

# SG2 Programmable Relay Specifications

Power Supply	
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
Programming	
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
Timers	
Maximum Number	15
Timing ranges	0.01s-9999min
Counters	
Maximum Number	15
Highest count	999999
Resolution	1
RTC (Real Time Clock)	
Number available	15
Resolution	1min
Time span available	week, year, month, day, hour, min
Compare Instructions (Analog, Timer, or Counter Values)	
Number available	15
Compare versus other inputs	Timer, Counter, or Numeric values
Environmental	
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

Discrete Inputs	
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
Analog Inputs	
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
Relay Outputs	
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
Transistor Outputs	
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

Built-in RS485 Communication (SG2-20Vx-x units only)	
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
SG2-MBUS Slave Communication Expansion Module	
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

