO <sub>2</sub>	AgNi
<b>Electrical service life (@ 1800 ops./hr.) (resistive load)</b>	100,000: 8A @ 250VAC 5A @ 30VDC	100,000: 13A @ 120VAC (@ 85°C/87°C) 5A @ 250 VAC (AgSnO2) 6 FLA, 6 LRA @ 120VAC @ 85°C TV-5 @120VAC 50,000: 10A @ 250VAC 50,000 16A @ 250VAC 1/8 HP @ 120 VAC (@ 85°C) 30,000: 12A @ 120VAC	100,000: 10A @ 120VAC/250VAC 8A @ 30VDC	200,000: 3A (NO)/3 A (NC) @ 125VAC 100,000: 3A (NO)/3 A (NC) @ 250VAC 5A (NO)/3 A (NC) @ 30VDC 50,000: 10A (NO) @125VAC (900 ops.per hour)
<b>Max. switching capacity (resistive load)</b>	2,000VA,150W	1,200VA,240W	1,200VA, 240W 2,500VA, 240W (-25 type)	1,250VA,150W (NO) 375 VA, 90W (NC)
<b>Minimum permissible load (for reference only)</b>	10mA @ 5 VDC	100mA @ 5VDC,	100mA @ 5VDC	10mA @ 5VDC
<b>Coil Information</b>				
<b>Coil voltage</b>	5, 6, 12, 24, 48VDC	5, 6, 9, 12, 24, 48VDC	3, 5, 6, 9, 12, 24, 36, 48VDC	5, 12, 24VDC
<b>Power consumption</b>	220mW, 250mW (DC24/48)	400mW /360mW available	360mW (standard) 400mW ("40" style) 600mW ("60" style)	400mW Form C 200mW Form A
<b>Insulation class</b>	Class B	Class B, F (UL/CSA ONLY)	Class B, F (-25 type)	Class F
<b>Characteristics</b>				
<b>Operating temperature</b>	-40 to +85°C	-40 to +85°C	-40 to +85°C	-40 to +105°C
<b>Impulse withstand voltage (1.2 x 50μ sec. unless noted)</b>	—	4.5kV	4.5kV	8kV
<b>Dielectric strength (50/60 Hz for 1 minute)</b>	4,000VAC (coil-contact) 1,000 (open contacts)	2,000VAC (coil-contact) 750VAC (open contacts)	2,000VAC (coil-contact) 750VAC (open contacts)	4,000VAC (coil-contact) 1,000VAC (open contacts)
<b>Terminal choices</b>	PCB	PCB	PCB	PCB
<b>Protection level</b>	Sealed	Standard: Semi-sealed/vented, Option: sealed	Standard: Semi-sealed/vented, Option: sealed	Standard: Semi-sealed/vented, Option: sealed
<b>Accessories</b>	N/A	N/A	N/A	N/A
<b>Approved standards</b>	UL, CSA, VDE	UL, CSA, TUV, VDE	UL, CSA, VDE	UL, CSA, VDE

# Relays - Power PCB

   				
<b>NEW TYPES</b>				
General Attributes	G6C	G5CA	G5PA-1	G8PT
Dimensions mm (in)	9.91 H x 20.07 L x 14.99 W (0.39 x 0.79 x 0.59)	11 H x 16 L x 22 W (10A) (0.43 x 0.63 x 0.87) 11 H x 22 L x 25 W (15A)	25 H x 24 L x W 10 (0.985 x 0.95 x 0.40)	Multiple, refer to catalog. Basic: 20.1(H) x 32.1(L) x 27.7(W)
Switching	10A	10A (15A high capacity)	5A (10A option)	30A (SPST) 10A-30A (SPDT)
Features	<ul style="list-style-type: none"> <li>Low power consumption for high power switching</li> <li>Low profile 10A power relay</li> <li>Single &amp; dual coil latching types available</li> <li>Sealed construction available</li> <li>Meets EN tracking resistance CTI &gt; 250</li> </ul>	<ul style="list-style-type: none"> <li>Fully sealed or flux-sealed</li> <li>High capacity versions</li> <li>High sensitivity types</li> <li>PCB or PCB+QC versions</li> </ul>	<ul style="list-style-type: none"> <li>Ideal for TVs, tuner, &amp; audio power supply switching, both front panel and remote controlled. Also auxiliary switched power outlets on tuners and TVs.</li> <li>A variety of versions in a single standard package meet most UL/FCC power isolation requirements</li> <li>Rated to 100A inrush @ 250 VAC for minimum 40,000 operations</li> </ul>	<ul style="list-style-type: none"> <li>Industry standard form with 30A switching</li> <li>UL Class F insulation standard</li> <li>Wide range of coil ratings</li> <li>Various sealing forms: open frame, vented/flux sealed, fully sealed</li> <li>UL508/UL873 Column A spacings</li> <li>Meets EN Tracking resistance CTI &gt; 175</li> <li>High dielectric at open contacts</li> </ul>
<b>Contact Information</b>				
Contact form	1 Form A + 1 Form B, 1 Form A	1 Form A	1 Form A	1 Form A, 1 Form C
Contact type(s)	Single button	Single button	Single button	Single button
Contact material(s)	Ag-Alloy	AgSnIn	AgSnO <sub>2</sub>	AgSnIn (other alloys available)
Electrical service life (@ 1800 ops./hr.) (resistive load)	100,000: 10A @ 30VDC/250VAC	100,000: 10A @ 30VDC 15A @ 110VAC (high capacity) 10A @ 250VAC (fully sealed, std) 300,000: 10A @ 250VAC (semi-sealed)	30,000: 5A @ 277 VAC 5A @ 30VDC / 277VAC (high capacity type) 25,000: TV-5 TV-8 (optional) 6,000: 5A @ 30VDC 100,000: 10A @ 250 VAC (high-capacity type)	100,000: 30A @ 277VAC (NO) 50,000: 30A @ 277VAC (NC) Consult catalog for other ratings
Max. switching capacity (resistive load)	2,500VA, 300W 2,000VA, 240W (latching)	2,500VA, 300W	N/A	1 Form A: 7,500VA, 560W 1 Form C: 5000/2500VA, 560W/280W*
Minimum permissible load (for reference only)	10mA @ 5VDC	100mA @ 5VDC	10mA @ 5 VDC	500mA @ 5VDC
<b>Coil Information</b>				
Coil voltage	3, 5, 6, 12, 24VDC	5, 12, 24VDC	5, 6, 9, 12, 24 VDC (4.5 VDC non-standard)	5, 9, 12, 24, 48, 110VDC Other coil voltages available
Power consumption	200mW (monostable & single coil latching) 280mW (dual coil latching)	200mW (standard & high capacity) 150mW (high sensitivity)	250mW 530mW (high capacity, extended electrical life) 150mW (under development)	900mW
Insulation class	Class A	Class B	Class B	Class F
<b>Characteristics</b>				
Operating temperature	-40 to +70°C	-25 to +70°C	-40 to +70°C	-55°C to +105°C
Impulse withstand voltage (1.2 x 50µ sec. unless noted)	4.5kV	4.5kV	10kV 12kV	6kV
Dielectric strength (50/60 Hz for 1 minute)	2,000VAC (coil -contact) 2,000VAC (contacts pole-pole) 1,000VAC (open contacts)	2,500VAC (coil-contact) 1,000VAC (open contacts)	4,000VAC (coil-contacts) 1,000VAC (open contacts)	2,500VAC, (coil-contact) 1,500VAC, (open contacts)
Terminal choices	PCB, self clinching	PCB Optional: PCB+quick-connect contact terminals	PCB	PCB (optional self-clinching) PCB coil /quick connect contact Flange mount all quick connect
Protection level	Semi-sealed Fully sealed option	Semi-sealed Fully sealed option	Semi-sealed	Open frame, Vented/semi-sealed, Fully sealed
Accessories	Socket for QC contact terms., PCB terms., socket clip	N/A	N/A	N/A
Approved standards	UL, CSA, VDE, SEV	UL, CSA, SEV, SEMKO, IEC/TUV	UL, CSA, SEMKO TUV, VDE	UL, CSA, VDE

