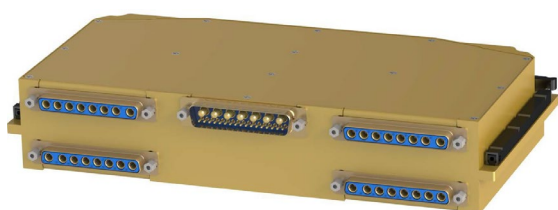


## M9518 SERIES

POWER DISTRIBUTION UNIT



**MILPDU**

### PRODUCT HIGHLIGHTS

- MODULAR
- MINIATURE
- SINGLE INPUT
- 32 ECB OUTPUTS
- UP TO 200A TOTAL



**Applications**

Military (Airborne, ground-fix, shipboard, vehicle), Ruggedized, Telecom, Industrial

**Special Features**

- Adjustable overcurrent trip point.
- Adjustable short circuit current limit - enables selectivity, prevent short circuit spread.
- I<sup>2</sup>T breaking curve - enables short period high current draw while protecting system wiring.
- Soft turn-on to ease inrush current demand from power source.
- CAN and RS-485 communication
- Outputs can be paralleled
- True reverse battery protection
- Surge and spike suppression

**Electrical Specifications****DC Input**

6 to 33 V<sub>DC</sub> Steady-State  
Fully compliant with MIL-STD-1275E  
Compliance with MIL-STD-1275A-D optional  
Maximum total load of 200A

**Control**

- CAN and RS-485 Interface
- Discrete input signals:
  - 4 general-purpose control inputs
  - 3 CAN address selection inputs
- Discrete open-drain output signals:
  - 1 Fault indication

**DC Output**

- Input-to-Output impedance: Less than 4 mΩ @ 25 °C
- Max load capacitance per channel: 30 mF (can be modified per customer request)
- Max load inductance per channel: 200 μH (including line inductance)
- Parallel operation capability

**EMC**

Designed to meet MIL-STD-461F

**Protections** (Thresholds and protections can be modified / removed – please consult factory).**Input**

- **Surges and Spikes Protection**  
IAW MIL-STD-1275A-E.  
DEF STAN 61-5 Part 6 Issue 6 optional.
- **Reverse Polarity Protection**  
Device *and loads* protected on occasion of reverse voltage application.
- **Under Voltage Lockout**  
Device and outputs turn off when input voltage drops below 5.5 V. Device turns back on when input voltage rises above 6 V

**Output**

- **Overload Breaking Current**  
Adjustable from 2A to 25 A according to I<sup>2</sup>T curve.
- **Short Circuit Current Limit**  
Adjustable from 10 A to 125 A according to SCL curve.

**Environmental Conditions**

Designed to meet MIL-STD-810F

**Temperature**

Operating: -55 °C to +105 °C (at unit's edges)  
Storage: -55 °C to +125 °C

**Altitude**

Method 500.4, Procedure I & II, 40,000 ft. and 70,000 ft.  
Operational

**Salt Fog**

Method 509-4

**Humidity**

Method 507.4 - Up to 95% RH.

**Vibration and Shock**

Shock: Saw-tooth, 40 g peak, 11 ms.  
Vibration: Figure 514.5C-17.  
General minimum integrity exposure. (1 hour per axis)

**Reliability**

150,000 hours, calculated per MIL-STD-217F at +50 °C at wedge lock edge, Ground

Mobile

**Environmental Stress Screening (ESS)**

Including random vibration and thermal cycles is also available. **Please consult factory for details.**

**Signals**

**Input Signals**

There are 5 configurable discrete inputs available. Initial configuration of inputs is as follows:

- RAT / GPIN2 - Reset Trips
- DCI\_N / GPIN1 - Selected Outputs On
- BATTLE\_SHORT\_N / GPINO - Battle Short mode (Prevents tripping due to overcurrent)
- BR1, BR2 / GPIN3, GPIN4 - Communication baud rate selection

**Fault Indication**

Active when one channel or more have tripped

**Shutdown**

Turns the unit OFF.

At this state, current consumption from the power source decreases to less than 300µA.

## Pin Assignment

### Input Connector P1

**Connector type:** Positronic CBM24W7M570000/AA or eq.

**Mates with:** Positronic CBC24W7S00000/AA (crimp removable contacts) or eq.

Pin No.	Function	Pin No.	Function
A1	VIN	6	BR2
A2	VIN	7	ADDR_RTN
A3	VIN	8	ADDR_1
A4	VIN	9	DigitalOut (TSO)
A5	VIN	10	ADDR_2
A6	VIN	11	DigitalIn(RAT)
A7	VIN_RTN	12	ADDR_3
1	CAN_L	13	SHUTDOWN_N
2	CAN_H	14	28VDC_RTN
3	BATTLE_OVERRIDE_N	15	IS_COM_GND
4	DCI_N	16	RS_485_P
5	BR1	17	RS_485_N

