

**EPIC® Rectangular Connector Inserts 276**

|                          |     |
|--------------------------|-----|
| Reference                | 278 |
| EPIC® HBE Series         | 295 |
| EPIC® HA Series          | 304 |
| EPIC® HQ Series          | 308 |
| EPIC® STA Series         | 310 |
| EPIC® HEE Series         | 313 |
| EPIC® HBS Series         | 317 |
| EPIC® HBVE Series        | 319 |
| EPIC® HD Series          | 321 |
| EPIC® HDD Series         | 340 |
| EPIC® MC Series          | 344 |
| EPIC® Mixed Power Series | 363 |

**EPIC® Rectangular Connector Housings 366**

|                       |     |
|-----------------------|-----|
| Reference             | 367 |
| EPIC® HB Series       | 369 |
| EPIC® ULTRA HB Series | 394 |
| EPIC® HA Series       | 399 |

**EPIC® Circular Connectors 423**

|                             |     |
|-----------------------------|-----|
| Reference                   | 424 |
| EPIC® CIRCON LS1 Connectors | 425 |
| EPIC® CIRCON M23 Series     | 431 |
| EPIC® ZYLIN R3.0 Series     | 438 |
| EPIC® EAB & EAC Series      | 441 |
| EPIC® EPT Series            | 450 |

**EPIC® Pin & Sleeve Connectors 459**

|  |     |
|--|-----|
| Reference                                    | 461 |
| Product Selection for North America Standard | 469 |
| Product Selection for International Standard | 472 |
| Dimensional Data for 20/16 Amps              | 475 |
| Dimensional Data for 30/32 Amps              | 479 |
| Dimensional Data for 60/63 Amps              | 483 |
| Dimensional Data for 100/125 Amps            | 486 |
| EPIC® Pin & Sleeve Accessories               | 487 |
| Cordsets                                     | 488 |
| Technical Data                               | 489 |

RECTANGULAR CONNECTOR INSERTS

Reference

EPIC® Brand Overview 278  
 EPIC® Housing Overview 280  
 EPIC® Plugs & Receptacles Overview 281  
 Quick Select Charts: Plugs & Receptacles 283  
 Terminate your ÖLFLEX® Cable with the Right EPIC® Connector  
 Quick Select Summary: Plugs & Receptacles 285  
 Quick Select Summary: Contacts & Tools 288  
 Quick Select Summary: Housings 290  
 Diagrams: Hoods & Bases 293

EPIC® HBE Series

Inserts for Medium Power & Control Applications

EPIC® HBE 6 Inserts 297  
 EPIC® HBE 10 Inserts 298  
 EPIC® HBE 16 Inserts 299  
 EPIC® HBE 24 Inserts 301  
 EPIC® HBE 32 Inserts 302  
 EPIC® HBE 48 Inserts 303

EPIC® HA Series

Compact Inserts for Medium Power & Control Applications

EPIC® HA 3/4 Inserts 305  
 EPIC® HA 10 Inserts 305  
 EPIC® HA 16 Inserts 306  
 EPIC® HA 32 Inserts 306  
 EPIC® HA 48 Inserts 307  
 EPIC® HA 64 Inserts 307

EPIC® HQ Series

Compact Inserts with 5+PE Contacts for Power & Control Applications

EPIC® HQ 5 Inserts 309

EPIC® STA Series

Inserts with Solid Spring-Designed Contacts for Control Applications

EPIC® STA 6 Inserts 311  
 EPIC® STA 14 Inserts 311  
 EPIC® STA 20 Inserts 312  
 EPIC® STA 40 Inserts 312

EPIC® HEE Series

Inserts with High Contact Density for Power & Control Applications

EPIC® HEE 10 Inserts 314  
 EPIC® HEE 18 Inserts 314  
 EPIC® HEE 32 Inserts 315  
 EPIC® HEE 46 Inserts 315  
 EPIC® HEE 64 Inserts 316  
 EPIC® HEE 92 Inserts 316



## EPIC® HBS Series

Inserts for High Current Capacity for Power Applications

EPIC® HBS 6 Inserts

EPIC® HBS 12 Inserts

## EPIC® HBVE Series

High-Voltage Inserts with Two Switch Contacts for Power Applications

EPIC® HBVE 3 Inserts

EPIC® HBVE 6 Inserts

EPIC® HBVE 10 Inserts

## EPIC® HD Series

Compact Inserts with High Contact Density for Control Applications

EPIC® HD 7 Inserts

EPIC® HD 8 Inserts

EPIC® HD 15 Inserts

EPIC® HD 25 Inserts

EPIC® HD 40 Inserts

EPIC® HD 50 Inserts

EPIC® HD 64 Inserts

EPIC® HD 80 Inserts

EPIC® HD 128 Inserts

## EPIC® HDD Series

Compact Inserts with Extremely High Contact Density for Control Applications

EPIC® HDD 24 Inserts

EPIC® HDD 42 Inserts

EPIC® HDD 72 Inserts

EPIC® HDD 108 Inserts

EPIC® HDD 144 Inserts

EPIC® HDD 216 Inserts

## EPIC® MC Series

Modular Inserts for Custom Configurations

EPIC® MC 2 - 20 Contact Modules

EPIC® MC Dummy Modules

EPIC® MC 4 Cage Clamp Modules

EPIC® MC PROFIBUS DP Modules

EPIC® MC Ethernet Modules

EPIC® MC Universal Bus Modules

EPIC® MC Pneumatic Modules

EPIC® MC Module Frames

## EPIC® Mixed Power Series

Inserts with Combination Power & Signal Contacts

EPIC® Mixed Power 4 Power + 0 Signal Inserts

EPIC® Mixed Power 4 Power + 2 Signal Inserts

EPIC® Mixed Power 4 Power + 8 Signal Inserts

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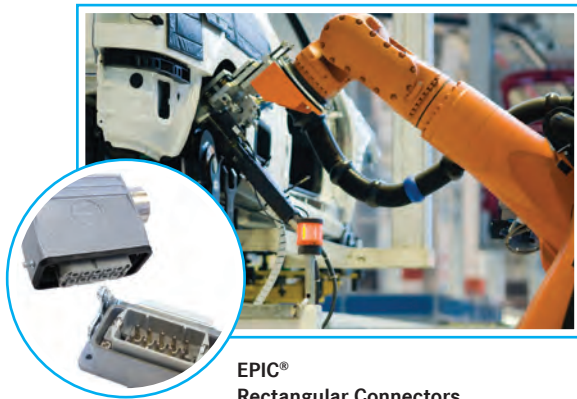
EPIC®

Rectangular  
Connector Inserts



EPIC® Brand Overview

|              | Connector Type | Power | Application<br>Control/<br>Signal | Data | Number of<br>Contacts                   | Rated<br>Voltage |
|--------------|----------------|-------|-----------------------------------|------|---|------------------|
| RECTANGULAR  | HBE            | ✓     | ✓                                 |      | 6, 10, 16, 24, 32, 48 (+PE)             | 600V             |
|              | HA             | ✓     | ✓                                 |      | 3, 4, 10, 16, 32, 48, 64 (+PE)          | 600V             |
|              | HQ             | ✓     | ✓                                 |      | 5 (+PE)                                 | 600V             |
|              | STA            |       | ✓                                 |      | 6, 14, 20, 40                           | 48V              |
|              | HEE            | ✓     | ✓                                 |      | 10, 18, 32, 46, 64, 92 (+PE)            | 600V             |
|              | HBS            | ✓     |                                   |      | 6, 12 (+PE)                             | 600V             |
|              | HBVE           | ✓     |                                   |      | 3, 6, 10 (+PE)                          | 600V             |
|              | HD             |       | ✓                                 |      | 7, 8, 15, 25, 40, 50, 64, 80, 128 (+PE) | 600V             |
|              | HDD            |       | ✓                                 |      | 24, 42, 72, 108, 144, 216 (+PE)         | 600V             |
|              | MC             | ✓     | ✓                                 | ✓    | 2 - 280, Data Bus (+PE), Pneumatic      | 30V - 1000V      |
|              | MP             | ✓     | ✓                                 |      | 4/0, 4/2, 4/8 (+PE)                     | 600V             |
| CIRCULAR     | EAB            | ✓     |                                   |      | 3, 14                                   | 500V             |
|              | EAC            | ✓     |                                   |      | 4, 6, 17                                | 200V, 500V, 900V |
|              | EPT            | ✓     | ✓                                 |      | 5, 6, 8+4, 10, 19                       | 600V, 1000V      |
|              | LS1            | ✓     |                                   |      | 5+PE, 3+PE+4                            | 600V             |
|              | M23            | ✓     | ✓                                 |      | 6, 7, 8+1, 9, 12, 16, 17                | 50V, 100V, 150V  |
| PIN & SLEEVE | MULTIMAX       | ✓     |                                   |      | 1+N+PE, 2+PE, 3+PE, 3+N+PE              | 125V - 600V      |
|              | CEE            | ✓     |                                   |      | 1+N+PE, 2+PE, 3+PE, 3+N+PE              | 125V - 500V      |
|              | ULYSSE         | ✓     |                                   |      | 1+N+PE, 2+PE, 3+PE, 3+N+PE              | 125V - 500V      |
|              | ALUPRES        | ✓     |                                   |      | 1+N+PE, 2+PE, 2+N+PE, 3+PE, 3+N+PE      | 125V - 500V      |





EPIC® Brand Overview

| Rated Current | Termination Type* | Wire Range (AWG)               | Housing    | IP/NEMA Rating       | Approvals      |
|---------------|-------------------|--------------------------------|------------|----------------------|----------------|
| 16A           | SC, CR, CC        | 20 - 14, 20 - 12               | HB         | IP65, NEMA 4, 4X, 12 | UL, SP, D'E    |
| 10A, 14A      | SC                | 20 - 14                        | HA         | IP65, NEMA 4, 12     | UL, SP, D'E    |
| 16A           | CR                | 20 - 12                        | HA         | IP65, NEMA 4, 12     | UL, SP, D'E    |
| 10A           | SC, SOL           | 20 - 16                        | HA         | IP65, NEMA 4, 12     | UL, SP, D'E    |
| 16A           | CR                | 20 - 12                        | HB         | IP65, NEMA 4, 4X, 12 | UL, SP, D'E    |
| 35A           | SC                | 20 - 10                        | HB         | IP65, NEMA 4, 4X, 12 | UL, SP, D'E    |
| 16A           | SC                | 20 - 14                        | HB         | IP65, NEMA 4, 4X, 12 | UL, SP, D'E    |
| 10A           | CR                | 26 - 14                        | HA, HB     | IP65, NEMA 4, 4X, 12 | UL, SP, D'E    |
| 8.5A          | CR                | 26 - 14                        | HB         | IP65, NEMA 4, 4X, 12 | UL, SP, D'E    |
| 1A - 82A      | SC, CR, CC, HO    | 28 - 4                         | HB         | IP65, NEMA 4, 4X, 12 | UL, SP, D'E    |
| 16A, 80A      | SC                | 12 - 6, 20 - 14                | HB         | IP65, NEMA 4, 4X, 12 | UL, SP, D'E    |
| 13A, 23A      | CR                | 18 - 16, 14 - 12               | E, M, J, S | up to IP67           | MIL-C-5015     |
| 13A, 23A      | CR                | 18 - 16, 14 - 12               | E, M, J, S | up to IP67           | MIL-C-5015     |
| 7.5A, 13A     | CR                | 24 - 20, 20 - 16               | E, M, J, S | up to IP67           | MIL-C-26482    |
| 26A, 27A      | CR                | 20 - 12, 24 - 18               | LS1        | IP67, IP68           | C, UL, US, D'E |
| 7A, 14A       | CR, SOL           | 18 - 14, 26 - 18               | M23        | IP67, IP68           | C, UL, US, D'E |
| 16A - 32A     | SC                | 16 - 12, 12 - 8                | MULTIMAX   | IP44                 | c, UL, US      |
| 16A - 125A    | SC                | 16 - 12, 12 - 8, 10 - 6, 4 - 1 | CEE        | IP67                 | c, UL, US      |
| 16A - 63A     | SC                | 16 - 12, 12 - 8, 10 - 6        | ULYSSE     | IP66, IP67           | c, UL, US      |
| 16A - 63A     | SC                | 16 - 12, 12 - 8, 10 - 6        | ALUPRES    | IP67, IP55           | c, UL, US      |

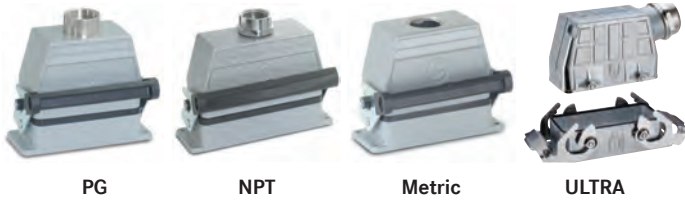
\* Termination Type: SC = Screw, CR = Crimp, CC = Cage Clamp, SOL = Solder, HO = Hose



# Overview: EPIC® Housings

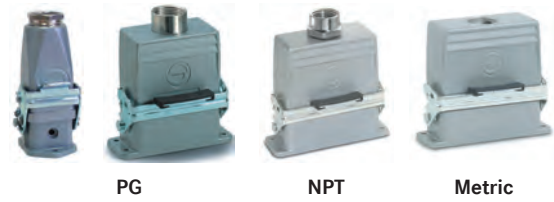
## EPIC® HB Series

Standard Gray (NEMA 4, IP65)



## EPIC® HA Series

Standard Gray (NEMA 4, IP65)



\* Please note that all EPIC® rectangular plugs and receptacles fit either into a HB or a HA series housing.



**Strain Relief:** Strain relief provides a seal between the cable and the connector housing. It may also be used to offer additional functions like strain relief and braid continuity for EMC protection.

**Hood:** The connector housing allows for cable entry and protects the contact terminations from physical and environmental damage. EPIC® rectangular hoods are available as top-entry or side-entry in a variety of sizes and entry thread types (PG, NPT, or metric).

**Male & Female Inserts:** The inserts house and insulate the contacts. Types of contact termination:

- Screw termination
- Crimp termination (stamped & formed or machined)
  - \* Crimp contacts must be purchased separately
- Cage clamp (screwless spring)

**Base:** Mates with the hood to complete the connection

- Panel Mount: cable entry through cut out in panel.
- Surface Mount: cable entry through a gland into the side of the connector base.
- Cable Connector Hood: cable-to-cable connection; the cable connector mates with a top-entry hood. This is frequently used to extend cables.

### Technical Data

|                           |   |                                   |  |
|---------------------------|---|-----------------------------------|--|
| <b>Specifications:</b>    | DIN 43652   | <b>Materials:</b>                 |  |
| <b>Temperature Range:</b> | -40°C to +125°C   | - EPIC® ULTRA HB 6 - 24:          | Nickel plated zinc; stainless steel locking levers & bolts   |
| - EPIC® ULTRA:            | -40°C to +100°C   | - EPIC® HB 6-48 & EPIC® HA 10-64: | Aluminum alloy; powder-coated (gray RAL 7001); zinc-plated steel locking levers & bolts                        |
| <b>Protection Class*:</b> | IP65, NEMA 4, NEMA 12, or IP65, NEMA 4X, NEMA 12 (consult for availability) | - EPIC® HA 3/4:                   | Die-cast zinc; powder-coated or thermoplastic flame-retardant material rated UL 94 V-0 (gray or black plastic) |

EPIC® rectangular connectors shall comply with all applicable requirements of Underwriters Laboratory (UL) Standards 1977 & 498, VDE Standard 0110 for creepage and clearance distances and VDE Standard 0627 for the connector design. The EPIC® HD and HDD series are developed according to DIN Standard 43652.

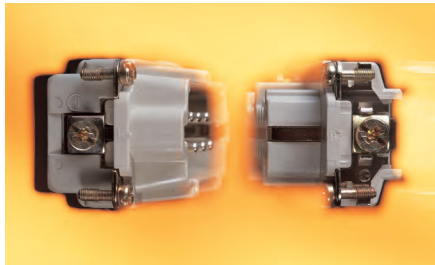
### Approvals



\* EPIC® connectors meet protection class standards only when in the mated condition.

# Overview: EPIC® Plugs & Receptacles

EPIC® HBE page 295



| Technical Data |  |
|----------------|--|
| # of Contacts: | 6, 10, 16, 24, 32, 48 (+PE)  |
| Rated Voltage: | 600V   |
| Rated Current: | 16A  |
| Termination:   | Screw, crimp, cage clamp   |
| Wire Size:     | 20-14 AWG (0.5-2.5 mm <sup>2</sup> )<br>Crimp available in 12 AWG (4 mm <sup>2</sup> ) |

EPIC® HA page 304



| Technical Data |                                      |
|----------------|--------------------------------------|
| # of Contacts: | 3, 4, 10, 16, 32, 48, 64 (+PE)       |
| Rated Voltage: | 600V                                 |
| Rated Current: | - HA 3/4: 10A<br>- HA 10-64: 14A     |
| Termination:   | Screw                                |
| Wire Size:     | 20-14 AWG (0.5-2.5 mm <sup>2</sup> ) |

EPIC® HQ page 308



| Technical Data |                                      |
|----------------|--------------------------------------|
| # of Contacts: | 5 (+PE)                              |
| Rated Voltage: | 600V                                 |
| Rated Current: | 16A                                  |
| Termination:   | Crimp                                |
| Wire Size:     | 20-14 AWG (0.5-2.5 mm <sup>2</sup> ) |

EPIC® STA page 310



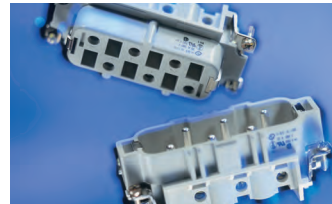
| Technical Data |                                      |
|----------------|--------------------------------------|
| # of Contacts: | 6, 14, 20, 40 (+PE)                  |
| Rated Voltage: | 48V                                  |
| Rated Current: | 10A                                  |
| Termination:   | Screw, solder                        |
| Wire Size:     | 20-16 AWG (0.5-1.5 mm <sup>2</sup> ) |

EPIC® HEE page 313



| Technical Data |                                    |
|----------------|------------------------------------|
| # of Contacts: | 10, 18, 32, 46, 64, 92 (+PE)       |
| Rated Voltage: | 600V                               |
| Rated Current: | 16A                                |
| Termination:   | Crimp                              |
| Wire Size:     | 20-12 AWG (0.5-4 mm <sup>2</sup> ) |

EPIC® HBS page 317



| Technical Data |                                    |
|----------------|------------------------------------|
| # of Contacts: | 6, 12 (+PE)                        |
| Rated Voltage: | 600V                               |
| Rated Current: | 35A                                |
| Termination:   | Screw                              |
| Wire Size:     | 20-10 AWG (0.5-6 mm <sup>2</sup> ) |

EPIC® HBVE page 319



| Technical Data |                                      |
|----------------|--------------------------------------|
| # of Contacts: | 3, 6, 10 (+PE)                       |
| Rated Voltage: | 600V                                 |
| Rated Current: | 16A                                  |
| Termination:   | Screw                                |
| Wire Size:     | 20-14 AWG (0.5-2.5 mm <sup>2</sup> ) |

EPIC® HD page 321



| Technical Data |   |
|----------------|---|
| # of Contacts: | 7, 8, 15, 25, 40, 50, 64, 80, 128 (+PE) |
| Rated Voltage: | 600V                                    |
| Rated Current: | 10A                                     |
| Termination:   | Crimp                                   |
| Wire Size:     | 22-14 AWG (0.14-2.5 mm <sup>2</sup> )   |

EPIC® HDD page 340



| Technical Data |                                       |
|----------------|---------------------------------------|
| # of Contacts: | 24, 42, 72, 108, 144, 216 (+PE)       |
| Rated Voltage: | 600V                                  |
| Rated Current: | 8.5A                                  |
| Termination:   | Crimp                                 |
| Wire Size:     | 22-14 AWG (0.14-2.5 mm <sup>2</sup> ) |

EPIC® MC page 344



| Technical Data |                                     |
|----------------|-------------------------------------|
| # of Contacts: | 2-280 (+PE)                         |
| Rated Voltage: | 30-1000V                            |
| Rated Current: | 1-82A                               |
| Termination:   | Screw, crimp, coax, cage clamp      |
| Wire Size:     | 28-4 AWG (0.06-25 mm <sup>2</sup> ) |

EPIC® Mixed Power page 363



| Technical Data |   |
|----------------|---|
| # of Contacts: | 4 pwr, 4 pwr/2 sig, 4 pwr/8 sig   |
| Rated Voltage: | 600V  |
| Rated Current: | 16A, 80A  |
| Termination:   | Screw   |
| Wire Size:     | - Power ≤ 6 AWG (16 mm <sup>2</sup> )<br>- Signal ≤ 14 AWG (2.5 mm <sup>2</sup> ) |

# Overview: EPIC® Plugs & Receptacles

|                     | Connector Type | HBE       | HA      | HQ  | STA | HEE | HBS | HBVE | HD  | HDD | MC      | MP      |
|---------------------|----------------|-----------|---------|-----|-----|-----|-----|------|-----|-----|---------|---------|
|                     | page           | 295       | 304     | 308 | 310 | 313 | 317 | 319  | 321 | 340 | 344     | 363     |
| # of Conductors +PE | 3              |           | ✓       |     |     |     |     | ✓    |     |     |         |         |
|                     | 4              |           | ✓       |     |     |     |     |      |     |     |         |         |
|                     | 5              |           |         | ✓   |     |     |     |      |     |     |         |         |
|                     | 6              | ✓         |         |     | ✓   |     | ✓   | ✓    |     |     |         |         |
|                     | 7              |           |         |     |     |     |     |      | ✓   |     |         |         |
|                     | 8              |           |         |     |     |     |     |      | ✓   |     |         |         |
|                     | 10             | ✓         | ✓       |     |     | ✓   |     | ✓    |     |     |         |         |
|                     | 12             |           |         |     |     |     | ✓   |      |     |     |         |         |
|                     | 14             |           |         |     | ✓   |     |     |      |     |     |         |         |
|                     | 15             |           |         |     |     |     |     |      | ✓   |     |         |         |
|                     | 16             | ✓         | ✓       |     |     |     |     |      |     |     |         |         |
|                     | 18             |           |         |     |     | ✓   |     |      |     |     |         |         |
|                     | 20             |           |         |     | ✓   |     |     |      |     |     |         |         |
|                     | 24             | ✓         |         |     |     |     |     |      |     |     | ✓       |         |
|                     | 25             |           |         |     |     |     |     |      | ✓   |     |         |         |
|                     | 32             | ✓         | ✓       |     |     | ✓   |     |      |     |     |         |         |
|                     | 40             |           |         |     | ✓   |     |     |      |     | ✓   |         |         |
|                     | 42             |           |         |     |     |     |     |      |     |     | ✓       |         |
|                     | 46             |           |         |     |     | ✓   |     |      |     |     |         |         |
|                     | 48             | ✓         | ✓       |     |     |     |     |      |     |     |         |         |
|                     | 50             |           |         |     |     |     |     |      | ✓   |     |         |         |
|                     | 64             |           | ✓       |     |     |     | ✓   |      | ✓   |     |         |         |
|                     | 72             |           |         |     |     |     |     |      |     | ✓   |         |         |
|                     | 80             |           |         |     |     |     |     |      | ✓   |     |         |         |
|                     | 92             |           |         |     |     |     | ✓   |      |     |     |         |         |
|                     | 108            |           |         |     |     |     |     |      |     |     | ✓       |         |
|                     | 128            |           |         |     |     |     |     |      | ✓   |     |         |         |
|                     | 144            |           |         |     |     |     |     |      |     |     | ✓       |         |
| 216                 |                |           |         |     |     |     |     |      |     | ✓   |         |         |
| 2-280               |                |           |         |     |     |     |     |      |     |     | ✓       |         |
| 4 pwr + 0 sig       |                |           |         |     |     |     |     |      |     |     |         | ✓       |
| 4 pwr + 2 sig       |                |           |         |     |     |     |     |      |     |     |         | ✓       |
| 4 pwr + 8 sig       |                |           |         |     |     |     |     |      |     |     |         | ✓       |
| UL Rated Voltage    | 48V            |           |         |     | ✓   |     |     |      |     |     |         |         |
|                     | 600V           | ✓         | ✓       | ✓   |     | ✓   | ✓   | ✓    | ✓   | ✓   |         |         |
|                     | 30V - 1000V    |           |         |     |     |     |     |      |     |     | ✓       |         |
|                     | 380V - 600V    |           |         |     |     |     |     |      |     |     |         | ✓       |
| Rated Current       | 8.5A           |           |         |     |     |     |     |      |     | ✓   |         |         |
|                     | 10A            |           | ✓ (3/4) |     | ✓   |     |     |      | ✓   |     |         |         |
|                     | 14A            |           | ✓       |     |     |     |     |      |     |     |         |         |
|                     | 16A            | ✓         |         | ✓   |     | ✓   |     | ✓    |     |     |         |         |
|                     | 35A            |           |         |     |     |     | ✓   |      |     |     |         |         |
|                     | 1A - 82A       |           |         |     |     |     |     |      |     |     | ✓       |         |
| 16A - 80A           |                |           |         |     |     |     |     |      |     |     | ✓       |         |
| Termination Type    | Cage Clamp     | ✓         |         |     |     |     |     |      |     |     | ✓       |         |
|                     | Crimp          | ✓         |         | ✓   |     | ✓   |     |      | ✓   | ✓   | ✓       |         |
|                     | Screw          | ✓         | ✓       |     | ✓   |     | ✓   | ✓    |     |     | ✓       | ✓       |
|                     | Solder         |           |         |     | ✓   |     |     |      |     |     |         |         |
| Wire Size (AWG)     | 20 - 16        |           |         |     | ✓   |     |     |      |     |     |         |         |
|                     | 26 - 14        |           |         |     |     |     |     |      | ✓   | ✓   |         |         |
|                     | 20 - 14        | ✓         | ✓       | ✓   |     |     |     | ✓    |     |     |         |         |
|                     | up to 14       |           |         |     |     |     |     |      |     |     |         | ✓ (sig) |
|                     | 20 - 12        | ✓ (crimp) |         |     |     | ✓   |     |      |     |     |         |         |
|                     | 20 - 10        |           |         |     |     |     | ✓   |      |     |     |         |         |
|                     | 30 - 4         |           |         |     |     |     |     |      |     |     | ✓       |         |
| up to 6             |                |           |         |     |     |     |     |      |     |     | ✓ (pwr) |         |



# Quick Select Chart

Terminate Your ÖLFLEX® Cable With The Right EPIC® Connector

| Wire Gauge        | # of Conductors (incl. ground) | HBE 16A | HA see note | HQ 16A | STA 10 A | HEE 16A | HBS 35A | HBVE 16A | HD 10A | HDD 8.5A | MC see note      | MP see note |
|-------------------|--------------------------------|---------|-------------|--------|----------|---------|---------|----------|--------|----------|------------------|-------------|
| 6 AWG (16 mm²)    | 3                              |         |             |        |          |         |         |          |        |          | MC 2             | Power       |
|                   | 4                              |         |             |        |          |         |         |          |        |          | MC 2             | Power       |
|                   | 5                              |         |             |        |          |         |         |          |        |          | MC 2             | Power       |
| 8 AWG (10 mm²)    | 3                              |         |             |        |          |         |         |          |        |          | MC 2, MC 3       | Power       |
|                   | 4                              |         |             |        |          |         |         |          |        |          | MC 2, MC 3       | Power       |
|                   | 5                              |         |             |        |          |         |         |          |        |          | MC 3 x2          | Power       |
| 10 AWG (6 mm²)    | 3                              |         |             |        |          |         | HBS 6   |          |        |          | MC 2, MC 3       | Power       |
|                   | 4                              |         |             |        |          |         | HBS 6   |          |        |          | MC 2, MC 3       | Power       |
|                   | 5                              |         |             |        |          |         | HBS 6   |          |        |          | MC 3 x2          | Power       |
|                   | 7                              |         |             |        |          |         | HBS 6   |          |        |          | MC 3 x2          | Power       |
| 12 AWG (4 mm²)    | 2                              | HBE 6   |             |        |          |         | HBS 6   |          |        |          | MC 3             |             |
|                   | 3                              | HBE 6   |             |        |          |         | HBS 6   |          |        |          | MC 3             |             |
|                   | 4                              | HBE 6   |             |        |          |         | HBS 6   |          |        |          | MC 3, MC 4, MC 5 |             |
|                   | 5                              | HBE 6   |             |        |          |         | HBS 6   |          |        |          | MC 4, MC 5       |             |
|                   | 7                              | HBE 6   |             |        |          |         | HBS 6   |          |        |          | MC 3 x2          |             |
| 14 AWG (2.50 mm²) | 2                              | HBE 6   | HA 3        | HQ 5   |          |         | HBS 6   | HBVE 3   | HD 7   |          | MC 3             | Signal      |
|                   | 3                              | HBE 6   | HA 3        | HQ 5   |          |         | HBS 6   | HBVE 3   | HD 7   |          | MC 3             | Signal      |
|                   | 4                              | HBE 6   | HA 3        | HQ 5   |          |         | HBS 6   | HBVE 3   | HD 7   |          | MC 3, MC 4, MC 5 | Signal      |
|                   | 5                              | HBE 6   | HA 4        | HQ 5   |          |         | HBS 6   | HBVE 6   | HD 7   |          | MC 4, MC 5       | Signal      |
|                   | 7                              | HBE 6   | HA 10       |        |          | HEE 10  | HBS 6   | HBVE 6   | HD 7   |          | MC 10            | Signal      |
|                   | 9                              | HBE 10  | HA 10       |        |          | HEE 10  | HBS 12  | HBVE 10  | HD 8   |          | MC 10            | Signal      |
|                   | 12                             | HBE 16  | HA 16       |        |          | HEE 18  | HBS 12  |          | HD 15  |          | MC 10 x2         |             |
|                   | 18                             | HBE 24  | HA 32       |        |          | HEE 18  |         |          | HD 24  | HDD 24   | MC 10 x2         |             |
| 25                | HBE 24                         | HA 32   |             |        | HEE 32   |         |         | HD 24    | HDD 24 | MC 10 x3 |                  |             |
| 16 AWG (1.50 mm²) | 2                              | HBE 6   | HA 3        | HQ 5   | STA 6    |         | HBS 6   | HBVE 3   | HD 7   |          | MC 3             | Signal      |
|                   | 3                              | HBE 6   | HA 3        | HQ 5   | STA 6    |         | HBS 6   | HBVE 3   | HD 7   |          | MC 3             | Signal      |
|                   | 4                              | HBE 6   | HA 3        | HQ 5   | STA 6    |         | HBS 6   | HBVE 3   | HD 7   |          | MC 3, MC 4, MC 5 | Signal      |
|                   | 5                              | HBE 6   | HA 4        | HQ 5   | STA 6    |         | HBS 6   | HBVE 6   | HD 7   |          | MC 4, MC 5       | Signal      |
|                   | 7                              | HBE 6   | HA 10       |        | STA 6    | HEE 10  | HBS 6   | HBVE 6   | HD 7   |          | MC 10            | Signal      |
|                   | 9                              | HBE 10  | HA 10       |        | STA 14   | HEE 10  | HBS 12  | HBVE 10  | HD 8   |          | MC 10            | Signal      |
|                   | 12                             | HBE 16  | HA 16       |        | STA 14   | HEE 18  | HBS 12  |          | HD 15  |          | MC 10 x2         |             |
|                   | 18                             | HBE 24  | HA 32       |        | STA 20   | HEE 18  |         |          | HD 24  | HDD 24   | MC 10 x2         |             |
|                   | 25                             | HBE 24  | HA 32       |        | STA 40   | HEE 32  |         |          | HD 24  | HDD 24   | MC 10 x3         |             |
|                   | 34                             | HBE 48  | HA 48       |        | STA 40   | HEE 46  |         |          | HD 40  | HDD 42   | MC 10 x4         |             |
|                   | 41                             | HBE 48  | HA 48       |        | STA 40   | HEE 46  |         |          | HD 40  | HDD 42   | MC 10 x4         |             |
|                   | 50                             |         | HA 64       |        |          | HEE 64  |         |          | HD 50  | HDD 72   | MC 10 x5         |             |
|                   | 60                             |         | HA 64       |        |          | HEE 64  |         |          | HD 64  | HDD 72   | MC 10 x6         |             |
| 61                |                                | HA 64   |             |        | HEE 64   |         |         | HD 64    | HDD 72 | MC 10 x6 |                  |             |
| 18 AWG (1.00 mm²) | 2                              | HBE 6   | HA 3        | HQ 5   | STA 6    |         | HBS 6   | HBVE 3   | HD 7   |          | MC 4             | Signal      |
|                   | 3                              | HBE 6   | HA 3        | HQ 5   | STA 6    |         | HBS 6   | HBVE 3   | HD 7   |          | MC 4             | Signal      |
|                   | 4                              | HBE 6   | HA 3        | HQ 5   | STA 6    |         | HBS 6   | HBVE 3   | HD 7   |          | MC 4, MC 5       | Signal      |
|                   | 5                              | HBE 6   | HA 4        | HQ 5   | STA 6    |         | HBS 6   | HBVE 6   | HD 7   |          | MC 4, MC 5       | Signal      |
|                   | 7                              | HBE 6   | HA 10       |        | STA 6    | HEE 10  | HBS 6   | HBVE 6   | HD 7   |          | MC 10            | Signal      |
|                   | 9                              | HBE 10  | HA 10       |        | STA 14   | HEE 10  | HBS 12  | HBVE 10  | HD 8   |          | MC 10            | Signal      |
|                   | 12                             | HBE 16  | HA 16       |        | STA 14   | HEE 18  | HBS 12  |          | HD 15  |          | MC 10 x2         |             |
|                   | 18                             | HBE 24  | HA 32       |        | STA 20   | HEE 18  |         |          | HD 24  | HDD 24   | MC 10 x2         |             |
|                   | 25                             | HBE 24  | HA 32       |        | STA 40   | HEE 32  |         |          | HD 24  | HDD 24   | MC 10 x3         |             |
|                   | 34                             | HBE 48  | HA 48       |        | STA 40   | HEE 46  |         |          | HD 40  | HDD 42   | MC 10 x4         |             |
|                   | 41                             | HBE 48  | HA 48       |        | STA 40   | HEE 46  |         |          | HD 40  | HDD 42   | MC 10 x4         |             |
| 50                |                                | HA 64   |             |        | HEE 64   |         |         | HD 50    | HDD 72 | MC 10 x5 |                  |             |
| 61                |                                | HA 64   |             |        | HEE 64   |         |         | HD 64    | HDD 72 | MC 10 x6 |                  |             |
| 20 AWG (0.50 mm²) | 2                              | HBE 6   | HA 3        | HQ 5   | STA 6    |         | HBS 6   | HBVE 3   | HD 7   |          | MC 4             | Signal      |
|                   | 3                              | HBE 6   | HA 3        | HQ 5   | STA 6    |         | HBS 6   | HBVE 3   | HD 7   |          | MC 4             | Signal      |
|                   | 4                              | HBE 6   | HA 3        | HQ 5   | STA 6    |         | HBS 6   | HBVE 3   | HD 7   |          | MC 4, MC 5       | Signal      |
|                   | 5                              | HBE 6   | HA 4        | HQ 5   | STA 6    |         | HBS 6   | HBVE 6   | HD 7   |          | MC 4, MC 5       | Signal      |
|                   | 7                              | HBE 6   | HA 10       |        | STA 6    | HEE 10  | HBS 6   | HBVE 6   | HD 7   |          | MC 10            | Signal      |
|                   | 9                              | HBE 10  | HA 10       |        | STA 14   | HEE 10  | HBS 12  | HBVE 10  | HD 8   |          | MC 10            | Signal      |
|                   | 10                             | HBE 10  | HA 10       |        | STA 14   | HEE 10  | HBS 12  | HBVE 10  | HD 15  |          | MC 10            |             |
|                   | 12                             | HBE 16  | HA 16       |        | STA 14   | HEE 18  | HBS 12  |          | HD 15  |          | MC 20            |             |
|                   | 18                             | HBE 24  | HA 32       |        | STA 20   | HEE 18  |         |          | HD 24  | HDD 24   | MC 20            |             |
|                   | 24                             | HBE 24  | HA 32       |        | STA 40   | HEE 32  |         |          | HD 24  | HDD 24   | MC 20 x2         |             |
|                   | 25                             | HBE 24  | HA 32       |        | STA 40   | HEE 32  |         |          | HD 24  | HDD 24   | MC 20 x2         |             |
|                   | 34                             | HBE 48  | HA 48       |        | STA 40   | HEE 46  |         |          | HD 40  | HDD 42   | MC 20 x2         |             |

Note: The amperage for all series listed in black can be found at the top of the column. Amperages for HA, MC & MP Series are as follows:

4 Amps 10 Amps 14 Amps 16 Amps 20 Amps 25 Amps 50 Amps 80 Amps 83 Amps

- The above chart shows the relationship between cable wire gauge and conductor count with connector contact count. Final connector selection and application suitability will depend on voltage and current limits of the cable and connector.
- The MC Series modular connector offers a wide variety of mix-and-match combinations. The combinations shown in the above chart are offered as suggestions based on providing a solution in the smallest housing size.

# Quick Select Chart

Terminate Your ÖLFLEX® Cable With The Right EPIC® Connector

| Wire Gauge           | # of Conductors (incl. ground) | HBE<br>16A | HA<br>see note | HQ<br>16A | STA<br>10A | HEE<br>16A | HBS<br>35A | HBVE<br>16A | HD<br>10A | HDD<br>8.5A | MC<br>see note | MP<br>see note |
|----------------------|--------------------------------|------------|----------------|-----------|------------|------------|------------|-------------|-----------|-------------|----------------|----------------|
| 22 AWG<br>(0.34 mm²) | 2                              |            |                |           |            |            |            |             | HD 7      |             |                |                |
|                      | 3                              |            |                |           |            |            |            |             | HD 7      |             |                |                |
|                      | 4                              |            |                |           |            |            |            |             | HD 7      |             |                |                |
|                      | 5                              |            |                |           |            |            |            |             | HD 7      |             | MC 10          |                |
|                      | 7                              |            |                |           |            |            |            |             | HD 7      |             | MC 10          |                |
|                      | 8                              |            |                |           |            |            |            |             | HD 7      |             | MC 10          |                |
|                      | 10                             |            |                |           |            |            |            |             | HD 15     |             | MC 10          |                |
|                      | 12                             |            |                |           |            |            |            |             | HD 15     |             | MC 20          |                |
|                      | 14                             |            |                |           |            |            |            |             | HD 15     |             | MC 20          |                |
|                      | 15                             |            |                |           |            |            |            |             | HD 15     |             | MC 20          |                |
|                      | 16                             |            |                |           |            |            |            |             | HD 15     |             | MC 20          |                |
|                      | 18                             |            |                |           |            |            |            |             | HD 24     | HDD 24      | MC 20          |                |
|                      | 20                             |            |                |           |            |            |            |             | HD 24     | HDD 24      | MC 20          |                |
|                      | 21                             |            |                |           |            |            |            |             | HD 24     | HDD 24      | MC 20          |                |
|                      | 25                             |            |                |           |            |            |            |             | HD 24     | HDD 24      | MC 20 x2       |                |
|                      | 28                             |            |                |           |            |            |            |             | HD 40     | HDD 42      | MC 20 x2       |                |
|                      | 30                             |            |                |           |            |            |            |             | HD 40     | HDD 42      | MC 20 x2       |                |
|                      | 32                             |            |                |           |            |            |            |             | HD 40     | HDD 42      | MC 20 x2       |                |
| 36                   |                                |            |                |           |            |            |            | HD 40       | HDD 42    | MC 20 x2    |                |                |
| 40                   |                                |            |                |           |            |            |            | HD 40       | HDD 42    | MC 20 x2    |                |                |
| 44                   |                                |            |                |           |            |            |            | HD 50       | HDD 72    | MC 20 x3    |                |                |
| 50                   |                                |            |                |           |            |            |            | HD 50       | HDD 72    | MC 20 x3    |                |                |
| 61                   |                                |            |                |           |            |            |            | HD 64       | HDD 72    | MC 20 x3    |                |                |
| 24 AWG<br>(0.25 mm²) | 5                              |            |                |           |            |            |            |             |           |             |                |                |
|                      | 7                              |            |                |           |            |            |            |             |           |             |                |                |
|                      | 8                              |            |                |           |            |            |            |             |           |             |                |                |
|                      | 10                             |            |                |           |            |            |            |             |           |             |                |                |
|                      | 12                             |            |                |           |            |            |            |             |           |             | MC 20          |                |
|                      | 14                             |            |                |           |            |            |            |             |           |             | MC 20          |                |
|                      | 15                             |            |                |           |            |            |            |             |           |             | MC 20          |                |
|                      | 16                             |            |                |           |            |            |            |             |           |             | MC 20          |                |
|                      | 18                             |            |                |           |            |            |            |             |           |             | MC 20          |                |
|                      | 20                             |            |                |           |            |            |            |             |           |             | MC 20          |                |
|                      | 21                             |            |                |           |            |            |            |             |           |             | MC 20          |                |
| 26 AWG<br>(0.14 mm²) | 25                             |            |                |           |            |            |            |             |           |             | MC 20 x2       |                |
|                      | 28                             |            |                |           |            |            |            |             |           |             | MC 20 x2       |                |
|                      | 30                             |            |                |           |            |            |            |             |           |             | MC 20 x2       |                |
|                      | 32                             |            |                |           |            |            |            |             |           |             | MC 20 x2       |                |
|                      | 36                             |            |                |           |            |            |            |             |           |             | MC 20 x2       |                |
|                      | 40                             |            |                |           |            |            |            |             |           |             | MC 20 x2       |                |
|                      | 44                             |            |                |           |            |            |            |             |           |             | MC 20 x3       |                |
|                      | 50                             |            |                |           |            |            |            |             |           |             | MC 20 x3       |                |
|                      | 61                             |            |                |           |            |            |            |             |           |             | MC 20 x3       |                |
|                      | 28 AWG<br>(0.08 mm²)           | 10         |                |           |            |            |            |             |           |             |                | MC 20          |
| 12                   |                                |            |                |           |            |            |            |             |           |             | MC 20          |                |
| 14                   |                                |            |                |           |            |            |            |             |           |             | MC 20          |                |
| 15                   |                                |            |                |           |            |            |            |             |           |             | MC 20          |                |
| 16                   |                                |            |                |           |            |            |            |             |           |             | MC 20          |                |
| 18                   |                                |            |                |           |            |            |            |             |           |             | MC 20          |                |
| 20                   |                                |            |                |           |            |            |            |             |           |             | MC 20          |                |
| 21                   |                                |            |                |           |            |            |            |             |           |             | MC 20          |                |
| 25                   |                                |            |                |           |            |            |            |             |           |             | MC 20 x2       |                |
| 28                   |                                |            |                |           |            |            |            |             |           |             | MC 20 x2       |                |
| 30                   |                                |            |                |           |            |            |            |             |           |             | MC 20 x2       |                |
| 32                   |                                |            |                |           |            |            |            |             |           |             | MC 20 x2       |                |
| 36                   |                                |            |                |           |            |            |            |             |           |             | MC 20 x2       |                |
| 40                   |                                |            |                |           |            |            |            |             |           |             | MC 20 x2       |                |
| 44                   |                                |            |                |           |            |            |            |             |           | MC 20 x3    |                |                |
| 50                   |                                |            |                |           |            |            |            |             |           | MC 20 x3    |                |                |
| 61                   |                                |            |                |           |            |            |            |             |           | MC 20 x3    |                |                |

Note: The amperage for all series listed in black can be found at the top of the column. Amperages for HA, MC & MP Series are as follows:

4 Amps 10 Amps 14 Amps 16 Amps 20 Amps 25 Amps 50 Amps 80 Amps 83 Amps

- The above chart shows the relationship between cable wire gauge and conductor count with connector contact count. Final connector selection and application suitability will depend on voltage and current limits of the cable and connector.
- The MC Series modular connector offers a wide variety of mix-and-match combinations. The combinations shown in the above chart are offered as suggestions based on providing a solution in the smallest housing size.

# Quick Select Summary: Plugs & Receptacles

EPIC® HBE



Cage Clamp



Crimp-Terminated  
Contacts not included.



