

# NH Bases



## Product description

Eaton's Bussmann™ series NH Bases have been designed with thermoplastic bodies DIN-Rail and/or screw mounting (size 4 screw mounting only).

This range comes with accessories including phase barriers: IP20 finger safe protection kits (IEC only) and neutral links.

Microswitch also available for remote signaling of fuse link operation.

## Standard features

- Complies with IEC 60269-1 and 2 fuse system A (NH Base), manufacturers type test certificates of compliance available.
- 3-pole integral NH00 Base available with reduced width
- Clip-in phase barriers, terminal shrouds and fuse covers available
- Vibration tested to IEC 60068-2-6 for marine use

### Catalogue symbol

- 1-pole DIN-Rail and screw mounting: SD(size)-D
- 1-pole screw mounting only: SD(size)-S
- 3-pole DIN-Rail and screw mounting: TD(size)-D
- 3-pole Integral DIN-Rail and screw mounting: TD00-DxI (see catalogue numbers for details)

### Technical data

- Rated voltage:
  - 690 V a.c. IEC
  - 1000 V a.c. UL for SD1-D only
- Rated current: 160 to 1600 A
- Rated for fuse links with breaking capacity of 120 kA

### Standard/Approvals

- IEC 60269-1 and 2
- VDE 0636-1 and 2

### Packaging

- 1-pole: 3
- 3-pole and SD4: 1

### Technical data

| Fuse base catalogue numbers                      |                      | SD00-D<br>TD00-D<br>TD00-DI | SD1-D<br>TD1-D | SD2-D<br>TD2-D | SD3-D<br>TD3-D | SD4-S | SD4-S1600 |
|--------------------------------------------------|----------------------|-----------------------------|----------------|----------------|----------------|-------|-----------|
| Base                                             |                      | Glass filled PBT            |                |                |                |       |           |
| Contacts                                         |                      | Silver plated copper        |                |                |                |       |           |
| Screw, nuts and washers                          |                      | Zinc clear plated steel     |                |                |                |       |           |
| Derating temperature factors for maximum current | ≤ 35°C               | 1                           | 1              | 1              | 1              | 1     | 1         |
|                                                  | 40°C                 | 0.95                        | 0.95           | 0.95           | 0.95           | 0.95  | 0.95      |
|                                                  | 50°C                 | 0.85                        | 0.85           | 0.85           | 0.85           | 0.85  | 0.85      |
| Maximum power acceptance                         |                      | 12W                         | 32W            | 45W            | 60W            | 110W  | 145W      |
| IP20 finger safe protection kits (IEC only)      |                      | ✓                           | ✓              | ✓              | ✓              | ✗     | ✗         |
| Terminal screw                                   |                      | M8                          | M10            | M10            | M12            | M16   | M16       |
| Maximum tightening torque terminal screw         |                      | 10N•m                       | 32N•m          | 32N•m          | 32N•m          | 56N•m | 56N•m     |
| Fixing                                           | DIN-Rail             | ✓                           | ✓              | ✓              | ✓              | ✗     | ✗         |
|                                                  | Screw                | ✓                           | ✓              | ✓              | ✓              | ✓     | ✓         |
| With microswitch 16A/250V                        | Fuse operated signal | ✓                           | ✓              | ✓              | ✓              | ✗     | ✗         |
| Operating temperature range                      |                      | -20 to 70°C                 |                |                |                |       |           |
| Storage temperature range                        |                      | -40 to 80°C                 |                |                |                |       |           |