\* N.O. Contact / N.C. Contact

# Relays - Power PCB

				
<b>General Attributes</b>	<b>G2R</b>	<b>G2RL</b>	<b>G5RL</b>	<b>G2RL-TP</b>
<b>Dimensions mm (in)</b>	25.5 H x 29 L x 13 W (1 x 1.14 x 0.51)	15.5 H x 29 L x 12.7 W (0.61 x 1.14 x 0.50)	15.7 H x 28.8 L x 12.5 W (0.61 x 1.14 x 0.49)	15.7H x 40.4 L x 12.5 W (0.61 x 1.60 x 0.49)
<b>Switching</b>	16A max.	16A max.	16A max. (NO), 5A max. (NC)	16A max.
<b>Features</b>	<ul style="list-style-type: none"> <li>High dielectric withstand</li> <li>8mm coil/contact spacing</li> <li>1 &amp; 2 pole models</li> <li>3mm contact gap version available (see G2RG)</li> <li>Meets EN tracking resistance CTI &gt; 250</li> </ul>	<ul style="list-style-type: none"> <li>Low profile for power rating</li> <li>High isolation</li> <li>Class F insulation option</li> <li>Low power consumption</li> <li>Quick connect terminal option</li> <li>Meets EN tracking resistance CTI &gt; 250</li> </ul>	<ul style="list-style-type: none"> <li>High dielectric due to large internal creepage distances.</li> <li>AC coil in industry standard package</li> </ul>	<ul style="list-style-type: none"> <li>Increased temperature &amp; insulation ratings in low profile package.</li> <li>Simplifies PCB design by allowing removal of high power PCB tracings.</li> <li>Contact/load terminals in both 5mm for RAST5 connection &amp; 7.5mm existing standard</li> <li>Single mounting/soldering process for both types of terminals reduces PCB assembly costs.</li> </ul>
<b>Contact Information</b>				
<b>Contact form</b>	1 Form A, 1 Form C, 2 Form A, 2 Form C	1 Form A, 1 Form C, 2 Form A, 2 Form C	1 Form C	1 Form A
<b>Contact type(s)</b>	Single button, bifurcated button	Single button (bifurcated available)	Single button	Single button
<b>Contact material(s)</b>	Ag alloy	AgSnO <sub>2</sub> (1 pole); AgNi (2 pole)	AgSnIn	Ag alloy
<b>Electrical service life (@ 1800 ops./hr.) (resistive load)</b>	100,000: (high-capacity type) 16A @ 30VDC/250VAC Consult catalog for other ratings	100,000: 16A @ 250VAC 6,000: 25A @ 240VAC Consult catalog for other ratings	50,000: 16A @ 24VDC/277VAC (NO) 25,000: TV-5 (NO)	50,000: 16A @ 24VDC/277VAC 20A @ 24 VAC (@ 85°C) 25,000: TV-5
<b>Max. switching capacity (resistive Load)</b>	4,000VA, 480W (high-capacity 1 pole) Consult catalog for other ratings	4,000VA, 384W (high-capacity 1 pole) Consult catalog for other ratings	4,000VA, 384W (NO) 1,250VA, 120W (NC)	4,000VA,
<b>Minimum permissible load (@1800 ops./hr.)</b>	1 pole: 100mA @ 5VDC; 2 pole: 10mA @ 5VDC	40mA, 24VDC	40mA @ 24VDC	—
<b>Coil Information</b>				
<b>Coil voltage</b>	12, 18, 24, 48, 50, 100, 110/120, 110, 120, 200/220, 220, 230, 240VAC 5, 6, 9, 12, 18, 24, 48, 60, 100, 110VDC	5, 12, 24, 48VDC	24, 100, 115/120, 200, 230/240 VAC 5, 12, 24, 48VDC	12, 24VDC Consult catalog for other coil voltages
<b>Power consumption</b>	0.9VA, 530mW (standard) 360mW (high sensitivity) 850mW (latching set), 600mW (latching reset)	400mW (430mW for 48VDC)	0.75VA 400mW (430mW @ 48VDC)	400mW (430mW for 48VDC)
<b>Insulation class</b>	Class B available	Class F	—	Class F
<b>Characteristics</b>				
<b>Operating temperature</b>	-40 to +70°C (+85°C option)	-40 to +85°C	-40 to +70°C (AC coil) -40 to +85°C (DC coil)	-40 to +105°C
<b>Impulse withstand voltage (1.2 x 50μ sec. unless noted)</b>	10kV	10kV	10kV	10kV
<b>Dielectric strength (50/60 Hz for 1 minute)</b>	5,000VAC (coil-contact) 1,000 VAC (open contacts)	5,000VAC (coil-contact) 1,000 VAC (open contacts)	6,000VAC (coil-contact) 1,000VAC (open contacts)	5,000 VAC, (coil-contact) 1,000 VAC, (open contacts)
<b>Terminal choices</b>	PCB, plug in quick-connect (flange mount)	PCB, optional quick-connect contact terminals (-TP type)	PCB	PCB (coil terminals) Quick-connect (contact terminals)
<b>Protection level</b>	Semi-sealed Fully sealed option	Semi-sealed Fully sealed option	Semi-sealed	Semi-sealed
<b>Accessories</b>	N/A	N/A	N/A	N/A
<b>Approved standards</b>	UL, CSA, SEV SEMKO, VDE, TUV	UL, CSA, VDE	UL, CSA, VDE	UL, CSA, EN 60335