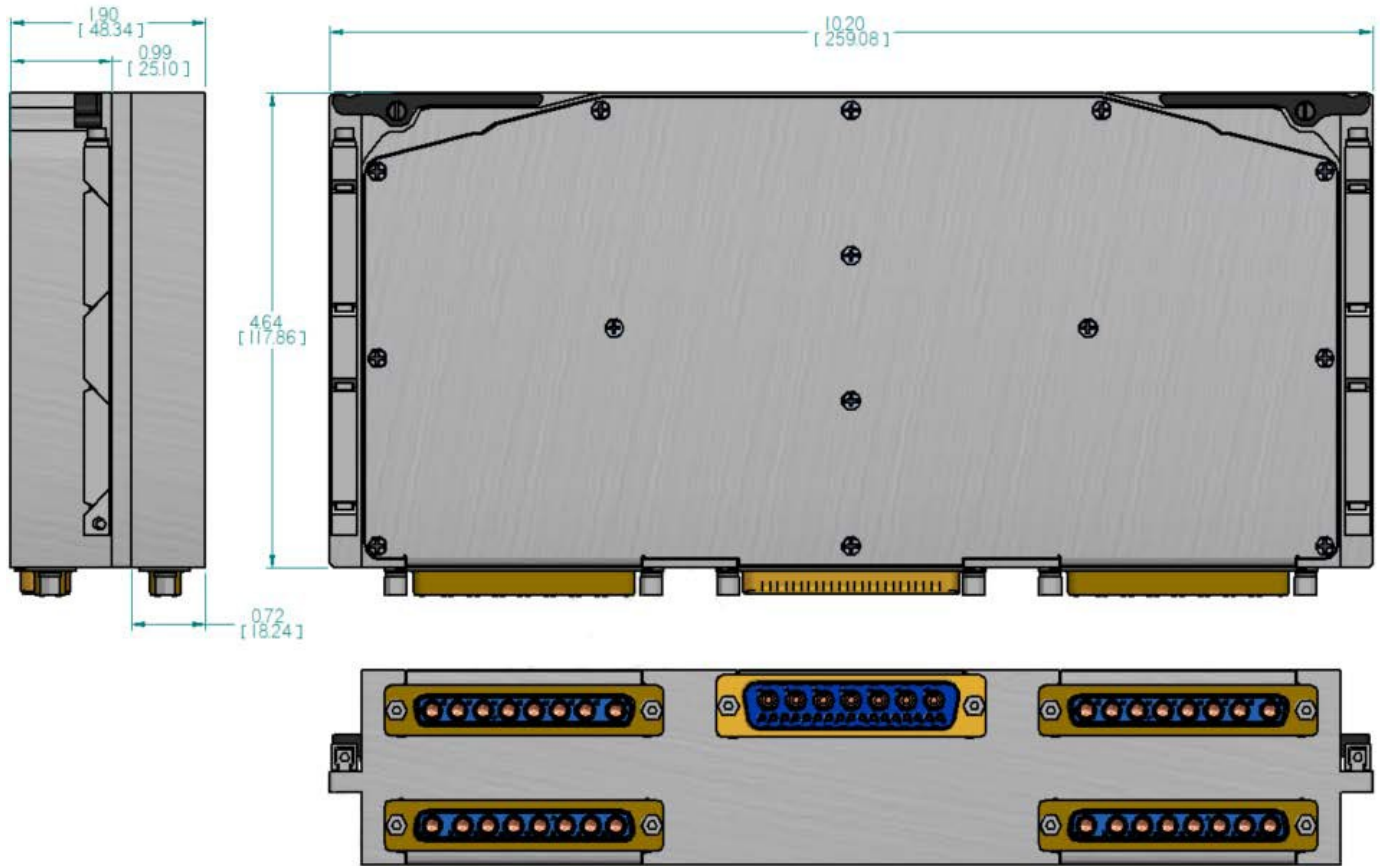
### Output Connector P2

**Connector type:** CBM8W8S570000/AA or eq.

**Mates with:** CBC8W8M00000/AA (crimp removable contacts) or eq.

Pin No.	Function P2	Function P3	Function P4	Function P5
A1	CH7_OUT	CH15_OUT	CH23_OUT	CH31_OUT
A2	CH6_OUT	CH14_OUT	CH22_OUT	CH30_OUT
A3	CH5_OUT	CH13_OUT	CH21_OUT	CH29_OUT
A4	CH4_OUT	CH12_OUT	CH20_OUT	CH28_OUT
A5	CH3_OUT	CH11_OUT	CH19_OUT	CH27_OUT
A6	CH2_OUT	CH10_OUT	CH18_OUT	CH26_OUT
A7	CH1_OUT	CH9_OUT	CH17_OUT	CH25_OUT
A8	CH0_OUT	CH8_OUT	CH16_OUT	CH24_OUT

*Outline Drawing*



**Notes**

1. Dimensions are in inches [mm]
2. Tolerance is:  
.XX ±0.01 in  
.XXX ±0.005 in
3. Weight: Approx. 6.6 lb [3 kg]

**General Notice:** Specifications are subject to change without prior notice by the manufacturer.