

The SPI1 is a powerful interruption controller for use with cathodic protection rectifiers. Precise timing accuracy and repeatability is attained with GPS and microprocessor technology. A small physical size and wide operating temperature range make this device ideally suited for installation within field rectifiers.

Features:

- Interactive and detailed plain English menus provide easy and intuitive operation.
- Bright backlit alphanumeric display provides detailed presentation of all important parameters.
- Large dedicated function keys with audible annunciation facilitate accurate data entry.
- Color coded bright LED indicators focus the user's attention to important status conditions.
- A resolution of 1ms and maximum range of 60,000ms for OFF and Cycle Times provides the user with very fine timing selection.
- Accurate +/- 0.5ms timing is attained with a 20 channel GPS receiver and a temperature compensated crystal oscillator.
- Field programmable parameters allow device customization for use with a wide range of relays.
- Can immediately operate in manual mode or be programmed with up to 7 user-defined schedules.
- Device configuration parameters and schedule are permanently stored in nonvolatile memory with auto-resume after a power disruption.
- A wide -30° to +70°C (-22° to 158°F) operating temperature range allows installation within field rectifiers.
- Internal AC line synchronization provides rectifier switching at minimum primary current conditions.
- The front keypad and display are fully sealed and waterproof for maximum reliability.
- GPS satellite and internal diagnostic self test routines assure proper operation.
- Small size of 197 x 133 x 55mm (7.75" x 5.25" x 2.13") allows installation in many commercial rectifiers.
- Holds rectifier power on when not interrupting.
- Software can be field-upgraded using RS-232.
- Can be upgraded to include a data logger (SDL1).
- Low current solid state components provide maximum reliability.



Specifications:

Operating temperature range	-30 to +70 C (-22 to 158 F)
Operating voltage range	10 to 22 VAC or 10 to 33 VDC
Power (less relay drive power)	2W maximum
Power (including relay drive power)	20W maximum
Backup battery	Internal Sealed Lead Acid
Physical size	197 x 133 x 55 mm (7.75" x 5.25" x 2.13")
Device weight	0.75 kgs (1.65 lbs)
Display	4 line by 20 character backlit LCD
Keypad	20 key sealed membrane with annunciation
Enclosure	Powder coated deep drawn aluminum
Timing accuracy (AC line sync disabled)	+/-0.5ms
Timing accuracy (AC line sync enabled)	+8.8/-0.5ms
Relay drive voltage	6 or 12 volts DC
Relay drive current	0.4A maximum@12V 0.8A maximum@6V
Relay contact close dwell	0-80ms
Relay contact open dwell	0-80ms
Relay contact type	NO or NC
Relay type	External solid state or mechanical
Off Time	1 – 59,999ms in 1ms steps
Cycle Time	2 – 60,000ms in 1ms steps
Interruption schedules (date and time)	7
Interruption & schedule memory	Nonvolatile EEPROM
GPS Receiver	Internal 20 channel
GPS Antenna	Low current fixed mount with SMA
GMT Time-zone offset	+/- 12 hours
Reference offset adjustment	5000mS in 1mS steps

Ordering:

A20A00SPI01: Rectifier mount GPS interrupter, fixed-mount GPS antenna, 6 meter coax cable, "L" mounting bracket and 1.5 meter rectifier interconnect cable. Optional Class II low voltage AC power transformers and external relays are available separately.