Screw-Terminated

| Technical Data |   |
|----------------|---|
| # of Contacts: | 6, 10, 16, 24, 32, 48 (+PE)   |
| Rated Voltage: | 600V  |
| Rated Current: | 16A   |
| Termination:   | Screw, crimp, cage clamp  |
| Wire Size:     | 20- 14 AWG (0.5-2.5 mm <sup>2</sup> )<br>Crimp available in 12 AWG (4 mm <sup>2</sup> ) |

| Description                                     | HBE 6<br>page 297 | HBE 10<br>page 298 | HBE 16<br>page 299 | HBE 24<br>page 301 | HBE 32*<br>page 303 | HBE 48†<br>page 303 |
|---|-------------------|--------------------|--------------------|--------------------|---------------------|---------------------|
| <b>Screw-Terminated with Wire Protection</b>    |                   |                    |                    |                    |                     |                     |
| Plug  | 10190000          | 10192000           | 10194000           | 10196000           | 10202000            | 10204000            |
| Receptacle                                      | 10191000          | 10193000           | 10195000           | 10197000           | 10203000            | 10205000            |
| <b>Screw-Terminated without Wire Protection</b> |                   |                    |                    |                    |                     |                     |
| Plug  | 10190100          | 10192100           | 10194100           | 10196100           | 10202100            | 10204100            |
| Receptacle                                      | 10191100          | 10193100           | 10195100           | 10197100           | 10203100            | 10205100            |
| <b>Crimp-Terminated</b>                         |                   |                    |                    |                    |                     |                     |
| Plug  | 10180000          | 10182000           | 10184000           | 10186000           | 10184200            | 10186200            |
| Receptacle                                      | 10181000          | 10183000           | 10185000           | 10187000           | 10185200            | 10187200            |
| <b>Screwless Cage Clamp</b>                     |                   |                    |                    |                    |                     |                     |
| Plug  | 10400000          | 10400100           | 10400200           | 10400300           | 10400400            | 10400500            |
| Receptacle                                      | 10401000          | 10401100           | 10401200           | 10401300           | 10401400            | 10401500            |
| <b>Terminal Block Receptacles</b>               |                   |                    |                    |                    |                     |                     |
| Left Ground                                     | —                 | —                  | 70314100           | 70316100           | —                   | —                   |
| Right Ground                                    | —                 | —                  | 70315100           | 70317100           | —                   | —                   |

\* HBE 32 = HBE 16 (x2) † HBE 48 = HBE 24 (x2)

| Mating Housings |         |
|-----------------|---------|
| Insert          | Housing |
| HBE 6           | HB 6    |
| HBE 10          | HB 10   |
| HBE 16          | HB 16   |
| HBE 24          | HB 24   |
| HBE 32          | HB 32   |
| HBE 48          | HB 48   |

Use 2.5 mm  
crimp contacts:  
page 288



| Technical Data |                                       |
|----------------|---------------------------------------|
| # of Contacts: | 3, 4, 10, 16, 32, 48, 64 (+PE)        |
| Rated Voltage: | 600V                                  |
| Rated Current: | 10A                                   |
| - HA 3/4:      | 10A                                   |
| - HA 10-64:    | 14A                                   |
| Termination:   | Screw                                 |
| Wire Size:     | 20- 14 AWG (0.5-2.5 mm <sup>2</sup> ) |

| Description   | HA 3<br>page 304 | HA 4<br>page 304 | HA 10<br>page 305 | HA 16<br>page 306 | HA 32*<br>page 306 | HA 48†<br>page 307 | HA 64*<br>page 307 |
|---|------------------|------------------|-------------------|-------------------|--------------------|--------------------|--------------------|
| <b>EPIC® HA: Screw-Terminated with Wire Protection</b>    |                  |                  |                   |                   |                    |                    |                    |
| Plug  | 10420000         | 10431000         | 10440100          | 10530000          | 10540000           | 10540100           | 105300LE64         |
| Receptacle  | 10421000         | 10432000         | 10441100          | 10531000          | 10541000           | 10541100           | 105310LE64         |
| <b>EPIC® HA: Screw-Terminated without Wire Protection</b> |                  |                  |                   |                   |                    |                    |                    |
| Plug  | —                | —                | 10440000          | 10532000          | 10542000           | 10542100           | —                  |
| Receptacle  | —                | —                | 10441000          | 10533000          | 10543000           | 10543100           | —                  |

\* HA 32 = HA 16 (x2) † HA 48 = HA 16 (x3) \* HA 64 = HA 16 (x4)

| Mating Housings |         |
|-----------------|---------|
| Insert          | Housing |
| HA 3/4          | HA 3/4  |
| HA 10           | HA 10   |
| HA 16           | HA 16   |
| HA 32           | HA 32   |
| HA 48           | HA 48   |
| HA 64           | HA 64   |

EPIC® HQ



Contacts not included.

| Technical Data |  |
|----------------|--|
| # of Contacts: | 5 (+PE)                                  |
| Rated Voltage: | 600V                                     |
| Rated Current: | 16A                                      |
| Termination:   | Crimp                                    |
| Wire Size:     | 20- 14 AWG<br>(0.5-2.5 mm <sup>2</sup> ) |

| Mating Housings |         |
|-----------------|---------|
| Insert          | Housing |
| HQ 5            | HA 3/4  |

Use 2.5 mm  
crimp contacts:  
page 288

| Description | HQ 5<br>page 309 |
|-------------|------------------|
| Plug        | 10431500         |
| Receptacle  | 10432500         |

EPIC® STA



| Technical Data |  |
|----------------|--|
| # of Contacts: | 6, 14, 20, 40* (+PE)                     |
| Rated Voltage: | 48V                                      |
| Rated Current: | 10A                                      |
| Termination:   | Screw, solder                            |
| Wire Size:     | 20- 16 AWG<br>(0.5-1.5 mm <sup>2</sup> ) |

| Description              | STA 6<br>page 311 | STA 14<br>page 311 | STA 20<br>page 312 |
|--------------------------|-------------------|--------------------|--------------------|
| <b>Screw-Terminated</b>  |                   |                    |                    |
| Plug                     | 10488100          | 10493100           | 10503100           |
| Receptacle               | 10486100          | 10491100           | 10501100           |
| <b>Solder-Terminated</b> |                   |                    |                    |
| Plug                     | 10487200          | 10492200           | 10502200           |
| Receptacle               | 10485200          | 10490200           | 10500200           |

| Mating Housings |         |
|-----------------|---------|
| Insert          | Housing |
| STA 6           | HA 3/4  |
| STA 14          | HA 10   |
| STA 20          | HA 16   |
| STA 40          | HA 32   |

\* STA 40 = STA 20 (x2)

Photographs are not to scale and are not true representations of the products in question.  
For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.



# Quick Select Summary: Plugs & Receptacles

## EPIC® HEE



Contacts not included.

| Technical Data |                                      |
|----------------|--------------------------------------|
| # of Contacts: | 10, 18, 32, 46, 64, 92 (+PE)         |
| Rated Voltage: | 600V                                 |
| Rated Current: | 16A                                  |
| Termination:   | Crimp                                |
| Wire Size:     | 20-12 AWG (0.5-4.0 mm <sup>2</sup> ) |

| Mating Housings |         |
|-----------------|---------|
| Insert          | Housing |
| HEE 10          | HB 6    |
| HEE 18          | HB 10   |
| HEE 32          | HB 16   |
| HEE 46          | HB 24   |
| HEE 64          | HB 32   |
| HEE 92          | HB 48   |

Use 2.5 mm crimp contacts: page 288

\* HEE 64 = HEE 32 (x2)  
† HEE 92 = HEE 46 (x2)

| Description | HEE 10<br>page 314 | HEE 18<br>page 314 | HEE 32<br>page 315 | HEE 46<br>page 315 | HEE 64*<br>page 316 | HEE 92†<br>page 316 |
|-------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|
| Plug        | 10180400           | 10182400           | 10184400           | 10186400           | 10184500            | 10186500            |
| Receptacle  | 10181400           | 10183400           | 10185400           | 10187400           | 10185500            | 10187500            |

## EPIC® HBS



| Technical Data |                                      |
|----------------|--------------------------------------|
| # of Contacts: | 6, 12 (+PE)                          |
| Rated Voltage: | 600V                                 |
| Rated Current: | 35A                                  |
| Termination:   | Screw                                |
| Wire Size:     | 20-10 AWG (0.5-6.0 mm <sup>2</sup> ) |

| Description | HBS 6<br>page 318 | HBS 12*<br>page 318 |
|-------------|-------------------|---------------------|
| Plug        | 10170000          | 10170600            |
| Receptacle  | 10171000          | 10171600            |

| Mating Housings |         |
|-----------------|---------|
| Insert          | Housing |
| HBS 6           | HB 16   |
| HBS 12          | HB 32   |

\* HBS 12 = HBS 6 (x2)

## EPIC® HBVE



| Technical Data |                                      |
|----------------|--------------------------------------|
| # of Contacts: | 3, 6, 10 (+PE)                       |
| Rated Voltage: | 600V                                 |
| Rated Current: | 16A                                  |
| Termination:   | Screw                                |
| Wire Size:     | 20-14 AWG (0.5-2.5 mm <sup>2</sup> ) |

| Description                                     | HBVE 3<br>page 320 | HBVE 6<br>page 320 | HBVE 10<br>page 320 |
|---|--------------------|--------------------|---------------------|
| <b>Screw-Terminated with Wire Protection</b>    |                    |                    |                     |
| Plug  | 10210010           | 10239010           | 10270010            |
| Receptacle                                      | 10211010           | 10240010           | 10271010            |
| <b>Screw-Terminated without Wire Protection</b> |                    |                    |                     |
| Plug  | 10210110           | 10239110           | 10270110            |
| Receptacle                                      | 10211110           | 10240110           | 10271110            |

| Mating Housings |         |
|-----------------|---------|
| Insert          | Housing |
| HBVE 3          | HB 10   |
| HBVE 6          | HB 16   |
| HBVE 10         | HB 24   |

## EPIC® HD



Contacts not included.

| Technical Data |   |
|----------------|---|
| # of Contacts: | 7, 8, 15, 25, 40, 50, 64, 80, 128 (+PE) |
| Rated Voltage: | 600V                                    |
| Rated Current: | 10A                                     |
| Termination:   | Crimp                                   |
| Wire Size:     | 26-14 AWG (0.14-2.5 mm <sup>2</sup> )   |

| Mating Housings |         |        |         |
|-----------------|---------|--------|---------|
| Insert          | Housing | Insert | Housing |
| HD 7, 8         | HA 3/4  | HD 50  | HA 32   |
| HD 15           | HA 10   | HD 64  | HB 24   |
| HD 25           | HA 16   | HD 80  | HB 32   |
| HD 40           | HB 16   | HD 128 | HB 48   |

Use 1.6 mm machined contacts: page 288

Use 1.6 mm stamped contacts: page 288

| Description                          | HD 7<br>page 323 | HD 8<br>page 325 | HD 15<br>page 326 | HD 25<br>page 328 | HD 40<br>page 330 |
|--------------------------------------|------------------|------------------|-------------------|-------------------|-------------------|
| <b>Machined Contacts</b>             |                  |                  |                   |                   |                   |
| Plug                                 | 11250500         | 11252500         | 11283200          | 11283300          | 11265200          |
| Receptacle                           | 11251500         | 11253500         | 11282200          | 11282300          | 11266200          |
| <b>Stamped &amp; Formed Contacts</b> |                  |                  |                   |                   |                   |
| Plug                                 | 11250000         | —                | 11255000          | 11260000          | 11265000          |
| Receptacle                           | 11251000         | —                | 11256000          | 11261000          | 11266000          |

| Description                          | HD 50*<br>page 332 | HD 64<br>page 334 | HD 80†<br>page 336 | HD 128*<br>page 338 |
|--------------------------------------|--------------------|-------------------|--------------------|---------------------|
| <b>Machined Contacts</b>             |                    |                   |                    |                     |
| Plug                                 | 11283300           | 11272000          | 11265200           | 11272000            |
| Receptacle                           | 11282300           | 11273000          | 11266200           | 11273000            |
| <b>Stamped &amp; Formed Contacts</b> |                    |                   |                    |                     |
| Plug                                 | 11260000           | 11270000          | 11265000           | 11270000            |
| Receptacle                           | 11261000           | 11271000          | 11266000           | 11271000            |

\* HD 50 = HD 25 (x2)    † HD 80 = HD 40 (x2)    \* HD 128 = HD 64 (x2)

## EPIC® HDD



Contacts not included.

| Technical Data |                                       |
|----------------|---------------------------------------|
| # of Contacts: | 24, 42, 72, 108, 144, 216 (+PE)       |
| Rated Voltage: | 600V                                  |
| Rated Current: | 8.5A                                  |
| Termination:   | Crimp                                 |
| Wire Size:     | 26-14 AWG (0.14-2.5 mm <sup>2</sup> ) |

| Mating Housings |         |
|-----------------|---------|
| Insert          | Housing |
| HDD 24          | HB 6    |
| HDD 42          | HB 10   |
| HDD 72          | HB 16   |
| HDD 108         | HB 24   |
| HDD 144         | HB 32   |
| HDD 216         | HB 48   |

Use 1.6 mm machined contacts: page 288

\* HDD 144 = HDD 72 (x2)  
† HDD 216 = HDD 108 (x2)

| Description | HDD 24<br>page 341 | HDD 42<br>page 341 | HDD 72<br>page 342 | HDD 108<br>page 342 | HDD 144*<br>page 343 | HDD 216†<br>page 343 |
|-------------|--------------------|--------------------|--------------------|---------------------|----------------------|----------------------|
| Plug        | 11285000           | 11285100           | 11285200           | 11285300            | 11285400             | 11285500             |
| Receptacle  | 11286000           | 11286100           | 11286200           | 11286300            | 11286400             | 11286500             |

# Quick Select Summary: Plugs & Receptacles

EPIC® Mixed Power



| Technical Data        |  |                     |                                     |
|-----------------------|--|---------------------|-------------------------------------|
| <b># of Contacts:</b> | 4 pwr + 0 sig, 4 pwr + 2 sig,<br>4 pwr + 8 sig | <b>Termination:</b> | Screw                               |
| <b>Rated Voltage:</b> | 600V   | <b>Wire Size:</b>   |                                     |
| <b>Rated Current:</b> | 16-80A   | - Power:            | up to 6 AWG (16 mm <sup>2</sup> )   |
|                       |  | - Signal:           | up to 14 AWG (2.5 mm <sup>2</sup> ) |

| Description | 4 pwr + 0 sig<br>page 365 | 4 pwr + 2 sig<br>page 365 | 4 pwr + 8 sig<br>page 365 |
|-------------|---------------------------|---------------------------|---------------------------|
| Plug        | MP/M400                   | MP/M402                   | 11/2408                   |
| Receptacle  | MP/F400                   | MP/F402                   | 11/1408                   |

| Mating Housings |         |
|-----------------|---------|
| Insert          | Housing |
| 4p/0s           | HB 16   |
| 4p/2s           | HB 16   |
| 4p/8s           | HB 24   |



Color of components may be different than shown

EPIC® Modular Connectors

| Technical Data        |                                     |
|-----------------------|-------------------------------------|
| <b># of Contacts:</b> | 2-280 (+PE)                         |
| <b>Rated Voltage:</b> | 30-1000V                            |
| <b>Rated Current:</b> | 1-82A                               |
| <b>Termination:</b>   | Screw, crimp, coax, cage clamp      |
| <b>Wire Size:</b>     | 28-4 AWG (0.06-25 mm <sup>2</sup> ) |

| Modules  | Contacts<br>(next 2 pages) | Plug     | Receptacle | Rated Voltage | Rated Current | Page |
|--|----------------------------|----------|------------|---------------|---------------|------|
| 2 Contact Module: 2 Working Contacts                         |                            | 10344100 | 10345100   | 1000V         | 82A           | 348  |
| 2 Contact Module: 1 Working Contact, 1 Ground                |                            | 10344600 | 10345600   | 1000V         | 82A           | 348  |
| 3 Contact Coax Module  | Coax                       | 10399200 | 10399300   | 250V          | —             | 349  |
| 3 Contact Module   | 3.6 mm Machined            | 10382000 | 10382100   | 630V          | 40A           | 350  |
| 3 Contact Module: High Voltage                               | 3.6 mm Machined            | 10399800 | 10399900   | 1000V         | 50A           | 351  |
| 4 Contact Module   | 2.5 mm Machined            | 10399000 | 10399100   | 630V          | 25A           | 352  |
| 4+PE Contact Module: High Voltage                            | 2.5 mm Stamped             | 10383200 | 10383300   | 1000V         | 16A           | 353  |
| 5 Contact Module   | 2.5 mm Machined            | 10382200 | 10382300   | 400V          | 20A           | 354  |
| 10 Contact Module: Machined Contacts                         | 1.6 mm Machined            | 10382400 | 10382500   | 250V          | 10A           | 355  |
| 10 Contact Module: Stamped & Formed Contacts                 | 1.6 mm Stamped             | 10383400 | 10383500   | 250V          | 10A           | 356  |
| 20 Contact Module  | 1.0 mm Stamped             | 10383600 | 10383700   | 100V          | 4A            | 357  |
| Dummy Module   |                            | 10399400 | 10399500   | —             | —             | 358  |
| 4 Contact Cage Clamp Module                                  |                            | 10399600 | 10399700   | 400V          | 14A           | 358  |
| PROFIBUS DP Module   |                            | 10390400 | 10390500   | 30V           | 1A            | 358  |
| Ethernet Module: RJ45 connectors + 4 power contacts          |                            | 10344300 | 10345300   | 600V          | 10A           | 359  |
| Universal Bus Modules  |                            | 10390600 | 10390700   | 30V           | 1A            | 359  |
| Pneumatic Module: 1 Port with 2.5 mm Hose Diameter (inside)  |                            | 44424004 | 44424005   | 145psi        | —             | 360  |
| Pneumatic Module: 1 Port with 4.0 mm Hose Diameter (inside)  |                            | 44424006 | 44424007   | 145psi        | —             | 360  |
| Pneumatic Module: 2 Ports with 2.5 mm Hose Diameter (inside) |                            | 44424008 | 44424009   | 145psi        | —             | 360  |
| Pneumatic Module: 2 Ports with 4.0 mm Hose Diameter (inside) |                            | 44424010 | 44424011   | 145psi        | —             | 360  |

| Frames               | For Plugs     | For Receptacles | Corresponding Housing | Page |
|----------------------|---------------|-----------------|-----------------------|------|
| Frame for 2 Modules  | 10381000      | 10381100        | HB 6                  | 360  |
| Frame for 3 Modules  | 10381200      | 10381300        | HB 10                 | 360  |
| Frame for 5 Modules  | 10381400      | 10381500        | HB 16                 | 361  |
| Frame for 7 Modules  | 10381600      | 10381700        | HB 24                 | 361  |
| Frame for 10 Modules | 10381400 (x2) | 10381500 (x2)   | HB 32                 | 362  |
| Frame for 14 Modules | 10381600 (x2) | 10381700 (x2)   | HB 48                 | 362  |

\* Modules snap into frames.

Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

# Quick Select Summary: Contacts & Tools

**Machined Contacts: 2.5 mm diameter**  
for HBE crimp, HEE, HQ & MC Part # 10399000 & 10399100



Part number = 1 contact, sold in bags of 100

| Accessories        |          |                      |          |
|--------------------|----------|----------------------|----------|
| <b>Crimp Tool:</b> | 11147000 | <b>Locator:</b>      | 11147200 |
| <b>Crimp Die:</b>  | 11147100 | <b>Removal Tool:</b> | 11182500 |

| AWG | mm <sup>2</sup> | Silver   |          | 1 μ Gold |          | 2 μ Gold |          |
|-----|-----------------|----------|----------|----------|----------|----------|----------|
|     |                 | Pin      | Socket   | Pin      | Socket   | Pin      | Socket   |
| 20  | 0.5             | 11190000 | 11195000 | 11192000 | 11197000 | 11194000 | 11199000 |
| 18  | 0.75- 1.0       | 11190100 | 11195100 | 11192100 | 11197100 | 11194100 | 11199100 |
| 16  | 1.5             | 11190200 | 11195200 | 11192200 | 11197200 | 11194200 | 11199200 |
| 14  | 2.5             | 11190300 | 11195300 | —        | —        | —        | —        |
| 12  | 4.0             | 11190400 | 11195400 | —        | —        | —        | —        |

**Machined Contacts: 1.6 mm diameter**  
for HD machine, HDD & MC Part # 10382400 & 10382500



Part number = 1 contact, sold in bags of 100

| Accessories        |          |                      |          |
|--------------------|----------|----------------------|----------|
| <b>Crimp Tool:</b> | 11147000 | <b>Locator:</b>      | 11147200 |
| <b>Crimp Die:</b>  | 11147100 | <b>Removal Tool:</b> | 11161000 |

| AWG   | mm <sup>2</sup> | Silver   |          | Gold     |          |
|-------|-----------------|----------|----------|----------|----------|
|       |                 | Pin      | Socket   | Pin      | Socket   |
| 26-22 | 0.14-0.37       | 13162000 | 13163000 | 13162500 | 13163500 |
| 20    | 0.5             | 13162100 | 13163100 | 13162600 | 13163600 |
| 18    | 0.75- 1.0       | 13162200 | 13163200 | 13162700 | 13163700 |
| 16    | 1.5             | 13162300 | 13163300 | 13162800 | 13163800 |
| 14    | 2.5             | 13162400 | 13163400 | 13162900 | 13163900 |

**Stamped & Formed Contacts: 1.6 mm diameter**  
for HD stamped & MC Part # 10383400 & 10383500



Part number = 1 contact, sold in bags of 100 or 1 reel

\* 11223000 and 11228000 are sold in reels of 100 only

| Accessories                     |          |   |          |
|---------------------------------|----------|---|----------|
| <b>Crimp Tool:</b>              |          | <b>Crimp Tool for Reel: (includes tool, die, &amp; locator)</b> |          |
| - for contacts:                 | 11147000 | - 26-20 AWG:  | 11147004 |
| <b>Crimp Dies for Contacts:</b> |          | - 20-16 AWG:  | 11147005 |
| - 26-20 AWG:                    | 11147170 | - 16-14 AWG:  | 11147006 |
| - 20-16 AWG:                    | 11147180 | <b>Removal Tool:</b>  | 11161000 |
| - 16-14 AWG:                    | 11147190 | <b>Locator:</b>   |          |
|                                 |          | - 26-16 AWG:  | 11147300 |

| AWG   | mm <sup>2</sup> | Silver   |          | Gold     |          | Reel of 200 |           |
|-------|-----------------|----------|----------|----------|----------|-------------|-----------|
|       |                 | Pin      | Socket   | Pin      | Socket   | Pin         | Socket    |
| 26-20 | 0.14-0.5        | 11241100 | 11231100 | 11243100 | 11233100 | 11240700    | 11230700  |
| 20-16 | 0.5-1.5         | 11221000 | 11236100 | 11221300 | 11238100 | 11220700    | 11235700  |
| 16-14 | 1.5-2.5         | 11223500 | 11228500 | —        | —        | 11223000*   | 11228000* |

**Reel of 2000**

| AWG   | mm <sup>2</sup> | Right-hand Feed - Silver |          | Right-hand Feed - Gold |          | Left-hand Feed - Silver |          |
|-------|-----------------|--------------------------|----------|------------------------|----------|-------------------------|----------|
|       |                 | Pin                      | Socket   | Pin                    | Socket   | Pin                     | Socket   |
| 26-20 | 0.14-0.5        | 11240000                 | 11230000 | —                      | —        | 11240400                | 11230400 |
| 20-16 | 0.5-1.5         | 11220000                 | 11235000 | 11220100               | 11235200 | 11226000                | 11226500 |
| 16-14 | 1.5-2.5         | —                        | —        | —                      | —        | 11222700                | 11227700 |

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# Quick Select Summary: Contacts & Tools

Silver Machined Contacts: 2.5 mm diameter    
for MC Part # 10382200 & 10382300



Part number = 1 contact,  
sold in bags of 100

| Accessories        |          |                      |          |
|--------------------|----------|----------------------|----------|
| <b>Crimp Tool:</b> | 11147000 | <b>Locator:</b>      | 11147200 |
| <b>Crimp Die:</b>  | 11147100 | <b>Removal Tool:</b> | 11171000 |

| AWG | mm <sup>2</sup> | Pin      | Socket   |
|-----|-----------------|----------|----------|
| 20  | 0.5             | 1121300C | 1121800C |
| 18  | 0.75 - 1.0      | 1121310C | 1121810C |
| 16  | 1.5             | 1121320C | 1121820C |
| 14  | 2.5             | 1121330C | 1121830C |
| 12  | 4.0             | 1121340C | 1121840C |

Stamped & Formed Contacts: 2.5 mm diameter    
for MC Part # 10383200 & 10383300



Part number = 1 contact, sold in bags of 100

| Accessories                     |          |                              |          |
|---------------------------------|----------|------------------------------|----------|
| <b>Crimp Tool:</b>              |          | <b>Crimp Dies for Reel:</b>  |          |
| - for contacts:                 | 11147000 | - 20 - 16 AWG:               | 11153700 |
| - for reel:                     | 11153500 | - 16 - 14 AWG:               | 11153800 |
| <b>Crimp Dies for Contacts:</b> |          | <b>Locator for Contacts:</b> | 11147300 |
| - 20 - 16 AWG:                  | 11147180 | <b>Removal Tool:</b>         | 11160000 |
| - 16 - 14 AWG:                  | 11147190 |                              |          |

| AWG     | mm <sup>2</sup> | Silver   |          | Reel of 200 |          |
|---------|-----------------|----------|----------|-------------|----------|
|         |                 | Pin      | Socket   | Pin         | Socket   |
| 20 - 16 | 0.5 - 1.5       | 11201000 | 11205000 | 11208000    | 11209000 |
| 16 - 14 | 1.5 - 2.5       | 11202000 | 11206000 | 11208500    | 11209500 |

Silver Machined Contacts: 3.6 mm diameter    
for MC Part # 10382000 & 10382100, 10399800 & 10399900



Part number = 1 contact, sold in bags of 100

| Accessories        |          |                      |          |
|--------------------|----------|----------------------|----------|
| <b>Crimp Tool:</b> | 11147000 | <b>Locator:</b>      | 11147210 |
| <b>Crimp Dies:</b> |          | <b>Removal Tool:</b> | 11171100 |
| - 16 - 14 AWG:     | 11147110 |                      |          |
| - 12 - 8 AWG:      | 11147120 |                      |          |

| AWG | mm <sup>2</sup> | Pin      | Socket   |
|-----|-----------------|----------|----------|
| 16  | 1.5             | 1121070C | 1121570C |
| 14  | 2.5             | 1121060C | 1121560C |
| 12  | 4.0             | 1121000C | 1121500C |
| 10  | 6.0             | 1121010C | 1121510C |
| 8   | 10              | 1121020C | 1121520C |

Gold Stamped & Formed D-Sub Contacts: 1.0 mm    
for MC Part # 10383600 & 10383700



| Accessories          |          |
|----------------------|----------|
| <b>Crimp Tool:</b>   | 11158400 |
| <b>Removal Tool:</b> | 11132500 |

| AWG     | mm <sup>2</sup> | Pin      | Socket   |
|---------|-----------------|----------|----------|
| 28 - 25 | 0.08 - 0.2      | 44429013 | 44429009 |
| 25 - 20 | 0.2 - 0.52      | 44429014 | 44429010 |

Coax Contacts    
for MC Part # 10399200 & 10399300



Part number = 1 contact,  
sold in bags of 100

| Accessories          |          |  |
|----------------------|----------|--|
| <b>Crimp Tool:</b>   | 11147000 |  |
| <b>Crimp Die:</b>    | 11147130 |  |
| <b>Removal Tool:</b> | 11171100 |  |

| Size  | Pin      | Socket   |
|-------|----------|----------|
| RG 58 | 11214200 | 11219200 |

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# Quick Select Summary: Housings

## EPIC® HB Series Housings with Single Lever on Base

| Description   | PG   | NPT    | EPIC® HB Series Rectangular Connectors |          |          |          |          | Complete with a PG SKINTOP® |          |          |          |
|---|------|--------|--|----------|----------|----------|----------|-----------------------------|----------|----------|----------|
|   |      |        | HB 6                                   | HB 10    | HB 16    | HB 24    | HB 48    | Gray                        | Black    | Metal    | MS-SC    |
| <b>Top Entry Hood with Single Lever Bolts</b>               |      |        |  |          |          |          |          |                             |          |          |          |
|   | 13.5 | 1/2"   | 100110                                 | —        | —        | —        | —        | 53015030                    | 53015330 | 52015700 | 53112230 |
|   | 16   | 1/2"   | 100210                                 | 100409   | —        | —        | —        | 53015040                    | 53015340 | 52015740 | 53112240 |
|   | 21   | 3/4"   | —                                      | 100407   | 100809   | 101219   | —        | 53015050                    | 53015350 | 52015750 | 53112250 |
|   | 29   | 1"     | —                                      | —        | —        | 101119   | 101550   | 53015060                    | 53015360 | 52015760 | 53112260 |
|   | 36   | 1 1/4" | —                                      | —        | —        | —        | 101560   | 53015070                    | 53015370 | 52015765 | 53112270 |
|   | 42   | —      | —                                      | —        | —        | —        | 101570   | 53015080                    | 53015380 | 52015766 | —        |
| <b>Top Entry High Profile Hood with Single Lever Bolts</b>  |      |        |  |          |          |          |          |                             |          |          |          |
|   | 21   | 3/4"   | 700202                                 | 700442   | 700942   | 701444   | —        | 53015050                    | 53015350 | 52015750 | 53112250 |
|   | 29   | 1"     | 700204R                                | 700444   | 700944   | 701446   | —        | 53015060                    | 53015360 | 52015760 | 53112260 |
| <b>Side Entry Hood with Single Lever Bolts</b>              |      |        |  |          |          |          |          |                             |          |          |          |
|   | 13.5 | 1/2"   | 100120                                 | —        | —        | —        | —        | 53015030                    | 53015330 | 52015700 | 53112230 |
|   | 16   | 1/2"   | 100220                                 | 100429   | —        | —        | —        | 53015040                    | 53015340 | 52015740 | 53112240 |
|   | 21   | 3/4"   | —                                      | 100428   | 100829   | 101139   | —        | 53015050                    | 53015350 | 52015750 | 53112250 |
|   | 29   | 1"     | —                                      | —        | 100929   | 101239   | 101580   | 53015060                    | 53015360 | 52015760 | 53112260 |
|   | 36   | 1 1/4" | —                                      | —        | —        | —        | 101590   | 53015070                    | 53015370 | 52015765 | 53112270 |
|   | 42   | —      | —                                      | —        | —        | —        | 101600   | 53015080                    | 53015380 | 52015766 | —        |
| <b>Side Entry High Profile Hood with Single Lever Bolts</b> |      |        |  |          |          |          |          |                             |          |          |          |
|   | 21   | 3/4"   | 700222                                 | 700542   | 701042   | 701544   | —        | 53015050                    | 53015350 | 52015750 | 53112250 |
|   | 29   | 1"     | 700224R                                | 700544   | 701044   | 701546   | —        | 53015060                    | 53015360 | 52015760 | 53112260 |
| <b>Panel Mount Base with Single Lever</b>                   |      |        |  |          |          |          |          |                             |          |          |          |
| without dust cover  | —    | —      | 10030C0                                | 10032900 | 10072900 | 10102900 | 10161000 | —                           | —        | —        | —        |
| with dust cover   | —    | —      | 10040C0                                | 10033900 | 10073900 | 10103900 | 10152500 | —                           | —        | —        | —        |
| with dust cover, no bolts                                   | —    | —      | —                                      | —        | —        | —        | 10152000 | —                           | —        | —        | —        |
| <b>Surface Mount Base with Single Lever</b>                 |      |        |  |          |          |          |          |                             |          |          |          |
| 2 entries   | 16   | 1/2"   | 100060                                 | 100359   | —        | —        | —        | 53015040                    | 53015340 | 52015740 | 53112240 |
| 1 entry   | 16   | 1/2"   | 100050                                 | 100349   | —        | —        | —        | 53015040                    | 53015340 | 52015740 | 53112240 |
| 2 entries with dust cover                                   | 16   | 1/2"   | 100090                                 | 100389   | —        | —        | —        | 53015040                    | 53015340 | 52015740 | 53112240 |
| 1 entry with dust cover                                     | 16   | 1/2"   | 100070                                 | 100369   | —        | —        | —        | 53015040                    | 53015340 | 52015740 | 53112240 |
| 2 entries   | 21   | 3/4"   | —                                      | —        | 100759   | 101059   | —        | 53015050                    | 53015350 | 52015750 | 53112240 |
| 1 entry   | 21   | 3/4"   | —                                      | 100347   | 100749   | 101049   | —        | 53015050                    | 53015350 | 52015750 | 53112250 |
| 2 entries with dust cover                                   | 21   | 3/4"   | —                                      | —        | 100789   | 101099   | —        | 53015050                    | 53015350 | 52015750 | 53112250 |
| 1 entry with dust cover                                     | 21   | 3/4"   | —                                      | —        | 100769   | 101079   | —        | 53015050                    | 53015350 | 52015750 | 53112250 |
| <b>High Profile Surface Mount Base with Single Lever</b>    |      |        |  |          |          |          |          |                             |          |          |          |
| 2 entries   | 21   | 3/4"   | 700062                                 | 700612   | 701112   | 701612   | —        | 53015050                    | 53015350 | 52015750 | 53112250 |
| 1 entry   | 21   | 3/4"   | 700052                                 | 700602   | 701102   | 701602   | —        | 53015050                    | 53015350 | 52015750 | 53112250 |
| 2 entries with dust cover                                   | 21   | 3/4"   | 700162                                 | 700652   | 701152   | 701652   | —        | 53015050                    | 53015350 | 52015750 | 53112250 |
| 1 entry with dust cover                                     | 21   | 3/4"   | 700152                                 | 700642   | 701142   | 701642   | —        | 53015050                    | 53015350 | 52015750 | 53112250 |
| 2 entries   | 29   | 1"     | —                                      | 700614   | 701114   | 701614   | 101660   | 53015060                    | 53015360 | 52015760 | 53112260 |
| 1 entry   | 29   | 1"     | 700054                                 | 700604   | 701104   | 701604   | 101650   | 53015060                    | 53015360 | 52015760 | 53112260 |
| 2 entries with dust cover                                   | 29   | 1"     | —                                      | 700654   | 701154   | 701654   | 101682   | 53015060                    | 53015360 | 52015760 | 53112260 |
| 1 entry with dust cover                                     | 29   | 1"     | —                                      | 700644   | 701144   | 701644   | 101670   | 53015060                    | 53015360 | 52015760 | 53112260 |
| 2 entries   | 36   | 1 1/4" | —                                      | —        | —        | —        | 101661   | 53015070                    | 53015370 | 52015765 | 53112270 |
| 1 entry   | 36   | 1 1/4" | —                                      | —        | —        | —        | 101651   | 53015070                    | 53015370 | 52015765 | 53112270 |
| 2 entries with dust cover                                   | 36   | 1 1/4" | —                                      | —        | —        | —        | 101681   | 53015070                    | 53015370 | 52015765 | 53112270 |
| 1 entry with dust cover                                     | 36   | 1 1/4" | —                                      | —        | —        | —        | 101671   | 53015070                    | 53015370 | 52015765 | 53112270 |
| <b>Cable Coupler Hood with Single Lever</b>                 |      |        |  |          |          |          |          |                             |          |          |          |
|   | 13.5 | 1/2"   | 100140                                 | —        | —        | —        | —        | 53015030                    | 53015330 | 52015700 | 53112230 |
|   | 16   | 1/2"   | 100240                                 | 100469   | —        | —        | —        | 53015040                    | 53015340 | 52015740 | 53112240 |
|   | 21   | 3/4"   | —                                      | 700422   | 100869   | 101279   | —        | 53015050                    | 53015350 | 52015750 | 53112250 |
|   | 29   | 1"     | —                                      | —        | —        | 101179   | —        | 53015060                    | 53015360 | 52015760 | 53112260 |
| <b>High Profile Cable Coupler Hood with Single Lever</b>    |      |        |  |          |          |          |          |                             |          |          |          |
|   | 21   | 3/4"   | 700102                                 | 700424   | 70092200 | 701424   | —        | 53015050                    | 53015350 | 52015750 | 53112250 |
|   | 29   | 1"     | 700104                                 | 700426   | 70092400 | 701426   | —        | 53015060                    | 53015360 | 52015760 | 53112260 |

For NPT parts: add "NP" to the end of 6-digit part numbers or replace the last two digits of an 8-digit part number with "NP". Metric parts are also available.

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# Quick Select Summary: Housings

## EPIC® HB Series Housings with Double Levers on Base

| Description   | PG     | NPT  | EPIC® HB Series Rectangular Connectors |          |          |          | Complete with a PG SKINTOP® |          |          |          |
|---|--------|------|--|----------|----------|----------|-----------------------------|----------|----------|----------|
|   |        |      | HB 10                                  | HB 16    | HB 24    | HB 32    | Gray                        | Black    | Metal    | MS-SC    |
| <b>Top Entry Hood with Double Lever Bolts</b>               |        |      |  |          |          |          |                             |          |          |          |
| 16  | 1/2"   |      | 100400                                 | —        | —        | —        | 53015040                    | 53015340 | 52015740 | 53112240 |
| 21  | 3/4"   |      | 100401                                 | 100800   | 101210   | 101330   | 53015050                    | 53015350 | 52015750 | 53112250 |
| 29  | 1"     |      | —                                      | 100900   | 101110   | 101340   | 53015060                    | 53015360 | 52015760 | 53112260 |
| 36  | 1 1/4" |      | —                                      | —        | —        | —        | 53015070                    | 53015370 | 52015765 | 53112270 |
| <b>Top Entry High Profile Hood with Double Lever Bolts</b>  |        |      |  |          |          |          |                             |          |          |          |
| 21  | 3/4"   |      | 700504                                 | 701002   | 701504   | —        | 53015050                    | 53015350 | 52015750 | 53112250 |
| 29  | 1"     |      | 700506                                 | 701004   | 701506   | —        | 53015060                    | 53015360 | 52015760 | 53112260 |
| <b>Side Entry Hood with Double Lever Bolts</b>              |        |      |  |          |          |          |                             |          |          |          |
| 16  | 1/2"   |      | 100420                                 | —        | —        | —        | 53015040                    | 53015340 | 52015740 | 53112240 |
| 21  | 3/4"   |      | 100421C0                               | 100820   | 101130   | 101350   | 53015050                    | 53015350 | 52015750 | 53112250 |
| 29  | 1"     |      | —                                      | 100920   | 101230   | 101360   | 53015060                    | 53015360 | 52015760 | 53112260 |
| <b>Side Entry High Profile Hood with Double Lever Bolts</b> |        |      |  |          |          |          |                             |          |          |          |
| 21  | 3/4"   |      | 700524                                 | 701022   | 701524   | —        | 53015050                    | 53015350 | 52015750 | 53112250 |
| 29  | 1"     |      | 700526                                 | 701024   | 701526   | —        | 53015060                    | 53015360 | 52015760 | 53112260 |
| <b>Panel Mount Base with Double Levers</b>                  |        |      |  |          |          |          |                             |          |          |          |
| —   | —      |      | 100320C0                               | 100720C0 | 101020C0 | 101320C0 | —                           | —        | —        | —        |
| <b>Surface Mount Base with Double Levers</b>                |        |      |  |          |          |          |                             |          |          |          |
| 2 entries   | 16     | 1/2" | 100350                                 | —        | —        | —        | 53015040                    | 53015340 | 52015740 | 53112240 |
| 1 entry   | 16     | 1/2" | 100340                                 | —        | —        | —        | 53015040                    | 53015340 | 52015740 | 53112240 |
| 2 entries   | 21     | 3/4" | —                                      | 100750   | 101050   | —        | 53015050                    | 53015350 | 52015750 | 53112250 |
| 1 entry   | 21     | 3/4" | —                                      | 100740   | 101040   | —        | 53015050                    | 53015350 | 52015750 | 53112250 |
| 2 entries   | 29     | 1"   | —                                      | —        | —        | 101380   | 53015060                    | 53015360 | 52015760 | 53112260 |
| 1 entry   | 29     | 1"   | —                                      | —        | —        | 101370   | 53015060                    | 53015360 | 52015760 | 53112260 |
| <b>High Profile Surface Mount Base with Double Levers</b>   |        |      |  |          |          |          |                             |          |          |          |
| 2 entries   | 21     | 3/4" | 700362                                 | 700862   | 701362   | —        | 53015050                    | 53015350 | 52015750 | 53112250 |
| 1 entry   | 21     | 3/4" | 700352                                 | 700852   | 701352   | —        | 53015050                    | 53015350 | 52015750 | 53112250 |
| 2 entries   | 29     | 1"   | 700364                                 | 700864   | 701364   | —        | 53015060                    | 53015360 | 52015760 | 53112260 |
| 1 entry   | 29     | 1"   | 700354                                 | 700854   | 701354   | —        | 53015060                    | 53015360 | 52015760 | 53112260 |
| <b>Cable Coupler Hood with Double Levers</b>                |        |      |  |          |          |          |                             |          |          |          |
| 16  | 1/2"   |      | 100460                                 | —        | —        | —        | 53015040                    | 53015340 | 52015740 | 53112240 |
| 21  | 3/4"   |      | 700402                                 | 100860   | 101270   | 101390   | 53015050                    | 53015350 | 52015750 | 53112250 |
| 29  | 1"     |      | —                                      | 100960C0 | 101170   | 101395   | 53015060                    | 53015360 | 52015760 | 53112260 |
| <b>High Profile Cable Coupler Hood with Double Levers</b>   |        |      |  |          |          |          |                             |          |          |          |
| 21  | 3/4"   |      | 700404R                                | —        | 701404R  | —        | 53015050                    | 53015350 | 52015750 | 53112250 |
| 29  | 1"     |      | 700406                                 | 700904   | 701406   | —        | 53015060                    | 53015360 | 52015760 | 53112260 |

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EPIC® connectors mate with SKINTOP® glands without locknuts. Use of tapered (NPT) threads is not recommended with EPIC® rectangular connectors, unless a thread sealant is used.



