

# VTOL/DRONE

Vertical Take-Off and Landing (VTOL) aircraft are reshaping the future of mobility. Engineered for short-range urban transport, these advanced platforms offer a cleaner, quieter, and more efficient alternative to traditional flight. As the VTOL industry evolves, it drives innovation across electric propulsion, battery systems, flight control, and lightweight materials, all of which demand highly reliable, high-performance electronic systems.

Interconnect solutions are at the heart of these systems, enabling the safe and efficient transmission of power, data, and signal across subsystems. From battery management and motor controls to avionics and communication modules, VTOL applications rely on rugged, compact, and modular connectors that can perform consistently in high-vibration, thermally dynamic environments. With urban air mobility taking flight, connector technologies play a vital role in advancing safety, performance, and scalability in this transformative aerospace segment.

#### **APPLICATIONS**

- Power Distribution Systems
- Battery Management Systems
- Flight Control Systems
- Navigation Systems

- Cabin & Passenger Systems
- Charging Systems
- Ground Support Equipment

## **FEATURES & BENEFITS**

- Excellent power efficiency ensures minimal power loss and heat build-up
- Non-magnetic connectors preserve the accuracy, calibration, and reliability of sensitive instruments and electronic systems
- Machined contacts provide stable, durable performance during long life cycles
- Superior linear current density allows for more capability in smaller packaging and less weight
- Vibration and shock resistance maintains secure connections
- EMI/RFI shielding protects sensitive electronics from external electromagnetic signals
- Exceptional performance-toprice ratio minimizes total cost of ownership
- A variety of backshells and accessories allow customized solutions to protect and enhance connections for optimal performance

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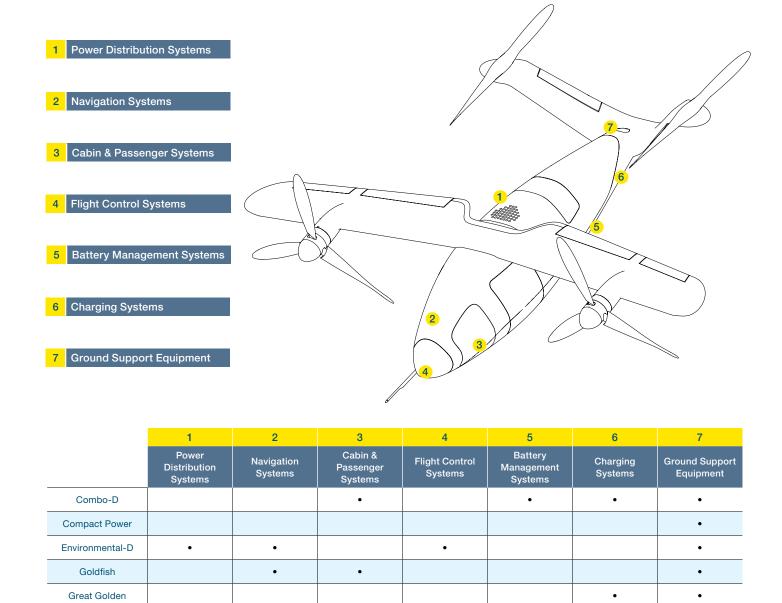
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Low-Profile Scorpion

Power Connection

Scorpion

Urban air mobility platforms require compact, lightweight, and highly reliable interconnect solutions to perform safely in complex airborne environments. These systems support multiple mission-critical subsystems including propulsion, navigation, cabin electronics, and battery management. Connectors within these applications must withstand constant vibration, temperature fluctuations, and EMI while maintaining secure electrical connections for power and data transfer. Built to endure the mechanical and environmental challenges of low-altitude, high-frequency operations, interconnect solutions help ensure the performance, safety, and scalability of next-generation VTOL vehicles.



<sup>\*</sup> Applications listed are common use cases and not all-inclusive. For additional guidance, please contact Positronic Technical Sales.

	POWER & HYBRID							D-SUB			
FEATURE	PLA PLB PLC	PLS	PCIA PCIB PCIC PCIH PCIM	GFSH	GG	SP	LSP	WD	WDD	EVD	CBD
#0 Contacts					•						
#4 Contacts						•					
#8 Contacts					•	•					•
#12 Contacts		•		•	•	•	•				
#16 Contacts	•		•	•	•	•					
#18 Contacts						•					
#20 Contacts				•	•		•	•		•	•
#22 Contacts			•			•			•		
Solid machined contacs	•	•	•	•	•	•	•	•	•	•	•
Power and signal in a single connector			•	•	•	•	•				•
Modular connector with expandable envelope						•	•				
Configurable layout					•	•	•				
Integral blind mating				•	•	•	•				
IP-rated											
Metal shell								•	•	•	•
High voltage						•	•				•
UL approved	•	•	•	•		•		•	•	•	•
Wire termination	•	•	•	•	•	•	•	•	•	•	•
PCB termination	•	•	•	•		•	•	•	•		•
Press-fit PCB contacts	•		•	•		•	•				•
First mate, last break	•	•	•	•		•	•				
Venting						•	•				
Panel mount	•	•	•	•	•	•	•	•	•	•	•
Free cable	•	•	•	•	•	•	•			•	•



















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