OMRON

Product Selector Guide

Keeping our promise

This Selector Guide offers you more Omron components than ever before. By listening to the needs of you, our customers, and continuing to invest heavily in R&D, we are developing technologies that meet advanced requirements in more and more markets.

We are also continually advancing the way our products are created and used, from the birth of an idea right through design, development, production, shipping and aftersales. Along with advanced products and proprietary technologies, you can expect technical and sales support from our local and global networks. With Omron Electronic Components, you can be sure of products, systems and business relationships that create maximum value for you.

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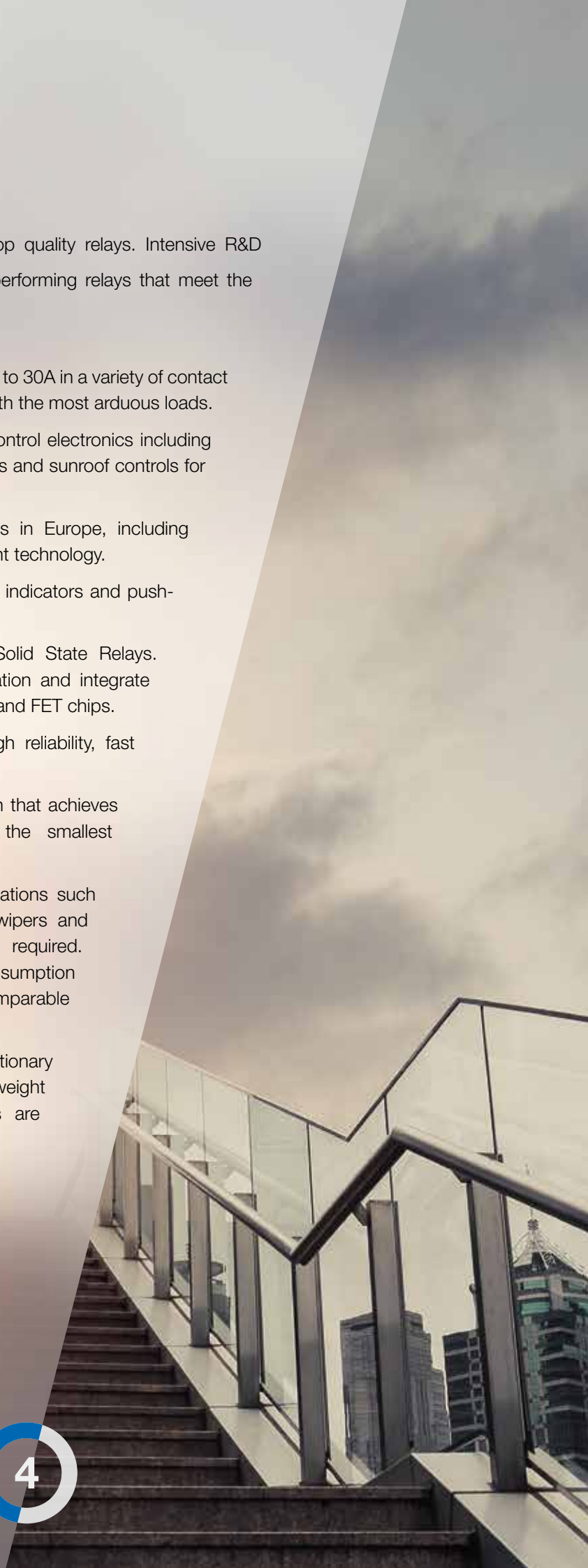
OMRON

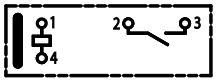
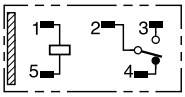
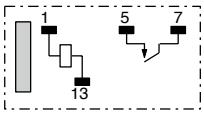
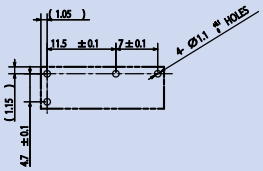
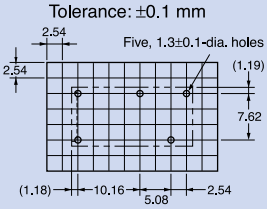
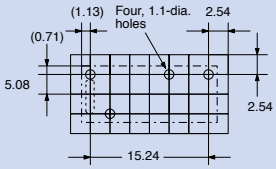
Relays

Omron provides a truly comprehensive range of top quality relays. Intensive R&D enables us to keep producing smaller and better performing relays that meet the developing requirements of today's devices

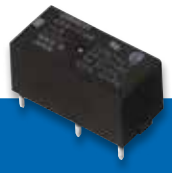
- **Power relays** that provide switching capacity of up to 30A in a variety of contact configurations. Long lifespans are assured, even with the most arduous loads.
- **Fully sealed PCB relays** designed for comfort control electronics including motor reversal applications such as power windows and sunroof controls for the automotive market.
- **Signal relays** with one of the widest selections in Europe, including specialist products, RF switching and surface mount technology.
- **General Purpose relays** that include mechanical indicators and push-to-test buttons.
- **MOSFET relays** that set the benchmark for Solid State Relays. These are manufactured using advanced automation and integrate leading technologies within the areas of LED, PDA and FET chips.
- **PCB Solid State relays** that offer long life, high reliability, fast response and high switching rates.
- **High Frequency relays** with an innovative design that achieves optimal high frequency characteristics within the smallest possible package.
- **PCB and Plug-in automotive relays** for applications such as starter motors, heater controls, windscreen wipers and anywhere high continuous current switching is required. These include micro ISO relays that lower fuel consumption by reducing space and weight, while offering comparable performance to standard mini relays.
- **DC Power Relays** for E-mobility and Stationary applications. The G9E-Series is designed for low weight and small size. The non-polarised connections are application and user-friendly.

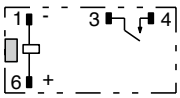
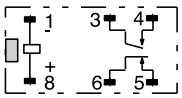
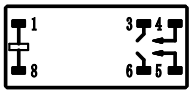
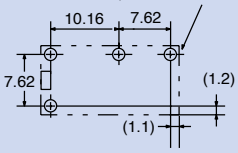
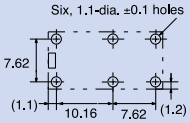
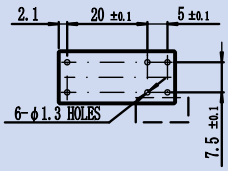


Power Relays

Product Series				
		G5NB-E	**G5SB**	**G6D**
Features		Compact single pole 5 A high isolation relay CTI: 250 RoHS compliant	Environmentally friendly compact relay RoHS compliant	Slim, miniature relay capable of relaying controller output RoHS compliant
Part No.		-	-	-
Dimensions (L x W x H mm)		20.5 x 7.2 x 15.3	20.3 x 10.3 x 15.8	17.5 x 6.5 x 12.5
Contact Ratings	**Contact Form**	SPST-NO	SPDT	SPST-NO
	Contact Material	Ag-alloy	Ag-alloy	Ag-alloy
	Resistive Load	5 A at 250 VAC 3 A at 30 VDC	5 A at 250 VAC 5 A at 30 VDC	5 A at 250 VAC 3 A at 30 VDC
	Maximum Switching Current	5A	5A	5A
	Minimum Permissible Load	10 mA at 5 VDC	10 mA at 5 VDC	10 mA at 5 VDC
Coil Ratings	**Rated Voltage**	5 to 24 VDC	5 to 24 VDC	5 to 24 VDC
	Power Consumption (Approx.)	200 mW	400 mW	200 mW
Endurance	**Electrical (operations)**	100,000min (5A/250VAC-NO) 20,000min (3A/30VDC-NO)	50,000 min	70,000 min
	Mechanical (operations)	5,000,000 min	5,000,000 min	20,000,000 min
Dielectric Strength	**Between coil & contacts**	4,000 VAC	4,000 VAC	3,000 VAC
	Between contacts of different polarity	–	–	–
	Between contacts of same polarity	750 VAC	1,000 VAC	750 VAC
Ambient Temperature (operating)		-40°C to 85°C	-40°C to 70°C	-25°C to 70°C
Protective Construction		Flux Protection (RTII)	Fully Sealed (RTIII)	Fully Sealed (RTIII)
Insulation distance	**Creepage (Typical)**	7.2 mm	6.7 mm	4.5 mm
	Clearance (Typical)	7.1 mm	5.8 mm	4.5 mm
Tracking Resistance (CTI)		250 V	250 V	100 V
Variations	**Single Side Stable**	•	•	•
	Single Winding Latching			
	Double Winding Latching			
	PCB Terminal	•	•	•
	Plug-in Terminal			
	Quick Connect Terminal			
	Panel Mount			
	Fully Sealed	•		•
	Flux Protection	•		
Approved Standards		UL, CSA, EN (VDE)	UL, CSA, EN (VDE)	UL, CSA
Packaging	**Minimum Pack Quantity**	100 (Tray), 50 (Tube)	100 (Tray), 50 (Tube)	25 (Tube)
	Minimum Order Quantity	500 (Tray), 400 (Tube)	500	500
Standard Terminal Arrangement (for other variations refer to data)		SPST-NO 	SPDT  (No coil polarity)	SPST-NO 
Standard Mounting Holes (for other variations refer to data)			Tolerance: ±0.1 mm 	

Power Relays



Product Series		G6B			G2RG
Features		Sub-miniature relay RoHS compliant			Power Relay with 2 x 1.5 mm contact gap. Meets requirements of European UPS standards. RoHS compliant
Part No.		-			-
Dimensions (L x W x H mm)		20.0 x 10.0 x 10.0	20.0 x 10.0 x 12.5	20.0 x 11.0 x 11.0	29.0 x 13.5 x 25.5
Contact Ratings	Contact Form	SPST-NO	SPST-NO (High Capacity)	SPST-NO/-NC, DPST-NO, DPST-NC	DPST-NO
	Contact Material	Ag-alloy (FD version = AgSnIn)			Ag-alloy
	Resistive Load	5 A (3 A*) at 250 VAC 5 A (3 A*) at 30 VDC	8 A (5 A*) at 250 VAC 8 A (5 A*) at 30 VDC	5 A (3 A*) at 250 VAC 5 A (3 A*) at 30 VDC	8 A at 250 VAC
	Maximum Switching Current	5 A (5 A*)	8 A (5 A*)	5 A (5 A*)	8A
	Minimum Permissible Load	10 mA at 5 VDC			10 mA at 5 VDC
Coil Ratings	Rated Voltage	5 to 24 VDC			12 & 24 VDC
	Power Consumption (Approx.)	200 mW		300 mW	800 mW
Endurance	Electrical (operations)	100,000 min			10,000 min
	Mechanical (operations)	50,000,000 min			1,000,000 min
Dielectric Strength	Between coil & contacts	3,000 VAC			5,000 VAC
	Between contacts of different polarity	-		2,000 VAC	3,000 VAC
	Between contacts of same polarity	1,000 VAC			1,000 VAC
Ambient Temperature (operating)		-25°C to 70°C			-40°C to 70°C
Protective Construction		Flux Protection (RTII) Fully Sealed (RTIII)			Fully Sealed (RTIII)
Insulation distance	Creepage (Typical)	5.0 mm		3.2 mm	10.0 mm
	Clearance (Typical)	4.1 mm		2.7 mm	9.3 mm
Tracking Resistance (CTI)		100 V			250 V
Variations	Single Side Stable	•			
	Single Winding Latching	•			
	Double Winding Latching	•			
	PCB Terminal	•			•
	Plug-in Terminal				
	Quick Connect Terminal				
	Panel Mount	•			
	Fully Sealed				•
	Flux Protection				•
Approved Standards		UL, CSA, EN (TÜV)			UL, CSA, EN (VDE)
Packaging	Minimum Pack Quantity	100 (Tray), 20 (Tube)			100 (Tray)
	Minimum Order Quantity	100 (Tray), 400 (Tube)			100 (Tray)
Standard Terminal Arrangement (for other variations refer to data)		SPST-NO 		SPST-NO/-NC 	DPST-NO 
Standard Mounting Holes (for other variations refer to data)		Four, 1.1-dia. holes 		Six, 1.1-dia. ±0.1 holes 	

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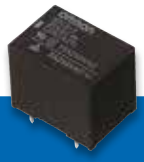
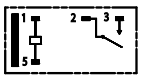
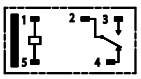
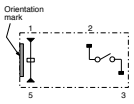
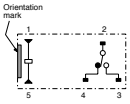
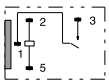
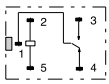
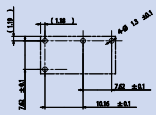
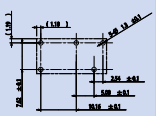
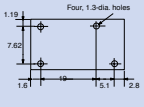
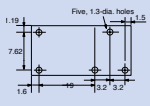
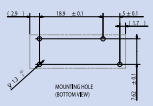
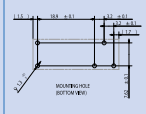
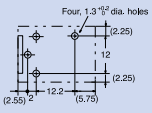
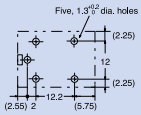
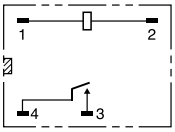
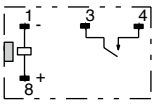
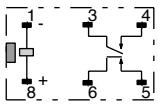
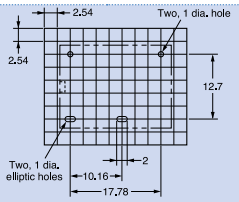
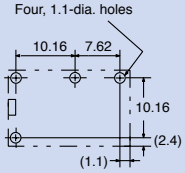
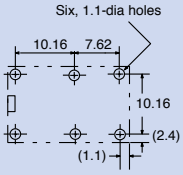
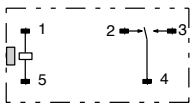
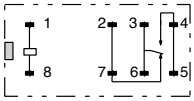
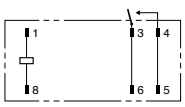
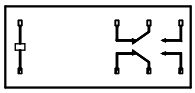
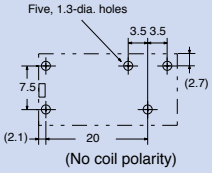
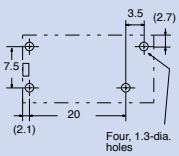
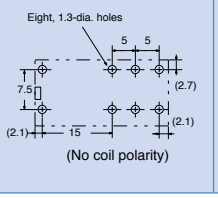
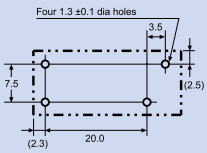
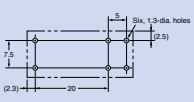
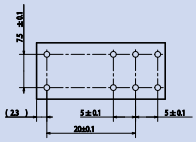


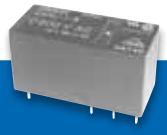
G5Q-EU		G6RN		G6RL		G5LE	
Compact low cost high isolation relay CTI: 250 RoHS compliant		Slim, low profile heavy duty relay RoHS compliant		Low profile 12.3mm height 8 A high insulation relay RoHS compliant		Sub-miniature 'sugar-cube' relay RoHS compliant	
-		-		-		-	
20.3 x 10.3 x 15.8		28.5 x 10.0 x 15.0		28.5 x 10.0 x 12.3		22.5 x 16.5 x 19.0	
SPST-NO	SPDT	SPST-NO	SPDT	SPST-NO	SPDT	SPST-NO	SPDT
Ag-alloy		Ag-alloy + Gold-plating		Ag-alloy (ASI version = AgSnIn)		Ag-alloy	
10 A at 250 VAC 5 A at 30 VDC (NO)		8 A at 250 VAC 5 A at 30 VDC		8 A at 250 VAC, 5 A at 30 VDC		10 A at 250 VAC, 8 A at 30 VDC, 16 A at 250 VAC (G5LE-E)	
10A (NO), 3A (NC)		8A		10 A (NO), 8 A (NC)		10 A, 16 A (G5LE-E)	
10 mA at 5 VDC		10 mA at 5 VDC		10 mA at 5 VDC		100 mA at 5 VDC	
5 to 24 VDC		5 to 48 VDC		3 to 48 VDC		5 to 48 VDC	
200 mW	400 mW	220-250 mW		220 - 240 mW		360-400 mW	
25,000 min (10A/250VAC-NO) 100,000 min (3A/250VAC-NC)		50,000 min		50,000 min		100,000 min	
10,000,000 min		10,000,000 min		10,000,000 min		10,000,000 min	
4,000 VAC		4,000 VAC		5,000 VAC		2,000 VAC	
-		–		–		–	
1,000 VAC		1,000 VAC		1,000 VAC		750 VAC	
-40°C to 85°C		-40°C to 85°C		-40°C to 85°C		-40°C to 85°C	
Flux Protection (RTII) Fully Sealed (RTIII)		Fully Sealed (RTIII)		Flux Protection (RTII) Fully Sealed (RTIII)		Flux Protection (RTII) Fully Sealed (RTIII)	
6.7 mm		9.8 mm		10.0 mm		3.3 mm	
5.8 mm		8.1 mm		10.0 mm		2.7 mm	
250 V		250 V		250 V		250 V	
•		•		•		•	
•		•		•		•	
•		•		•		•	
•				•		•	
UL, CSA, EN (VDE)		UL, CSA, EN (VDE)		UL, CSA, EN (VDE)		UL, CSA, EN (VDE), EN (TÜV)	
40 (Tube)		20 (Tube)		100 (Tray)		100 (Tray), 25 (Tube)	
400		400		100 (Tray)		500 (Tray), 250 (Tube)	
SPST-NO	SPDT	SPST-NO	SPDT	SPST-NO	SPDT	SPST-NO	SPDT
							
							

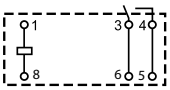
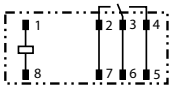
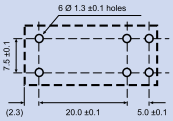
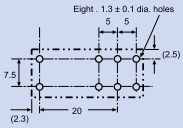
Power Relays

Product Series		G5CA		G6C	
Features		Flat power relay RoHS compliant		General purpose power relay RoHS compliant	
Part No.		-		-	
Dimensions (L x W x H mm)		22.0 x 16.0 x 11.0		20.0 x 15.0 x 10.0	
Contact Ratings	Contact Form	SPST-NO		SPST-NO	SPST-NO/-NC
	Contact Material	Ag-alloy		Ag-alloy (FD version AgSnIn)	
	Resistive Load	10 A at 250 VAC 10 A at 30 VDC	15 A at 110 VAC	10 A (8 A*) at 250 VAC 10 A (8 A*) at 30 VDC (*)=FD Type	8 A (8 A*) at 250 VAC 8 A (8 A*) at 30 VDC
	Maximum Switching Current	10A	15A	10 A (10 A*)	8 A (8 A*)
	Minimum Permissible Load	100 mA at 5 VDC		10 mA at 5 VDC	
Coil Ratings	Rated Voltage	5 to 24 VDC		3 to 24 VDC	
	Power Consumption (Approx.)	200 mW (150 mW high sensitivity version)		200 mW	
Endurance	Electrical (operations)	300,000 min	100,000 min	100,000 min	
	Mechanical (operations)	20,000,000 min		50,000,000 min	
Dielectric Strength	Between coil & contacts	2,500 VAC		2,000 VAC	
	Between contacts of different polarity	–		-	2,000 VAC
	Between contacts of same polarity	1,000 VAC		1,000 VAC	
Ambient Temperature (operating)		-25°C to 70°C		-25°C to 70°C	
Protective Construction		Flux Protection (RTII) Fully Sealed (RTIII)		Flux Protection (RTII) Fully Sealed (RTIII)	
Insulation distance	Creepage (Typical)	3.5 mm		5.5 mm	
	Clearance (Typical)	2.8 mm		5.5 mm	
Tracking Resistance (CTI)		250 V		175 V	
Variations	Single Side Stable	•		•	
	Single Winding Latching			•	
	Double Winding Latching			•	
	PCB Terminal	•		•	
	Plug-in Terminal				
	Quick Connect Terminal	•			
	Panel Mount				
	Fully Sealed	•		•	
	Flux Protection	•		•	
Approved Standards		UL, CSA, EN (VDE), EN (TÜV)		UL, CSA, EN (VDE), EN (TÜV)	
Packaging	Minimum Pack Quantity	20 (Tube)		100 (Tray), 20 (Tube)	
	Minimum Order Quantity	200		100 (Tray), 200 (Tube)	
Standard Terminal Arrangement (for other variations refer to data)		SPST-NO 		SPST-NO 	87,044 mm 
Standard Mounting Holes (for other variations refer to data)				Four, 1.1-dia. holes 	Six, 1.1-dia holes 

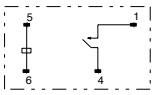
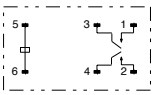
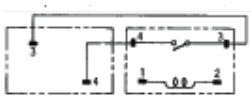
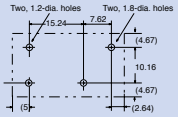
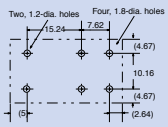
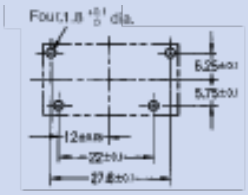
G2R			G2RL		
General purpose power relays RoHS compliant			High capacity type (16 A), high sensitivity type (250 mW) RoHS compliant		
-			-		
29.0 x 13.0 x 25.5			29.0 x 12.7 x 15.7		
SPST-NO, SPDT	SPST-NO, SPDT (High capacity)	DPST-NO, DPDT	SPST-NO, SPDT	SPST-NO, SPDT (High capacity)	DPST-NO, DPDT
Ag-alloy			Ag-alloy		
10 A at 250 VAC 10 A at 30 VDC 5 A at 250 VAC (G2RL-H) 5 A at 30 VDC (G2RL-H)	16 A at 250 VAC 16 A at 30 VDC	5 A at 250 VAC 5 A at 30 VDC	12 A at 250 VAC 12 A at 24 VDC 10 A at 250 VAC (G2RL-H) 10 A at 24 VDC (G2RL-H)	16 A at 250 VAC 16 A at 24 VDC	8 A at 250 VAC 8 A at 30 VDC
10A, 5A (G2RL-H)	16A	5A	12A	16A	8A
100 mA at 5 VDC	100 mA at 5 VDC	10 mA at 5 VDC	40 mA at 24 VDC		
5 to 100 VDC, 12 to 240 VAC			5 to 48 VDC		
DC: 530 mW; 360 mW high sensitivity version AC: 0.9 VA			400 - 430 mW, (250 mW high sensitivity)		
100,000 min			50,000 min	30,000 min	30,000 min
DC: 20,000,000 min AC: 10,000,000 min			20,000,000 min		
5,000 VAC			5,000 VAC		
-	-	3,000 VAC	-	-	2,500 VAC
1,000 VAC			1,000 VAC		
-40°C to 70°C			-40°C to 85°C		
Flux Protection (RTII) Fully Sealed (RTIII)			Flux Protection (RTII) Fully Sealed (RTIII)		
10.0 mm			11.0 mm		
9.3 mm			10.0 mm		
175 V			250 V		
•			•		
•					
•			•		
•					
•					
•					
•			•		
•			•		
UL, CSA, EN (VDE), SEV, SEMKO, IEC (TÜV), IEC (EN)			UL, CSA, EN (VDE)		
100 (Tray), 15 (Tube)			25 (Tube)		
150 (Tube)			100		
SPDT	SPST-NO	DPDT	SPST-NO	SPST	DPDT
					
