

# HC-D 40-A-TWIN-PER-F - Terminal adapter



1580163

<https://www.phoenixcontact.com/us/products/1580163>

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HEAVYCON terminal adapter female insert, D40 series, 40-pos., left PE connection for the right side of the control cabinet, push-in connection

## Your advantages

- Easy installation without tools, even when mounted, with push-in connection technology
- Shortest installation time compared to other connection technologies
- Quick and effortless wiring, in particular when space is tight
- Automatic cabling with robots possible
- Safe wiring and operation with color-coded actuators
- Shock and vibration-resistant in accordance with DIN EN 61373

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1580163       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | BF61          |
| Product key                          | AF7ADE        |
| GTIN                                 | 4046356154499 |
| Weight per piece (including packing) | 362 g         |
| Weight per piece (excluding packing) | 309 g         |
| Customs tariff number                | 85366990      |
| Country of origin                    | PL            |

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## Technical data

### Notes

|         |                                                                                   |
|---------|-----------------------------------------------------------------------------------|
| General | For HEAVYCON-ADVANCE mounting flange and HEAVYCON panel mounting base of B16 type |
| General | Connectors may be operated only when there is no load/voltage.                    |

### Product properties

|                     |                  |
|---------------------|------------------|
| Product type        | Terminal adapter |
| Product family      | HC-D             |
| Series              | HC-D             |
| Type                | B16              |
| Number of positions | 40               |
| Connection profile  | 40+PE            |

### Insulation characteristics

|                      |     |
|----------------------|-----|
| Overvoltage category | III |
| Degree of pollution  | 3   |

### Electrical properties

|                       |                |
|-----------------------|----------------|
| Rated voltage (III/3) | 250 V          |
| Rated surge voltage   | 4 kV           |
| Rated current         | 10 A           |
| SCCR                  | 5 kA (UL 2237) |

### Connection data

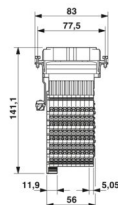
#### Connection technology

|                       |                    |
|-----------------------|--------------------|
| Connection technology | Push-in connection |
|-----------------------|--------------------|

#### Conductor connection

|                                         |                                             |
|-----------------------------------------|---------------------------------------------|
| Conductor cross-section                 | 0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Connection cross section AWG            | 22 ... 12                                   |
| Stripping length of the individual wire | 10 mm                                       |

### Dimensions

|                     |                                                                                      |
|---------------------|--------------------------------------------------------------------------------------|
| Dimensional drawing |  |
| Width               | 34 mm                                                                                |
| Height              | 141.1 mm                                                                             |
| Length              | 83 mm                                                                                |

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|                                 |         |
|---------------------------------|---------|
| Drill hole distance, horizontal | 77.5 mm |
| Drill hole distance, vertical   | 27 mm   |

## Material specifications

|                                        |              |
|----------------------------------------|--------------|
| Flammability rating according to UL 94 | V0           |
| Contact material                       | Copper alloy |
| Contact surface material               | Ag           |
| Contact carrier material               | PA           |
| Standards/regulations                  | PA           |

## Cable/line

|                                         |       |
|-----------------------------------------|-------|
| Stripping length of the individual wire | 10 mm |
|-----------------------------------------|-------|

## Mechanical properties

### Mechanical data

|                             |       |
|-----------------------------|-------|
| Insertion/withdrawal cycles | ≥ 500 |
|-----------------------------|-------|

## Environmental and real-life conditions

### Ambient conditions

|                                         |                   |
|-----------------------------------------|-------------------|
| Degree of protection                    | IP20              |
| Ambient temperature (operation)         | -40 °C ... 125 °C |
| Ambient temperature (storage/transport) | -40 °C ... 70 °C  |
| Ambient temperature (assembly)          | -5 °C ... 50 °C   |

## Standards and regulations

|                                        |              |
|----------------------------------------|--------------|
| Constructional and testing regulations | DIN EN 61984 |
|                                        | DIN EN 60664 |
|                                        | IEC 60352    |
| Tests                                  | DIN EN 61984 |
|                                        | DIN EN 60664 |
|                                        | IEC 60352    |