## EPIC® HA 3/4 Rectangular Connectors with Single Lever on Base

| Material      | PG | NPT  | Rectangular Hoods   |            |                         |            | Surface Mount Bases & Cable Coupler Hoods |          |                         |          | Panel Mount Bases |          |            |
|---------------|----|------|---------------------|------------|-------------------------|------------|---|----------|-------------------------|----------|-------------------|----------|------------|
|               |    |      | PG with cable gland |            | NPT without cable gland |            | PG with cable gland                       |          | NPT without cable gland |          | Standard          | Angled   | With Cover |
|               |    |      | Top Entry           | Side Entry | Top Entry               | Side Entry | Base                                      | Coupler  | Base                    | Coupler  |                   |          |            |
| Zinc Die Cast | 11 | 1/2" | 10426500            | 10427500   | 105121NP                | 105123NP   | 10424500                                  | 10429500 | 105127NP                | 105129NP | 10422500          | 10423500 | 44429015   |
| Black Plastic | 11 | 1/2" | 10426700            | 10620600   | 104255NP                | 104273NP   | —   | 10620300 | —                       | 104292NP | 10422200          | 10423100 | —          |
| Gray Plastic  | 11 | 1/2" | 10426400            | 10427100   | 104260NP                | 104270NP   | 10424200                                  | 10429100 | 104240NP                | 104290NP | 10422000          | 10423000 | —          |



### Complete with a SKINTOP®

| PG | Gray     | Black    | Metal    | MS-SC    |
|----|----------|----------|----------|----------|
| 11 | 53015020 | 53015320 | 52015720 | 53112220 |

# Quick Select Summary: Housings

## EPIC® HA Series Connectors with Single Lever on Base

| Description                                    | PG   | NPT    | EPIC® HA Series Rectangular Connectors |                    |                |                    |          | Complete with a PG SKINTOP® |          |          |          |  |
|--|------|--------|--|--------------------|----------------|--------------------|----------|-----------------------------|----------|----------|----------|--|
|  |      |        | HA 10 Standard                         | HA 10 High Profile | HA 16 Standard | HA 16 High Profile | HA 64    | Gray                        | Black    | Metal    | MS-SC    |  |
| <b>Top Entry Hood with Single Lever Bolts</b>  |      |        |  |                    |                |                    |          |                             |          |          |          |  |
|  | 13.5 | 1/2"   | 104460                                 | —                  | —              | —                  | —        | 53015030                    | 53015330 | 52015800 | 53112230 |  |
|  | 16   | 1/2"   | 104461                                 | 704602             | 105650         | 704902             | —        | 53015040                    | 53015340 | 52015810 | 53112240 |  |
|  | 21   | 3/4"   | —                                      | 704604             | 105652         | 704904             | —        | 53015050                    | 53015350 | 52015820 | 53112250 |  |
|  | 29   | 1"     | —                                      | —                  | —              | —                  | 101550HA | 53015060                    | 53015360 | 52015830 | 53112260 |  |
|  | 36   | 1 1/4" | —                                      | —                  | —              | —                  | 101560HA | 53015070                    | 53015370 | 52015831 | 53112270 |  |
|  | 42   | —      | —                                      | —                  | —              | —                  | 101570HA | 53015080                    | 53015380 | 52015832 | —        |  |
| <b>Side Entry Hood with Single Lever Bolts</b> |      |        |  |                    |                |                    |          |                             |          |          |          |  |
|  | 16   | 1/2"   | 104450                                 | 704622             | 105640         | 704922             | —        | 53015040                    | 53015340 | 52015810 | 53112240 |  |
|  | 21   | 3/4"   | 104455                                 | 704624             | 105645         | 704924             | —        | 53015050                    | 53015350 | 52015820 | 53112250 |  |
|  | 29   | 1"     | —                                      | —                  | —              | —                  | 101580HA | 53015060                    | 53015360 | 52015830 | 53112260 |  |
|  | 36   | 1 1/4" | —                                      | —                  | —              | —                  | 101590HA | 53015070                    | 53015370 | 52015831 | 53112270 |  |
|  | 42   | —      | —                                      | —                  | —              | —                  | 101600HA | 53015080                    | 53015380 | 52015832 | —        |  |
| <b>Panel Mount Base with Single Lever</b>      |      |        |  |                    |                |                    |          |                             |          |          |          |  |
| without dust cover                             | —    | —      | 104420C0                               | —                  | 104620C0       | —                  | 101610HA | —                           | —        | —        | —        |  |
| with dust cover                                | —    | —      | 704440C0                               | —                  | 704740C0       | —                  | 101525HA | —                           | —        | —        | —        |  |
| with dust cover, no bolts                      | —    | —      | —                                      | —                  | —              | —                  | 101520HA | —                           | —        | —        | —        |  |

| Description                                 | PG | NPT    | HA 10  | HA 10 with cover | HA 16  | HA 16 with cover | HA 64    | Gray     | Black    | Metal    | MS-SC    |
|---|----|--------|--------|------------------|--------|------------------|----------|----------|----------|----------|----------|
| <b>Surface Mount Base with Single Lever</b> |    |        |        |                  |        |                  |          |          |          |          |          |
| 2 entries                                   | 16 | 1/2"   | 104501 | 704562           | 105681 | 704862           | —        | 53015040 | 53015340 | 52015810 | 53112240 |
| 1 entry                                     | 16 | 1/2"   | 104481 | 704552           | 105671 | 704852           | —        | 53015040 | 53015340 | 52015810 | 53112240 |
| 2 entries                                   | 21 | 3/4"   | 104500 | 704564           | 105680 | —                | —        | 53015050 | 53015350 | 52015820 | 53112250 |
| 1 entry                                     | 21 | 3/4"   | 104480 | 704554           | 105670 | 704854           | —        | 53015050 | 53015350 | 52015820 | 53112250 |
| 2 entries                                   | 29 | 1"     | —      | —                | —      | —                | 101660HA | 53015060 | 53015360 | 52015830 | 53112260 |
| 1 entry                                     | 29 | 1"     | —      | —                | —      | —                | 101650HA | 53015060 | 53015360 | 52015830 | 53112260 |
| 2 entries with dust cover                   | 29 | 1"     | —      | —                | —      | —                | 101680HA | 53015060 | 53015360 | 52015830 | 53112260 |
| 1 entry with dust cover                     | 29 | 1"     | —      | —                | —      | —                | 101670HA | 53015060 | 53015360 | 52015830 | 53112260 |
| 2 entries                                   | 36 | 1 1/4" | —      | —                | —      | —                | 101661HA | 53015070 | 53015370 | 52015831 | 53112270 |
| 1 entry                                     | 36 | 1 1/4" | —      | —                | —      | —                | 101651HA | 53015070 | 53015370 | 52015831 | 53112270 |
| 2 entries with dust cover                   | 36 | 1 1/4" | —      | —                | —      | —                | 101681HA | 53015070 | 53015370 | 52015831 | 53112270 |
| 1 entry with dust cover                     | 36 | 1 1/4" | —      | —                | —      | —                | 101671HA | 53015070 | 53015370 | 52015831 | 53112270 |

| Description                                 | PG   | NPT  | HA 10 Standard | HA 10 High Profile | HA 16 Standard | HA 16 High Profile | HA 64 | Gray     | Black    | Metal    | MS-SC    |
|---|------|------|----------------|--------------------|----------------|--------------------|-------|----------|----------|----------|----------|
| <b>Cable Coupler Hood with Single Lever</b> |      |      |                |                    |                |                    |       |          |          |          |          |
|   | 13.5 | 1/2" | 104390         | —                  | —              | —                  | —     | 53015030 | 53015330 | 52015800 | 53112230 |
|   | 16   | 1/2" | 704500         | —                  | 105630         | 704802             | —     | 53015040 | 53015340 | 52015810 | 53112240 |
|   | 29   | 1"   | —              | 704504             | —              | 704804             | —     | 53015050 | 53015350 | 52015820 | 53112250 |

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## EPIC® HA Series Connectors with Double Levers on Base

| Description                                    | PG | NPT  | EPIC® HA Series Rectangular Connectors |          | Complete with a PG SKINTOP® |          |          |          |
|--|----|------|--|----------|-----------------------------|----------|----------|----------|
|  |    |      | HA 32                                  | HA 48    | Gray                        | Black    | Metal    | MS-SC    |
| <b>Top Entry Hood with Double Lever Bolts</b>  |    |      |  |          |                             |          |          |          |
|  | 21 | 3/4" | 105820                                 | —        | 53015050                    | 53015350 | 52015820 | 53112250 |
|  | 29 | 1"   | 105830                                 | 106318   | 53015060                    | 53015360 | 52015830 | 53112260 |
| <b>Side Entry Hood with Double Lever Bolts</b> |    |      |  |          |                             |          |          |          |
|  | 21 | 3/4" | 105760                                 | —        | 53015050                    | 53015350 | 52015820 | 53112250 |
|  | 29 | 1"   | 105770                                 | 106308   | 53015060                    | 53015360 | 52015830 | 53112260 |
| <b>Panel Mount Base with Double Levers</b>     |    |      |  |          |                             |          |          |          |
|  | —  | —    | 104720C0                               | 106255C0 | —                           | —        | —        | —        |
| <b>Surface Mount Base with Double Levers</b>   |    |      |  |          |                             |          |          |          |
| 2 entries with dust cover                      | 21 | 3/4" | 104820                                 | —        | 53015050                    | 53015350 | 52015820 | 53112250 |
| 1 entry with dust cover                        | 21 | 3/4" | 104740                                 | —        | 53015050                    | 53015350 | 52015820 | 53112250 |
| 2 entries with dust cover                      | 29 | 1"   | 104821                                 | 106348   | 53015060                    | 53015360 | 52015830 | 53112260 |
| 1 entry with dust cover                        | 29 | 1"   | 104741                                 | 106338   | 53015060                    | 53015360 | 52015830 | 53112260 |
| <b>Cable Coupler Hood with Double Levers</b>   |    |      |  |          |                             |          |          |          |
|  | 21 | 3/4" | 105880                                 | —        | 53015050                    | 53015350 | 52015820 | 53112250 |
|  | 29 | 1"   | 105885                                 | —        | 53015060                    | 53015360 | 52015830 | 53112260 |

For NPT parts: add "NP" to the end of 6-digit part numbers or replace the last two digits of an 8-digit part number with "NP". Metric parts are also available.

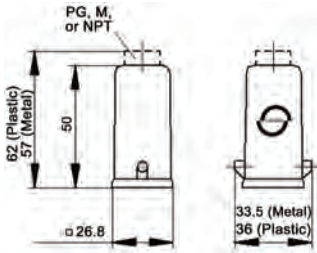
EPIC® connectors mate with SKINTOP® glands without locknuts. Use of tapered (NPT) threads is not recommended with EPIC® rectangular connectors, unless a thread sealant is used.



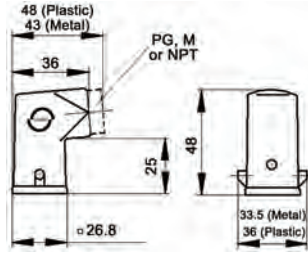


# Diagrams: Hoods & Bases

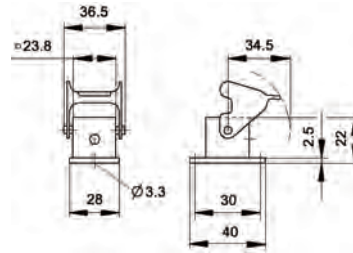
**EPIC® HA 3/4 Top Entry Hood; Single Lever Bolts**



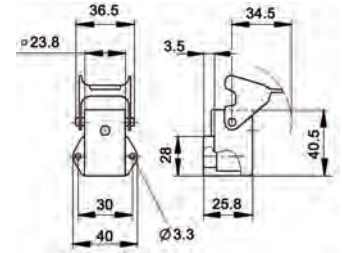
**EPIC® HA 3/4 Side Entry Hood; Single Lever Bolts**



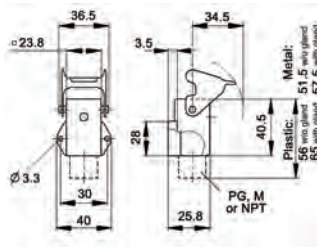
**EPIC® HA 3/4 Panel Mount Base; Single Lever**



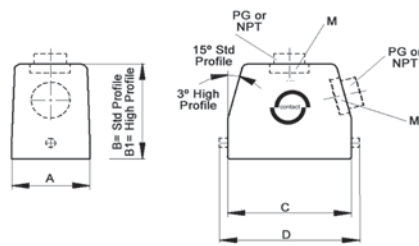
**EPIC® HA 3/4 Angled Panel Mount Base; Single Lever**



**EPIC® HA 3/4 Surface Mount Base; Single Lever**

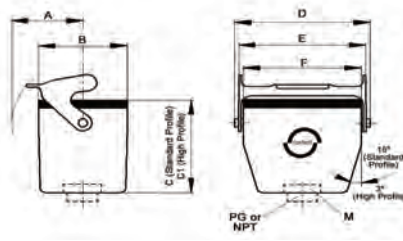
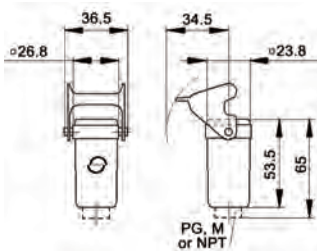


**EPIC® HA/HB Top & Side Entry Hoods; Single Lever Bolts**



| Series | HA/HB Hood Dimension (mm) |      |      |      |      |
|--------|---------------------------|------|------|------|------|
|        | A                         | B    | B1   | C    | D    |
| HA 10  | 29.5                      | 53.3 | 67.3 | 63   | 73   |
| HA 16  | 29.5                      | 58.3 | 72.3 | 79   | 89   |
| HA 64  | 90                        | 105  | —    | 132  | 152  |
| HB 6   | 43                        | 52   | 72   | 60   | 74.8 |
| HB 10  | 43                        | 52   | 72   | 73   | 90   |
| HB 16  | 43                        | 61   | 76   | 93.3 | 110  |
| HB 24  | 43                        | 61   | 76   | 120  | 137  |
| HB 48  | 90                        | 105  | —    | 132  | 152  |

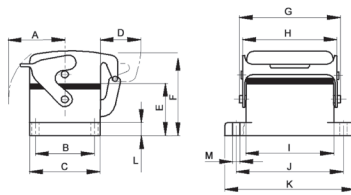
**EPIC® HA 3/4 Cable Coupler Hood; Single Lever**



**EPIC® HA/HB Cable Coupler Hood; Single Lever**

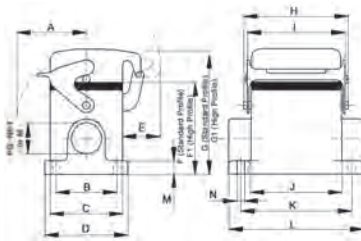
| Series | HA/HB Hood Dimension (mm) |      |      |      |      |       |      |
|--------|---------------------------|------|------|------|------|-------|------|
|        | A                         | B    | C    | C1   | D    | E     | F    |
| HA 10  | 36.5                      | 29.5 | 48   | 62   | 74.4 | 71.4  | 63   |
| HA 16  | 36.5                      | 29.5 | 53   | 67   | 90.4 | 87.8  | 79   |
| HB 6   | 44                        | 43   | 54.8 | 74.8 | 74.8 | 70    | 60   |
| HB 10  | 50                        | 43   | 54.8 | 74.8 | 91   | 88.5  | 73   |
| HB 16  | 50                        | 43   | 63.5 | 78.8 | 111  | 109.5 | 93.3 |
| HB 24  | 50                        | 43   | 63.5 | 78.8 | 138  | 136.5 | 120  |

**EPIC® HA/HB Panel Mount Base; Single Lever**



| Series | HA/HB Hood Dimension (mm) |      |      |    |      |      |      |       |      |     |     |     |     |
|--------|---------------------------|------|------|----|------|------|------|-------|------|-----|-----|-----|-----|
|        | A                         | B    | C    | D  | E    | F    | G    | H     | I    | J   | K   | L   | M   |
| HA 10  | 36.5                      | 17.5 | 29.5 | 25 | 25   | 42   | 74.4 | 71.4  | 63   | 70  | 81  | 3.5 | 3.6 |
| HA 16  | 36.5                      | 17.5 | 29.5 | 25 | 25   | 42   | 90.4 | 87.5  | 79   | 86  | 96  | 3.5 | 3.6 |
| HA 64  | 105                       | 70   | 90   | 30 | 39.5 | 56.5 | 152  | 139.5 | 132  | 148 | 165 | 10  | 7   |
| HB 6   | 44                        | 32   | 43   | 25 | 27.8 | 44.8 | 74.8 | 70    | 60   | 70  | 80  | 4   | 4.3 |
| HB 10  | 50                        | 32   | 43   | 25 | 27.8 | 44.8 | 91   | 88.5  | 73   | 83  | 93  | 4   | 4.3 |
| HB 16  | 50                        | 32   | 43   | 25 | 27.8 | 44.8 | 111  | 109.5 | 93.3 | 103 | 113 | 4   | 4.3 |
| HB 24  | 50                        | 32   | 43   | 25 | 27.8 | 44.8 | 138  | 136.5 | 120  | 130 | 140 | 4   | 4.3 |
| HB 48  | 105                       | 70   | 90   | 30 | 39.5 | 56.5 | 152  | 139.5 | 132  | 148 | 165 | 10  | 7   |

**EPIC® HA/HB Surface Mount Base; Single Lever**



| Series | HA/HB Hood Dimension (mm) |     |      |     |    |     |    |     |     |      |       |     |     |     |     |     |
|--------|---------------------------|-----|------|-----|----|-----|----|-----|-----|------|-------|-----|-----|-----|-----|-----|
|        | A                         | B   | C    | D   | E  | F   | F1 | G   | G1  | H    | I     | J   | K   | L   | M   | N   |
| HA 10  | 36.5                      | 40  | 29.5 | 50  | 25 | 57  | —  | 74  | —   | 74.4 | 71.4  | 63  | 48  | 80  | 3.5 | 4.5 |
| HA 16  | 36.5                      | 40  | 29.5 | 50  | 25 | 57  | —  | 74  | —   | 90.4 | 87.8  | 79  | 64  | 96  | 3.5 | 4.5 |
| HA 64  | 105                       | 106 | 90   | 120 | 30 | 100 | —  | 117 | —   | 152  | 139.5 | 132 | 111 | 132 | 12  | 6.5 |
| HB 6   | 44                        | 40  | 43   | 52  | 25 | 54  | 74 | 71  | 91  | 74.8 | 70    | 60  | 70  | 84  | *   | 5.5 |
| HB 10  | 50                        | 40  | 43   | 52  | 25 | 57  | 74 | 74  | 91  | 91   | 88.5  | 73  | 82  | 94  | *   | 5.5 |
| HB 16  | 50                        | 45  | 43   | 57  | 25 | 64  | 84 | 81  | 101 | 111  | 109.5 | 93  | 105 | 117 | *   | 5.5 |
| HB 24  | 50                        | 45  | 43   | 57  | 25 | 64  | 84 | 81  | 101 | 138  | 136.5 | 120 | 132 | 144 | *   | 5.5 |
| HB 48  | 105                       | 106 | 90   | 120 | 30 | 100 | —  | 117 | —   | 152  | 139.5 | 132 | 111 | 132 | 12  | 6.5 |

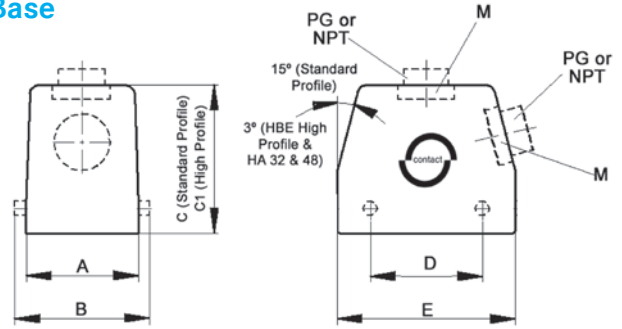
\* M dimension for HB 6, 10, 16 & 24 is 4.5mm (standard profile) or 6mm (high profile).

# Diagrams: Hoods & Bases

## EPIC® HA & HB Series Connectors with Double Levers on Base

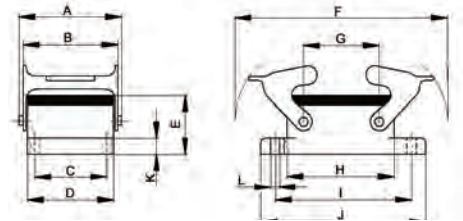
### HA/HB Top & Side Entry Hoods with Double Lever Bolts

| Series | HA/HB Hood Dimension (mm) |      |    |    |      |      |
|--------|---------------------------|------|----|----|------|------|
|        | A                         | B    | C  | C1 | D    | E    |
| HA 32  | 56                        | 67.8 | 75 | —  | 49.6 | 82   |
| HA 48  | 79                        | 89.5 | 95 | —  | 64.5 | 93.5 |
| HB 10  | 43                        | 55   | 52 | 72 | 27   | 73   |
| HB 16  | 43                        | 55   | 61 | 76 | 47.5 | 93.3 |
| HB 24  | 43                        | 55   | 61 | 76 | 74   | 120  |
| HB 32  | 79                        | 89.5 | 95 | —  | 64.5 | 93.5 |



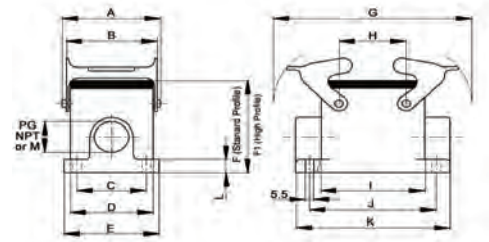
### HA/HB Panel Mount Base with Double Levers

| Series | HA/HB Hood Dimension (mm) |      |    |    |      |       |      |      |     |     |   |     |
|--------|---------------------------|------|----|----|------|-------|------|------|-----|-----|---|-----|
|        | A                         | B    | C  | D  | E    | F     | G    | H    | I   | J   | K | L   |
| HA 32  | 67.8                      | 66   | 42 | 56 | 25.4 | 124.5 | 49.6 | 82   | 92  | 102 | 4 | 4.3 |
| HA 48  | 93.8                      | 87.8 | 65 | 79 | 30.3 | 136.5 | 64.5 | 93.5 | 110 | 124 | 5 | 5.5 |
| HB 10  | 55                        | 53   | 32 | 43 | 27.8 | 116   | 27   | 73   | 83  | 93  | 4 | 4.3 |
| HB 16  | 55                        | 53   | 32 | 43 | 27.8 | 136.5 | 47.5 | 93.3 | 103 | 113 | 4 | 4.3 |
| HB 24  | 55                        | 53   | 32 | 42 | 27.8 | 163   | 74   | 120  | 130 | 140 | 4 | 4.3 |
| HB 32  | 93.8                      | 87.8 | 65 | 79 | 30.3 | 136.5 | 64.5 | 93.5 | 110 | 124 | 5 | 5.5 |



### HA/HB Surface Base with Double Levers

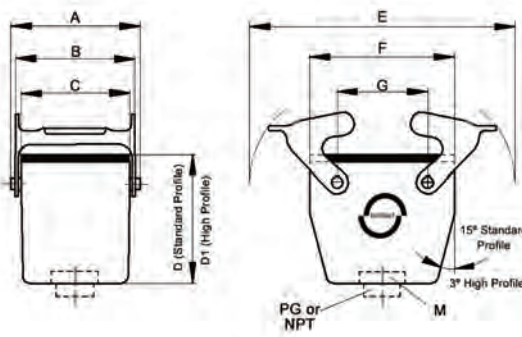
| Series | HA/HB Hood Dimension (mm) |      |    |    |    |    |    |       |      |      |     |       |   |
|--------|---------------------------|------|----|----|----|----|----|-------|------|------|-----|-------|---|
|        | A                         | B    | C  | D  | E  | F  | F1 | G     | H    | I    | J   | K     | L |
| HA 32  | 67.8                      | 66   | 46 | 56 | 57 | 75 | —  | 124.5 | 49.6 | 82   | 94  | 106   | 4 |
| HA 48  | 93.8                      | 87.8 | 67 | 79 | 81 | 72 | —  | 136.5 | 64.5 | 82   | 94  | 106   | 5 |
| HB 10  | 55                        | 53   | 40 | 43 | 54 | 57 | 74 | 116   | 27   | 73   | 82  | 94    | * |
| HB 16  | 55                        | 53   | 45 | 43 | 57 | 64 | 84 | 136.5 | 47.5 | 93   | 105 | 117   | * |
| HB 24  | 55                        | 53   | 45 | 43 | 57 | 64 | 84 | 163   | 74   | 120  | 132 | 144   | * |
| HB 32  | 93.8                      | 87.8 | 67 | 79 | 81 | 72 | —  | 136.5 | 64.5 | 93.5 | 112 | 124.5 | 5 |



\* L dimension for HB3 10, 16 & 24 is 4.5mm (standard profile) or 6mm (high profile).

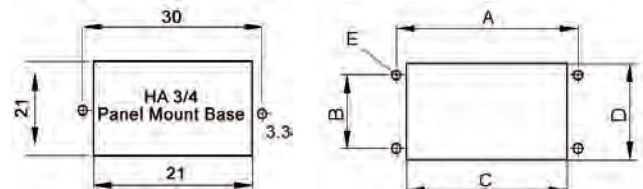
### HA/HB Cable Coupler Hood with Double Levers

| Series | HA/HB Hood Dimension (mm) |      |    |      |      |       |      |      |
|--------|---------------------------|------|----|------|------|-------|------|------|
|        | A                         | B    | C  | D    | D1   | E     | F    | G    |
| HA 32  | 67.8                      | 66   | 56 | 76.5 | —    | 124.5 | 82   | 49.6 |
| HB 10  | 55                        | 53   | 43 | 54.8 | 74.8 | 116   | 73   | 27   |
| HB 16  | 55                        | 53   | 43 | 63.6 | 78.8 | 136.5 | 93.3 | 47.5 |
| HB 24  | 55                        | 53   | 43 | 63.6 | 78.8 | 163   | 120  | 74   |
| HB 32  | 93.8                      | 87.8 | 79 | 97   | —    | 136.5 | 93.5 | 64.5 |

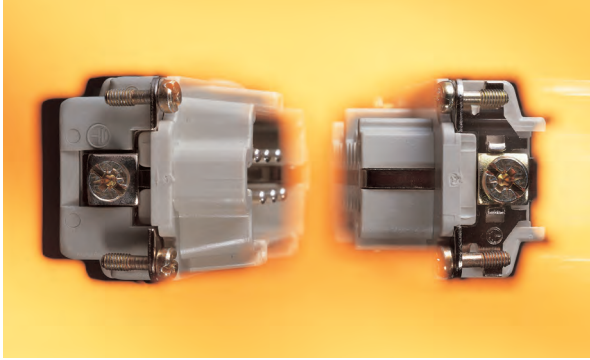


### HA/HB Panel Mount Base Cut-Outs

| Series | HA/HB Cut-Out Dimension (mm) |      |       |      |     |
|--------|------------------------------|------|-------|------|-----|
|        | A                            | B    | C     | D    | E   |
| HA 3/4 | 30                           | —    | 21    | 21   | 3.3 |
| HA 10  | 70                           | 17.5 | 57.5  | 24   | 3.6 |
| HA 16  | 86                           | 17.5 | 73.7  | 24   | 3.6 |
| HA 32  | 92                           | 42   | 74.2  | 48.4 | 4.3 |
| HA 48  | 110                          | 65   | 85.5  | 71   | 5.5 |
| HA 64  | 148                          | 70   | 117   | 82   | 7   |
| HB 6   | 70                           | 32   | 52.2  | 35   | 4.3 |
| HB 10  | 83                           | 32   | 65.2  | 35   | 4.3 |
| HB 16  | 103                          | 32   | 85.5  | 35   | 4.3 |
| HB 24  | 130                          | 32   | 112.2 | 35   | 4.3 |
| HB 32  | 110                          | 65   | 85.5  | 71   | 5.5 |
| HB 48  | 148                          | 70   | 117   | 82   | 7   |



## EPIC® HBE Series



EPIC® HBE series inserts provide reliable termination and performance in the vast majority of medium power and control applications. Methods of termination include screw, crimp, and “spring” cage clamp.

### ■ Technical Data

**Number of Contacts:** 6, 10, 16, 24, 32, 48 (+PE)

**Temperature Range:** -40°C to +100°C  
- Short-term: up to +125°C

**Pollution Level:** 3

**Dimensioning Transient:** 6 kV

**Mating Cycles:** - Per DIN EN 61984:2008  
Service Life Test: Tested to 100 cycles and passed  
- Per Contact Thermal Test: Useful service in excess of 500 cycles is possible at rated voltage and current\*

#### Screw Termination:

**Rated Voltage:**  
- UL: 600V  
- CSA: 600V  
- IEC: 500V

**Rated Current:**  
- UL: 16A  
- CSA: 16A  
- IEC: 16A

**Wire Size:** 20- 14 AWG (0.5-2.5 mm<sup>2</sup>)

**Contact Material:** Silver-plated copper alloy

**Contact Resistance:** < 2 mΩ

#### Crimp Termination:

**Rated Voltage:**  
- UL: 600V  
- CSA: 600V  
- IEC: 500V

**Rated Current:**  
- UL: 16A  
- CSA: 16A  
- IEC: 16A

**Wire Size:** 20- 12 AWG (0.5-4 mm<sup>2</sup>)

**Contact Material:** Silver- or gold-plated copper alloy

**Contact Resistance:** < 2 mΩ

#### Cage Clamp Termination:

**Rated Voltage:**  
- UL: 600V  
- CSA: 600V  
- IEC: 500V

**Rated Current:**  
- UL: 16A  
- CSA: 16A  
- IEC: 16A

**Wire Size:** 20- 14 AWG (0.5-2.5 mm<sup>2</sup>)

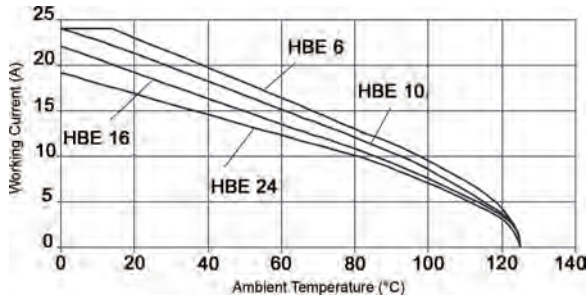
**Contact Material:** Silver-plated copper alloy

**Contact Resistance:** 1.5-4 mΩ

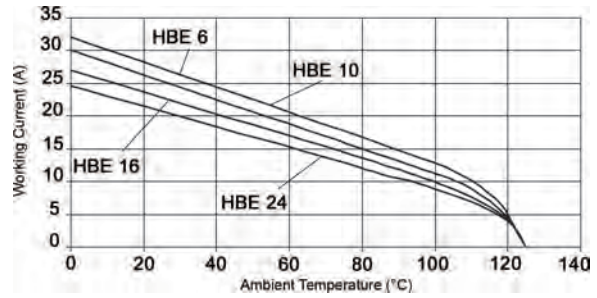
\* In dry, non-conductive, non-corrosive environments when protected in a housing rated at least IP54 and disconnected for cycling and maintenance only.

# EPIC® HBE Inserts: Derating Curves

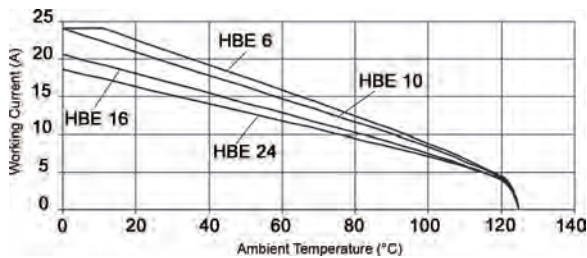
**EPIC® HBE Screw-Terminated  
16 AWG (1.5 mm<sup>2</sup>)**



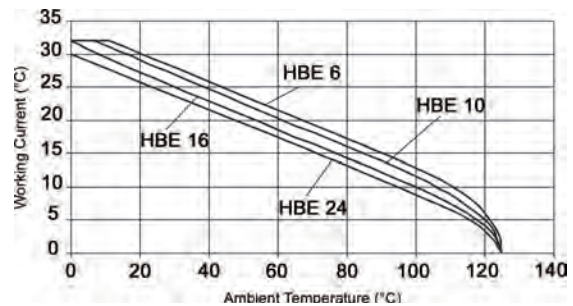
**EPIC® HBE Screw-Terminated  
14 AWG (2.5 mm<sup>2</sup>)**



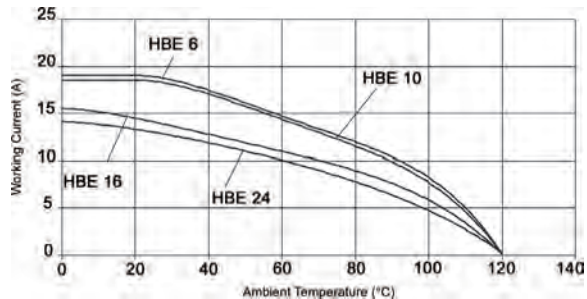
**EPIC® HBE Crimp-Terminated  
16 AWG (1.5 mm<sup>2</sup>)**



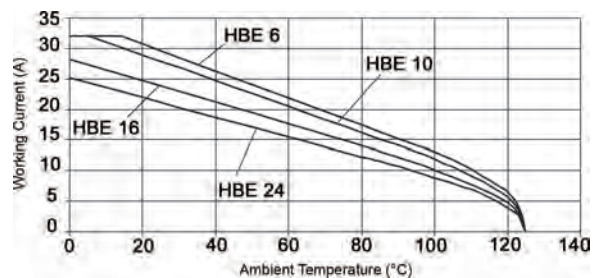
**EPIC® HBE Crimp-Terminated  
14 AWG (2.5 mm<sup>2</sup>)**



**EPIC® HBE Cage Clamp  
16 AWG (1.5 mm<sup>2</sup>)**



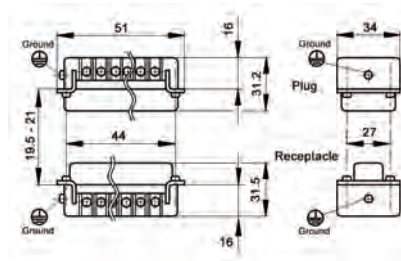
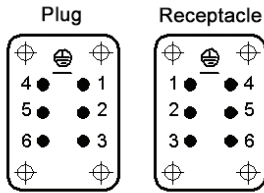
**EPIC® HBE Cage Clamp  
14 AWG (2.5 mm<sup>2</sup>)**





EPIC® HBE 6 Inserts  
Screw-Terminated

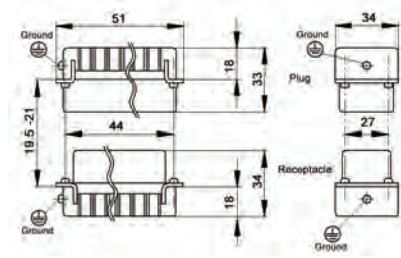
View from Cable Side



Crimp-Terminated


Crimp contacts sold separately, see below

All dimensions are in mm.

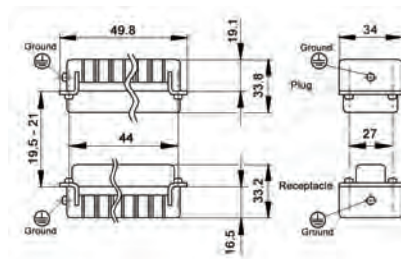


Screwless Cage Clamp

**Compatible Housing**



HB 6:  
page 369



Approvals




| Description                              | Plug     | Receptacle |
|--|----------|------------|
| Screw-Terminated with Wire Protection    | 10190000 | 10191000   |
| Screw-Terminated without Wire Protection | 10190100 | 10191100   |
| Crimp-Terminated: Machined Contacts      | 10180000 | 10181000   |
| Screwless Spring Cage Clamp              | 10400000 | 10401000   |

Machined Contacts  
2.5 mm Diameter


| Contact Size<br>mm <sup>2</sup> | AWG | Stripping Length (mm) |        | # of Marking Tracks | Silver Contacts |          | Gold Contacts |          |
|---------------------------------|-----|-----------------------|--------|---------------------|-----------------|----------|---------------|----------|
|                                 |     | Pin                   | Socket |                     | Pin             | Socket   | Pin           | Socket   |
| 0.5                             | 20  | 7.4                   | 7.3    | —                   | 11190000        | 11195000 | 11192000      | 11197000 |
| 0.75 - 1.0                      | 18  | 7.4                   | 7.3    | 1                   | 11190100        | 11195100 | 11192100      | 11197100 |
| 1.5                             | 16  | 7.4                   | 7.3    | 2                   | 11190200        | 11195200 | 11192200      | 11197200 |
| 2.5                             | 14  | 7.4                   | 7.3    | 3                   | 11190300        | 11195300 | —             | —        |
| 4.0                             | 12  | 7.4                   | 7.3    | —                   | 11190400        | 11195400 | —             | —        |

Part number = 1 contact, sold in bags of 100


**Complete the Installation**



Crimp Tool:  
11147000



Crimp Dies:  
11147100



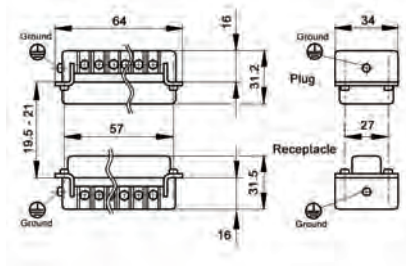
Locator:  
11147200



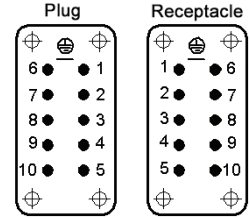
For removal of contacts, use a slotted screwdriver. No special tool is necessary.

Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

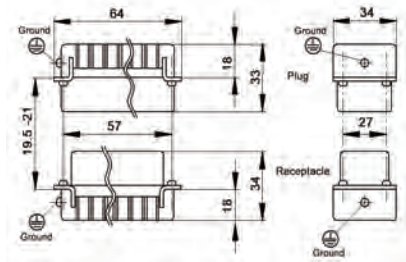
EPIC® HBE 10 Inserts  
Screw-Terminated



View from Cable Side



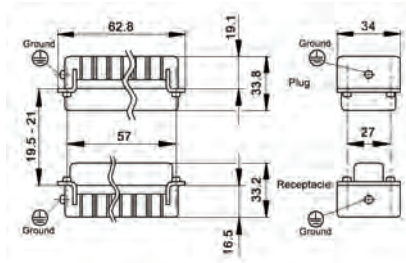
Crimp-Terminated




Crimp contacts sold separately, see below

All dimensions are in mm.

Screwless Cage Clamp



**Compatible Housing**



HB 10:  
page 372

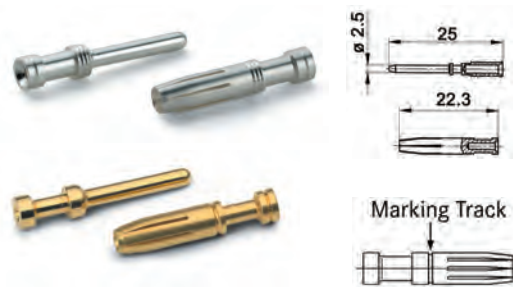
| Description                              | Plug     | Receptacle |
|--|----------|------------|
| Screw-Terminated with Wire Protection    | 10192000 | 10193000   |
| Screw-Terminated without Wire Protection | 10192100 | 10193100   |
| Crimp-Terminated: Machined Contacts      | 10182000 | 10183000   |
| Screwless Cage Clamp                     | 10400100 | 10401100   |

Approvals



Machined Contacts

2.5 mm Diameter



| Contact Size    |     | Stripping Length (mm) |        | # of Marking Tracks | Silver Contacts |          | Gold Contacts |          |
|-----------------|-----|-----------------------|--------|---------------------|-----------------|----------|---------------|----------|
| mm <sup>2</sup> | AWG | Pin                   | Socket |                     | Pin             | Socket   | Pin           | Socket   |
| 0.5             | 20  | 7.4                   | 7.3    | —                   | 11190000        | 11195000 | 11192000      | 11197000 |
| 0.75 - 1.0      | 18  | 7.4                   | 7.3    | 1                   | 11190100        | 11195100 | 11192100      | 11197100 |
| 1.5             | 16  | 7.4                   | 7.3    | 2                   | 11190200        | 11195200 | 11192200      | 11197200 |
| 2.5             | 14  | 7.4                   | 7.3    | 3                   | 11190300        | 11195300 | —             | —        |
| 4.0             | 12  | 7.4                   | 7.3    | —                   | 11190400        | 11195400 | —             | —        |

Part number = 1 contact, sold in bags of 100

Complete the Installation



Crimp Tool:  
11147000



Crimp Dies:  
11147100



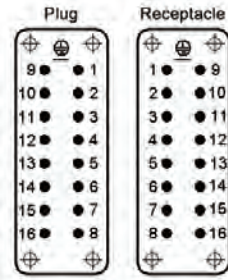
Locator:  
11147200

For removal of contacts, use a slotted screwdriver.  
No special tool is necessary.

Photographs are not to scale and are not true representations of the products in question.  
For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

EPIC® HBE 16 Inserts  
Screw-Terminated


View from Cable Side



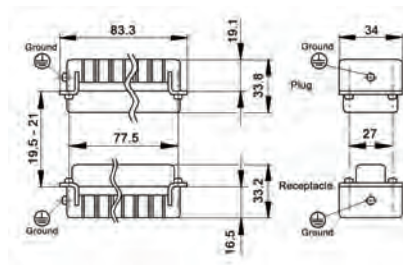
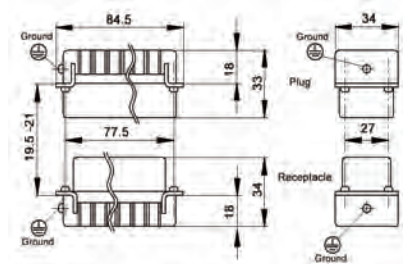
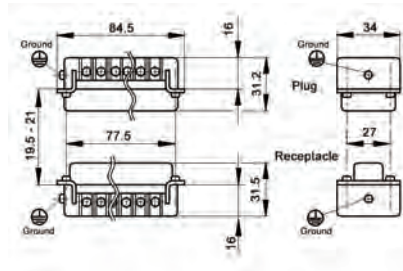
Crimp contacts sold separately, see below

All dimensions are in mm.

**Compatible Housing**



HB 16:  
page 378



Screwless Cage Clamp



Approvals




| Description                              | Plug     | Receptacle |
|--|----------|------------|
| Screw-Terminated with Wire Protection    | 10194000 | 10195000   |
| Screw-Terminated without Wire Protection | 10194100 | 10195100   |
| Crimp-Terminated: Machined Contacts      | 10184000 | 10185000   |
| Screwless Cage Clamp                     | 10400200 | 10401200   |

Machined Contacts  
2.5 mm Diameter


| Contact Size<br>mm <sup>2</sup> | AWG | Stripping Length (mm) |        | # of Marking Tracks | Silver Contacts |          | Gold Contacts |          |
|---------------------------------|-----|-----------------------|--------|---------------------|-----------------|----------|---------------|----------|
|                                 |     | Pin                   | Socket |                     | Pin             | Socket   | Pin           | Socket   |
| 0.5                             | 20  | 7.4                   | 7.3    | —                   | 11190000        | 11195000 | 11192000      | 11197000 |
| 0.75 - 1.0                      | 18  | 7.4                   | 7.3    | 1                   | 11190100        | 11195100 | 11192100      | 11197100 |
| 1.5                             | 16  | 7.4                   | 7.3    | 2                   | 11190200        | 11195200 | 11192200      | 11197200 |
| 2.5                             | 14  | 7.4                   | 7.3    | 3                   | 11190300        | 11195300 | —             | —        |
| 4.0                             | 12  | 7.4                   | 7.3    | —                   | 11190400        | 11195400 | —             | —        |

Part number = 1 contact, sold in bags of 100


**Complete the Installation**



Crimp Tool:  
11147000



Crimp Dies:  
11147100



Locator:  
11147200



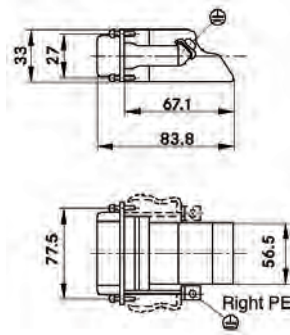
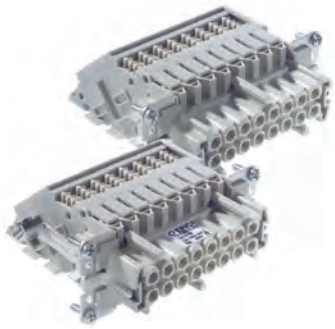
For removal of contacts, use a slotted screwdriver. No special tool is necessary.

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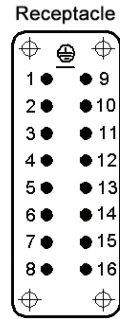
# EPIC® HBE 16 Inserts

## Terminal Block Receptacle



All dimensions are in mm.

View from Cable Side



| Description                  | Receptacle |
|------------------------------|------------|
| Terminal Block: Right Ground | 70315100   |
| Terminal Block: Left Ground  | 70314100   |

- Terminal block inserts only fit into HBE panel mount bases.
- One terminal block insert mates with one screw-terminated insert.

**Compatible Housing**

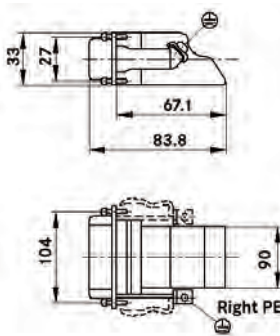
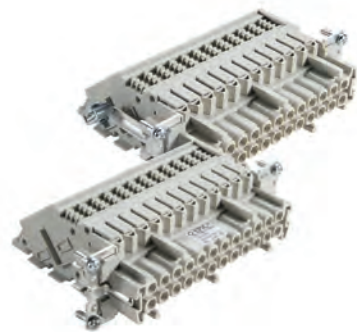
HB 16  
Panel Mount:  
page 379

**Approvals**



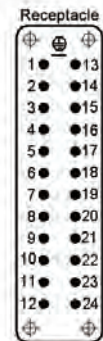
# EPIC® HBE 24 Inserts

## Terminal Block Receptacle



All dimensions are in mm.

View from Cable Side



| Description                  | Receptacle |
|------------------------------|------------|
| Terminal Block: Right Ground | 70317100   |
| Terminal Block: Left Ground  | 70316100   |

- Terminal block inserts only fit into HBE panel mount bases.
- One terminal block insert mates with one screw-terminated insert.

