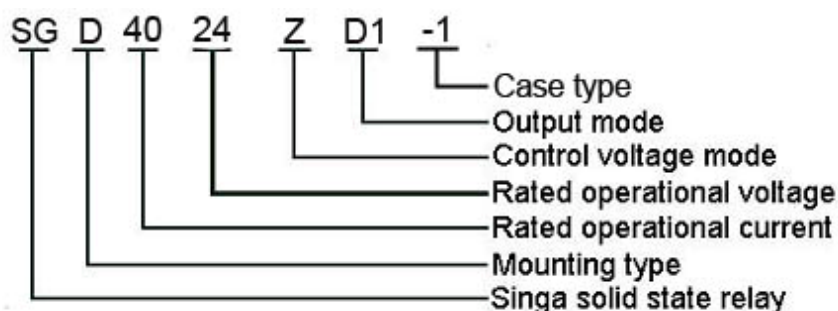


Series SGD Solid State Relays are AC relays, Triac Output. The triac version of the zero switching relay is an inexpensive solution for resistive loads. The zero switching relay switches on when the AC sine voltage just crosses zero, and switches off when the current crosses zero.

- ▲ Rated operational current 10 to 40 Amps.
- ▲ Rated operational voltage 240V or 440 V
- ▲ Input Voltage Range 4 to 16 Vdc, 3 to 32 Vdc or 90 to 250 Vac.
- ▲ 4000 Vrms Optical Isolation.(input/output)
- ▲ Both “Zero Voltage” & phase controllable “Random Switching” versions.
- ▲ LED-indication for control input.

ORDERING KEY



TYPE SELECTION

Mounting type	D: AC Single phase Solid State Relay
Rated operational current	10: 10Amp, 15: 15Amp, 25: 25Amp, 40: 40Amp
Rated operational voltage	24: 240V_{AC}, 44: 440V_{AC}.
Switched mode	Z: Zero Voltage,R: Random Switching.
Input Control voltage	D1: DC 4to16V, D3: DC 3to32V, A2: 90to250V.

SELECTION GUIDE

Voltage	Control voltage	Rated operational current			
		10 Amp	15 Amp	25 Amp	40 Amp
240 V _{AC} “Z”	4 to 16 Vdc	SGD1024ZD1	SGD1524ZD1	SG2524ZD1	SGD4024ZD1
240 V _{AC} “R”	4 to 16 Vdc	SGD1024RD1	SGD1524RD1	SG2524RD1	SGD4024RD1
240 V _{AC} “Z”	3 to 32 Vdc	SGD1024ZD3	SGD1524ZD3	SGD2524ZD3	SGD4024ZD3
240 V _{AC} “R”	3 to 32 Vdc	SGD1024RD3	SGD1524RD3	SGD2524RD3	SGD4024RD3
240 V _{AC} “Z”	90 to 250Vac	SGD1024ZA2	SGD4024ZA2	SGD4024ZA2	SGD4024ZA2
240 V _{AC} “R”	90 to 250Vac	SGD1024RA2	SGD4024RA2	SGD4024RA2	SGD4024RA2
440 V _{AC} “Z”	4 to 16 Vdc	SGD1044ZD1	SGD1544ZD1	SGD2544ZD1	SGD4044ZD1
440 V _{AC} “R”	4 to 16 Vdc	SGD1044RD1	SGD1544RD1	SGD2544RD1	SGD4044RD1

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Series SGD

10 to 40 Amps AC SSR

440 V _{AC} "Z"	3 to 32 Vdc	SGD1044ZD3	SGD1544ZD3	SGD2544ZD3	SGD4044ZD3
440 V _{AC} "R"	3 to 32 Vdc	SGD1044RD3	SGD1544RD3	SGD2544RD3	SGD4044RD3
440 V _{AC} "Z"	90 to 250Vdc	SGD1044ZA2	SGD1044ZA2	SGD2544ZA2	SGD4044ZA2
440 V _{AC} "R"	90 to 250Vdc	SGD1044RA2	SGD1044RA2	SGD2544RA2	SGD1044RA2

