

Calmark offers the advance design Series 281 "Card-Lok" Retainer for cold plate-heat exchanger applications. This totally unique design incorporates design advancements that provide increased thermal transfer, easy insertion, lighter weight and lower cost. The Series 281 specifically provides greater clamping force and load capacity for Board Module Assembly of higher weight and mass.

FEATURES

- Greater clamping force and load capacity for Board Module Assembly with higher weight and mass
- Maximum uniform clamping force
- Increased thermal transfer
- Maintains wedge and body alignment for easy insertion
- Captive rear wedge
- Choice of screw head style
- Dimensionally compatible with Series 250
- Lighter weight
- Lower cost
- Special lengths, finishes, or other design options available on request

WEDGES & SHAFT

Material:

Wedges: Aluminum Alloy 6061-T6, ASTM-B221
 Shaft: Aluminum Alloy 7075-T, ASTM-B221

Finish:

See Part Number Code

SCREW, LOCK & FLAT WASHER

Material:

300 Series Stainless Steel

Finish:

Passivate per Mil-S-5002

ROLL PIN

Material:

400 Series Stainless Steel

Finish:

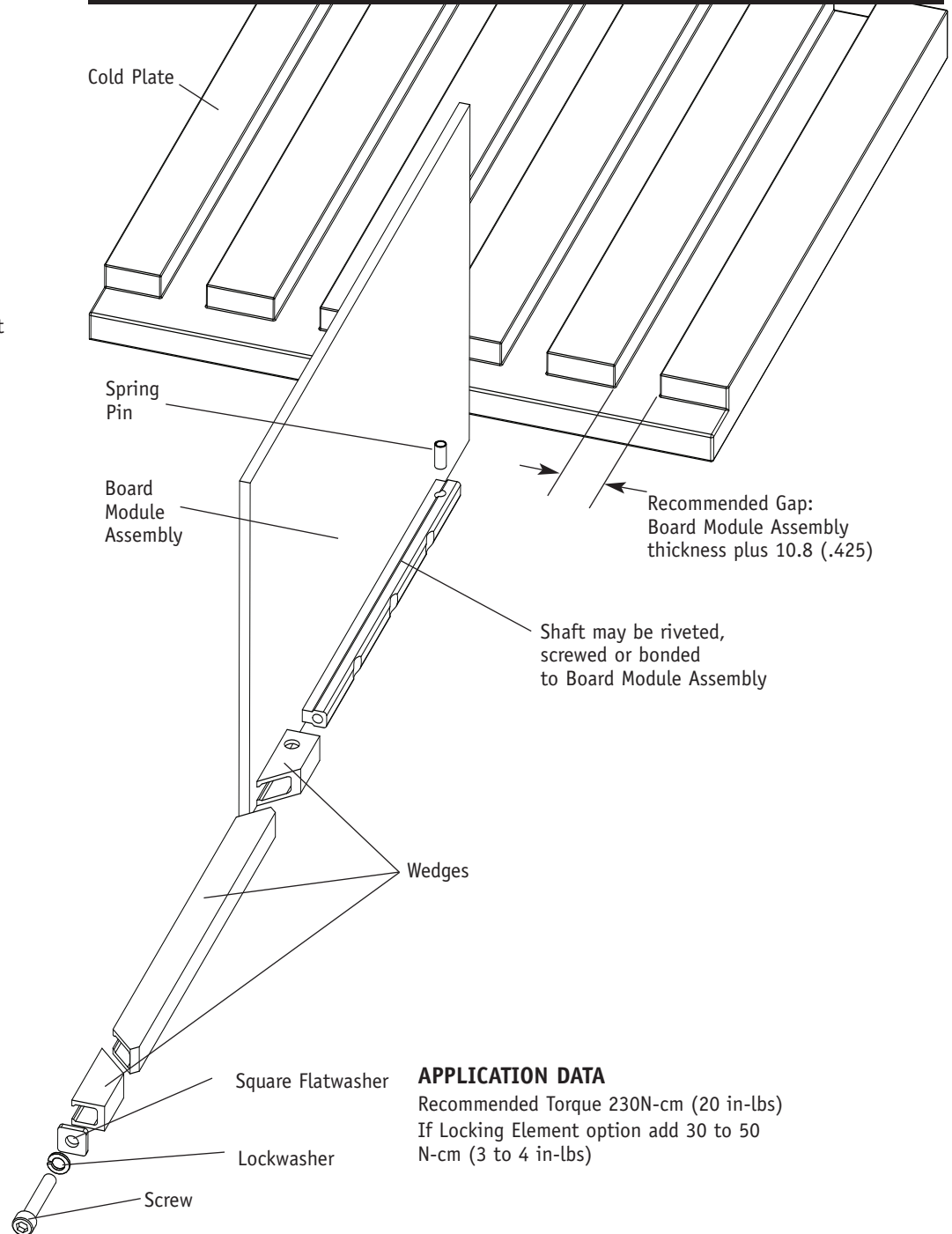
Passivate per Mil-S-5002

WEIGHT

2.18 g/cm (.195 oz/in)