## NH Bases

1-pole and 3-pole non integral NH Bases - Catalogue numbers

| Compatible NH Fuse link body size | Poles  | Current (Amps) | DIN-Rail and screw mounting | Screw mounting only | Pack quantity | Compatible fuse links                 |
|-----------------------------------|--------|----------------|-----------------------------|---------------------|---------------|---------------------------------------|
| 00                                | 1-pole | 160            | SD00-D                      | SD00-S              | 3             | 400/500/690 V NH gG and aM fuse links |
|                                   | 3-pole | 160            | TD00-D                      | N/A                 | 1             |                                       |
| 1                                 | 1-pole | 250            | SD1-D                       | SD1-S               | 3             |                                       |
|                                   | 3-pole | 250            | TD1-D                       | N/A                 | 1             |                                       |
| 2                                 | 1-pole | 400            | SD2-D                       | SD2-S               | 3             |                                       |
|                                   |        | 400            | SD2-DD*                     | N/A                 | 3             |                                       |
|                                   | 3-pole | 400            | TD2-D                       | N/A                 | 1             |                                       |
|                                   |        | 400            | TD2-DD*                     | N/A                 | 1             |                                       |
| 3                                 | 1-pole | 630            | SD3-D*                      | SD3-S               | 3             |                                       |
|                                   | 3-pole | 630            | TD3-D*                      | N/A                 | 1             |                                       |
| 4                                 | 1-pole | 1250           | N/A                         | SD4-S               | 1             |                                       |
|                                   |        | 1600           | N/A                         | SD4-S1600           | 1             |                                       |

\*Double fuse contact clips

1-pole and 3-pole non integral NH base - Catalogue numbers structure

| Poles                   | Compatible NH Fuse links body size                                     | Mounting type                              |
|-------------------------|------------------------------------------------------------------------|--------------------------------------------|
| <b>SD</b> = Single pole | <b>00</b> = Compatible for NH fuse links body size 00                  | <b>D</b> = DIN-Rail and screw mounting     |
| <b>TD</b> = Triple pole | <b>1</b> = Compatible for NH fuse links body size 1                    | <b>DD</b> = Double fuse contact clips      |
|                         | <b>2</b> = Compatible for NH fuse links body size 2                    | <b>S</b> = Screw mounting only             |
|                         | <b>3</b> = Compatible for NH fuse links body size 3                    | <b>S1600</b> = Screw mounting only, 1600 A |
|                         | <b>4</b> = Compatible for NH fuse links body size 4 (Single pole only) |                                            |

For example catalogue number **SD2-D** represents a 1-pole **SD** NH Fuse base, suitable for a NH fuse link body size **2** fuse link, **S** screw mounting only

3-pole Integral NH Base parts - Catalogue numbers

| Catalogue numbers | Line side mounting   | Load side mounting   | Compatible NH Fuse link body size | Poles  | Current (Amps) | Pack quantity | Compatible NH fuse links              |
|-------------------|----------------------|----------------------|-----------------------------------|--------|----------------|---------------|---------------------------------------|
| TD00-DI           | Screw mounting holes | Screw mounting holes | 00                                | 3-pole | 160            | 1             | 400/500/690 V NH gG and aM fuse links |
| TD00-DCI          | Clinch nut           | Clinch nut           |                                   |        |                |               |                                       |
| TD00-DPI          | Pressure plate       | Pressure plate       |                                   |        |                |               |                                       |
| TD00-DBI          | 70 mm fixed box lug  | 70 mm fixed box lug  |                                   |        |                |               |                                       |
| TD00-DCPI         | Clinch nut           | Pressure plate       |                                   |        |                |               |                                       |
| TD00-DCBI         | Clinch nut           | 70 mm fixed box lug  |                                   |        |                |               |                                       |
| TD00-DPBI         | Pressure plate       | 70 mm fixed box lug  |                                   |        |                |               |                                       |

3-pole Integral NH Base parts - Catalogue numbers structure

| Poles                   | Compatible NH Fuse links size                         | Line side mounting/ Load side mounting                 | Integral NH Base            |
|-------------------------|-------------------------------------------------------|--------------------------------------------------------|-----------------------------|
| <b>TD</b> = Triple pole | <b>00</b> = Compatible for NH fuse links body size 00 | <b>I</b> = Integral base screw mounting/screw mounting |                             |
|                         |                                                       | <b>C</b> = Clinch nut/clinch nut                       | <b>I</b> = Integral NH Base |
|                         |                                                       | <b>P</b> = Pressure plate/pressure plate               |                             |
|                         |                                                       | <b>B</b> = 70 mm fixed box lug/70 mm fixed box lug     |                             |
|                         |                                                       | <b>CP</b> = Clinch nut/pressure plate                  |                             |
|                         |                                                       | <b>CB</b> = Clinch nut/70 mm fixed box lug             |                             |
|                         |                                                       | <b>PB</b> = Pressure plate/70 mm fixed box lug         |                             |