# Relays - DC Power

The switching and driving sections are isolated, gas injected and hermetically sealed. This advanced construction requires no arc space, saves space, & helps ensure safety.

			
<b>General Attributes</b>	<b>G9EA</b>	<b>G9EB</b>	<b>G9EC</b>
<b>Model</b>	<b>G9EA-1(-B)</b>	<b>G9EA-1(-B)-CA</b>	<b>G9EB (-1B)</b>
<b>Classification</b>	Switching/current conduction	High-current conduction	Switching/current conduction
<b>Features</b>	Standard compact model carries/switches 400VDC, 60A loads	Carries 100A Low contact resistance when carrying current	Smallest in series 250VDC, 25A loads
<b>Contact Information</b>			
<b>Contact Form</b>	SPST-NO	SPST-NO	SPST-NO
<b>Contact structure</b>	Double-break, single	Double-break, single	Double-break, single
<b>Contact resistance</b>	30mΩ max. (0.6mΩ typical)	10mΩ max. (0.3mΩ typical)	30mΩ max.
<b>Switching voltage drop</b>	0.1V max. (for a carry current of 60A)	0.1V max. (for a carry current of 100A)	0.1V max (for a carry current of 25A)
<b>*Electrical endurance</b>	120VDC, 100A, 3,000 operations min. 400VDC, 60A, 3,000 operations min. 400VDC, 30A, 30,000 operations min.	400VDC, 30A, 1,000 operations min. 120VDC, 30A, 2,500 operations min.	250VDC, 25A, 30,000 operations min.
<b>Max. switching current</b>	100A	30A	25A
<b>Rated carry current</b>	60A	100A	25A
<b>Short-time carry current</b>	100A (10 min.)	150A (10 min.)	50A (5 min.), 40A (10min.)
<b>*Max. interruption current</b>	600A @ 300VDC (5 times)	—	100A @ 250VDC (5 times)
<b>*Overload interruption</b>	180A @ 400VDC (100 times min.)	100A @ 120VDC (150 times min.)	50A @ 250VDC (50 times min.)
<b>Reverse polarity interruption</b>	-60A @ 200VDC (1,000 times min.)	—	—
<b>Coil Information</b>			
<b>Rated voltage</b>	12, 24, 48, 60 & 100VDC	12, 24, 48, 60 & 100VDC	12, 24, 48, 60 & 100VDC
<b>Power consumption</b>	Approx. 5 to 5.4W	Approx. 5 to 5.4W	Approx. 2W
<b>Mechanical endurance</b>	200,000 operations min.	200,000 operations min.	100,000 operations min.
<b>Insulation resistance</b>			
<b>Between Coil &amp; Contacts</b>	1,000MΩ min.	1,000MΩ min.	1,000MΩ min.
<b>Between contacts of the same polarity</b>	1,000MΩ min.	1,000MΩ min.	1,000MΩ min.
<b>Dielectric strength</b>			
<b>Between coil &amp; contacts</b>	2,500VAC for 1min.	2,500VAC for 1min.	2,500VAC for 1min.
<b>Between contacts of the same polarity</b>	2,500VAC for 1min.	2,500VAC for 1min.	2,500VAC for 1min.
<b>Impulse withstand voltage</b>	4,500V	4,500V	4,500V
<b>Ambient operating temperature</b>	-40 to +70°C (with no icing or condensation)	-40 to +70°C (with no icing or condensation)	-40 to +70°C (with no icing or condensation)
<b>Terminals</b>			
<b>Screw terminals</b>	Yes	Yes	Yes
<b>Lead wire output</b>	Yes	Yes	Yes

\*When using a varistor as protective circuit against reverse surge in the relay coil

