

# M716 SERIES

THE MOST COMPLETE  
MINIATURE, HIGH DENSITY,  
SINGLE OUTPUT,  
DC/DC CONVERTERS  
(UP TO 50W)

## APPLICATIONS

Military, Ruggedized, Telecom, Industrial

## SPECIAL FEATURES

- Miniature size
- High efficiency
- Wide input range
- Up to 15 W/IN<sup>3</sup>
- Input / Output isolation
- Fixed switching frequency (250 KHz)
- TTL logic enable
- EMI/RFI filters included
- Indefinite short circuit protection with auto-recovery
- Over-voltage shutdown with auto-recovery
- Over temperature shutdown with auto-recovery

## ENVIRONMENTAL

Meets or exceeds MIL-STD-810D

Temperature:

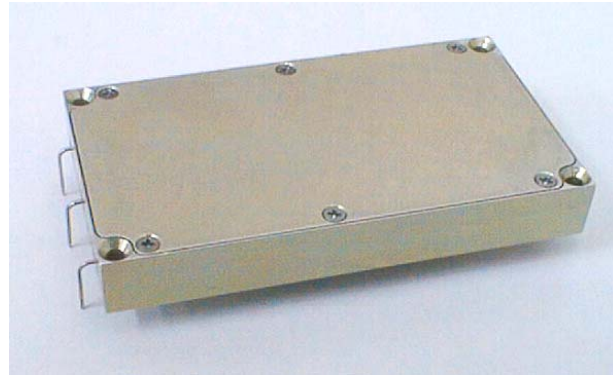
Operating -55°C to +85°C (baseplate)

Storage -55°C to +125°C

## RELIABILITY

150,000 hours, calculated per  
MIL-STD-217F at +85°C baseplate,  
ground fixed.

**MPS can customize this product  
to your requirements –  
contact us!**



## ELECTRICAL SPECIFICATIONS

### DC INPUT

DC Input range: 9 to 36 VDC

Input transient protection:

All models meet or exceed (no damage)

MIL-STD-1275A (100V for 50 mSec) and

MIL-STD-704A, MIL-STD-704D (80V for 0.1 Sec)

Efficiency: Up to 82%

EMI/RFI:

Meets or exceeds MIL-STD-461D

CE101, CE102, CS101, RE101, RE102

Isolation:

500V between Input and Output

500V between Input and Case

### DC OUTPUT (floating)

Line/Load regulation:

Less than 2% (no load to full load, -55°C to +85°C)

Ripple and Noise: 50mVp-p, typical (max. 1%)

Current limiting (HickUp):

Continuous protection for unlimited time

Over voltage protection:

Electronic shutdown with automatic recovery and

a passive tranzorb on output.

Over temperature protection:

Shutdown at baseplate temperature of +95°C (±5°C)

Automatic recovery at baseplate temperature

lower than +90°C (±5°C)

Isolation:

500V between Output and Input

100V between Output and Case

## SELECTION GUIDE

Model	Input	Output	Minimum Load	Maximum Load	Regulation	Ripple (20 MHz BW)
M716-1	18 to 36 VDC	5 VDC	0 A	8 A	± 2%	50 mVp-p
M716-2	18 to 36 VDC	12 VDC	0 A	3 A	± 2%	50 mVp-p
M716-3	18 to 36 VDC	15 VDC	0 A	3.5 A	± 2%	50 mVp-p
M716-10	9 to 36 VDC	5 VDC	0 A	8 A	± 2%	50 mVp-p
M716-11	9 to 36 VDC	12 VDC	0 A	4 A	± 2%	50 mVp-p
M716-12	9 to 36 VDC	28 VDC	0 A	2 A	± 2%	50 mVp-p

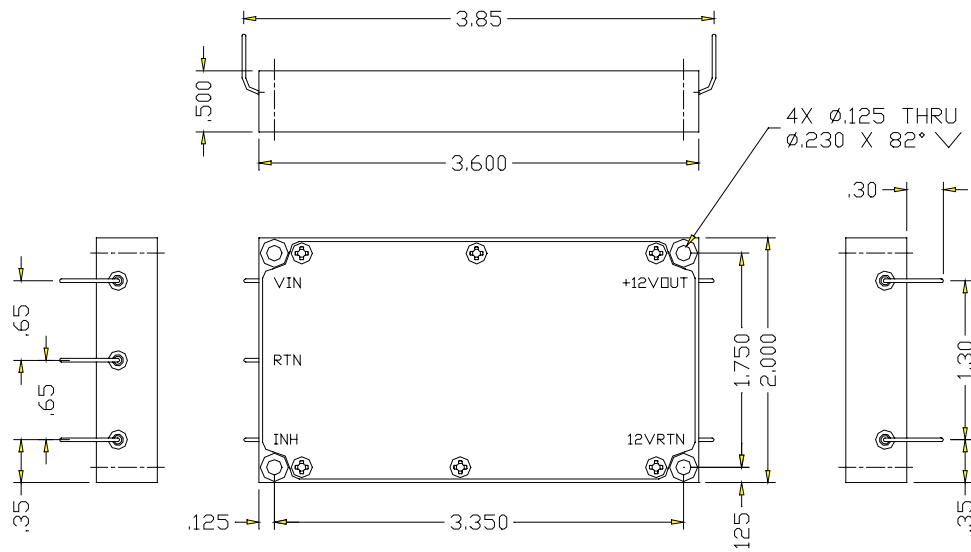
Note: other voltages and currents are available, consult factory.

## PIN ASSIGNMENT

PIN No.	PIN Function
1	V <sub>IN</sub>
2	VIN-RTN
3	INHIBIT
4	VOUT
5	VOUT-RTN

**MPS can customize this product to your requirements - contact us!**

## OUTLINE DRAWING



### Notes

1. Dimensions are in Inches
2. Tolerance is:  
XX ±.01 IN  
XXX ±.005 IN
3. Weight: Approx. 3.5 Oz (100 gr.)

\* Specifications are subject to change without prior notice by the manufacturer