

# Global Modular Fuseholders



## CH Series

The new and improved 'CH' line of Modular Fuseholders is designed to accommodate a multitude of fuses from around the world, including North American Class-CC, Midget, Class gR, aR HSF, and IEC Industrial Cylindrical (Class gG and aM) in four physical sizes: 8x32, 10x38, 14x51 and 22x58mm.

All products are manufactured in accordance with IEC 60269 and IEC 60947-3. UL and CSA Compliance as indicated in the Selection Table below.

### Key features and benefits include:

- Multiple pole configurations
- Finger Safe protection
- Optional "open-fuse" indication
- 14x51 & 22x58 configurations are available with optional micro-switches for remote "open-fuse" indication, pre-breaking, and fuse presence.
- Self-extinguishable UL 94-VO rated polyester material
- Multi-phase connections available for ganging poles

## Modular Fuseholder Selection Table

| Series | Size           | Max Voltage & Current                          | IEC | UL | CSA | Phase Configuration            | No. of 17.5mm Modules | Fuse Holder Without Indication | Part Number With Neon Indication*                                  | Box Qty. | Wire Range                        | Maximum Torque      |
|--------|----------------|------------------------------------------------|-----|----|-----|--------------------------------|-----------------------|--------------------------------|--------------------------------------------------------------------|----------|-----------------------------------|---------------------|
| CH08   | 8X32           | IEC 400Vac, 25A                                |     |    |     | 1 Pole                         | 1                     | CH081D                         | CH081DI                                                            | 12       | 1-16 mm <sup>2</sup> (18-8 AWG)   | 2.5 Nm (22 lb-in)   |
|        |                |                                                |     |    |     | 1 Neutral Pole                 | 1                     | CH081DNX                       | -                                                                  | 12       |                                   |                     |
|        |                |                                                |     |    |     | 1 Pole + Neutral               | 1                     | CH081DNS                       | CH081DNSI                                                          | 12       | 1-10 mm <sup>2</sup> (18-8 AWG)   | 2.0 Nm (17.5 lb-in) |
|        |                |                                                |     |    |     | 1 Pole + Neutral               | 2                     | CH081DN                        | CH081DNI                                                           | 6        |                                   |                     |
|        |                |                                                |     |    |     | 2 Pole                         | 2                     | CH082D                         | CH082DI                                                            | 6        |                                   |                     |
|        |                |                                                |     |    |     | 3 Pole                         | 3                     | CH083D                         | CH083DI                                                            | 4        | 1-16 mm <sup>2</sup> (18-8 AWG)   | 2.5 Nm (22 lb-in)   |
|        |                |                                                |     |    |     | 3 Pole + Neutral               | 3                     | CH083DNS                       | CH083DNSI                                                          | 4        |                                   |                     |
|        |                |                                                |     |    |     | 3 Pole + Neutral               | 4                     | CH083DN                        | CH083DNI                                                           | 3        |                                   |                     |
|        |                |                                                |     |    |     | 4 Pole                         | 4                     | CH084D                         | CH084DI                                                            | 3        |                                   |                     |
|        |                |                                                |     |    |     |                                |                       |                                |                                                                    |          |                                   |                     |
| CHM    | 10X38 & Midget | UL/CSA 600Vac/dc, 30A (3 Watt) IEC 690Vac, 32A |     | †  |     | 1 Pole                         | 1                     | CHM1D                          | CHM1DI                                                             | 12       | 1-16 mm <sup>2</sup> (18-8 AWG)   | 2.5 Nm (22 lb-in)   |
|        |                |                                                |     |    |     | 1 Neutral Pole                 | 1                     | CHM1DNX                        | -                                                                  | 12       |                                   |                     |
|        |                |                                                |     |    |     | 1 Pole + Neutral               | 1                     | CHM1DNS                        | CHM1DNSI                                                           | 12       | 1-10 mm <sup>2</sup> (18-8 AWG)   | 2.0 Nm (17.5 lb-in) |
|        |                |                                                |     |    |     | 1 Pole + Neutral               | 2                     | CHM1DN                         | CHM1DNI                                                            | 6        |                                   |                     |
|        |                |                                                |     |    |     | 2 Pole                         | 2                     | CHM2D                          | CHM2DI                                                             | 6        |                                   |                     |
|        |                |                                                |     |    |     | 3 Pole                         | 3                     | CHM3D                          | CHM3DI                                                             | 4        | 1-16 mm <sup>2</sup> (18-8 AWG)   | 2.5 Nm (22 lb-in)   |
|        |                |                                                |     |    |     | 3 Pole + Neutral               | 3                     | CHM3DNS                        | CHM3DNSI                                                           | 4        |                                   |                     |
|        |                |                                                |     |    |     | 3 Pole + Neutral               | 4                     | CHM3DN                         | CHM3DNI                                                            | 3        |                                   |                     |
|        |                |                                                |     |    |     | 4 Pole                         | 4                     | CHM4D                          | CHM4DI                                                             | 3        |                                   |                     |
|        |                |                                                |     |    |     |                                |                       |                                |                                                                    |          |                                   |                     |
| CHCC   | Class CC       | UL/CSA 600Vac/dc, 30A                          | ††  |    |     | 1 Pole                         | 1                     | CHCC1D                         | CHCC1DI                                                            | 12       | 1-16 mm <sup>2</sup> (18-8 AWG)   | 2.5 Nm (22 lb-in)   |
|        |                |                                                |     |    |     | 2 Pole                         | 2                     | CHCC2D                         | CHCC2DI                                                            | 6        |                                   |                     |
