

EXTENDED TEMP DC-DC CONVERTERS

HIGH-RELIABILITY DC-DC POWER FOR HARSH THERMAL EXTREMES

Pico Electronics Extended Temperature DC-DC Converters are engineered to perform where others fail. Built for the rigors of military and aerospace applications, our ultra-miniature modules deliver stable power across upgradeable extreme ranges of **-55°C to +85°C**. Encapsulated to withstand **severe shock** and **vibration**, they provide mission-critical reliability for your most demanding thermal environments.



Avionics & Flight Control Systems

Essential for **high-altitude military avionics**, Pico converters deliver stable power to flight controls across a rigorous temperature range. Their low-profile design (down to 0.3" height) fits tight bays, while wide input ranges handle MIL-STD bus fluctuations, ensuring **reliable operation** amidst the severe shock and vibration of jet aircraft.



Unmanned Aerial Vehicles (UAVs) & Surveillance Drones

Maximizing flight time for **UAVs**, these ultra-miniature converters offer high power density (up to 300 Watts) with **minimal weight** impact. They provide critical input/output isolation (up to 4242 VDC) for sensitive sensors and withstand diverse climates, making them ideal for **reconnaissance drones** that require compact, rugged power sources.



Portable Tactical Radio & Communication Manpacks

Critical for **tactical manpacks**, M, MV & MR series can operate with no electrical derating from -55°C to +85°C, ensuring consistent communication in any climate. With efficiency up to 90% to extend battery life and optional **MIL-STD-883 screening**, they offer soldiers reliable, rugged power that withstands the physical abuse of field operations.

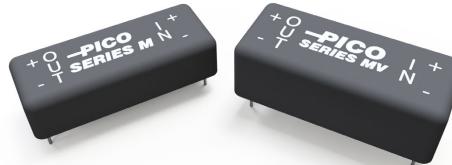


Downhole Drilling

Designed for the **extreme heat** and **pressure** of deep-earth drilling, the encapsulated modules power downhole telemetry tools where standard electronics fail. Their ultra-miniature size fits narrow tubular housings, while high-voltage options (up to 10,000 VDC) and **robust thermal stability** ensure precision data logging in **harsh subterranean environments**.

Series M & MV >

- JANTX Diodes, MIL screened transformers, capacitors and resistors
- Encapsulated semiconductors, conservatively rated for maximum reliability
- Hermetically sealed transistors
- Up to 1.25W output at +85°C ambient
- Ultra-miniature size – down to 0.300" height
- 5 to 48V input models and up to 500V output models
- Output voltage is directly proportional to input voltage
- Up to 1000VDC isolation at 100MΩ
- Five-sided or six-sided shielded case
- No heat sink or derating required



Series QP >

- 4.75V to 475V input range models
- 5 to 500V output models
- Up to 50W output
- Does not use optocoupler in feedback loop
- Load Share Parallel operation (HiQP)
- External bias for capacitor charging applications (QP)
- Input LC filter for soft start and low reflected current ripple (HiQP)
- Industrial temperature -40°C (HiQP) or Military temperature -55°C (HiQP)
- Protected against input over/undervoltage, output short-circuit overcurrent (HiQP) and over temperature



Series F/M >

- 18V to 380V input range and 3.3V to 350V output models
- Up to 200W output
- Parallel operation option
- Single and dual isolated outputs
- Trim capability and remote shutdown feature
- Fixed operating frequency
- Optional Military -55°C to +85°C temperature range (M)



Contact Us

Need an extended temperature solution that doesn't compromise on size or reliability? Visit our website or contact our team of engineering experts today to discuss your project requirements.

143 Sparks Avenue
Pelham, New York 10803

Phone: +1 (914) 738-1400
Email: info@picoelectronics.com



Certified to
AS9100D
ISO 9001:2015