For example catalogue number **TD00-CPI** represents a 3-pole **TD** NH Fuse base, suitable for a NH fuse link body size **00**, with **C** clinch nut load side mounting and **P** pressure plate load side mounting, **I** integral base

### Solid links catalogue numbers

| NH fuse link body size | Current (Amps) | Catalogue numbers | Pack quantity |
|------------------------|----------------|-------------------|---------------|
| NH00                   | 160            | SDL-00            | 3             |
| NH1                    | 250            | SDL-1             | 3             |
| NH2                    | 400            | SDL-2             | 3             |
| NH3                    | 630            | SDL-3             | 3             |



Solid link

### Accessories

#### Fuse extraction handle

| NH fuse link body size | Current (Amps) | Catalogue numbers | Pack quantity |
|------------------------|----------------|-------------------|---------------|
| NH00-3                 | 160 - 630      | FEH               | 1             |



Fuse extraction handle

#### Shroud kits

| Fuse base range | NH fuse link body size | Current (Amps) | Catalogue numbers | Description                             |
|-----------------|------------------------|----------------|-------------------|-----------------------------------------|
| SD00            | NH00                   | 160            | SD00-SK           | Kit includes 2 shrouds and 1 fuse cover |
| SD1             | NH1                    | 250            | SD12-SK           |                                         |
| SD2             | NH2                    | 400            | SD12-SK           |                                         |
| SD3             | NH3                    | 630            | SD3-SK            |                                         |



Shroud kit

#### Phase barrier kit

| NH fuse link body size | Current (Amps) | Catalogue numbers | Pack quantity | Description                          |
|------------------------|----------------|-------------------|---------------|--------------------------------------|
| NH00                   | 160            | SD00-PB           | 1             | 2-Phase barriers                     |
| NH1                    | 250            | SD12-PB           | 1             | 2-Phase barriers and 2 ganging links |
| NH2                    | 400            | SD12-PB           | 1             |                                      |
| NH3                    | 630            | SD3-PB            | 1             |                                      |



Phase barrier



Ganging link

Accessories

IP Protection Kits

|  |                |                   |            |        |               |              |              |                                                                                               |
|-----------------------------------------------------------------------------------|----------------|-------------------|------------|--------|---------------|--------------|--------------|-----------------------------------------------------------------------------------------------|
| NH fuse link body size                                                            | Current (Amps) | Catalogue numbers | Fuse cover | Shroud | Phase barrier | Ganging link | Integral kit | Description                                                                                   |
| NH00                                                                              | 160            | TD00-IP20         | 3          | 6      | 2             |              |              | Triple pole protection kit for TD00-D with shrouds, fuse covers and phase barriers            |
|                                                                                   |                | TD00-IP20I        |            |        |               |              | 1            | Integral triple pole protection kit for TD00-DI with molded shrouds and phase barriers        |
|                                                                                   |                | TD00-IP20IC       | 3          |        |               |              |              | 1                                                                                             |
| NH1                                                                               | 250            | TD1-IP20          | 3          | 6      | 2             | 2            |              | Triple pole protection kit with terminal shrouds, fuse cover phase barriers and ganging links |
| NH2                                                                               | 400            | TD2-IP20          |            |        |               |              |              |                                                                                               |
| NH3                                                                               | 630            | TD3-IP20          |            |        |               |              |              |                                                                                               |



TD00-IP20



TD00-IP20I



TD00-IP20IC



TD(size 1 to 3)-IP20

Microswitch

| Catalogue numbers | Pack quantity | Ratings        |
|-------------------|---------------|----------------|
| BVL50             | 1             | 5 A 250 V a.c. |
| 170H0236          | 12            | 2 A 250 V a.c. |
| 170H0238          | 12            | 2 A 250 V a.c. |

Microswitch suitable for the following NH fuse links:

- 400 Volts gG/gL
- 500 Volts gG/gL and aM
- 690 Volts gG/gL and aM.

Note: Microswitches fit onto the fuse gripping lugs and are applicable to all Bussmann series NH fuses.