					

Power Relays

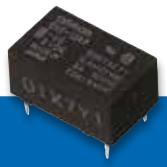


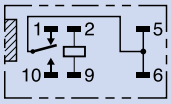
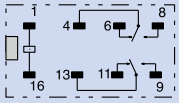
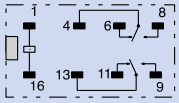
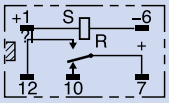
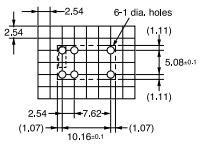
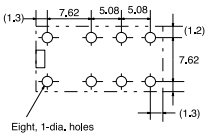
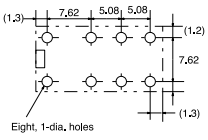
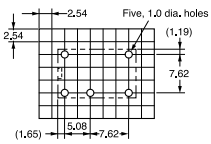
Product Series		G5RL	
Features		Single pole 16 A power relay. AC coil type and high inrush type available; type with "silent" operation available RoHS compliant	
Part No.		-	
Dimensions (L x W x H mm)		29.0 x 12.7 x 15.7	
Contact Ratings	Contact Form	SPDT, SPST-NO	SPDT
	Contact Material	Ag-alloy	
	Resistive Load	16 A at 250 VAC / 24VDC (G5RL-E) 12 A at 250 VAC / 24VDC (NO) 5 A at 250 VAC / 24VDC (NC)	
	Maximum Switching Current	16 A (G5RL-E), 12A (NO), 5 A (NC)	
	Minimum Permissible Load	40 mA at 24 VDC (AC coil) 100 mA at 5 VDC (DC coil)	
Coil Ratings	Rated Voltage	5 to 24 VDC, 24 VAC to 240 VAC	
	Power Consumption (Approx.)	400-430 mW	0.75 VA
Endurance	Electrical (operations)	50,000 min	
	Mechanical (operations)	10,000,000 min	
Dielectric Strength	Between coil & contacts	6,000 VAC	
	Between contacts of different polarity	–	
	Between contacts of same polarity	1,000 VAC	
Ambient Temperature (operating)		-40ºC to 85ºC	
Protective Construction		Flux Protection (RTII)	
Insulation distance	Creepage (Typical)	9.0 mm	8.0 mm min.
	Clearance (Typical)	9.0 mm	8.0 mm min.
Tracking Resistance (CTI)		250 V	
Variations	Single Side Stable		
	Single Winding Latching	•	
	Double Winding Latching	•	
	PCB Terminal	•	
	Plug-in Terminal		
	Quick Connect Terminal		
	Panel Mount		
	Fully Sealed		
	Flux Protection	•	
Approved Standards		UL, CSA, EN (VDE)	
Packaging	Minimum Pack Quantity	100 (Tray)	
	Minimum Order Quantity	100	
Standard Terminal Arrangement (for other variations refer to data)		SPST-NO 	SPDT 
Standard Mounting Holes (for other variations refer to data)			

(*)=FDType

G4W		G4A	
Relay with 10kW impulse and 4kW withstand voltages for power supply switches applications RoHS compliant		Relay with 10kV impulse and 4kV withstand voltages for power supply switching applications RoHS compliant	
-		-	
30.5 x 19.5 x 30.5		30.5 x 16.0 x 23.5	30.5 x 16.0 x 26.8
SPST-NO	DPST-NO	SPST-NO	
Ag-alloy		Ag-alloy	
15 A at 250 VAC 15 A at 24 VDC	10 A at 250 VAC 10 A at 24 VAC	20 A at 250 VAC	
15A	10A	20 A	
100 mA at 5 VDC		100 mA at 5 VDC	
12 to 100 VDC		5 to 24 VDC	
800 mW		900 mW	
100,000 min		Motor Load: 100,000 Inverter Load: 30,000	
5,000,000 min		2,000,000 min	
4,000 VAC		4,500 VAC	
-	2,000 VAC	-	
1,500 VAC		1,000 VAC	
-25°C to 55°C		-20°C to 60°C	
Unsealed (RTI)		Flux Protection (RTII)	
8.0 mm min.		6.4 mm	
8.0 mm min.		3.2 mm	
175 V		250 V	
•		•	
•		•	
		•	
•			
		•	
UL, CSA, EN (VDE), SEMKO		UL, CSA, EN (VDE)	
50 (Tray)		50 (Tray)	
50		50	
SPST-NO	DPST-NO	SPST-NO	
			
			

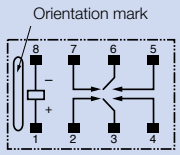
Signal Relays

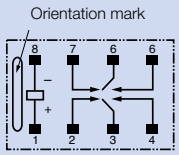


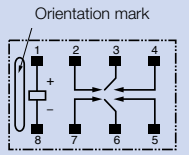
Product Series		G5V-1	G5V-2	G6A	G6E
Features		Ultra-miniature relay RoHS Compliant	Miniature relay for signal circuits RoHS Compliant	Fully sealed relay with high surge dielectric for use in telecommunications equipment RoHS Compliant	Sub-miniature, sensitive relay RoHS Compliant
Part No.		-	-	-	-
Dimensions (L x W x H mm)		12.5 x 7.5 x 10.0	20.5 x 10.1 x 11.5	20.2 x 10.1 x 8.4	16.0 x 10.0 x 8.0
Contact Ratings	Contact Form	SPDT	DPDT	DPDT	SPDT
	Contact Type	Single Crossbar	Bifurcated Crossbar	Bifurcated Crossbar	Bifurcated Crossbar
	Contact Material	Ag (Au-alloy)	Ag (Au-alloy)	Ag (Au-alloy)	Ag (Au-alloy))
	Resistive Load	0.5 A at 125 VAC 1 A at 24 VDC	0.5 A at 125 VAC 2 A at 30 VDC	0.5 A at 125 VAC 2 A at 30 VDC	0.4 A at 125 VAC 2 A at 30 VDC
	Maximum Switching Current	1A	2A	2A	3A
	Min. Permissible load	1 mA at 5 VDC	10 µA at 10 mVDC	10 µA at 10 mVDC	10 µA at 10 mVDC
	Max. Switching Power	62.5VA, 30W	62.5 VA, 60 W	125 VA, 60 W	50 VA, 60 W
	Max. Switching Voltage	125 VAC, 60 VDC	125 VAC, 125 VDC	250 VAC, 220 VDC	250 VAC, 220 VDC
Coil Ratings	Rated Voltage	3 to 24 VDC	3 to 48 VDC	3 to 48 VDC	3 to 48 VDC
	Power Consumption (Approx.)	150 mW	500 to 580 mW (150 mW high sensitivity version)	200 to 235 mW	200 to 400 mW
Endurance	Electrical (operations)	100,000 min	100,000 min	500,000 min	500,000 min (2A at 30 VDC) 100,000 min (0.4A at 125 VDC)
	Mechanical (operations)	5,000,000 min	15,000,000 min	100,000,000 min	100,000,000 min
Dielectric Strength	Between coil & contacts	1,000 VAC	1,000 VAC	1,000 VAC	1,500 VAC
	Between contacts of different polarity	–	1,000 VAC	1,000 VAC	–
	Between contacts of same polarity	400 VAC	750 VAC	1,000 VAC	1,000 VAC
Ambient Temperature (operating)		-40°C to 70°C	-25°C to 65°C	-40°C to 70°C	-40°C to 70°C
Variations	Single Side Stable	•	•	•	•
	Single Winding Latching			•	•
	Double Winding Latching			•	•
	Through Hole	•	•	•	•
	Surface Mount				
	Fully sealed	•	•	•	•
Approved Standards		UL, CSA	UL, CSA	UL, CSA	UL, CSA
Packaging	Minimum Pack Quantity	25 (Tube)	25 (Tube)	25 (Tube)	25 (Tube)
	Minimum Order Quantity	500	500	500	500
Standard Terminal Arrangement (for other variations refer to data)					
Standard Mounting Holes (for other variations refer to data)					

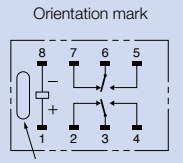
(*)=FDType

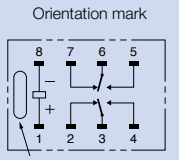
G6J-Y			G6K		
Ultra compact and slim relay RoHS Compliant			Sub-miniature surface mounting relay RoHS Compliant		
-2FS-Y	-2FL-Y	-2P-Y	-2F	-2G	-2P
10.9 x 6 x 10.0	10.9 x 6 x 10.0	10.9 x 6 x 9.3	10.2 x 6.7 x 5.4	10.2 x 6.7 x 5.4	10.2 x 6.7 x 5.3
DPDT			DPDT		
Bifurcated Crossbar			Bifurcated Crossbar		
Ag (Au alloy)			Ag (Au alloy)		
0.3 A at 125 VAC 1 A at 30 VDC			0.3 A at 125 VAC 1 A at 30 VDC		
1A			1A		
10 µA at 10 mVDC			10 µA at 10 mVDC		
37.5 VA, 30 W			37.5 VA, 30 W		
125 VAC, 110 VDC			125 VAC, 110 VDC		
3 to 24 VDC			3 to 24 VDC		
140 to 230 mW			100 mW		
100,000 min			100,000 min		
50,000,000 min			50,000,000 min		
1,500 VAC			1,500 VAC		
1,000 VAC			1,000 VAC		
750 VAC			750 VAC		
-40°C to 85°C			-40°C to 70°C		
•			•		
•			•		
•			•		
•			•		
•			•		
UL, CSA			UL, CSA		
50 (Tube)			50 (Tube)		
1,000 (Tube), 800 (Tape & reel)			1,000 (Tube), 400 (Tape & reel)		
Orientation mark	Orientation mark	Orientation mark	Orientation mark	Orientation mark	Orientation mark

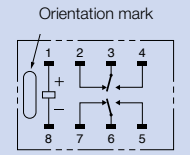












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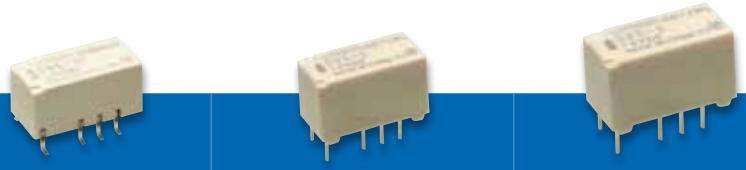
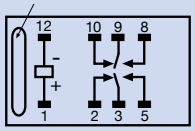
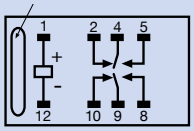
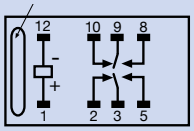
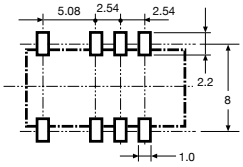
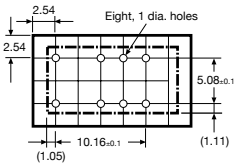
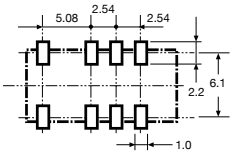
Signal Relays



Product Series		G6S		
Features		Surface mounting relay with 2.5 kV surge voltage RoHS Compliant		
Part No.		-2F	-2	-2G
Dimensions (L x W x H mm)		14.8 x 7.3 x 9.2	14.8 x 7.3 x 9.2	14.8 x 7.3 x 9.2
Contact Ratings	Contact Form	DPDT		
	Contact Type	Bifurcated Crossbar		
	Contact Material	Ag (Au alloy)		
	Resistive Load	0.5 A at 125 VAC 2 A at 30 VDC		
	Maximum Switching Current	2A		
	Min. Permissible load	10 µA at 10 mVDC		
	Max. Switching Power	62.5 VA, 60 W		
	Max. Switching Voltage	250 VAC, 220 VDC		
Coil Ratings	Rated Voltage	3 to 24 VDC		
	Power Consumption (Approx.)	140 to 200 mW		
Endurance	Electrical (operations)	100,000 min		
	Mechanical (operations)	100,000,000 min		
Dielectric Strength	Between coil & contacts	2,000 VAC		
	Between contacts of different polarity	1,500 VAC		
	Between contacts of same polarity	1,000 VAC		
Ambient Temperature (operating)		-40°C to 85°C		
Variations	Single Side Stable	•		
	Single Winding Latching	•		
	Double Winding Latching	•		
	Through Hole	•		
	Surface Mount	•		
	Fully sealed	•		
Approved Standards		UL, CSA		
Packaging	Minimum Pack Quantity	50 (Tube)		
	Minimum Order Quantity	1,000 (Tube), 400 (Tape & reel)		
Standard Terminal Arrangement (for other variations refer to data)		Orientation mark 	Orientation mark 	Orientation mark 
Standard Mounting Holes (for other variations refer to data)				

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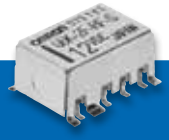
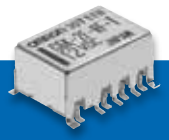
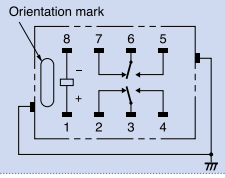
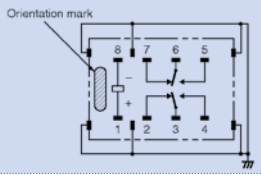
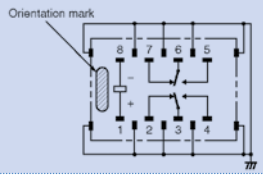
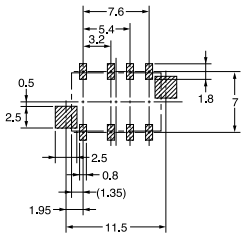
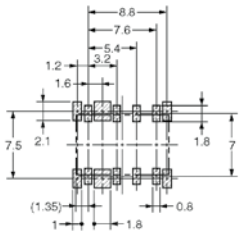
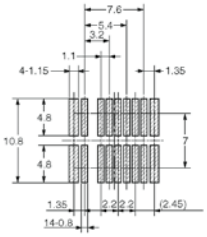
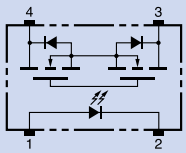
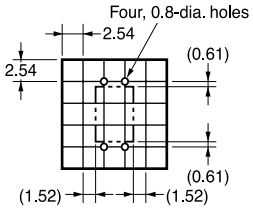



G6K-RF

High Frequency Relay
Surface mounting 1GHz band / 3GHz band miniature, DPDT, high frequency relay
RoHS Compliant

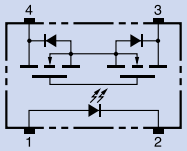
-2F-RF, 1GHz type	-2F-RF-S, 1GHz Type	-2F-RF-T, 3GHz Type
10.3 x 6.9 x 5.4	10.3 x 6.9 x 5.4	10.3 x 6.9 x 5.4
DPDT		
Bifurcated Crossbar		
Au alloy		
0.3 A at 125 VAC 1 A at 30 VDC		
1A		
–		
1W (~1GHz)		
125 VAC, 60 VDC		
3 to 24 VDC		
100 mW		
100,000 min		
50,000,000 min		
750 VAC		
750 VAC		
750 VAC		
-40°C to 70°C		
•		
•		
•		
-		
300 (Tray)		
300 (Tray), 300 or 900 (Tape & reel)		
		
		

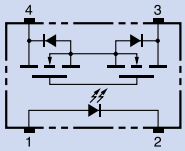
MOSFET Relays

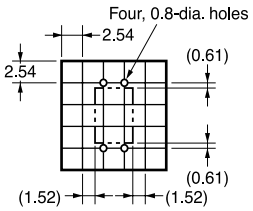
Product Series			G3VM							
Features			DIP (Dual Inline Package) TH Type – 4 pin							
Part No.			-21AR	-41AR	-61A1	-61AR	-101AR	-351A	-353A	-401A
Dimensions (L x W x H mm)			4.58 x 6.4 x 3.65							
Type			High Current		General Purpose	High Current		General Purpose		
Output	Load Voltage		20 V	40 V	60 V	60 V	100 V	350 V	350 V	400 V
	Contact Form		1a	1a	1a	1a	1a	1a	1a	1a
	Cont. load current (connection A)		3,000 mA	2,500 mA	500 mA	2,000 mA	1,000 mA	120 mA	150 mA	120 mA
	ON	resistance Typical	0.04 Ω	0.05 Ω	1 Ω	0.08 Ω	0.25 Ω	35 Ω	15 Ω	18 Ω
		Max.	0.08 Ω	0.15 Ω	2 Ω	0.2 Ω	0.7 Ω	50 Ω	25 Ω	35 Ω
Input	LED forward current (max)		30 mA		50 mA	30 mA		50 mA		
	LED reverse voltage (max)		5 V							
	Trigger LED Current	Typical	0.7 mA	0.5 mA	1.6 mA	0.5 mA	0.5 mA	1 mA	1 mA	1 mA
		Max.	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA
Switching	Turn on Time	Typical	1 ms	0.8 ms	0.8 ms	0.8 ms	0.8 ms	0.3 ms	0.1 ms	-
		Max.	5 ms	5 ms	2 ms	5 ms	5 ms	1 ms	1 ms	1 ms
	Turn off Time	Typical	0.3 ms	0.3 ms	0.1 ms	0.3 ms	0.3 ms	0.1 ms	1 ms	-
		Max.	1 ms	1 ms	0.5 ms	1 ms	1 ms	1 ms	3 ms	1 ms
Dielectric Strength between I/O terminals			2,500 VAC							
Temperature	Operating		-40°C to 85°C							
	Storage		-55°C to 125°C							
Floating capacity between I/O terminals			0.8 pF							
Insulation resistance			1,000 MΩ							
Stick Quantity			100							
Reel Quantity (Tape & Reel)			1,500							
Terminal arrangement										
Mounting Holes										

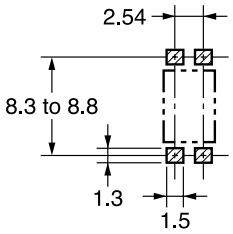
G3VM

DIP (Dual Inline Package) TH Type – 4 pin					DIP (Dual Inline Package) SMD Type – 4 pin									
-61AY	-201AY	-351AY	-401AY	-601AY	-21DR	-41DR	-61D1	-61DR	-101DR	-351D	-353D	-401D	-41DY	-61DY
4.58 x 6.4 x 3.65					4.58 x 6.4 x 3.65									
High Dielectric Strength					High Current		General Purpose	High Current		General Purpose			High Dielectric Strength	
60 V	200 V	350 V	400 V	600 V	20 V	40 V	60 V	60 V	100 V	350 V	350 V	400 V	40 V	60 V
1a	1a	1a	1a	1a	1a	1a	1a	1a	1a	1a	1a	1a	1a	1a
500 mA	250 mA	100 mA	120 mA	90 mA	3,000 mA	2,500 mA	500 mA	2,000 mA	1,000 mA	120 mA	150 mA	120 mA	1,500 mA	500 mA
0.6 Ω	5 Ω	35 Ω	22 Ω	45 Ω	0.04 Ω	0.05 Ω	1 Ω	0.08 Ω	0.25 Ω	35 Ω	15 Ω	18 Ω	-	0.6 Ω
2 Ω	8 Ω	50 Ω	35 Ω	60 Ω	0.08 Ω	0.15 Ω	2 Ω	0.2 Ω	0.7 Ω	50 Ω	25 Ω	35 Ω	0.2 Ω	2 Ω
30 mA					30 mA		50 mA	30 mA		50 mA			30 mA	
5 V					5 V			5 V						
0.3 mA	0.3 mA	0.3 mA	0.3 mA	0.3 mA	0.7 mA	0.5 mA	1.6 mA	0.5 mA	0.5 mA	1 mA	1 mA	1 mA	-	0.3 mA
2 mA	2 mA	2 mA	2 mA	2 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	2 mA	2 mA
0.5 ms	0.5 ms	0.1 ms	0.2 ms	0.2 ms	1 ms	0.8 ms	0.8 ms	0.8 ms	0.8 ms	0.3 ms	0.1 ms	-	-	0.5 ms
1 ms	1 ms	1 ms	1 ms	1 ms	5 ms	5 ms	2 ms	5 ms	5 ms	1 ms	1 ms	1 ms	5 ms	1 ms
0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.3 ms	0.3 ms	0.1 ms	0.3 ms	0.3 ms	0.1 ms	1 ms	-	-	0.2 ms
1 ms	1 ms	1 ms	1 ms	1 ms	1 ms	1 ms	0.5 ms	1 ms	1 ms	1 ms	3 ms	1 ms	1 ms	1 ms
5,000 VAC					2,500 VAC								5,000 VAC	
-40°C to 85°C					-40°C to 85°C									
-55°C to 125°C					-55°C to 125°C									
0.8 pF					0.8 pF									
1,000 MΩ					1,000 MΩ									
100					100									
1,500					1,500 (Only SMD Type)									