SPECIFICATIONS

Parameter-list	Units	Specification Limits			
Input Parameter ①	D1	D3		A2	
Control Voltage Range	4 to 16Vdc	3 to 32Vdc		90 to 250Vac	
Input Current (Max.)	7/20 mA _{dc} @=5V/12V	13/16 mA _{dc} @=5V/12		30 MA _{ac} @=220V	
Must Turn On Voltage	4Vdc	3Vdc		90Vac	
Must Turn Off Voltage	1Vdc	1Vdc		10Vac	
Reverse Voltage (Max.)	32 Vdc	32 Vdc		/	
LED Display	Optional	Optional		Optional	
Output Parameter ②	Units	Specification Limits			
Model No. SGD		10	15	25	40
Load Current Range	Arms	0.05 to 10	0.05 to 15	0.05 to 25	0.05 to 40
Surge Current, 20 mSec (Max.)	Arms	85	115	230	400
Load Voltage Range (240V)	V _{rms}	24 to 280			
TRIAC Over voltage(240V)	V _{pk}	≥600			
Load Voltage Range (440V)	V _{rms}	44 to 440			
TRIAC Over voltage(440V)	V _{pk}	≥800			
Thermal Resistance, (R _{thjc})	°C/W	2.5	2.5	1.3	1.1
Frequency Range	Hz	47 to 63			
Off State dv/dt (Min)	V/μsec	200			
Off State Leakage Current (Max.)	mArms	≤8			
On State Voltage Drop (Max.)	V _{rms}	1.6			
Turn On Time (Max.) "Z"	Cycle	1/2			
Turn On Time (Max.) "R"	mSec	1			
Turn Off Time (Max.)	Cycle	1/2			
Turn Off Time(Max.)"A2"	mSec	40			
Coupling Specifications					
Dielectric (Input/Output)	V _{rms}	2500			
Dielectric (Input-Output/Base)	V _{rms}	2500			
Capacitance	pf	10			

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General Specifications

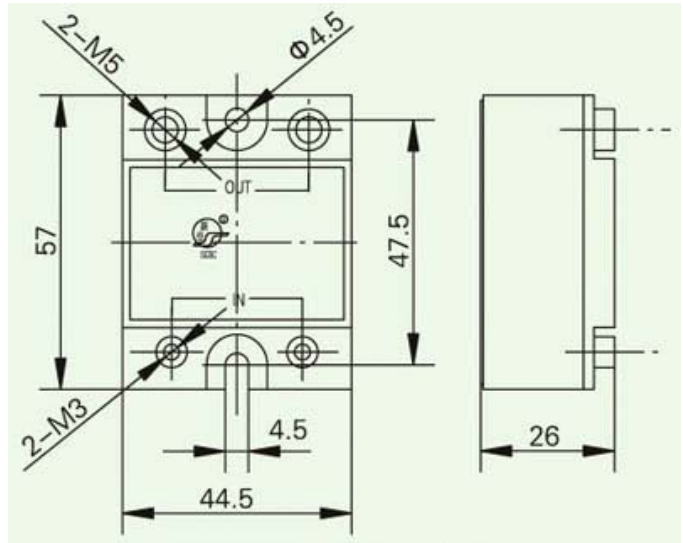
Ambient temperature range: operating or Storage -30 to +80°C

Weight(typical.): **Case A** Aluminum Base plate: 99g; Copper Base plate: 145g
Case B Aluminum Base plate: 81g; Copper Base plate: 120g

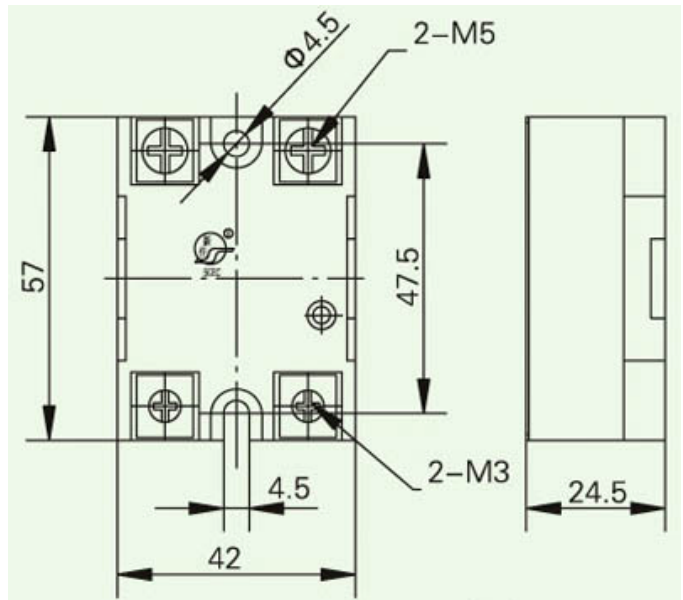
Base plate: Aluminum or Copper, nickel-plated

Case Color: Black

Case A Defense Covering (Optional)



Case B Defense Covering (Optional)



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