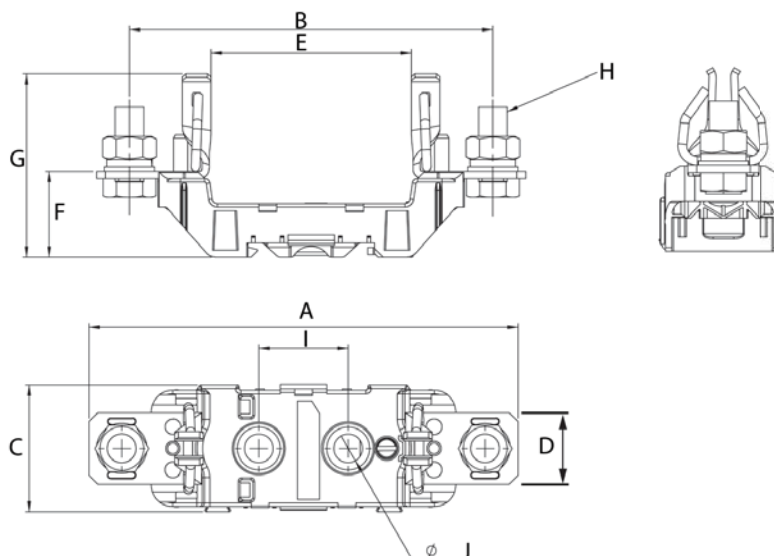


BVL50



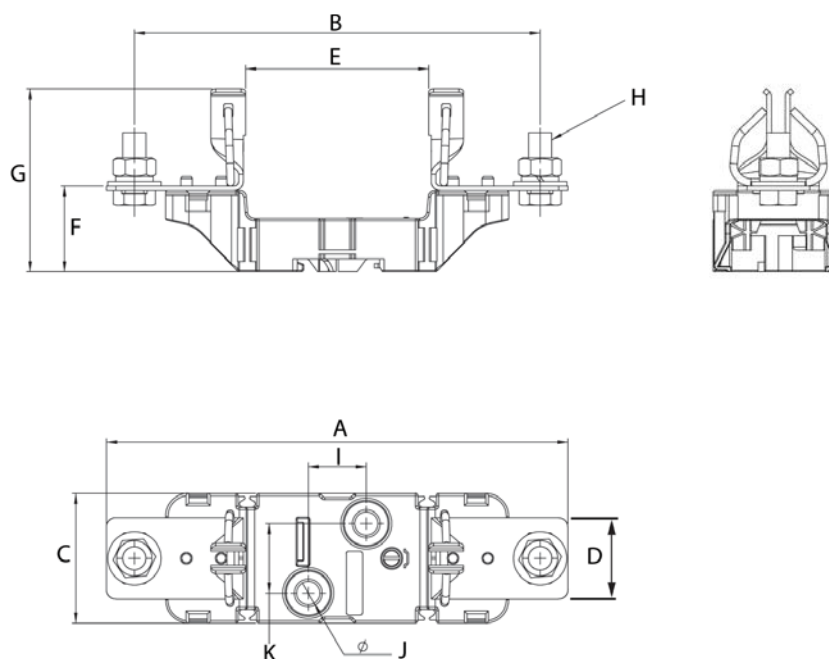
170H0236

**Dimensions (mm) 1-pole, size 00**



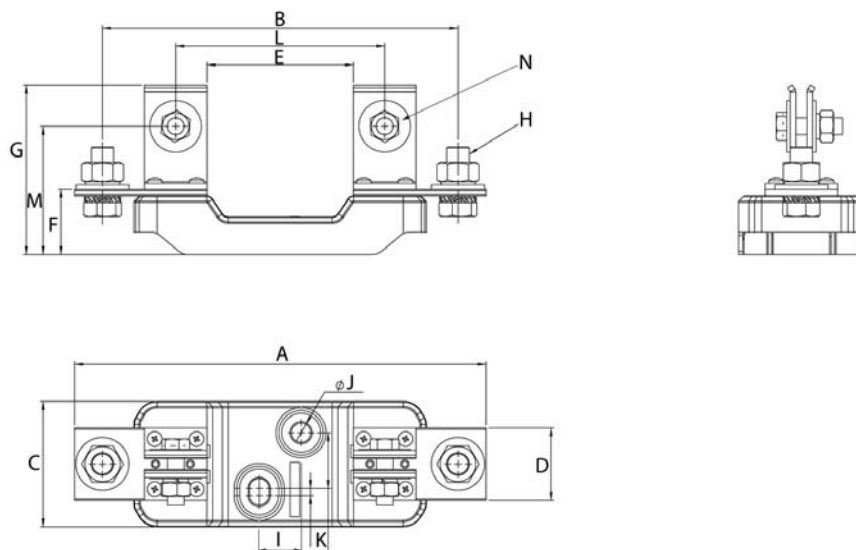
| NH fuse link body |        |  | A   | B   | C    | D  | E  | F  | G  | H     | I  | J |
|-------------------|--------|--|-----|-----|------|----|----|----|----|-------|----|---|
| size              | Pole   |  |     |     |      |    |    |    |    |       |    |   |
| NH00              | 1-pole |  | 120 | 102 | 35.5 | 20 | 56 | 24 | 51 | M8x20 | 25 | 8 |