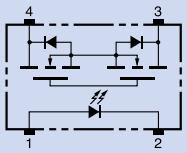
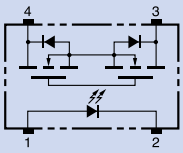
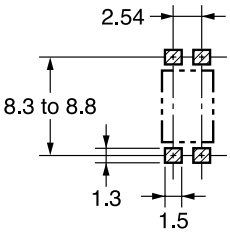
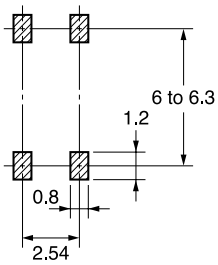








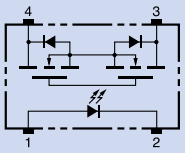
MOSFET Relays

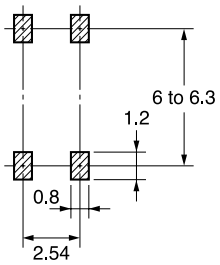
Product Series			G3VM										
Features			DIP (Dual Inline Package) SMD Type – 4 pin				SOP (Small Outline Package) – 4 pin						
Part No.			-201DY	-351DY	-401DY	-601DY	-21GR	-21GR1	-41GR4	-41GR5	-41GR6	-41GR8	-61GR1
Dimensions (L x W x H mm)			4.58 x 6.4 x 3.65				3.9 x 4.4 x 2.1						
Type			High Dielectric Strength				Special Purpose					High Current	
Output	Load Voltage		200 V	350 V	400 V	600 V	20 V	20 V	40 V	40 V	40 V	40 V	60 V
	Contact Form		1a	1a	1a	1a	1a	1a	1a	1a	1a	1a	1a
	Cont. load current (connection A)		250 mA	100 mA	120 mA	90 mA	160 mA	300 mA	250 mA	300 mA	120 mA	1,000 mA	1,000 mA
	ON	resistance Typical	5 Ω	35 Ω	22 Ω	45 Ω	5 Ω	1 Ω	2 Ω	1 Ω	10 Ω	0.1 Ω	0.25 Ω
		Max.	8 Ω	50 Ω	35 Ω	60 Ω	8 Ω	1.5 Ω	3 Ω	1.5 Ω	1.5 Ω	0.13 Ω	0.7Ω
Input	LED forward current (max)		30 mA				50 mA					30 mA	50 mA
	LED reverse voltage (max)		5 V										
	Trigger LED Current	Typical	0.3 mA	0.3 mA	0.3 mA	0.3 mA	-	-	-	-	-	1.0 mA	-
		Max.	2 mA	2 mA	2 mA	2 mA	4 mA	4 mA	4 mA	4 mA	4 mA	3 mA	3 mA
Switching	Turn on Time	Typical	0.5 ms	0.1 ms	0.2 ms	0.2 ms	-	-	-	-	-	1.2 ms	1.4 ms
		Max.	1 ms	1 ms	1 ms	1 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	0.3 ms	0.3 ms
	Turn off Time	Typical	0.2 ms	0.2 ms	0.2 ms	0.2 ms	-	-	-	-	-	0.2 ms	0.6 ms
		Max.	1 ms	1 ms	1 ms	1 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	1 ms
Dielectric Strength between I/O terminals			5,000 VAC				1,500 VAC						
Temperature	Operating		-40°C to 85°C				-20°C to 85°C					-40°C to 85°C	-20°C to 85°C
	Storage		-55°C to 125°C				-40°C to 125°C		-55°C to 125°C	-40°C to 125°C		-55°C to 125°C	-40°C to 125°C
Floating capacity between I/O terminals			0.8 pF										
Insulation resistance			1,000 MΩ										
Stick Quantity			100				100	100	100	100	100	100	100
Reel Quantity (Tape & Reel)			1,500 (Only SMD Type)				2,500	2,500	2,500	2,500	2,500	2,500	2,500
Terminal arrangement													
Mounting Holes													

G3VM

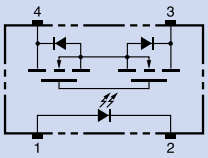
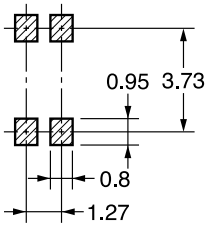
SOP (Small Outline Package) – 4 pin

-61G1	-61G2	-61VY1	-81G1	-81GR	-81GR1	-201G	-201G1	-351G	-351G1	-351GL	-353G	-401G	-601G
3.9 x 4.4 x 2.1													
General Purpose				Special Purpose		General Purpose	General Purpose			Special Purpose	General Purpose		
60 V	60 V	60 V	80 V	80 V	80 V	200 V	200 V	350 V	350 V	350 V	350 V	400 V	600 V
1a	1a	1a	1a	1a	1a	1a	1a	1a	1a	1a	1a	1a	1a
400 mA	400 mA	100 mA	350 mA	40 mA	200 mA	50 mA	200 mA	110 mA	100 mA	120 mA	120 mA	120 mA	90 mA
1 Ω	1 Ω	25 Ω	1 Ω	16 Ω	5 Ω	40 Ω	5 Ω	35 Ω	35 Ω	15 Ω	15 Ω	17 Ω	45 Ω
2 Ω	2 Ω	50 Ω	1.2 Ω	25 Ω	8 Ω	50 Ω	8 Ω	50 Ω	50 Ω	35 Ω	25 Ω	35 Ω	60 Ω
50 mA													
5 V													
1.6 mA	0.4 mA	0.2 mA	1 mA	-	-	1 mA	0.4 mA	1 mA	0.4 mA	1 mA	1 mA	1 mA	0.4 mA
3 mA	1 mA	1 mA	4 mA	3 mA	3 mA	3 mA	1 mA	3 mA	1 mA	3 mA	3 mA	3 mA	1 mA
0.8 ms	3 ms	1 ms	0.3 ms	0.07 ms	0.13 ms	-	3 ms	0.3 ms	1 ms	0.3 ms	-	0.3 ms	2 ms
2 ms	8 ms	5 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	8 ms	1 ms	1 ms	5 ms	1 ms	1 ms	8 ms
0.1 ms	0.1 ms	1 ms	0.3 ms	0.07 ms	0.17 ms	-	0.6 ms	1 ms	1 ms	0.1 ms	-	0.1 ms	0.5 ms
0.5 ms	3 ms	5 ms	0.5 ms	0.5 ms	0.5 ms	0.2 ms	3 ms	1 ms	3 ms	1 ms	3 ms	1 ms	3 ms
1,500 VAC		3,750 VAC	1,500 VAC										
-40°C to 85°C			-20°C to +85°C			-40°C to 85°C							
-55°C to 125°C			-40°C to +125°C			-55°C to 125°C							
0.8 pF		10 pF	0.8 pF	0.7 pF		0.8 pF							
1,000 MΩ													
100													
2,500													



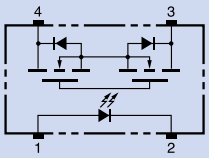


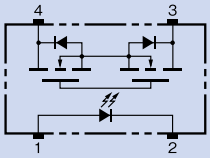
MOSFET Relays

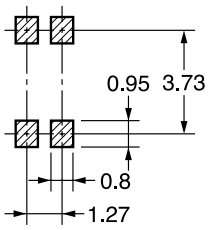
Product Series			G3VM							
Features			SSOP (Shrink Small Outline Package) – 4 pin							
Part No.			-21LR	-21LR1	-21LR10	-21LR11	-41LR4	-41LR5	-41LR6	-41LR10
Dimensions (L x W x H mm)			1.7 x 4.2 x 1.8							
Type			Special Purpose			High Current	Special Purpose			
Output	Load Voltage		20 V	20 V	20 V	20 V	40 V	40 V	40 V	40 V
	Contact Form		1a	1a	1a	1a	1a	1a	1a	1a
	Cont. load current (connection A)		160 mA	450 mA	200 mA	900 mA	250 mA	300 mA	120 mA	120 mA
	ON	resistance Typical	5 Ω	0.8 Ω	3 Ω	0.18 Ω	2 Ω	1 Ω	10 Ω	12 Ω
		Max.	8 Ω	1.2 Ω	5 Ω	0.22 Ω	3 Ω	1.5 Ω	15 Ω	14 Ω
Input	LED forward current (max)		50 mA		30 mA	50 mA				30 mA
	LED reverse voltage (max)		5 V							
	Trigger LED Current	Typical	-	-	-	-	-	-	-	-
		Max.	4 mA	4 mA	3 mA	3 mA	4 mA	4 mA	4 mA	3 mA
Switching	Turn on Time	Typical	-	-	-	0.3 ms	-	-	-	-
		Max.	0.5 ms	0.5 ms	0.2 ms	2 ms	0.5 ms	0.5 ms	0.5 ms	0.2 ms
	Turn off Time	Typical	-	-	-	0.2 ms	-	-	-	-
		Max.	0.5 ms	0.5 ms	0.2 ms	1 ms	0.5 ms	0.5 ms	0.5 ms	0.3 ms
Dielectric Strength between I/O terminals			1,500 VAC							
Temperature	Operating		-20°C to 85°C							
	Storage		-40°C to 125°C							
Floating capacity between I/O terminals			0.8 pF		0.3pF		0.8 pF			0.3 pF
Insulation resistance			1,000 MΩ							
Stick Quantity			-							
Reel Quantity (Tape & Reel)			500/1,000/1,500		500/1,500		500/1,000/1,500		500/1,500	
Terminal arrangement										
Mounting Holes										

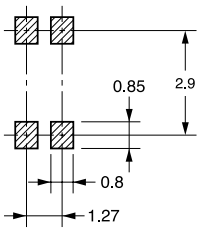
G3VM

SSOP (Shrink Small Outline Package) – 4 pin				USOP (Ultra Small Outline Package) - 4 pin							
-41LR11	-61LR	-81LR	-101LR	-21PR10	-21PR11	-41PR10	-41PR11	-41PR12	-51PR	-61PR	-61PR1
1.7 x 4.2 x 1.8				2.2 x 2.85 x 1.65							
Special Purpose											
40 V	60 V	80 V	100 V	20 V	20 V	40 V	40 V	40 V	50 V	60 V	60 V
1a	1a	1a	1a	1a	1a	1a	1a	1a	1a	1a	1a
140 mA	400 mA	120 mA	80 mA	200 mA	900 mA	120 mA	140 mA	100 mA	300 mA	400 mA	120 mA
7 Ω	1.0 Ω	7.5 Ω	8 Ω	3 Ω	0.18 Ω	12 Ω	7 Ω	15 Ω	1 Ω	1 Ω	10 Ω
10 Ω	1.5 Ω	12 Ω	14 Ω	5 Ω	0.22 Ω	14 Ω	10 Ω	20 Ω	1.5 Ω	1.5 Ω	15 Ω
30 mA	50 mA										
5V											
-	2 mA	2 mA	1 mA	1 mA	0.6 mA	0.5 mA	1 mA	1 mA	0.5 mA	0.5 mA	1 mA
3 mA	5 mA	5 mA	5 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA
-	0.3 ms	0.1 ms	0.1 ms	0.04 ms	0.5 ms	0.03 ms	0.04 ms	0.04 ms	0.2 ms	0.3 ms	0.04 ms
0.2 ms	1.0 ms	0.25 ms	0.3 ms	0.2 ms	2 ms	0.2 ms	0.2 ms	0.2 ms	0.5 ms	0.5 ms	0.2 ms
-	0.2 ms	0.15 ms	0.1 ms	0.13 ms	0.1 ms	0.2 ms	0.14 ms	0.12 ms	0.1 ms	0.3 ms	0.12 ms
0.2 ms	1.0 ms	0.2 ms	0.3 ms	0.2 ms	1 ms	0.3 ms	0.2 ms	0.2 ms	0.4 ms	0.5 ms	0.2 ms
1,500 VAC				500 VAC							
-20°C to 85°C				-40°C to 85°C							
-40°C to 125°C				-55°C to 125°C							
0.3 pF		0.8 pF	0.6 pF	0.4 pF						0.3 pF	0.4 pF
1,000 MΩ											
-											
500/1,500											

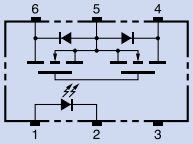
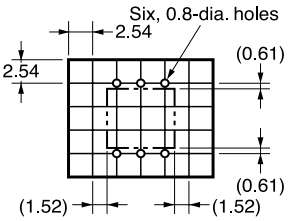








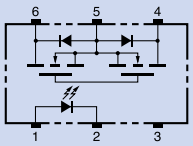
MOSFET Relays

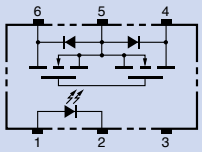
Product Series			G3VM										
Features			DIP (Dual Inline Package) TH Type – 6 pin										
Part No.			-21BR	-41BR	-61B1	-61BR	-61BR1	-101BR	-351B	-353B	-401B	-401BY	-601BY
Dimensions (L x W x H mm)			7.12 x 6.4 x 3.65										
Type			High Current		General Purpose	High Current			General Purpose			High Dielectric Strength	
Output	Load Voltage		20 V	40 V	60 V	60 V	60 V	100 V	350 V	350 V	400 V	400 V	600 V
	Contact Form		1a	1a	1a	1a	1a	1a	1a	1a	1a	1a	1a
	Cont. load current (connection A)		4,000 mA	3,500 mA	500 mA	2,500 mA	3,000 mA	2,000 mA	120 mA	150 mA	120 mA	120 mA	100 mA
	ON	resistance Typical	0.02 Ω	0.03 Ω	1 Ω	0.065 Ω	0.04 Ω	0.1 Ω	25 Ω	15 Ω	17 Ω	17 Ω	25 Ω
		Max.	0.05 Ω	0.06 Ω	2 Ω	0.1 Ω	0.07 Ω	0.2 Ω	35 Ω	25 Ω	35 Ω	35 Ω	35 Ω
Input	LED forward current (max)		30 mA		50 mA	30 mA		30 mA	50 mA				
	LED reverse voltage (max)		5V										
	Trigger LED Current	Typical	0.5 mA	0.5 mA	1.6 mA	1 mA	0.5 mA	0.5 mA	1 mA	1 mA	1 mA	-	1.6 mA
		Max.	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	5 mA
Switching	Turn on Time	Typical	2.5 ms	2 ms	0.8 ms	1 ms	2 ms	2 ms	0.3 ms	0.1 ms	0.3 ms	0.3 ms	0.2 ms
		Max.	5 ms	5 ms	2 ms	1.5 ms	5 ms	5 ms	1 ms	1 ms	1 ms	1 ms	1.5 ms
	Turn off Time	Typical	0.1 ms	0.1 ms	0.1 ms	0.2 ms	0.1 ms	0.1 ms	0.1 ms	1 ms	0.1 ms	0.1 ms	0.2 ms
		Max.	1 ms	1 ms	0.5 ms	0.4 ms	1 ms	1 ms	1 ms	3 ms	1 ms	1 ms	1 ms
Dielectric Strength between I/O terminals			2,500 VAC									5,000 VAC	
Temperature	Operating		-40°C to 85°C			-20°C to 85°C		-40°C to 85°C					
	Storage		-55°C to 125°C			-40°C to 125°C		-55°C to 125°C					
Floating capacity between I/O terminals			0.8 pF										
Insulation resistance			1,000 MΩ										
Stick Quantity			50										
Reel Quantity (Tape & Reel)			-										
Terminal arrangement			G3VM-62BR/ER 										
Mounting Holes			G3VM-61BR 										

G3VM

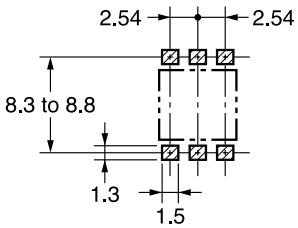
DIP (Dual Inline Package) SMD Type – 6 pin											SOP (Small Outline Package) – 6 pin				
-21ER	-41ER	-61E1	-61ER	-61ER1	-101ER	-351E	-353E	-401E	-401EY	-601EY	-21HR	-41HR	-61H1	-61HR	-81HR
7.12 x 6.4 x 3.65											6.3 x 4.4 x 2.1				
High Current		General Purpose	High Current			General Purpose			High Dielectric Strength		High Current		General Purpose	High Current	High Current
20 V	40 V	60 V	60 V	60 V	100 V	350 V	350 V	400 V	400 V	600 V	20 V	40 V	60 V	60 V	80 V
1a	1a	1a	1a		1a	1a	1a	1a	1a	1a	1a	1a	1a	1a	1a
4,000 mA	3,500 mA	500 mA	2,500 mA	3,000 mA	2,000 mA	120 mA	150 mA	120 mA	120 mA	100 mA	2,500 mA	2,500 mA	400 mA	2,300 mA	1,250 mA
0.02 Ω	0.03 Ω	1 Ω	0.065 Ω	0.04 Ω	0.1 Ω	25 Ω	15 Ω	17 Ω	17 Ω	25 Ω	0.02 Ω	0.03 Ω	1 Ω	0.04 Ω	0.11 Ω
0.05 Ω	0.06 Ω	2 Ω	0.1 Ω	0.07 Ω	0.2 Ω	35 Ω	25 Ω	35 Ω	35 Ω	35 Ω	0.05 Ω	0.06 Ω	2 Ω	0.07 Ω	0.15 Ω
30 mA		50 mA	30 mA		30 mA	50 mA					30 mA		50 mA	30 mA	50 mA
5V															
0.5 mA	0.5 mA	1.6 mA	1 mA	0.5 mA	0.5 mA	1 mA	1 mA	1 mA	-	1.6 mA	-	0.4 mA	1.6 mA	0.4 mA	2 mA
3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	5 mA	3 mA	3 mA	3 mA	3 mA	5 mA
2.5 ms	2 ms	0.8 ms	1 ms	2 ms	2 ms	0.3 ms	0.1 ms	0.3 ms	0.3 ms	0.2 ms	1.5 ms	1 ms	0.8 ms	1 ms	2 ms
5 ms	5 ms	2 ms	1.5 ms	5 ms	5 ms	1 ms	1 ms	1 ms	1 ms	1.5 ms	5 ms	5 ms	2 ms	5 ms	3 ms
0.1 ms	0.1 ms	0.1 ms	0.2 ms	0.1 ms	0.1 ms	0.1 ms	1 ms	0.1 ms	0.1 ms	0.2 ms	0.1 ms	0.15 ms	0.1 ms	0.15 ms	0.7 ms
1 ms	1 ms	0.5 ms	0.4 ms	1 ms	1 ms	1 ms	3 ms	1 ms	1 ms	1 ms	1 ms	1 ms	0.5 ms	1 ms	1 ms
2,500 VAC									5,000 VAC		1,500 VAC				
-40°C to 85°C			-20°C to 85°C	-40°C to 85°C											-20°C to 85°C
-55°C to 125°C			-40°C to 125°C	-55°C to 125°C											-40°C to 125°C
0.8 pF															
1,000 MΩ															
50											75				
1,500 (only SMD Type)											2,500				

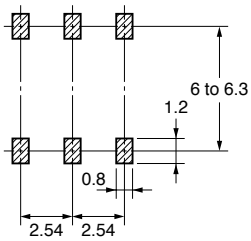
G3VM-62BR/ER



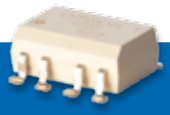
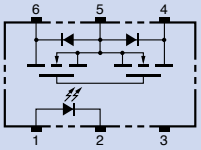
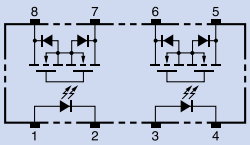
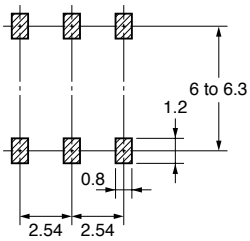
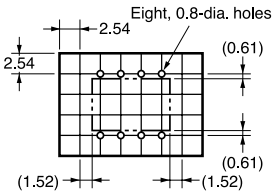


G3VM-62ER



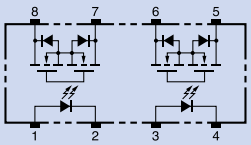


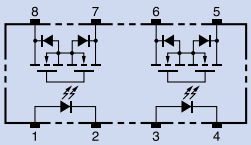
MOSFET Relays

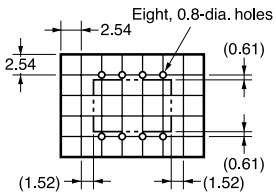
Product Series										
			G3VM							
Features			SOP (Small Outline Package) – 6 pin					DIP (Dual Inline Package) TH Type – 8 pin		
Part No.			-101HR	-201H1	-351H	-353H	-401H	-62C1	-352C	-354C
Dimensions (L x W x H mm)			6.3 x 4.4 x 2.1					9.66 x 6.4 x 3.65		
Type			General Purpose							
Output	Load Voltage		100 V	200 V	350 V	350 V	400 V	60 V	350 V	350 V
	Contact Form		1a	1a	1a	1a	1a	2a	2a	2b
	Cont. load current (connection A)		1,400 mA	200 mA	110 mA	120 mA	120 mA	500 mA	120 mA	150 mA
	ON	resistance Typical	0.1 Ω	5 Ω	25 Ω	15 Ω	17 Ω	1 Ω	25 Ω	15 Ω
		Max.	0.2 Ω	8 Ω	35 Ω	25 Ω	35 Ω	2 Ω	50 Ω	25 Ω
Input	LED forward current (max)		30 mA	50 mA				50 mA		
	LED reverse voltage (max)		5V					5 V		
	Trigger LED Current	Typical	0.4 mA	1 mA	1 mA	1 mA	1 mA	1.6 mA	1 mA	1 mA
		Max.	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA
Switching	Turn on Time	Typical	1 ms	0.6 ms	0.3 ms	-	0.3 ms	0.8 ms	0.3 ms	0.1 ms
		Max.	5 ms	1.5 ms	1 ms	1 ms	1 ms	2 ms	1 ms	1 ms
	Turn off Time	Typical	0.15 ms	0.1 ms	0.1 ms	-	0.1 ms	0.1 ms	0.1 ms	1 ms
		Max.	1 ms	1 ms	1 ms	3 ms	1 ms	0.5 ms	1 ms	3 ms
Dielectric Strength between I/O terminals			1,500 VAC					2,500 VAC		
Temperature	Operating		-40°C to 85°C							
	Storage		-40°C to 125°C					-55°C to 125°C		
Floating capacity between I/O terminals			0.8 pF							
Insulation resistance			1,000 MΩ							
Stick Quantity			75					50		
Reel Quantity (Tape & Reel)			2,500					-		
Terminal arrangement										
Mounting Holes										

