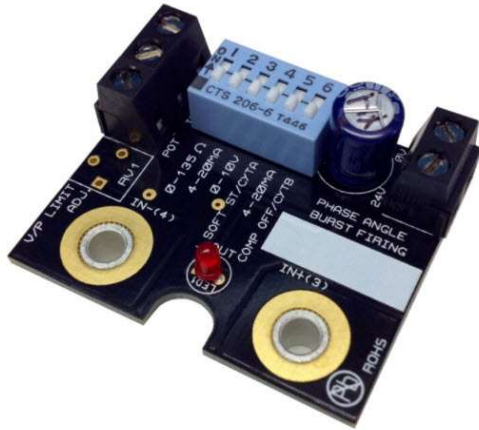


SSRMAN-1P (LPC) Phase-Angle Control Board



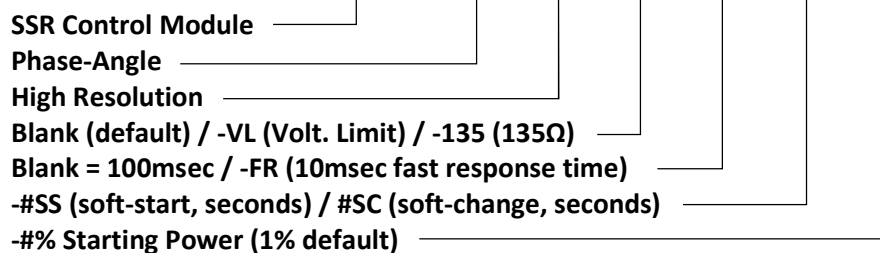
- True linear output phase angle control
- Suitable for inductive loads
- Small module mounts on the input terminals of an SSR
- Inputs of 4-20mA, 0-10V, 0-5V, 0-135 Ohm, Pot, PWM
- Line voltage compensation increases process stability
- Configurable soft start for sensitive loads
- Automatic 50/60Hz operation
- Adjustable voltage limit (-VL) option
- Single phase and three-phase control
- LED output indicator

Product Description:

The SSRMAN-1P is used on a wide range of HBControls LPC series phase-angle solid-state relay / heat sink assemblies and mounts directly to the input terminals of most industry-standard, random / instantaneous turn-on solid-state relays. The microprocessor-based card provides true linear phase-angle control of the load. The output power is proportional to the command input, which can be dip switch selected from seven different industry standard inputs.

Standard SSRMAN-1P Part Number = SSRMAN-1P-HR-20SS-1%

Part Numbers: SSRMAN - 1P - HR - - - - - 1%



Standard Soft Start / Soft Change Time Options:

Blank = no soft start / soft change function*

0.5 second	Soft Start = <u>-0.5SS</u>	Soft Change = <u>-0.5SC</u>
1 second	Soft Start = <u>-1SS</u>	Soft Change = <u>-1SC</u>
2 seconds	Soft Start = <u>-2SS</u>	Soft Change = <u>-2SC</u>
3 seconds	Soft Start = <u>-3SS</u>	Soft Change = <u>-3SC</u>
5 seconds	Soft Start = <u>-5SS</u>	Soft Change = <u>-5SC</u>
20 seconds	Soft Start = <u>-20SS</u>	Soft Change = <u>-20SC</u>

*If blank: a default 20 second soft start function is included and can be dipswitch enabled/disabled

Custom soft start / soft change times and starting power % available upon request.

SSRMAN-1P (LPC) Phase-Angle Control Board



Input Specifications

Specification	Rating
Power Supply	24Vac +/-15%
Operating Frequency Range	47Hz – 63Hz
Command Inputs	4-20mA, 0-20mA, 0-5V, 1-5V, 0-10V, 2-10V, 0-135Ω, Pot, PWM
Command Input Impedance	10KΩ (0-10V), 250Ω (4-20mA), 100KΩ (0-5V)
0-135Ω Excitation Current	13mA
PWM Input Frequency Range	10Hz – 100kHz
External Potentiometer Resistance	1-25KΩ

Output Specifications

Specification	Rating
Control Output	SSR Drive, DC Pulse, 10Vdc Nominal @ 15mA
Response Time	100msec (10msec for -FR version)
Linearity	+/-3%
Default Soft-Start Period	20 seconds to reach 100% power (other time periods available)
Voltage Limit Adjustment Range	25-100% of max. output power
Line Voltage Compensation Range	+/-15% up-to 100% power
Regulation	+/-3%

Thermal Specifications

Specification	Rating
Operating Temperature Range	0-60°C
Storage Temperature Range	-40-100°C

Dip Switch Settings

Command Input	1	2	3	5
0-5V (Default)	OFF	OFF	OFF	OFF
Potentiometer	OFF	OFF	OFF	OFF
0-10V	OFF	OFF	ON	OFF
4-20mA	OFF	ON	OFF	ON
1-5V	OFF	OFF	OFF	ON
2-10V	OFF	OFF	ON	ON
0-135Ω	ON	OFF	OFF	OFF
PWM	OFF	OFF	OFF	OFF

Feature to Enable	4	6
Line Voltage Comp Enabled (default)	OFF	OFF
None	OFF	ON
Soft Start / Soft Change Only Enabled	ON	ON
Soft Start / Soft Change & Line Voltage Comp Enabled	ON	OFF

SSRMAN-1P (LPC) Phase-Angle Control Board