# Relays - General Purpose

				
<b>General Attributes</b>	<b>MY4H</b>	<b>MK</b>	<b>MY</b>	<b>LY</b>
<b>Dimensions mm (in)</b>	35 H x 28.5 L x 22 W (1.38 x 1.12 x 0.87)	52.58 H x 34.54 L x 34.54 W (2.07 x 1.36 x 1.36)	36 H x 28 L x 21.5 W (1.42 x 1.10 x 0.85)	35.56 H x 27.94 L x 21.59 W (1.40 x 1.10 x 0.85)
<b>Switching</b>	3A	10 A max.	10A (2 pole); 5A (4 pole)	15A
<b>Features</b>	<ul style="list-style-type: none"> <li>Full hermetic seal for hazardous applications</li> <li>UL Class1, Division II approved</li> <li>Signal level switching option using bifurcated contacts</li> </ul>	<ul style="list-style-type: none"> <li>Octal base plug-in</li> <li>Exceptional reliability</li> <li>Push-to-test button standard</li> <li>Arc barrier built into 4 pole</li> <li>Built in diode (DC) or C/R Circuit</li> <li>Name plate and mechanical indicator, standard</li> </ul>	<ul style="list-style-type: none"> <li>Exceptional reliability</li> <li>Push-to-test button standard</li> <li>Arc barrier built into 4 pole</li> <li>Built in diode (DC) or C/R Circuit</li> <li>Name plate and mechanical indicator, standard</li> </ul>	<ul style="list-style-type: none"> <li>Compact power relay</li> <li>LED, Push-to-test button, bifurcated contacts and other features available</li> <li>Space efficient power switching</li> <li>Extended life to 500,000/200,000 operations</li> </ul>
<b>Contact Information</b>				
<b>Contact form</b>	4 Form C	2 Form C, 3 Form C	2 Form C, 4 Form C	1 Form C, 2 Form C, 3 Form C, 4 Form C
<b>Contact type(s)</b>	Single button, bifurcated button	Single button	Single button, bifurcated button	Single button, bifurcated
<b>Contact material(s)</b>	AgSnIn	Ag (fine silver)	AgNi	Ag-Alloy
<b>Electrical service life (@ 1800 ops./hr.) (resistive load)</b>	100,000 min. 3A@24VDC/110VAC (50,000 min. bifurcated)	100,000 min. 10A @ 28VDC/250VAC	2P 500,000: 5A @ 30VDC/250VAC 4P 200,000: 3A @ 30VDC/250VAC 100,000: 3A@30VDC/250VAC (bifurcated)	200,000 min: 15A @ 24VDC/110VAC 10A @ 24VDC/110VAC 500,000 min: (2 pole) 10A @ 110VAC
<b>Max. switching capacity (resistive load)</b>	330VA, 72W	2,500VA, 280W	2,500VA, 300W 1,250VA, 150W (4-pole)	1,700VA, 360W (1 pole) 1,100VA, 240W (2, 3, 4 pole) 550VA, 120W (bifurcated)
<b>Minimum permissible load (@1800 ops./hr.)</b>	100µA @ 1VDC for MY4H 100µA @ 100mVDC for MY4ZH (Bifurcated contacts)	100mA @ 1VDC	2 pole: 1mA @ 5VDC 4 pole: 1mA @ 5VDC 10µA @ 1 VDC (bifurcated contacts)	100mA @ 5VDC 10mA @ 5VDC (bifurcated contacts)
<b>Coil Information</b>				
<b>Coil voltage</b>	24, 110/120VAC 12, 24VDC	12, 24, 110/120, 220/240VAC; 12, 24, 48, 100VDC	6, 12, 24, 48, 110/120, 220/240 VAC; 6,12, 24, 48, 100/110VDC	12, 24, 110/120, 220/240VAC, 12, 24, 48, 100VDC
<b>Power consumption</b>	900 mW; 0.9 - 1.1VA	2.7VA, 1.5W	AC Coil: 0.9 to 1.2VA DC Coil: 0.9W	1.1VA, 0.9W (1 pole); 1.1VA, 0.9W (DPDT); 1.6VA, 1.4W (3PDT); 1.95VA, 1.5W (4PDT)
<b>Insulation class</b>	—	N/A	Class A	Class A
<b>Characteristics</b>				
<b>Operating temperature</b>	-25°C to +60°C	-10°C to +40°C	-55°C to +70°C	-25°C to +70°C
<b>Impulse withstand voltage (1.2 x 50µ sec. unless noted)</b>	—	—	—	—
<b>Dielectric strength (50/60 Hz for 1 minute)</b>	1,000VAC (coil-contact) 1,000VAC (contacts pole pole) 700VAC (open contacts)	2,500VAC (coil-contact) 1,000VAC (open contacts)	2,000VAC (coil-contact) 1,000VAC (open contacts)	2,000VAC (coil-contact) 1,000VAC (open contacts)
<b>Terminal choices</b>	Plug-in	Plug-in	PCB, plug-in	Track mounted socket PCB with .187/.250 QC
<b>Protection level</b>	Hermetic seal	Unsealed	Unsealed	Unsealed, semi-sealed
<b>Accessories</b>	PYF14A-E Socket PYC-A1 Clip	Sockets & clips for track mount sockets with screw terminals, & back connecting sockets with solder & PCB terminals	Sockets & clips for track mount sockets with screw terminals, & back connecting sockets with solder & PCB terminals. Note: PYF-S series screwless clamp terminal socket available Mounting rails= PFP	Sockets & clips for track mount sockets with screw terminals, & back connecting sockets with solder & PCB terminals
<b>Approved standards</b>	UL, CSA	UL, CSA, TUV, VDE, SEMKO	UL, CSA, SEV, CE, VDE, IMA	UL, CSA, SEV, VDE, CE (UL, CSA only with varistors)