**Compatible Housing**

HB 24  
Panel Mount:  
page 385

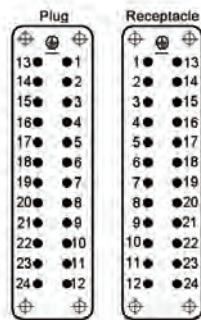
**Approvals**



Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

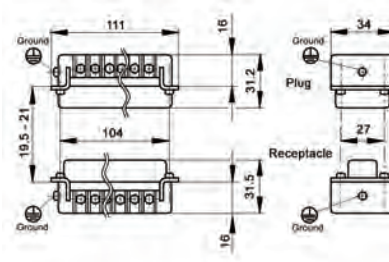
EPIC® HBE 24 Inserts  
Screw-Terminated

View from Cable Side

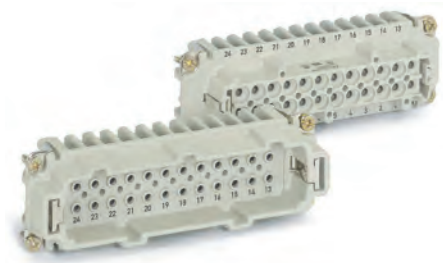
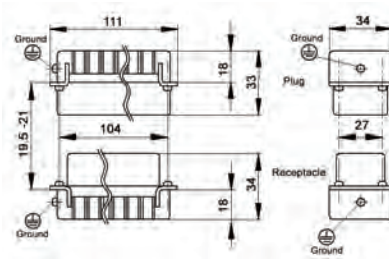


Crimp contacts sold separately, see below

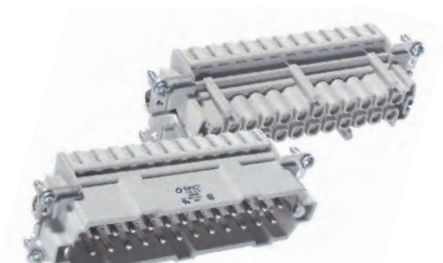
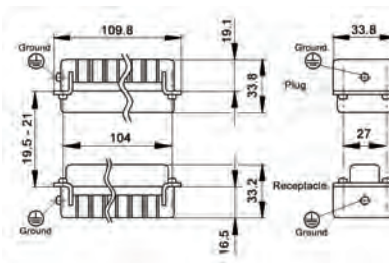
All dimensions are in mm.



Crimp-Terminated



Screwless Cage Clamp



**Compatible Housing**

HB 24:  
page 384

Approvals



| Description                              | Plug     | Receptacle |
|--|----------|------------|
| Screw-Terminated with Wire Protection    | 10196000 | 10197000   |
| Screw-Terminated without Wire Protection | 10196100 | 10197100   |
| Crimp-Terminated: Machined Contacts      | 10186000 | 10187000   |
| Screwless Cage Clamp                     | 10400300 | 10401300   |

Machined Contacts  
2.5 mm Diameter

| Contact Size<br>mm <sup>2</sup> | AWG | Stripping Length (mm) |        | # of Marking Tracks | Silver Contacts |          | Gold Contacts |          |
|---------------------------------|-----|-----------------------|--------|---------------------|-----------------|----------|---------------|----------|
|                                 |     | Pin                   | Socket |                     | Pin             | Socket   | Pin           | Socket   |
| 0.5                             | 20  | 7.4                   | 7.3    | —                   | 11190000        | 11195000 | 11192000      | 11197000 |
| 0.75 - 1.0                      | 18  | 7.4                   | 7.3    | 1                   | 11190100        | 11195100 | 11192100      | 11197100 |
| 1.5                             | 16  | 7.4                   | 7.3    | 2                   | 11190200        | 11195200 | 11192200      | 11197200 |
| 2.5                             | 14  | 7.4                   | 7.3    | 3                   | 11190300        | 11195300 | —             | —        |
| 4.0                             | 12  | 7.4                   | 7.3    | —                   | 11190400        | 11195400 | —             | —        |

Part number = 1 contact, sold in bags of 100

**Complete the Installation**

Crimp Tool: 11147000

Crimp Dies: 11147100

Locator: 11147200

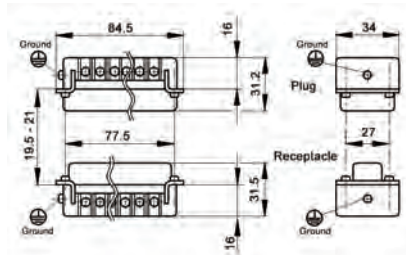


For removal of contacts, use a slotted screwdriver. No special tool is necessary.

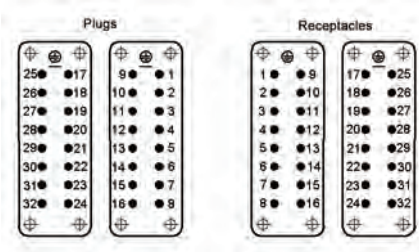
Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

# EPIC® HBE 32 Inserts

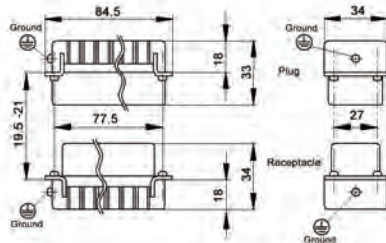
## Screw-Terminated



View from Cable Side



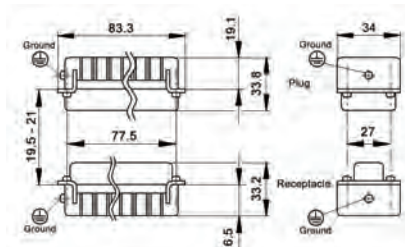
## Crimp-Terminated




Crimp contacts sold separately, see below

All dimensions are in mm.

## Screwless Spring Cage Clamp



**Compatible Housing**



HB 32:  
page 390

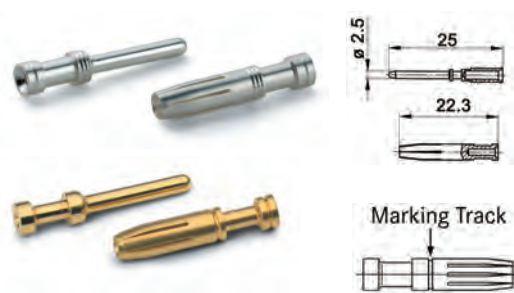
| Description                              | Contacts | Plug     | Receptacle |
|--|----------|----------|------------|
| Screw-Terminated with Wire Protection    | #1 - 16  | 10194000 | 10195000   |
|  | #17 - 32 | 10202000 | 10203000   |
| Screw-Terminated without Wire Protection | #1 - 16  | 10194100 | 10195100   |
|  | #17 - 32 | 10202100 | 10203100   |
| Crimp-Terminated: Machined Contacts      | #1 - 16  | 10184000 | 10185000   |
|  | #17 - 32 | 10184200 | 10185200   |
| Screwless Cage Clamp                     | #1 - 16  | 10400200 | 10401200   |
|  | #17 - 32 | 10400400 | 10401400   |

### Approvals



# Machined Contacts

## 2.5 mm Diameter




| Contact Size | Stripping Length (mm) | # of Marking Tracks | Silver Contacts |          | Gold Contacts |          |
|--------------|-----------------------|---------------------|-----------------|----------|---------------|----------|
|              |                       |                     | Pin             | Socket   | Pin           | Socket   |
| 0.5          | 20                    | —                   | 11190000        | 11195000 | 11192000      | 11197000 |
| 0.75 - 1.0   | 18                    | 1                   | 11190100        | 11195100 | 11192100      | 11197100 |
| 1.5          | 16                    | 2                   | 11190200        | 11195200 | 11192200      | 11197200 |
| 2.5          | 14                    | 3                   | 11190300        | 11195300 | —             | —        |
| 4.0          | 12                    | —                   | 11190400        | 11195400 | —             | —        |


Part number = 1 contact, sold in bags of 100

For removal of contacts, use a slotted screwdriver. No special tool is necessary.


**Complete the Installation**



Crimp Tool: 11147000



Crimp Dies: 11147100



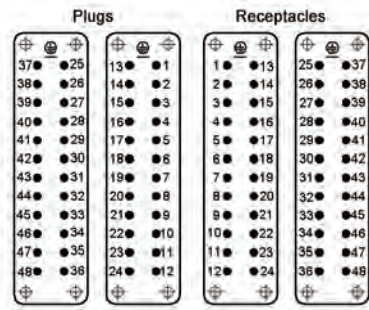
Locator: 11147200

Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.



EPIC® HBE 48 Inserts  
Screw-Terminated

View from Cable Side



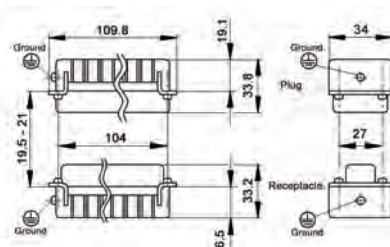
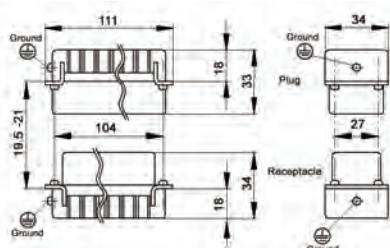
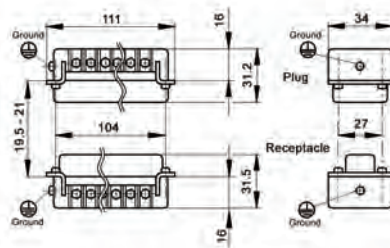
Crimp contacts sold separately, see below

All dimensions are in mm.

Compatible Housing



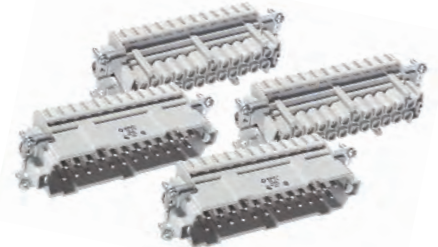
HB 48:  
page 392



Crimp-Terminated



Screwless Spring Cage Clamp



Approvals



| Description                              | Contacts        | Plug                 | Receptacle           |
|--|-----------------|----------------------|----------------------|
| Screw-Terminated with Wire Protection    | #1-24<br>#25-48 | 10196000<br>10204000 | 10197000<br>10205000 |
| Screw-Terminated without Wire Protection | #1-24<br>#25-48 | 10196100<br>10204100 | 10197100<br>10205100 |
| Crimp-Terminated: Machined Contacts      | #1-24<br>#25-48 | 10186000<br>10186200 | 10187000<br>10187200 |
| Screwless Cage Clamp                     | #1-24<br>#25-48 | 10400300<br>10400500 | 10401300<br>10401500 |

Machined Contacts  
2.5 mm Diameter

| Contact Size<br>mm <sup>2</sup> | AWG | Stripping Length (mm) |        | # of Marking Tracks | Silver Contacts |          | Gold Contacts |          |
|---------------------------------|-----|-----------------------|--------|---------------------|-----------------|----------|---------------|----------|
|                                 |     | Pin                   | Socket |                     | Pin             | Socket   | Pin           | Socket   |
| 0.5                             | 20  | 7.4                   | 7.3    | —                   | 11190000        | 11195000 | 11192000      | 11197000 |
| 0.75 - 1.0                      | 18  | 7.4                   | 7.3    | 1                   | 11190100        | 11195100 | 11192100      | 11197100 |
| 1.5                             | 16  | 7.4                   | 7.3    | 2                   | 11190200        | 11195200 | 11192200      | 11197200 |
| 2.5                             | 14  | 7.4                   | 7.3    | 3                   | 11190300        | 11195300 | —             | —        |
| 4.0                             | 12  | 7.4                   | 7.3    | —                   | 11190400        | 11195400 | —             | —        |

Part number = 1 contact, sold in bags of 100

Complete the Installation



Crimp Tool:  
11147000



Crimp Dies:  
11147100



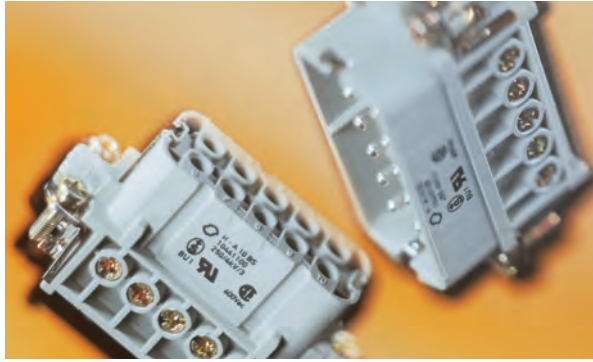
Locator:  
11147200



For removal of contacts, use a slotted screwdriver.  
No special tool is necessary.

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# EPIC® HA Series



Similar to the HBE series inserts but more compact, EPIC® HA series inserts are used whenever space is limited. EPIC® HA 3/4 inserts and housings provide the smallest possible footprint in a 10A power connector. HA 10-48 inserts are unique because of their shortened ground straps, which still allow for a wire cross-section up to 2.5 mm<sup>2</sup>. HA 3-48 screw-terminated inserts fit into EPIC® HA series housings. A modified EPIC® HB 48 housing can fit 64 contacts.

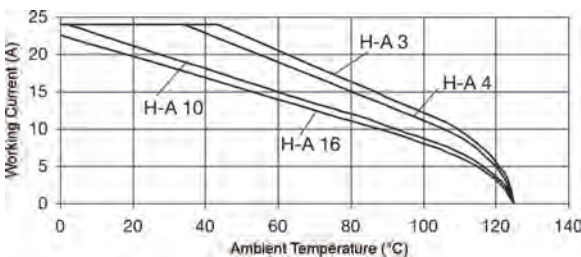
## Technical Data

|                                |  |  |  |
|--------------------------------|--|--|--|
| <b>Number of Contacts:</b>     | 3, 4, 10, 16, 32, 48, 64 (+PE)   | <b>Rated Current:</b>                  |  |
| <b>Temperature Range:</b>      | -40°C to +100°C  | - UL:                                  |  |
| - Short-term:                  | up to +125°C   | - EPIC® HA 3/4:                        | 10A  |
| <b>Pollution Level:</b>        | 3  | - EPIC® HA 10-64:                      | 14A  |
| <b>Dimensioning Transient:</b> | 4 kV   | - CSA:                                 |  |
| <b>Mating Cycles:</b>          | - Per DIN EN 61984:2008<br>Service Life Test: Tested to 100 cycles and passed<br>- Per Contact Thermal Test: Useful service up to 500 cycles is possible at rated voltage and current* | - EPIC® HA 3/4:                        | 10A  |
| <b>Test Voltage:</b>           | 4 kV   | - EPIC® HA 10-64:                      | 16A  |
| <b>Rated Voltage:</b>          |  | - IEC:                                 |  |
| - UL:                          | 600V   | - EPIC® HA 3/4:                        | 10A  |
| - CSA:                         | 600V   | - EPIC® HA 10-64:                      | 16A  |
| - IEC:                         |  | - SEV:                                 | 16A  |
| - EPIC® HA 3/4:                | 400V   | <b>Wire Size:</b>                      |  |
| - EPIC® HA 10-64:              | 250V   | - EPIC® HA 3/4:                        |  |
| - SEV:                         | 250V   | - solid or stranded wire with ferrule: | 20-14 AWG (0.5-2.5 mm <sup>2</sup> )   |
|                                |  | - EPIC® HA 10-64:                      |  |
|                                |  | - solid or stranded wire with ferrule: | 20-14 AWG (0.5-2.5 mm <sup>2</sup> )   |
|                                |  | - for stranded wire without ferrule:   | 18-14 AWG (0.75-2.5 mm <sup>2</sup> ) (requires insert with wire protection) |
|                                |  | <b>Contact Material:</b>               | Silver-plated copper alloy   |
|                                |  | <b>Contact Resistance:</b>             | 1.5-4 mΩ   |

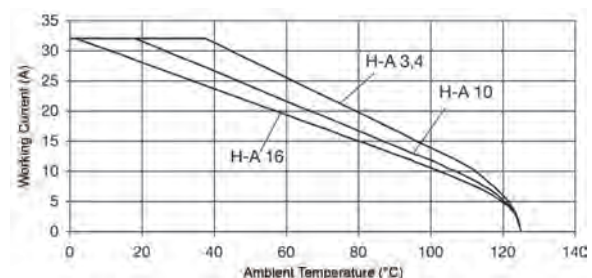
\* In dry, non-conductive, non-corrosive environments when protected in a housing rated at least IP54 and disconnected for cycling and maintenance only.

## EPIC® HA Inserts: Derating Curves

EPIC® HA Screw-Terminated  
16 AWG (1.5 mm<sup>2</sup>)

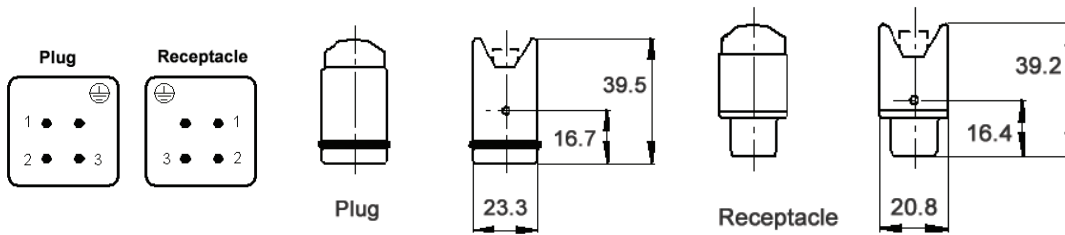


EPIC® HA Screw-Terminated  
14 AWG (2.5 mm<sup>2</sup>)



## EPIC® HA 3 Inserts Screw-Terminated

View from Cable Side



All dimensions are in mm.

### Approvals



### Complete the Installation



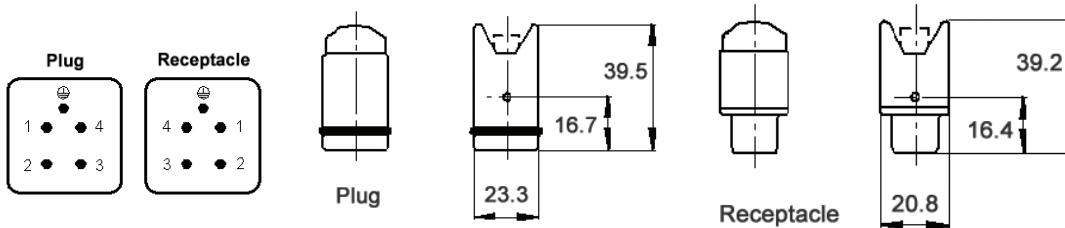
HA 3/4:  
page 400



Coding Pin:  
10451400

| Description      | Plug     | Receptacle |
|------------------|----------|------------|
| Screw-Terminated | 10420000 | 10421000   |

View from Cable Side



All dimensions are in mm.

### Approvals



### Complete the Installation



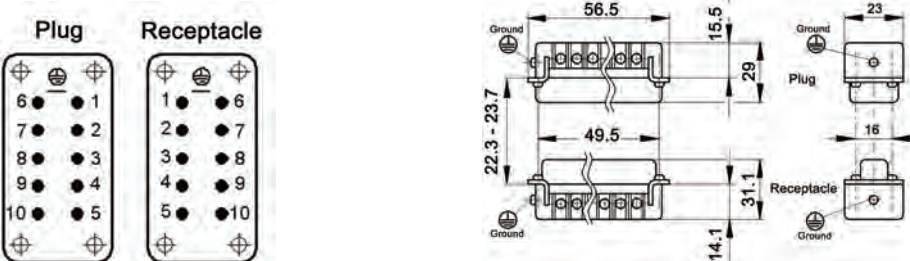
HA 3/4:  
page 400



Coding Pin:  
10451400

| Description      | Plug     | Receptacle |
|------------------|----------|------------|
| Screw-Terminated | 10431000 | 10432000   |

View from Cable Side



All dimensions are in mm.

### Approvals



### Compatible Housing



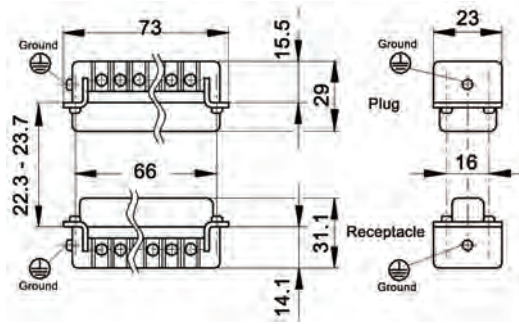
HA 10:  
page 402

| Description                              | Plug     | Receptacle |
|--|----------|------------|
| Screw-Terminated with Wire Protection    | 10440100 | 10441100   |
| Screw-Terminated without Wire Protection | 10440000 | 10441000   |

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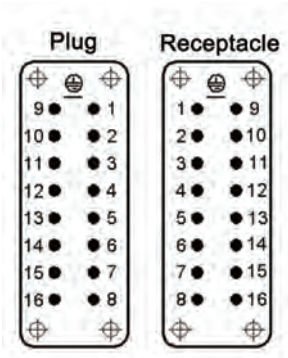


EPIC® HA 16 Inserts  
Screw-Terminated



All dimensions are in mm.

View from Cable Side



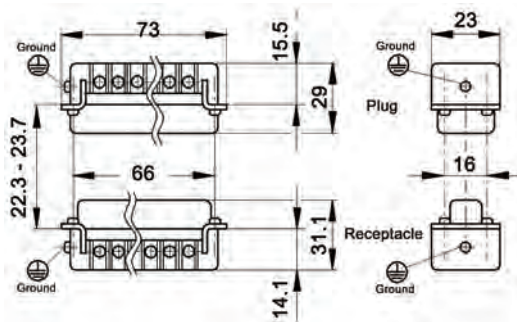
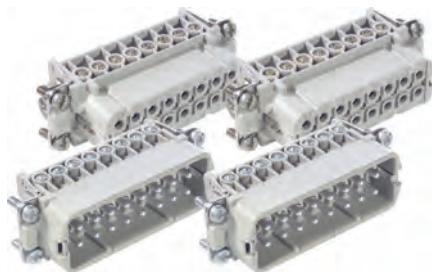
| Description                              | Plug     | Receptacle |
|--|----------|------------|
| Screw-Terminated with Wire Protection    | 10530000 | 10531000   |
| Screw-Terminated without Wire Protection | 10532000 | 10533000   |

**Compatible Housing**

HA 16:  
page 404

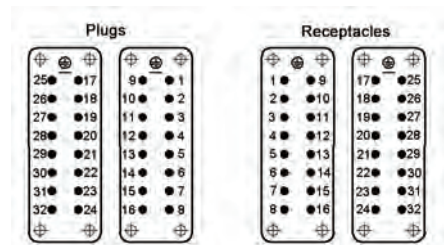
**Approvals**

EPIC® HA 32 Inserts  
Screw-Terminated



All dimensions are in mm.

View from Cable Side



| Description                              | Contacts            | Plug     | Receptacle |
|--|---------------------|----------|------------|
| Screw-Terminated with Wire Protection    | #1 - 16<br>#17 - 32 | 10530000 | 10531000   |
| Screw-Terminated without Wire Protection | #1 - 16<br>#17 - 32 | 10532000 | 10533000   |

**Compatible Housing**

HA 32:  
page 406

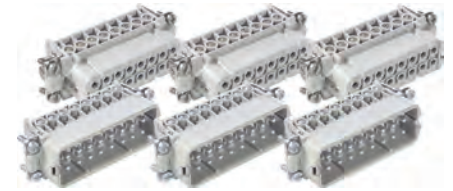
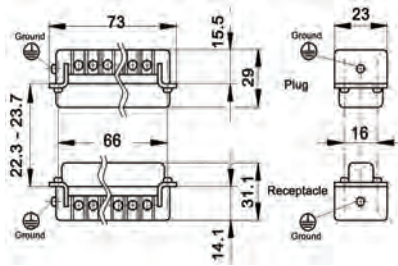
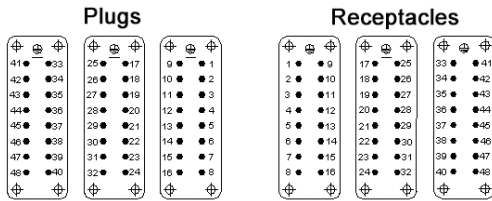
**Approvals**

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EPIC® HA 48 Inserts  
Screw-Terminated

View from Cable Side



All dimensions are in mm.

Approvals



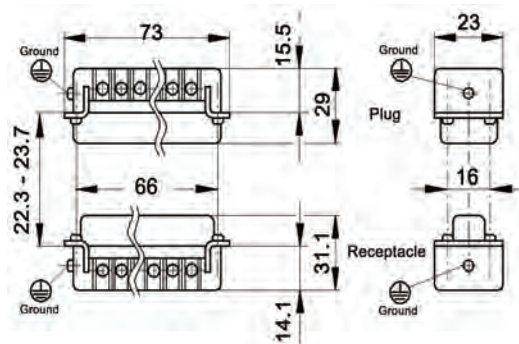
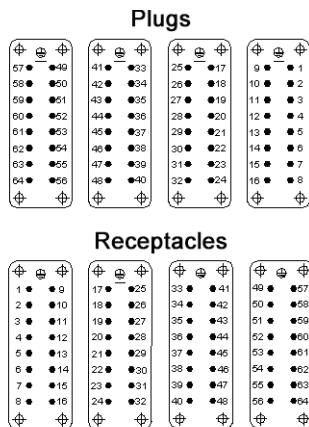
Compatible Housing



HA 48:  
page 408

| Description                              | Contacts | Plug     | Receptacle |
|--|----------|----------|------------|
| Screw-Terminated with Wire Protection    | #1 - 16  | 10530000 | 10531000   |
|  | #17 - 32 | 10540000 | 10541000   |
|  | #33 - 48 | 10540100 | 10541100   |
| Screw-Terminated without Wire Protection | #1 - 16  | 10532000 | 10533000   |
|  | #17 - 32 | 10542000 | 10543000   |
|  | #33 - 48 | 10542100 | 10543100   |

View from Cable Side



All dimensions are in mm.

EPIC® HA 64 Inserts  
Screw-Terminated

Approvals



Compatible Housing



HA 64:  
page 409

| Description                           | Contacts | Plug       | Receptacle |
|---------------------------------------|----------|------------|------------|
| Screw-Terminated with Wire Protection | #1 - 16  | 10530000   | 10531000   |
|                                       | #17 - 32 | 10540000   | 10541000   |
|                                       | #33 - 48 | 10540100   | 10541100   |
|                                       | #49 - 64 | 105300LE64 | 105310LE64 |

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# EPIC® HQ Series



The EPIC® HQ 5 insert fills the gap between the smallest configuration EPIC® HA and EPIC® HD connector inserts. It provides more contacts (5+PE) in the same housing space as the EPIC® HA 3 and HA 4 inserts, with a higher current capability than the EPIC® HD 7 and HE 8 inserts (16A vs. 10A). It is ideal for applications in the transportation and automotive industries, and in many other industrial applications.

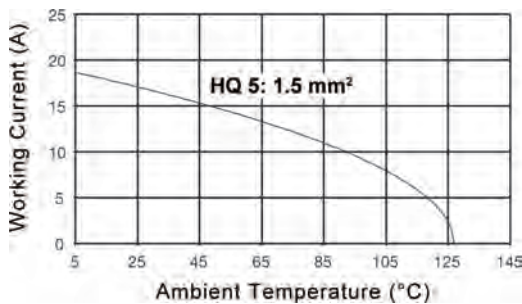
### Technical Data

|                            |  |                            |                                      |
|----------------------------|--|----------------------------|--------------------------------------|
| <b>Number of Contacts:</b> | 5 (+PE)  | <b>Test Voltage:</b>       | 4 kV                                 |
| <b>Temperature Range:</b>  | -40°C to +100°C  | <b>Rated Voltage:</b>      |                                      |
| - Short-term:              | up to +125°C   | - UL/CSA:                  | 600V                                 |
|                            |  | - IEC:                     | 400V                                 |
| <b>Pollution Level:</b>    | 3  | <b>Rated Current:</b>      |                                      |
|                            |  | - UL/CSA:                  | 16A                                  |
| <b>Mating Cycles:</b>      | - Per DIN EN 61984:2008<br>Service Life Test: Tested to 100 cycles and passed                            | <b>Wire Size:</b>          | 20-14 AWG (0.5-2.5 mm <sup>2</sup> ) |
|                            | - Per Contact Thermal Test:<br>Useful service up to 500 cycles is possible at rated voltage and current* | <b>Contact Material:</b>   | Silver- or gold-plated copper alloy  |
|                            |  | <b>Contact Resistance:</b> | ≤ 2 mΩ                               |

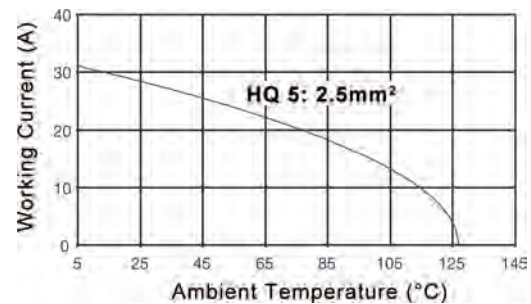
\* In dry, non-conductive, non-corrosive environments when protected in a housing rated at least IP54 and disconnected for cycling and maintenance only.

## EPIC® HQ Inserts: Derating Curves

EPIC® HQ Crimp-Terminated  
16 AWG (1.5 mm<sup>2</sup>)

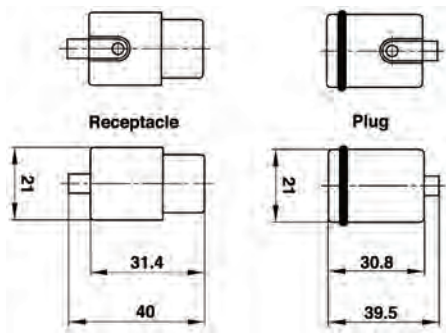


EPIC® HQ Crimp-Terminated  
14 AWG (2.5 mm<sup>2</sup>)



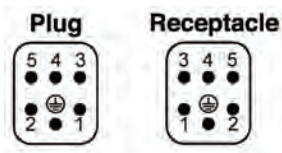
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EPIC® HQ 5 Inserts  
Crimp-Terminated



All dimensions are in mm.

View from Cable Side



Contacts sold separately, see below

Approvals



Complete the Installation



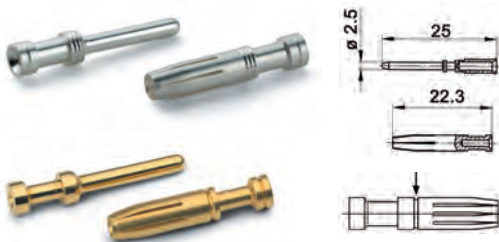
HA 3/4:  
page 400



Coding Pin:  
10436500

| Description                         | Plug     | Receptacle |
|-------------------------------------|----------|------------|
| Crimp-Terminated: Machined Contacts | 10431500 | 10432500   |

Machined Contacts  
2.5 mm Diameter



| Contact Size<br>mm <sup>2</sup> | AWG | Stripping Length (mm) |        | # of Marking Tracks | Silver Contacts |          | Gold Contacts |          |
|---------------------------------|-----|-----------------------|--------|---------------------|-----------------|----------|---------------|----------|
|                                 |     | Pin                   | Socket |                     | Pin             | Socket   | Pin           | Socket   |
| 0.5                             | 20  | 7.4                   | 7.3    | —                   | 11190000        | 11195000 | 11192000      | 11197000 |
| 0.75 - 1.0                      | 18  | 7.4                   | 7.3    | 1                   | 11190100        | 11195100 | 11192100      | 11197100 |
| 1.5                             | 16  | 7.4                   | 7.3    | 2                   | 11190200        | 11195200 | 11192200      | 11197200 |
| 2.5                             | 14  | 7.4                   | 7.3    | 3                   | 11190300        | 11195300 | —             | —        |
| 4.0                             | 12  | 7.4                   | 7.3    | —                   | 11190400        | 11195400 | —             | —        |

Part number = 1 contact, sold in bags of 100

Complete the Installation



Crimp Tool:  
11147000



Crimp Dies:  
11147100



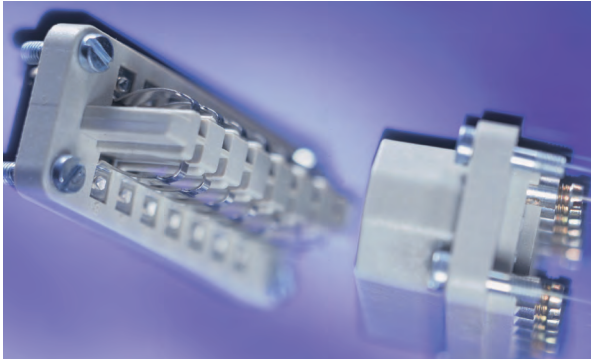
Locator:  
11147200



Removal Tool:  
111825000

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# EPIC® STA Series

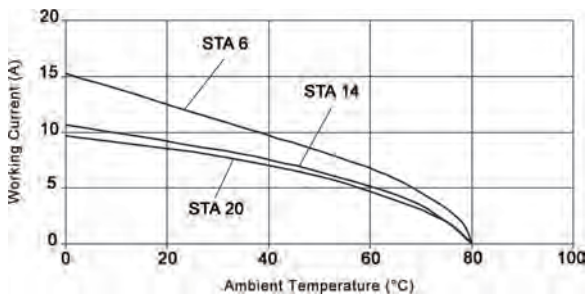


EPIC® STA series inserts with solid spring-designed contacts are used extensively in the construction of devices and in control units, laboratories, and withdrawable unit design. These inserts are available with screw or solder termination, and fit into EPIC® HA series housings.

| Technical Data             |   |                            |                                      |
|----------------------------|---|----------------------------|--------------------------------------|
| <b>Number of Contacts:</b> | 6, 14, 20, 40   | <b>Rated Current:</b>      |                                      |
| <b>Temperature Range:</b>  | -40°C to +80°C  | - UL/CSA; IEC:             |                                      |
| <b>Pollution Level:</b>    | 2   | - EPIC® STA 6-20:          | 10A                                  |
| <b>Mating Cycles:</b>      | - Per DIN EN 61984:2008<br>Service Life Test: Tested to 100 cycles and passed | <b>Wire Size:</b>          |                                      |
| <b>Test Voltage:</b>       | 1 kV  | - Solder termination:      | up to 16 AWG (1.5 mm <sup>2</sup> )  |
| <b>Rated Voltage:</b>      |   | - Screw termination:       | 20-16 AWG (0.5-1.5 mm <sup>2</sup> ) |
| - UL/CSA:                  |   | <b>Contact Material:</b>   | Silver-plated copper alloy           |
| - EPIC® STA 6-20:          | 48V   | <b>Contact Resistance:</b> | < 2 mΩ                               |
| - IEC:                     |   |                            |                                      |
| - EPIC® STA 6-20:          | 60V   |                            |                                      |

## EPIC® STA Inserts: Derating Curves

EPIC® STA Screw-Terminated  
18 AWG (1 mm<sup>2</sup>)

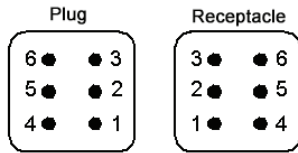




# EPIC® STA 6 Inserts


## Screw-Terminated

View from Cable Side

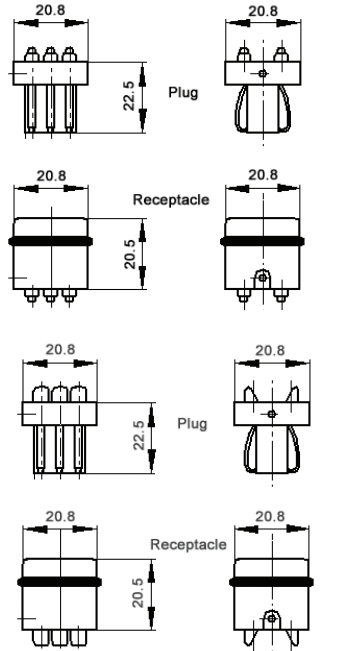


All dimensions are in mm.

**Compatible Housing**



HA 3/4:  
page 400



## Solder-Terminated



### Approvals

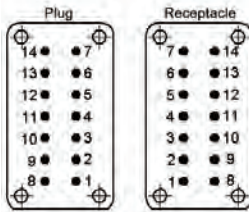


| Description       | Plug     | Receptacle |
|-------------------|----------|------------|
| Screw-Terminated  | 10488100 | 10486100   |
| Solder-Terminated | 10487200 | 10485200   |

# EPIC® STA 14 Inserts


## Screw-Terminated

View from Cable Side

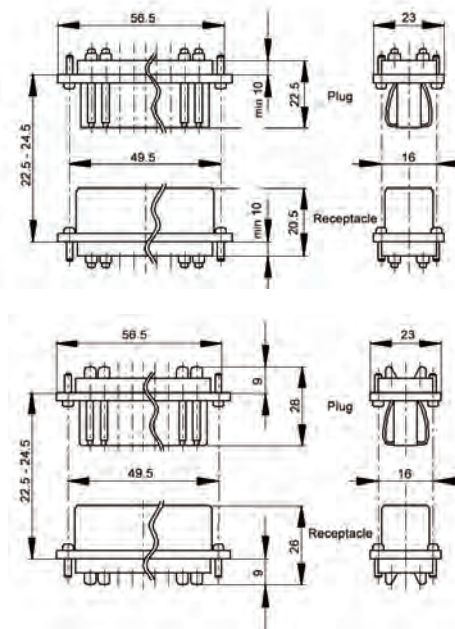


All dimensions are in mm.

**Compatible Housing**



HA 10:  
page 402



## Solder-Terminated



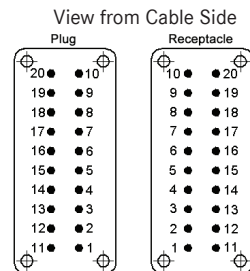
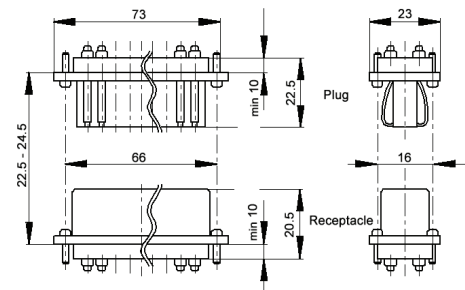
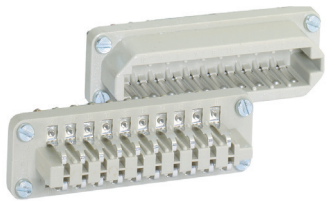
### Approvals



| Description       | Plug     | Receptacle |
|-------------------|----------|------------|
| Screw-Terminated  | 10493100 | 10491100   |
| Solder-Terminated | 10492200 | 10490200   |

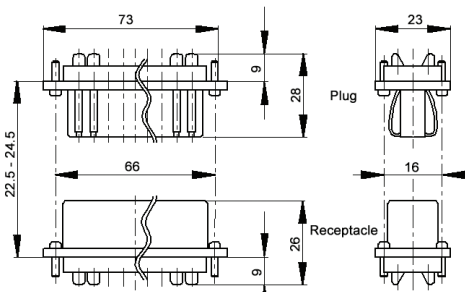
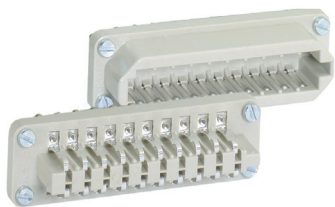
Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

EPIC® STA 20 Inserts  
Screw-Terminated



All dimensions are in mm.

Solder-Terminated



**Compatible Housing**

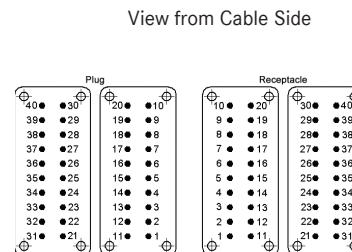
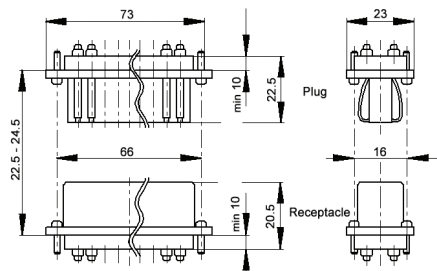
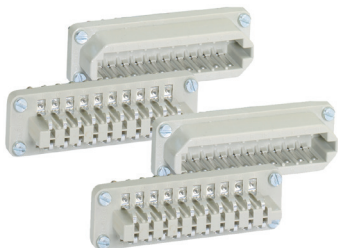
HA 16:  
page 404

| Description       | Plug     | Receptacle |
|-------------------|----------|------------|
| Screw-Terminated  | 10503100 | 10501100   |
| Solder-Terminated | 10502200 | 10500200   |

Approvals

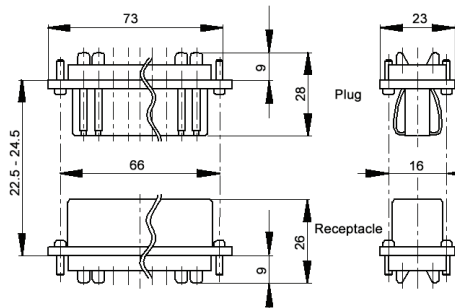
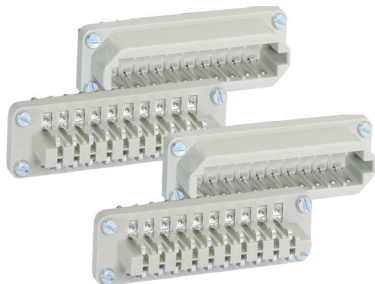


EPIC® STA 40 Inserts  
Screw-Terminated



x2 STA 20 inserts, use two part numbers.  
All dimensions are in mm.

Solder-Terminated



**Compatible Housing**

HA 32:  
page 406

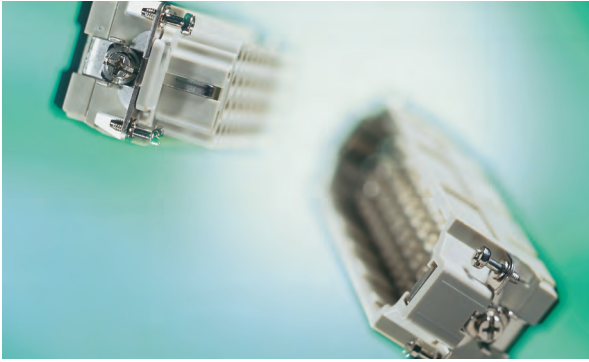
| Description       | Plug          | Receptacle    |
|-------------------|---------------|---------------|
| Screw-Terminated  | 10503100 (x2) | 10501100 (x2) |
| Solder-Terminated | 10502200 (x2) | 10500200 (x2) |

Approvals



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# EPIC® HEE Series



The EPIC® HEE series of crimp-terminated inserts is a high-density companion to the popular EPIC® HBE series. Offering the same voltage and current ratings (600V AC; 16A), it provides a significant increase in contact density (a 67%- 100% increase) within the same footprint dimensions as an equivalent-sized HBE insert. EPIC® HEE inserts are ideal for applications in the automotive industry, and any other industrial application requiring high density contacts and immunity to vibration.

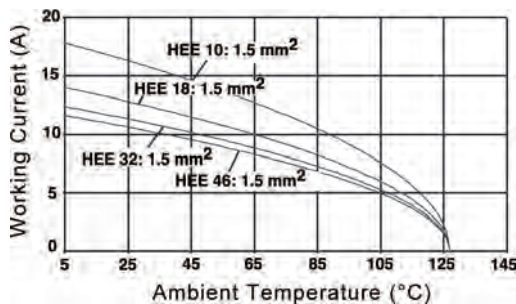
### Technical Data

|                            |  |                            |                                     |
|----------------------------|--|----------------------------|-------------------------------------|
| <b>Number of Contacts:</b> | 10, 18, 32, 46, 64, 92 (+PE)   | <b>Test Voltage:</b>       | 6 kV                                |
| <b>Temperature Range:</b>  | -40°C to +100°C  | <b>Rated Voltage:</b>      |                                     |
| - Short-term:              | up to +125°C   | - UL/CSA:                  | 600V                                |
|                            |  | - IEC:                     | 500V                                |
| <b>Pollution Level:</b>    | 3  | <b>Rated Current:</b>      | 16A                                 |
| <b>Mating Cycles:</b>      | - Per DIN EN 61984:2008<br>Service Life Test: Tested to 100 cycles and passed<br>- Per Contact Thermal Test: Useful service up to 500 cycles is possible at rated voltage and current* | <b>Wire Size:</b>          | 20- 12 AWG (0.5-4 mm <sup>2</sup> ) |
|                            |  | <b>Contact Material:</b>   | Silver- or gold-plated copper alloy |
|                            |  | <b>Contact Resistance:</b> | ≤ 2 mΩ                              |

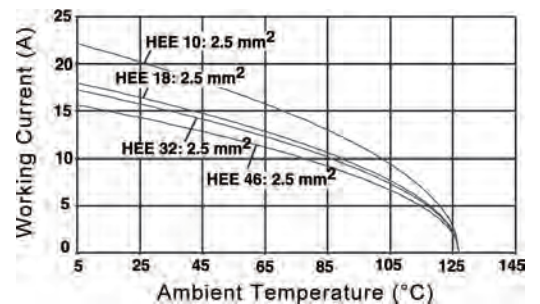
\* In dry, non-conductive, non-corrosive environments when protected in a housing rated at least IP54 and disconnected for cycling and maintenance only.

