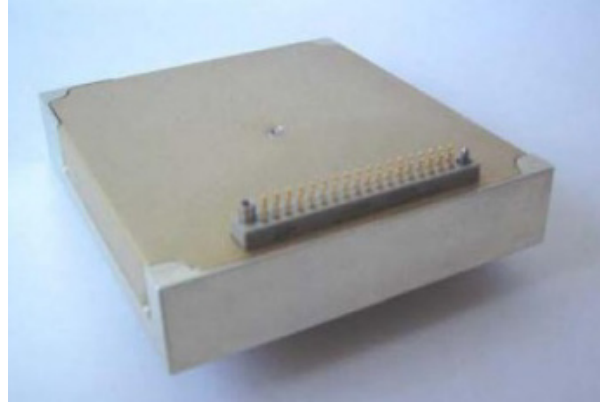


M7225 SERIES

MINIATURE, HIGH DENSITY,
SINGLE OUTPUT,
DC/DC CONVERTERS
(UP TO 500W)



APPLICATIONS

Military, Ruggedized, Telecom, Industrial

SPECIAL FEATURES

- Miniature size
- High efficiency
- Wide input range
- Input / Output isolation
- Vout Cal. with External Resistor
- Redundancy connection
- Fixed switching frequency (250 KHz)
- External synchronization capability
- 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 $+85^{\circ}\text{C}$ (baseplate)

Storage -55°C to $+125^{\circ}\text{C}$

RELIABILITY

150,000 hours, calculated per
MIL-STD-217F at $+85^{\circ}\text{C}$ baseplate,
ground fixed.

ELECTRICAL SPECIFICATIONS

DC INPUT

DC Input range: 18 to 48 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: $80 \div 90\%$

EMI/RFI:

Design to meet or exceed MIL-STD-461C

CE03, CE07, CS01, CS02, CS06, RE02*, RS02, RS03

* Note – some modules may require an external filter to fully comply

Isolation:

200V between Input and Output

200V between Input and Case

DC OUTPUT (floating)

Line/Load regulation:

Less than 1% Typical

(no load to full load, -55°C to $+85^{\circ}\text{C}$)

Ripple and Noise: 50mVp-p, typical ($\pm 1\%$)

Current limiting (Hiccup):

Continuous protection for unlimited time

Over voltage protection:

Electronic clamp with automatic recovery and
a passive tranzorb on output.

Over temperature protection:

Shutdown at baseplate temperature of $+105^{\circ}\text{C}$ ($\pm 5^{\circ}\text{C}$)

Automatic recovery at baseplate temperature

lower than $+95^{\circ}\text{C}$ ($\pm 5^{\circ}\text{C}$)

Isolation:

200V between Output and Input

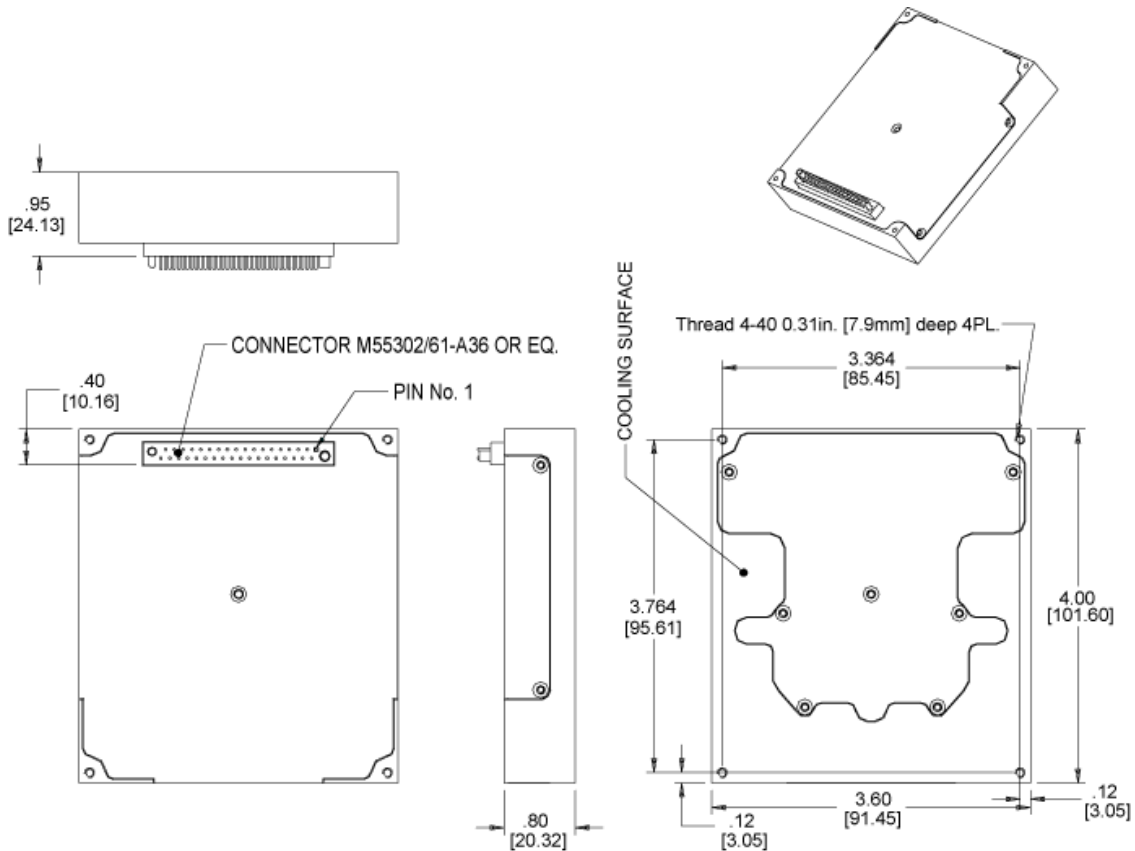
100V between Output and Case

PIN ASSIGNMENT

Pin Function	Pin No.
+ VIN	13, 14, 15, 16, 31, 32, 33, 34
VIN RTN	9, 10, 11, 12, 27, 28, 29, 30
CHASSIS	35
SYN IN	36
SIGNAL RTN	17

Pin Function	Pin No.
INHIBIT	18
OUTCAL 1	8
OUTCAL 2	26
VOUT	1, 2, 3, 4, 19, 20, 21
VOUT RTN	5, 6, 7, 22, 23, 24, 25

OUTLINE DRAWING (Upper Connector)



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

Notes

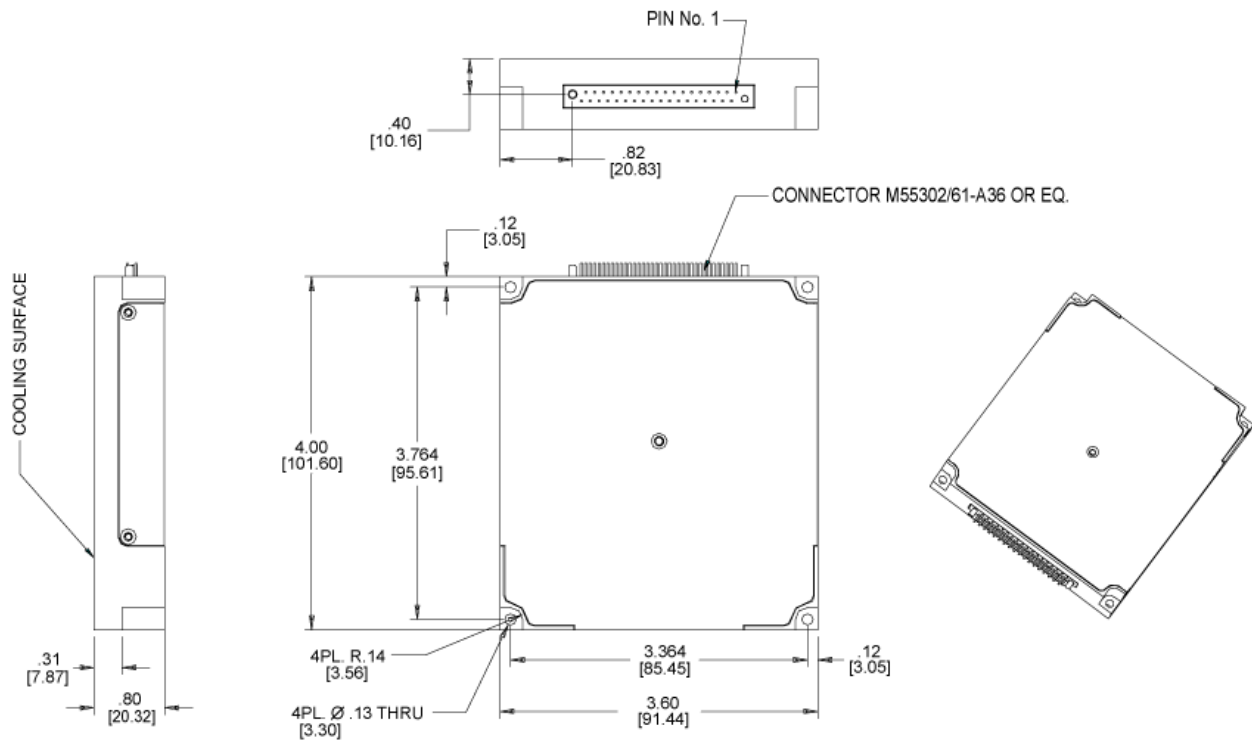
1. Dimensions are in Inches [mm]
2. Tolerance is:
 .XX ±.02 mm
 .XXX ±.01 mm
3. Weight: 12 Oz (340gr) Max.
4. Other connector types also available, please consult factory.

PIN ASSIGNMENT

Pin Function	Pin No.
+ VIN	13, 14, 15, 16, 31, 32, 33, 34
VIN RTN	9, 10, 11, 12, 27, 28, 29, 30
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Pin Function	Pin No.
INHIBIT	36
OUTCAL 1	8
OUTCAL 2	26
VOUT	1, 2, 3, 4, 19, 20, 21
VOUT RTN	5, 6, 7, 22, 23, 24, 25

OUTLINE DRAWING (Side Connector)



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

Notes

- Dimensions are in Inches [mm]
- Tolerance is:
.XX ±.02 mm
.XXX ±.01 mm
- Weight: 12 Oz (340gr) Max.
- Other connector types also available, please consult factory.