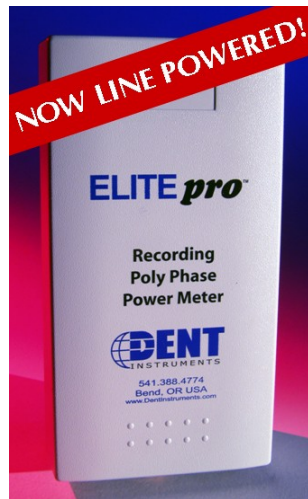


# PERFORMANCE UPDATE

## ELITE<sub>pro</sub> Meters with Optional Line Power Supply

January 2008



DENT's ELITE<sub>pro</sub> can now be powered from the voltage phases of the service being measured. The Line-Powered ELITE<sub>pro</sub> option eliminates the need for external power at the job site, avoids draining precious battery power, and makes the fastest sampling rate available without external power. The Line-Powered ELITE<sub>pro</sub> option is available on all new ELITE<sub>pros</sub> (except those equipped with an Ethernet Port or Phone Modem) and as an upgrade to existing instruments.

The Line Power Supply (LPS) works by internally tapping the high voltage sensing leads and putting it through a proprietary, extremely wide band power supply to make the low-voltage dc power needed to operate the meter. An ELITE<sub>pro</sub> with an LPS can still operate on its internal battery if no AC power is available (such as when using the ELITE<sub>pro</sub> to only measure current.) In the event of a loss of power, the ELITE<sub>pro</sub> will switch to battery operation automatically. (Unless the integration interval is set to 3, 15, or 30 seconds. In that case logging will stop until AC power is restored or an external wall transformer is connected.)

**The LPS draws its power from the L1 and L2 phase voltage leads. Both of these leads must be connected for the ELITE<sub>pro</sub> to be powered.** A minimum of 50 volts, AC or DC, is required across L1 and L2 to power the meter. The maximum is 600 VAC.

When connected to line power, the ELITE<sub>pro</sub> can also supply power to external sensors from the jack on the side. Up to 400mA at 5VDC can be supplied. Note that to supply the full 2W capability, the minimum voltage required between the L1 and L2 phases rises to 70 VAC or 90 VDC.

### Line Power Supply Ratings

#### Temperature Range

-20°C to +60°C

#### Maximum Voltage

600VAC or VDC Line to Line, 350 VAC Line to Neutral

#### Minimum Voltage To Operate Logger

50VAC or VDC

#### Minimum Voltage To Operate Logger and Supply 2 W External

70VAC or 90VDC

#### Maximum External Sensor Power

Up to 2W at 5VDC

#### Power Requirement With No External Load @ 280VAC L1 to L2

.83W (1.7VA)



**DENT Instruments, Inc**  
Energy & Power  
Measurement Solutions

64 NW Franklin Avenue  
Bend, Oregon 97701 USA  
541 388 4774  
800 388 0770  
541 385 9333 fax  
www.DENTinstruments.com