## EPIC® HEE Inserts: Derating Curves

EPIC® HEE Crimp-Terminated  
16 AWG (1.5 mm<sup>2</sup>)



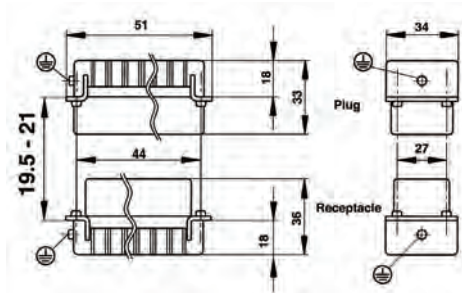
EPIC® HEE Crimp-Terminated  
14 AWG (2.5 mm<sup>2</sup>)



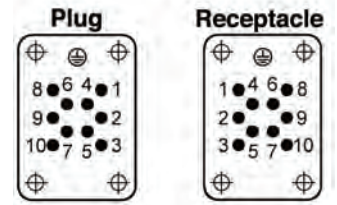
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# EPIC® HEE 10 Inserts

Crimp-Terminated



View from Cable Side



Contacts sold separately, see below

All dimensions are in mm.

| Description                         | Plug     | Receptacle |
|-------------------------------------|----------|------------|
| Crimp-Terminated: Machined Contacts | 10180400 | 10181400   |

**Compatible Housing**

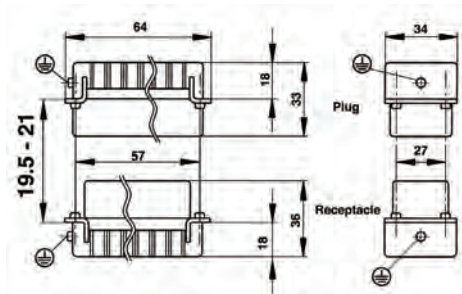
HB 6:  
page 369

**Approvals**

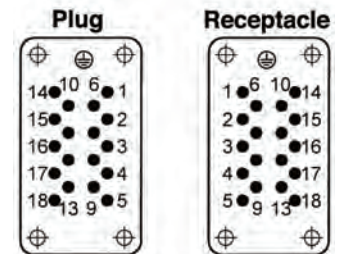


# EPIC® HEE 18 Inserts

Crimp-Terminated



View from Cable Side



Contacts sold separately, see below

All dimensions are in mm.

| Description                         | Plug     | Receptacle |
|-------------------------------------|----------|------------|
| Crimp-Terminated: Machined Contacts | 10182400 | 10183400   |

**Compatible Housing**

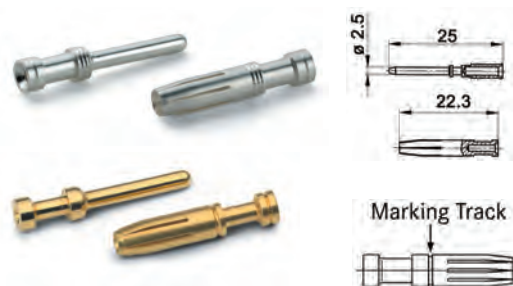
HB 10:  
page 372

**Approvals**



# Machined Contacts

2.5 mm Diameter



| Contact Size<br>mm <sup>2</sup> | AWG | Stripping Length (mm) |        | # of Marking Tracks | Silver Contacts |          | Gold Contacts |          |
|---------------------------------|-----|-----------------------|--------|---------------------|-----------------|----------|---------------|----------|
|                                 |     | Pin                   | Socket |                     | Pin             | Socket   | Pin           | Socket   |
| 0.5                             | 20  | 7.4                   | 7.3    | —                   | 11190000        | 11195000 | 11192000      | 11197000 |
| 0.75 - 1.0                      | 18  | 7.4                   | 7.3    | 1                   | 11190100        | 11195100 | 11192100      | 11197100 |
| 1.5                             | 16  | 7.4                   | 7.3    | 2                   | 11190200        | 11195200 | 11192200      | 11197200 |
| 2.5                             | 14  | 7.4                   | 7.3    | 3                   | 11190300        | 11195300 | —             | —        |
| 4.0                             | 12  | 7.4                   | 7.3    | —                   | 11190400        | 11195400 | —             | —        |

Part number = 1 contact, sold in bags of 100

**Complete the Installation**

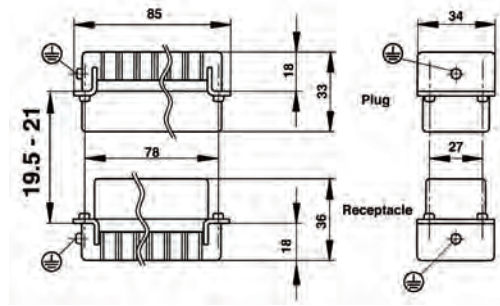
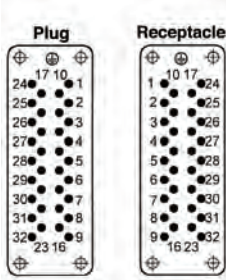
|  |                         |  |                         |  |                      |  |                           |
|--|-------------------------|--|-------------------------|--|----------------------|--|---------------------------|
|  | Crimp Tool:<br>11147000 |  | Crimp Dies:<br>11147100 |  | Locator:<br>11147200 |  | Removal Tool:<br>11182500 |
|--|-------------------------|--|-------------------------|--|----------------------|--|---------------------------|

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EPIC® HEE 32 Inserts  
Crimp-Terminated

View from Cable Side



All dimensions are in mm.

Contacts sold separately, see below

Approvals



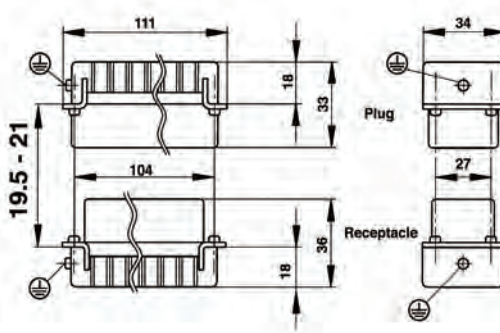
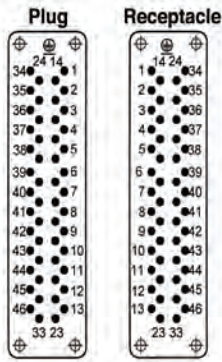
Compatible Housing



HB 16:  
page 378

| Description                         | Plug     | Receptacle |
|-------------------------------------|----------|------------|
| Crimp-Terminated: Machined Contacts | 10184400 | 10185400   |

View from Cable Side



All dimensions are in mm.

Contacts sold separately, see below

Approvals



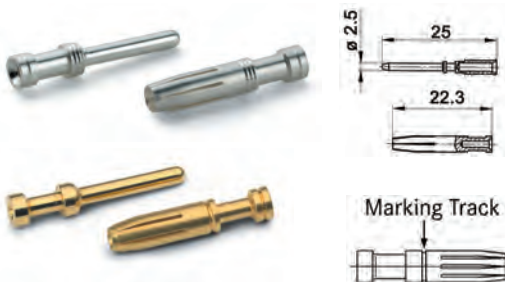
Compatible Housing



HB 24:  
page 384

| Description                         | Plug     | Receptacle |
|-------------------------------------|----------|------------|
| Crimp-Terminated: Machined Contacts | 10186400 | 10187400   |

Machined Contacts  
2.5 mm Diameter



| Contact Size<br>mm <sup>2</sup> | AWG | Stripping Length (mm) |        | # of Marking Tracks | Silver Contacts |          | Gold Contacts |          |
|---------------------------------|-----|-----------------------|--------|---------------------|-----------------|----------|---------------|----------|
|                                 |     | Pin                   | Socket |                     | Pin             | Socket   | Pin           | Socket   |
| 0.5                             | 20  | 7.4                   | 7.3    | —                   | 11190000        | 11195000 | 11192000      | 11197000 |
| 0.75 - 1.0                      | 18  | 7.4                   | 7.3    | 1                   | 11190100        | 11195100 | 11192100      | 11197100 |
| 1.5                             | 16  | 7.4                   | 7.3    | 2                   | 11190200        | 11195200 | 11192200      | 11197200 |
| 2.5                             | 14  | 7.4                   | 7.3    | 3                   | 11190300        | 11195300 | —             | —        |
| 4.0                             | 12  | 7.4                   | 7.3    | —                   | 11190400        | 11195400 | —             | —        |

Part number = 1 contact, sold in bags of 100

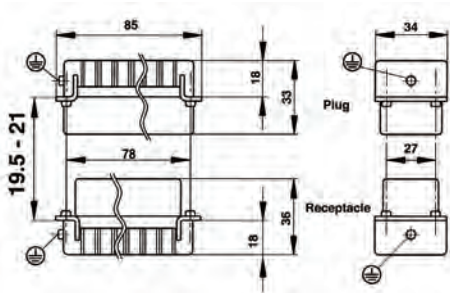
Complete the Installation

|  |                         |  |                         |  |                      |  |                           |
|--|-------------------------|--|-------------------------|--|----------------------|--|---------------------------|
|  | Crimp Tool:<br>11147000 |  | Crimp Dies:<br>11147100 |  | Locator:<br>11147200 |  | Removal Tool:<br>11182500 |
|--|-------------------------|--|-------------------------|--|----------------------|--|---------------------------|

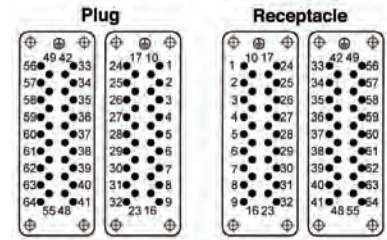
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# EPIC® HEE 64 Inserts

Crimp-Terminated



View from Cable Side



Contacts sold separately, see below

All dimensions are in mm.

| Description                         | Contacts | Plug     | Receptacle |
|-------------------------------------|----------|----------|------------|
| Crimp-Terminated: Machined Contacts | #1-32    | 10184400 | 10185400   |
|                                     | #33-64   | 10184500 | 10185500   |

**Compatible Housing**



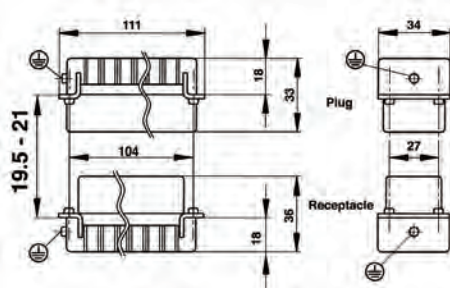
HB 32:  
page 390

**Approvals**

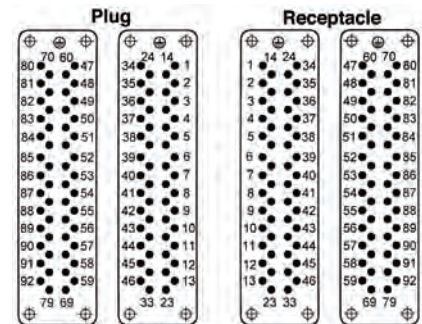


# EPIC® HEE 92 Inserts

Crimp-Terminated



View from Cable Side



Contacts sold separately, see below

All dimensions are in mm.

| Description                         | Contacts | Plug     | Receptacle |
|-------------------------------------|----------|----------|------------|
| Crimp-Terminated: Machined Contacts | #1-46    | 10186400 | 10187400   |
|                                     | #47-92   | 10186500 | 10187500   |

**Compatible Housing**



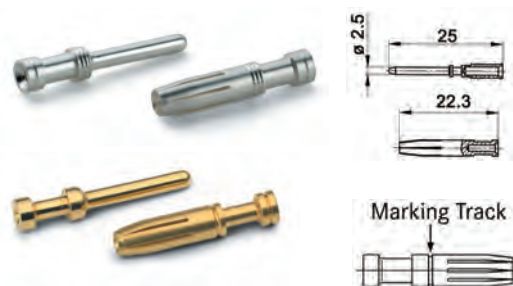
HB 48:  
page 392

**Approvals**



# Machined Contacts





2.5 mm Diameter



| Contact Size | Stripping Length (mm) | # of Marking Tracks | Silver Contacts |          | Gold Contacts |          |
|--------------|-----------------------|---------------------|-----------------|----------|---------------|----------|
|              |                       |                     | Pin             | Socket   | Pin           | Socket   |
| 0.5          | 20                    | —                   | 11190000        | 11195000 | 11192000      | 11197000 |
| 0.75 - 1.0   | 18                    | 1                   | 11190100        | 11195100 | 11192100      | 11197100 |
| 1.5          | 16                    | 2                   | 11190200        | 11195200 | 11192200      | 11197200 |
| 2.5          | 14                    | 3                   | 11190300        | 11195300 | —             | —        |
| 4.0          | 12                    | —                   | 11190400        | 11195400 | —             | —        |

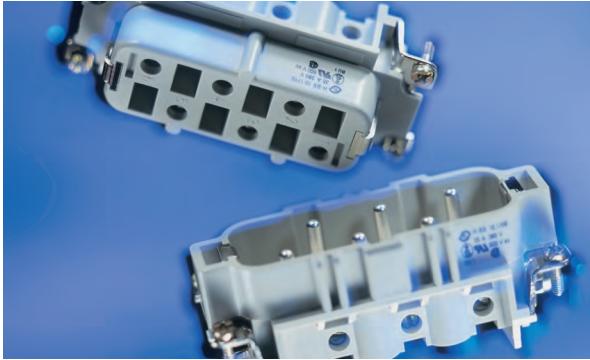
Part number = 1 contact, sold in bags of 100

**Complete the Installation**

|   |                         |   |                         |   |                      |   |                           |
|---|-------------------------|---|-------------------------|---|----------------------|---|---------------------------|
|  | Crimp Tool:<br>11147000 |  | Crimp Dies:<br>11147100 |  | Locator:<br>11147200 |  | Removal Tool:<br>11182500 |
|---|-------------------------|---|-------------------------|---|----------------------|---|---------------------------|

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## EPIC® HBS Series



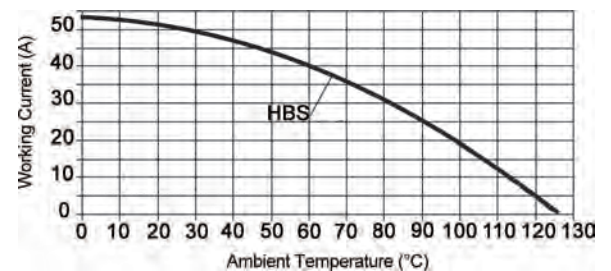
EPIC® HBS series inserts are characterized by their higher current-carrying capacity: a little more than twice the capacity of the EPIC® HBE series. A secure electrical connection can be made by simple screw termination for cables up to 10 AWG.

| ■ Technical Data           |   |                            |                                      |
|----------------------------|---|----------------------------|--------------------------------------|
| <b>Number of Contacts:</b> | 6, 12 (+PE)   | <b>Test Voltage:</b>       | 6 kV                                 |
| <b>Temperature Range:</b>  | -40°C to +100°C   | <b>Rated Voltage:</b>      |                                      |
| - Short-term:              | up to +125°C  | - UL/CSA:                  | 600V                                 |
|                            |   | - IEC:                     | 500V                                 |
| <b>Pollution Level:</b>    | 3   | <b>Rated Current:</b>      |                                      |
| <b>Mating Cycles:</b>      | - Per DIN EN 61984:2008<br>Service Life Test: Tested to 100 cycles and passed<br>- Per Contact Thermal Test:<br>Useful service up to 500 cycles is possible at rated voltage and current* | - UL/CSA; IEC:             | 35A                                  |
|                            |   | <b>Wire Size:</b>          | 20 - 10 AWG (0.5-6 mm <sup>2</sup> ) |
|                            |   | <b>Contact Material:</b>   | Silver-plated copper alloy           |
|                            |   | <b>Contact Resistance:</b> | < 2 mΩ                               |

\* In dry, non-conductive, non-corrosive environments when protected in a housing rated at least IP54 and disconnected for cycling and maintenance only.

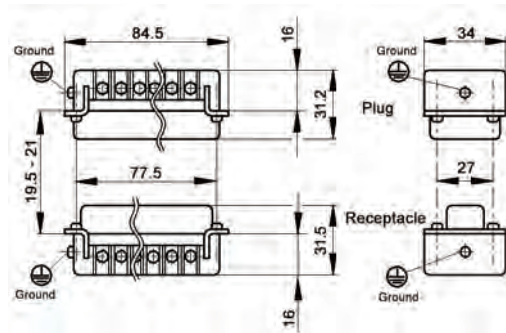
## EPIC® HBS Inserts: Derating Curves

EPIC® HBS Screw-Terminated  
10 AWG (6 mm<sup>2</sup>)



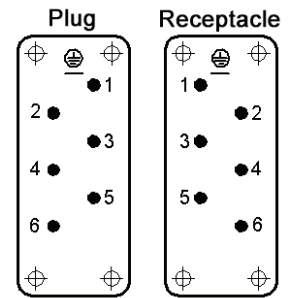


EPIC® HBS 6 Inserts  
Screw-Terminated



All dimensions are in mm.

View from Cable Side



| Description      | Plug     | Receptacle |
|------------------|----------|------------|
| Screw-Terminated | 10170000 | 10171000   |

**Compatible Housing**

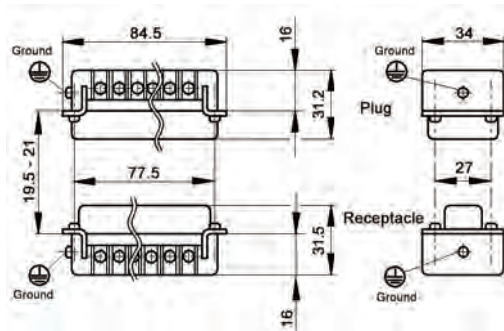


HB 16:  
page 378

**Approvals**

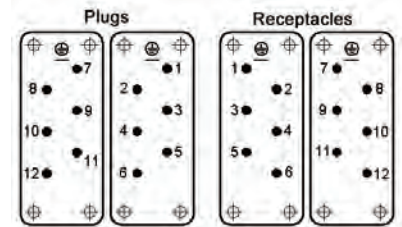


EPIC® HBS 12 Inserts  
Screw-Terminated



All dimensions are in mm.

View from Cable Side



| Description      | Contacts | Plug     | Receptacle |
|------------------|----------|----------|------------|
| Screw-Terminated | #1 - 6   | 10170000 | 10171000   |
|                  | #7 - 12  | 10170600 | 10171600   |

**Compatible Housing**



HB 32:  
page 390

**Approvals**



Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.



## EPIC® HBVE Series



EPIC® HBVE series inserts handle higher voltage and are equipped with two switch contacts. These contacts “make” after the working contacts are engaged and “break” before the working contacts disengage. They can be wired as part of an electrical interlock circuit to ensure that power to the working contacts is turned off during connector mating and unmating.

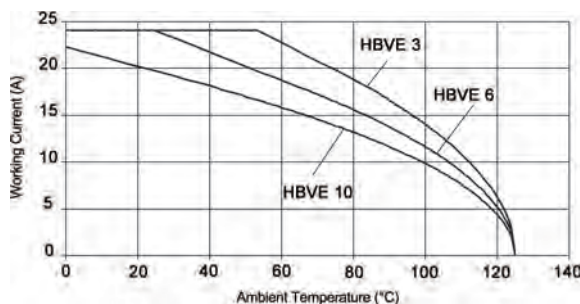
### Technical Data

|                            |  |                            |                                       |
|----------------------------|--|----------------------------|---------------------------------------|
| <b>Number of Contacts:</b> | 3+2+PE, 6+2+PE, 10+2+PE  | <b>Test Voltage:</b>       | 6 kV                                  |
| <b>Temperature Range:</b>  | -40°C to +100°C  | <b>Rated Voltage:</b>      |                                       |
| - Short-term:              | up to +125°C   | - UL/CSA:                  | 600V                                  |
| <b>Pollution Level:</b>    | 3  | - IEC:                     | 630V                                  |
| <b>Mating Cycles:</b>      | - Per DIN EN 61984:2008<br>Service Life Test: Tested to 100 cycles and passed<br>- Per Contact Thermal Test: Useful service up to 500 cycles is possible at rated voltage and current* | <b>Rated Current:</b>      | 16A                                   |
|                            |  | - UL/CSA; IEC:             | 16A                                   |
|                            |  | <b>Wire Size:</b>          | 20- 14 AWG (0.5-2.5 mm <sup>2</sup> ) |
|                            |  | <b>Contact Material:</b>   | Silver-plated copper alloy            |
|                            |  | <b>Contact Resistance:</b> | < 2 mΩ                                |

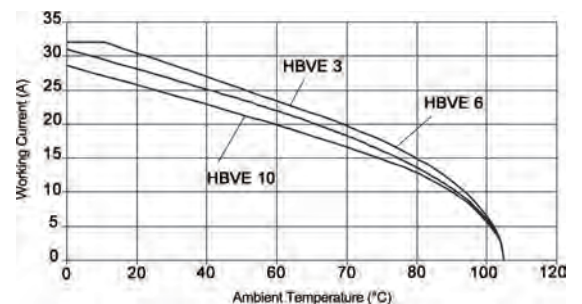
\* In dry, non-conductive, non-corrosive environments when protected in a housing rated at least IP54 and disconnected for cycling and maintenance only.

## EPIC® HBVE Inserts: Derating Curves

EPIC® HBVE Screw-Terminated  
16 AWG (1.5 mm<sup>2</sup>)

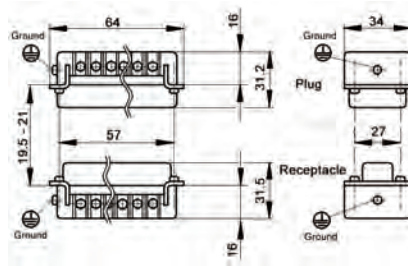


EPIC® HBVE Screw-Terminated  
14 AWG (2.5 mm<sup>2</sup>)



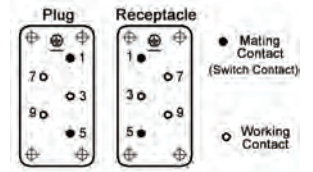
# EPIC® HBVE 3 Inserts

## Screw-Terminated



All dimensions are in mm.

View from Cable Side



| Description                              | Plug     | Receptacle |
|--|----------|------------|
| Screw-Terminated with Wire Protection    | 10210010 | 10211010   |
| Screw-Terminated without Wire Protection | 10210110 | 10211110   |

**Compatible Housing**

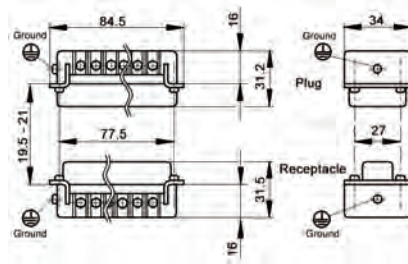
HB 10:  
page 372

**Approvals**



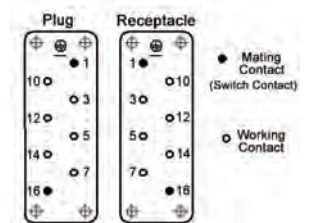
# EPIC® HBVE 6 Inserts

## Screw-Terminated



All dimensions are in mm.

View from Cable Side



| Description                              | Plug     | Receptacle |
|--|----------|------------|
| Screw-Terminated with Wire Protection    | 10239010 | 10240010   |
| Screw-Terminated without Wire Protection | 10239110 | 10240110   |

**Compatible Housing**

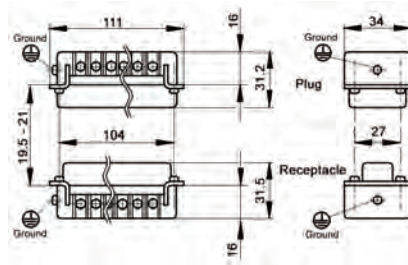
HB 16:  
page 378

**Approvals**



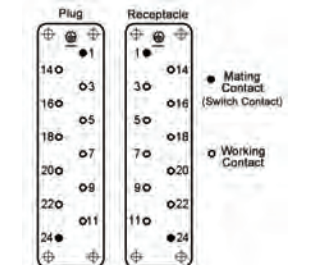
# EPIC® HBVE 10 Inserts

## Screw-Terminated



All dimensions are in mm.

View from Cable Side



| Description                              | Plug     | Receptacle |
|--|----------|------------|
| Screw-Terminated with Wire Protection    | 10270010 | 10271010   |
| Screw-Terminated without Wire Protection | 10270110 | 10271110   |

**Compatible Housing**

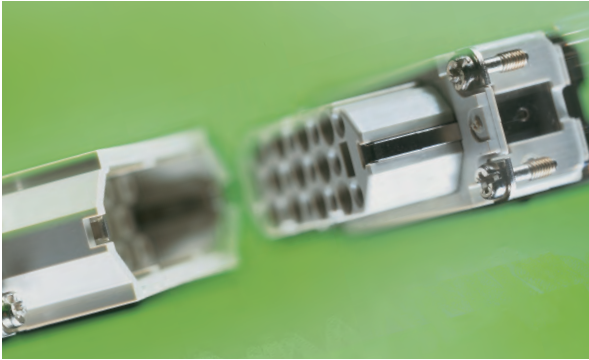
HB 24:  
page 384

**Approvals**



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## EPIC® HD Series



EPIC® HD series inserts are designed for use in industries where large numbers of contacts are required and limited space is available. These high-density crimp inserts are available with stamped & formed or machined contacts and fit into EPIC® HA & HB series housings.

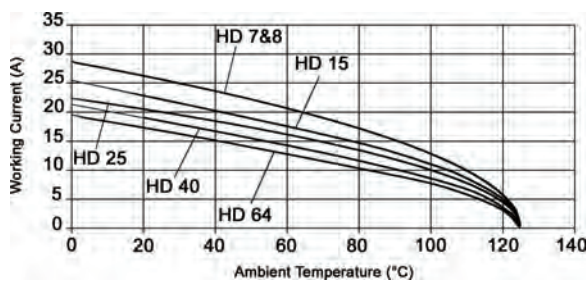
### Technical Data

|                            |  |  |  |
|----------------------------|--|--|--|
| <b>Number of Contacts:</b> | 7, 8, 15, 25, 40, 50, 64, 80, 128 (+PE)  | <b>Rated Voltage:</b>                      |  |
| <b>Temperature Range:</b>  | -40°C to +100°C  | - IEC EPIC® HD 7-8:                        |  |
| - Short-term:              | up to +125°C   | - Metal housing:                           | 42V                                    |
| <b>Pollution Level:</b>    | 3  | - Plastic housing:                         | 250V                                   |
| <b>Mating Cycles:</b>      | - Per DIN EN 61984:2008<br>Service Life Test: Tested to 100 cycles and passed<br>- Per Contact Thermal Test: Useful service up to 500 cycles is possible at rated voltage and current* | - IEC EPIC® HD 15-128:                     | 250V                                   |
| <b>Test Voltage:</b>       | 2.5 kV   | - UL/CSA:                                  | 250V                                   |
|                            |  | <b>Rated Current:</b>                      |  |
|                            |  | - UL/CSA, IEC:                             | 10A                                    |
|                            |  | <b>Wire Size:</b>                          | 26- 14 AWG (0.14-2.5 mm <sup>2</sup> ) |
|                            |  | <b>Contact Material:</b>                   | Silver- or gold-plated copper alloy    |
|                            |  | <b>Contact Resistance:</b>                 | < 2 mΩ                                 |
|                            |  | - EPIC® HD 40, 64-128 (machined contacts): | < 3 mΩ                                 |

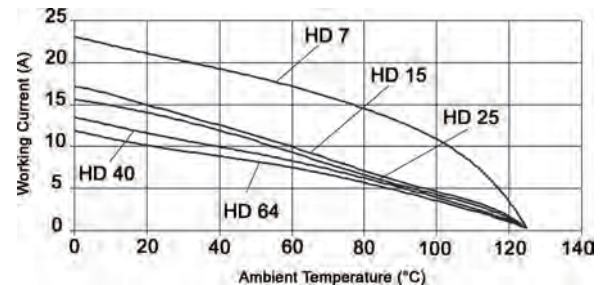
\* In dry, non-conductive, non-corrosive environments when protected in a housing rated at least IP54 and disconnected for cycling and maintenance only.

## EPIC® HD Inserts: Derating Curves

EPIC® HD Machined  
14 AWG (2.5 mm<sup>2</sup>)

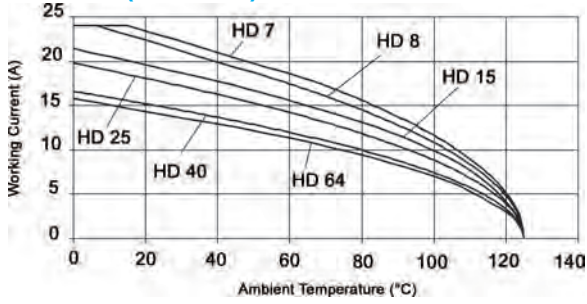


EPIC® HD Stamped & Formed  
14 AWG (2.5 mm<sup>2</sup>)

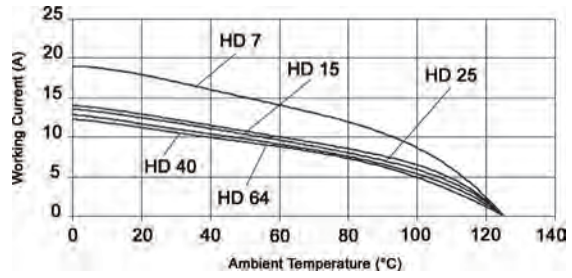


# EPIC® HD Inserts: Derating Curves

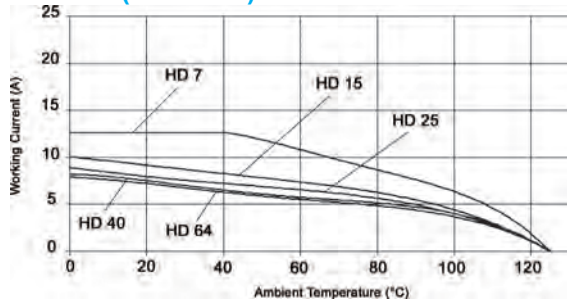
**EPIC® HD Machined  
16 AWG (1.5 mm<sup>2</sup>)**



**EPIC® HD Stamped & Formed  
16 AWG (1.5 mm<sup>2</sup>)**



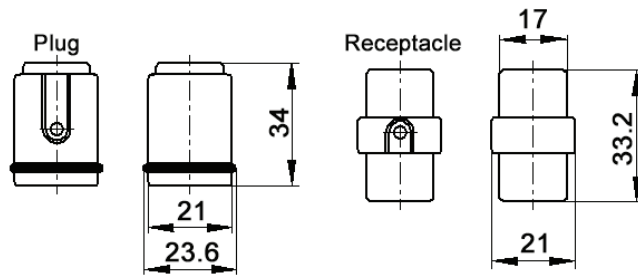
**EPIC® HD Stamped & Formed  
20 AWG (0.5 mm<sup>2</sup>)**





# EPIC® HD 7 Inserts

## Crimp-Terminated: Machined Contacts

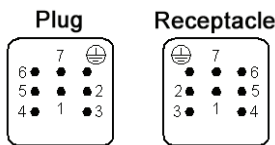


All dimensions are in mm.



Contacts sold separately, see below


View from Cable Side



### Approvals



**Compatible Housing**

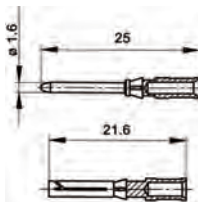


HA 3/4:  
page 400

| Description                         | Plug     | Receptacle |
|-------------------------------------|----------|------------|
| Crimp-Terminated: Machined Contacts | 11250500 | 11251500   |

## Machined Contacts

### 1.6 mm Diameter



1 part number = 1 contact, sold in bags of 100

| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping<br>Length<br>(mm) | # of<br>Marking<br>Tracks | Silver Contacts |          | Gold Contacts |          |
|---------------------------------|-------|-----------------------------|---------------------------|-----------------|----------|---------------|----------|
|                                 |       |                             |                           | Pin             | Socket   | Pin           | Socket   |
| 0.14 - 0.37                     | 26-22 | 8                           | 1                         | 13162000        | 13163000 | 13162500      | 13163500 |
| 0.5                             | 20    | 8                           | 2                         | 13162100        | 13163100 | 13162600      | 13163600 |
| 0.75 - 1.0                      | 18    | 8                           | 3                         | 13162200        | 13163200 | 13162700      | 13163700 |
| 1.5                             | 16    | 8                           | 4                         | 13162300        | 13163300 | 13162800      | 13163800 |
| 2.5                             | 14    | 5.8                         | 5                         | 13162400        | 13163400 | 13162900      | 13163900 |

### Complete the Installation



Crimp Tool:  
11147000



Crimp Dies:  
11147100



Locator:  
11147200

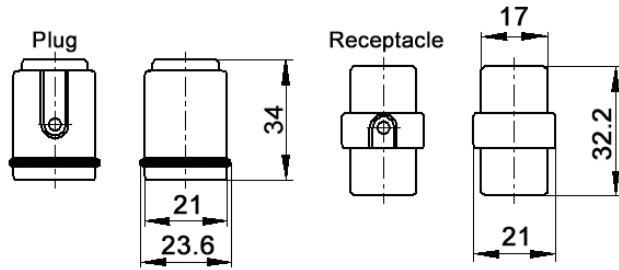


Removal Tool:  
11161000

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# EPIC® HD 7 Inserts

Crimp-Terminated: Stamped & Formed Contacts



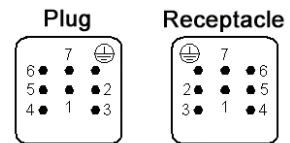
All dimensions are in mm.

Contacts sold separately, see below

## Approvals



View from Cable Side



| Description                                 | Plug     | Receptacle |
|---|----------|------------|
| Crimp-Terminated: Stamped & Formed Contacts | 11250000 | 11251000   |

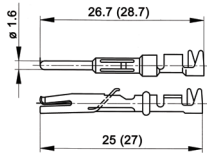
### Compatible Housing



HA 3/4:  
page 400

## Stamped & Formed Contacts

1.6 mm Diameter



1 part number = 1 contact, sold in bags of 100 or 1 reel

| Contact Size    |       | Stripping Length (mm) | Bag of 100: Silver |          | Bag of 100: Gold |          | Reel of 100: Silver Left-hand Feed |          | Reel of 200: Silver Left-hand Feed |          |
|-----------------|-------|-----------------------|--------------------|----------|------------------|----------|------------------------------------|----------|------------------------------------|----------|
| mm <sup>2</sup> | AWG   |                       | Pin                | Socket   | Pin              | Socket   | Pin                                | Socket   | Pin                                | Socket   |
| 0.14-0.5        | 26-20 | 2.5-0.5               | 11241100           | 11231100 | 11243100         | 11233100 | -                                  | -        | 11240700                           | 11230700 |
| 0.5-1.5         | 20-16 | 3.5-0.5               | 11221000           | 11236100 | 11221300         | 11238100 | -                                  | -        | 11220700                           | 11235700 |
| 1.5-2.5         | 16-14 | 3.5-0.5               | 11223500           | 11228500 | -                | -        | 11223000                           | 11228000 | -                                  | -        |

| Contact Size    |       | Stripping Length (mm) | Reel of 2000: Silver Right-hand Feed |          | Reel of 2000: Gold Right-hand Feed |          | Reel of 2000: Silver Left-hand Feed |          | Reel of 2000: Gold Left-hand Feed |          |
|-----------------|-------|-----------------------|--------------------------------------|----------|------------------------------------|----------|-------------------------------------|----------|-----------------------------------|----------|
| mm <sup>2</sup> | AWG   |                       | Pin                                  | Socket   | Pin                                | Socket   | Pin                                 | Socket   | Pin                               | Socket   |
| 0.14-0.5        | 26-20 | 2.5-0.5               | 11240000                             | 11230000 | -                                  | -        | 11240400                            | 11230400 | 11240500                          | 11230500 |
| 0.5-1.5         | 20-16 | 3.5-0.5               | 11220000                             | 11235000 | 11220100                           | 11235200 | 11226000                            | 11226500 | -                                 | -        |
| 1.5-2.5         | 16-14 | 3.5-0.5               | -                                    | -        | -                                  | -        | 11222700                            | 11227700 | -                                 | -        |

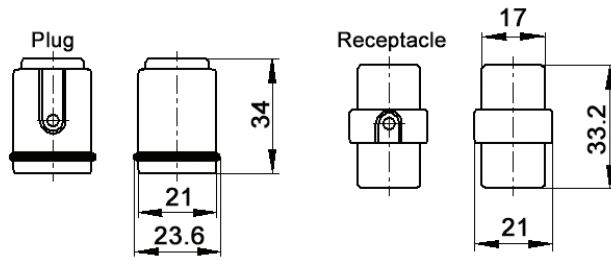
### Complete the Installation

|  |                         |  |                           |  |  |  |   |
|--|-------------------------|--|---------------------------|--|--|--|---|
|  | Crimp Tool:<br>11147000 |  | Locator:<br>11147300      |  | Crimp Dies:<br>0.14-0.5 mm <sup>2</sup> : 11147170<br>0.5-1.5 mm <sup>2</sup> : 11147180<br>1.5-2.5 mm <sup>2</sup> : 11147190 |  | Crimp Tool for Reel: (includes tool, die, & locator)<br>0.14-0.5 mm <sup>2</sup> : 11147004<br>0.5-1.5 mm <sup>2</sup> : 11147005<br>1.5-2.5 mm <sup>2</sup> : 11147006 |
|  |                         |  | Removal Tool:<br>11161000 |  |  |  |   |

Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

# EPIC® HD 8 Inserts

## Crimp-Terminated: Machined Contacts

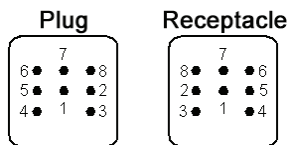


All dimensions are in mm.



Contacts sold separately, see below


View from Cable Side



### Approvals



**Compatible Housing**

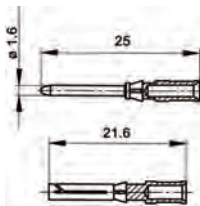


HA 3/4:  
page 400

| Description                         | Plug     | Receptacle |
|-------------------------------------|----------|------------|
| Crimp-Terminated: Machined Contacts | 11252500 | 11253500   |

## Machined Contacts

### 1.6 mm Diameter



1 part number = 1 contact, sold in bags of 100

| Contact Size<br>mm² | AWG     | Stripping<br>Length<br>(mm) | # of<br>Marking<br>Tracks | Silver Contacts |          | Gold Contacts |          |
|---------------------|---------|-----------------------------|---------------------------|-----------------|----------|---------------|----------|
|                     |         |                             |                           | Pin             | Socket   | Pin           | Socket   |
| 0.14 - 0.37         | 26 - 22 | 8                           | 1                         | 13162000        | 13163000 | 13162500      | 13163500 |
| 0.5                 | 20      | 8                           | 2                         | 13162100        | 13163100 | 13162600      | 13163600 |
| 0.75 - 1.0          | 18      | 8                           | 3                         | 13162200        | 13163200 | 13162700      | 13163700 |
| 1.5                 | 16      | 8                           | 4                         | 13162300        | 13163300 | 13162800      | 13163800 |
| 2.5                 | 14      | 5.8                         | 5                         | 13162400        | 13163400 | 13162900      | 13163900 |

### Complete the Installation



Crimp Tool  
11147000



Crimp Dies  
11147100



Locator  
11147200

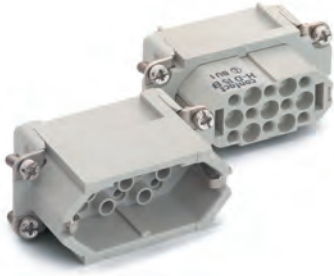


Removal Tool:  
11161000

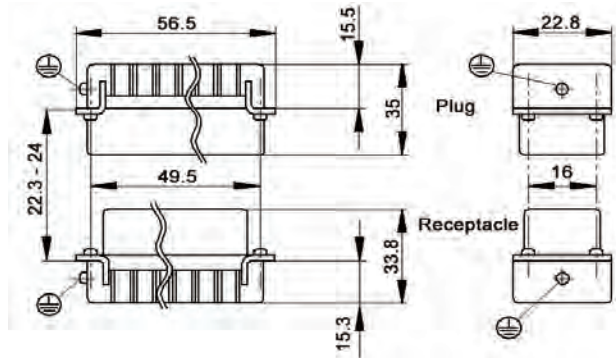
Photographs are not to scale and are not true representations of the products in question.  
For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

# EPIC® HD 15 Inserts

Crimp-Terminated: Machined Contacts



Contacts sold separately, see below



All dimensions are in mm.

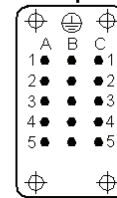
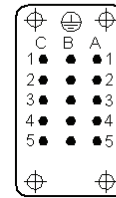
## Approvals



View from Cable Side

Plug

Receptacle



| Description                         | Plug     | Receptacle |
|-------------------------------------|----------|------------|
| Crimp-Terminated: Machined Contacts | 11283200 | 11282200   |

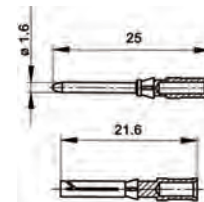
### Compatible Housing



HA 10:  
page 402

## Machined Contacts

1.6 mm Diameter



1 part number = 1 contact, sold in bags of 100

| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping<br>Length<br>(mm) | # of<br>Marking<br>Tracks | Silver Contacts |          | Gold Contacts |          |
|---------------------------------|-------|-----------------------------|---------------------------|-----------------|----------|---------------|----------|
|                                 |       |                             |                           | Pin             | Socket   | Pin           | Socket   |
| 0.14-0.37                       | 26-22 | 8                           | 1                         | 13162000        | 13163000 | 13162500      | 13163500 |
| 0.5                             | 20    | 8                           | 2                         | 13162100        | 13163100 | 13162600      | 13163600 |
| 0.75-1.0                        | 18    | 8                           | 3                         | 13162200        | 13163200 | 13162700      | 13163700 |
| 1.5                             | 16    | 8                           | 4                         | 13162300        | 13163300 | 13162800      | 13163800 |
| 2.5                             | 14    | 5.8                         | 5                         | 13162400        | 13163400 | 13162900      | 13163900 |

### Complete the Installation



Crimp Tool:  
11147000



Crimp Dies:  
11147100



Locator:  
11147200



Removal Tool:  
11161000

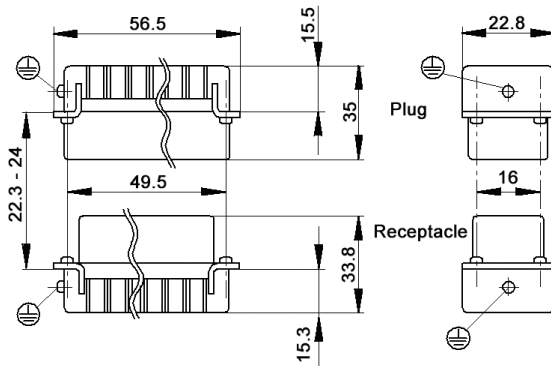
Photographs are not to scale and are not true representations of the products in question.