**Dimensions (mm) 1-pole, sizes 1, 2 and 3**



| Fuse body size | Poles/Type         | A   | B   | C  | D  | E  | F    | G  | H      | I  | J  | K  |
|----------------|--------------------|-----|-----|----|----|----|------|----|--------|----|----|----|
| NH1            | 1-pole             | 199 | 175 | 56 | 35 | 79 | 37   | 78 | M10x25 | 25 | 10 | 30 |
| NH2            | 1 pole             | 224 | 199 | 56 | 35 | 79 | 37.5 | 86 | M10x25 | 25 | 10 | 30 |
|                | 1-pole double clip | 223 | 199 | 56 | 35 | 82 | 37   | 79 | M10x25 | 25 | 10 | 30 |
| NH3            | 1-pole             | 239 | 209 | 56 | 36 | 82 | 37.5 | 88 | M12x30 | 25 | 10 | 30 |

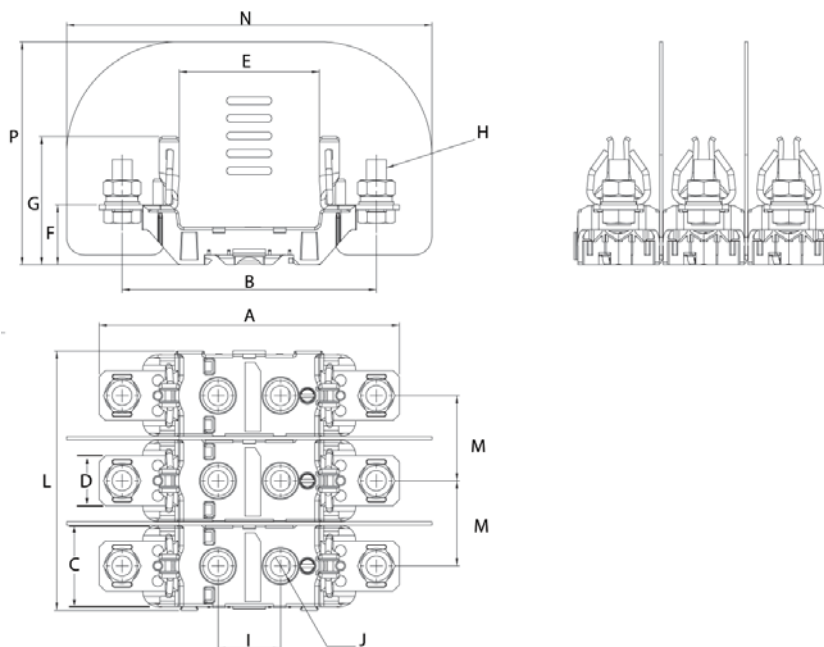
Dimensions (mm) 1-pole, size 4



NH fuse link

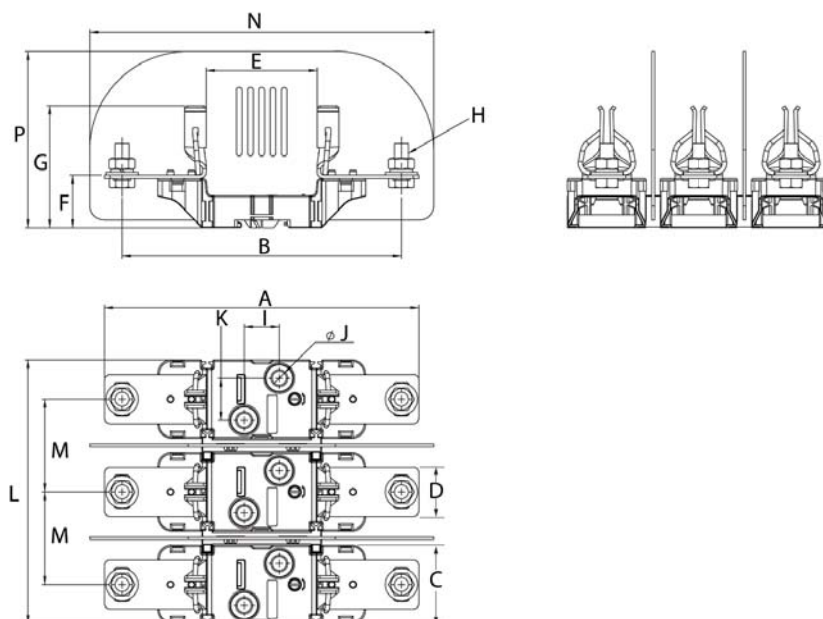
