

DESCRIPTION The D2P is a proportional, infinitely variable power controller capable of delivering 1-97% of the applied line voltage to the directly connected electric heaters. This is accomplished by phase angle firing a pair of inversely connected SCR's. The D2P will not control heaters with high inrush current (tungsten lamps), transformers or motors.

OPERATION The D2P comes standard with a potentiometer, knob and 0-100% scale which is used to vary the voltage to electric heaters, similar to a light dimmer and light bulb (see "WIRING DIAGRAM").
***WARNING:** The potentiometer is **NOT ISOLATED**; it is at line voltage potential. The D2P **CAN NOT** create more voltage or current than what is supplied to it.

INSTALLATION



WARNING: FIRE HAZARD!! Even the best electronic components **CAN FAIL SHORTED**, **KEEPING FULL POWER ON!** Provide a completely **SEPARATE** (redundant) **OVER TEMPERATURE SHUTDOWN MEANS** to switch power off if safe temperature is exceeded.



WARNING: HIGH VOLTAGE!! This control must be installed in a **GROUND**ED enclosure by a qualified electrician. Provide a safety interlock on door to remove power before gaining access to device.

ELECTRICAL CONNECTIONS See "WIRING DIAGRAM" on back. Check the Avatar serial tag and verify the correct voltage/ ampere ratings and input control signal for your application. Wiring must be performed in accordance with any and all applicable local and national codes. Use a minimum wire size of 8AWG for a 40 amp D2P and a minimum of 6AWG for a 60 amp D2P.

OPTIONS

SOFT START: For use with Tungsten (T-3) lamps. This option provides a three second ramp up function (soft start) to permit control of high inrush lamps. **NOTE:** Never connect cold lamps after start up.

WARRANTY All Avatar Instruments products carry a full three year, from date of purchase, parts and labor warranty against component failure and defects in workmanship. In the event your controller fails to perform properly, **contact Avatar to obtain a return authorization number.** Controllers sent to Avatar for warranty service that have no apparent defect will be treated as a standard repair and a \$50.00 charge will be applied. Avatar will repair or replace any unit that failed due to defective parts or assembly. This warranty **DOES NOT** cover damage due to shipping, abuse, misapplication or operation beyond specified rating. Further more fuses and improperly fused SCR's/ TRIAC's are **NOT COVERED** by this warranty. Avatar is not responsible for any subsequent or other damage experienced in use of this device.



NRNT FILE # E350716

D2P SPECIFICATIONS

INPUT SIGNAL: supplied 100K potentiometer

SUPPLY VOLTAGE: 120, 208-240, 277, 380, and 480 VAC, 50/60Hz

POWER CONSUMPTION (max)

D2P-XX-40: 48 watts

D2P-XX-60: 72 watts

CURRENT RATING (vertically mounted)

D2P-XX-40: 40 amps

D2P-XX-60: 60 amps

OPERATING TEMPERATURE (ambient)

0-50°C/122°F

FUSE REQUIREMENTS (SCR Protection)

semi-conductor/ rectifier I²T

RESPONSE TIME

10 mS (without soft start)

CONTROL METHOD

phase angle, proportional

OUTPUT VOLTAGE

1-97% of supply voltage

ORDERING CODES

D2P - - - -
 Voltage **Amperes** **Options** **Options**

MODEL DESIGNATION

SCR CONTROLLER (**D2P**)

VOLTAGE DESIGNATIONS

(12) 120 VAC 50/60Hz

(24) 208-240 VAC 50/60Hz

(27) 277 VAC 50/60Hz

(38) 380 VAC 50/60Hz*

(48) 480 VAC 50/60Hz*

LOAD IN AMPS:

40, 60

OPTIONS:

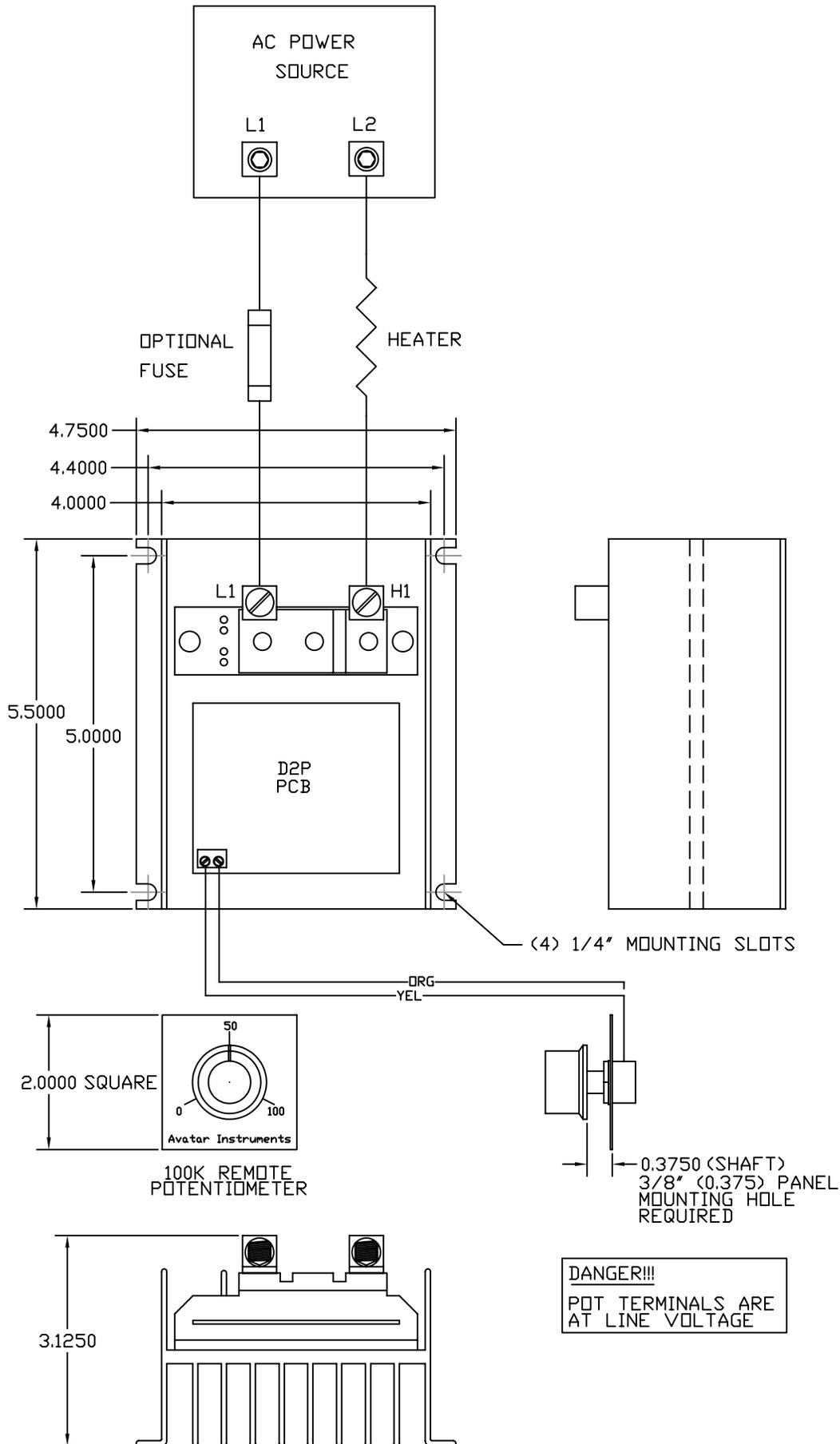
Soft Start

3 Seconds (S)

Example: D2P-24-60-S is a 240VAC, 60 Ampere SCR with 3 second soft start.

PHYSICAL DIMENSIONS and WIRING DIAGRAM

D2P - 40 & 60 AMP





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