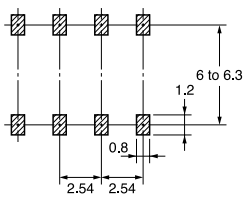
G3VM

DIP (Dual Inline Package) SMD Type – 8 pin						SOP (Small Outline Package) – 8 pin				
-355CR	-402C	-62F1	-354F	-355FR	-402F	-62J1	-202J1	-354J	-355JR	-402J
9.66 x 6.4 x 3.65						9.4 x 4.4 x 2.1				
General Purpose						General Purpose				
350 V	400 V	60 V	350 V	350 V	400 V	60 V	200 V	350 V	350 V	400 V
1a1b	2a	2a	2b	1a1b	2a	2a	2a	2b	1a1b	2a
120 mA	120 mA	500 mA	150 mA	120 mA	120 mA	400 mA	200 mA	120 mA	120 mA	120 mA
15 Ω	18 Ω	1 Ω	15 Ω	15 Ω	18 Ω	1 Ω	5 Ω	15 Ω	15 Ω	17 Ω
25 Ω	35 Ω	2 Ω	25 Ω	25 Ω	35 Ω	2 Ω	8 Ω	25 Ω	25 Ω	35 Ω
50 mA						50 mA				
5 V						5 V				
1 mA	1 mA	1.6 mA	1 mA	1 mA	1 mA	1.6 mA	1 mA	1 mA	1 mA	1 mA
3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA	3 mA
-	-	0.8 ms	0.1 ms	-	-	0.8 ms	0.6 ms	-	-	0.3 ms
1 ms	1 ms	2 ms	1 ms	1 ms	1 ms	2 ms	1.5 ms	1 ms	1 ms	1 ms
-	-	0.1 ms	1 ms	-	-	0.1 ms	0.1 ms	-	-	0.1 ms
1 ms	1 ms	0.5 ms	3 ms	1 ms	1 ms	0.5 ms	1 ms	3 ms	3 ms	1 ms
2,500 VAC						1,500 VAC				
-40°C to 85°C						-40°C to 85°C				
-55°C to 125°C						-55°C to 125°C				
0.8 pF						0.8 pF				
1,000 MΩ						1,000 MΩ				
50						50				
1,500 (Only SMD Type)						2,500				

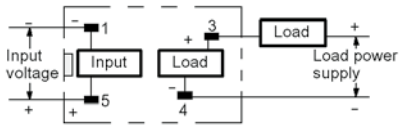
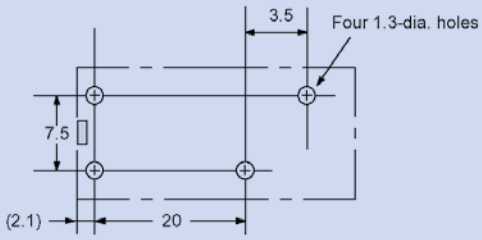




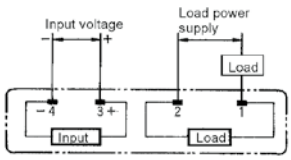


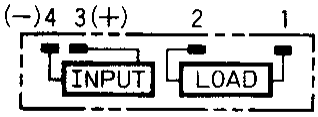


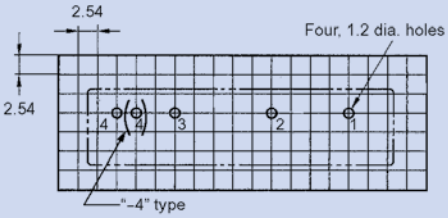
Solid State Relays

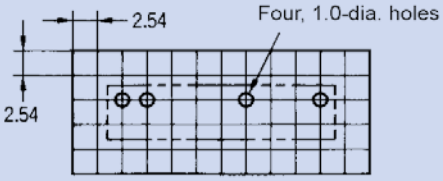
Product Series		G3R/G3RD					
		G3R-102PN-US	G3R-102PLN-US	G3R-202PN-US	G3R-202PLN-US	G3RD-101PN-US	G3RDX02PN-US
Features		PCB Mounting Type • Compatible with OMRON's G2R					
Part No.		-102PN-US	-102PLN-US	-202PN-US	-202PLN-US	-101PN-US	-202PN-US
Dimensions (L x W x H mm)		29 x 13 x 29mm					
Output	Insulation	Phototriac				Photocoupler	
	Load voltage	75 to 132 VAC		75 to 264 VAC		3 to 125 VDC	3 to 52.8 VDC
	Maximum switching current	2A				1.5A	2A
	Leakage current	2 mA max. at 100 VAC		2 mA max. at 100 VAC 5 mA max. at 200 VAC		0.1 mA max. at 125 VDC	0.1 mA max. at 50 VDC
	VDRM VCEO (V)	400 (reference value)		600 (reference value)		180 (reference value)	80 (reference value)
	di/dt (A/µs)	50				-	
	dv/dt (V/µs)	300				-	
	I2t (A2s)	10.4				-	
	Tj (°C) max.	125				150	
Rated input voltage		5, 12, 24 VDC					
Dielectric strength (between input and output terminals)		1,500 VAC, 50/60Hz for 1min (1A type) 2,500 VAC, 50/60Hz for 1min (2A type)				2,500 VAC, 50/60HZ for 1min (2A type)	
Ambient temperature (operating)		-30° to 80°C (with no icing or condensation)					
Function	Zero cross	Yes	No	Yes	No		
	Operation indicator	Yes					
	Built-in varistor	No					
Terminal type	Plug in	No					
	Screw	No					
	Tab	No					
	PCB	Yes					
	Mounting method	PCB Mounting					
Magnet relay with compatible terminals		G2R					
Approved standards		UL, CSA					
Socket		-					
Weight Approx.		Approx. 18g					
Packaging	Minimum Pack Quantity	20					
	Minimum Order Quantity	200					
Standard Terminal Arrangement (for other variations refer to data)							
Standard Mounting Holes (for other variations refer to data)							

G3M				G3MC					
G3M-203P	G3M-203PL	G3M-205P	G3M-205PL	G3MC-101P	G3MC-101PL	G3MC-201P	G3MC-201PL	G3MC-202P	G3MC-202PL
PCB Mounting Type • Miniature low cost SSR				PCB Mounting Type • Miniature low cost SSR					
-203P	-203PL	-205P	-205PL	-101P	-101PL	-201P	-201PL	-202P	-202PL
40 x 9 x 20mm		40 x 7.6 x 25mm		24.5 x 4.5 x 13.5				24.5 x 4.5 x 20.5mm	
Phototriac				Phototriac					
75 to 264 VAC				75 to 132 VAC		75 to 264 VAC			
3A		5A		1A				2A	
1.5 mA max. at 200 VAC				1 mA max. at 100 VAC		1.5 mA max. at 200 VAC			
600 (reference value)				400 (reference value)		600 (reference value)			
50				30				40	40
500				200				100	200
10.4				2				4	3.7
125				125					
5, 12, 24 VDC				5, 12, 24 VDC					
2,500 VAC, 50/60 Hz for 1 min				2,500 VAC, 50/60 Hz for 1 min					
-30° to 80°C (with no icing or condensation)				-30° to 80°C (with no icing or condensation)					
Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
No				No					
No				No					
No				No					
No				No					
No				No					
Yes				Yes					
PCB Mounting				PCB Mounting					
-				-					
UL, CSA (standard type) UL, CSA, TUV (-UTU type)		UL, CSA, EN, IEC, VDE: (with-VD version)		UL, CSA, VDE (-VD type)					
-				-					
Approx. 15g		Approx. 25g		Approx. 2.5g				Approx. 5g	
100				100					
100				100					

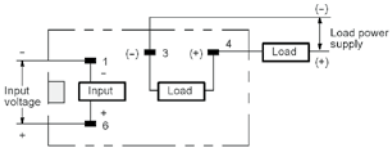
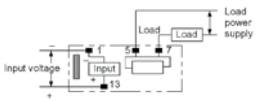
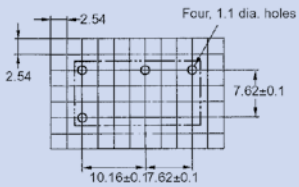
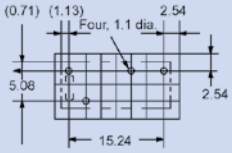




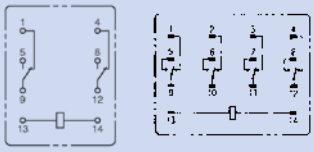
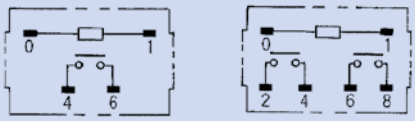
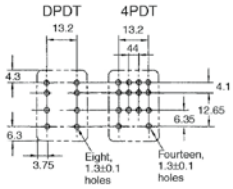
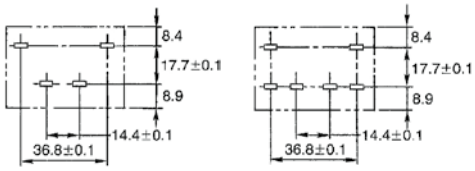




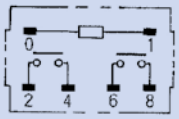
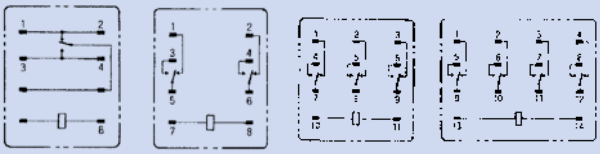
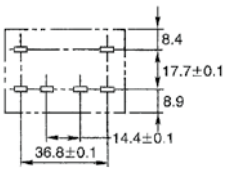
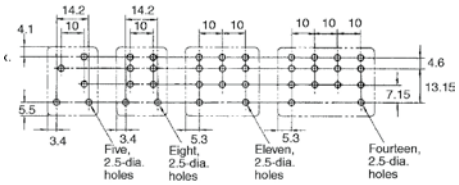
Solid State Relays

Product Series		G3S/G3SD				G3DZ
		G3S-201PL-US	G3S-201PL-PD-US	G3SD-Z01P-US	G3SD-Z01P-PD-US	G3DZ-2R6PL
Features		PCB/Socket Mounting Type • Compatible with Omron's G6B				PCB/Socket • Miniature low cost SSR • Compatible with Omron's G6B Mounting Type • AC/DC SSR • 10uA leakage current max • Same shape as G6D • Input resistor and varistor incorporated
Part No.		-201PL-US	-201PL-PD-US	-Z01P-US	-Z01P-PD-US	-2R6PL
Dimensions (L x W x H mm)		20 x 10 x 16.5mm				17.5 x 6.5 x 12.5mm
Output	Insulation	Phototriac		Photocoupler		Photodiode array
	Load voltage	75 to 264 VAC		3 to 26 VDC		3 to 264 VAC 3 to 125 VDC
	Maximum switching current	1A	1.2A	1A	1.1A	0.6 A
	Leakage current	2 mA max. at 200 VAC		0.1 mA max. at 26 VDC		10 µA max. at 125 VDC
	VDRM VCEO (V)	600 (reference value)		32 (reference value)		VDSS-600 (ref value)
	di/dt (A/µs)	50		-		-
	dv/dt (V/µs)	300		-		-
	I2t (A2s)	10.4		-		-
	Tj (°C) max.	125		150		150
Rated input voltage		5, 12, 24 VDC				5, 12, 24 VDC
Dielectric strength (between input and output terminals)		2,500 VAC, 50/60 Hz for 1 min				2,500 VAC, 50/60 Hz for 1 min
Ambient temperature (operating)		-30° to 80°C (with no icing or condensation)				-30° to 80°C (with no icing or condensation)
Function	Zero cross	No				No
	Operation indicator	No				No
	Built-in varistor	Yes				Yes
Terminal type	Plug in	No				No
	Screw	No				No
	Tab	No				No
	PCB	Yes				Yes
	Mounting method	PCB/Socket Mounting				Socket/PCB Mounting
Magnet relay with compatible terminals		-				-
Approved standards		UL, CSA				
Socket		P6BF-4BND (with operating indicator, with counterelectromotive voltage absorption diode), P6B-04P				P6D-04P
Weight Approx.		Approx. 13g				Approx. 3.1g
Packaging	Minimum Pack Quantity	100				25
	Minimum Order Quantity	100				200
Standard Terminal Arrangement (for other variations refer to data)						
Standard Mounting Holes (for other variations refer to data)						

General Purpose Relays

Product Series							
		MY _-02, MY_F			**G7L**		
Features		**Miniature Power Relay** Versatile relay, ideal for power and sequence control applications, meets many other application requirements.			**Built-in Relay** Multi-pole power relay that withstands a momentary coil voltage drop. 3mm contact gap. Wide range of applications with 100-120 VAC and 200-240 VAC coils. Both screw terminals and PCB terminals are available.		
Part No.		-			Terminal , Screw type		PCB type
Dimensions (L x W x H mm)		28 x 21.5 x 36			52.5 x 35.5 x 41		
Contact Ratings	**Contact Form**	DPDT	4PDT		SPST-NO	DPST-NO	SPST-NO DPST-NO
	Mechanism	Single	Single	Bifurcated	Double-break		
	Material	Ag	Au-plate+Ag		Ag-alloy		
	Rated Load* (Resistive Load)	5 A at 220 VAC 5 A at 24 VDC	3 A at 220 VAC 3 A at 24 VDC		30 A at 220 VAC	25 A at 220 VAC	20 A at 220 VAC
	Max. Switching Current / Voltage	5 A / 250VAC, 125VDC	3 A / 250VAC, 125VDC		30 A / 250 VAC	25 A / 250 VAC	20 A / 250 VAC
	Failure Rate (mA) (reference value)	1 mA at 5 VDC	1 mA at 1 VDC	100 µA at 1 VDC	100 mA at 5 VDC		
Coil Ratings	**Rated Voltage**	6 to 100/110 VDC 6 to 220/240 VAC			6 to 100 VDC 12 to 220/240 VAC		
	Power Consumption (Approx.)	0.9 W (DC) 0.9 to 1.2 VA (AC) (60Hz)			1.9 W (DC) 1.7 to 2.5 VA (AC) (60Hz)		
Endurance	**Mechanical**	50,000,000 (AC) 100,000,000 (DC)		20,000,000	1,000,000		
	Electrical	500,000	200,000	100,000	100,000		
Dielectric strength	**Between coil & contacts**	2,000 VAC for 1 min.			4,000 VAC for 1 min.		
	Between contacts of different polarity	2,000 VAC for 1 min.			-	2,000 VAC for 1 min. (DPST-NO only)	
	Between contacts of same polarity	1,000 VAC for 1 min.			2,000 VAC for 1 min.		
	Between set and reset coils	-			-		
Ambient temperature (operating)		-55°C to 70°C			-25°C to 60°C		
Functions		Arc barriers (4 pole)			Test button (excluding P models)		
Sealing		RT I (dust Protected)			RTI (dust protected)		
Technical Construction		(MYDF)					
Approved Standards		UL, CSA, TÜV			UL, CSA, TÜV		
Packaging	**Min. Pack Quantity**	10			20		
Standard Terminal Arrangement (for other variations refer to data)							
Standard Mounting Holes (for other variations refer to data)							

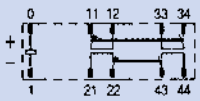
General Purpose Relays

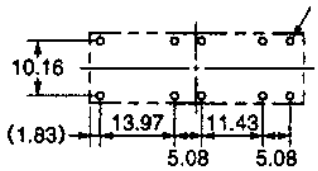
Product Series		G7L-PV	LY_0 , LY_F				
Features		**Power Relay for Solar Inverter** PCB Mounting, Two NO contacts with > 3mm contact Gap, reinforced insulation, Coil Class F Insulation	**Miniature Power Relay** Compact, general-purpose 15-A 10-A relays ideal for many applications.				
Part No.		G7L-2AP-PV	-				
Dimensions (L x W x H mm)		52.5 x 35.5 x 41	28 x 21.5 x 36 (1 pole and 2 pole) ; 28 x 31.5 x 36 (3pole) ; 28 x 41.5 x 36 (4pole)				
Contact Ratings	Contact Form	DPST-NO	SPDT	DPDT		3PDT	4PDT
	Mechanism	Double-break	Single		Bifurcated	Single	
	Material	AgSnIn	Ag-alloy		Ag	Ag-alloy	
	Rated Load* (Resistive Load)	30A / 280VAC ; pf= 0,8 (AC7a Class)	15 A at 110 VAC/ 24 VDC	10 A at 110 VAC/ 24 VDC	5 A at 110 VAC/ 24 VDC	10 A at 110 VAC/24 VDC	
	Max. Switching Current / Voltage	30A / 280VAC	15 A / 250 VAC, 125 VDC	15 A / 250 VAC, 125 VDC	7 A / 250 VAC, 125 VDC	10 A / 250 VAC, 125 VDC	
	Failure Rate (mA) (reference value)	-	100 mA at 5 VDC		10 mA at 5 VDC	100 mA at 5 VDC	
Coil Ratings	Rated Voltage	12 , 24 VDC	6 to 100/110 VDC 6 to 220/240 VAC				
	Power Consumption (Approx.)	2.3W rated power 320mW holding power	0.9 W (DC) 0.9 to 1.2 VA (AC) (60Hz)			1.4 W (DC) 1.6 to 2.0 VA (AC) (60Hz)	1.5 W (DC) 1.95 to 2.5 VA (AC) (60Hz)
Endurance	Mechanical	1,000,000	50,000,000 (AC) 100,000,000 (DC)				
	Electrical	30,000	200,000	500,000		200,000	
Dielectric strength	Between coil & contacts	4,000 VAC for 1 min.	2,000 VAC for 1 min.				
	Between contacts of different polarity	2,000 VAC for 1 min.	-	2,000 VAC for 1 min.			
	Between contacts of same polarity	2,000 VAC for 1 min.	1,000 VAC for 1 min.				
	Between set and reset coils		-				
Ambient temperature (operating)		-35°C to 85°C	-25°C to 55°C			-25°C to 40°C	
Functions		-	Arc barriers				
Sealing		RT I (dust Protected)	RT I (dust protected)				
Technical Construction			(LYDF)				
Approved Standards		EN61810-1 (IEC61810-1)	UL, CSA, SEV, TÜV, LR, EN61810-1 (IEC61810-1)				
Packaging	Min. Pack Quantity	20	50 (1,2 pole) ; 20 (3,4 pole)				
Standard Terminal Arrangement (for other variations refer to data)							
Standard Mounting Holes (for other variations refer to data)							

G7SA

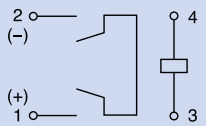
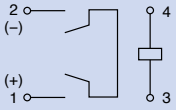
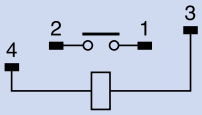
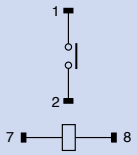
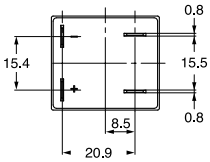
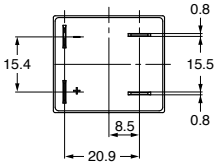
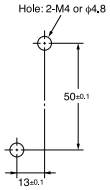
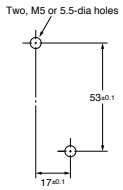
Relay with Forcibly Guided contacts at Class A
Approved according DIN EN 50205, Slim design,
4 and 6pol contact configurations, reinforced insulation
at In-Output and between contacts sets.