| body size | Poles/Type   | A   | B   | C  | D  | E   | F  | G   | H      | I  | J  | K  | L   | M  | N      |
|-----------|--------------|-----|-----|----|----|-----|----|-----|--------|----|----|----|-----|----|--------|
| NH4       | 1-pole 1250A | 295 | 255 | 90 | 52 | 105 | 47 | 122 | M16x40 | 30 | 14 | 40 | 150 | 92 | M12x40 |
|           | 1-pole 1600A | 295 | 255 | 90 | 60 | 105 | 50 | 125 | M16x40 | 30 | 14 | 40 | 150 | 92 | M12x40 |

Dimensions (mm) 3-pole, size 00

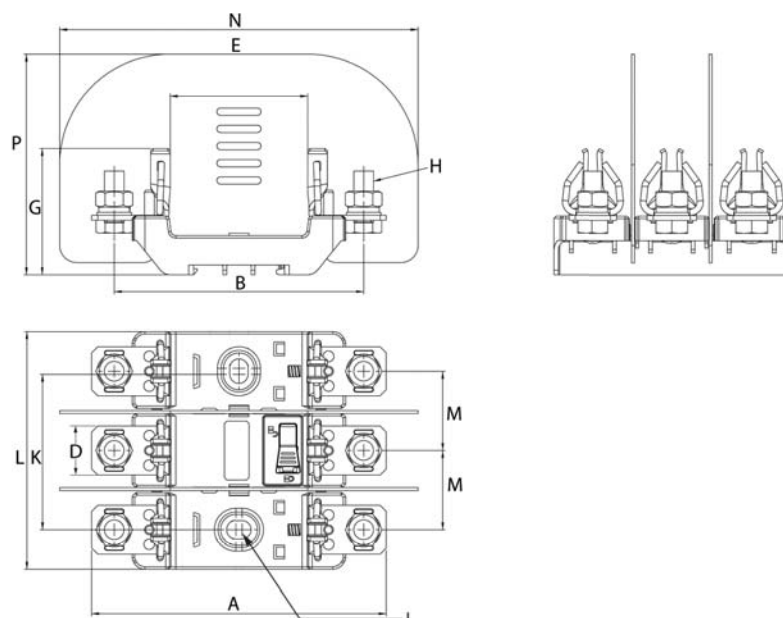


NH fuse link

| body size | Poles/Type | A   | B   | C    | D  | E  | F  | G  | H     | I  | J | K | L     | M  | N   | P  |
|-----------|------------|-----|-----|------|----|----|----|----|-------|----|---|---|-------|----|-----|----|
| NH00      | 3-pole     | 120 | 102 | 35.5 | 20 | 56 | 24 | 51 | M8x20 | 25 | 8 | - | 103.5 | 34 | 146 | 89 |

