Boston Electronics

gentec-eo PARTNERS for ACCURACY

TECHNICAL NOTE

APM(D) SPECIFICATIONS

The APM(D) (201848) is designed to provide a stable, quiet, DC voltage to our amplified, analog power and energy probes. It includes an on/off switch, power light, analog output BNC, DB-15 detector connector and AC power supply jack.

The APM(D) includes a 9 V battery and a DC power supply. When the unit is turned on, without the supply, it will provide battery power to the detector probe. When the supply is attached the battery is by-passed. The battery can be easily replaced as described on the backside of this data sheet.

Our analog probes, like UM9B-BL-L, must be used with the APM(D) for optimum performance.

FEATURES

- Designed to provide a regulated DC voltage to some of our DB15 connector based, amplified detector probes
- Can be operated on battery only or DC voltage wall supply (both included)
- Includes power on/off switch and power on lamp
- Has a detector analog output BNC connector
- Analog voltage output from +5V to -5V

APPLICATIONS

- Designed to power our Analog Probes for power and/or energy measurements
- For use with an oscilloscope to measure power (V/W) or energy (V/J)
- For use with a Lock In Amplifier for ultimate performance when measuring radiant power (W)

COMPATIBLE DETECTORS

PYROELECTRIC POWER/ENERGY DETECTORS

- UM9B-BL-L (202241)
- QE8SP-B-BL (202017)
- QE8SP-B-MT (201968)

THZ DETECTORS

- THZ9D-20mS-BL (202256)

PHOTODIODE ENERGY DETECTORS

- PE3B-Si (202021)
- PE10B-Si (202019)
- PE5B-Ge (202020)
- PE3B-In (202143)

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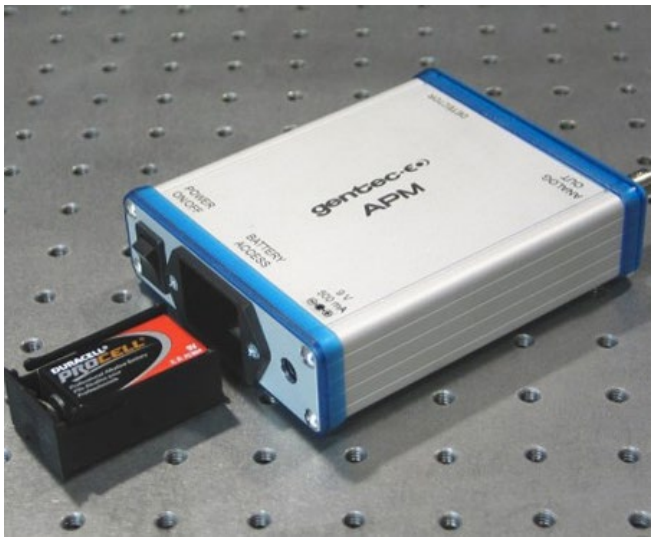
TECHNICAL NOTE

REPLACING THE BATTERY



Here are the easy steps to removing and replacing the 9V battery in the APM(D):

1. **Pick up and hold the APM in one hand.**
2. **Orient the APM so that the battery compartment is facing you.**
3. **Insert your thumb nail into the slot provided in the battery holder and lift up. The battery holder will release.**
4. **Pull the battery holder toward you and out of the APM.**
5. **Remove the 9 V battery.**
6. **When placing the new battery in the holder please make sure to orient the battery + and – as shown in the bottom of the battery holder.**
7. **With the battery in the holder re-insert it into the APM, making sure it is all the way in until it locks in place.**

DESCRIPTION	SPECIFICATION
Power Supply	9 V battery
DC Power Supply	9 VDC, 1.66 A 100/220 VAC, 50-60 Hz
Voltage Output	± 4.88 V in 1 kOhm
Battery Access	Removable battery holder
Size	101.6W x 30.5H x 127D mm

TYPICAL APM(D) / DETECTOR SETUPS

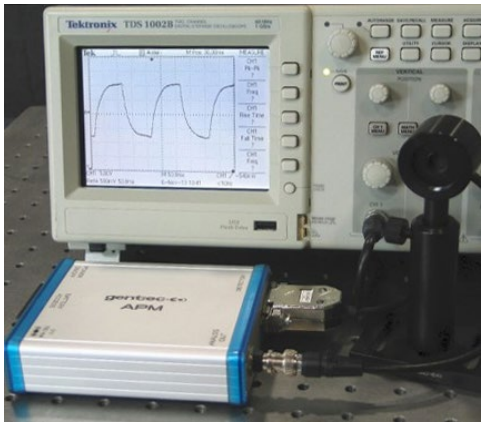


Fig. 1
APM(D) set up with UM9B-BL-L and a digital oscilloscope, measuring power (V/W) at the specified 10 Hz chopping frequency.

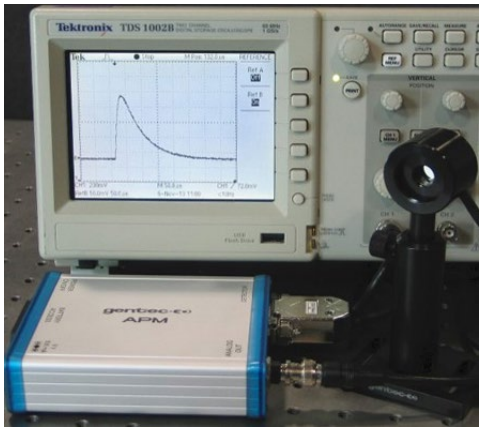


Fig. 2
APM(D) set up with a QE8SP-B-MT Pyroelectric Joulemeter probe and a digital oscilloscope measuring pulse energy (V/J).

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