

# 224 Torque Limiting Card-Lok

## CATALOG NUMBER

**MHA224-7.30ETM2**



The Series 224 Card-Lok is ideal for field level maintenance, because it does not require any specialized tools or technical knowledge for proper installation. With an integrated (patented) torqueing mechanism, to install the Series 224, the operator simply turns the hex wrench until they hear/feel a minimum of three clicks indicating that the optimum clamping and thermal transfer performance has been reached. Accordingly, the Series 224 Card Lok minimizes the potential for insufficient board retention from under torqueing, or for damage to board and cold wall from over torqueing.

⚠WARNING: This product can expose you to chemicals including Chromium (hexavalent compounds), which is known to the State of California to cause cancer and reproductive health issue. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## CERTIFICATIONS



## FEATURES

Clamp force, thermal transfer, life cycle and environmental (MIL 810) test results available

Available with gold chem film, clear chem film, black anodized, hard black anodized, or electroless nickel plating

Profile 5.33 mm (0.210") x 7.24 mm (0.285")

5 segment, non-shafted design

Each unit tested at factory prior to shipment to ensure performance; customer provided with a certificate of conformance

For cold wall applications

Length 97 mm (3.80") to 325 mm (12.80"), 12.7 mm (0.5") increments

Min expansion 8.64 mm (0.340")

Flexible mounting options

Weight 1.12 g/cm (0.100 oz/")

Average clamp force (4.80", black anodized) = 236 lbs

Torque limiting; ideal for 2nd level maintenance

Screw actuated

## PRODUCT ATTRIBUTES

Product Type: PCB Retainer

Material: Aluminum

Type: Non-shafted

Thermal Performance: Good

Profile: 5.33 x 7.24 mm

Clamp Force: 91 – 136kgf

Gap Width: PCB + (8.0 - 8.9 mm)

Design Feature: Torque Limiting

## ADDITIONAL PRODUCT DETAILS

From time to time, nVent may modify its product specifications to be in conformity with applicable industry, military or other relevant standards. Unless otherwise mutually agreed in writing, cancelled or superseded military specifications may be certified to the latest or superseding specifications. Products manufactured in conformity with such specifications will be deemed fully compliant whether or not you have been notified of such modifications, even if different from the original specification or those referenced by the customer.

## WARNING

nVent products shall be installed and used only as indicated in nVent's product instruction sheets and training materials. Instruction sheets are available at [www.nvent.com](http://www.nvent.com) and from your nVent customer service representative. Improper installation, misuse, misapplication or other failure to completely follow nVent's instructions and warnings may cause product malfunction, property damage, serious bodily injury and death and/or void your warranty.

**⚠ WARNING:** This product can expose you to chemicals including Chromium (hexavalent compounds), which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

### North America

All locations  
+1.763.422.2661  
Chat with us:  
[nvent.com/schroff](http://nvent.com/schroff)

### Europe

Straubenhardt, Germany  
+49.7082.794.0  
Betschdorf, France  
+33.3.88.90.64.90  
Warsaw, Poland  
+48.22.209.98.35  
Assago, Italy  
+39.02.932.7141  
Chat with us:  
[nvent.com/schroff](http://nvent.com/schroff)

### Asia

Shanghai, China  
+86.21.2412.6943  
Qingdao, China  
+86.532.8771.6101  
Singapore  
+65.6768.5800  
Shin-Yokohama, Japan  
+81.45.476.0271  
Chat with us:  
[nvent.com/schroff](http://nvent.com/schroff)

### Middle East & India

Dubai, United Arab Emirates  
+971.4.378.1700  
Bangalore, India  
+91.80.6715.2001  
Istanbul, Turkey  
+90.216.250.7374  
Chat with us:

[nvent.com/schroff](http://nvent.com/schroff)



Our powerful portfolio of brands:

**CADDY**

**ERICO**

**HOFFMAN**

**ILSCO**

**SCHROFF**

**TRACHTE**