|        |                |                                                |     |    |     | 3 Pole                         | 3                     | CHCC3D                         | CHCC3DI                                                            | 4        |                                   |                     |
|        |                |                                                |     |    |     |                                |                       |                                |                                                                    |          |                                   |                     |
|        |                |                                                |     |    |     |                                |                       |                                |                                                                    |          |                                   |                     |
|        |                |                                                |     |    |     |                                |                       |                                |                                                                    |          |                                   |                     |
| CH14   | 14X51          | UL 600Vac/dc, 40A (5 Watt) IEC 690Vac, 50A     |     | †  |     | 1 Pole                         | 1.5                   | CH141D                         | CH141DI                                                            | 6        | 2.5-16 mm <sup>2</sup> (14-6 AWG) | 3.0 Nm (26 lb-in)   |
|        |                |                                                |     |    |     | 1 Pole + Microswitch           | 1.5                   | CH141DMS                       | -                                                                  | 6        |                                   |                     |
|        |                |                                                |     |    |     | 1 Neutral Pole                 | 1.5                   | CH141DNX                       | -                                                                  | 6        |                                   |                     |
|        |                |                                                |     |    |     | 1 Pole + Neutral               | 3                     | CH141DN                        | CH141DNI                                                           | 3        |                                   |                     |
|        |                |                                                |     |    |     | 2 Pole                         | 3                     | CH142D                         | CH142DI                                                            | 3        |                                   |                     |
|        |                |                                                |     |    |     | 3 Pole                         | 4.5                   | CH143D                         | CH143DI                                                            | 2        |                                   |                     |
|        |                |                                                |     |    |     | 3 Pole + Microswitch           | 4.5                   | CH143DMS                       | -                                                                  | 2        |                                   |                     |
|        |                |                                                |     |    |     | 3 Pole + Neutral               | 6                     | CH143DN                        | CH143DNI                                                           | 1        |                                   |                     |
|        |                |                                                |     |    |     | 3 Pole + Neutral + Microswitch | 6                     | CH143DNMS                      | -                                                                  | 1        |                                   |                     |
|        |                |                                                |     |    |     | 4 Pole                         | 6                     | CH144D                         | CH144DI                                                            | 1        |                                   |                     |
|        |                |                                                |     |    |     |                                |                       |                                |                                                                    |          |                                   |                     |
|        |                |                                                |     |    |     |                                |                       |                                |                                                                    |          |                                   |                     |
| CH22   | 22X58          | UL 600Vac/dc, 100A (9.5 Watt) IEC 690Vac, 125A |     | †  |     | 1 Pole                         | 2                     | CH221D                         | Not Available with Local Neon Indication (Remote Microswitch only) | 6        | 2.5-50 mm <sup>2</sup> (14-1 AWG) | 4.0 Nm (35 lb-in)   |
|        |                |                                                |     |    |     | 1 Pole + Microswitch           | 2                     | CH221DMS                       |                                                                    | 6        |                                   |                     |
|        |                |                                                |     |    |     | 1 Neutral Pole                 | 2                     | CH221DNX                       |                                                                    | 6        |                                   |                     |
|        |                |                                                |     |    |     | 1 Pole + Neutral               | 4                     | CH221DN                        |                                                                    | 3        |                                   |                     |
|        |                |                                                |     |    |     | 2 Pole                         | 4                     | CH222D                         |                                                                    | 3        |                                   |                     |
|        |                |                                                |     |    |     | 3 Pole                         | 6                     | CH223D                         |                                                                    | 2        |                                   |                     |
|        |                |                                                |     |    |     | 3 Pole + Microswitch           | 6                     | CH223DMS                       |                                                                    | 2        |                                   |                     |
|        |                |                                                |     |    |     | 3 Pole + Neutral               | 8                     | CH223DN                        |                                                                    | 1        |                                   |                     |
|        |                |                                                |     |    |     | 3 Pole + Neutral + Microswitch | 8                     | CH223DNMS                      |                                                                    | 1        |                                   |                     |
|        |                |                                                |     |    |     | 4 Pole                         | 8                     | CH224D                         |                                                                    | 1        |                                   |                     |