# Relays - General Purpose

				
General Attributes	G2RV	G2R-S (S)	G7J	G7L
Dimensions mm (in)	91.0 H x 94.0 L x 6.1 W (3.58 x 3.7 x 0.24) Relay & terminal block	35.5 H x 29 L x 13 W (1.40 x 1.14 x .51)	64 H x 53.5 L x 34.5 W (2.52 x 2.11 x 1.36)	49.02 H x 68.58 L x 34.54 W (1.93 x 2.70 x 1.36)
Switching	6A max.	1 pole: 10A max. 2 pole: 5A max.	25A max.	30A max.
Features	<ul style="list-style-type: none"> <li>• Slimmest control relay available</li> <li>• Capable of switching both electrical control loads (6A) and signal level loads (1mA)</li> <li>• Relay available separately</li> <li>• Sealed for unprotected environments</li> </ul>	<ul style="list-style-type: none"> <li>• Nameplate and mechanical flag indicator standard</li> <li>• LED diode, and lockable test button option available</li> <li>• Socket mount 10A relay (1-pole)</li> </ul>	<ul style="list-style-type: none"> <li>• Variety of contact forms</li> <li>• Ideal for 3 phase motor control</li> <li>• 4 pole mini contactor</li> <li>• DIN rail mountable</li> <li>• Minimal chattering</li> <li>• UL94V-0</li> </ul>	<ul style="list-style-type: none"> <li>• Reliable high power relay</li> <li>• 3 mm contact gap</li> <li>• Conforms to IEC 950/UL 1950</li> <li>• Class B insulation standard</li> <li>• Most cost effective solution in its class.</li> <li>• Ideal for pump, motor loads</li> </ul>
<b>Contact Information</b>				
Contact form	1 Form C	1 Form C 2 Form C	4 Form A, 3 Form A/1 Form B, 2 Form A/2 Form B	1 Form A-(Double Make) 2 Form A-(Double Make)
Contact type(s)	Crossbar	Single button, bifurcated crossbar	Single button	Single button
Contact material(s)	Ag Alloy	Ag Alloy	Ag Alloy	Ag Alloy
Electrical service life (@ 1800 ops./hr.) (resistive load)	6,000: 6A @ 30 VDC /250VAC	100,000 min. (at rated loads) (see data sheet for more information)	100,000 min. (at rated loads) (see data sheet for more information)	100,000 min. (at rated loads) (see data sheet for more information)
Maximum switching capacity	1,500VA, 18W (resistive load)	2,500VA, 300W (1-pole resistive load)	5,500VA, 750W (NO contacts) 1,760VA, 240W (NC contacts)	4,400VA
Minimum permissible load (@1800 ops./hr.)	5mA @ 5VDC	100mA @ 5VDC , 10mA @ 5VDC (2 pole)	100mA @ 24VDC	100mA @ 5VDC
<b>Coil Information</b>				
Coil voltage	12, 24, 48VDC 24, 48, 110, 230VAC	6, 12, 24, 48VDC; 24, 110 120, 230, 240VAC	6, 12, 24, 48, 100/110VDC; 6, 12, 24, 50, 100/120, 200/240VAC	12, 24, 48, 100VDC; 12, 24, 100/120, 200/240VAC
Power consumption	300mW	0.9VA, 0.53W	1.8 to 2.6VA, 2.0W	1.7 to 2.5VA, 1.9W
Insulation class	Class A	Class A	Class A, Class B (available)	Class B
<b>Characteristics</b>				
Operating temperature	-40°C to +60°C	-40 to +70°C	-25°C to +60°C	-20°C to +85°C
Impulse withstand voltage (1.2 x 50µ sec. unless noted)	6kV	8kV	10kV (coil-contacts)	10kV (coil-contacts)
Dielectric strength (50/60 Hz for 1 minute)	4,000VAC (coil-contacts) 1,000VAC (open contacts)	1 pole: 5,000VAC (coil-contacts) 1,000VAC (open contacts) 2 pole: 5,000VAC (coil-contacts) 3,000VAC (different polarity) 1,000VAC (open contacts)	4,000VAC (coil-contacts) 4,000VAC (different polarity) 2,000VAC (open contacts)	4,000VAC (coil-contacts) 2,000VAC (different polarity) 2,000VAC (open contacts)
Terminal choices	Relay: Quick-connect Socket: screw terminals, push-in wire connections (sold separately)	Plug-in	Quick-connect, screw, PCB	Quick-connect, screw, PCB
Protection level	Semi-sealed	Unsealed	Unsealed Semi-sealed	Unsealed Semi-sealed
Accessories	Socket: G2RV-SL (UL 508) SSR Option: G3MB / G3MC	Sockets for track mount, sockets with screw terminals, & back connecting sockets with solder & PCB terminals. Note: P2RF-S series screwless clamp terminal socket available. SSR option: G3R.	R99-04V for G5D W-bracket	R99-07G5D E bracket; P7LF-D adapter; P7LF-06 front connecting socket
Approved standards	UL, CSA	UL, CSA, VDE, IEC, LR, CE	UL, CSA, TUV, CE, IEC	UL, CSA, TUV, CE, VDE available

# Relays - General Purpose

	<b>NEW!</b>			
<b>General Attributes</b>		<b>G7Z</b>	<b>MGN</b>	<b>MJN</b>
<b>Dimensions mm (in)</b>	84 H x 62 L x 45 W (3.31 x 2.44 x 1.77)	Short Base: 55.88 H x 63.50 L x 63.50 W (2.20 x 2.50 x 2.50) Long Base: 60.45 H x 84.33 L x 63.50 W (2.38 x 3.32 x 2.50)	48.38 H x 35.56 L x 38.73 W (1.91 x 1.40 x 1.53)	
<b>Switching</b>	40A max. (160A max. in parallel)	30A max.	10A, 20A, 30A (UL ratings) (see: Electrical service life)	
<b>Features</b>	<ul style="list-style-type: none"> <li>Each pole able to switch and carry 40A in parallel</li> <li>Capable of switching up to 160A</li> <li>Reduced power consumption &amp; size</li> <li>Low noise</li> <li>Safety function included as standard</li> <li>Optional auxiliary contact block enables concurrent signal (1mA) switching</li> </ul>	<ul style="list-style-type: none"> <li>30 Amp heavy duty power relay</li> <li>Class F coil insulation system for 155°C (total temperature)</li> <li>Coil molded in DuPont Rynite® for environmental protection</li> <li>Rugged construction rivets terminals to base</li> <li>Magnetic blow-out option</li> </ul>	<ul style="list-style-type: none"> <li>Rugged power driver offers superior 3/16" through-air &amp; 3/8" over-surface spacing</li> <li>Interlocked frame &amp; contact block prevent contact misalignment during plug-in</li> <li>Indicator lamp, push-to-operate options</li> <li>10A-30A in same package</li> <li>Continous duty at 125% coil voltage</li> </ul>	
<b>Contact Information</b>				
<b>Contact form</b>	4A, 3A/1B, 2A/2B	1 Form A, 1Form B, 1Form C, 2 Form A, 2 Form C (long base)	1 Form C, 2 Form C, 3 Form C (monostable); 1 Form C, 2 Form C (latching/unlatching)	
<b>Contact type(s)</b>	Bifurcated Crossbar	Single button	Single button	
<b>Contact material(s)</b>	AgSnIn	5/16" diameter AgCdO <sub>2</sub>	3/16" diameter AgCdO <sub>2</sub>	
<b>Electrical service life (@ 1800 ops./hr.) (resistive load)</b>	100,000: 5A @ 110VDC (at 1,200 ops/hr) 80,000: 40A @ 440VAC	100,000 min. 30A @ 28VDC/240VAC	100,000 min. 10A @ 28VDC/240VAC 20A @ 28VDC/277VAC 30A @ 28VDC	
<b>Max. Switching Capacity (resistive load)</b>	17,600VA, 550W 440VA, 110W (auxiliary contact block)	N/A	N/A	
<b>Minimum permissible load (@1800 ops./hr.)</b>	2A @ 24VDC <1mA @ 5VDC (auxiliary contact block)	N/A	N/A	
<b>Coil Information</b>				
<b>Coil voltage</b>	12, 24VDC	6, 12, 24, 120, 240, 480VAC; 6, 12, 24, 48, 110VDC	6, 12, 24, 120VAC 5, 6, 12, 24, 48, 110VDC	
<b>Power consumption</b>	3.7W	9.5VA nominal; 2W nominal	AC 1.7VA (1, 2PDT) 2.0VA (3PDT DC 1.2W)	
<b>Insulation class</b>	Class B	Class F	Class A	
<b>Characteristics</b>				
<b>Operating temperature</b>	-25°C to +60°C	At 30Amps: -45°C to +80°C (AC coil) -45°C to +115°C (DC coil)	-45°C to +60°C (1 & 2 pole AC coil), + 70°C (DC coil) -45°C to +45°C (3 pole AC coil) -45°C to +70°C (3 pole DC coil)	
<b>Impulse withstand voltage (1.2 x 50µ sec. unless noted)</b>	10kV (coil to contacts or different polarity) 4.5kV (open contacts)	N/A	N/A	
<b>Dielectric strength (50/60 Hz for 1 minute)</b>	4,000VAC (coil-contacts) 4,000VAC (different polarity) 2,000VAC (open contacts)	2,200Vrms, 60Hz between contacts; 2,200Vrms, 60Hz between other elements	750VAC, rms 60Hz across open contacts; 2,500VAC, rms 60Hz all other mutually insulated elements	
<b>Terminal choices</b>	Screw	Screw	Quick-connect plug-in	
<b>Protection level</b>	Unsealed, fully sealed	None	Semi-sealed	
<b>Accessories</b>	Auxiliary Contact Block (2 poles of 4 poles) Signal level switching capability (2 poles of 4 poles)	Aluminum dust cover - sealed knock-out holes for standard conduit fittings. Relay mounts on pre-drilled base. Snap action cover release 127 W x 76.20 H x 101.60 D (5 x 3 x 4)	PTF11PC Socket; PTF11QDC Socket; PTF21PC Socket; PTFPCB Socket; PYMJN-PCB Retaining Clips; PYMJN-S Retaining Clips	
<b>Approved standards</b>	UL, CSA, TUV, VDE	UL	UL, CSA	