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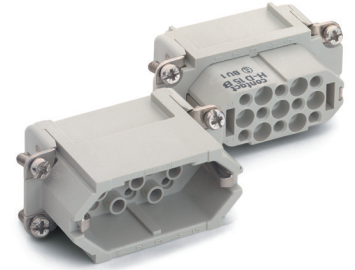


# EPIC® HD 15 Inserts

## Crimp-Terminated: Stamped & Formed Contacts

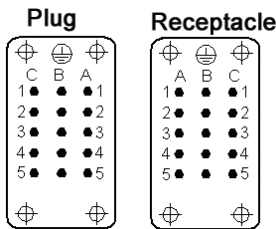


All dimensions are in mm.



Contacts sold separately, see below

View from Cable Side



### Approvals



### Compatible Housing



HA 10:  
page 402

| Description                                 | Plug     | Receptacle |
|---|----------|------------|
| Crimp-Terminated: Stamped & Formed Contacts | 11255000 | 11256000   |



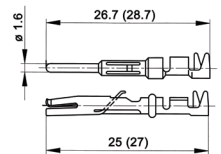
## Stamped & Formed Contacts

1.6 mm Diameter

| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping Length<br>(mm) | Bag of 100: Silver |          | Bag of 100: Gold |          | Reel of 100: Silver<br>Left-hand Feed |          | Reel of 200: Silver<br>Left-hand Feed |          |
|---------------------------------|-------|--------------------------|--------------------|----------|------------------|----------|---------------------------------------|----------|---------------------------------------|----------|
|                                 |       |                          | Pin                | Socket   | Pin              | Socket   | Pin                                   | Socket   | Pin                                   | Socket   |
| 0.14-0.5                        | 26-20 | 2.5-0.5                  | 11241100           | 11231100 | 11243100         | 11233100 | —                                     | —        | 11240700                              | 11230700 |
| 0.5-1.5                         | 20-16 | 3.5-0.5                  | 11221000           | 11236100 | 11221300         | 11238100 | —                                     | —        | 11220700                              | 11235700 |
| 1.5-2.5                         | 16-14 | 3.5-0.5                  | 11223500           | 11228500 | —                | —        | 11223000                              | 11228000 | —                                     | —        |

| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping Length<br>(mm) | Reel of 2000: Silver<br>Right-hand Feed |          | Reel of 2000: Gold<br>Right-hand Feed |          | Reel of 2000: Silver<br>Left-hand Feed |          | Reel of 2000: Gold<br>Left-hand Feed |          |
|---------------------------------|-------|--------------------------|---|----------|---------------------------------------|----------|--|----------|--------------------------------------|----------|
|                                 |       |                          | Pin                                     | Socket   | Pin                                   | Socket   | Pin                                    | Socket   | Pin                                  | Socket   |
| 0.14-0.5                        | 26-20 | 2.5-0.5                  | 11240000                                | 11230000 | —                                     | —        | 11240400                               | 11230400 | 11240500                             | 11230500 |
| 0.5-1.5                         | 20-16 | 3.5-0.5                  | 11220000                                | 11235000 | 11220100                              | 11235200 | 11226000                               | 11226500 | —                                    | —        |
| 1.5-2.5                         | 16-14 | 3.5-0.5                  | —                                       | —        | —                                     | —        | 11222700                               | 11227700 | —                                    | —        |



1 part number = 1 contact, sold in bags of 100 or 1 reel

### Complete the Installation



Crimp Tool:  
11147000



Locator:  
11147300



Crimp Dies:  
0.14-0.5 mm<sup>2</sup>: 11147170  
0.5-1.5 mm<sup>2</sup>: 11147180  
1.5-2.5 mm<sup>2</sup>: 11147190



Crimp Tool for Reel: (includes tool, die, & locator)  
0.14-0.5 mm<sup>2</sup>: 11147004  
0.5-1.5 mm<sup>2</sup>: 11147005  
1.5-2.5 mm<sup>2</sup>: 11147006



Removal Tool:  
11161000



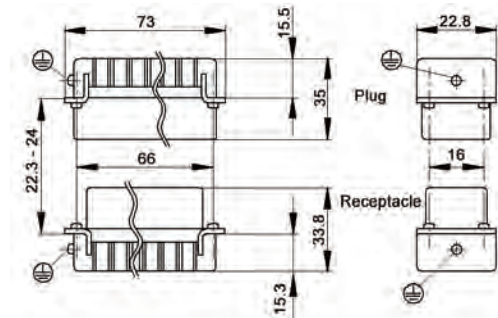
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# EPIC® HD 25 Inserts

Crimp-Terminated: Machined Contacts



Contacts sold separately, see below

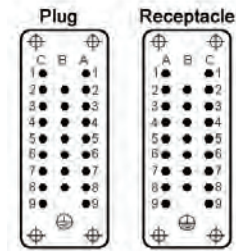


All dimensions are in mm.

## Approvals



View from Cable Side



| Description                         | Plug     | Receptacle |
|-------------------------------------|----------|------------|
| Crimp-Terminated: Machined Contacts | 11283300 | 11282300   |

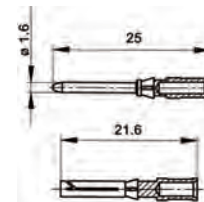
### Compatible Housing



HA 16:  
page 404

## Machined Contacts

1.6 mm Diameter



1 part number = 1 contact, sold in bags of 100

| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping<br>Length<br>(mm) | # of<br>Marking<br>Tracks | Silver Contacts |          | Gold Contacts |          |
|---------------------------------|-------|-----------------------------|---------------------------|-----------------|----------|---------------|----------|
|                                 |       |                             |                           | Pin             | Socket   | Pin           | Socket   |
| 0.14-0.37                       | 26-22 | 8                           | 1                         | 13162000        | 13163000 | 13162500      | 13163500 |
| 0.5                             | 20    | 8                           | 2                         | 13162100        | 13163100 | 13162600      | 13163600 |
| 0.75-1.0                        | 18    | 8                           | 3                         | 13162200        | 13163200 | 13162700      | 13163700 |
| 1.5                             | 16    | 8                           | 4                         | 13162300        | 13163300 | 13162800      | 13163800 |
| 2.5                             | 14    | 5.8                         | 5                         | 13162400        | 13163400 | 13162900      | 13163900 |

### Complete the Installation



Crimp Tool:  
11147000



Crimp Dies:  
11147100



Locator:  
11147200



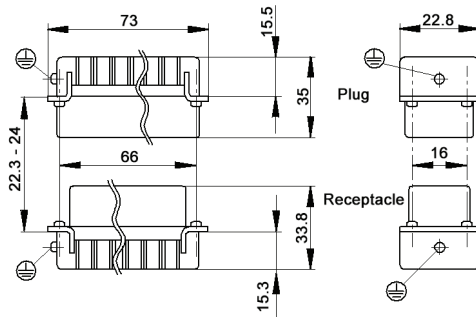
Removal Tool:  
11161000

Photographs are not to scale and are not true representations of the products in question.

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# EPIC® HD 25 Inserts

Crimp-Terminated: Stamped & Formed Contacts

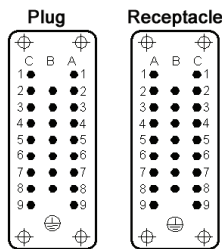


All dimensions are in mm.



Contacts sold separately, see below

View from Cable Side



### Approvals



### Compatible Housing



HA 16:  
page 404

| Description                                 | Plug     | Receptacle |
|---|----------|------------|
| Crimp-Terminated: Stamped & Formed Contacts | 11260000 | 11261000   |



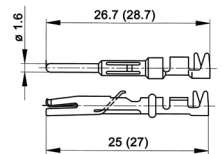
## Stamped & Formed Contacts

1.6 mm Diameter

| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping Length<br>(mm) | Bag of 100: Silver |          | Bag of 100: Gold |          | Reel of 100: Silver<br>Left-hand Feed |          | Reel of 200: Silver<br>Left-hand Feed |          |
|---------------------------------|-------|--------------------------|--------------------|----------|------------------|----------|---------------------------------------|----------|---------------------------------------|----------|
|                                 |       |                          | Pin                | Socket   | Pin              | Socket   | Pin                                   | Socket   | Pin                                   | Socket   |
| 0.14-0.5                        | 26-20 | 2.5-0.5                  | 11241100           | 11231100 | 11243100         | 11233100 | —                                     | —        | 11240700                              | 11230700 |
| 0.5-1.5                         | 20-16 | 3.5-0.5                  | 11221000           | 11236100 | 11221300         | 11238100 | —                                     | —        | 11220700                              | 11235700 |
| 1.5-2.5                         | 16-14 | 3.5-0.5                  | 11223500           | 11228500 | —                | —        | 11223000                              | 11228000 | —                                     | —        |

| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping Length<br>(mm) | Reel of 2000: Silver<br>Right-hand Feed |          | Reel of 2000: Gold<br>Right-hand Feed |          | Reel of 2000: Silver<br>Left-hand Feed |          | Reel of 2000: Gold<br>Left-hand Feed |          |
|---------------------------------|-------|--------------------------|---|----------|---------------------------------------|----------|--|----------|--------------------------------------|----------|
|                                 |       |                          | Pin                                     | Socket   | Pin                                   | Socket   | Pin                                    | Socket   | Pin                                  | Socket   |
| 0.14-0.5                        | 26-20 | 2.5-0.5                  | 11240000                                | 11230000 | —                                     | —        | 11240400                               | 11230400 | 11240500                             | 11230500 |
| 0.5-1.5                         | 20-16 | 3.5-0.5                  | 11220000                                | 11235000 | 11220100                              | 11235200 | 11226000                               | 11226500 | —                                    | —        |
| 1.5-2.5                         | 16-14 | 3.5-0.5                  | —                                       | —        | —                                     | —        | 11222700                               | 11227700 | —                                    | —        |



1 part number = 1 contact, sold in bags of 100 or 1 reel

### Complete the Installation



Crimp Tool:  
11147000



Locator:  
11147300



Crimp Dies:  
0.14-0.5 mm<sup>2</sup>: 11147170  
0.5-1.5 mm<sup>2</sup>: 11147180  
1.5-2.5 mm<sup>2</sup>: 11147190



Crimp Tool for Reel: (includes tool, die, & locator)  
0.14-0.5 mm<sup>2</sup>: 11147004  
0.5-1.5 mm<sup>2</sup>: 11147005  
1.5-2.5 mm<sup>2</sup>: 11147006



Removal Tool:  
11161000



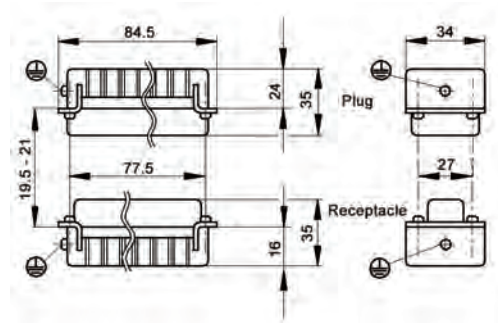
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# EPIC® HD 40 Inserts

Crimp-Terminated: Machined Contacts



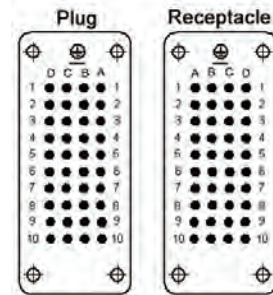
Contacts sold separately, see below



All dimensions are in mm.

View from Cable Side

## Approvals



| Description                         | Plug     | Receptacle |
|-------------------------------------|----------|------------|
| Crimp-Terminated: Machined Contacts | 11265200 | 11266200   |

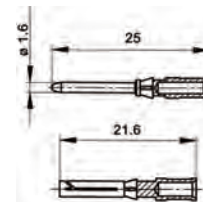
### Compatible Housing



HB 16:  
page 378

## Machined Contacts

1.6 mm Diameter



1 part number = 1 contact, sold in bags of 100

| Contact Size    |       | Stripping Length (mm) | # of Marking Tracks | Silver Contacts |          | Gold Contacts |          |
|-----------------|-------|-----------------------|---------------------|-----------------|----------|---------------|----------|
| mm <sup>2</sup> | AWG   |                       |                     | Pin             | Socket   | Pin           | Socket   |
| 0.14-0.37       | 26-22 | 8                     | 1                   | 13162000        | 13163000 | 13162500      | 13163500 |
| 0.5             | 20    | 8                     | 2                   | 13162100        | 13163100 | 13162600      | 13163600 |
| 0.75-1.0        | 18    | 8                     | 3                   | 13162200        | 13163200 | 13162700      | 13163700 |
| 1.5             | 16    | 8                     | 4                   | 13162300        | 13163300 | 13162800      | 13163800 |
| 2.5             | 14    | 5.8                   | 5                   | 13162400        | 13163400 | 13162900      | 13163900 |

### Complete the Installation



Crimp Tool:  
11147000



Crimp Dies:  
11147100



Locator:  
11147200



Removal Tool:  
11161000

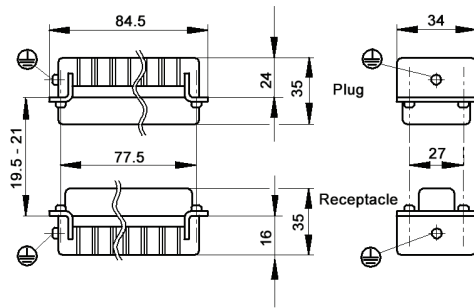
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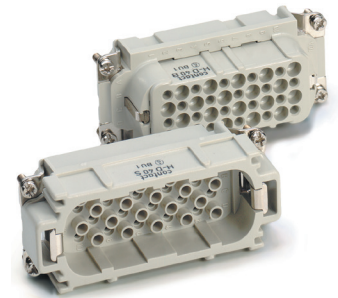
# EPIC® HD 40 Inserts

Crimp-Terminated: Stamped & Formed Contacts

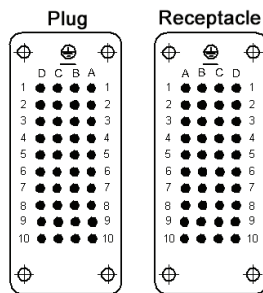


All dimensions are in mm.

View from Cable Side



Contacts sold separately, see below



### Compatible Housing



HB 16:  
page 378

### Approvals



| Description                                 | Plug     | Receptacle |
|---|----------|------------|
| Crimp-Terminated: Stamped & Formed Contacts | 11265000 | 11266000   |



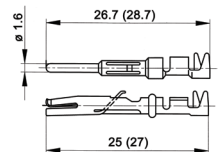
## Stamped & Formed Contacts

1.6 mm Diameter

| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping Length<br>(mm) | Bag of 100: Silver |          | Bag of 100: Gold |          | Reel of 100: Silver<br>Left-hand Feed |          | Reel of 200: Silver<br>Left-hand Feed |          |
|---------------------------------|-------|--------------------------|--------------------|----------|------------------|----------|---------------------------------------|----------|---------------------------------------|----------|
|                                 |       |                          | Pin                | Socket   | Pin              | Socket   | Pin                                   | Socket   | Pin                                   | Socket   |
| 0.14-0.5                        | 26-20 | 2.5-0.5                  | 11241100           | 11231100 | 11243100         | 11233100 | —                                     | —        | 11240700                              | 11230700 |
| 0.5-1.5                         | 20-16 | 3.5-0.5                  | 11221000           | 11236100 | 11221300         | 11238100 | —                                     | —        | 11220700                              | 11235700 |
| 1.5-2.5                         | 16-14 | 3.5-0.5                  | 11223500           | 11228500 | —                | —        | 11223000                              | 11228000 | —                                     | —        |

| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping Length<br>(mm) | Reel of 2000: Silver<br>Right-hand Feed |          | Reel of 2000: Gold<br>Right-hand Feed |          | Reel of 2000: Silver<br>Left-hand Feed |          | Reel of 2000: Gold<br>Left-hand Feed |          |
|---------------------------------|-------|--------------------------|---|----------|---------------------------------------|----------|--|----------|--------------------------------------|----------|
|                                 |       |                          | Pin                                     | Socket   | Pin                                   | Socket   | Pin                                    | Socket   | Pin                                  | Socket   |
| 0.14-0.5                        | 26-20 | 2.5-0.5                  | 11240000                                | 11230000 | —                                     | —        | 11240400                               | 11230400 | 11240500                             | 11230500 |
| 0.5-1.5                         | 20-16 | 3.5-0.5                  | 11220000                                | 11235000 | 11220100                              | 11235200 | 11226000                               | 11226500 | —                                    | —        |
| 1.5-2.5                         | 16-14 | 3.5-0.5                  | —                                       | —        | —                                     | —        | 11222700                               | 11227700 | —                                    | —        |



1 part number = 1 contact, sold in bags of 100 or 1 reel

### Complete the Installation



Crimp Tool:  
11147000



Locator:  
11147300



Crimp Dies:  
0.14-0.5 mm<sup>2</sup>: 11147170  
0.5-1.5 mm<sup>2</sup>: 11147180  
1.5-2.5 mm<sup>2</sup>: 11147190



Crimp Tool for Reel: (includes tool, die, & locator)  
0.14-0.5 mm<sup>2</sup>: 11147004  
0.5-1.5 mm<sup>2</sup>: 11147005  
1.5-2.5 mm<sup>2</sup>: 11147006



Removal Tool:  
11161000



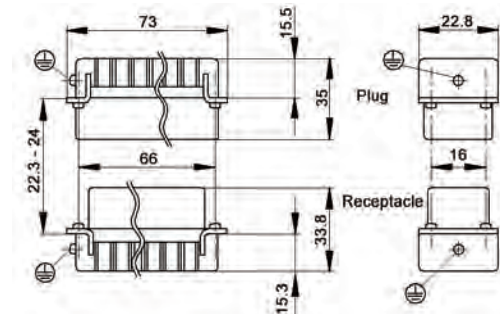
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# EPIC® HD 50 Inserts

## Crimp-Terminated: Machined Contacts



x2 HD 25 inserts, use two part numbers  
Contacts sold separately, see below

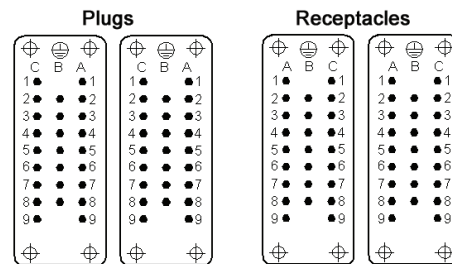


All dimensions are in mm.

### Approvals



View from Cable Side



| Description                         | Plug          | Receptacle    |
|-------------------------------------|---------------|---------------|
| Crimp-Terminated: Machined Contacts | 11283300 (x2) | 11282300 (x2) |

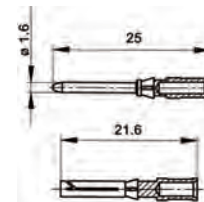
### Compatible Housing



HA 32:  
page 406

## Machined Contacts

### 1.6 mm Diameter



1 part number = 1 contact, sold in bags of 100

| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping<br>Length<br>(mm) | # of<br>Marking<br>Tracks | Silver Contacts |          | Gold Contacts |          |
|---------------------------------|-------|-----------------------------|---------------------------|-----------------|----------|---------------|----------|
|                                 |       |                             |                           | Pin             | Socket   | Pin           | Socket   |
| 0.14-0.37                       | 26-22 | 8                           | 1                         | 13162000        | 13163000 | 13162500      | 13163500 |
| 0.5                             | 20    | 8                           | 2                         | 13162100        | 13163100 | 13162600      | 13163600 |
| 0.75-1.0                        | 18    | 8                           | 3                         | 13162200        | 13163200 | 13162700      | 13163700 |
| 1.5                             | 16    | 8                           | 4                         | 13162300        | 13163300 | 13162800      | 13163800 |
| 2.5                             | 14    | 5.8                         | 5                         | 13162400        | 13163400 | 13162900      | 13163900 |

### Complete the Installation



Crimp Tool:  
11147000



Crimp Dies:  
11147100



Locator:  
11147200



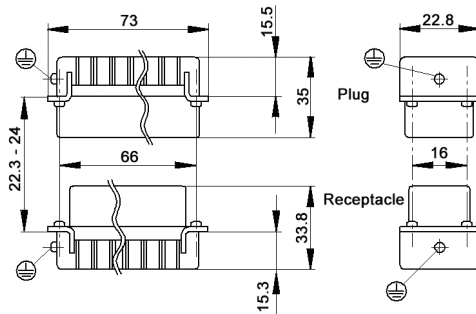
Removal Tool:  
11161000

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For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

# EPIC® HD 50 Inserts

Crimp-Terminated: Stamped & Formed Contacts

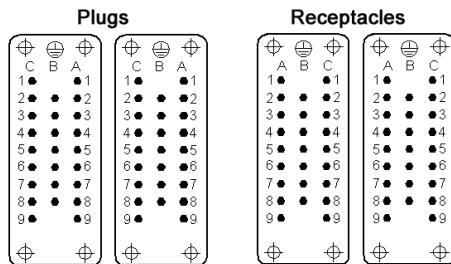


All dimensions are in mm.



x2 HD 25 inserts, use two part numbers  
Contacts sold separately, see below

View from Cable Side



### Approvals



### Compatible Housing



HA 32:  
page 406

| Description                                 | Plug          | Receptacle    |
|---|---------------|---------------|
| Crimp-Terminated: Stamped & Formed Contacts | 11260000 (x2) | 11261000 (x2) |



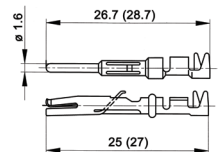
## Stamped & Formed Contacts

1.6 mm Diameter

| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping Length<br>(mm) | Bag of 100: Silver |          | Bag of 100: Gold |          | Reel of 100: Silver<br>Left-hand Feed |          | Reel of 200: Silver<br>Left-hand Feed |          |
|---------------------------------|-------|--------------------------|--------------------|----------|------------------|----------|---------------------------------------|----------|---------------------------------------|----------|
|                                 |       |                          | Pin                | Socket   | Pin              | Socket   | Pin                                   | Socket   | Pin                                   | Socket   |
| 0.14-0.5                        | 26-20 | 2.5-0.5                  | 11241100           | 11231100 | 11243100         | 11233100 | —                                     | —        | 11240700                              | 11230700 |
| 0.5-1.5                         | 20-16 | 3.5-0.5                  | 11221000           | 11236100 | 11221300         | 11238100 | —                                     | —        | 11220700                              | 11235700 |
| 1.5-2.5                         | 16-14 | 3.5-0.5                  | 11223500           | 11228500 | —                | —        | 11223000                              | 11228000 | —                                     | —        |

| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping Length<br>(mm) | Reel of 2000: Silver<br>Right-hand Feed |          | Reel of 2000: Gold<br>Right-hand Feed |          | Reel of 2000: Silver<br>Left-hand Feed |          | Reel of 2000: Gold<br>Left-hand Feed |          |
|---------------------------------|-------|--------------------------|---|----------|---------------------------------------|----------|--|----------|--------------------------------------|----------|
|                                 |       |                          | Pin                                     | Socket   | Pin                                   | Socket   | Pin                                    | Socket   | Pin                                  | Socket   |
| 0.14-0.5                        | 26-20 | 2.5-0.5                  | 11240000                                | 11230000 | —                                     | —        | 11240400                               | 11230400 | 11240500                             | 11230500 |
| 0.5-1.5                         | 20-16 | 3.5-0.5                  | 11220000                                | 11235000 | 11220100                              | 11235200 | 11226000                               | 11226500 | —                                    | —        |
| 1.5-2.5                         | 16-14 | 3.5-0.5                  | —                                       | —        | —                                     | —        | 11222700                               | 11227700 | —                                    | —        |



1 part number = 1 contact,  
sold in bags of 100 or 1 reel

### Complete the Installation



Crimp Tool:  
11147000



Locator:  
11147300



Crimp Dies:  
0.14-0.5 mm<sup>2</sup>: 11147170  
0.5-1.5 mm<sup>2</sup>: 11147180  
1.5-2.5 mm<sup>2</sup>: 11147190



Crimp Tool for Reel: (includes  
tool, die, & locator)  
0.14-0.5 mm<sup>2</sup>: 11147004  
0.5-1.5 mm<sup>2</sup>: 11147005  
1.5-2.5 mm<sup>2</sup>: 11147006



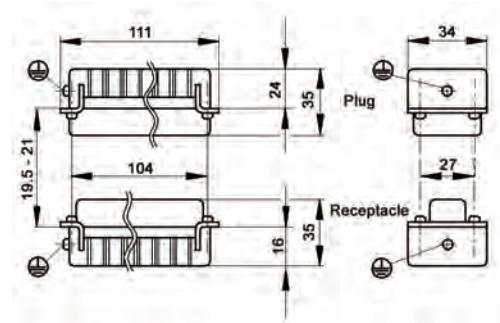
Removal Tool:  
11161000



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# EPIC® HD 64 Inserts

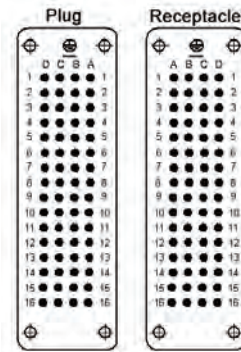
Crimp-Terminated: Machined Contacts



All dimensions are in mm.

Contacts sold separately, see below

View from Cable Side



## Approvals



| Description                         | Plug     | Receptacle |
|-------------------------------------|----------|------------|
| Crimp-Terminated: Machined Contacts | 11272000 | 11273000   |

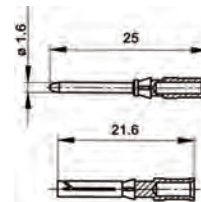
### Compatible Housing



HB 24:  
page 384

## Machined Contacts

1.6 mm Diameter



1 part number = 1 contact, sold in bags of 100

| Contact Size<br>mm <sup>2</sup> | AWG     | Stripping<br>Length<br>(mm) | # of<br>Marking<br>Tracks | Silver Contacts |          | Gold Contacts |          |
|---------------------------------|---------|-----------------------------|---------------------------|-----------------|----------|---------------|----------|
|                                 |         |                             |                           | Pin             | Socket   | Pin           | Socket   |
| 0.14 - 0.37                     | 26 - 22 | 8                           | 1                         | 13162000        | 13163000 | 13162500      | 13163500 |
| 0.5                             | 20      | 8                           | 2                         | 13162100        | 13163100 | 13162600      | 13163600 |
| 0.75 - 1.0                      | 18      | 8                           | 3                         | 13162200        | 13163200 | 13162700      | 13163700 |
| 1.5                             | 16      | 8                           | 4                         | 13162300        | 13163300 | 13162800      | 13163800 |
| 2.5                             | 14      | 5.8                         | 5                         | 13162400        | 13163400 | 13162900      | 13163900 |

### Complete the Installation



Crimp Tool:  
11147000



Crimp Dies:  
11147100



Locator:  
11147200



Removal Tool:  
11161000

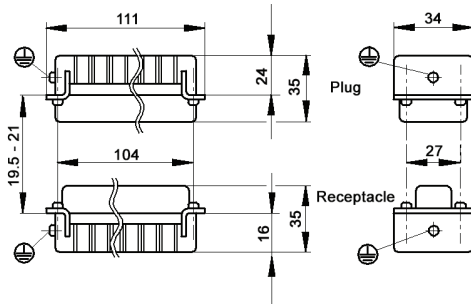
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For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.



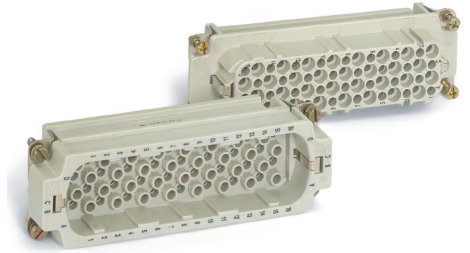
# EPIC® HD 64 Inserts

Crimp-Terminated: Stamped & Formed Contacts

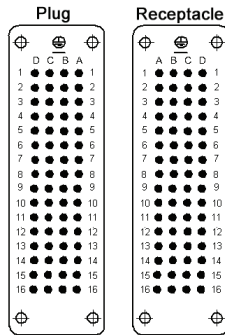


All dimensions are in mm.

View from Cable Side



Contacts sold separately, see below



### Approvals



**Compatible Housing**

HB 24:  
page 384

| Description                                 | Plug     | Receptacle |
|---|----------|------------|
| Crimp-Terminated: Stamped & Formed Contacts | 11270000 | 11271000   |



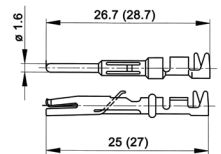
## Stamped & Formed Contacts

1.6 mm Diameter

| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping Length<br>(mm) | Bag of 100: Silver |          | Bag of 100: Gold |          | Reel of 100: Silver<br>Left-hand Feed |          | Reel of 200: Silver<br>Left-hand Feed |          |
|---------------------------------|-------|--------------------------|--------------------|----------|------------------|----------|---------------------------------------|----------|---------------------------------------|----------|
|                                 |       |                          | Pin                | Socket   | Pin              | Socket   | Pin                                   | Socket   | Pin                                   | Socket   |
| 0.14-0.5                        | 26-20 | 2.5-0.5                  | 11241100           | 11231100 | 11243100         | 11233100 | —                                     | —        | 11240700                              | 11230700 |
| 0.5-1.5                         | 20-16 | 3.5-0.5                  | 11221000           | 11236100 | 11221300         | 11238100 | —                                     | —        | 11220700                              | 11235700 |
| 1.5-2.5                         | 16-14 | 3.5-0.5                  | 11223500           | 11228500 | —                | —        | 11223000                              | 11228000 | —                                     | —        |

| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping Length<br>(mm) | Reel of 2000: Silver<br>Right-hand Feed |          | Reel of 2000: Gold<br>Right-hand Feed |          | Reel of 2000: Silver<br>Left-hand Feed |          | Reel of 2000: Gold<br>Left-hand Feed |          |
|---------------------------------|-------|--------------------------|---|----------|---------------------------------------|----------|--|----------|--------------------------------------|----------|
|                                 |       |                          | Pin                                     | Socket   | Pin                                   | Socket   | Pin                                    | Socket   | Pin                                  | Socket   |
| 0.14-0.5                        | 26-20 | 2.5-0.5                  | 11240000                                | 11230000 | —                                     | —        | 11240400                               | 11230400 | 11240500                             | 11230500 |
| 0.5-1.5                         | 20-16 | 3.5-0.5                  | 11220000                                | 11235000 | 11220100                              | 11235200 | 11226000                               | 11226500 | —                                    | —        |
| 1.5-2.5                         | 16-14 | 3.5-0.5                  | —                                       | —        | —                                     | —        | 11222700                               | 11227700 | —                                    | —        |



1 part number = 1 contact, sold in bags of 100 or 1 reel

### Complete the Installation

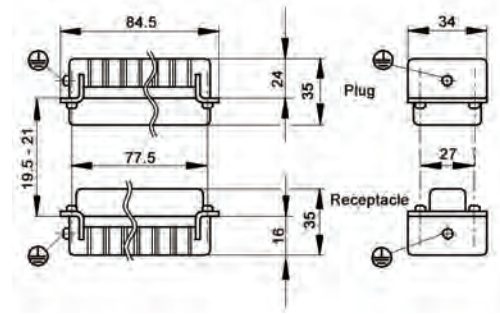
|  |                         |  |                           |  |  |  |   |
|--|-------------------------|--|---------------------------|--|--|--|---|
|  | Crimp Tool:<br>11147000 |  | Locator:<br>11147300      |  | Crimp Dies:<br>0.14-0.5 mm <sup>2</sup> : 11147170<br>0.5-1.5 mm <sup>2</sup> : 11147180<br>1.5-2.5 mm <sup>2</sup> : 11147190 |  | Crimp Tool for Reel: (includes tool, die, & locator)<br>0.14-0.5 mm <sup>2</sup> : 11147004<br>0.5-1.5 mm <sup>2</sup> : 11147005<br>1.5-2.5 mm <sup>2</sup> : 11147006 |
|  |                         |  | Removal Tool:<br>11161000 |  |  |  |   |



Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

# EPIC® HD 80 Inserts

## Crimp-Terminated: Machined Contacts



All dimensions are in mm.

x2 HD 40 inserts, use two part numbers  
Contacts sold separately, see below

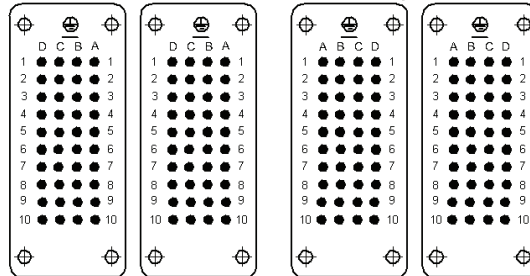
View from Cable Side

### Approvals



Plugs

Receptacles



| Description                         | Plug          | Receptacle    |
|-------------------------------------|---------------|---------------|
| Crimp-Terminated: Machined Contacts | 11265200 (x2) | 11266200 (x2) |

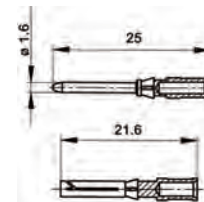
### Compatible Housing



HB 32:  
page 390

## Machined Contacts

### 1.6 mm Diameter



1 part number = 1 contact, sold in bags of 100

| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping<br>Length<br>(mm) | # of<br>Marking<br>Tracks | Silver Contacts |          | Gold Contacts |          |
|---------------------------------|-------|-----------------------------|---------------------------|-----------------|----------|---------------|----------|
|                                 |       |                             |                           | Pin             | Socket   | Pin           | Socket   |
| 0.14-0.37                       | 26-22 | 8                           | 1                         | 13162000        | 13163000 | 13162500      | 13163500 |
| 0.5                             | 20    | 8                           | 2                         | 13162100        | 13163100 | 13162600      | 13163600 |
| 0.75-1.0                        | 18    | 8                           | 3                         | 13162200        | 13163200 | 13162700      | 13163700 |
| 1.5                             | 16    | 8                           | 4                         | 13162300        | 13163300 | 13162800      | 13163800 |
| 2.5                             | 14    | 5.8                         | 5                         | 13162400        | 13163400 | 13162900      | 13163900 |

### Complete the Installation



Crimp Tool:  
11147000



Crimp Dies:  
11147100



Locator:  
11147200



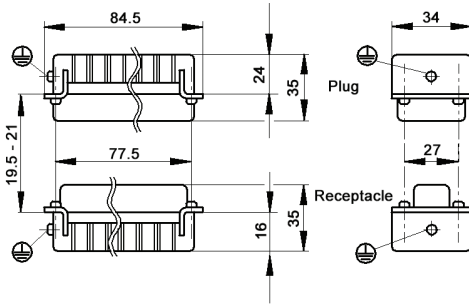
Removal Tool:  
11161000

Photographs are not to scale and are not true representations of the products in question.

For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

# EPIC® HD 80 Inserts

Crimp-Terminated: Stamped & Formed Contacts

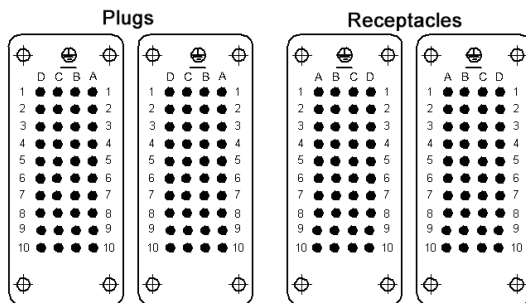


All dimensions are in mm.

View from Cable Side




x2 HD 40 inserts, use two part numbers  
Contacts sold separately, see below



### Approvals



**Compatible Housing**



HB 32:  
page 390

| Description                                 | Plug          | Receptacle    |
|---|---------------|---------------|
| Crimp-Terminated: Stamped & Formed Contacts | 11265000 (x2) | 11266000 (x2) |



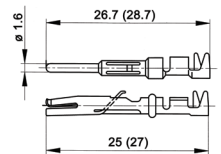
## Stamped & Formed Contacts

1.6 mm Diameter

| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping Length<br>(mm) | Bag of 100: Silver |          | Bag of 100: Gold |          | Reel of 100: Silver<br>Left-hand Feed |          | Reel of 200: Silver<br>Left-hand Feed |          |
|---------------------------------|-------|--------------------------|--------------------|----------|------------------|----------|---------------------------------------|----------|---------------------------------------|----------|
|                                 |       |                          | Pin                | Socket   | Pin              | Socket   | Pin                                   | Socket   | Pin                                   | Socket   |
| 0.14-0.5                        | 26-20 | 2.5-0.5                  | 11241100           | 11231100 | 11243100         | 11233100 | —                                     | —        | 11240700                              | 11230700 |
| 0.5-1.5                         | 20-16 | 3.5-0.5                  | 11221000           | 11236100 | 11221300         | 11238100 | —                                     | —        | 11220700                              | 11235700 |
| 1.5-2.5                         | 16-14 | 3.5-0.5                  | 11223500           | 11228500 | —                | —        | 11223000                              | 11228000 | —                                     | —        |

| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping Length<br>(mm) | Reel of 2000: Silver<br>Right-hand Feed |          | Reel of 2000: Gold<br>Right-hand Feed |          | Reel of 2000: Silver<br>Left-hand Feed |          | Reel of 2000: Gold<br>Left-hand Feed |          |
|---------------------------------|-------|--------------------------|---|----------|---------------------------------------|----------|--|----------|--------------------------------------|----------|
|                                 |       |                          | Pin                                     | Socket   | Pin                                   | Socket   | Pin                                    | Socket   | Pin                                  | Socket   |
| 0.14-0.5                        | 26-20 | 2.5-0.5                  | 11240000                                | 11230000 | —                                     | —        | 11240400                               | 11230400 | 11240500                             | 11230500 |
| 0.5-1.5                         | 20-16 | 3.5-0.5                  | 11220000                                | 11235000 | 11220100                              | 11235200 | 11226000                               | 11226500 | —                                    | —        |
| 1.5-2.5                         | 16-14 | 3.5-0.5                  | —                                       | —        | —                                     | —        | 11222700                               | 11227700 | —                                    | —        |



1 part number = 1 contact,  
sold in bags of 100 or 1 reel

### Complete the Installation



Crimp Tool:  
11147000



Locator:  
11147300



Crimp Dies:  
0.14-0.5 mm<sup>2</sup>: 11147170  
0.5-1.5 mm<sup>2</sup>: 11147180  
1.5-2.5 mm<sup>2</sup>: 11147190



Crimp Tool for Reel: (includes  
tool, die, & locator)  
0.14-0.5 mm<sup>2</sup>: 11147004  
0.5-1.5 mm<sup>2</sup>: 11147005  
1.5-2.5 mm<sup>2</sup>: 11147006



Removal Tool:  
11161000



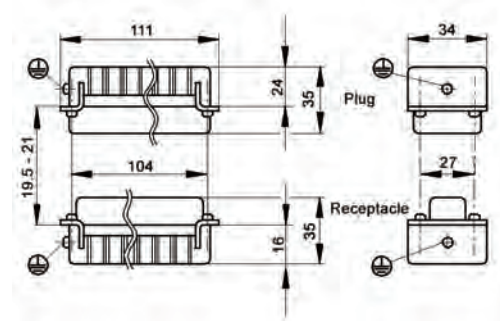
Photographs are not to scale and are not true representations of the products in question.  
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# EPIC® HD 128 Inserts

Crimp-Terminated: Machined Contacts



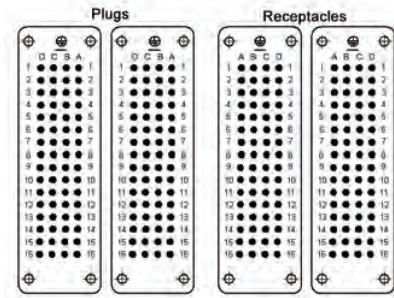
x2 HD 64 inserts, use two part numbers  
Contacts sold separately, see below



All dimensions are in mm.

View from Cable Side

## Approvals



| Description                         | Plug          | Receptacle    |
|-------------------------------------|---------------|---------------|
| Crimp-Terminated: Machined Contacts | 11272000 (x2) | 11273000 (x2) |

### Compatible Housing



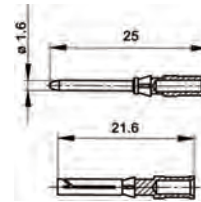
HB 48:  
page 392

## Machined Contacts

1.6 mm Diameter



1 part number = 1 contact, sold in bags of 100



| Contact Size<br>mm² | AWG   | Stripping<br>Length<br>(mm) | # of<br>Marking<br>Tracks | Silver Contacts |          | Gold Contacts |          |
|---------------------|-------|-----------------------------|---------------------------|-----------------|----------|---------------|----------|
|                     |       |                             |                           | Pin             | Socket   | Pin           | Socket   |
| 0.14-0.37           | 26-22 | 8                           | 1                         | 13162000        | 13163000 | 13162500      | 13163500 |
| 0.5                 | 20    | 8                           | 2                         | 13162100        | 13163100 | 13162600      | 13163600 |
| 0.75-1.0            | 18    | 8                           | 3                         | 13162200        | 13163200 | 13162700      | 13163700 |
| 1.5                 | 16    | 8                           | 4                         | 13162300        | 13163300 | 13162800      | 13163800 |
| 2.5                 | 14    | 5.8                         | 5                         | 13162400        | 13163400 | 13162900      | 13163900 |

### Complete the Installation



Crimp Tool:  
11147000



Crimp Dies:  
11147100



Locator:  
11147200



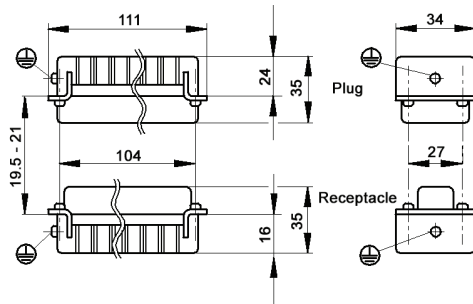
Removal Tool:  
11161000

Photographs are not to scale and are not true representations of the products in question.  
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# EPIC® HD 128 Inserts

Crimp-Terminated: Stamped & Formed Contacts

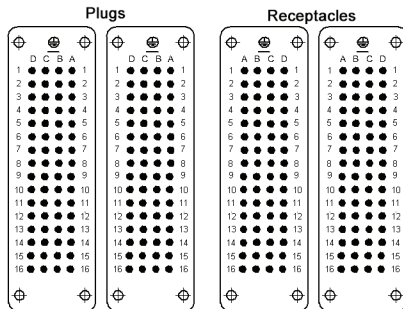


All dimensions are in mm.

