



Reference Guide

AVT-PC1S

Power Controller & Current Sensor

OVERVIEW

Power Current Sensor/Controller 1-Channel (AVT-PC1S)

The AVT-PC1S Power Controller with Current Sensor has one independently controlled 240V AC power outlet, and one power sense outlet, designed to suit power switching and sensing requirements for audio-visual, commercial, industrial or domestic applications.

The AVT-PC1S has 1 control input port and 2 logic output ports providing tri-state feedback.

- Ports 1-2 (STDBY and ON) provide *off*, *standby* and *on* state indication for AC outlet "SENSE". Two trim pots adjust the power sense thresholds between off, standby and on to accommodate different connected devices.
- Port 3 (SW) triggers the internal relay that controls the SWITCHED outlet.

The AVT-PC1S also supports two modes of operation for the logic outputs.

- "Logic LOW" presents a switch to GND (suitable for AMX™ systems).
- "Logic HIGH" presents a switch to +5 VDC

By providing a latched contact to SW in respect to GND, equipment plugged into the AC outlet will be powered on or off when in *Logic Low* or *Logic High* mode respectively.

Housed in a compact metal enclosure with a textured black powder coated finish, the power controller can be easily fastened to any flat surface using the keyhole-shaped slots in the flanges.

SETUP

Before connecting the unit to a master controller, calibrate the unit with the following procedure.

Calibration Procedure:

1. Plug the AVT-PC1S into the AC outlet and connect the ports as they would be in normal operation. (*connecting the ports can change threshold levels slightly*)
2. Turn **Sense Stby Adj** and **Sense On Adj** *counter clockwise* until they stop.
3. Connect the device to be sensed to the **SENSE** AC outlet and ensure the unit is in **STANDBY** mode.
4. Slowly turn **Sense Stby Adj** *clockwise* until the **Sense Stby** LED illuminates.
5. Turn **ON** the sensed device.
6. Slowly turn **Sense On Adj** *clockwise* until the **Sense On** LED illuminates.
7. Put the device back into **STANDBY** mode.
8. Wait 2 minutes to ensure the PCS doesn't oscillate. If it does slightly turn the **Sense Stby Adj** *counter clockwise* until it stops oscillating.

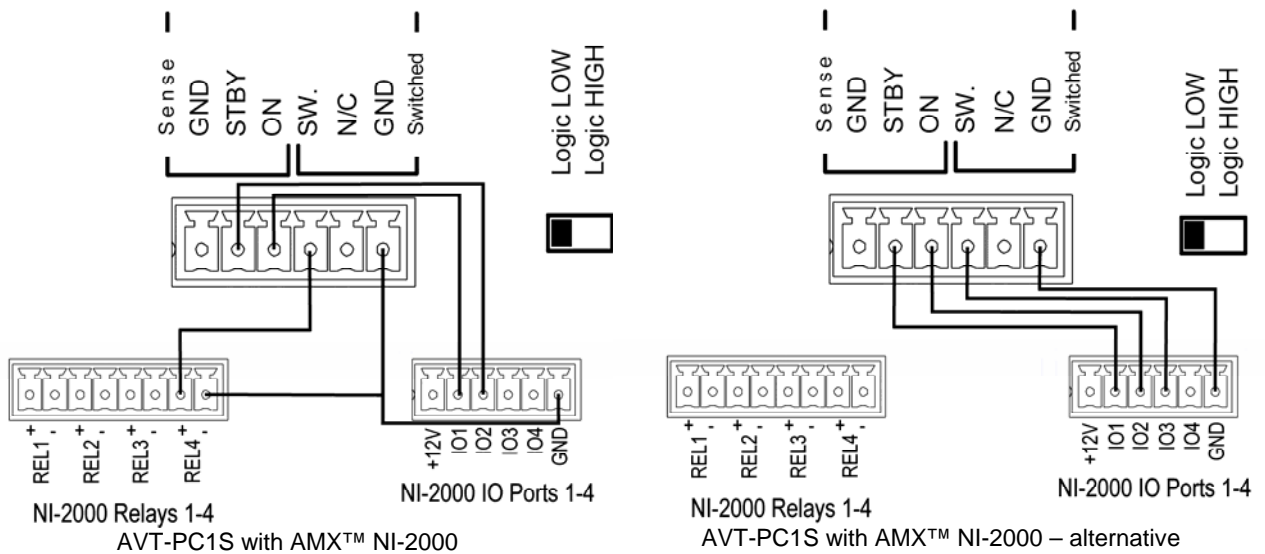
Notes

Some equipment, such as VCRs, will briefly draw a significant amount of current when first turned on even though they may start in standby mode. The system programmer must take this into account.

Filter delay will cause the current sensing to be slow (1-2 seconds) if a threshold is very close. Eg. STANDBY current is 50mA, ON current is 200mA but the STANDBY/ON threshold is set to 51mA. If the threshold is too close this may cause the PCS to oscillate between two modes. In equipment with a very small difference between STANDBY and ON mode current consumption, it is important to set the threshold as close to the centre of the STANDBY and ON current consumptions as possible. Eg. If STANDBY = 50mA and ON = 55mA Threshold should be 52.5mA. This may require some experimenting and very slight adjustments to the potentiometer to obtain.

NOTE: Most equipment will not require the slight adjustments described here.

Wiring Diagram Examples



NOTE: Please ensure the position of the Logic LOW / HIGH Switch is set LOW for AMX equipment.

SPECIFICATIONS

Power Requirement	240VAC 6W
Maximum Load	10A (2400W) (Total, accumulative between both channels)
Maximum Sense Standby Load	580mA (133W)
Minimum Sense Load	6mA (1.4W)
Minimum Differential Sense Load	6mA (1.4W)
Signal Out HI/LOW	5V 9mA / 0V 25mA Current Sink to earth
Signal Sense (Relay Control)	5mA drain to ground

A.V.Technology reserves the right to change specifications at any time without prior notice.