Series 281 - "Card-Lok" Retainer (Cold Plate)



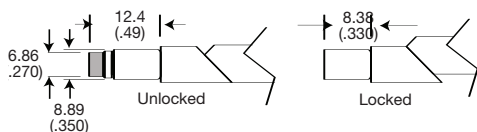
APPLICATION DATA

Recommended Torque 230N-cm (20 in-lbs)
 If Locking Element option add 30 to 50
 N-cm (3 to 4 in-lbs)

OPTION PREFIX

Detail "V"

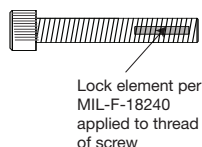
Provides visual lock indication.



OPTION SUFFIX

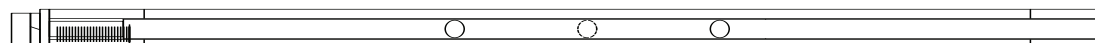
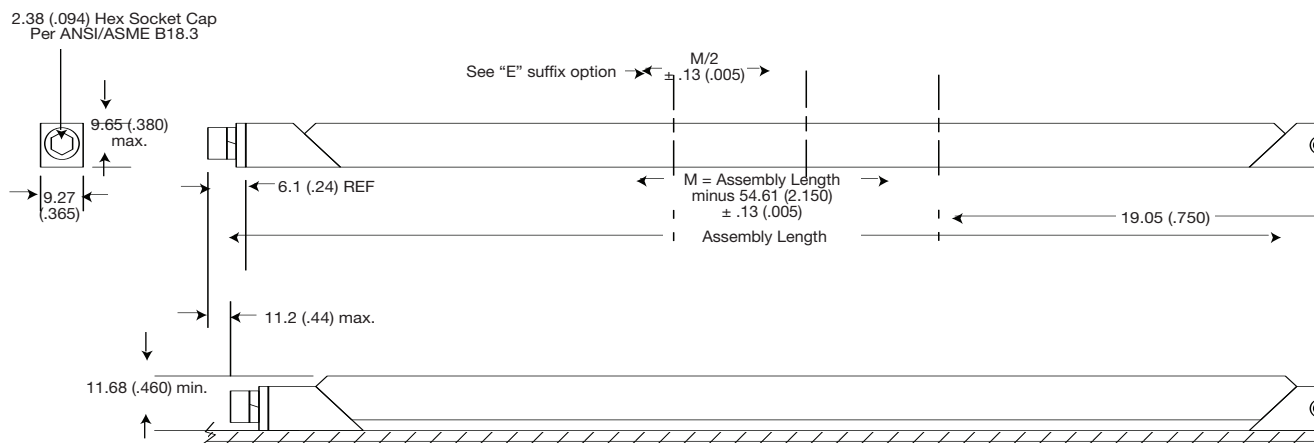
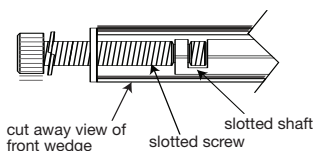
Detail "L"

Provides prevailing torque for resistance to loosening from shock and vibration.



Detail "K"

Prevents the unintentional disassembly of screw from front wedge.



Units: mm (in)
Unless specified otherwise
xx - + .25 x - + 5

Part Number Code

Series 281 Card-Lok Three Piece

Prefix options

Metric Screw Head M3 Hex Drive M
Standard Screw Head 9/64 Hex Drive [blank]
Visual Indicator V
No Visual Indicator [blank]
Black Anodize A
or choose from Finish Table see table

Suffix options

Assembly length from 63.5 (2.50) to 329.9 (12.99) length.xx
Preferred lengths are 71.12 (2.80), 96.52 (3.80) and 121.9 (4.80)
Other lengths available upon request
Additional Center Mounting Hole E
None [blank]
Mounting Options - holes for rivet mounting H
or choose from Mounting Option Table see table
Lock Element L
None [blank]
Captive Screw K
None [blank]

Part Number Code Example:

281-2.80H

Series 281 Card-Lok three piece 71.12 (2.80) long with chemical film finish and standard rivet mounting hole.

FINISH TABLE

Code Letter	Finish
[blank]	Chemical Film per Mil-C-5541 Class 3, Gold
"R"	Chemical Film per Mil-DTL-5541 Class 3, Type II, Clear
"A"	Black Anodize per Mil-A-8625 Type II, Class 2
"HA"	Hard Black Anodize per Mil-A-8625 Type III, Class 2
"EN"	Electroless Nickel per Mil-C-26074 Class 4, Grade B, Bright

MOUNTING METHOD TABLE

Code Letter	Method
"H"	Ø3.40/3.53 (.0134/.139) dia. through holes countersink 60° x 3.81 (.150) deep
"T4"	4-40 tapped hole
"TM3"	M3 x 0.50 tapped hole