View from Cable Side



x2 HD 64 inserts, use two part numbers  
Contacts sold separately, see below



### Approvals



### Compatible Housing



HB 48:  
page 392

| Description                                 | Plug         | Receptacle   |
|---|--------------|--------------|
| Crimp-Terminated: Stamped & Formed Contacts | 1127000 (x2) | 1127100 (x2) |

## Stamped & Formed Contacts

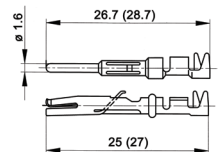
1.6 mm Diameter



| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping<br>Length<br>(mm) | Bag of 100: Silver |          | Bag of 100: Gold |          | Reel of 100: Silver<br>Left-hand Feed |          | Reel of 200: Silver<br>Left-hand Feed |          |
|---------------------------------|-------|-----------------------------|--------------------|----------|------------------|----------|---------------------------------------|----------|---------------------------------------|----------|
|                                 |       |                             | Pin                | Socket   | Pin              | Socket   | Pin                                   | Socket   | Pin                                   | Socket   |
| 0.14-0.5                        | 26-20 | 2.5-0.5                     | 11241100           | 11231100 | 11243100         | 11233100 | —                                     | —        | 11240700                              | 11230700 |
| 0.5-1.5                         | 20-16 | 3.5-0.5                     | 11221000           | 11236100 | 11221300         | 11238100 | —                                     | —        | 11220700                              | 11235700 |
| 1.5-2.5                         | 16-14 | 3.5-0.5                     | 11223500           | 11228500 | —                | —        | 11223000                              | 11228000 | —                                     | —        |

| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping<br>Length<br>(mm) | Reel of 2000: Silver<br>Right-hand Feed |          | Reel of 2000: Gold<br>Right-hand Feed |          | Reel of 2000: Silver<br>Left-hand Feed |          | Reel of 2000: Gold<br>Left-hand Feed |          |
|---------------------------------|-------|-----------------------------|---|----------|---------------------------------------|----------|--|----------|--------------------------------------|----------|
|                                 |       |                             | Pin                                     | Socket   | Pin                                   | Socket   | Pin                                    | Socket   | Pin                                  | Socket   |
| 0.14-0.5                        | 26-20 | 2.5-0.5                     | 11240000                                | 11230000 | —                                     | —        | 11240400                               | 11230400 | 11240500                             | 11230500 |
| 0.5-1.5                         | 20-16 | 3.5-0.5                     | 11220000                                | 11235000 | 11220100                              | 11235200 | 11226000                               | 11226500 | —                                    | —        |
| 1.5-2.5                         | 16-14 | 3.5-0.5                     | —                                       | —        | —                                     | —        | 11222700                               | 11227700 | —                                    | —        |



1 part number = 1 contact,  
sold in bags of 100 or 1 reel

### Complete the Installation



Crimp Tool:  
11147000



Locator:  
11147300



Crimp Dies:  
0.14-0.5 mm<sup>2</sup>: 11147170  
0.5-1.5 mm<sup>2</sup>: 11147180  
1.5-2.5 mm<sup>2</sup>: 11147190



Crimp Tool for Reel: (includes  
tool, die, & locator)  
0.14-0.5 mm<sup>2</sup>: 11147004  
0.5-1.5 mm<sup>2</sup>: 11147005  
1.5-2.5 mm<sup>2</sup>: 11147006

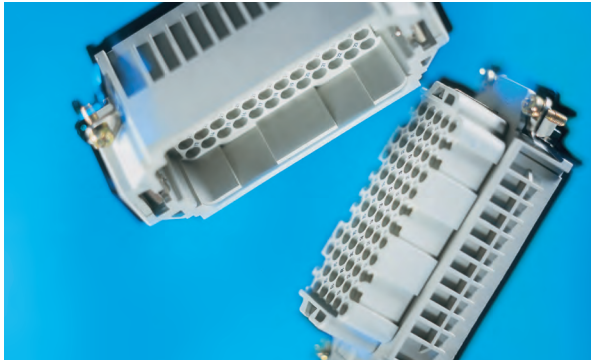


Removal Tool:  
11161000



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# EPIC® HDD Series



EPIC® HDD series inserts offer the highest possible machined contact density in a compact insert design. With more contacts available in a single insert, smaller connector housings can be used to provide significant panel space savings.

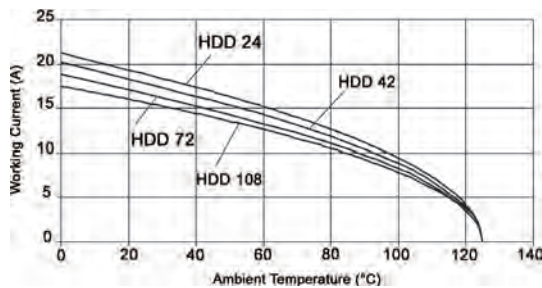
### Technical Data

|                            |  |                            |                                       |
|----------------------------|--|----------------------------|---------------------------------------|
| <b>Number of Contacts:</b> | 24, 42, 72, 108, 144, 216 (+PE)  | <b>Rated Voltage:</b>      |                                       |
|                            |  | - UL/CSA:                  | 600V                                  |
|                            |  | - IEC:                     | 250V                                  |
| <b>Temperature Range:</b>  | -40°C to +100°C  | <b>Rated Current:</b>      |                                       |
| - Short-term:              | up to +125°C   | - UL:                      | 8.5A                                  |
|                            |  | - CSA:                     | 10A                                   |
| <b>Pollution Level:</b>    | 2  | - IEC:                     | 10A                                   |
| <b>Mating Cycles:</b>      | - Per DIN EN 61984:2008<br>Service Life Test: Tested to 100 cycles and passed<br>- Per Contact Thermal Test: Useful service up to 500 cycles is possible at rated voltage and current* | <b>Wire Size:</b>          | 26-14 AWG (0.14-2.5 mm <sup>2</sup> ) |
|                            |  | <b>Contact Material:</b>   | Silver- or gold-plated copper alloy   |
| <b>Test Voltage:</b>       | 2.5 kV   | <b>Contact Resistance:</b> | < 3 mΩ                                |

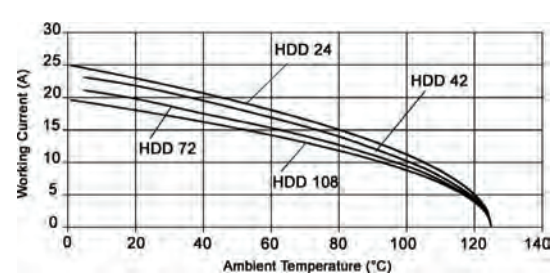
\* In dry, non-conductive, non-corrosive environments when protected in a housing rated at least IP54 and disconnected for cycling and maintenance only.

## EPIC® HDD Inserts: Derating Curves

EPIC® HDD Crimp-Terminated  
16 AWG (1.5 mm<sup>2</sup>)



EPIC® HDD Crimp-Terminated  
14 AWG (2.5 mm<sup>2</sup>)

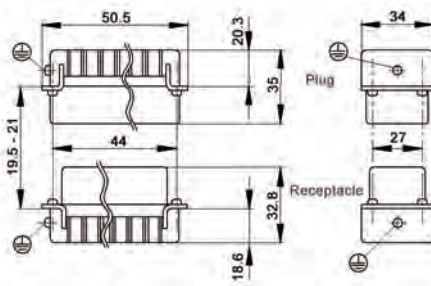
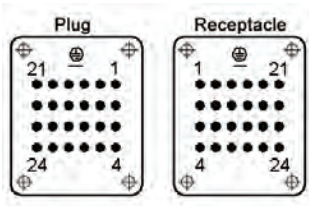


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# EPIC® HDD 24 Inserts

## Crimp-Terminated

View from Cable Side



All dimensions are in mm.

Contacts sold separately, see below

### Approvals



**Compatible Housing**

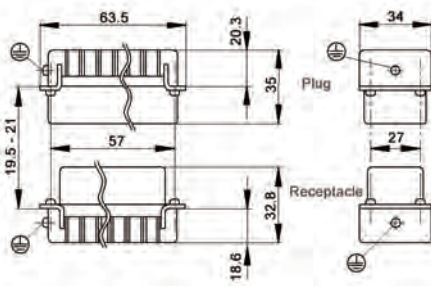
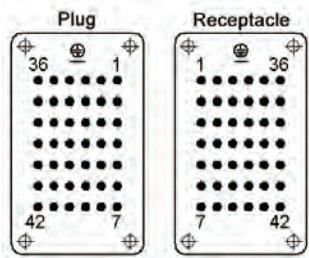
HB 6:  
page 369

| Description                         | Plug     | Receptacle |
|-------------------------------------|----------|------------|
| Crimp-Terminated: Machined Contacts | 11285000 | 11286000   |

# EPIC® HDD 42 Inserts

## Crimp-Terminated

View from Cable Side



All dimensions are in mm.

Contacts sold separately, see below

### Approvals



**Compatible Housing**

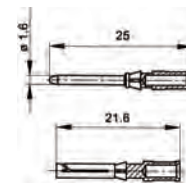
HB 10:  
page 372

| Description                         | Plug     | Receptacle |
|-------------------------------------|----------|------------|
| Crimp-Terminated: Machined Contacts | 11285100 | 11286100   |

# Machined Contacts

## 1.6 mm Diameter

| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping<br>Length<br>(mm) | # of<br>Marking<br>Tracks | Silver Contacts |          | Gold Contacts |          |
|---------------------------------|-------|-----------------------------|---------------------------|-----------------|----------|---------------|----------|
|                                 |       |                             |                           | Pin             | Socket   | Pin           | Socket   |
| 0.14-0.37                       | 26-22 | 8                           | 1                         | 13162000        | 13163000 | 13162500      | 13163500 |
| 0.5                             | 20    | 8                           | 2                         | 13162100        | 13163100 | 13162600      | 13163600 |
| 0.75-1.0                        | 18    | 8                           | 3                         | 13162200        | 13163200 | 13162700      | 13163700 |
| 1.5                             | 16    | 8                           | 4                         | 13162300        | 13163300 | 13162800      | 13163800 |
| 2.5                             | 14    | 5.8                         | 5                         | 13162400        | 13163400 | 13162900      | 13163900 |



1 part number = 1 contact,  
sold in bags of 100

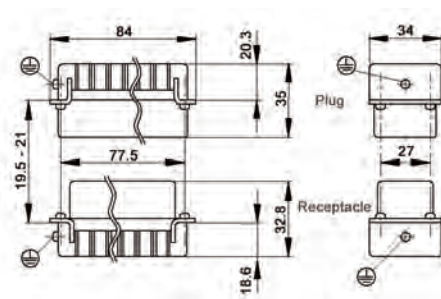
### Complete the Installation

|  |                         |  |                         |  |                      |  |                           |
|--|-------------------------|--|-------------------------|--|----------------------|--|---------------------------|
|  | Crimp Tool:<br>11147000 |  | Crimp Dies:<br>11147100 |  | Locator:<br>11147200 |  | Removal Tool:<br>11161000 |
|--|-------------------------|--|-------------------------|--|----------------------|--|---------------------------|

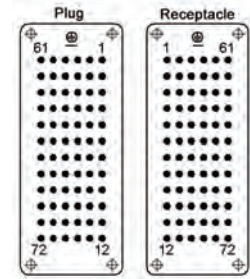
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For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

# EPIC® HDD 72 Inserts

## Crimp-Terminated



View from Cable Side



Contacts sold separately, see below

All dimensions are in mm.

| Description                         | Plug     | Receptacle |
|-------------------------------------|----------|------------|
| Crimp-Terminated: Machined Contacts | 11285200 | 11286200   |

**Compatible Housing**

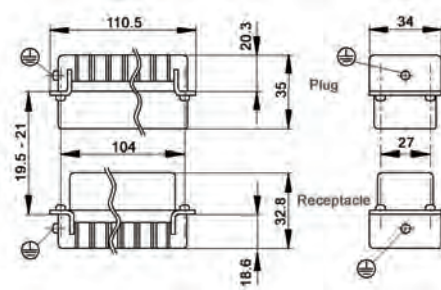
HB 16:  
page 378

**Approvals**

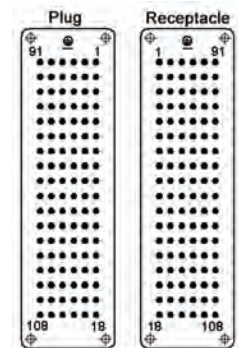


# EPIC® HDD 108 Inserts

## Crimp-Terminated



View from Cable Side



Contacts sold separately, see below

All dimensions are in mm.

| Description                         | Plug     | Receptacle |
|-------------------------------------|----------|------------|
| Crimp-Terminated: Machined Contacts | 11285300 | 11286300   |

**Compatible Housing**

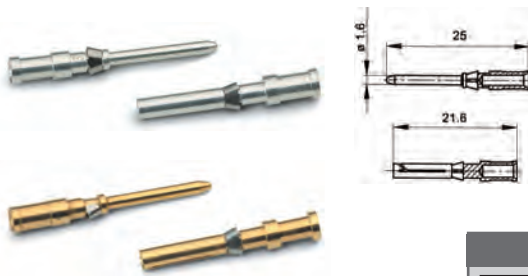
HB 24:  
page 384

**Approvals**



# Machined Contacts

## 1.6 mm Diameter



| Contact Size    |       | Stripping Length (mm) | # of Marking Tracks | Silver Contacts |          | Gold Contacts |          |
|-----------------|-------|-----------------------|---------------------|-----------------|----------|---------------|----------|
| mm <sup>2</sup> | AWG   |                       |                     | Pin             | Socket   | Pin           | Socket   |
| 0.14-0.37       | 26-22 | 8                     | 1                   | 13162000        | 13163000 | 13162500      | 13163500 |
| 0.5             | 20    | 8                     | 2                   | 13162100        | 13163100 | 13162600      | 13163600 |
| 0.75-1.0        | 18    | 8                     | 3                   | 13162200        | 13163200 | 13162700      | 13163700 |
| 1.5             | 16    | 8                     | 4                   | 13162300        | 13163300 | 13162800      | 13163800 |
| 2.5             | 14    | 5.8                   | 5                   | 13162400        | 13163400 | 13162900      | 13163900 |

1 part number = 1 contact, sold in bags of 100

**Complete the Installation**

|  |                         |  |                         |  |                      |  |                           |
|--|-------------------------|--|-------------------------|--|----------------------|--|---------------------------|
|  | Crimp Tool:<br>11147000 |  | Crimp Dies:<br>11147100 |  | Locator:<br>11147200 |  | Removal Tool:<br>11161000 |
|--|-------------------------|--|-------------------------|--|----------------------|--|---------------------------|

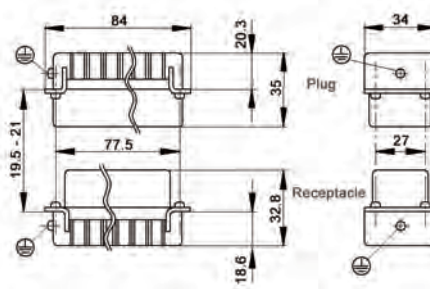
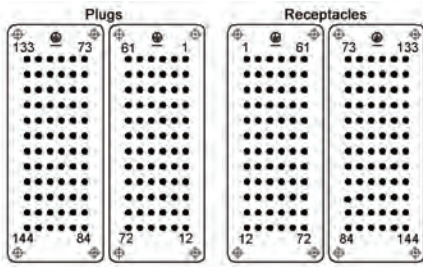
Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.



# EPIC® HDD 144 Inserts

## Crimp-Terminated

View from Cable Side



All dimensions are in mm.

Contacts sold separately, see below

### Approvals



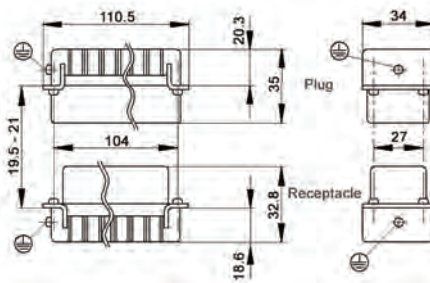
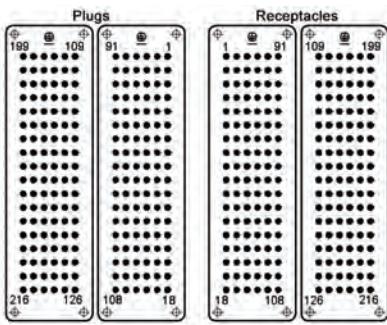
### Compatible Housing



HB 32:  
page 390

| Description                         | Contacts | Plug     | Receptacle |
|-------------------------------------|----------|----------|------------|
| Crimp-Terminated: Machined Contacts | #1-72    | 11285200 | 11286200   |
|                                     | #73-144  | 11285400 | 11286400   |

View from Cable Side



# EPIC® HDD 216 Inserts

## Crimp-Terminated



All dimensions are in mm.

Contacts sold separately, see below

### Approvals



### Compatible Housing



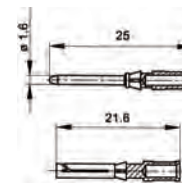
HB 48:  
page 392

| Description                         | Contacts | Plug     | Receptacle |
|-------------------------------------|----------|----------|------------|
| Crimp-Terminated: Machined Contacts | #1-108   | 11285300 | 11286300   |
|                                     | #109-216 | 11285500 | 11286500   |

# Machined Contacts

## 1.6 mm Diameter

| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping<br>Length<br>(mm) | # of<br>Marking<br>Tracks | Silver Contacts |          | Gold Contacts |          |
|---------------------------------|-------|-----------------------------|---------------------------|-----------------|----------|---------------|----------|
|                                 |       |                             |                           | Pin             | Socket   | Pin           | Socket   |
| 0.14-0.37                       | 26-22 | 8                           | 1                         | 13162000        | 13163000 | 13162500      | 13163500 |
| 0.5                             | 20    | 8                           | 2                         | 13162100        | 13163100 | 13162600      | 13163600 |
| 0.75-1.0                        | 18    | 8                           | 3                         | 13162200        | 13163200 | 13162700      | 13163700 |
| 1.5                             | 16    | 8                           | 4                         | 13162300        | 13163300 | 13162800      | 13163800 |
| 2.5                             | 14    | 5.8                         | 5                         | 13162400        | 13163400 | 13162900      | 13163900 |



1 part number = 1 contact,  
sold in bags of 100

### Complete the Installation

|  |                         |  |                         |  |                      |  |                           |
|--|-------------------------|--|-------------------------|--|----------------------|--|---------------------------|
|  | Crimp Tool:<br>11147000 |  | Crimp Dies:<br>11147100 |  | Locator:<br>11147200 |  | Removal Tool:<br>11161000 |
|--|-------------------------|--|-------------------------|--|----------------------|--|---------------------------|

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For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

# EPIC® MC Series



The EPIC® MC modular series connector can be custom-configured to meet application requirements by combining a variety of standard plug-and-play modules within various size support frames. Configurations include contacts for power and control, thermocouple contacts, data modules for PROFIBUS and Ethernet, and pneumatic modules.

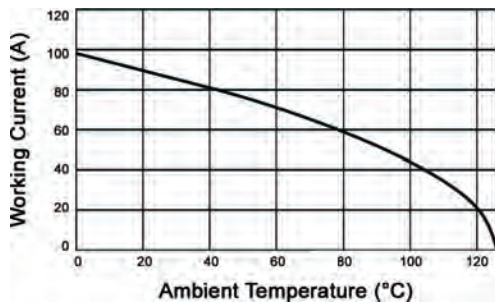
### Technical Data

|                            |  |                             |                                      |
|----------------------------|--|-----------------------------|--------------------------------------|
| <b>Number of Contacts:</b> | 2-208 (+PE)  | <b>Rated Current:</b>       |                                      |
| <b>Temperature Range:</b>  | -40°C to +100°C  | - UL/CSA:                   | 4-82A                                |
| - Short-term:              | up to +125°C   | - IEC:                      | 1-82A                                |
| <b>Pollution Level:</b>    | 3  | <b>Wire Size:</b>           |                                      |
| <b>Mating Cycles:</b>      | - Per DIN EN 61984:2008<br>Service Life Test: Tested to 100 cycles and passed<br>- Per Contact Thermal Test: Useful service up to 500 cycles is possible at rated voltage and current* | - Screw termination:        | 8-4 AWG (10-25 mm <sup>2</sup> )     |
|                            |  | - Crimp termination:        | 30-8 AWG (0.06- 10 mm <sup>2</sup> ) |
|                            |  | - Cage clamp:               | 20-14 AWG (0.5-2.5 mm <sup>2</sup> ) |
|                            |  | <b>Contact Material:</b>    | Silver- or gold-plated copper alloy  |
|                            |  | <b>Contact Resistance:</b>  | < 1 mΩ - < 5 mΩ                      |
| <b>Rated Voltage:</b>      |  | <b>Dimension Transient:</b> | 1.5-8 kV, depending on module        |
| - UL/CSA:                  | 100-600V   |                             |                                      |
| - IEC:                     | 30-1000V   |                             |                                      |

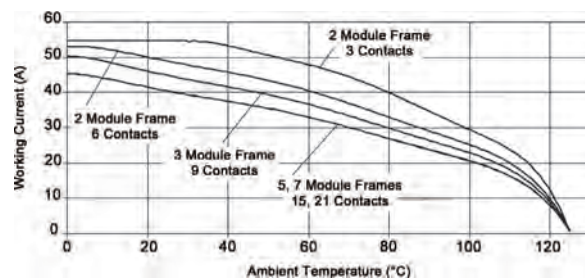
\* In dry, non-conductive, non-corrosive environments when protected in a housing rated at least IP54 and disconnected for cycling and maintenance only.

## EPIC® MC Inserts: Derating Curves

**EPIC® MC 2 Module**  
12 - 4 AWG (4 - 25 mm<sup>2</sup>)

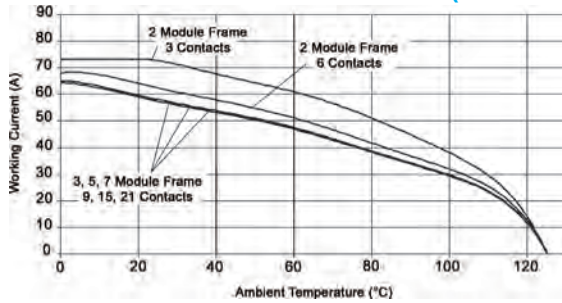


**EPIC® MC 3 Module: Machined**  
10 AWG (6 mm<sup>2</sup>)

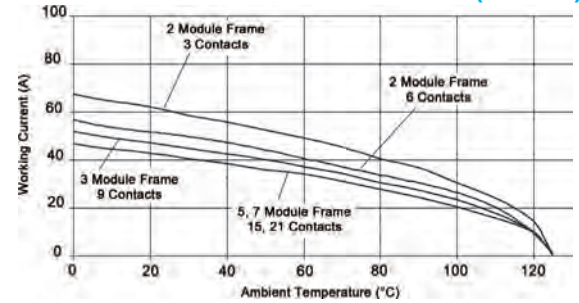


# EPIC® MC Inserts: Derating Curves

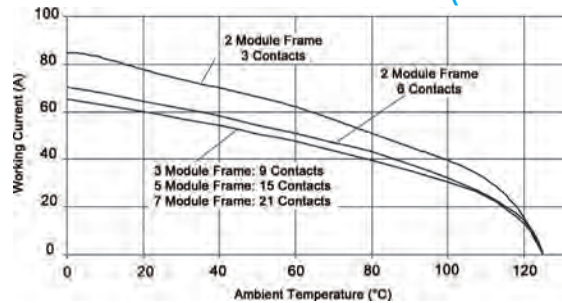
**EPIC® MC 3 Module: Machined  
8 AWG (10 mm<sup>2</sup>)**



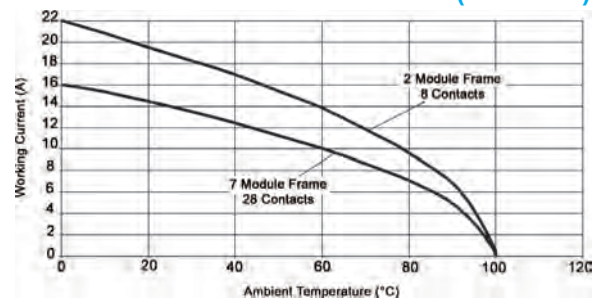
**EPIC® MC 3 High Voltage Module  
10 AWG (6 mm<sup>2</sup>)**



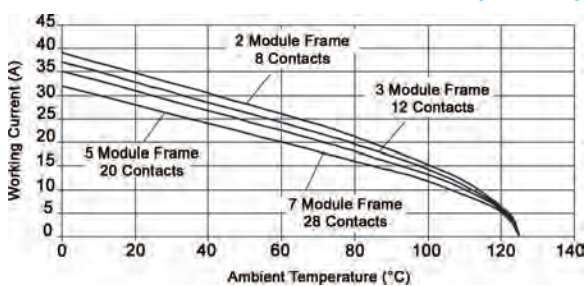
**EPIC® MC 3 High Voltage Module  
8 AWG (10 mm<sup>2</sup>)**



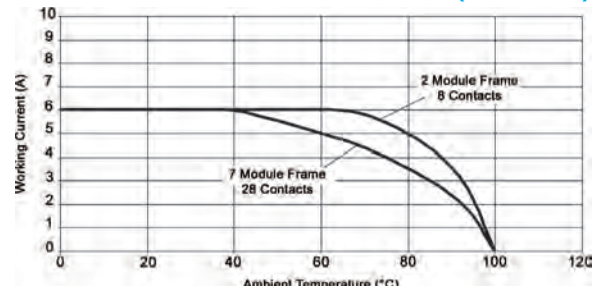
**EPIC® MC 4 Module: Machined  
14 AWG (2.5 mm<sup>2</sup>)**



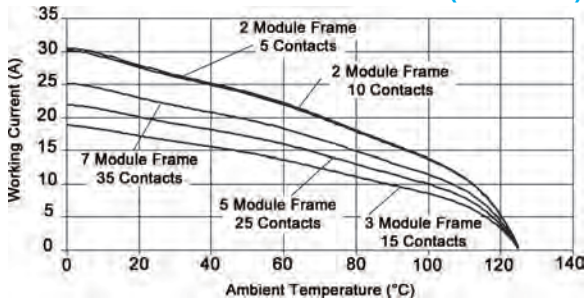
**EPIC® MC 4 Module: Machined  
12 AWG (4 mm<sup>2</sup>)**



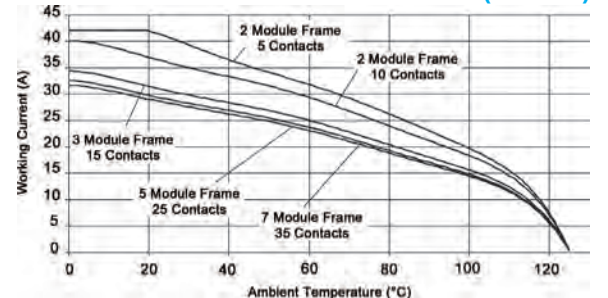
**EPIC® MC 4 Module: Cage Clamp  
20 AWG (0.5 mm<sup>2</sup>)**



**EPIC® MC 5 Module: Machined  
14 AWG (2.5 mm<sup>2</sup>)**



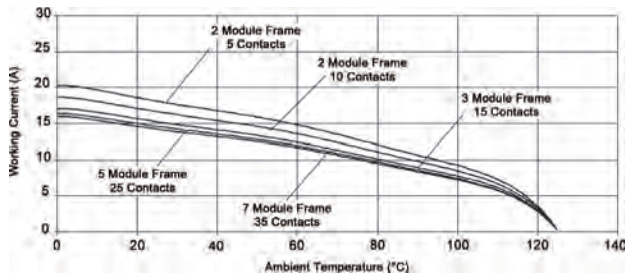
**EPIC® MC 5 Module: Machined  
12 AWG (4 mm<sup>2</sup>)**



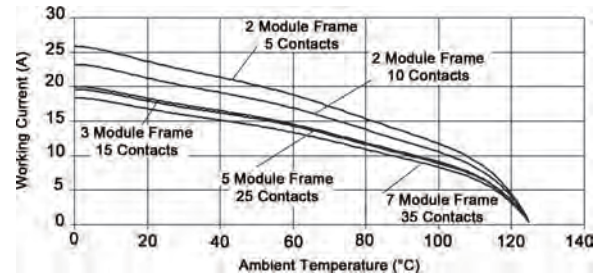


# EPIC® MC Inserts: Derating Curves

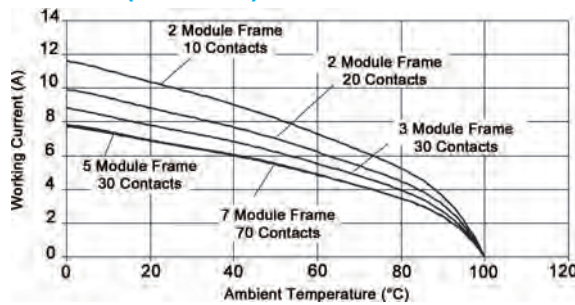
**EPIC® MC 5 Module: Stamped & Formed  
16 AWG (1.5 mm<sup>2</sup>)**



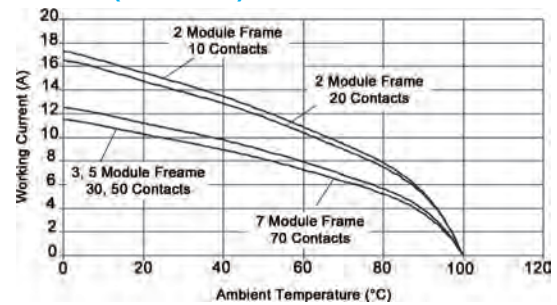
**EPIC® MC 5 Module: Stamped & Formed  
14 AWG (2.5 mm<sup>2</sup>)**



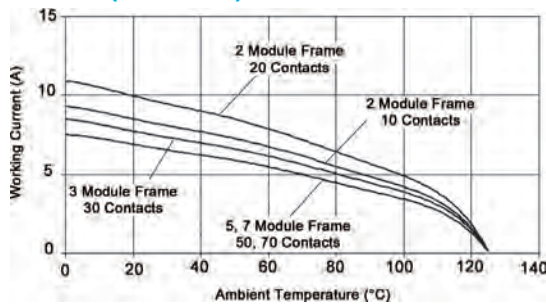
**EPIC® MC 10 Module: Machined  
20 AWG (0.5 mm<sup>2</sup>)**



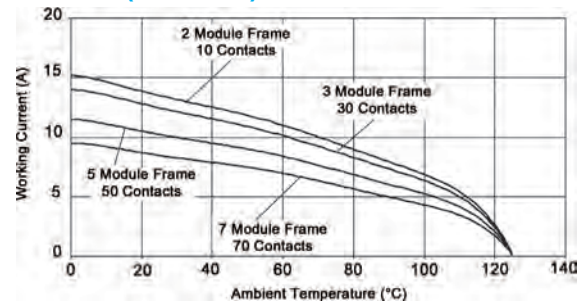
**EPIC® MC 10 Module: Machined  
16 AWG (1.5 mm<sup>2</sup>)**



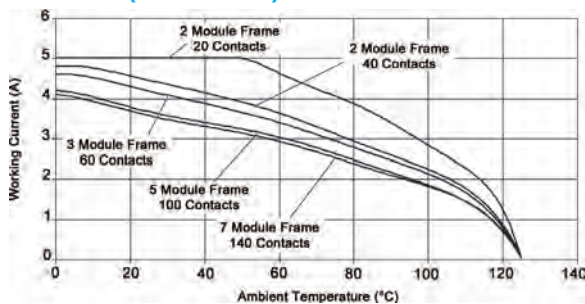
**EPIC® MC 10 Module: Stamped & Formed  
20 AWG (0.5 mm<sup>2</sup>)**



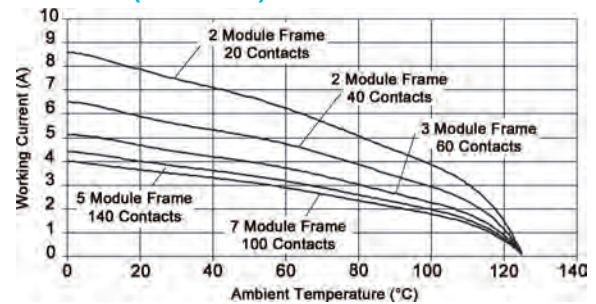
**EPIC® MC 10 Module: Stamped & Formed  
16 AWG (1.5 mm<sup>2</sup>)**



**EPIC® MC 20 Module: Stamped & Formed  
24 AWG (0.25 mm<sup>2</sup>)**



**EPIC® MC 20 Module: Stamped & Formed  
20 AWG (0.5 mm<sup>2</sup>)**





# EPIC® MC Series Selection Charts

Choose the Correct Modules

| Modules  | Plug     | Receptacle | Rated Voltage | Rated Current | Removal Tool | Page |
|--|----------|------------|---------------|---------------|--------------|------|
| 2 Contact Module: 2 Working Contacts                   | 10344100 | 10345100   | 1000V         | 82A           | —            | 348  |
| 2 Contact Module: 1 Working Contact + 1 Ground         | 10344600 | 10345600   | 1000V         | 82A           | —            | 348  |
| 3 Contact Coax Module                                  | 10399200 | 10399300   | 250V          | —             | X            | 349  |
| 3 Contact Module                                       | 10382000 | 10382100   | 630V          | 40A           | X            | 350  |
| 3 Contact Module: High Voltage                         | 10399800 | 10399900   | 1000V         | 50A           | X            | 351  |
| 4 Contact HE Module                                    | 10399000 | 10399100   | 630V          | 25A           | —            | 352  |
| 4+PE Contact Module: High Voltage                      | 10383200 | 10383300   | 1000V         | 16A           | X            | 353  |
| 5 Contact Module                                       | 10382200 | 10382300   | 400V          | 20A           | X            | 354  |
| 10 Contact Module: Machined Contacts                   | 10382400 | 10382500   | 250V          | 10A           | X            | 355  |
| 10 Contact Module: Stamped & Formed Contacts           | 10383400 | 10383500   | 250V          | 10A           | X            | 356  |
| 20 Contact Module                                      | 10383600 | 10383700   | 100V          | 4A            | X            | 357  |
| Dummy Module   | 10399400 | 10399500   | —             | —             | X            | 358  |
| 4 Contact Cage Clamp Module                            | 10399600 | 10399700   | 400V          | 14A           | X            | 358  |
| PROFIBUS DP Module                                     | 10390400 | 10390500   | 30V           | 1A            | —            | 358  |
| Ethernet Module: RJ45 Connectors + 4 Power Contacts    | 10344300 | 10345300   | 600V          | 10A           | X            | 359  |
| Universal Bus Modules                                  | 10390600 | 10390700   | 30V           | 1A            | —            | 359  |
| Pneumatic Module: 1 Contact with 2.5 mm Hose Diameter  | 44424004 | 44424005   | 145psi        | —             | X            | 360  |
| Pneumatic Module: 1 Contact with 4.0 mm Hose Diameter  | 44424006 | 44424007   | 145psi        | —             | X            | 360  |
| Pneumatic Module: 2 Contacts with 2.5 mm Hose Diameter | 44424008 | 44424009   | 145psi        | —             | X            | 360  |
| Pneumatic Module: 2 Contacts with 4.0 mm Hose Diameter | 44424010 | 44424011   | 145psi        | —             | X            | 360  |

## Choose the Correct Frame

| Frames               | For Plugs     | For Receptacles | Corresponding Housing | Page |
|----------------------|---------------|-----------------|-----------------------|------|
| Frame for 2 Modules  | 10381000      | 10381100        | HB 6                  | 360  |
| Frame for 3 Modules  | 10381200      | 10381300        | HB 10                 | 360  |
| Frame for 5 Modules  | 10381400      | 10381500        | HB 16                 | 361  |
| Frame for 7 Modules  | 10381600      | 10381700        | HB 24                 | 361  |
| Frame for 10 Modules | 10381400 (x2) | 10381500 (x2)   | HB 32                 | 362  |
| Frame for 14 Modules | 10381600 (x2) | 10381700 (x2)   | HB 48                 | 362  |

Modules snap into frames.

**Note:**

Color of components may be different than shown.



## EPIC® MC Module Removal Tool

The EPIC® MC module removal tool is used to lift built-in modules out of the module frames.

**Approvals**

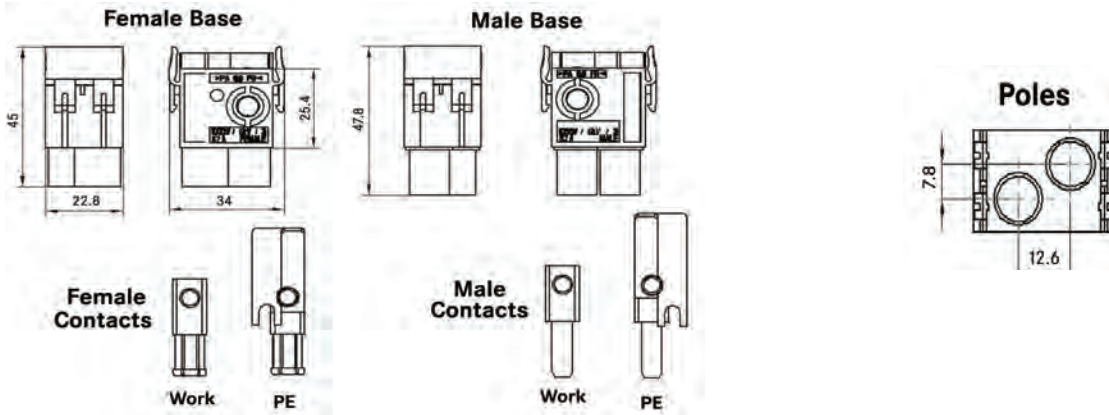
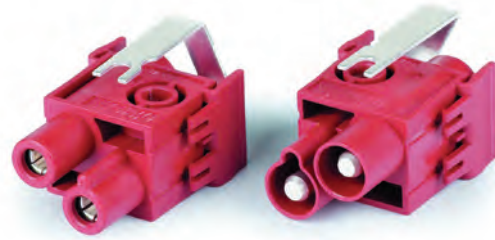


| Part Number |
|-------------|
| 11171200    |

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# EPIC® MC 2 Modules

2 Working Contacts; 1 Working Contact + 1 Ground



All dimensions are in mm.

## Approvals



| Description                  | Plug     | Receptacle |
|------------------------------|----------|------------|
| 2 Working Contacts           | 10344100 | 10345100   |
| 1 Working Contact + 1 Ground | 10344600 | 10345600   |

## Application Advantage

- Module can be inserted into the standard EPIC® modular frames
- Modules can be inserted or removed from the frame without a tool, due to snap hooks
- Screw contact modules can be wired easily with a standard screwdriver
- Flexibility of the modular series allows the arrangement of modules to fit requirements
- Module takes up two slots in the modular frame
- High current modules require the usage of high profile EPIC® HB 16 & 24 housings

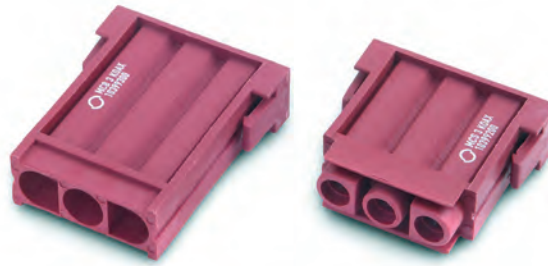
## Technical Data

|                           |   |                            |                                  |
|---------------------------|---|----------------------------|----------------------------------|
| <b>Temperature Range:</b> | -40°C to + 100°C  | <b>Termination:</b>        | Screw                            |
| <b>Mating Cycles:</b>     | 100 (higher mating cycles depending on the application) | <b>Wire Size:</b>          | 8-4 AWG (10-25 mm <sup>2</sup> ) |
| <b>Rated Voltage:</b>     | 1000V   | <b>Contact Material:</b>   | Brass; 2µ nickel & 2-3µ silver   |
| <b>Rated Current:</b>     | 82A   | <b>Contact Resistance:</b> | 1.5-4 mΩ                         |

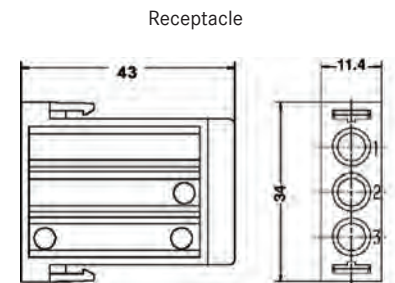
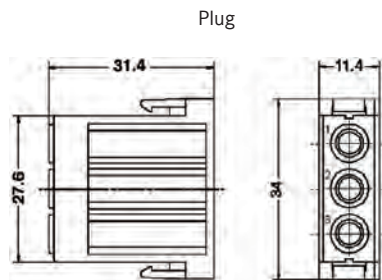
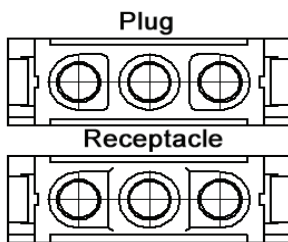
Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

# EPIC® MC 3 Coax Modules

Solder/Crimp-Terminated



Contacts sold separately, see below



All dimensions are in mm.

## Approvals



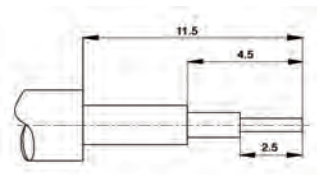
| Description                            | Plug     | Receptacle |
|--|----------|------------|
| Solder/Crimp-Terminated: Coax Contacts | 10399200 | 10399300   |

## Technical Data

|                    |                 |
|--------------------|-----------------|
| Cable Size:        | RG 58           |
| Temperature Range: | -40°C to +100°C |
| Rated Voltage:     | 250V            |
| Impedance:         | 50 Ω            |

## Coax Contacts

Solder/Crimp Termination



**Complete the Installation**

|  |                         |  |                         |  |                           |
|--|-------------------------|--|-------------------------|--|---------------------------|
|  | Crimp Tool:<br>11147000 |  | Crimp Dies:<br>11147130 |  | Removal Tool:<br>11171100 |
|--|-------------------------|--|-------------------------|--|---------------------------|

| Size  | Pin      | Socket   |
|-------|----------|----------|
| RG 58 | 11214200 | 11219200 |

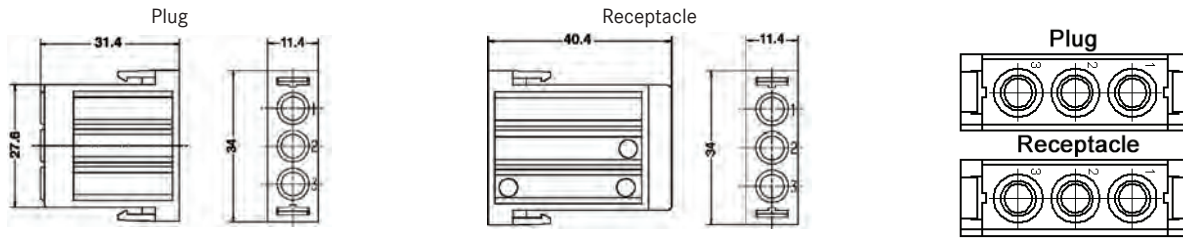
Photographs are not to scale and are not true representations of the products in question.  
For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

# EPIC® MC 3 Modules

Crimp-Terminated



Contacts sold separately, see below



All dimensions are in mm.

## Approvals



## Technical Data

|                    |                 |
|--------------------|-----------------|
| Temperature Range: | -40°C to +100°C |
| Rated Voltage:     | 630V            |
| Rated Current:     | 40A             |

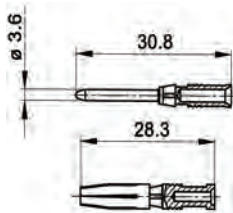
| Description                         | Plug     | Receptacle |
|-------------------------------------|----------|------------|
| Crimp-Terminated: Machined Contacts | 10382000 | 10382100   |

## Machined Contacts

3.6 mm Diameter



1 part number = 1 contact, sold in bags of 100



### Complete the Installation



Crimp Tool:  
11147000



Crimp Dies:  
1.5 - 2.5 mm<sup>2</sup>: 11147110  
4.0 - 10 mm<sup>2</sup>: 11147120



Locator:  
11147210



Removal Tool:  
11171100

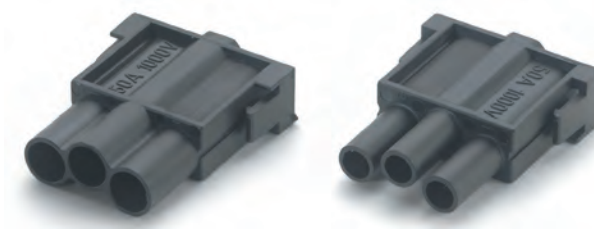
| Contact Size    |     | Stripping Length (mm) | Silver Contacts |          |
|-----------------|-----|-----------------------|-----------------|----------|
| mm <sup>2</sup> | AWG |                       | Pin             | Socket   |
| 1.5             | 16  | 10                    | 1121070C        | 1121570C |
| 2.5             | 14  | 10                    | 1121060C        | 1121560C |
| 4.0             | 12  | 10                    | 1121000C        | 1121500C |
| 6.0             | 10  | 10                    | 1121010C        | 1121510C |
| 10.0            | 8   | 10                    | 1121020C        | 1121520C |

Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

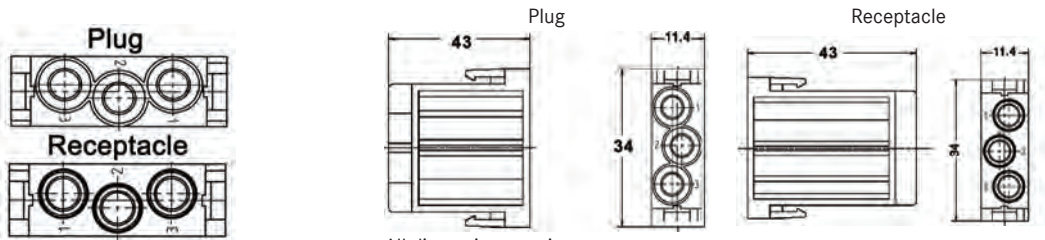


# EPIC® MC 3 High Voltage Modules

## Crimp-Terminated



Contacts sold separately, see below



All dimensions are in mm.