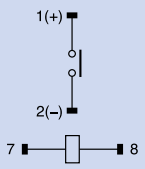
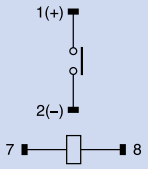
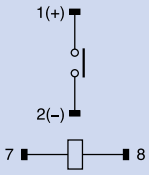
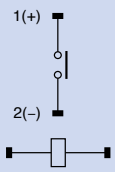
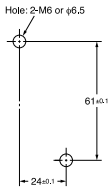
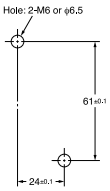
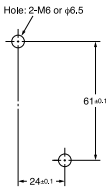
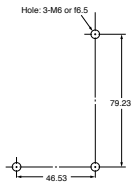
-
40 x 13 x 24 (4 pole) ; 50 x 13 x 24 (6 pole)
3PST-NO+SPST-NC ; DPST-NO, DPST-NC (4 pole); 3PST-NO+3PST-NC; 4PST-NO+DPST-NC; 5PST-NO+SPST-NC (6 pole)
Single
AgSnIn+Au
6A at 250 VAC, 6A at 30 VDC
6A / 250 VAC, 125 VDC
1 mA at 5 VDC
12, 18, 21, 24, 48 VDC
4 poles: 360mW 6 poles: 500mW
10,000,000 operations min.
100,000 operations min.
4,000 VAC, 50/60 Hz for 1 min.
2,500 VAC between poles 3-4 in 4-pole or poles 3-5, 4-6 and 5-6 in 6-pole
1,500 VAC, 50/60 Hz for 1 min.
-
-40°C to 85°C
-
RT II (Flux protection)
EN61810-1 (IEC61810-1), EN50205, UL508, CSA22.2 No. 14
20





DC Power Relays

Product Series					
		G9EJ-1-E	**G9EJ-1**	**G9EB**	**G9EN**
Features		**High Voltage DC Relay** Polarized contact, Compact size Carry current type, High-efficiency magnetic circuit, 6.3mm Tab terminals.	**E-Car precharge Relay** Polarized contact, Compact size; Capacitive load switching performance; High-efficiency magnetic circuit, 6.3mm Tab terminals.	**DC Power Relay (25A)** Gas filled, fully sealed contact chamber with permanent magnet. Unpolarized contacts, for E-Car and DC applications.	**Non-polarized DC Power Relay (60A)** compact size, light weight, Gas filled sealed contact with metall housing; Arc-Blow magnet.
Part No.		G9EJ-1-E-UVD	G9EJ-1	G9EB-1-B-AQ	G9EN-1
Dimensions (LxWxH) (mm)		31 x 27 x 30 (exclude upper bracket)	31 x 27 x 30	25 × 60 × 58	40 x 28 x 50
Contact Ratings	**Contact Form**	SPST-NO	SPST-NO	SPST-NO	SPST-NO
	Mechanism	Double -brake	Double -brake	Double-brake	Double -brake
	Material	-	-	-	-
	Rated Load* (Resistive Load)	15A at 400VDC; 10,000ops.	Capacitive:25A at 400VDC; 10,0000 ops.	20A at 400 VDC ; 5,000 ops. 25A at 250 VDC ; 30,000 ops.	60A at 400VDC; 3,000ops.
	Max. Switching Current / Voltage	15A / 400VDC	25A / 400VDC (capacitive load)	25A / 400 VDC	60A / 400VDC
	Failure Rate (mA) (reference value)	-	-	-	-
Coil Ratings	**Rated Voltage**	12, 24 VDC	12 VDC	12, 24 VDC	12, 24 VDC
	Power Consumption (approx.)	1.2W	2W	2,5W	5W
Endurance	**Mechanical**	200,000 operations min.	200,000 operations min.	100,000 operations min.	200,000 operations min.
	Electrical	10,000 operations min.	100,000 operations min. (Capacitive load)	5,000 operations min.	3,000 operations min.
Dielectric strength	**Between coil & contacts**	2,500VAC, 1 min.	2,500VAC, 1 min.	2,500 VAC, 1 min.	2,500VAC, 1 min
	Between contacts of different polarity	-	-	-	-
	Between contacts of same polarity	2,500VAC, 1 min.	2,500VAC, 1 min.	2,500 VAC, 1 min.	2,500VAC, 1 min.
	Between set and reset coils	-	-	-	-
Ambient temperature (operating)		-40°C to 75°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C
Functions					
Sealing		RT III (sealed)	RT III (sealed)	RT I (dust protection)	RT II (Flux proof)
Technical Construction		Polarized Contact by permanent Magnet. , Terminals size 6,3 x 0.8mm (#250)	Polarized Contact by permanent Magnet. , Termianls size 6.3x0.8mm (#250)	M4 Bolt terminals on coil and contact	Non-polarized contact with M4 screw Terminals. Coil connection by Lead wire
Approved Standards		IEC/EN 61810, UL, CSA	-		IEC/EN 61810 , UL, CSA, (-UVD type only)
Packaging	**Min. Pack Quantity**	10	10	1	1
Standard Terminal Arrangement (for other variations refer to data)					
Standard Mounting Holes (for other variations refer to data)					

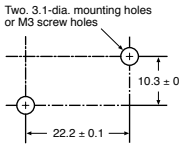
G9EA	**G9ED**	**G9EC**	**G9EH**
DC Power Relay (80A) Ceramic contact chamber, gas filled, permanent magnet, polarized contacts. For E-Car and other DC applications.	**DC Power Relay (125A)** Ceramic contact chamber, gas filled, permanent magnet, polarized contacts. For E-Car and other DC applications.	**DC Power Relay (200A)** Ceramic contact chamber, gas filled, permanent magnet, polarized contacts. For E-Car and other DC applications.	**DC Power Relay (300A)** Ceramic contact chamber, Gas filled, Permanent magnet, polarized contacts. For E-Car and other DC applications.
G9EA-1-B-AQ	G9ED-1-B-AQ	G9EC-1-B-AQ	G9EH-1
73 x 36 x 67.2	73 x 36 x 67.2	98 x 44 x 86.7	111 x 60 x 76.7
SPST-NO	SPST-NO	SPST-NO	SPST-NO
Double -brake	Double -brake	Double -brake	Double -brake
-	-	-	-
80A at 400 VDC; 1,000 ops.	125A at 400 VDC; 200 ops.	200A at 400VDC; 3,000 ops.	300A at 400 VDC; 1,000 ops.
80A / 400 VDC	125A / 400 VDC	300A / 400VDC	300A / 400 VDC
-	-	-	-
12, 24 VDC	12, 24 VDC	12, 24VDC	12, 24 VDC
5,5W	4W	7W	7W
200,000 operations min.	200,000 operations min.	200,000 operations min.	200,000 operations min.
1,000 operations min.	200 operations min.	3,000 operations min.	1,000 operations min.
2,500 VAC, 1 min.	2,500 VAC, 1 min.	2,500VAC, 1 min	2,500 VAC, 1 min.
-	-	-	-
2,500 VAC, 1 min.	2,500 VAC, 1 min.	2,500VAC, 1 min	2,500 VAC, 1 min.
-	-	-	-
-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C
Coil Lead wires possible	Coil Lead wires possible	Coil Lead wires possible	Coil connector: Yasaki 7283-1020
RT I (dust protection)	RT I (dust protection)	RT I (dust protection)	RT I (dust protection)
Coil connection : Screw Terminals 3.5mm; Contact with M5 Bolt	Coil connection : Screw Terminals 3.5mm; Contact with M6 Bolt	Coil connection : Screw Terminals 3.5mm; Contact with M8 Bolt	Coil connection by connector Contact with M8 Bolt
1	1	1	1
			
			

Switches

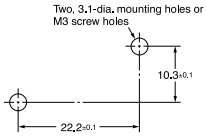
Omron's selection of switches covers a wide range of applications in multiple industries and production processes.

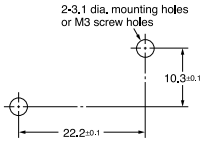
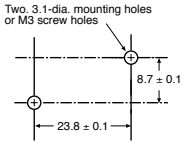
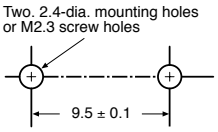
- **Dual Inline Package (DIP) switches**, including fully sealed types, to suit most production methods. Our switches can be supplied in tubes for auto insertion and come with a number of actuator variations
- **Door microswitches**, some of which include fail safe mechanisms.
- **Sealed microswitches** which prevent ingress of water and/or dust. The range includes the D2HW with extra-long stroke and the dust proof D2FD series. They all meet the IP specifications required for each individual application.
- High quality **unsealed precision microswitches**, including industry standard V switches which are compact and highly reliable. Customisation is possible, including modified levers and harnesses.
- Miniature **rocker switches**, including panel, push-button, reset and LED types.
- **Tactile switches** suitable for keyboards with a membrane overlay or standalone use with a keypad. The range includes IP67 sealed versions which allow immersion cleaning of the PCB and guard against contamination of contacts in dusty environments.

Unsealed Microswitches

Product Series		D3V				
Features		Available with externally or internally fitted levers. 2 fixing positions for external levers. RAST 5 Terminals				
Case Dimensions		27.8 x 10.3 x 15.9				
Part No.		D3V-21	D3V-16	D3V-11	D3V-6	D3V-01
Classification		Subminiature, V-size				
Contact	Contact Specification	Rivet				Crossbar
	Contact Material	Silver alloy				Gold alloy
	Rating (Resistive Load)	21 A at 250 VAC	16 A at 250 VAC	11 A at 250 VAC	6 A at 250 VAC	0.1 A at 250 VAC
Operating Force		1.23N 1.47N 3.47N (125 gf) (150 gf) (350 gf)	0.98 N 1.23N 1.96 N 3.92N (100 gf) (125 gf) (200 gf) (400 gf)	0.98 N 1.23N 1.96 N 3.92N (100 gf) (125 gf) (200 gf) (400 gf)	0.49 N 0.98 N 1.23N 1.96N (50 gf) (100 gf) (125 gf) (200 gf)	0.25 N 0.49 N (25 gf) (50 gf)
Life expectancy	Mechanical Ops Min.	10,000,000				
	Electrical Ops Min.	50,000	100,000	200,000	500,000	500,000
Ambient Operating Temperature		-25°C to 85°C	-25°C to 105°C (High temperature version D3V-6 up to 200°C; D3V-11 up to 155°C)			-25°C to 85°C (High temp.vers.up to 200°C)
Mounting Dimensions						
Actuator	Pin Plunger	•				
	Hinge Lever	•				
	Simulated Roller Lever	•				
	Hinge Roller Lever	•				
	Short Hinge Lever	•				
	Long Hinge Lever	•				
	Short Hinge Roller Lever	•				
	Leaf Lever					
	Rotary Lever					
Terminals	Quick Connect	•				
	Solder	•				
	Screw					
	Straight PCB					
	Angled PCB					
	Connector					
	Lead wire					
Pack Quantity		100				
Enclosure Rating		IP40				

Unsealed Microswitches

Product Series		V				
Features		Compact and highly reliable switch				
Case Dimensions		27.8 x 10.3 x 15.9				
Part No.		V-21	V-16	V-15	V-11	V-10
Classification		Subminiature, V-size				
Contact	Contact Specification	Rivet				
	Contact Material	Silver alloy				
	Rating (Resistive Load)	21 A at 250 VAC	16 A at 250 VAC	15 A at 250 VAC	11 A at 250 VAC	10 A at 250 VAC
Operating Force		3.92 N (400 gf)	0.98, 1.96, 3.92 N (100, 200, 400 gf)		0.98 N (100 gf)	0.98, 1.96 N (100, 200 gf)
Life expectancy	Mechanical Ops Min.	50,000,000				
	Electrical Ops Min.	100,000			300,000	
Ambient Operating Temperature		-25°C to 80°C (Heat resistive: -25°C to 150°C)				
Mounting Dimensions						
Actuator	Pin Plunger	•				
	Hinge Lever	•				
	Simulated Roller Lever	•				
	Hinge Roller Lever	•				
	Short Hinge Lever	•				
	Long Hinge Lever	•				
	Short Hinge Roller Lever	•				
	Leaf Lever					
	Rotary Lever					
Terminals	Quick Connect	•				
	Solder	•				
	Screw	•				
	Straight PCB					
	Angled PCB					
	Connector					
	Lead wire					
Pack Quantity		500				
Enclosure Rating		IP40				

VX		**D2MC**		**SS**		
Compact and highly reliable switch		Highly reliable rotary action switch		Economical subminiature switch incorporating two split springs for long service life		
27.8 x 10.3 x 15.9		31.0 x 14.1 x 17.5		19.8 x 6.4 x 10.2		
VX-5	VX-01	D2MC-5	D2MC-01	SS-10	SS-5	SS-01
Subminiature, V-size		Subminiature, V-size		Subminiature, S-size		
Rivet	Crossbar	Rivet	Crossbar	Rivet		Crossbar
Silver alloy	Gold alloy	Silver alloy	Gold alloy	Silver alloy	Silver	Gold alloy
5 A at 250 VAC	0.1 A at 30 VDC	5 A at 250 VAC	0.5 A at 30 VDC	10.1 A at 250 VAC	5 A at 125 VAC	0.1 A at 30 VDC
0.25, 0.49 N (25, 50 gf)		0.5, 0.75, 1.00 mNm (5.1, 7.6, 10.2 gfcm)		1.47 N (150 gf)	0.49, 1.47 N (50, 150 gf)	0.25, 0.49,1.47 N (25, 50, 150 gf)
50,000,000	10,000,000	10,000,000		10,000,000	30,000,000	
500,000	1,000,000	100,000		50,000	200,000	
-25°C to 80°C		-25°C to 80°C		-25°C to 85°C		
						
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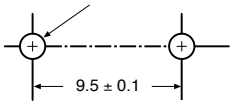
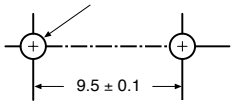
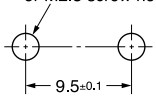
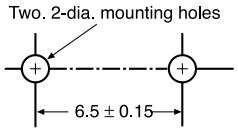
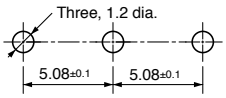
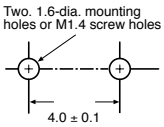
•						
100		50		500		
IP40		IP40		IP40		

Unsealed Microswitches

Product Series		SS-P		SSG		D3M
Features		SS series compatible mounting with simple construction and easy to use design concept		Global subminiature switch conforming to EN, UL & CSA specifications		Quick-connect Terminals Simplify Wiring and Reduce Production Steps
Case Dimensions		19.8 x 6.4 x 10.2		19.8 x 6.4 x 10.2		29.2 x 7 x 10
Part No.		SS-3P	SS-01P	SSG-5	SSG-01	D3M
Classification		Subminiature, S-size				
Contact	Contact Specification	Rivet	Crossbar	Rivet	Crossbar	Crossbar
	Contact Material	Silver alloy	Gold alloy	Silver alloy	PGS alloy	Gold alloy
	Rating (Resistive Load)	3 A at 125 VAC	0.1 A at 30 VDC	3 A at 250 VAC	0.1 A at 125 VDC	0.1 A at 30 VDC
Operating Force		1.50 N (153 gf)		0.50, 1.50 N (51, 153gf)		1.50 N (153gf)
Life expectancy	Mechanical Ops Min.	1,000,000		10,000,000		500,000
	Electrical Ops Min.	70,000	200,000	200,000		200,000
Ambient Operating Temperature		-25°C to 85°C		-25°C to 125°C		-25°C to 85°C
Mounting Dimensions		Two. 2.4-dia. mounting holes or M2.3 screw holes 		Two. 2.4-dia. mounting holes or M2.3 screw holes 		2-2.4 dia. mounting holes or M2.3 screw holes 
Actuator	Pin Plunger	•		•		•
	Hinge Lever	•		•		•
	Simulated Roller Lever	•		•		•
	Hinge Roller Lever	•		•		•
	Short Hinge Lever					
	Long Hinge Lever					
	Short Hinge Roller Lever					
	Leaf Lever			•		
	Rotary Lever					
Terminals	Quick Connect	•		•		
	Solder	•		•		
	Screw					
	Straight PCB	•		•		
	Angled PCB					
	Connector					•
	Lead wire					
Pack Quantity		500		500		500
Enclosure Rating		IP40		IP40		IP40

D2F			**D2FS**	**J**		**D2MQ**	
Low cost microswitch			Ultra Subminiature Basic Switch Developed for a few number of operations during a long period of use	Subminiature models capable of large capacity loads		Ultra subminiature switch suitable for micro loads	
12.8 x 5.8 x 6.5			12.8 x 5.8 x 6.5	12.7 x 5.1 x 8.9		8.2 x 2.7 x 6.5	
D2F Standard	D2F-F Low Force	D2F-01 Micro load	D2FS	J		D2MQ	
Ultra-subminiature, J-size						Ultra-subminiature, J-size	
Crossbar			Crossbar	Rivet		Rivet	
Silver alloy		Gold alloy	Silver	Gold plated	Silver alloy	Silver Plated	Gold Plated
3 A at 125 VAC	1 A at 125 VAC	0.1 A at 30 VDC	0.1 A at 6 VDC	7 A at 250 VAC		0.5 A at 30 VDC	
1.47 N (150 gf)	0.74 N (75 gf)	0.74, 1.47 N (75, 150 gf)	0.85 N (87 gf)	1.37 N (140gf)		1.18 N (120 gf)	
1,000,000			100,000	10,000,000		30,000	
30,000		100,000	10,000	50,000		10,000	
-25°C to 85°C			-20°C to 70°C	-10°C to 80°C		-15°C to 70°C	
							
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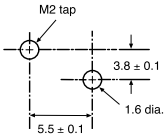
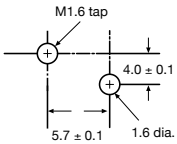
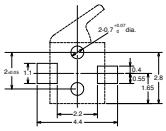
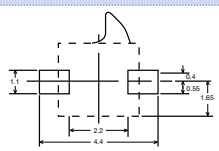
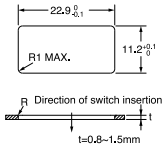
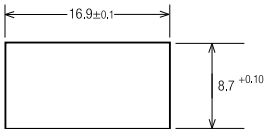
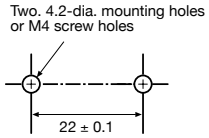
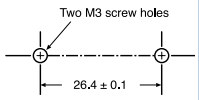
1,000			450	100		1,000	
IP40			IP40	IP40		IP40	

Switches

Unsealed Microswitches

Product Series					
		D2A	**D3C**		**D3SH**
Features		Switch for use in adverse environments such as water	Compact, low cost microswitch		Ultra small size and ultra small profile. SMD Terminals
Case Dimensions		8.0 x 6.0 x 4.2	8.0 x 5.6 x 6.0		3.0 x 0.9 x 5.4
Part No.		D2A	D3C-1 Non-shorting	D3C-2 Shorting	D3SH
Classification		Detection switch	Detection switch		Detection switch
Contact	**Contact Specification**	Slide	Slide		Slide
	Contact Material	Silver Plated	Silver Plated		Gold and Silver
	Rating (Resistive Load)	0.1 A at 30 VDC	0.1 A at 30 VDC		0.1 mA at 5 VDC
Operating Force		0.49N, 0.98N (50gf, 100gf)	0.39, 1.28 N (40, 130 gf)		0.3 N (31gf)
Life expectancy	**Mechanical Ops Min.**	50,000	50,000		150,000
	Electrical Ops Min.	50,000	50,000		100,000
Ambient Operating Temperature		-10°C to 70°C	-20°C to 80°C		-25°C to 85°C
Mounting Dimensions					
Actuator	**Pin Plunger**	•			
	Hinge Lever				•
	Simulated Roller Lever				
	Hinge Roller Lever				
	Short Hinge Lever				
	Long Hinge Lever				•
	Short Hinge Roller Lever				
	Leaf Lever				
	Rotary Lever		•		
Terminals	**Quick Connect**				
	Solder				
	Screw				
	Straight PCB	•	•		
	Angled PCB				
	Connector				
	Lead wire				
Pack Quantity		2,000	2,000		1,000
Enclosure Rating		IP00	IP00		IP40

D3SK	**D3D**	**D3DC**	**D2D**	**D2T**
The smallest detection switch in the industry with high precision operation	Miniature door switch	Miniature door switch with easy stroke setting	Door interlock switch with fail safe mechanisms	DPST-NO door switch for power and signal
3.0 x 0.9 x 4.95	36.4 x 11.0 x 15.0	19.0 x 8.5 x 11.0	30.0 x 12.4 x 31.0	33.0 x 24.6 x 11.5
D3SK	D3D	D3DC-2 / D3DC-3N	D2D-1000 D2D-3000 / D2D-2000	D2T
Detection switch	Door switch	Door switch	Door switch	Door switch
Slide	Crossbar	Rivet	Rivet	Rivet
-	Gold alloy	Silver	Silver	Silver
1 mA at 5 VDC	0.1 A at 125 VAC	0.1 A at 30 VDC	16 A at 250 VAC / 10 A at 250 VAC	Power: 5 A at 250 VAC, Signal: 0.1Aat 125 VAC
0.4 N (40.8gf)	2.0 N (204 gf)	1.0N (102 gf)	NC-OFF 2.94 N (300 gf) NO-ON 5.88 N (600 gf) / NC-OFF 1.96 N (250 gf) NO-ON 2.94 N (300 gf)	3.24 N (330gf)
150,000	300,000	100,000	10,000,000	100,000
100,000	50,000	100,000	100,000	100,000
-25°C to 85°C	-30°C to 60°C	-25°C to 85°C	-25°C to 85°C	-25°C to 85°C
				
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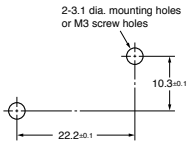
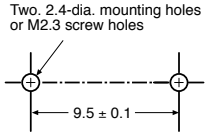
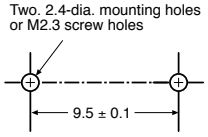
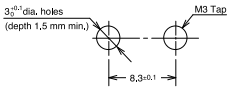
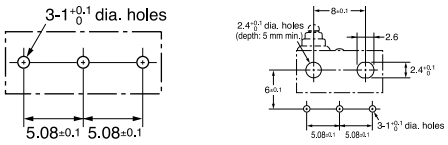
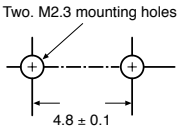
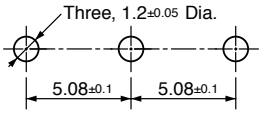
1,000	100	100	50	100
IP40	IP40	IP40	IP40	IP40

Switches

Sealed Microswitches

Product Series								
		D2VW		**D2SW**		**D2SW-P**		**D2QW**
Features		Sealed sub-miniature switch		Sealed miniature switch		Sealed miniature switch with basic construction		Sealed long stroke slide-contact switch for reliable ON/OFF action even in severe environmental conditions
Case Dimensions (mm)		33.0 x 10.3 x 15.9		19.8 x 6.4 x 10.1		19.8 x 6.4 x 10.1		13.3 x 5.3 x 9.3
Part No.		D2VW-5	D2VW-01	D2SW-3	D2SW-01	D2SW-P2	D2SW-P01	D2QW
Classification		Sealed		Sealed		Sealed		Sealed
Contact	**Contact Specification**	Rivet	Crossbar	Rivet	Crossbar	Rivet	Crossbar	Slide
	Contact Material	Silver alloy	Gold alloy	Silver	Gold alloy	Silver alloy	Gold alloy	Gold Plated
	Rating (Resistive Load)	5 A at 250 VDC	0.1 A at 30 VDC	3 A at 125 VAC	0.1 A at 30 VDC	2 A at 250 VAC	0.1 A at 30 VDC	0.1 A at 30 VDC
Operating Force		1.96 N (200 gf)		1.77 N (180 gf)		1.8 N (183 gf)		1.50N (153 gf)
Life expectancy	**Mechanical Ops Min.**	10,000,000		5,000,000		1,000,000		500,000
	Electrical Ops Min.	100,000	1,000,000	200,000		50,000	200,000	200,000
Ambient Operating Temperature		-40°C to 85°C		-40°C to 85°C		-20°C to 70°C		-40°C to 85°C
Mounting Dimensions								
Actuator	**Pin Plunger**	•		•		•		•
	Hinge Lever	•		•		•		
	Simulated Roller Lever	•		•		•		
	Hinge Roller Lever	•		•		•		
	Short Hinge Lever	•						
	Long Hinge Lever	•						
	Short Hinge Roller Lever	•						
	Leaf Lever							•
	Rotary Lever							
Terminals	**Quick Connect**	•		•		•		
	Solder	•		•		•		•
	Screw							
	Straight PCB			•		•		•
	Angled PCB							
	Connector							
	Lead wire	•		•		•		
Pack Quantity		100		500 without leads, 200 with leads		500 without leads, 200 with leads		250
Enclosure Rating		IP67		IP67		IP67		IP67