### Testing

|                       |                                                                                                                         |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------|
| Standards/regulations | PA: Fire protection in rail vehicles - requirement sets R22, R23, and R24 acc. to DIN EN 45545-2 (Risk level HL1 - HL3) |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------|

## Mounting

|               |                                                                                                   |
|---------------|---------------------------------------------------------------------------------------------------|
| Assembly note | To ensure correct use, installation in housing with IP54 protection or better is required         |
|               | Not for HC-EVO panel mounting bases                                                               |
|               | Not for HC-EVO panel mounting bases                                                               |
|               | Connectors may be plugged in only when there is no load/voltage. Not for HC-B 16-AMQ-EMV housings |

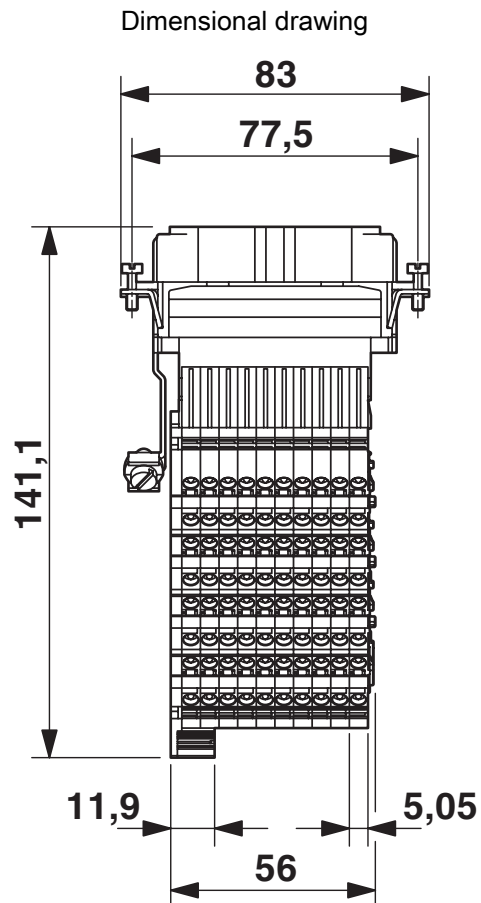
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## Drawings



Connection side

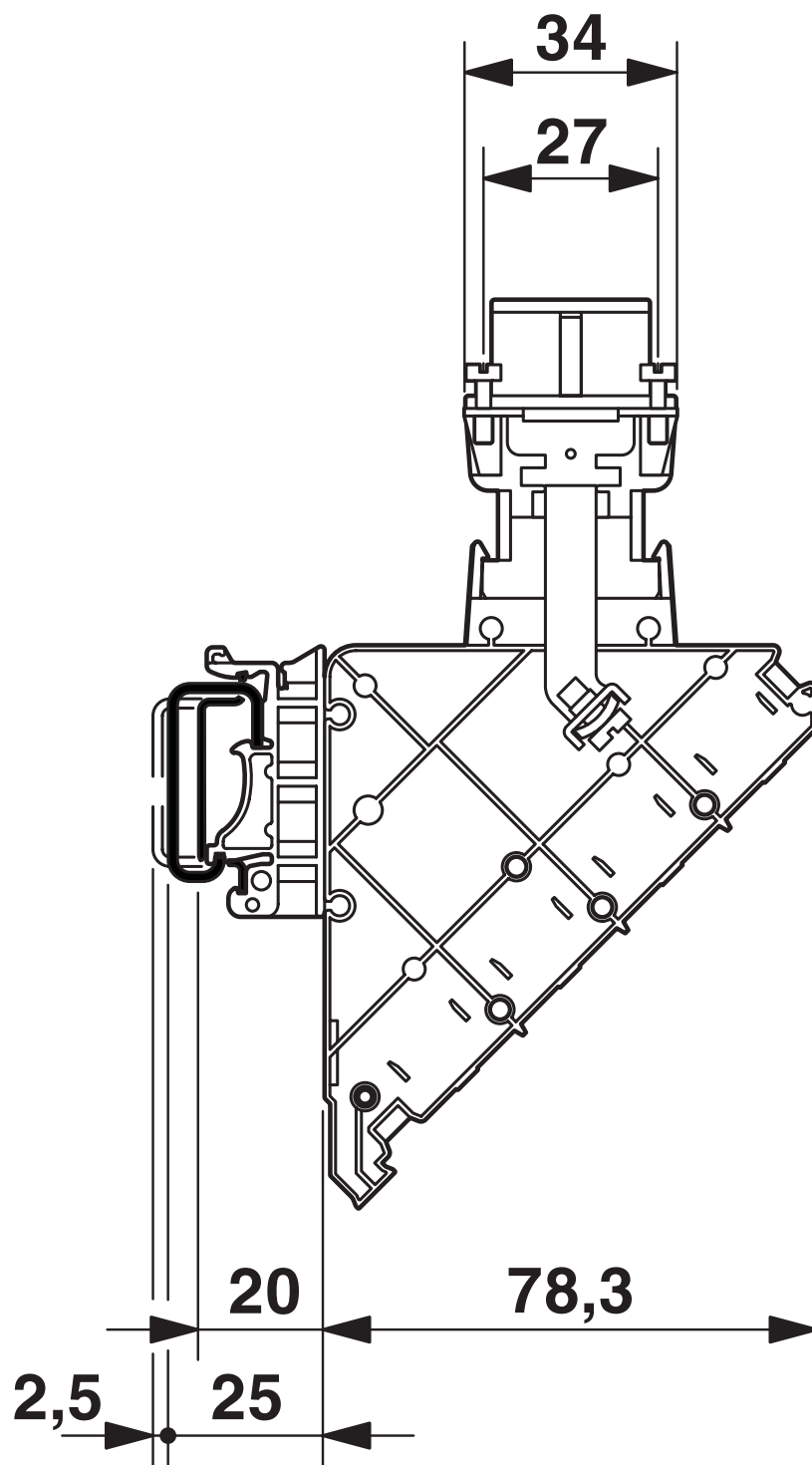
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Dimensional drawing