† UL Recognized

†† UL Listed

\*Holder width as compared to standard 17.5mm module.

i.e. 1 = 17.5mm 2 = 35mm.

# Global Modular Fuseholders

## Recommended Buss® Fuse Types:

- 8x32** IEC Cylindrical - C08 Series  
**10x38** North American Class CC Fuses - LP-CC, FNQ-R, KTK-R, Fuses - FNQ, KTK, AGU, KLM, BAF, BAN, FNM, FWX, FWH, C10 Series  
**14x51** Fuses - FWX, FWH, FWP & NON, C14 Series  
**22x58** Fuses - FWP, C22 Series

## Using High Speed Fuses (Semiconductor Protection)

The 'CH' range of Modular Fuseholders may be used in conjunction with Class gR and gRL High Speed fuses, offering a touch-safe design with no exposed contacts, according to the following application tables:

### CHM Series (10x38)

| High Speed Fuse | Maximum Continuous Fuse Current (amps) | High Speed Fuse | Maximum Continuous Fuse Current (amps) |
|-----------------|----------------------------------------|-----------------|----------------------------------------|
| FWA-10A10F      | 5                                      | FWC-10A10F      | 6                                      |
| FWA-10A10F      | 10                                     | FWC-10A10F      | 8                                      |
| FWA-15A10F      | 15                                     | FWC-15A10F      | 10                                     |
| FWA-20A10F      | 18                                     | FWC-12A10F      | 12                                     |
| FWA-25A10F      | 20                                     | FWC-16A10F      | 15                                     |
| FWA-30A10F      | 24                                     | FWC-20A10F      | 16                                     |
| -               | -                                      | FWC-25A10F      | 19                                     |
| -               | -                                      | FWC-30A10F      | 21                                     |

### CH22 Series (22x58)

| High Speed Fuse | Maximum Continuous Fuse Current (amps) |
|-----------------|----------------------------------------|
| FWP-20A22F      | 20                                     |
| FWP-25A22F      | 25                                     |
| FWP-32A22F      | 32                                     |
| FWP-40A22F      | 40                                     |
| FWP-50A22F      | 50                                     |
| FWP-63A22F      | 58                                     |
| FWP-80A22F      | 66                                     |
| FWP-100A22F     | 78                                     |

### CH14 Series (14x51)

| High Speed Fuse | Maximum Continuous Fuse Current (amps) | High Speed Fuse | Maximum Continuous Fuse Current (amps) | High Speed Fuse | Maximum Continuous Fuse Current (amps) | High Speed Fuse | Maximum Continuous Current (amps) |
|-----------------|----------------------------------------|-----------------|----------------------------------------|-----------------|----------------------------------------|-----------------|-----------------------------------|
| FWX-5A14F       | 5                                      | FWH-5A14F       | 5                                      | FWP-5A14F       | 5                                      | FWP-32A14F      | 27                                |
| FWX-10A14F      | 10                                     | FWH-10A14F      | 10                                     | FWP-10A14F      | 10                                     | FWP-40A14F      | 32                                |
| FWX-15A14F      | 15                                     | FWH-15A14F      | 14                                     | FWP-15A14F      | 14                                     | FWP-50A14F      | 38                                |
| FWX-20A14F      | 20                                     | FWH-20A14F      | 18                                     | FWP-20A14F      | 18                                     | -               | -                                 |
| FWX-25A14F      | 24                                     | FWH-25A14F      | 21                                     | FWP-25A14F      | 21                                     | -               | -                                 |
| FWX-30A14F      | 27                                     | FWH-30A14F      | 22                                     | FWP-30A14F      | 22                                     | -               | -                                 |

Please contact Cooper Bussmann Application Engineering for more information regarding High-Speed fuse application.

