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Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation, and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!


## Contact us

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SG2 Programmable Relay Specifications

| Power S upply |  |
| :---: | :---: |
| 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, 150 mA <br> 20-point: 150 mA <br> 24VDC: 12-point, 90 mA <br> 20-point: 150 mA <br> 100-240VAC: 90 mA |
| 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 |
| R esolution | 1 |
| RTC (Real Time Clock) |  |
| Number available | 15 |
| Resolution | 1 min |
| 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 IE C60068-2-6 |
| Operating Temperature R ange | $32^{\circ}$ to $131^{\circ} \mathrm{F}\left(0^{\circ}\right.$ to $\left.55^{\circ} \mathrm{C}\right)$ |
| S torage Temperature R ange | $-40^{\circ}$ to $158^{\circ} \mathrm{F}\left(-40^{\circ}\right.$ to $\left.70^{\circ} \mathrm{C}\right)$ |
| Maximum Humidity | 90\% (Relative, non-condensing) |
| Vibration | 0.075 mm amplitude 1.0 g acceleration |
| Weight | $\begin{array}{\|l} \hline 10 \text {-point: } 230 \mathrm{~g} \\ 8 \text {-point: } 190 \mathrm{~g} \\ 20 \text {-point: } 345 \mathrm{~g} \\ \hline \end{array}$ |
| Agency Approvals | cUL, CE, UL |


| Discrete Inputs |  |
| :---: | :---: |
| Current cons umption | 4mA @ 12VDC <br> 3.2 mA @ 24 VDC <br> 1.3 mA @ 100-240VAC |
| Input Signal "OFF" Threshold | $\begin{aligned} & \text { 12VDC: < 2.5VDC; 24VDC: < 5VDC; } \\ & \text { 110/220VAC: < 40VAC } \end{aligned}$ |
| Input S ignal "ON" Threshold | $\begin{aligned} & \text { 12VDC: > 7.5VDC; 24VDC: > 15VDC; } \\ & \text { 110/220VAC: > 79VAC } \end{aligned}$ |
| Input On delay | DC: 5ms; 240VAC: 50ms; 120VAC: 90ms |
| Input Off Delay | DC: 3ms; 240VAC: 50ms; 120VAC: 90ms |
| Transis tor Type | 3-wire PNP Sensor compatible |
| High S peed Input frequency | 1 kHz |
| Standard Input frequency | $<40 \mathrm{~Hz}$ |
| 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) |
| Is olation | None |
| S hort 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 | R esistive: 8A/point; Inductive: 4A/point |
| Maximum operating time | 15 ms (normal condition) |
| Life expectancy (rated load) | 100k operations |
| Minimum load | 16.7 mA |
| Transistor Outputs |  |
| PWM max. output frequency | 0.5 kHz ( 1 ms on, $1 \mathrm{~ms} \mathrm{off)}$ |
| $S$ tandard max. output frequency | 100 Hz |
| Voltage specification | 10-28.8VDC |
| Current capacity | 1A |
| Maximum Load | R es is tive: $0.5 \mathrm{~A} /$ point; Inductive: $0.3 \mathrm{~A} /$ point |
| Minimum Load | 0.2 mA |

## Communication Options

Built-in RS 485 Communication (S G2-20Vx-x units only)

| Modbus-RTU | Slave mode only, 38.4 kb , supports Modbus function codes 3, 6, 8, 16 |
| :--- | :--- |

DataLink $\quad$ Link up to 3 SG2-20Vx-x units (1-master, 2-slaves) at 38.4 kb
Remote-I/O $\quad$ Link up to 8 Remote-I/O slave units (S G 2-20Vx-x only) to 1-master unit at 8.4 kb S G 2-MB US Slave Communication Expansion Module

| Modbus-RTU | $\begin{array}{l}\text { Slave mode only, 4.8kb - 38.4kb dip switch selectable, supports Modbus function } \\ \text { codes 3, 6, 8, 16, maximum 1 module per SG2 main unit }\end{array}$ |
| :--- | :--- | codes $3,6,8,16$, maximum 1 module per SG2 main unit.

## Dimensions