D2HW				D2JW	D2FD	
Ultra sub-miniature sealed switch with extra long stroke even without levers				Switch for use in adverse environments such as water	Dust proof Ultra subminiature switch	
13.3 x 5.3 x 6.5				12.7 x 5.3 x 9.4	12.8 x 6 x 6.5 / 7.4	
D2HW-A Without posts	D2HW-BR Posts on right	D2HW-BL Posts on left	D2HW-C M3 screw mounting	D2JW	D2FD-2	D2FD-01
Sealed				Sealed	Dust proof sealed	
Crossbar				Crossbar	Crossbar	
Gold alloy				Gold alloy	Silver alloy	Gold alloy
2 A at 12 VDC, 1 A at 24 VDC 0.5 A at 42 VDC				0.1 A at 30 VDC	2 A at 125 VAC	0.1 mA at 30 VDC
0.75 N (76 gf)				2.45 N (250 gf)	2N (204 gf)	
1,000,000				1,000,000	300,000	
100,000				100,000	30,000	100,000
-40°C to 85°C				-40°C to 85°C	-20°C to 70°C	
						
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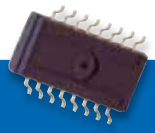
250 without leads, 100 with leads, 240 with leads and lever				750 without leads, 20 with leads	750	
IP67				IP67	IP60	

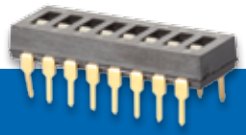
DIP Switches



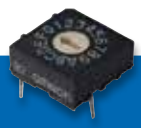
Product Series		A6H					
Features		Ultra low profile half pitch, SMD type.					
Dimensions (L x W x H mm)		* x 4.5 x 1.45					
Actuator		Flat					
Sealing method		-			Seal tape		
Packing		Stick	Embossed taping		Stick	Embossed taping	
			Standard	Small Quantity		Standard	Small Quantity
Terminal		SMT					
Automatic mounting		Yes					
Washable		No			Yes		
No. of poles	1	-	-	-	-	-	-
	2	A6H-2101	A6H-2101-P	A6H-2101-PM	A6H-2102	A6H-2102-P	A6H-2102-PM
	3	-	-	-	-	-	-
	4	A6H-4101	A6H-4101-P	A6H-4101-PM	A6H-4102	A6H-4102-P	A6H-4102-PM
	5	-	-	-	-	-	-
	6	A6H-6101	A6H-6101-P	A6H-6101-PM	A6H-6102	A6H-6102-P	A6H-6102-PM
	7	-	-	-	-	-	-
	8	A6H-8101	A6H-8101-P	A6H-8101-PM	A6H-8102	A6H-8102-P	A6H-8102-PM
	9	-	-	-	-	-	-
	10	A6H-0101	A6H-0101-P	A6H-0101-PM	A6H-0102	A6H-0102-P	A6H-0102-PM

Product Series		A6A		A6K		A6C	
Features		Rotary DIP Switch. Standard, extended shaft and flat types.		Through hole miniature Rotary DIP Switch top actuated.		Internally sealed DIL-IC Rotary DIP Switch - top actuated.	
Dimensions (L x W x H mm)		10 x 10 x 7.5		7.2 x 7.2 x 3		6.6 x 9.0 x 3.9	
Seal Tape		Internal Seal Tape		-		Internal Seal Tape	
Terminals		DIP		DIP		DIP	
No. of switching positions		10	16	10	16	10	16
Standard type	BCD/ hexadecimal 1-2-4-8 (see note 1)	A6A-10R	A6A-16R	-		-	
	BCD/ hexadecimal 1-2-4-8 complement (see note 2)	A6A-10C	A6A-16C				
Flat type	BCD/ hexadecimal 1-2-4-8	A6A-10RF	A6A-16RF	A6K-102RF	A6K-162RF	A6C-10R(N)	A6C-16R(N)
				A6K-104RF	A6K-164RF		
	BCD/ hexadecimal 1-2-4-8 complement	A6A-10CF	A6A-16CF	-	-		
Extended Shaft type	BCD/ hexadecimal 1-2-4-8	A6A-10RS	A6A-16RS	A6K-102RS	A6K-162RS	-	
				A6K-104RS	A6K-164RS		
	BCD/ hexadecimal 1-2-4-8 complement	A6A-10CS	A6A-16CS	-	-		
Thumbwheel type	BCD/ hexadecimal 1-2-4-8	A6A-10RW	A6A-16RW	-		-	
	BCD/ hexadecimal 1-2-4-8 complement	A6A-10CW	A6A-16CW				

Note 1: "BCD/hexadecimal 1-2-4-8" is a binary code that takes the value 1 for voltages that are high with respect to ground and takes the value 0 for voltages that are low with respect to ground.
Note 2: "BCD/hexadecimal 1-2-4-8 complement" is a binary code that take the opposite value to "BCD/hexadecimal 1-2-4-8," i.e., takes the value 0 for high voltages and 1 for low voltages.



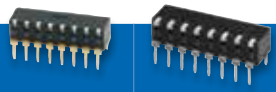
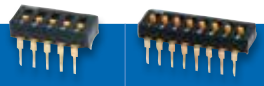
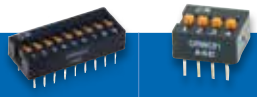
A6HF			A6SN		A6TN	
Half-pitch DIP Switch			Knife-edge high pressure mechanics		Knife-edge high pressure mechanics	
* x 6.2 x 2.2			* x 7.5 x 3.5 mm		* x 7.5 x 3.5 mm	
Slide Type			Flat	Raised	Flat	Raised
-			-		-	
Stick	Embossed taping					
	Standard	Small Quantity				
SMD			SMT		DIP	
Yes			Yes		Yes	
Yes			Yes		Yes	
-	-	-	A6SN-1101	A6SN-1104	A6TN-1101	A6TN-1104
A6HF-2102	A6HF-2102-P	A6HF-2102-PM	A6SN-2101	A6SN-2104	A6TN-2101	A6TN-2104
-	-	-	A6SN-3101	A6SN-3104	A6TN-3101	A6TN-3104
A6HF-4102	A6HF-4102-P	A6HF-4102-PM	A6SN-4101	A6SN-4104	A6TN-4101	A6TN-4104
-	-	-	A6SN-5101	A6SN-5104	A6TN-5101	A6TN-5104
A6HF-6102	A6HF-6102-P	A6HF-6102-PM	A6SN-6101	A6SN-6104	A6TN-6101	A6TN-6104
-	-	-	A6SN-7101	A6SN-7104	A6TN-7101	A6TN-7104
A6HF-8102	A6HF-8102-P	A6HF-8102-PM	A6SN-8101	A6SN-8104	A6TN-8101	A6TN-8104
-	-	-	A6SN-9101	A6SN-9104	A6TN-9101	A6TN-9104
A6HF-0102	A6HF-0102-P	A6HF-0102-PM	A6SN-0101	A6SN-0104	A6TN-0101	A6TN-0104



A6R		A6KV		A6CV	
Low cost Rotary DIP Switch - top actuated.		Through hole miniature Rotary DIP Switch side actuated.		Internally sealed DIL-IC Rotary DIP Switch - side actuated.	
9.8 x 9.9 x 4.5		7.9 x 7.2 x 7.77		7.1 x 9.0 x 7.1	
-		-		Internal Seal Tape	
DIP		DIP		DIP	
10	16	10	16	10	16
-		-		-	
A6R-101RF	A6A-161RF	A6KV-102RF	A6KV-162RF	A6CV-10R	A6CV-16R
A6R-102RF	A6A-162RF	A6KV-104RF	A6KV-164RF		
-	-	-	-	-	-
A6R-101RS	A6R-161RS	A6KV-102RS	A6KV-162RS	-	
A6R-102RS	A6R-162RS	A6KV-104RS	A6KV-164RS		
-	-	-	-		
-		-		-	

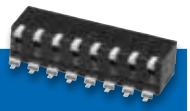
Note 1: "BCD/hexadecimal 1-2-4-8" is a binary code that takes the value 1 for voltages that are high with respect to ground and takes the value 0 for voltages that are low with respect to ground.
Note 2: "BCD/hexadecimal 1-2-4-8 complement" is a binary code that take the opposite value to "BCD/hexadecimal 1-2-4-8," i.e., takes the value 0 for high voltages and 1 for low voltages.

DIP Switches

Product Series							
		A6TR		A6D		A6E	
Features		Low profile, end stackable DIP Switch		High performance DIP Switch with dustproof construction.		Low cost DIP Switch. Sealed to prevent flux penetration.	
Dimensions (L x W x H mm)		* x 6 x 5		* x 6.6 x 3.4		* x 9.9 x 6.0	
Actuator		Side (Short Lever)	Side (Long Lever)	Flat	Raised	Flat	Raised
Sealing method		-	-	Internal Seal	Internal Seal	-	
Packing							
Terminal		DIP		DIP		DIP	
Automatic mounting		Yes		Yes		No	
Washable		No		Yes		No	
No. of poles	1	-	-	-	-	-	-
	2	A6TR-2101	A6TR-2104	A6D-2100	A6D-2103	A6E-2101	A6E-2104
	3	-	-	-	-	A6E-3101	A6E-3104
	4	A6TR-4101	A6TR-4104	A6D-4100	A6D-4103	A6E-4101	A6E-4104
	5	-	-	-	-	A6E-5101	A6E-5104
	6	A6TR-6101	A6TR-6104	A6D-6100	A6D-6103	A6E-6101	A6E-6104
	7	-	-	-	-	A6E-7101	A6E-7104
	8	A6TR-8101	A6TR-8104	A6D-8100	A6D-8103	A6E-8101	A6E-8104
	9	-	-	-	-	A6E-9101	A6E-9104
	10	A6TR-0101	A6TR-0104	A6D-0100	A6D-0103	A6E-0101	A6E-0104

Product Series							
		A6RV		A6KS		A6RS	
Features		Low cost Rotary DIP Switch - Side Actuated.		SMD type miniature Rotary DIP Switch Top Actuated.		Low cost SMD type Rotary DIP Switch.	
Dimensions (L x W x H mm)		9.64 x 9.8 x 9.9		7.2 x 7.2 x 3		9.8 x 9.9 x 4.5	
Seal Tape		-		-		-	
Terminals		-		SMT		SMT	
No. of switching positions		10	16	10	16	10	16
Standard type	BCD/ hexadecimal 1-2-4-8 (see note 1)	-		-		-	
	BCD/ hexadecimal 1-2-4-8 complement (see note 2)						
Flat type	BCD/ hexadecimal 1-2-4-8	A6RV-101RF	A6RV-161RF	A6KS-102RF	A6KS-162RF	A6RS-101RF	A6RS-161RF
		A6RV-102RF	A6RV-162RF	A6KS-104RF	A6KS-164RF	A6RS-102RF	A6RS-162RF
	BCD/ hexadecimal 1-2-4-8 complement	-		-		-	
Extended Shaft type	BCD/ hexadecimal 1-2-4-8	A6RV-101RS	A6RV-161RS	A6KS-102RS	A6KS-162RS	A6RS-101RS	A6RS-161RS
		A6RV-102RS	A6RV-162RS	A6KS-104RS	A6KS-164RS	A6RS-102RS	A6RS-162RS
	BCD/ hexadecimal 1-2-4-8 complement	-		-			
Thumbwheel type	BCD/ hexadecimal 1-2-4-8	-		-		-	
	BCD/ hexadecimal 1-2-4-8 complement						

Note 1: "BCD/hexadecimal 1-2-4-8" is a binary code that takes the value 1 for voltages that are high with respect to ground and takes the value 0 for voltages that are low with respect to ground.
Note 2: "BCD/hexadecimal 1-2-4-8 complement" is a binary code that take the opposite value to "BCD/hexadecimal 1-2-4-8," i.e., takes the value 0 for high voltages and 1 for low voltages.

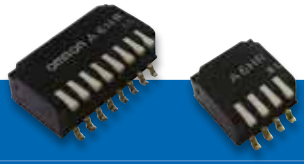


A6SR				A6DR	A6ER	
Low profile. End stackable, DIP Switches. SMD type.				High performance DIP Switches with Dustproof Construction.	Low cost DIP Switch. Sealed to prevent flux penetration.	
* x 6 x 5				* x 8.9 x 6.4	* x 10.8 x 10.2	
Side (Short Lever)		Side (Long Lever)		Side (Long Lever)	Side (Short Lever)	Side (Long Lever)
				Internal Seal	-	
Stick	Embossed Taping	Stick	Embossed Taping			
SMT				DIP	DIP	
Yes				No	No	
No				Yes	No	
-	-	-	-	-	-	-
A6SR-2101	A6SR-2101P	A6SR-2104	A6SR-2104P	A6DR-2100	A6ER-2101	A6ER-2104
-	-	-	-	-	A6ER-3101	A6ER-3104
A6SR-4101	A6SR-4101P	A6SR-4104	A6SR-4104P	A6DR-4100	A6ER-4101	A6ER-4104
-	-	-	-	-	A6ER-5101	A6ER-5104
A6SR-6101	A6SR-6101P	A6SR-6104	A6SR-6104P	A6DR-6100	A6ER-6101	A6ER-6104
-	-	-	-	-	A6ER-7101	A6ER-7104
A6SR-8101	A6SR-8101P	A6SR-8104	A6SR-8104P	A6DR-8100	A6ER-8101	A6ER-8104
-	-	-	-	-	A6ER-9101	A6ER-9104
A6SR-0101	A6SR-0101P	A6SR-0104	A6SR-0104P	A6DR-0100	A6ER-0101	A6ER-0104

A6KSV	
SMD type miniature Rotary DIP Switch Side Actuated.	
7.2 x 3 x 7.43	
-	
SMT	
10	16
-	
A6KSV-104RF	A6KSV-164RF
-	
A6KSV-104RS	A6KSV-164RS
-	
-	

Note 1: "BCD/hexadecimal 1-2-4-8" is a binary code that takes the value 1 for voltages that are high with respect to ground and takes the value 0 for voltages that are low with respect to ground.
Note 2: "BCD/hexadecimal 1-2-4-8 complement" is a binary code that take the opposite value to "BCD/hexadecimal 1-2-4-8," i.e., takes the value 0 for high voltages and 1 for low voltages.

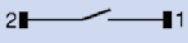
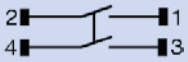
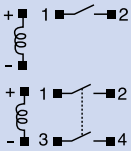
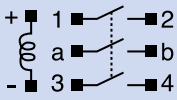
DIP Switches



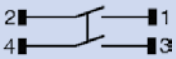
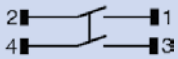
Product Series		A6HR		
Features		Piana type in half-pitch		
Dimensions (L x W x H mm)		* x 6 x 4.2		
Actuator		Long Lever		
Sealing method		-		
Packing		Stick	Embossed taping	
			Standard	Small Quantity
Terminal		SMD		
Automatic mounting		Yes		
Washable		No		
No. of poles	1	-		
	2	A6HR-2104	A6HR-2104-P	A6HR-2104-PM
	3	-		
	4	A6HR-4104	A6HR-4104-P	A6HR-4104-PM
	5	-		
	6	A6HR-6104	A6HR-6104-P	A6HR-6104-PM
	7	-		
	8	A6HR-8104	A6HR-8104-P	A6HR-8104-PM
	9	-		
	10	A6HR-0104	A6HR-0104-P	A6HR-0104-PM

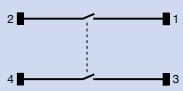
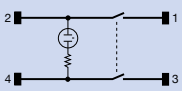
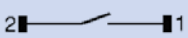
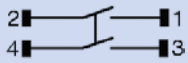
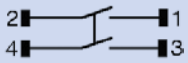
Note 1: "BCD/hexadecimal 1-2-4-8" is a binary code that takes the value 1 for voltages that are high with respect to ground and takes the value 0 for voltages that are low with respect to ground.
Note 2: "BCD/hexadecimal 1-2-4-8 complement" is a binary code that take the opposite value to "BCD/hexadecimal 1-2-4-8," i.e., takes the value 0 for high voltages and 1 for low voltages.

Rocker Switches

Product Series		A8L		A8GS	A8GS-T
Features		Miniature Rocker Switch for high current switching		Remote Reset Rocker Switch	Delay OFF Rocker Switch
Dimensions (L x W x H mm)		21 x 15 x 13		30 x 17 x 35.3	30 x 22 x 35.4
Contact Form		SPST	DPST	SPST, DPST	3PST (SPST signal, DPST power)
Rated load	**Non-inductive**	10 A at 125 VAC/250 VAC		16A at 125 VAC / 10A at 250 VAC (power contact) 0.2A 5 VAC (signal contact)	16A at 125 VAC / 10A at 250 VAC (power contact) 0.2A 5 VAC (signal contact)
	Inductive	8 A at 125 VAC/250 VAC		-	-
Operating Force		2.16N±1.18N (220 gf ± 120 gf)	3.92N±2.45N (400 gf ± 250 gf)	1.0±0.6N, 1.5±0.9N, 2.0±1.2N	1.8±1.4N
Case Colour		Black		Black	Black
Cap Colour		Black		Black	Black
Part number	**Solder terminal**	A8L-11-11N1 A8L-11-11N2 A8L-11-11N3 A8L-11-11N6	A8L-21-11N1 A8L-21-11N2 A8L-21-11N3 A8L-21-11N6	A8GS-P1115 A8GS-P1215 A8GS-P1315 A8GS-D1115 A8GS-D1215 A8GS-D1315	A8GS-T1115K A8GS-T1215K A8GS-T1315K
	PCB terminal	A8L-11-12N1 A8L-11-12N2 A8L-11-12N3 A8L-11-12N6	A8L-21-12N1 A8L-21-12N2 A8L-21-12N3 A8L-21-12N6	-	-
	Right-angle PCB terminal	A8L-11-13N1 A8L-11-13N2 A8L-11-13N3 A8L-11-13N6	A8L-21-13N1 A8L-21-13N2 A8L-21-13N3 A8L-21-13N6	-	-
	Left-angle PCB terminal	A8L-11-14N1 A8L-11-14N1 A8L-11-14N3 A8L-11-14N6	A8L-21-14N1 A8L-21-14N1 A8L-21-14N3 A8L-21-14N6	-	-
	Quick-connect terminals #187	A8L-11-15N1	A8L-21-15N1 A8L-11-15N2 A8L-11-15N3 A8L-11-15N6	A8GS-P1185 A8GS-P1285 A8GS-P1385 A8GS-D1185 A8GS-D1285 A8GS-D1385	A8GS-T1185K A8GS-T1285K A8GS-T1385K
	Quick-connect terminals #250	-			
Life expectancy (switching operation)	**Mechanical**	50,000 min		30,000 min	30,000 min
	Electrical	10,000 min		10,000 min	10,000 min
Contact Configuration					

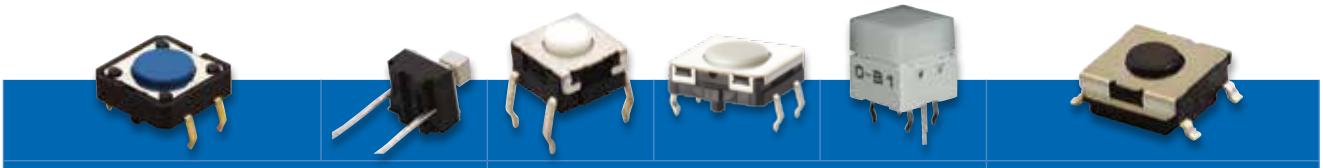
Rocker Switches

Product Series		A8M		A8W			
Features		Miniature snap-fitting Rocker Switch for high current switching		Panel seal miniature Rocker Switch for high current switching			
Dimensions (L x W x H mm)		21 x 15 x 15.8		24 x 17 x 17.5			
Contact Form		SPST	DPST	SPST		DPST	
Rated load	Non-inductive	16 A at 125 VAC/250 VAC		16 A at 125 VAC/250 VAC			
	Inductive	16 A at 125 VAC/250 VAC		16 A at 125 VAC/250 VAC			
Operating Force		8N (816gf) max	14N (1428gf) max	12N (1224 gf) max		23N max	
Case Colour		Black		Black	White	Black	White
Cap Colour		Black		Black	White	Black	White
Part number	Solder terminal	A8MS-1162 A8MS-1163 (Quick-connect terminal #250 common use)	A8MD-1162 A8MD-1163 (Quick-connect terminal #250 common use)	A8WS-1162 A8WS-1163 (Quick-connect terminal #250 common use)	A8WS-2262 A8WS-2263 (Quick-connect terminal #250 common use)	A8WD-1162 A8WD-1163 (Quick-connect terminal #250 common use)	A8WD-2262 A8WD-2263 (Quick-connect terminal #250 common use)
	PCB terminal	-		-			
	Right-angle PCB terminal	-		-			
	Left-angle PCB terminal	-		-			
	Quick-connect terminals #187	- A8L-21-15N2 A8L-21-15N3 A8L-21-15N6	-	-			
	Quick-connect terminals #250	-		-			
Life expectancy (switching operation)	Mechanical	50,000 min		50,000 min			
	Electrical	10,000 min		10,000 min			
Contact Configuration							

A8A		**A8N**		**C4V**	
Non-Lighted and Lighted Rocker Switch		2 Push button miniature Rocker button Switch for high current switching		Contact gap of 3 mm minimum Miniature Power Switch	
32 x 25 x 20		24 x 17 x 23		19 x 13 x 24	
Non-Lighted	Lighted (Neon light)	SPST	DPST	SPST	DPST
16 A at 125 VAC/250 VAC		16 A at 125 VAC/250 VAC		8 A at 250 VAC	
16 A at 125 VAC, 8 A at 250 VAC		16 A at 125 VAC/250 VAC		-	
19.6 N		9N (918 gf) max	22N (2245 gf) max	7N	
White, Black, Grey		Black		Black	
White, Red, Green, Blue, Yellow, Black	Red, Green, Orange	White/Red		Black	
-		A8NS-3162 (Quick-connect terminal #250 common use)	A8ND-3162 (Quick-connect terminal #250 common use)	-	
-		-		-	
-		-		-	
-		-		-	
-		-		C4V-811M-D (Momentary) C4V-811A-D (Alternate)	C4V-821M (Momentary) C4V-821A (Alternate)
A8A-20	A8A-21 A8A-22	-		-	
40,000 min		50,000 min		10,000 min	
20,000 min		10,000 min		10,000 min	
					

