

**NEW**

**AIRCRAFT  
DPM**

**LOOP POWERED AVIONICS D. P. M.**

**FOR MILITARY & COMMERCIAL AIRCRAFT**

**REPLACES FORM & FIT NSN: 6620-00-083-8811**

**MODEL  
APM**



Shown with black powder coated paint over electroless nickel plated.

**FEATURES:**

- STD. 1" Diameter Barrel
- Only 2.15" Deep
- Night Vision Compliant (NVG3 - Green digits only) Optional
- Replaces HI-LO Needle Type
- (4) 0.25" Full LED Digits (9.9.9.9) with OVR
- Color Options: Green, Red or Blue
- To Published Mil-Spec
- To Your Specifications
- Accepts V/mADC Inputs
- Industrial or Mil-Spec Grades
- External VDC powered (Green, Red or Blue digits)
- 4-20mA Loop Powered (5V Burden)
- Automatic Lost Signal Detection
- Internal/External Intensity Control
- SORRY, NOT FOR EXPORT WITHOUT D.O.D. APPROVAL



**NOW  
RTCA-160F  
QUALIFIED!**

**DESCRIPTION**

O TEK's Model **APM** is a four (4) digit green , red or blue LED indicator that accepts standard avionics power of 5-32VDC (Green, Red or Blue digits) and intensity control voltage of 1.5 - 5V 50-440Hz (or DC/Resistance). OTEK's exclusive powerless technique allows the **APM** to be loop powered causing a maximum of 5VDC burden to the loop. The **APM** only requires 2 wires to operate.

The heart of the **APM** is an **ASIC** that accepts VDC or mADC and can be scaled (internally) to any value. The unit mounts in a standard avionics 1" diameter hole with four (4) mounting screws and connects to Power and signal via a "Twist Lock" circular connector (DBC53H-10-6P, Mating Cable End: MS347640 (L or M) -6S).

The **APM** is fully sealed and it is not affected by differential pressure, liquid spray (NEMA4X) or humidity (See Specs.).

**APPLICABLE MIL-SPECS:**

MIL-STD-461D, 462D, 704F, 130K, 810F, 889B2 & 1472F;  
MIL-HDBK-217F & 454A, RTCA-160F.

**SPECIFICATIONS @ 25°C & 5VDC ±10%**  
(Commercial Grade Only)

**Powered Models**

- Loop Powered: 4-20mA, <5V Burden
- Power Input Voltage: 5-32VDC
- Power Consumption: 0.5W Max.
- Intensity Control Input: 1.5 - 5 DC/AC or Resistance
- Input Signal: V/mADC (Specify)
- Display: 4 Each 0.25" (6.5mm) LED Green, Red or Blue
- Night Vision Display: Green Digits Only (NVG3 on Request)
- Accuracy & Linearity: ± 0.05% Of Reading
- Sampling Rate: 3/Second
- Input Impedance: 1M Ohms (V) / 50 Ohm (mA)
- Operating Temperature: -20 to +60°C
- Storage Temperature: -30 to +70°C
- Altitude Operating: 50,000 Feet Max.
- Altitude Storage: 60,000 Feet Max.
- Weight: 1.5oz. (42 gm)
- Finish: Electroless Nickel Plating or Black Powder Coat

**Loop Powered Models**

- Burden: 100mW (5V Max)
- Min-Max Signal: 3.6 -36mA
- Specify Input Signal F.S. vs. Display F.S. & Decimal Point
- Other Inputs On Request.