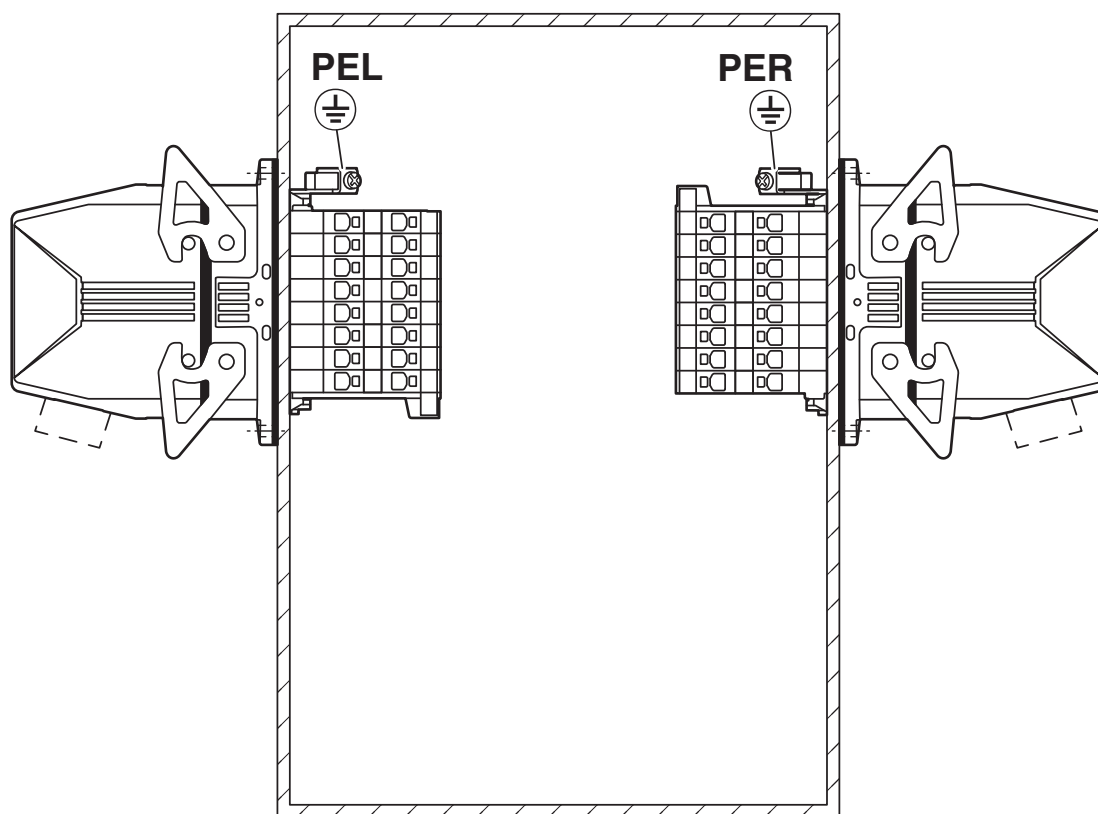
Side view

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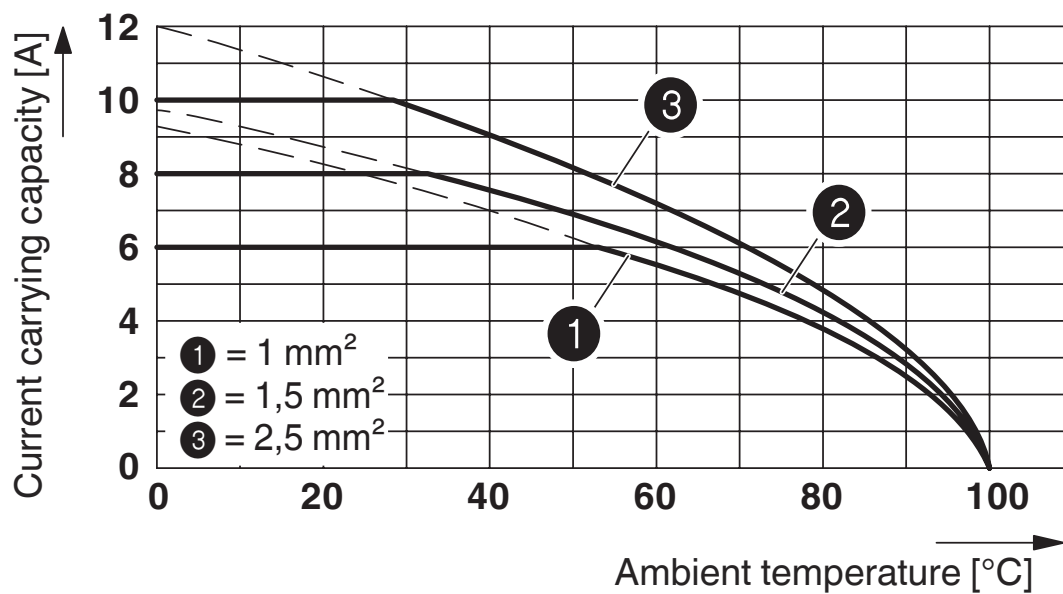
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Application drawing



Mounting position PE connection left/right (PEL/PER)

Diagram



Derating diagram

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1580163>

|  <b>CSA</b><br>Approval ID: 13631 |                       |                       |                   |                             |
|--------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                    | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| keine                                                                                                              |                       |                       |                   |                             |
|                                                                                                                    | 600 V                 | 7 A                   | - 14              | -                           |

|  <b>UL Recognized</b><br>Approval ID: E118976 |                       |                       |                   |                             |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                                | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| keine                                                                                                                          |                       |                       |                   |                             |
|                                                                                                                                | 600 V                 | 7 A                   | - 14              | -                           |

|  <b>EAC</b><br>Approval ID: RU C-DE.AI30.B.01102 |  |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
|-------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|

|  <b>UL Recognized</b><br>Approval ID: E468743 |                       |                       |                   |                             |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                                  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| keine                                                                                                                            |                       |                       |                   |                             |
|                                                                                                                                  | 600 V                 | 10 A                  | -                 | -                           |

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27440222 |
| ECLASS-15.0 | 27440222 |

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | EC000438 |
|-----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39121500 |
|-------------|----------|



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## Environmental product compliance

### EU RoHS

|                                         |                    |
|-----------------------------------------|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|-----------------------------------------|--------------------|

### China RoHS

|                                        |                                          |
|----------------------------------------|------------------------------------------|
| Environment friendly use period (EFUP) | EFUP-E                                   |
|                                        | No hazardous substances above the limits |

### EU REACH SVHC

|                                     |                            |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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