Tactile Switches

Product Series		B3F				
Features		Horizontal – Flat and projected	Horizontal –Flat – high reliability types	Vertical – Flat and projected	Vertical – Flat - high reliability types	Horizontal – Flat and projected/B3F-8000 with protective cover
Part No.		B3F-1000	B3F-1000-G	B3F-3000	B3F-3000G	B3F-4000/B3F-8000
Dimensions (mm)		6 x 6	6 x 6	6 x 6	-	12 x 12
Contact		Silver-plated	Gold-plated	Silver-plated	Gold-plated	Silver-plated
Operating Force		0.98N (100 gf) 1.47N (150 gf) 2.55N (260 gf) 4.9N (500 gf)	1.76N (180 gf)	0.98N (100 gf) 1.47N (150 gf) 2.55N (260 gf)	1.76N (180gf)	1.27N (130 gf) 2.55N (260 gf)
Type	Flat Type (3.1mm height) – without ground					
	Flat Type (3.1mm height) – with ground					
	Flat type (4.3mm height – vertical model 3.15mm) – without ground	•	•			•
	Flat type (4.3mm height – vertical model 3.15mm) – with ground	•	•	•		•
	Flat type (5.0mm height – vertical model 3.85mm) – without ground	•	•		•	
	Flat type (5.0mm height – vertical model 3.85mm) – with ground	•	•	•		
	Flat type and others – without ground	•				
	Flat type and others – with ground	•		•		
	Projected type (7.3mm height – vertical model 6.15mm) – without ground	•	•			•
	Projected type (7.3mm height – vertical model 6.15mm) – with ground	•		•		•
	1 LED without ground					
	2 LEDs without ground					
Life Expectancy (operations)		1,000,000 (0.98N) 300,000 (1.47N) 100,000 (2.55N) 50,000 (4.9N)	300,000	1,000,000 (0.98N) 300,000 (1.47N) 100,000 (2.55N)	300,000	3,000,000 (1.27N) 1,000,000 (2.55N)
Ambient Operating Temperature		-25°C to 75°C				
Enclosure rating		IP00				
Cleaning		Not possible				
Packaging	Box (standard)	1,500	1,500	1,500	1,500	(200 for B3F-8000)
	Embossed tape (model number P: suffix)		-	-	-	-
Key top for projected type	4 x 4mm		•	•	•	•
	9 x 9mm					
	12 x 12mm					
	Diameter 6mm		•	•	•	•
	Diameter 9.5mm					
	D-Shape		•	•	•	•



B3F			B3W			B3FS	
Horizontal – Flat and projected – Long life expectancy and high reliability types		Horizontal – Flat and projected – radial taped type	Sealed construction that allows immersion cleaning after soldering. Dust-proof for applications in adverse conditions		Compact illumination with 1or 2 LEDs	Surface mounting – ideal for high density mounting	
B3F-5000		B3F-6000	B3W-1000	B3W-4000	B3W-9000	B3FS-1000	B3FS-4000
12 x 12		6 x 6	6 x 6	12 x 12	10 x 10	6 x 6	12 x 12
Silver-plated	Gold-plated	Silver-plated	Silver-plated			Silver-plated	
1.27N (130 gf)	1.27N (130 gf)	0.98N (100 gf) 1.47N (150 gf)	1.57N (160 gf) 2.26N (230 gf)	1.96N (200 gf) 3.43N (350 gf)	1.57N (160 gf) 2.26N (230 gf)	0.98N (100 gf) 1.47N (150 gf) 2.55N (260 gf)	1.47N (150 gf)
						•	
•		•	•			•	
•		•	•				
		•					
		•					
•		•	•			•	
•		•	•				
					•		
					•		
10,000,000		1,000,000 (1.96N) 300,000 (1.47N)	1,000,000 (1.57N) 300,000 (2.26N)	3,000,000 (1.96N) 1,000,000 (3.43N)	1,000,000 (1.57N) 200,000 (2.26N)	1,000,000 (0.98N) 300,000 (1.47N) 100,000 (2.55N)	3,000,000
-25°C to 75°C			-25°C to 70°C		-25°C to 70°C	-25°C to 70°C	
IP00			IP67			IP00	
Not possible			Possible		Not possible	Not possible	
500		1,000 (radial)	1,500	500	300	1,500	
-		-	-	-	-	3,000 (3.1mm height) 1,000 (4.3/7.3mm height)	1,000
		•	•			•	
•				•			
•				•			
		•	•			•	
•				•			
		•	•			•	

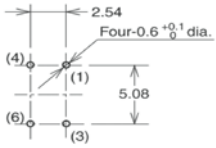
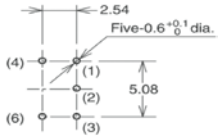
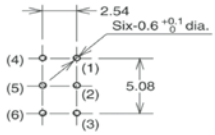
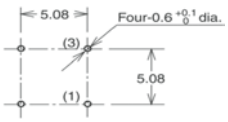
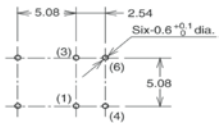
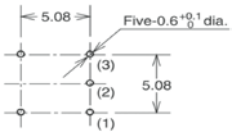
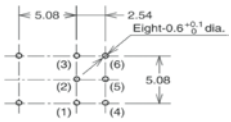
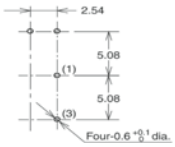
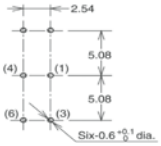
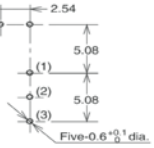
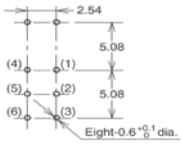
Switches

Tactile Switches

Product Series					
		B3SL	**B3SN**	**B3S**	**B3WN**
Features		Surface mounting sealed middle stroke switch	Surface mounting with sealed construction	Surface mounting for high-density packaging	Double-sealed construction ensures water-tight and dust-tight performance
Part No.		B3SL-1000	B3SN-1000	B3S-1000	B3WN-6000
Dimensions (mm)		6 x 6	6 x 6	6 x 6	6 x 6
Contact		Silver-plated	Silver-plated	Silver-plated	Silver-plated
Operating Force		1.96N (200 gf) 3.5N (357 gf)	1.57N (160 gf)	1.57N (160 gf) 2.25N (230 gf)	1.96N (200 gf) 2.55N (260 gf)
Type	**Flat Type (3.1mm height) – without ground**		•		
	Flat Type (3.1mm height) – with ground		•		
	Flat type (4.3mm height – vertical model 3.15mm) – without ground	•		•	
	Flat type (4.3mm height – vertical model 3.15mm) – with ground			•	
	Flat type (5.0mm height – vertical model 3.85mm) – without ground				
	Flat type (5.0mm height – vertical model 3.85mm) – with ground				
	Flat type and others – without ground				•
	Flat type and others – with ground				
	Projected type (7.3mm height – vertical model 6.15mm) – without ground	•			
	Projected type (7.3mm height – vertical model 6.15mm) – with ground				
	1 LED without ground				
	2 LEDs without ground				
Life Expectancy (operations)		1,000,000 100,000 (3.5N)	100,000	500,000 (1.57N) 300,000 (2.25N)	100,000
Ambient Operating Temperature		-25°C to 90°C	-25°C to 70°C	-25°C to 70°C	-25° to 85°C
Enclosure rating		IP64	IP67	IP67	IP67
Cleaning		Possible	Possible	Possible	Possible
Packaging	**Box (standard)**	–	1,500	1,500	1,000 (radial taped)
	Embossed tape (model number P: suffix)	2,000 (B3SL-1002P) 1,400 (B3SL01022P)	3,000	1,000	–
Key top for projected type	**4 x 4mm**	•			
	9 x 9mm				
	12 x 12mm				
	Diameter 6mm	•			
	Diameter 9.5mm				
	D-Shape	•			

B3AL	**B3J**			**B3U**
Long-stroke Tactile Switches with High Operating Forces and Long Life.	Hinged tactile switch			Ultra small switch with high reliability contact
B3AL	B3J-1000	B3J-2000/3000/4000	B3J-5000/6000/7000	B 3U
6 x 6.9	12 x 18			3 x 2.5
Silver-plated	Silver-plated			Silver-plated
1.96 N (200 gf) 2.45 N (250 gf) 3.00 N (306 gf) 3.50 N (357 gf)	1.27N (130 gf)			1.5N (top) 1.59N (side) 2.55N (260 gf)
•	•			
		•		
			•	
1,000,000	3,000,000			200,000 (top actuated) 100,000 (side actuated)
-40° to 90°C	-25°C to 70°C			-25°C to 70°C
IP00	IP00			IP60
Not possible	Not possible			Not possible
–	300			–
1,400	–			(see data)

PCB Mount Switches

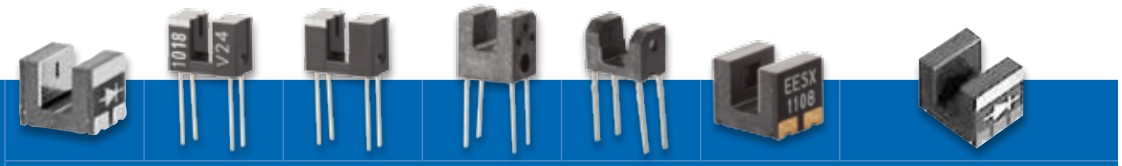
Product Series		A9PS		A9TS	
Features		Ultra subminiature push button switch with Gold-plated clip contact ensures high reliability.		Ultra subminiature toggle switch with Gold-plated clip contact ensures high reliability.	
Dimensions (L x W x H mm)		7 x 4.5 x 7.2 mm		7 x 4.5 x 11 mm	
Switching Capacity		100 mA at 28 VAC/VDC, 0.1 uA (minimum current) at 20 mVAC/VDC		100 mA at 28 VAC/VDC, 0.1 uA (minimum current) at 20 mVAC/VDC	
Operating Force		4.9N (500 gf) max		4.9N (500 gf) max	
Contact Form		SPDT	DPDT	SPDT	DPDT
Actuator Type		Push Button		Toggle	
Terminal style	DIP	A9PS16-0011	A9PS26-0011	A9TS11-0011 A9TS12-0011	A9TS21-0011 A9TS22-0011
	Right Angle	A9PS16-0012	A9PS26-0012	A9TS11-0012 A9TS12-0012	A9TS21-0012 A9TS22-0012
	Vertical Mount	A9PS16-0013	A9PS26-0013	A9TS11-0013 A9TS12-0013	A9TS21-0013 A9TS22-0013
Life expectancy (switching operation)	Mechanical	50,000 min		50,000 min	
	Electrical	50,000 min		50,000 min	
PCB Dimensions (Top view)	DIP Terminal				
	Right Angle Terminal				
	Vertical Mount Terminal				

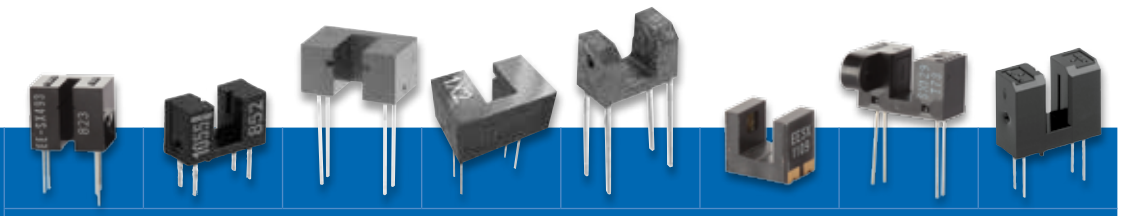
Sensors

Omron sensors are known for reliable, long-lasting performance in a variety of operating conditions.

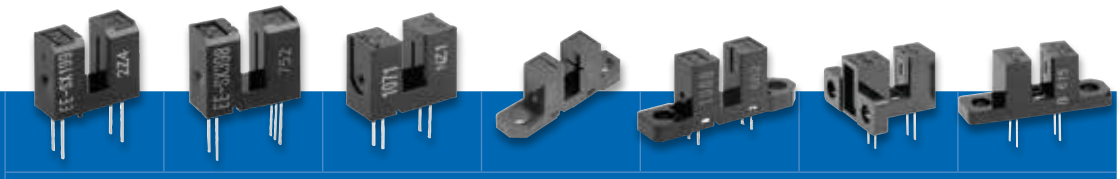
- **Micro sensing devices** including a variety of transmissive and reflective photomicrosensors, multi-beam sensors and micro-displacement sensors. Our products meet the highest requirements for resolution and compactness. Omron offers one of the largest ranges, encompassing through hole, PCB, SMD, snap-in, solder tab and screw mounted solutions.
- **Pressure sensors** ranging from a miniature high accuracy piezoresistive sensor based on MEMS and CMOS technology to digital output piezocapacitive sensors with high noise immunity.
- **Mass Flow sensors** that offer both dependability and highly repeatable accuracy from 1LPM to 50LPM (higher rates available on request). We also supply intelligent velocity flow sensors with an integrated Dust Segregation System (DSS). The design of all our flow sensors guarantees highly sensitive, temperature-compensated measurement of several non-corrosive gases.
- **RF switches** incorporating breakthrough MEMS technology. This addresses the challenge of today's RF switching applications, which often demand switching performance normally only seen in solid state devices. High performance (up to 12 GHZ levels) and superior durability are achieved in a very small package.
- **Thermal sensors** in a state-of-the-art design with non-contact thermal measurement driven by energy concerns. These open new horizons for IR MEMS technology.
- **Tilt sensors** and **Vibration sensors** suitable for emergency switches that detect unexpected shock or impact. Uses include earthquake detection, security devices, standalone heating equipment, vending machines and material handling facilities. These automatically resetting sensors offer market-proven reliability and are suitable for use in severe operating conditions.

Micro sensing devices

Product Series								
	EE							
Slot Width	Transmissive slot width up to 3mm							
Part No.	-SX1107	-SX1018	-SX1049	-SX1103	-SX1105	-SX1108	-SX1131	-SX4134
Dimensions (LxWxH)	3.4 x 3 x 3	8 x 4 x 6	9 x 4 x 5.2	5 x 4.2 x 5.2	4.9 x 2.6 x 3.3	5 x 4 x 4	5 x 4 x 4	5 x 4 x 4
Special Feature	Ultra-compact	Compact, general purpose	Compact, general purpose with positioning boss	Ultra-compact, general purpose	Ultra-compact, general purpose, low profile	Ultra-compact	Ultra-compact, dual channel output	Ultra-compact
Sensing Method	Transmissive	Transmissive	Transmissive	Transmissive	Transmissive	Transmissive	Transmissive	Transmissive
Sensing Distance	1mm	2mm	2mm	2mm	2mm	2mm	2mm	2mm
Output Configuration	Phototransistor	Phototransistor	Phototransistor	Phototransistor	Phototransistor	Phototransistor	Phototransistor	PhotoIC
Aperture Size	0.15mm	0.5mm	0.5mm	0.4mm	0.4mm	0.3mm	0.3mm	0.3mm
Emitter Wavelength	940nm	940nm	940nm	950nm	950nm	940nm	940nm	940nm
Mounting Type	Surface Mount	Through-hole	Through-hole	Through-hole	Through-hole	Surface Mount	Surface Mount	Surface Mount

Product Series								
	EE							
Slot Width	Transmissive slot width up to 3mm		Transmissive slot width 3mm - <5mm					
Part No.	-SX493	-SX1055	-SX1046	-SX1082	-SX1106	-SX1109	-SX129	-SX198
Dimensions (LxWxH)	11 x 8 x 9.5	8.9 x 4 x 5.4	10 x 6.5 X 5	10 x 6.5 x 5.2	6.4 x 4.2 x 5.4	6 x 4 x 5	13 x 6 x 8	12.2 x 5 x 10
Special Feature	High resolution	Compact, cost performance	Horizontal aperture	Horizontal aperture, high resolution	Ultra compact, general purpose	Ultra compact	High resolution	General purpose
Sensing Method	Transmissive	Transmissive	Transmissive	Transmissive	Transmissive	Transmissive	Transmissive	Transmissive
Sensing Distance	2mm	2.8mm	3mm	3mm	3mm	3mm	3mm	3mm
Output Configuration	PhotoIC	Phototransistor	Phototransistor	Phototransistor	Phototransistor	Phototransistor	Phototransistor	Phototransistor
Aperture Size	0.2mm	0.5mm	0.5mm	0.2mm	0.4mm	0.5mm	0.5mm	0.5mm
Emitter Wavelength	940nm	940nm	920nm	920nm	950nm	940nm	940nm	940nm
Mounting Type	Through-hole	Through-hole	Through-hole	Through-hole	Through-hole	Surface Mount	Through-hole	Through-hole

Micro sensing devices

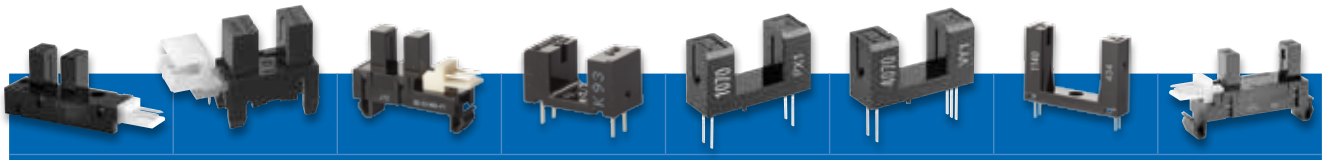
Product Series							
	EE						
Slot Width	Transmissive slot width 3mm - <5mm						
Part No.	-SX199	-SX398/498	-SX1071	-SX1096	-SX1088	-SX138	-SH3
Dimensions (LxWxH)	12.2 x 5 x 10	12.2 x 5 x 10	13.6 x 6.2 x 10.2	25 x 6 x 10	25 x 6 x 10	13.6 x 23.8 x 10	25.4 x 6.2 x 10.2
Special Feature	With positioning boss	General purpose	General purpose	Horizontal aperture, lead wire option	Screw mounting, connector and lead wire mounting option	Screw mounting	High resolution, sensitivity and horizontal aperture models, screw mounting solder terminal option
Sensing Method	Transmissive	Transmissive	Transmissive	Transmissive	Transmissive	Transmissive	Transmissive
Sensing Distance	3mm	3mm	3.4mm	3.4mm	3.4mm	3.4mm	3.4mm
Output Configuration	Phototransistor	PhotoIC	Phototransistor	Phototransistor	Phototransistor	Phototransistor	Phototransistor
Aperture Size	0.5mm	0.5mm	0.5mm	0.5mm	0.5mm	0.5mm	0.2/0.5/1.0mm
Emitter Wavelength	940nm	940nm	940nm	940nm	940nm	940nm	940nm
Mounting Type	Through-hole	Through-hole	Through-hole	Through-hole	Through-hole	Through-hole	Through-hole

Product Series							
	EE						
Slot Width	Transmissive slot width up to 5 - 8mm						
Part No.	-SX1042	-SX1081	-SX1115	-SX1235A-P2	-SJ5-B	-SX3081/4081	-SX3239-P2
Dimensions (LxWxH)	14 x 5 x 14.5	13.7 x 5 x 10	14 x 5 x 14.5	27 x 8 x 15.9	15.4 x 6.2 x 10.2	13.7 x 5 x 10	27.2 x 8 x 15.9
Special Feature	High profile	General purpose	High profile with positioning pins	Snap-in mounting	General purpose	General purpose	Connector type
Sensing Method	Transmissive	Transmissive	Transmissive	Transmissive	Transmissive	Transmissive	Transmissive
Sensing Distance	5mm	5mm	5mm	5mm	5mm	5mm	5mm
Output Configuration	Phototransistor	Phototransistor	Phototransistor	Phototransistor	Phototransistor	PhotoIC	PhotoIC
Aperture Size	0.5mm	0.5mm	0.5mm	0.5mm	0.5mm	0.5mm	0.5mm
Emitter Wavelength	940nm	940nm	940nm	940nm	940nm	940nm	940nm
Mounting Type	Through-hole	Through-hole	Through-hole	Snap-In	Through-hole	Through-hole	Snap-In

EE

Transmissive slot width up to 3 - <5mm

-SJ3	-SV3	-SX3088/4088	-SX384/484	-SG3/SG3B	-SX1057	-SX1128	-SX1041
13 x 6.2 x 10.2	19 x 15.1 x 10.2	25 x 6 x 10	12.5 x 5 x 8	25.4 x 6.3 x 11.5	13 X 6.3 X 8.6	13.5 x 5.2 x 9.3	14 x 6 x 10
High resolution, sensitivity and horizontal aperture models, solder terminal option	High resolution, sensitivity and horizontal aperture models screw mounting option	Screw mounting, connector and lead wire option	General purpose	Dust proof, solder terminal option	Dust proof, general pupose	Horizontal aperture	General purpose
Transmissive	Transmissive	Transmissive	Transmissive	Transmissive	Transmissive	Transmissive	Transmissive
3.4mm	3.4mm	3.4mm	3.5mm	3.6mm	3.6mm	4.2mm	5mm
Phototransistor	Phototransistor	PhotoIC	PhotoIC	Phototransistor	Phototransistor	Phototransistor	Phototransistor
0.2/1mm	0.2/0.5/1mm	0.5mm	0.5mm	2.0mm	2.0mm	0.5mm	0.5mm
920nm	940nm	940nm	940nm	940nm	940nm	940nm	940nm
Through-hole	Through-hole	Through-hole	Through-hole	Through-hole	Through-hole	Through-hole	Through-hole

