Micro Power Distribution Box (µPDB) Sealed Modules



MicroPDB (µPDB) Sealed Modules, offered in standard and customizable versions, are compact automotive power distribution boxes that provide a junction point for power switching and circuit protection for vehicles or subsystems within wiring architectures

Features and Advantages

Connectorized system

Attaches simply and inexpensively to the vehicle. Reduces the amount of cut leads needed compared to traditional auxiliary boxes. Eliminates hardwiring and the accompanying costs and potential errors

Standard connector configurations

Provides design flexibility to meet an application's specific needs

MX150 Receptacle (Left); µPDB Sealed Module (Right)





Fully sealed with an IP6k7 **NEMA** rating

Can be mounted in multiple locations within the vehicle. Delivers reliability. Is fully submersible, withstands wet environments

Small footprint

Facilitates design for space-constrained

applications with weight limits. Provides significant space and weight savings

Modular custom design

Delivers superior cost savings and performance by providing only those features required by the application. Uses only the specific components and materials needed for the application



uPDB Sealed Module Mated With MX150 Receptacle

• Current rating: 30.0A

· Switching voltage: 12V

• Operating temp: -40 to +110°C

• Features:

- 60.0A relay

- 40.0A LP-J case fuse

- PCB: 4 oz Cu, dual layer

- FR4 170°C TG

Standard Modules



1 Relay, Supporting Electronics 200316-1101 (Application Example: Cooling Fan)

- Current rating: 48.0A
- Operating temp: -40 to +110°C
- · Switching voltage: 12V
- · Features:
- 60.0A relay
- PCB: 4 oz Cu, dual layer
- FR4 170°C TG



1 Relay, 1 Slow-Blow Fuse, Supporting Electronics



Cold-Start Module, 12V 200316-1121

· Current rating:

- 20.0A starting current; 7.5A steadystate current (each glow-wire plug)
- Total 4 glow-wire plugs
- Operating Temp: -40 to +110°C
- Switching Voltage: 12V
- · Coil Voltage: 12V
- Features:
 - 2×40.0A Relay
 - Micro2 Fuses (4×25.0A)
 - PCB: 4oz Cu, dual-layer



1 Relay, 3 Fast-Blow Fuses, Supporting Electronics 200316-1103 Application Example: Urea Module

- · Current rating:
- Load 1: 7.5A (fuse 1) - Load 2: 6.0A (fuse 2)
- Load 3: 7.5A (fuse 3)
- Operating temp: -40 to +110°C
- Switching voltage: 12V
- Features:
- 30.0A relay
- Micro2 fuses (1×20.0A and 2×15.0A)
- PCB: 4 oz Cu, dual layer
- FR4 170°C TG



Cold-Start Module, 24V 200316-1122

• Current rating:

- 12.0A starting current; 4.0A steady state current (each glow plug)
- Total 4 glow plugs
- Operating Temp: -40 to +110°C
- Storage Temp: -40 to +125°C
- Switching Voltage: 24V
- Coil Voltage: 12/24V
- Features:
 - 2×40.0A Relay
 - Micro2 Fuses (4×15.0A)
 - PCB 4oz Cu. dual laver
 - FR4 170°C TG

Micro Power Distribution Box (μPDB) Sealed Modules



Markets and Applications

Automotive Commercial Vehicle

Vehicles Overland trucking

Subsystems within wiring architectures Off-road

Specialty vehicles Motorcycles

Police cars Recreational vehicles (RVs)
Ambulances All-terrain vehicles (ATVs)

Snowmobiles

Boats

Personal watercraft (PWC)

Ordering Information

Series No.	Component	Product Attribute
<u>200316-1101</u>		1 Relay, Supporting Electronics
200316-1102		1 Relay, 1 Slow-Blow Fuse, Supporting Electronics
<u>200316-1103</u>	Micro Power Distribution Box	1 Relay, 3 Fast-Blow Fuses, Supporting Electronics
<u>200316-1121</u>		Cold-Start Module, 12V
200316-1122		Cold-Start Module, 24V

Custom Product	Description
Contact Molex	μPDB Custom Sealed Modules