1

**520-748-7900**

FAX: 520-790-2808

E-MAIL:sales@otekcorp.com

http://www.otekcorp.com

**OTЕК**™  
CORP.  
SINCE 1974

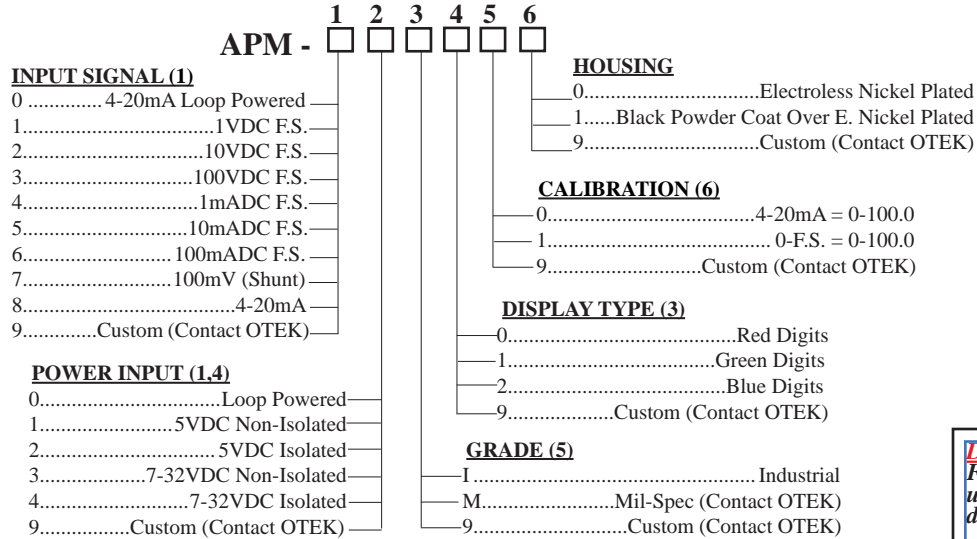
4016 E. TENNESSEE ST.  
TUCSON, AZ. 85714 U.S.A.

MADE  
IN  
USA



**NOTE: Please READ BEFORE building part number:**

1. If digit 1 is option 0, then digit 2 must be option 0 (and conversely).
2. See notes at bottom of page.

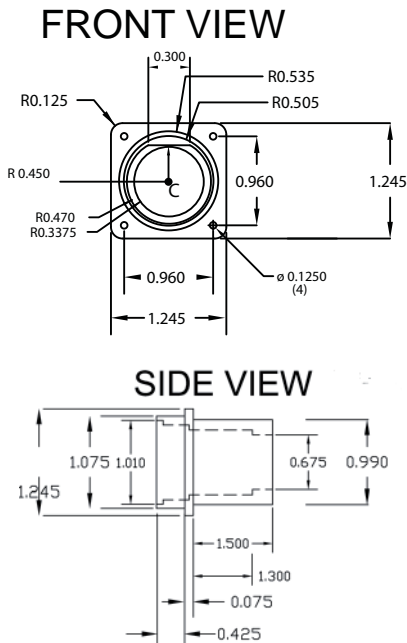


**DOWNLOADS:**  
For manuals,  
user-software or  
drivers:  
[www.otekcorp.com](http://www.otekcorp.com)

**NOTES (Continued):**

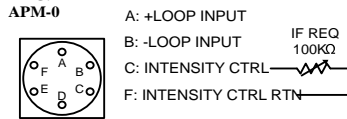
3. The APM has 4 full digits and negative sign. Maximum display is -9999 to 9999.
4. Loop powered display intensity is minimum @ 4mA and maximum @ 20mA.
5. OTEK will build to certain nuclear or MIL-Standards but testing and confirmation of compliance, if required, will need to be done by third party and at customer's expense.
6. Calibration and decimal point position are set before unit is sealed. Customizations must be specified before ordering.

### APM MECHANICALS



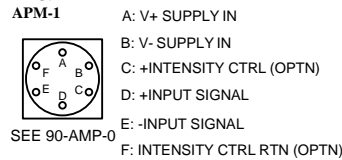
### TYPICAL CONNECTIONS

**FIG. LOOP POWERED**



P/N DBC53H-10-6PN  
MATTING: MS3476L10-6S OR EQUIV.(NOT SUPPLIED)  
SHELL CHASSIS IS GND

**FIG. VDC POWERED**



**NOTE:** INTENSITY CTRL IS CUSTOM SET FOR (VAC/VDC) OR RESISTANCE.  
FOR VAC/VDC CONFIGURATION THERE IS NO INTERNAL ISOLATION.