## Accessories for use with the new CH Series of Modular Fuseholders

| Accessory                    | For Use with Fuse Holders               | Part Number | No. of Poles | Box Quantity |
|------------------------------|-----------------------------------------|-------------|--------------|--------------|
| Multi-Phase Connection Links | CH08, CHM, CHCC, AND CH14 Series        | AL-D        | -            | 12           |
| Multi-Phase Handle Pins      | CH08, CHM, & CHCC Series<br>CH14 Series | CH810-HP    | -            | 12           |
|                              |                                         | CH14-HP     | -            |              |
| Neutral Links                | CH08 Series                             | C08NL       | -            | 10           |
|                              | CHM Series                              | C10NL, NNB  | -            |              |
|                              | CHCC Series                             | NNB-R       | -            |              |
|                              | CH14 Series                             | C14NL       | -            |              |
|                              | CH22 Series                             | C22NL       | -            |              |
| Operated-Fuse Micro-Switches | CH141 Series                            | CH14MS-1D   | 1            | 5            |
|                              | CH143 Series                            | CH14MS-3D   | 3            | 2            |

Multi-Phase  
Connection Links



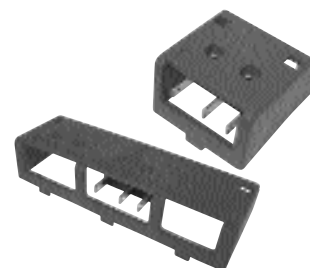
Multi-Phase  
Handle Pins



Neutral Links



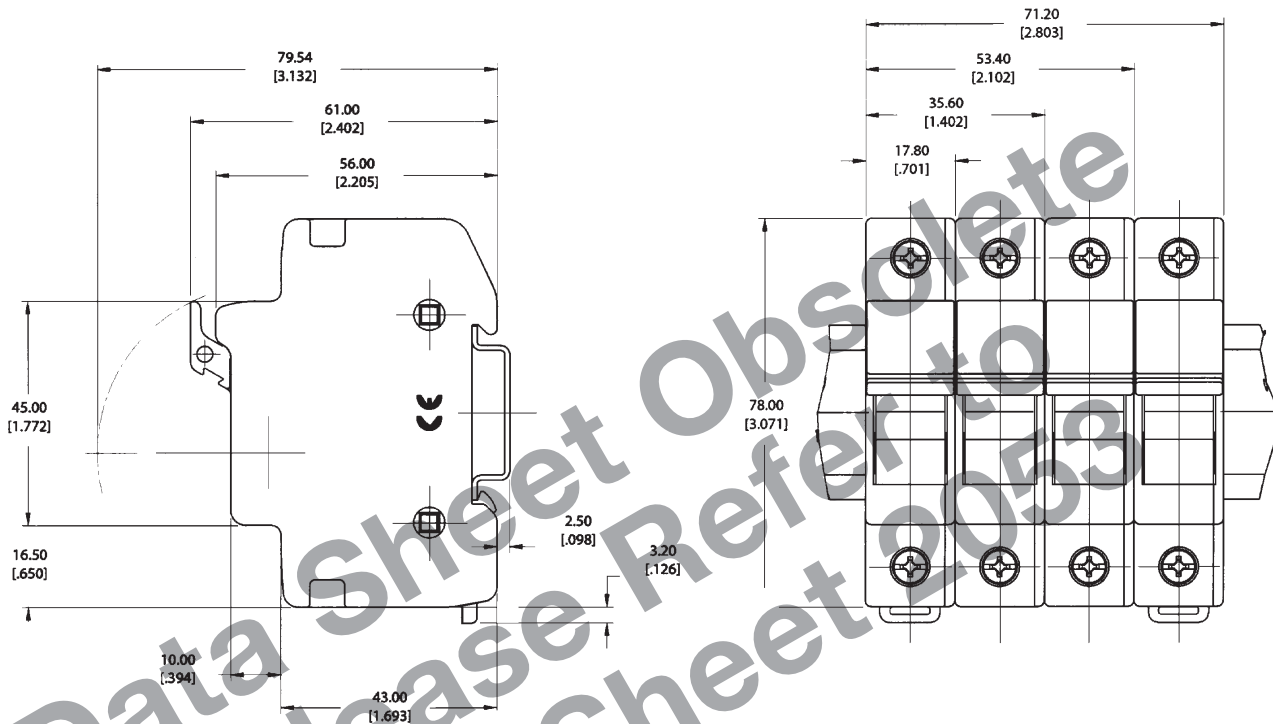
Operated-Fuse  
Micro-Switches



# Global Modular Fuseholders

**Dimensional Data** (all dimensions  $\frac{mm}{[inch]}$ )

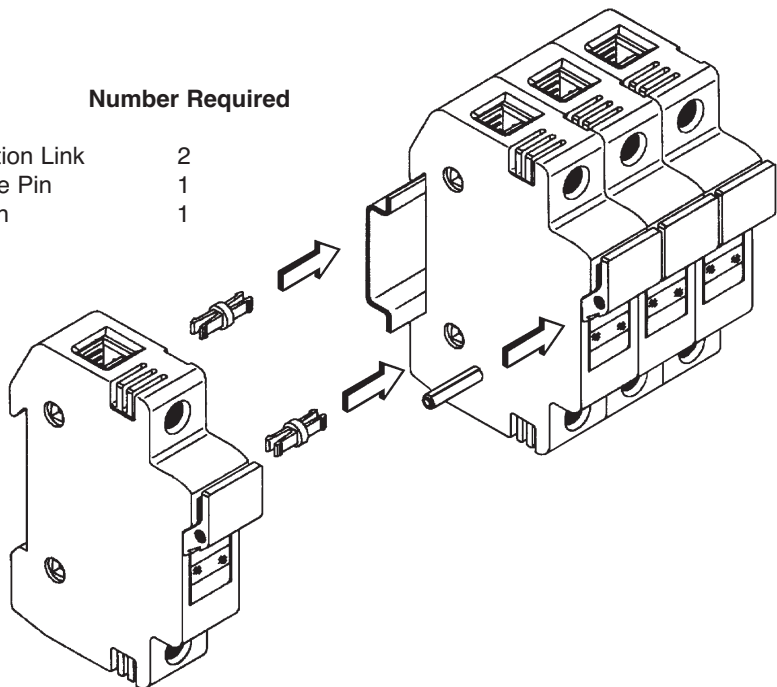
8x32mm & 10x38mm



**Manual Multi-phase Construction** (10x38 & 14x51mm)

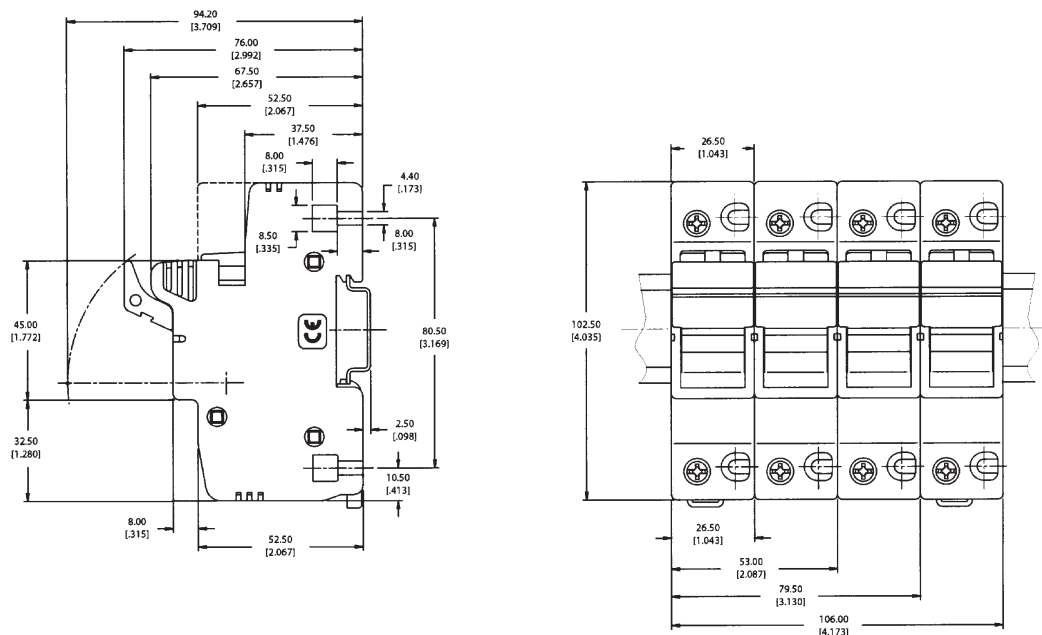
Additional poles can be added by using the accessories shown on page 2 of this data sheet. The following components are required for each additional pole, up to a maximum of 4-poles.