**Dimensions (mm) 3-pole, sizes 1, 2 and 3**

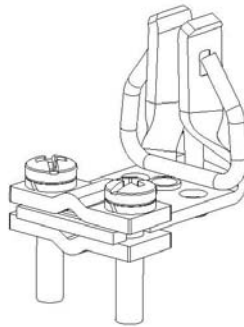
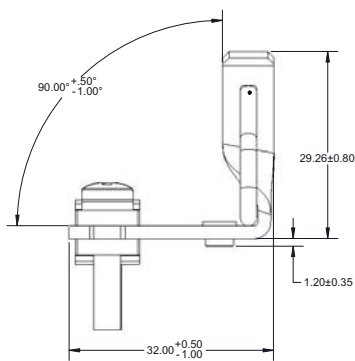
| NH Fuse link<br>body size | Poles/Type         | A   | B   | C  | D  | E  | F    | G  | H      | I  | J  | K  | L   | M    | N   | P     |
|---------------------------|--------------------|-----|-----|----|----|----|------|----|--------|----|----|----|-----|------|-----|-------|
| NH1                       | 3-pole             | 199 | 175 | 56 | 35 | 79 | 37   | 78 | M10x25 | 25 | 10 | 30 | 188 | 66   | 245 | 125.5 |
| NH2                       | 3-pole             | 224 | 199 | 56 | 35 | 79 | 37.5 | 86 | M10x25 | 25 | 10 | 30 | 188 | 66   | 245 | 125.5 |
|                           | 3-pole double clip | 223 | 199 | 56 | 35 | 82 | 37   | 79 | M10x25 | 25 | 10 | 30 | 188 | 66   | 245 | 125.5 |
| NH3                       | 3-pole             | 239 | 209 | 56 | 36 | 82 | 37.5 | 88 | M12x30 | 25 | 10 | 30 | 221 | 82.5 | 260 | 137.5 |

**Dimensions (mm) integral 3-pole, size 00**

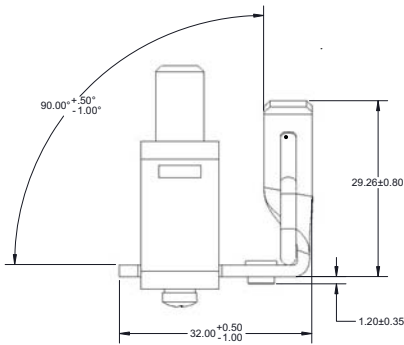
| NH fuse link<br>body size | Poles/Type      | A   | B   | C | D  | E  | F  | G  | H     | I | J      | K    | L  | M    | N   | P  |
|---------------------------|-----------------|-----|-----|---|----|----|----|----|-------|---|--------|------|----|------|-----|----|
| NH00                      | 3-pole Integral | 120 | 102 | - | 20 | 56 | 24 | 51 | M8x20 | - | 7.5x10 | 63.5 | 97 | 32.3 | 146 | 90 |



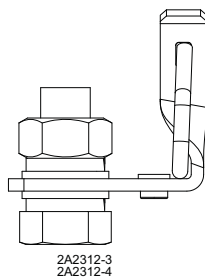
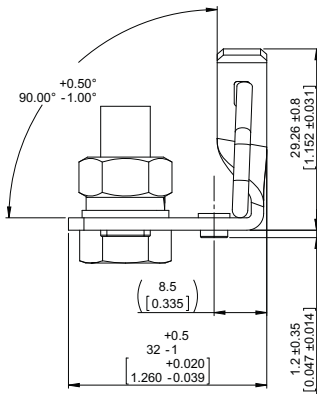
**Fixings dimensions (mm) for integral 3-pole NH Base**



Pressure plate



Box lug



Clinch nut

**Eaton**  
 EMEA Headquarters  
 Route de la Longeraie 7  
 1110 Morges, Switzerland

Eaton Electrical Products Limited  
 Melton Road  
 Burton-on-the-Wolds  
 Leicestershire, LE12 5TH  
 United Kingdom

© 2017 Eaton  
 All Rights Reserved  
 PDF Only  
 Publication No. 10163  
 June 2018

Changes to the products, to the information contained in this document, and to prices are reserved; so are errors and omissions. Only order confirmations and technical documentation by Eaton is binding. Photos and pictures also do not warrant a specific layout or functionality. Their use in whatever form is subject to prior approval by Eaton. The same applies to Trademarks (especially Eaton, Moeller, and Cutler-Hammer). The Terms and Conditions of Eaton apply, as referenced on Eaton Internet pages and Eaton order confirmations.

Eaton is a registered trademark.

All other trademarks are property of their respective owners.