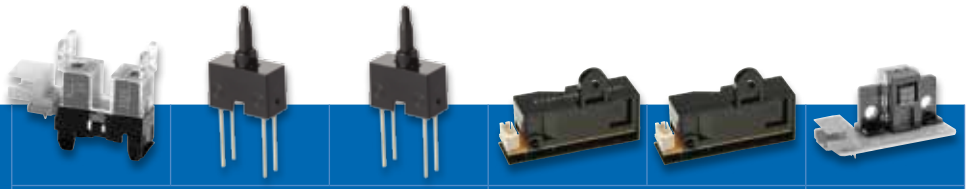


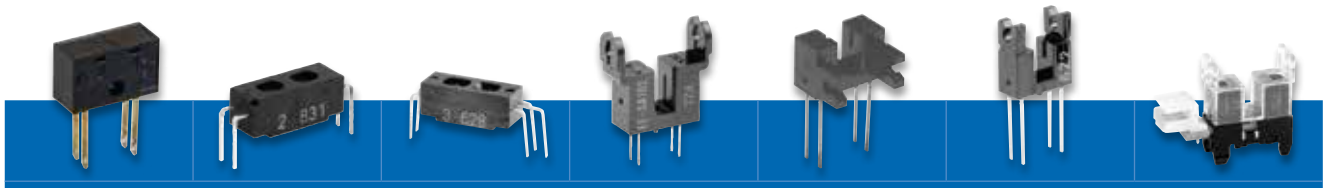
EE

Transmissive slot width up to 5 - 8mm						Transmissive slot width over 12mm	
-SX3009-P1/4009-P1	-SX4235A-P2	-SX460-P1	-SX1035	-SX1070	-SX3070/4070	-SX1140	-SX461-P11
34 x 11 x 18	17 x 6 12.6	30 x 11 12.6	12.6 x 6.3 x 9.7	17.7 x 6 x 10	17.7 x 6 x 10	23 x 5 x 16.3	32.5 x 12 x 23.6
Connector type	Connector type	Connector type	Compact, wide profile	General purpose	General purpose	Wide, high profile	Connector type
Transmissive	Transmissive	Transmissive	Transmissive	Transmissive	Transmissive	Transmissive	Transmissive
5mm	5mm	5mm	5.2mm	8mm	8mm	14mm	15mm
PhotoIC	PhotoIC	PhotoIC	Phototransistor	Phototransistor	PhotoIC	Phototransistor	PhotoIC
0.5mm	0.5mm	0.5mm	1mm	0.5mm	0.5mm	1.5mm	2.0mm
940nm	940nm	940nm	940nm	940nm	940nm	940nm	940nm
Screw mounting	Snap-In	Snap-In	Through-hole	Through-hole	Through-hole	Through-hole	Snap-In

Micro sensing devices

Product Series							
	EE						
Slot Width	Reflective 1-5mm						
Part No.	-SY1200	-SY193	-SY171	-SY169A/B	-SY113	-SY313/413	-SB5(-B)
Dimensions (LxWxH)	3.2 x 1.9 x 1.1	3.4 x 2.7 x 1	15 x 4.2 x 3	12.5 x 6 x 8	15.2 x 6.2 x 6	15.2 x 6.2 x 6	25.4 x 6.35 x 11.5
Special Feature	Ultra-compact	Ultra-compact	Thin profile	High resolution red and infrared LED option	Dust proof	Dust proof	Screw mounting, includes visible light intercepting filter, solder terminal option
Sensing Method	Reflective	Reflective	Reflective	Reflective	Reflective	Reflective	Reflective
Sensing Distance	1-4mm	1mm	3.5mm	4mm	4.4mm	4.4mm	4.4mm
Output Configuration	Phototransistor	Phototransistor	Phototransistor	Phototransistor	Phototransistor	PhotoIC	Phototransistor
Aperture Size	not applicable	not applicable	not applicable	not applicable	not applicable	not applicable	not applicable
Emitter Wavelength	940nm	940nm	940nm	660nm/920nm	940nm	920nm	920nm
Mounting Type	Surface mount	Surface Mount	Through-hole	Through-hole	Through-hole	Through-hole	Through-hole

Product Series						
	EE			EY3A		Z4D
Slot Width	Actuator Type			Convergent Reflective		
Part No.	-SA407-P2	-SA105	-SA113	-1051	-1081	-B01
Dimensions (LxWxH)	27 x 8 x 21.9	9.4 x 4.4 x 14.2	9.4 x 4.4 x 11.4	49 x 32 x 12.3	56.3 x 32 x 15	15 x 35.5 x 20
Special Feature	Snap-in mounting	Actuator included in model, general purpose	Actuator included in model, general purpose	Manuscript paper sensor with high sensitivity, highest external light interface resistance	Manuscript paper sensor with high sensitivity, highest external light interface resistance	Built-in processor circuit, connector type
Sensing Method	Actuator	Actuator	Actuator	1 beam	1 beam	Micro Displacement
Sensing Distance	3.6mm	13mm min.	10.2mm min.	50mm	80mm	6.5mm +-1mm
Output Configuration	PhotoIC	Phototransistor	Phototransistor	Digital	Digital	Phototransistor
Aperture Size	0.5mm	0.15N max.	0.15N max.	not applicable	not applicable	resolution +/- 10um
Emitter Wavelength	940nm	940nm	940nm	940nm	940nm	940nm
Mounting Type	Snap-in	Through-hole	Through-hole	Screw Mounting	Screw Mounting	Screw Mounting



EE						
Reflective 1-5mm			Actuator Type			
-SF5B	-SY110	-SY310/410	-SA102	-SA103	-SA104	-SA107-P2
13 x 5.4 x 8	15.2 x 4.6 x 4.8	17 x 4.6 x 4.8	17 x 6 x 16.5	9 x 4 x 6	9 x 4 x 9.7	27 x 8 x 21.9
Dust proof, includes visible light intercepting filter, solder terminal option	General purpose	General purpose	General purpose	General purpose, side actuator holder	Compact	Snap-in mounting
Reflective	Reflective	Reflective	Actuator	Actuator	Actuator	Actuator
5mm	5mm	5mm	3mm	3mm	3mm	3.6mm
Phototransistor	Phototransistor	PhotoIC	Phototransistor	Phototransistor	Phototransistor	Phototransistor
not applicable	not applicable	not applicable	0.5mm	0.5mm	0.5mm	0.5mm
940nm	940nm	920nm	940nm	940nm	940nm	940nm
Through-hole	Through-hole	Through-hole	Through-hole	Through-hole	Through-hole	Snap-in

Vibration & tilt sensors

Product Series	D7E-1	D7E-2	D7E-3
Features	Compact seismic detector Self-resetting	Compact seismic detector Self-resetting	Compact tilt sensor Responds to gradual tilting of 1 degree/sec- Self-resetting
Part No.	-	-	-
Dimensions (L x W x H mm)	36.4 x 23.6 x 23.1	36.4 x 23.6 x 23.1	36.4 x 23.6 x 23.1
Sensing Parameter	Vibration	Vibration	Tilt
Operating Parameter	130-200 gal	100-170 gal	50 to 80°C
Contact Form	NC (normally closed)	NC (normally closed)	NC (normally closed)
IP Protection	IP67	IP67	IP67
Contact Capability	0.1mA/50 VDC, 100mA/30 VDC	0.1mA/50 VDC, 100mA/30 VDC	0.1mA/50 VDC, 100mA/30 VDC
Contact Resistance	100 mΩ	100 mΩ	100 mΩ
Termination	185 quick connect/ solder (PCB on request)	186 quick connect/ solder (PCB on request)	187 quick connect/ solder (PCB on request)
Operating Temperature	-25 to 60°C	-25 to 60°C	-25 to 60°C
Operating Humidity	45 to 95%	45 to 95%	45 to 95%
Endurance	5,000 operations min	5,000 operations min	5,000 operations min

Flow sensors

Product Series						
	D6F					
Features	Basic type with high accuracy and excellent repeatability	Safe measurement of flammable gases	Small and slim package with fast response	High flow capacity and wide range measurement in a small package	High flow capacity and wide range measurement in a small package	High flow capacity and wide range measurement in a small package
Part No.	-XXA1	-XXL2/-XXN2	-03A3	-XXA5	-XXA6	-XXA7
Dimensions (L x W x H mm)	66 x 36 x 15.1	62 x 21.6 x 22.1	36.6 x 8 x 16.8	78 x 30 x 30	78 x 30 x 30	84.6 x 30 x 30
Suitable Gas Type (* see note below)	Air	LNG, LPG	Air	Air, O2, N2O	Air, O2, N2O	Air, LNG/LPG
Flow Range	1 SLPM 2 SLPM	1 SLPM (LNG) 2 SLPM (LPG) 5 SLPM (LNG)	3 SLPM	10 SLPM 20 SLPM 50 SLPM	10 SLPM 20 SLPM 50 SLPM	5 SLPM (LNG) 2 SLPM (LPG) 30 LPM (Air)
Accuracy	+/- 3 %F.S.	+/- 3 %F.S.	+/- 5 %F.S.	+/- 3 %F.S.	+/- 3 %F.S.	+/- 3 %F.S.
Temperature Characteristics	+/- 3 %F.S.	+/- 3 %F.S.	+/- 5 %F.S.	+/- 3 %F.S.	+/- 3 %F.S.	+/- 5 %F.S.
Operating Temperature	-10 to +60°C	-10 to +60°C	-0 to +50°C	-10 to +60°C	-10 to +60°C	-10 to +60°C
Storage Temperature	-40 to +80°C	-40 to +80°C	-10 to +60°C	-30 to +80°C	-30 to +80°C	-40 to +80°C
Supply Voltage	12 to 24 VDC	12 to 24 VDC	12 to 24 VDC	12 to 24 VDC	12 to 24 VDC	12 to 24 VDC
Output	1 to 5 VDC	1 to 5 VDC	1 to 5 VDC	1 to 5 VDC	1 to 5 VDC	1 to 5 VDC
Port Style	Bamboo fitting (Maximum outside diameter 8.6mm)	Screw thread: Rc 1/4	Screw thread: M5	Manifold: Seal with O-ring	Screw thread: Rc 1/4	Straight tube: Quick fastener P10
Weight	12.77 g	35.3 g	5.3 g	102.6 g	102.6 g	72 g
Accessory	D6F-Cable1 (Included)	D6F-Cable1 (Included)	D6F-Cable2 (Optional)	D6F-Cable1 (Optional)	D6F-Cable1 (Optional)	D6F-Cable1 (Optional)

NOTE: Contact Omron for other calibration gases. Omron mass flow sensors are compatible with a wide variety of noncorrosive gases including nitrogen, oxygen, carbon dioxide, argon, heliox, and nitrogen oxides among others.

Pressure sensors

Product Series			
	2SMPP		D8M
Features	Miniature pressure sensor based on MEMS and CMOS technology with low temperature influence, small offset and span voltage variation, low power consumption		Solid state pressure switch in compact housing
Part No.	2SMPP-02	2SMPP-03	D8M-D82
Dimensions (L x W x H mm)	6.15 x 4.75 x 8.25		30 x 30 x 12.4
Output Type	Analogue		Digital (pulse)
Pressure Type	Gauge		Gauge
Sensing Type	Piezoresistive		Capacitance
Pressure Range	0 to 37 kPa	-50 to 50 kPa	0 to 4.9 kPa
Withstand Pressure	53 kPa	-80 to 120 kPa	19.6 kPa for 5 min
Supply Power	100 µADC (130 µADC absolute max.)	100 µADC (200 µADC absolute max.)	2.2 to 3.4 VDC
Operating Temperature	0 to 50°C	-10 to 100°C	-10 to 60°C
Operating Humidy	15 to 90%	10 to 95%RH	25 to 95% RH

D6F			
Velocity sensor with original Dust Segregation System (DSS)	Simplified version of velocity sensor, including Dust Segregation System (DSS)	Bidirectional sensing in unique design, includes DSS, barbed ports with PCB or connector terminals or manifold mount with connectors	Compact, High-accuracy Differential Pressure Sensor with Superior Resistance to Environments
-WXXA1	-VO3A1	-PXXA	-PHXXXXADX
20 x 39 x 9	24 x 8 x 14	22 x 9.8 x 27	24 x 15 x 22
Air	Air	Air	Air
1 m/s 4 m/s 10 m/s	3 m/s	0.1 SLPM 1 SLPM in bypass up to 200 SPLM	0-250Pa (63mSLPM) +/-50Pa (23mSLPM) +/-500Pa (100mSLPM
+/- 5 %F.S.	+/- 10 %F.S.	+/- 5 %F.S.	+/- 3 %R.D.
+/- 5 %F.S.	+/- 20 %F.S.	+/- 5 %F.S.	+/- 3 %R.D.
-10 to +60°C	-10 to +60°C	-10 to +60°C	-10 to +60°C
-40 to +80°C	-40 to +80°C	-40 to +80°C	-40 to +80°C
12 to 24 VDC	3.3 VDC typ.	5 VDC typ.	2.3 to 3.6 VDC
1 to 5 VDC	0.5 to 2 VDC	0.5 to 2.5 VDC	I2C
Open	Open	Barb joint, (outside diameter 4.9mm)	Barb joint, outside diameter: 4.9 mm
6.3 g	5.3 g	8.5 g	5.2 g
D6F-W Cable (Optional)	D6F-Cable (Optional)	D6F-Cable2 for connector type (Optional)	Evaluation kit

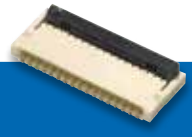
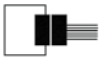
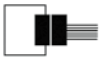
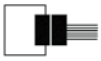
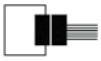
NOTE: Contact Omron for other calibration gases. Omron mass flow sensors are compatible with a wide variety of noncorrosive gases including nitrogen, oxygen, carbon dioxide, argon, heliox, and nitrogen oxides among others.

Connectors

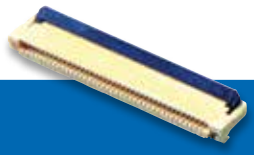
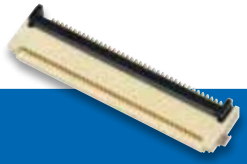
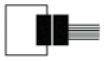
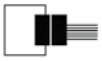
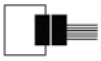
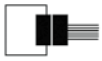
Omron provides an ever-expanding range of connectors. Our PCB range includes half pitch, DIN and DIN-Style, Flat Cable, D-Sub, DVI and USB types.

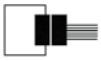
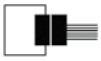
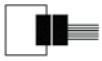
Our Flat Printed Cable (FPC) connection has earned a reputation as one of the most reliable interconnect solutions for miniaturised products. Our XF2 range of SMT connectors includes devices with double sided contacts to maintain a stable contact force, unique rotary lock mechanisms and the smallest on-board size in the industry.

FPC connectors

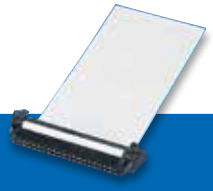
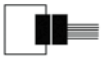
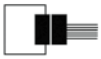
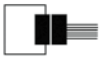
Product Series					
		XF3C	**XF3A**	**XF2B**	**XF3B**
Features		**FPC Connector** - 0.25mm pitch, 0.85mm height - Applicable FPC thickness 0.12mm - Rotary backlock - Moulding wall on the base - Double-sided contact - Halogen-free	**FPC Connector** - 0.3mm pitch, 0.6mm height - Applicable FPC thickness 0.12mm - Rotary backlock - Moulding wall on the base - Upper contact - Halogen-free	**FPC Connector** - 0.3mm pitch, 1.2mm height - Applicable FPC thickness 0.2mm - Rotary backlock - Moulding wall on the base - Double-sided contact - Halogen-free	**FPC Connector** - 0.3mm pitch, 0.9mm height - Applicable FPC thickness 0.2mm - Rotary backlock - Moulding wall on the base - Double-sided contact - Halogen-free
Contact Pitch		0.25mm	0.3mm	0.4mm	0.3mm
Connection Style		 Board to Wire	 Board to Wire	 Board to Wire	 Board to Wire
Type		Side Entry	Side Entry	Connection	Side Entry
Terminal		SMT	SMT	SMT	SMT
Number of Poles	**100**	-	-	-	-
	90	-	-	-	-
	80	-	-	80	-
	70	-	-	-	-
	60	-	-	-	67
	50	51, 59	51	-	51
	40	45	-	40	8, 25
	30	35	-	-	35
	20	23, 25	23, 25	24	25
	10	17, 19	12, 17	-	19
	0	-	8	-	9
Rated Current		0.2A AC/DC	0.2A AC/DC	0.3A AC/DC	0.2A AC/DC
Rated Voltage		50V AC/DC	50V AC/DC	50V AC/DC	50V AC/DC
Ambient Temperature		-30 to 85ºC (with no icing)	-30 to 85ºC (with no icing)	-30 to 85ºC (with no icing)	-30 to 85ºC (with no icing)
RoHS Compliance		Yes	Yes	Yes	Yes
Certification		-	-	-	-

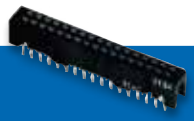
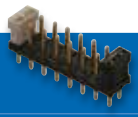
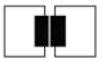
FPC connectors

Product Series					
		XF2U	**XF2W**	**XF2M**	**XF3M**
Features		**FPC Connector** - 0.5mm pitch, 0.9mm height - Applicable FPC thickness 0.2mm - Rotary backlock - Ultra-slim as 3.5mm depth - Moulding wall on the base - Double-sided contact - Halogen-free	**FPC Connector** - 0.5mm pitch, 1.1mm height - Applicable FPC thickness 0.3mm - Rotary backlock - Ultra-slim as 3.5mm depth - Moulding wall on the base - Double-sided contact - Halogen-free	**FPC Connector** - 0.5mm pitch, 2mm height - Applicable FPC thickness 0.3mm - Rotary backlock - Moulding wall on the base - Double-sided contact - Halogen-free	**FPC Connector** - 0.5mm pitch, 2mm height - Applicable FPC thickness 0.3mm - Rotary backlock - Moulding wall on the base - Double-sided contact - Halogen-free
Contact Pitch		0.5mm	0.5mm	0.5mm	0.5mm
Connection Style		 Board to Wire	 Board to Wire	 Board to Wire	 Board to Wire
Type		Side Entry	Side Entry	Side Entry	Side Entry
Terminal		SMT	SMT	SMT	SMT
Number of Poles	**100**	-	-	-	-
	90	-	-	-	-
	80	-	-	-	-
	70	-	-	-	-
	60	-	64	60	60
	50	-	50, 55	50, 55	50
	40	6, 40	45, 60	40, 42, 45	40, 41, 45
	30	30, 32	-	30, 32, 33, 34, 35, 36, 38	30, 31, 33, 34, 37
	20	20, 24, 27	20, 24	20, 22, 24, 26	20, 21, 24, 25
	10	11, 14, 18	16, 18	10, 12, 14, 18	10, 11, 12, 13, 14, 16, 19
	0	4, 8	5, 7, 8, 9	-	6, 7, 8, 9
Rated Current		0.5A AC/DC	0.5A AC/DC	0.5A AC/DC	0.5A AC/DC
Rated Voltage		50V AC/DC	50V AC/DC	50V AC/DC	50V AC/DC
Ambient Temperature		-30 to 85°C (with no icing)	-30 to 85°C (with no icing)	-30 to 85°C (with no icing)	-30 to 85°C (with no icing)
RoHS Compliance		Yes	Yes	Yes	Yes
Certification		-	-	-	-

XF3M	**XF2L**	**XF2J**
FPC Connector - 1mm pitch, 2mm height - Applicable FPC thickness 0.3mm - Rotary backlock - Moulding wall on the base - Double-sided contact - Halogen-free	**FPC Connector** - 0.5mm pitch, 1.2mm height - Applicable FPC thickness 0.3mm - Slide lock ZIF Connector - Moulding wall on the base - Halogen-free	**FPC Connector** - 0.5mm pitch, 4.15mm height - Applicable FPC thickness 0.3mm - Slide lock ZIF Connector
1mm	0.5mm	0.5mm
 Board to Wire	 Board to Wire	 Board to Wire
Side Entry	Side Entry	Top Entry
SMT	SMT	SMT
-	Upper contact type / Lower contact type	-
-	- / -	-
-	- / -	-
-	- / -	-
-	- / -	-
-	- / -	-
-	- / -	40
30	30 / 30	30
20, 22	21, 26 / 20, 22, 24	20, 22, 24, 26, 28
10, 12, 15, 16, 18	10, 12, 13, 18 / 10, 12, 13, 15, 18, 19	10, 12, 14, 16, 18
4, 5, 6, 9	4, 6, 7, 8, 9 / 5, 6, 7, 8	6, 8
0.5A AC/DC	0.5A AC/DC	0.5A AC/DC
50V AC/DC	50V AC/DC	50V AC/DC
-30 to 85ºC (with no icing)	-30 to 85ºC (with no icing)	-30 to 85ºC (with no icing)
Yes	Yes	Yes
-	-	-

PCB connectors

Product Series				
		XG4A/M	**XG4C**	**XG4E**
Features		**IDC Connector** - Conform to MIL standards (MIL-C-83503) - Flat cable is connected by IDC technology - 2-tier plug XG4A available	**Box type plug** - Space saving type - Simple lock XG4Z available - The stacking space can be adjusted	**IDC type plug** - Daisy-Chain connection is possible - Flat cable is connected by IDC increasing number of terminals available technology
Contact Pitch		2.54mm	2.54mm	2.54mm
Connection Style		 Board to Wire	 Board to Wire	 Board to Wire
Type		Straight/Angled	Straight/Angled	-
Terminal		PCB Through hole/IDC contact	PCB Through hole	IDC contact
Number of Poles	**100**	-	-	-
	90	-	-	-
	80	-	-	-
	70	-	-	-
	60	60, 64	60, 64	60, 64
	50	50	50	50
	40	40	40	40
	30	30, 34	30, 34	30, 34
	20	20, 26	20, 26	20, 26
	10	10, 14, 16	10, 14, 16	10, 14, 16
		-	-	-
Rated Current		Socket: 1A Plug: 3A	3A	3A
Rated Voltage		Socket: 250V AC Plug: 300V AC	300V AC	300V AC
Ambient Temperature		-55 to 105ºC (with no icing)	-55 to 105ºC (with no icing)	-55 to 105ºC (with no icing)
RoHS Compliance		Yes	Yes	Yes
Certification		UL	UL	UL

	
XG4H	**XJ8**
Board to Board - Low profile stacking 10mm in combination with XG4C - 2.54mm grid terminal array	**Jumper Plug** - 5.8mm height - From Single-row to Triplerow type available - Through-holes handle 0.8mm wire - Flame resistant PPS resin - Conform to UL standards
2.54mm	2.54mm
 Board to Board	
Straight/Angled	Straight
PCB Through hole	PCB Through hole
-	-
-	-
-	-
-	-
60, 64	-
50	-
40	-
30, 34	-
20, 26	21, 24
10, 14, 16	10, 12, 14, 15, 16, 18
-	2, 3, 4, 6, 8, 9
3A	2A
300V AC	300V AC
-55 to 105ºC (with no icing)	-55 to 105ºC (with no icing)
Yes	Yes
-	UL

European Head Office

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