| Part Number | Description                 | Number Required |
|-------------|-----------------------------|-----------------|
| AL-D        | Multi-phase Connection Link | 2               |
| CH810-HP    | 8x32 & 10x38 Handle Pin     | 1               |
| CH14-HP     | 14x51mm Handle Pin          | 1               |

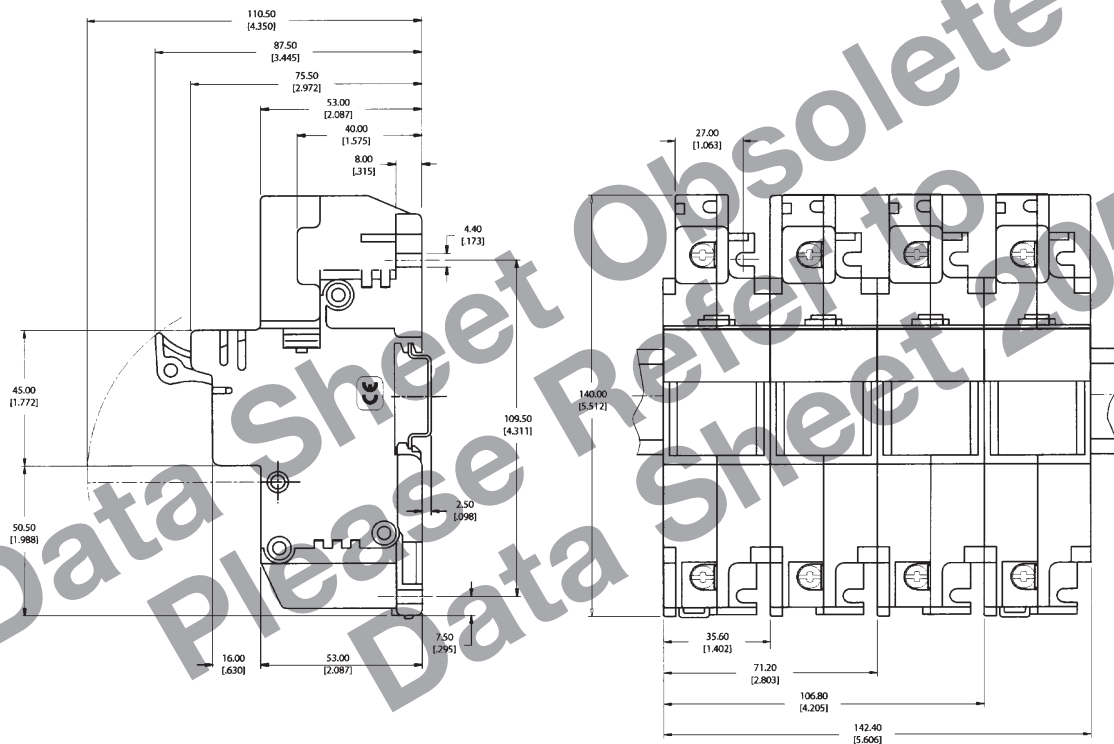


# Global Modular Fuseholders

## 14x51mm Dimensional Data (all dimensions $\frac{mm}{[inch]}$ )



## 22x58mm Dimensional Data (all dimensions $\frac{mm}{[inch]}$ )



The only controlled copy of this Data Sheet is the electronic read-only version located on the Bussmann Network Drive. All other copies of this document are by definition uncontrolled. This bulletin is intended to clearly present comprehensive product data and provide technical information that will help the end user with design applications. Bussmann reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Bussmann also reserves the right to change or update, without notice, any technical information contained in this bulletin. Once a product has been selected, it should be tested by the user in all possible applications.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Eaton:](#)

[CHM3DNI](#) [CHM3DI](#) [CHM3DN](#) [CHM1DNSI](#) [CHM1DN](#) [CHM1DI](#) [16375-2](#) [CHM1DNX](#) [CHM1DNS](#) [CHM3DNS](#)  
[CHM3D](#) [CHM4D](#) [CHM2D](#) [CHM1D](#) [16376-2](#) [CHM4DI](#)