# Relays - Solid State

## Relays - Solid State

	SIP	SIP	DIP	DIP
General Attributes	G3MB	G3MC	G3R I/O	G3DZ
Dimensions mm (in)	20.5 H x 24.5 L x 5.5 W (0.81 x 0.96 x 0.22)	13.5 H x 24.5 L x 4.5 W (0.53 x 0.96 x 0.18)	Input & Output modules: 28 H x 29 L x 13 W (1.10 x 1.14 x 0.51)	12.5 max.H x 18.5 L x 6.5 W (0.49 x 0.73 x 0.26) max.
Switching current (resistive)	2A @ 240VAC	2A @ 240VAC	Input module: 100mA; Output module: 2A	0.6A @ 240VAC
Features	<ul style="list-style-type: none"> <li>Space saving SIP design</li> <li>Industry standard footprint</li> <li>Monoblock construction results in ultimate reliability</li> </ul>	<ul style="list-style-type: none"> <li>Reduced height thin profile SIP</li> <li>Ideal for close PCB mounting</li> <li>Monoblock construction results in ultimate reliability</li> <li>Industry standard footprint</li> </ul>	<ul style="list-style-type: none"> <li>4 kV insulation</li> <li>Operation indicator standard</li> <li>Interchangeable with G2R electromechanical relay</li> <li>Ideal for DIN rail mount I/O operations</li> </ul>	<ul style="list-style-type: none"> <li>AC/DC &amp; AC half-wave switching with one model</li> <li>10µA max. leakage current</li> <li>Matches G6D form factor</li> </ul>
Operating temperature	-30°C to +80°C	-30°C to +80°C	-30°C to +80°C	-30°C to +85°C
Operating input	5, 12, 24VDC	5, 12, 24VDC	Input module: 5VDC; 6.6-32VDC; 60-264VAC; Output module: 4-32VDC	5, 12, 24VDC
Output voltage	75-264VAC	75-264VAC	Input module: 4-32VDC; Output module: 75-264VAC, 4-200VDC	5, 12, 24VDC
Leakage Current (max.)	1.5mA (at 200VAC)	1.5mA (at 200VAC)	Input Module: 5µA Output Module: 1.5mA (AC) 1mA (DC)	10µA (at 125VDC)
Isolation	Phototriac	Phototriac	Photocoupler, Phototriac	Phototriac
Dielectric strength (50/60Hz for 1 min.)	2,500VAC	2,500VAC	4,000VAC	2,500VAC
Zero crossing	Optional	Yes	Input module: No; Output module: Yes	No
Snubber circuit	Optional	Yes	Input module: No; Output module	Yes (Built-in Varistor)
Life (MTTF)	100,000 hours	100,000 hours	100,000 hours	100,000 hours
Mounting	PCB	PCB	Socket	PCB or Socket
Terminal	PCB	PCB	Plug-in	PCB
Approvals	UL, CSA, TUV	UL, CSA, VDE	UL, CSA, TUV	UL, CSA
Equivalent Omron EMR footprint	G2RV similar for terminal block	G2RV similar for terminal block	G2R	G6D, G6DS
Optional heat sink	N/A	N/A	N/A	N/A
Socket	N/A	N/A	P2RF-05E	P6D-04P