### Approvals



### Technical Data

|                    |                 |
|--------------------|-----------------|
| Temperature Range: | -40°C to +100°C |
| Rated Voltage:     | 1000V           |
| Rated Current:     | 50A             |

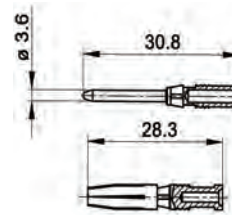
| Description                         | Plug     | Receptacle |
|-------------------------------------|----------|------------|
| Crimp-Terminated: Machined Contacts | 10399800 | 10399900   |

## Machined Contacts

### 3.6 mm Diameter

**Complete the Installation**

|  |   |
|--|---|
| <br>Crimp Tool:<br>11147000 | <br>Crimp Dies:<br>1.5-2.5 mm <sup>2</sup> : 11147110<br>4.0-10 mm <sup>2</sup> : 11147120 |
| <br>Locator:<br>11147210    | <br>Removal Tool:<br>11171100  |



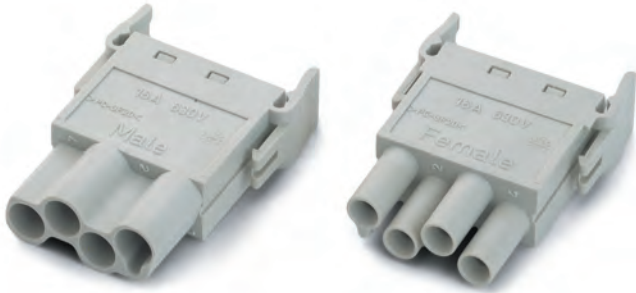
1 part number = 1 contact, sold in bags of 100

| Contact Size | mm <sup>2</sup> | AWG | Stripping Length (mm) | Silver Contacts |          |
|--------------|-----------------|-----|-----------------------|-----------------|----------|
|              |                 |     |                       | Pin             | Socket   |
| 1.5          | 16              | 10  | 10                    | 1121070C        | 1121570C |
| 2.5          | 14              | 10  | 10                    | 1121060C        | 1121560C |
| 4.0          | 12              | 10  | 10                    | 1121000C        | 1121500C |
| 6.0          | 10              | 10  | 10                    | 1121010C        | 1121510C |
| 10.0         | 8               | 10  | 10                    | 1121020C        | 1121520C |

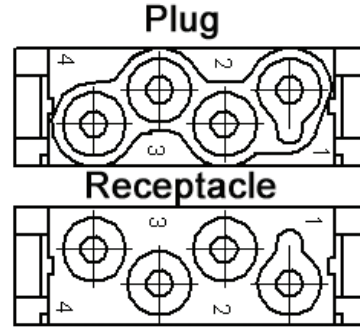
Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

# EPIC® MC 4 HE Modules

Crimp-Terminated



Contacts sold separately, see below



## Approvals



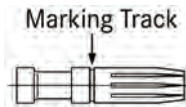
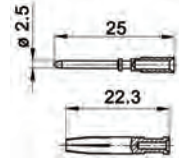
| Description                         | Plug     | Receptacle |
|-------------------------------------|----------|------------|
| Crimp-Terminated: Machined Contacts | 10399000 | 10399100   |

## Technical Data

|                    |                 |
|--------------------|-----------------|
| Temperature Range: | -40°C to +100°C |
| Rated Voltage:     | 630V            |
| Rated Current:     | 25A             |

## Machined Contacts

2.5 mm Diameter



1 part number = 1 contact, sold in bags of 100

### Complete the Installation



Crimp Tool:  
11147000



Crimp Dies:  
11147100



Locator:  
11147200



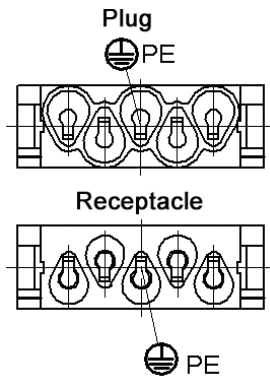
Removal Tool:  
11182500

| Contact Size |     | Stripping Length (mm) |        | # of Marking Tracks | Silver Contacts |          | Gold Contacts |          |
|--------------|-----|-----------------------|--------|---------------------|-----------------|----------|---------------|----------|
| mm²          | AWG | Pin                   | Socket |                     | Pin             | Socket   | Pin           | Socket   |
| 0.5          | 20  | 7.4                   | 7.3    | —                   | 11190000        | 11195000 | 11192000      | 11197000 |
| 0.75 - 1.0   | 18  | 7.4                   | 7.3    | 1                   | 11190100        | 11195100 | 11192100      | 11197100 |
| 1.5          | 16  | 7.4                   | 7.3    | 2                   | 11190200        | 11195200 | 11192200      | 11197200 |
| 2.5          | 14  | 7.4                   | 7.3    | 3                   | 11190300        | 11195300 | —             | —        |
| 4.0          | 12  | 7.4                   | 7.3    | —                   | 11190400        | 11195400 | —             | —        |

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# EPIC® MC 4+PE High Voltage Modules

## Crimp-Terminated



Contacts sold separately, see below

### Approvals



### Technical Data

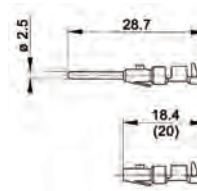
|                    |                 |
|--------------------|-----------------|
| Temperature Range: | -40°C to +100°C |
| Rated Voltage:     | 1000V           |
| Rated Current:     | 16A             |

| Description                                 | Plug     | Receptacle |
|---|----------|------------|
| Crimp-Terminated: Stamped & Formed Contacts | 10383200 | 10383300   |

## Stamped & Formed Contacts

### 2.5 mm Diameter

| Complete the Installation |  |  |                           |
|---------------------------|--|--|---------------------------|
|                           | Crimp Tool:<br>11147000  |  | Locator:<br>11147300      |
|                           | Crimp Dies:<br>0.5-1.5 mm <sup>2</sup> : 11147180<br>1.5-2.5 mm <sup>2</sup> : 11147190          |  | Removal Tool:<br>11160000 |
|                           | Crimp Dies for Reel:<br>0.5-1.5 mm <sup>2</sup> : 11153700<br>1.5-2.5 mm <sup>2</sup> : 11153800 |  |                           |



1 part number = 1 contact,  
sold in bags of 100 or 1 reel



| Contact Size    |       | Silver Contacts |          | Reel of 100: Silver |          | Reel of 200: Silver |          |
|-----------------|-------|-----------------|----------|---------------------|----------|---------------------|----------|
| mm <sup>2</sup> | AWG   | Pin             | Socket   | Pin                 | Socket   | Pin                 | Socket   |
| 0.5-1.5         | 20-16 | 11201000        | 11205000 | —                   | —        | 11208000            | 11209000 |
| 1.5-2.5         | 16-14 | 11202000        | 11206000 | 11208500            | 11209500 | —                   | —        |

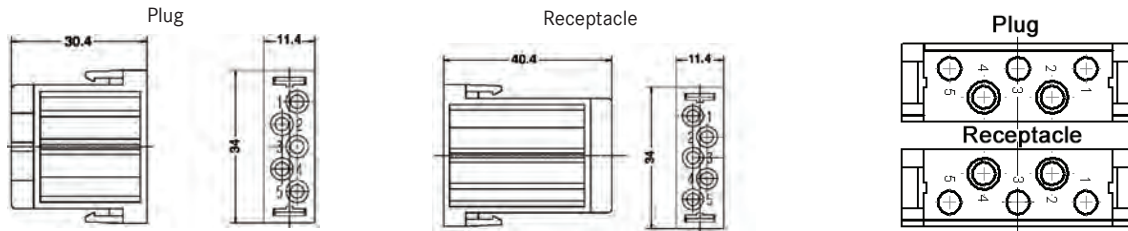
Photographs are not to scale and are not true representations of the products in question.  
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# EPIC® MC 5 High Voltage Modules

Crimp-Terminated



Contacts sold separately, see below



All dimensions are in mm.

## Approvals



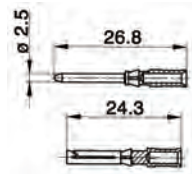
| Description                         | Plug     | Receptacle |
|-------------------------------------|----------|------------|
| Crimp-Terminated: Machined Contacts | 10382200 | 10382300   |

## Technical Data

|                    |                   |
|--------------------|-------------------|
| Temperature Range: | -40 °C to +100 °C |
| Rated Voltage:     | 400V              |
| Rated Current:     | 20A               |

## Machined Contacts

2.5 mm Diameter



1 part number = 1 contact,  
sold in bags of 100

### Complete the Installation



Crimp Tool:  
11147000



Crimp Dies:  
11147100



Locator:  
11147200



Removal Tool:  
11171000

| Contact Size<br>mm <sup>2</sup> | AWG | Stripping<br>Length<br>(mm) | # of<br>Marking<br>Tracks | Silver Contacts |          |
|---------------------------------|-----|-----------------------------|---------------------------|-----------------|----------|
|                                 |     |                             |                           | Pin             | Socket   |
| 0.5                             | 20  | 7.8                         | —                         | 1121300C        | 1121800C |
| 0.75 - 1.0                      | 18  | 7.8                         | 1                         | 1121310C        | 1121810C |
| 1.5                             | 16  | 7.8                         | 2                         | 1121320C        | 1121820C |
| 2.5                             | 14  | 7.8                         | 3                         | 1121330C        | 1121830C |
| 4.0                             | 12  | 7.8                         | —                         | 1121340C        | 1121840C |

Photographs are not to scale and are not true representations of the products in question.  
For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

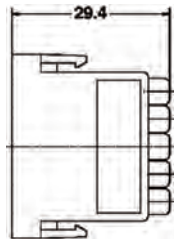
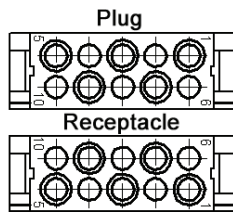


# EPIC® MC 10 Modules

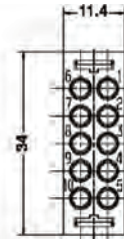
## Crimp-Terminated: Machined Contacts



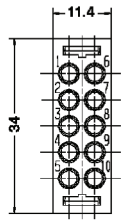
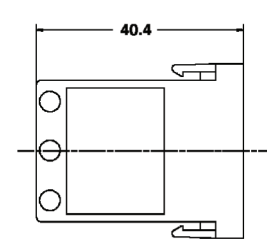
Contacts sold separately, see below



Plug



Receptacle



All dimensions are in mm.

### Approvals



### Technical Data

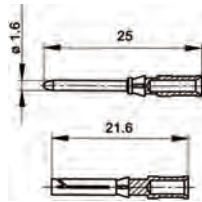
|                    |                 |
|--------------------|-----------------|
| Temperature Range: | -40°C to +100°C |
| Rated Voltage:     | 250V            |
| Rated Current:     | 10A             |

| Description                         | Plug     | Receptacle |
|-------------------------------------|----------|------------|
| Crimp-Terminated: Machined Contacts | 10382400 | 10382500   |

## Machined Contacts

### 1.6 mm Diameter

1 part number = 1 contact, sold in bags of 100



| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping<br>Length<br>(mm) | # of<br>Marking<br>Tracks | Silver Contacts |          | Gold Contacts |          |
|---------------------------------|-------|-----------------------------|---------------------------|-----------------|----------|---------------|----------|
|                                 |       |                             |                           | Pin             | Socket   | Pin           | Socket   |
| 0.14-0.37                       | 26-22 | 8                           | 1                         | 13162000        | 13163000 | 13162500      | 13163500 |
| 0.5                             | 20    | 8                           | 2                         | 13162100        | 13163100 | 13162600      | 13163600 |
| 0.75-1.0                        | 18    | 8                           | 3                         | 13162200        | 13163200 | 13162700      | 13163700 |
| 1.5                             | 16    | 8                           | 4                         | 13162300        | 13163300 | 13162800      | 13163800 |
| 2.5                             | 14    | 5.8                         | 5                         | 13162400        | 13163400 | 13162900      | 13163900 |

### Complete the Installation

|  |                         |  |                         |  |                      |  |                           |
|--|-------------------------|--|-------------------------|--|----------------------|--|---------------------------|
|  | Crimp Tool:<br>11147000 |  | Crimp Dies:<br>11147100 |  | Locator:<br>11147200 |  | Removal Tool:<br>11161000 |
|--|-------------------------|--|-------------------------|--|----------------------|--|---------------------------|

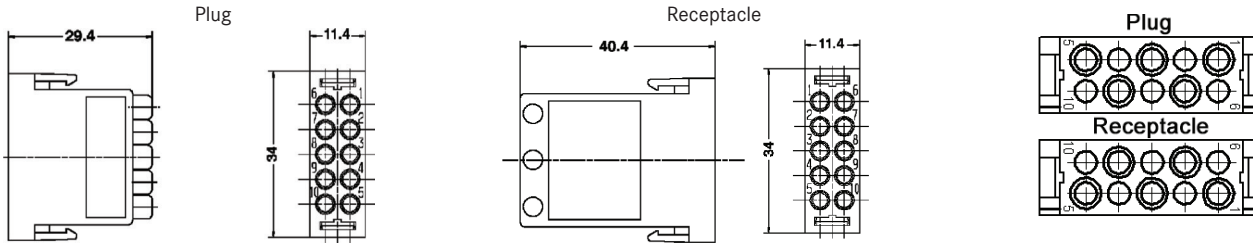
Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

# EPIC® MC 10 Modules

Crimp-Terminated: Stamped & Formed Contacts



Contacts sold separately, see below



All dimensions are in mm.

## Approvals



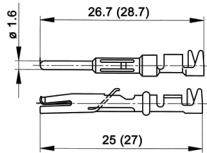
## Technical Data

|                    |                 |
|--------------------|-----------------|
| Temperature Range: | -40°C to +100°C |
| Rated Voltage:     | 250V            |
| Rated Current:     | 10A             |

| Description                                 | Plug     | Receptacle |
|---|----------|------------|
| Crimp-Terminated: Stamped & Formed Contacts | 10383400 | 10383500   |

## Stamped & Formed Contacts

1.6 mm Diameter



1 part number = 1 contact, sold in bags of 100 or 1 reel

| Contact Size    |       | Stripping Length (mm) | Silver Contacts |          | Gold Contacts |          | Reel of 100: Silver Left-hand Feed |          | Reel of 200: Silver Left-hand Feed |          |
|-----------------|-------|-----------------------|-----------------|----------|---------------|----------|------------------------------------|----------|------------------------------------|----------|
| mm <sup>2</sup> | AWG   |                       | Pin             | Socket   | Pin           | Socket   | Pin                                | Socket   | Pin                                | Socket   |
| 0.14-0.5        | 26-20 | 2.5-0.5               | 11241100        | 11231100 | 11243100      | 11233100 | —                                  | —        | 11240700                           | 11230700 |
| 0.5-1.5         | 20-16 | 3.5-0.5               | 11221000        | 11236100 | 11221300      | 11238100 | —                                  | —        | 11220700                           | 11235700 |
| 1.5-2.5         | 16-14 | 3.5-0.5               | 11223500        | 11228500 | —             | —        | 11223000                           | 11228000 | —                                  | —        |

| Contact Size    |       | Stripping Length (mm) | Reel of 2000: Silver Right-hand Feed |          | Reel of 2000: Gold Right-hand Feed |          | Reel of 2000: Silver Left-hand Feed |          | Reel of 2000: Silver Left-hand Feed |          |
|-----------------|-------|-----------------------|--------------------------------------|----------|------------------------------------|----------|-------------------------------------|----------|-------------------------------------|----------|
| mm <sup>2</sup> | AWG   |                       | Pin                                  | Socket   | Pin                                | Socket   | Pin                                 | Socket   | Pin                                 | Socket   |
| 0.14-0.5        | 26-20 | 2.5-0.5               | 11240000                             | 11230000 | —                                  | —        | 11240400                            | 11230400 | 11230500                            | 11240500 |
| 0.5-1.5         | 20-16 | 3.5-0.5               | 11220000                             | 11235000 | 11220100                           | 11235200 | 11226000                            | 11226500 | —                                   | —        |
| 1.5-2.5         | 16-14 | 3.5-0.5               | —                                    | —        | —                                  | —        | 11222700                            | 11227700 | —                                   | —        |



### Complete the Installation

|  |                      |  |                        |  |  |  |   |
|--|----------------------|--|------------------------|--|--|--|---|
|  | Crimp Tool: 11147000 |  | Locator: 11147300      |  | Crimp Dies:<br>0.14-0.5 mm <sup>2</sup> : 11147170<br>0.5-1.5 mm <sup>2</sup> : 11147180<br>1.5-2.5 mm <sup>2</sup> : 11147190 |  | Crimp Tool for Reel: (includes tool, die, & locator)<br>0.14-0.5 mm <sup>2</sup> : 11147004<br>0.5-1.5 mm <sup>2</sup> : 11147005<br>1.5-2.5 mm <sup>2</sup> : 11147006 |
|  |                      |  | Removal Tool: 11161000 |  |  |  |   |

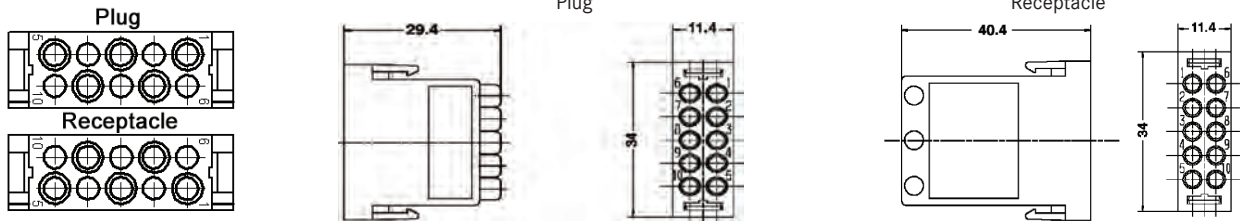
Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

# EPIC® MC 20 Modules

## Crimp-Terminated



Contacts sold separately, see below



All dimensions are in mm.

### Approvals



### Technical Data

|                    |                 |
|--------------------|-----------------|
| Temperature Range: | -40°C to +100°C |
| Rated Voltage:     | 100V            |
| Rated Current:     | 4A              |

| Description      | Plug     | Receptacle |
|------------------|----------|------------|
| Crimp-Terminated | 10383600 | 10383700   |

## Stamped & Formed Contacts

1.0 mm Diameter



### Complete the Installation



Crimp Tool:  
11158400



Removal Tool:  
11132500

| Contact Size<br>mm <sup>2</sup> | AWG*  | Stripping Length<br>(mm) | Reel of 500: Gold Left-hand Feed |          |
|---------------------------------|-------|--------------------------|----------------------------------|----------|
|                                 |       |                          | Pin                              | Socket   |
| 0.08-0.2                        | 28-26 | 2.5 <sup>+0.5</sup>      | 44429013                         | 44429009 |
| 0.2-0.52                        | 26-20 | 2.5 <sup>+0.5</sup>      | 44429014                         | 44429010 |

\* AWG conversion is approximate. 1 part number = 1 reel

## Stamped & Formed Contacts

For Thermocouple Applications

1.0 mm Diameter



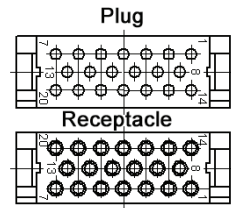
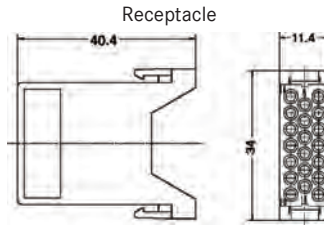
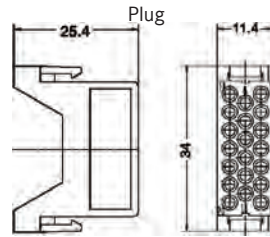
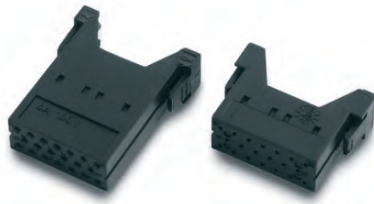
| Contact Size<br>mm <sup>2</sup> | AWG   | Stripping Length<br>(mm) | Material   | Polarity | Color Code | Strips of 25 Contacts:<br>Type K |         | Strips of 25 Contacts:<br>Type J |         |
|---------------------------------|-------|--------------------------|------------|----------|------------|----------------------------------|---------|----------------------------------|---------|
|                                 |       |                          |            |          |            | Pin                              | Socket  | Pin                              | Socket  |
| 0.25-0.52                       | 24-20 | 2.5-0.5                  | Chromel    | (+)      | White      | TC-CH-P                          | TC-CH-S | —                                | —       |
| 0.25-0.52                       | 24-20 | 2.5-0.5                  | Iron       | (+)      | Black      | —                                | —       | TC-IR-P                          | TC-IR-S |
| 0.25-0.52                       | 24-20 | 2.5-0.5                  | Alumel     | (-)      | Green      | TC-AL-P                          | TC-AL-S | —                                | —       |
| 0.25-0.52                       | 24-20 | 2.5-0.5                  | Constantan | (-)      | Yellow     | —                                | —       | TC-CO-P                          | TC-CO-S |

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1 part number = 1 contact

# EPIC® MC Dummy Modules

## Dummy Module, No Contacts

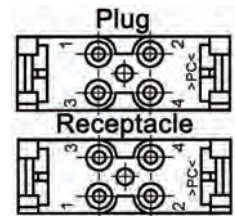
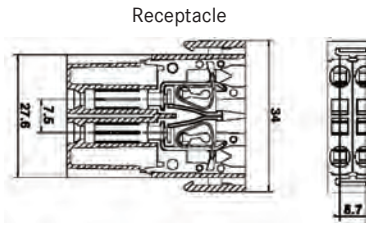
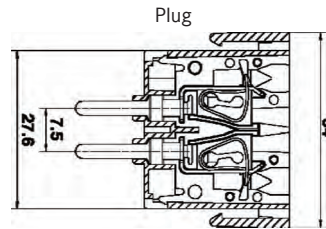


All dimensions are in mm.

| Description               | Plug     | Receptacle |
|---------------------------|----------|------------|
| Dummy Module: No Contacts | 10399400 | 10399500   |

# EPIC® MC Cage Clamp Modules

## 4 Contacts



All dimensions are in mm.

### Approvals



| Description | Plug     | Receptacle |
|-------------|----------|------------|
| Cage Clamp  | 10399600 | 10399700   |

### Technical Data

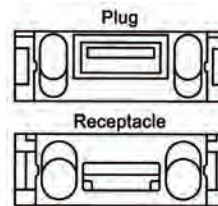
|                    |                                       |
|--------------------|---------------------------------------|
| Temperature Range: | -40°C to +100°C                       |
| Rated Voltage:     | 400V                                  |
| Rated Current:     | 14A                                   |
| Wire Size:         | 20- 14 AWG (0.5-2.5 mm <sup>2</sup> ) |

# EPIC® MC PROFIBUS DP Modules

## 2 Contacts + Shield



Mount in High Profile housings only.



### Approvals



| Description | Plug     | Receptacle |
|-------------|----------|------------|
| PROFIBUS DP | 10390400 | 10390500   |

### Technical Data

|                    |                |
|--------------------|----------------|
| Temperature Range: | -20°C to +85°C |
| Rated Voltage:     | 30V            |
| Rated Current:     | 1A             |

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# EPIC® MC Ethernet Module

## RJ45 Connectors + 4 Power Contacts



RJ45 connector not included.

### Application Advantage

- Occupies two module positions in frame.
- Uses standard HD Series machined crimp contacts for power, see page 288.

| Description    | Plug     | Receptacle |
|----------------|----------|------------|
| Module         | 10344300 | 10345300   |
| RJ45 Connector | CE6326   | —          |

### Approvals



**Complete the Installation**

|  |                              |  |                                |
|--|------------------------------|--|--------------------------------|
|  | RJ45<br>Connector:<br>CE6326 |  | RJ 45<br>Crimp Tool:<br>CE5092 |
|--|------------------------------|--|--------------------------------|

### Technical Data

|                            |                       |
|----------------------------|-----------------------|
| <b>Number of Contacts:</b> | 8                     |
| <b>Temperature Range:</b>  | -20°C to +85°C        |
| <b>Rated Voltage:</b>      |                       |
| - Power contacts:          | 600V                  |
| <b>Rated Current:</b>      |                       |
| - Power contacts:          | 10A                   |
| <b>Termination:</b>        | IDC CAT.5 (26-24 AWG) |

# EPIC® MC Universal Bus Modules

## Screw-Terminated



Mount in High Profile housings only.

### Approvals



| Description         | Plug     | Receptacle |
|---------------------|----------|------------|
| 4 Contacts + Shield | 10390600 | 10390700   |

### Technical Data

|                           |                |                            |   |
|---------------------------|----------------|----------------------------|---|
| <b>Temperature Range:</b> | -20°C to +85°C | <b>Wire Size:</b>          | 28 - 16 AWG (0.08 - 1.5 mm <sup>2</sup> ) |
| <b>Rated Voltage:</b>     | 30V            | <b>Max. Transfer Rate:</b> | 1.5 MB/sec (bus feed-through)             |
| <b>Rated Current:</b>     | 1A             |                            |   |

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# EPIC® MC Pneumatic Modules



These modules are used for easy and fast connection of compressed air hoses. Applications include machine building, mini pneumatics, measurement, and control technology.

| Hose Diameter  | Plug     | Receptacle<br>(plus built-in valve) |
|----------------|----------|-------------------------------------|
| <b>1 Port</b>  |          |                                     |
| 2.5 mm         | 44424004 | 44424005                            |
| 4.0 mm         | 44424006 | 44424007                            |
| <b>2 Ports</b> |          |                                     |
| 2.5 mm         | 44424008 | 44424009                            |
| 4.0 mm         | 44424010 | 44424011                            |

### Application Advantage

- For compressed air hoses with inner diameters of 2.5 mm or 4 mm and a maximum outer diameter of 8 mm.
- Typically used with 4 x 2.5 mm or 6 x 4 mm metric tubing.

### Approvals

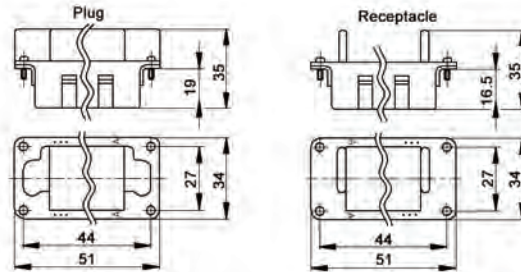


### Technical Data

|                    |                  |
|--------------------|------------------|
| Number of Ports:   | 1, 2             |
| Max. Air Pressure: | 10 bar (145 psi) |
| Temperature Range: | -20°C to +100°C  |

# EPIC® MC 2 Module Frames

Holds 2 Modules



All dimensions are in mm.

| Description    | Plug     | Receptacle |
|----------------|----------|------------|
| 2 Module Frame | 10381000 | 10381100   |

### Compatible Housing



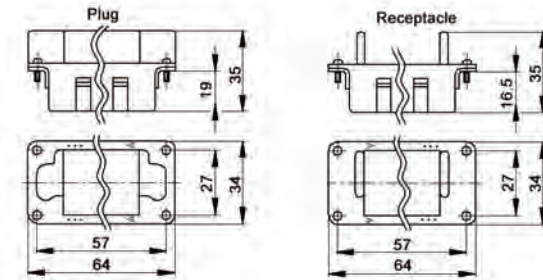
HB 6:  
page 369

### Approvals



# EPIC® MC 3 Module Frames

Holds 3 Modules



All dimensions are in mm.

| Description    | Plug     | Receptacle |
|----------------|----------|------------|
| 3 Module Frame | 10381200 | 10381300   |

### Compatible Housing



HB 10:  
page 372

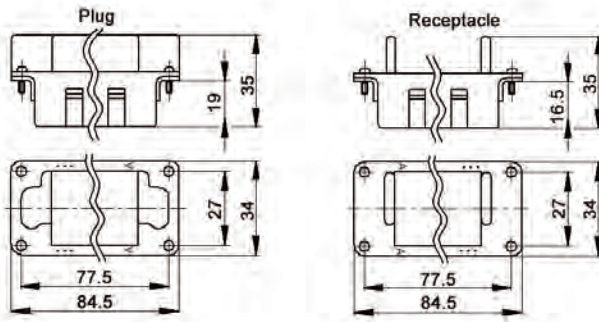
### Approvals



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# EPIC® MC 5 Module Frame

Holds 5 Modules




All dimensions are in mm.



### Approvals



**Compatible Housing**

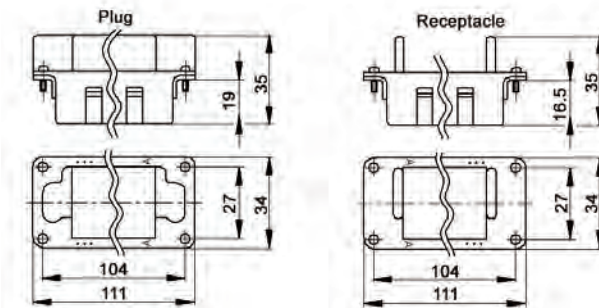


HB 16:  
page 378

| Description    | Plug     | Receptacle |
|----------------|----------|------------|
| 5 Module Frame | 10381400 | 10381500   |

# EPIC® MC 7 Module Frame

Holds 7 Modules




All dimensions are in mm.



### Approvals



**Compatible Housing**



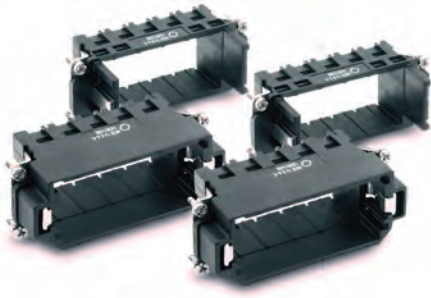
HB 24:  
page 384

| Description    | Plug     | Receptacle |
|----------------|----------|------------|
| 7 Module Frame | 10381600 | 10381700   |

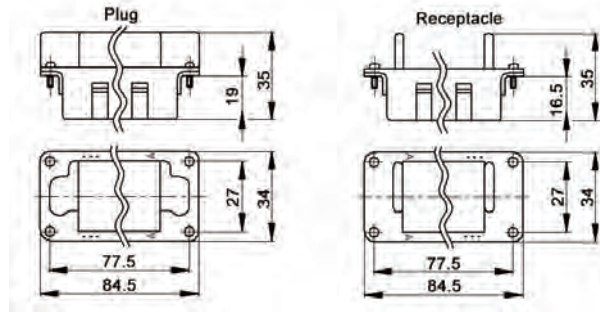
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# EPIC® MC 10 Module Frames

Holds 10 Modules



x2 MC 5 frames, use two part numbers



All dimensions are in mm.

## Approvals



| Description     | Plug          | Receptacle    |
|-----------------|---------------|---------------|
| 10 Module Frame | 10381400 (x2) | 10381500 (x2) |

### Compatible Housing



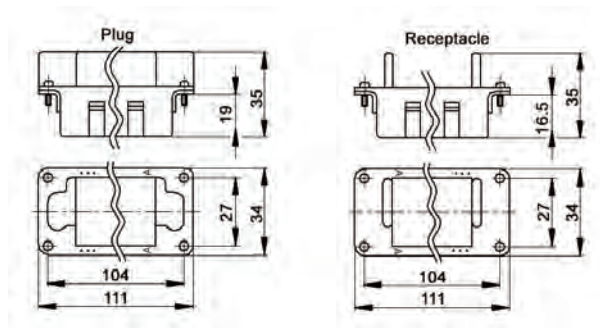
HB 32:  
page 390

# EPIC® MC 14 Module Frames

Hold 14 Modules



x2 MC 7 frames, use two part numbers



All dimensions are in mm.

## Approvals



| Description     | Plug          | Receptacle    |
|-----------------|---------------|---------------|
| 14 Module Frame | 10381600 (x2) | 10381700 (x2) |

### Compatible Housing

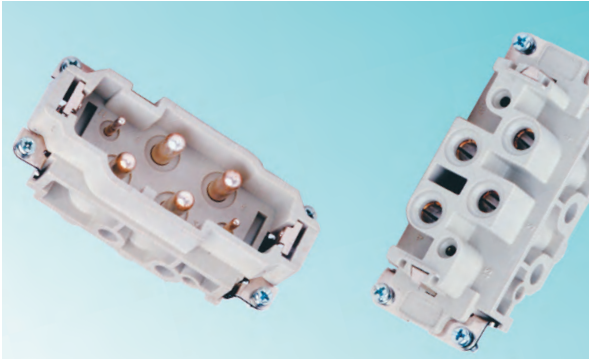


HB 48:  
page 392

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## EPIC® Mixed Power Series



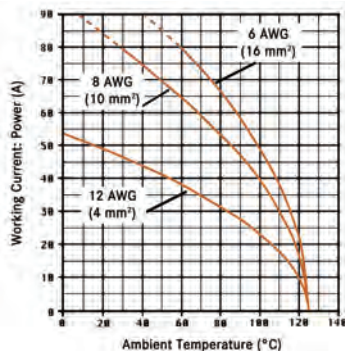
EPIC® Mixed Power series inserts provide a combination of power contacts (up to 80A) and control contacts (up to 16A) in a single insert package. This can save valuable panel space by allowing one connector to do the job of two. These inserts fit into EPIC® HB series housings.

### Technical Data

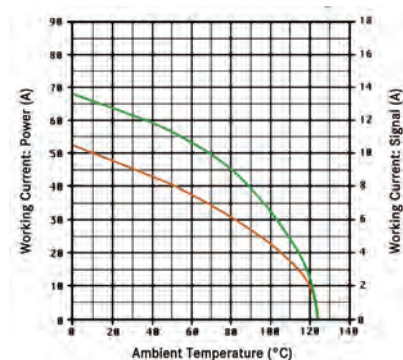
|                             |   |                            |                                 |
|-----------------------------|---|----------------------------|---------------------------------|
| <b>Number of Contacts:</b>  | 4 power + 0, 2, 8 signal                  | <b>Contact Material:</b>   | Hard silver-plated copper alloy |
| <b>Temperature Range:</b>   | -40°C to +125°C                           | <b>Contact Resistance:</b> |                                 |
| <b>Pollution Level:</b>     | 3   | - Principal contacts:      | < 0.3 mΩ                        |
| <b>Test Voltage:</b>        |   | - Auxiliary contacts:      | < 1 mΩ                          |
| - 4 power + 0 signal:       | 6 kV                                      | <b>Insulation Group:</b>   | C                               |
| - 4 power + 2 signal:       | 6 kV / 4 kV                               | <b>DIN VDE 0110/02.79:</b> |                                 |
| - 4 power + 8 signal:       | 4 kV                                      | - Principal contacts:      |                                 |
| <b>Rated Voltage:</b>       |   | - 4+0 & 4+2:               | 80A, 690-830V                   |
| - UL/CSA:                   | 600V                                      | - 4+8:                     | 80A, 400-475V                   |
| <b>Wire Size:</b>           |   | - Auxiliary contacts:      | 16A, 400-475V                   |
| - <b>Screw termination:</b> |   | <b>DIN VDE 0110/01.89:</b> |                                 |
| - Power contacts:           | up to 6 AWG (16 mm <sup>2</sup> )         | - Principal contacts:      |                                 |
| - Signal contacts:          | up to 14 AWG (2.5 mm <sup>2</sup> )       | - 4+0 & 4+2:               | 80A, 690V                       |
| <b>Molding Material:</b>    | Fiberglass-reinforced thermoplastic resin | - 4+8:                     | 80A, 400V                       |
|                             |   | - Auxiliary contacts:      | 16A, 400V                       |
|                             |   | <b>Approvals:</b>          |                                 |
|                             |   | UL:                        | File #E115072                   |
|                             |   | CSA:                       | File #LR82270                   |

## EPIC® Mixed Power Inserts: Derating Curves

**EPIC® Mixed Power: 4 Power + 0 Signal**  
**12-6 AWG (4- 16 mm<sup>2</sup>) Power + 0 Signal**



**EPIC® Mixed Power: 4 Power + 2 Signal**  
**12 AWG (4 mm<sup>2</sup>) Power + 18 AWG (1 mm<sup>2</sup>) Signal**

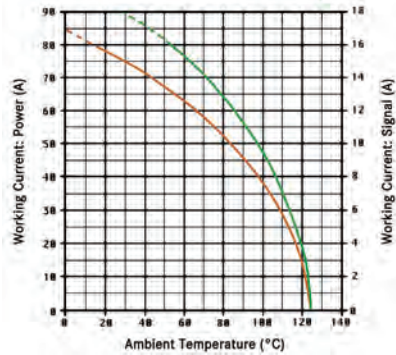


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# EPIC® Mixed Power Inserts: Derating Curves

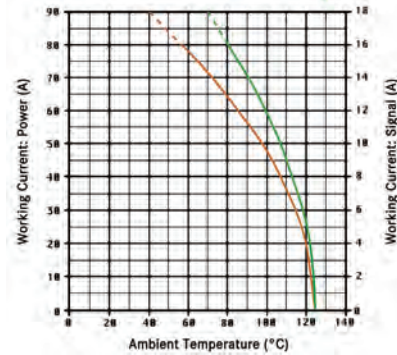
## EPIC® Mixed Power: 4 Power + 2 Signal

8 AWG (10 mm<sup>2</sup>) Power +  
16 AWG (1.5 mm<sup>2</sup>) Signal



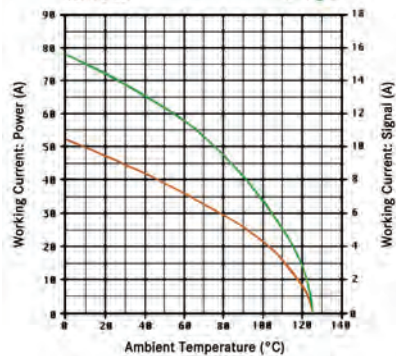
## EPIC® Mixed Power: 4 Power + 2 Signal

6 AWG (10 mm<sup>2</sup>) Power +  
14 AWG (2.5 mm<sup>2</sup>) Signal



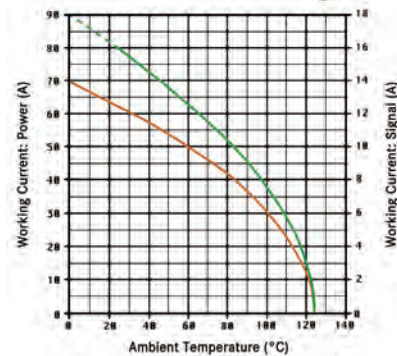
## EPIC® Mixed Power: 4 Power + 8 Signal

12 AWG (4 mm<sup>2</sup>) Power +  
18 AWG (1 mm<sup>2</sup>) Signal



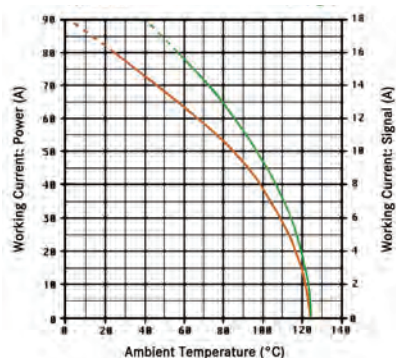
## EPIC® Mixed Power: 4 Power + 8 Signal

10 AWG (6 mm<sup>2</sup>) Power +  
18 AWG (1 mm<sup>2</sup>) Signal



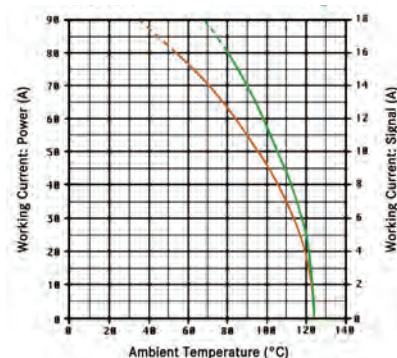
## EPIC® Mixed Power: 4 Power + 8 Signal

8 AWG (10 mm<sup>2</sup>) Power +  
16 AWG (1.5 mm<sup>2</sup>) Signal



## EPIC® Mixed Power: 4 Power + 8 Signal

6 AWG (16 mm<sup>2</sup>) Power +  
14 AWG (2.5 mm<sup>2</sup>) Signal



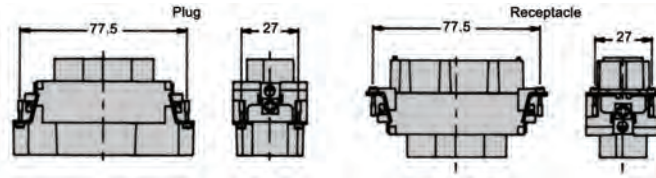
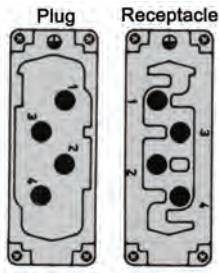
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EPIC® Mixed Power Inserts

4 Power + 0 Signal

View from Cable Side



All dimensions are in mm.

Approvals



Compatible Housing



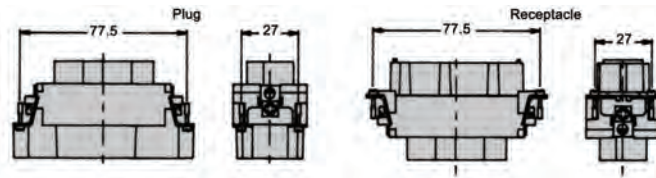
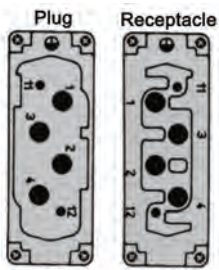
HB 16:  
page 378

| Description        | Plug    | Receptacle |
|--------------------|---------|------------|
| 4 Power + 0 Signal | MP/M400 | MP/F400    |

EPIC® Mixed Power Inserts

4 Power + 2 Signal

View from Cable Side



All dimensions are in mm.

Approvals



Compatible Housing



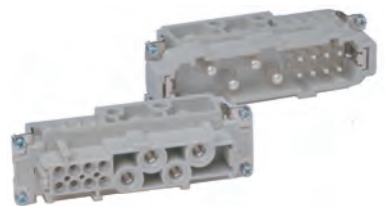
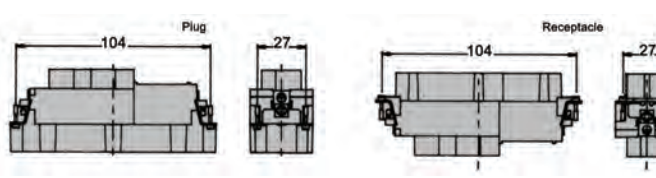
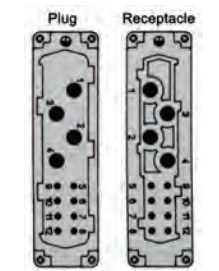
HB 16:  
page 378

| Description        | Plug    | Receptacle |
|--------------------|---------|------------|
| 4 Power + 2 Signal | MP/M402 | MP/F402    |

EPIC® Mixed Power Inserts

4 Power + 8 Signal

View from Cable Side



All dimensions are in mm.

Approvals



Compatible Housing



HB 24:  
page 384

| Description        | Plug    | Receptacle |
|--------------------|---------|------------|
| 4 Power + 8 Signal | 11/2408 | 11/1408    |

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**RECTANGULAR CONNECTOR HOUSINGS**

**Reference**

**EPIC® Rectangular Housings Overview 367**

**SKINTOP® Overview 368**

Complete Your Installation with a SKINTOP® Strain Relief

**EPIC® HB Series**

**EPIC® HB 6 Housings 369**

**EPIC® HB 10 Housings 372**

**EPIC® HB 16 Housings 378**

**EPIC® HB 24 Housings 384**

**EPIC® HB 32 Housings 390**

**EPIC® HB 48 Housings 392**

**EPIC® ULTRA HB Series**

**EPIC® ULTRA HB Housings Overview 394**

**EPIC® ULTRA HB 6 Housings 394**

**EPIC® ULTRA HB 10 Housings 396**

**EPIC® ULTRA HB 16 Housings 397**

**EPIC® ULTRA HB 24 Housings 398**

**EPIC® HA Series**

**EPIC® HA Housings Overview 399**

**EPIC® HA 3/4 Housings 400**

**EPIC® HA 10 Housings 402**

**EPIC® HA 16 Housings 404**

**EPIC® HA 32 Housings 406**

**EPIC® HA 48 Housings 408**

**EPIC® HA 64 Housings 409**