

# SG2 Programmable Relay Specifications

<b>Power Supply</b>	
Input Power Voltage Range	12VDC Models: 10.4-14.4V 24VDC Models: 20.4-28.8V 110/220VAC: 85-265VAC
Power Consumption	12VDC: 12-point, 150mA 20-point: 150mA 24VDC: 12-point, 90mA 20-point: 150mA 100-240VAC: 90mA
Wire Size (all terminals)	26 to 14 AWG
<b>Programming</b>	
Programming languages	Ladder/Function Block
Program Memory	200 Lines or 99 Function Blocks
Programming storage media	Flash
Execution Speed	10ms/cycle
LCD Display	4 lines x 12 characters
<b>Timers</b>	
Maximum Number	15
Timing ranges	0.01s-9999min
<b>Counters</b>	
Maximum Number	15
Highest count	999999
Resolution	1
<b>RTC (Real Time Clock)</b>	
Number available	15
Resolution	1min
Time span available	week, year, month, day, hour, min
<b>Compare Instructions (Analog, Timer, or Counter Values)</b>	
Number available	15
Compare versus other inputs	Timer, Counter, or Numeric values
<b>Environmental</b>	
Enclosure Type	IP 20
Maximum Vibration	1G according to IEC 60068-2-6
Operating Temperature Range	32° to 131°F (0° to 55°C)
Storage Temperature Range	-40° to 158°F (-40° to 70°C)
Maximum Humidity	90% (Relative, non-condensing)
Vibration	0.075mm amplitude 1.0g acceleration
Weight	10-point: 230g 8-point: 190g 20-point: 345g
Agency Approvals	cUL , CE, UL

<b>Discrete Inputs</b>	
Current consumption	4mA @ 12VDC 3.2mA @ 24VDC 1.3mA @ 100-240VAC
Input Signal "OFF" Threshold	12VDC: < 2.5VDC; 24VDC: < 5VDC; 110/220VAC: < 40VAC
Input Signal "ON" Threshold	12VDC: > 7.5VDC; 24VDC: > 15VDC; 110/220VAC: > 79VAC
Input On delay	DC: 5ms; 240VAC: 50ms; 120VAC: 90ms
Input Off Delay	DC: 3ms; 240VAC: 50ms; 120VAC: 90ms
Transistor Type	3-wire PNP Sensor compatible
High Speed Input frequency	1kHz
Standard Input frequency	< 40 Hz
Required protection	Inverse voltage protection required
<b>Analog Inputs</b>	
Resolution	10 bit
Voltage Range acceptable	Analog input: 0-10VDC, 24VDC when used as discrete input
Input Signal "OFF" Threshold	< 5VDC (as 24VDC discrete input)
Input Signal "ON" Threshold	> 9.8VDC (as 24VDC discrete input)
Isolation	None
Short circuit protection	Yes
Total number available	A1-A8
<b>Relay Outputs</b>	
Contact material	Ag Alloy
Current rating	8A
HP rating	1/3HP @ 120V 1/2HP @ 250V
Maximum Load	Resistive: 8A/point; Inductive: 4A/point
Maximum operating time	15ms (normal condition)
Life expectancy (rated load)	100k operations
Minimum load	16.7mA
<b>Transistor Outputs</b>	
PWM max. output frequency	0.5kHz (1ms on, 1ms off)
Standard max. output frequency	100Hz
Voltage specification	10-28.8VDC
Current capacity	1A
Maximum Load	Resistive: 0.5A/point; Inductive: 0.3A/point
Minimum Load	0.2mA

## Communication Options

<b>Built-in RS485 Communication (SG2-20Vx-x units only)</b>	
Modbus-RTU	Slave mode only, 38.4kb, supports Modbus function codes 3, 6, 8, 16
DataLink	Link up to 3 SG2-20Vx-x units (1-master, 2-slaves) at 38.4kb
Remote-I/O	Link up to 8 Remote-I/O slave units (SG2-20Vx-x only) to 1-master unit at 8.4kb
<b>SG2-MBUS Slave Communication Expansion Module</b>	
Modbus-RTU	Slave mode only, 4.8kb - 38.4kb dip switch selectable, supports Modbus function codes 3, 6, 8, 16, maximum 1 module per SG2 main unit.

## Dimensions