# Relays - Solid State

				
General Attributes	G3S/G3SD	G3CN	G3M	G3TB
Dimensions mm (in)	16.5 H x 20 L x 10 W (0.65 x 0.79 x 0.39)	26H x 33H x 14 W (1.04 x 1.30 x .55) max.	20 H x 40 L x 9 W (0.79 x 1.58 x 0.35)	Input module: 20.5 H x 43.5 L x 10 W (0.81 x 1.70 x 0.39) Output module: 30.5 H x 43.5 L x 10 W (1.20 x 1.70 x 0.39)
Switching current (resistive) (max.)	1A @ 240VAC (1.2A, G3S-PD & heatsink) (1.1A, G3SD-PD & heatsink)	2A, 3A, @ 53VDC, 26VAC	2, 3A, 5A @ 250VAC	Input module: 25mA @ 4 to 32VDC Output module: 3mA max. @ 5 to 48VDC 3mA max. @ 100 to 240 VAC 1.5 max. @ 48 to 200 VDC
Features	<ul style="list-style-type: none"> <li>AC and DC models available</li> <li>Socketable</li> <li>Heatsink, available</li> <li>Interchanges with G6B SPST electrical mechanical relay</li> </ul>	<ul style="list-style-type: none"> <li>Flat &amp; vertical packages</li> <li>Ideal for FA &amp; OA equipment</li> </ul>	<ul style="list-style-type: none"> <li>Multi-input SSR</li> <li>Space-saving SIP design</li> <li>Ideal for high density Power PCB applications</li> <li>High current switching capability</li> </ul>	<ul style="list-style-type: none"> <li>Color-coded input &amp; output modules</li> <li>Industry standard footprint</li> <li>4kV dielectric strength</li> <li>LED indicator</li> </ul>
Operating temperature	-30°C to +80°C	-30°C to +80°C	-30°C to +80°C	-30°C to +85°C
Operating input	5, 12, 24VDC	5, 12, 24; 3~28VDC	5, 12, 24VDC	Input module: 80-264VAC, 3-32VDC; Output module: 3-32VDC
Output voltage	5, 12, 24VDC	75~264VAC 3~53VDC	75-264VAC	Input module: 4-32VDC; Output module: 75-264VAC, 4-200VDC
Leakage Current (max.)	2mA (G3S) 0.1mA @ 26VDC (G3S)	2.5/5mA	2mA @ 100VAC/5mA @ 200VAC (2Amp versions) 1.5mA @ 200VAC (3 & 5 Amp versions)	Input module: 100µA max. Output module: 5mA @ 200VAC (AC) 1mA max. (DC)
Isolation	Phototriac (G3S) Photocoupler (G3SD)	Phototriac Photocoupler	Phototriac	Photocoupler
Dielectric strength (50/60Hz for 1 min.)	2,500VAC	2,500VAC	2,000VAC (2A versions) 2,500VAC (3A and 5A versions)	4,000VAC
Zero crossing	No	Optional	Optional	Input module: No; Output module: Yes
Snubber circuit	Yes (Built-in Varistor)	No	Yes	Input module: No; Output module: Yes
Life (MTTF)	100,000 hours	100,000 hours	100,000 hours	100,000 hours
Mounting	PCB or Socket	PCB	PCB	PCB
Terminal	PCB	PCB	PCB	PCB
Approvals	UL, CSA	UL (114), CSA (22.2)	UL, CSA, TUV	UL, CSA
Equivalent Omron EMR footprint	G6B	N/A	N/A	N/A
Optional heat sink	Y92B-S08N	N/A	N/A	N/A
Socket	P6B-04P (PCB)	N/A	N/A	N/A

# Relays - Solid State

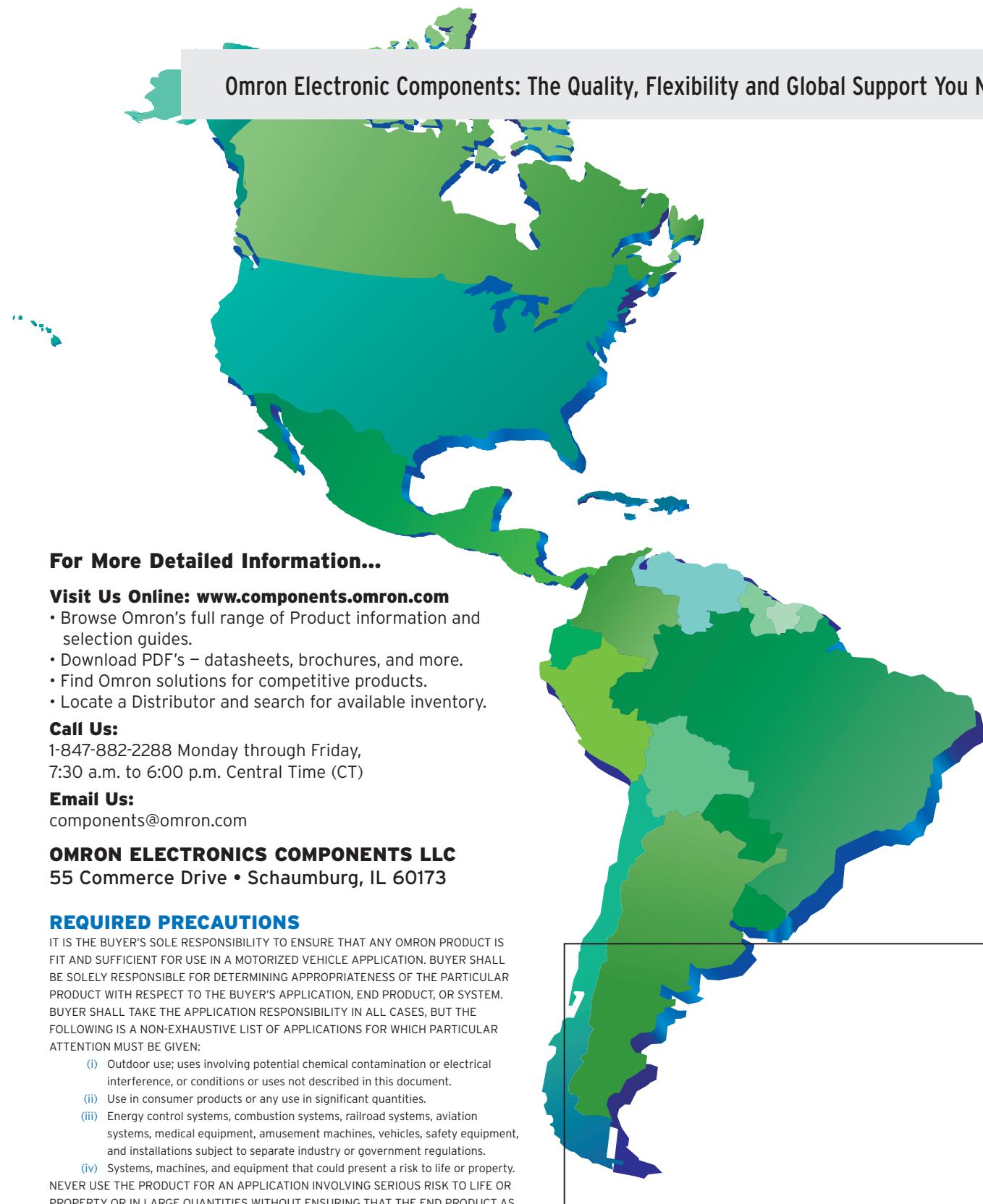
## Relays - Solid State

	SIP	Quick Connect	Quick Connect	
General Attributes	G3TC	G3NE	G3NA	G3PA/B
Dimensions mm (in)	31.8 H x 43.2 L x 15.2 W (1.25 x 1.7 x 0.6)	11.5 H x 47 L x 37.5 W (0.45 x 1.90 x 1.50)	27 H x 58 L x 43 W (1.06 x 2.28 x 1.69)	Consult Omron
Switching current (resistive) (max.)	Input Module: 12mA, 15mA, or 18mA (depending on model) Output Module: 3A (1A on DC output models rated< 200VDC)	20A max. @ 240VAC (264VAC max.)	Versions range from 10A to 90A max. (when using heat sink)	up to 45A
Features	<ul style="list-style-type: none"> <li>Color-coded modules</li> <li>Industry standard footprint</li> <li>Built-in anchor screw</li> <li>Optical isolation – Dielectric 4kV</li> <li>Zero cross on AC output modules</li> </ul>	<ul style="list-style-type: none"> <li>High capacity</li> <li>Panel Mount</li> <li>Quick-connect terminals</li> </ul>	<ul style="list-style-type: none"> <li>Ideal for industrial controls &amp; commercial cooking</li> <li>"Hockey Puck" standard</li> <li>Operation indicator standard</li> </ul>	<ul style="list-style-type: none"> <li>Built-in heat sink increases life and reliability</li> <li>Voltage turn-on at zero crossing reduces initial inrush load currents</li> <li>LED indicator when control power applied</li> </ul>
Operating temperature	-30°C to +80°C	-30°C to +80°C	-30°C to +80°C	-30°C to +80°C
Operating input	Input Module: 90-140VDC/AC, 180-280 VDC/AC, 10-32VDC/AC Output Module: 5, 15, 24VDC	5, 12, 24VDC	4-32VDC; 75-264VAC	12-24VDC
Output voltage	Input Module: 4.5-6VDC, 12-18VDC, 20-30VDC Output Module: 75-140 VAC, 75-280VAC, 5-60 VDC, 5-200VDC	75-264VAC	19 - 264VAC 180 - 528VAC 4 - 220VDC (10A model) 400 - 600VAC (10, 25, 50A models)	75 - 264VAC 180 - 528VAC
Leakage Current (max.)	Input Module: 100µA AC Output Modules: 5mA @ 240VAC 2.5mA @ 120VAC DC Output Modules: 1mA	2mA (at 100VAC) 5mA (at 200VAC)	5mA @ 100VAC 10mA @ 200VAC 20mA @ 400VAC	10mA @ 200VAC 20mA @ 400VAC
Isolation	AC Input, DC Input, DC Output: Photocoupler AC Output: Phototriac	Phototriac	Phototriac, Photocoupler	Phototriac
Dielectric strength (50/60Hz for 1 min.)	4,000VAC	2,000VAC	2,500VAC 4000VAC (75 and 90A models)	G3PA: 4,000VAC G3PB: 2,500VAC
Zero crossing	Yes (AC output modules only)	Optional	Yes	Yes
Snubber circuit	Yes (AC output modules only)	Yes (built in varistor)	Yes	Yes
Life (MTTF)	100,000 hours	100,000 hours	100,000 hours	100,000 hours
Mounting	PCB with anchor screw	Plug-in	Panel	Panel, DIN
Terminal	PCB	Quick connect	Screw	Screw
Approvals	UL, CSA, TUV, CE	UL, CSA, TUV	UL, CSA, TUV	UL, CSA, TUV, VDE
Equivalent Omron EMR footprint	N/A	N/A	N/A	N/A
Optional heat sink	N/A	Y92B-N50, -N100	Y92B-A □ □,-B□ , -P	N/A
Socket	N/A	Mounting plate	Mounting plate	PFP-xxx

# Sockets

Relay Type	Track Mount Sockets	Back Connecting Sockets	
		Solder terminals	PCB terminals
G2R-1-S	P2RF-05 P2RF-05-E P2RF-05-S	P2R-05A	P2R-05P
G2R-2-S	P2RF-08 P2RF-08-E P2RF-08-S	P2R-08A	P2R-08P
G2RV	G2RL-SL500, -SL700	-	-
G6B	-	-	P6B-04P (1-pole), P6B-26P (2-pole)
G6D	-	-	P6D-04P
G6BK	-	-	P6B-06P
G6BU	-	-	P6B-04P
G6C-1, G6C-2	-	-	P6C-06P
G6CK	-	-	P6C-08P
G6CU	-	-	P6C-06P
LY1, LY2	PTF08A-E	PT08	PT08-0
LY3	PTF11A	PT11	PT11-0
LY4	PTF14A-E	PT14	PT14-0
MK2	PF083A-E	PL08	PLE08-0
MK3	PF113A-E	PL11	PLE11-0
MY2	PYF08A-E PYF08A-N PYF08-S	PY08	PY08-02
MY3	PYF11A	PY11	PY11-02
MY4	PYF14A-E PYF14A-N PYF14S	PY14	PY14-02
MY2K	PYF14A-E	PY14	PY14-02
MY4(Z)H	PYF14A-E	-	-
NOTES: 1. -E and -N models are finger-protect construction. Round terminals cannot be used. Use Y-shaped terminals. 2. -S types are screwless terminal styles.			
Relay Type	Mounting	Adaptor	Front Connecting Socket
			Track Mount/Panel Mount
G7J-(ALL)	Bracket	Track Mount/Panel Mount	Track Mount/Panel Mount
			-
G7L-1A-T	R99-04-F0R-G5F W bracket	-	-
G7L-1A-TJ	R99-07G5D E bracket	P7LF-D	P7LF-06
G7L-1A-B			P7LF-06
G7L-1A-BJ			-
G7L-2A-T			P7LF-06
G7L-2A-TJ			P7LF-06
G7L-2A-B			-
G7L-2A-BJ			-
Terminal Cover		Socket Bridge	Mounting Track
P&LE-C	PYDM	PFP-100N	1 meter
		PFP-50N	.5 meter

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