DEUTSCH DMC-M Series
Multicavity EN4165 Connectors

The Rugged, Modular Solution for Flexible, Reliable Aerospace Connectivity
DEUTSCH DMC-M Series Multicavity EN4165

Modular, Compact, and Weight Saving
Originally designed in the 1980s, DEUTSCH DMC-M connectors from TE Connectivity (TE) have evolved into one of the most widely used connector styles for cabin applications in commercial aerospace. Standardized in European Standard EN4165, DMC-M connectors provide a modular, flexible, and reliable system. The connectors are available in both multi-cavity and single-module configurations, using the same modules, to provide compact, lightweight connectivity.

Gain Flexibility
Today this connector continues to attract new users and applications because of its modularity, space/weight savings and robustness. In addition, it has evolved to include composite housings, aluminum wire capability, fiber optics, higher densities, and shunting configurations.

Save Weight
The DMC-M shells are available in lightweight aluminum alloy or composite, with nickel or cadmium plating, to withstand harsh environments. For EMI protection, the connectors use 360° shielding on the shell interfaces.

FLEXIBLE MODULARITY
• Crimp and PCB contacts size 24 to size 08
• Signal, coaxial, microcoax, Quadrax, power, optical, thermocouple contacts
• High-speed Ethernet modules
• Aluminum cable compliant

EASY TO INSTALL
• 36 keying possibilities
• Quick-install coupling

WEIGHT OPTIMIZATION
• Nickel or cadmium-plated composite shells
• Compact solution

RELIABLE
• Environmental sealing
• Vibration resistant
• EMI protection as per EN4165 standard
• Meets FAA flammability, smoke, and toxicity requirements
• EN4165 and BACCES compliant

DEUTSCH DMC-M Series Connectors

Circular Connectors
Insert 15-35
Size 22 Contacts, 5A
188 contacts
350 g (without panel)
36 mounting screws
9 panel cutouts

DMC-M Connectors
Insert 20-32
Size 22 Contacts, 5A
320 contacts
149 g (without panel)
36 mounting screws
1 panel cutout

DMC-M Connectors
Insert 30-23
Size 23 Contacts, 5A
480 contacts
175 g (without panel)
36 mounting screws
1 panel cutout

TE Components...TE Technology...TE Know-how...
AMP | AGASTAT | CI | HARTMANN | Kollsman | Microdot | NABKONICS | Polamco | Raychem
SEACON | Wohlenberg | DEUTSCH
Empower Engineers to Solve Problems, Moving the World Forward.
**TYPICAL CONFIGURATIONS**

**Wire-to-Board Configuration**

1. Modules fitted with PCB contacts
2. Receptacle keying component
3. Fixing panel nuts
4. Receptacle
5. Flat gasket
6. Plug keying component
7. Panel
8. Panel-mount screws
9. Plug
10. Modules fitted with crimp contacts
11. Accessory in 2 halves
12. Chimneys

**Wire-to-Wire Configuration**

1. Modules fitted with crimp contacts
2. Receptacle keying component
3. Receptacle
4. Plug keying component
5. Plug
6. Accessory in 2 halves
7. Chimneys

**SPECIFICATIONS**

**MATERIALS**
- Shell: Aluminum alloy or composite, with electroless nickel or olive drab cadmium finish
- Module: Thermoplastic and fluorinated silicone
- Contact: Copper alloy, plated gold over nickel
- Key: Aluminum alloy, with stainless steel lock nut

**MECHANICAL/ENVIRONMENTAL**
- Durability: 500 mating cycles
- Operating Temperature: -55°C to +175°C
- Module Retention In Housing: ≥ 25.4 daN (57.1 lb.)
- Contact Retention:
  - Size 24: 2.7 daN (6.1 lb.)
  - Size 23: 4.5 daN (10.1 lb.)
  - Size 22: 4.5 daN (10.1 lb.)
  - Size 20: 9.0 daN (20.2 lb.)
  - Size 16: 11.0 daN (24.7 lb.)
  - Size 12: 15.0 daN (29.2 lb.)
  - Size 08: 15.6 daN (35.1 lb.)
- Salt Spray:
  - Aluminum cadmium finish: 500 hours
  - Aluminum nickel finish: 96 hours
  - Composite nickel finish: 500 hours

**ELECTRICAL**
- Withstand Voltage:
  - At Sea Level:
    - Service I: 1300 Vrms 50 Hz, module size 24, 23 and 22
    - Service II: 1500 Vrms 50 Hz, module sizes 20, 16, 12 and 08
    - Altitude Immersion to 11 hPa (30,000 m/100,000 ft): 1000 Vrms 50 Hz (all module sizes)
- Insulation Resistance
  - At Sea Level: ≥ 5000 MΩ
  - Altitude Immersion to 11 hPa (30,000 m/100,000 ft): ≥1000 MΩ
- Contact Current Rating (Sealed Connectors):
  - Size 24: 3 A
  - Size 23: 5 A
  - Size 22: 5 A
  - Size 20: 7.5 A
  - Size 16: 13 A
  - Size 12: 23 A
  - Size 08: 46 A (up to 90 A with specifics contacts)
- Shielding Effectiveness:
  (With conductive shell finish and RFI spring fingers)
  - Frequency (MHz) Attenuation, Min. (dB)
<table>
<thead>
<tr>
<th>Frequency (MHz)</th>
<th>Aluminum Shell</th>
<th>Composite Shell</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>200</td>
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<td>800</td>
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<td>900</td>
<td>20</td>
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<tr>
<td>1000</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>1100</td>
<td>10</td>
<td>10</td>
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</table>

**SPECIFICATION TYPICAL CONFIGURATIONS**

1. Modules fitted with PCB contacts
2. Receptacle keying component
3. Fixing panel nuts
4. Receptacle
5. Flat gasket
6. Plug keying component
7. Panel
8. Panel-mount screws
9. Plug
10. Modules fitted with crimp contacts
11. Accessory in 2 halves
12. Chimneys

**SPECIFICATION WIRE-TO-WIRE CONFIGURATION**

1. Modules fitted with crimp contacts
2. Receptacle keying component
3. Receptacle
4. Plug keying component
5. Plug
6. Accessory in 2 halves
7. Chimneys
DEUTSCH DMC-M Series Connectors

RECEPTACLES

STACKABLE RECEPTACLES
DMC-M 82-01: 4 Modules

SHORT STACKABLE RECEPTACLES
DMC-M 83-01: 4 Modules

Note: No accessory can be mounted on the rear of short receptacle shell.

DEUTSCH DMC-M Series Connectors

RECEPTACLES

FLANGE-MOUNT RECEPTACLES
DMC-M 84-01: 4 Modules

SHORT FLANGE-MOUNT RECEPTACLES
DMC-M 85-01: 4 Modules

Note: No accessory can be mounted on the rear of short receptacle shell.

DMC-M shielded versions are delivered with a conductive flat gasket (part no. 108-0019-00 A1142 for 4-module receptacles and 108-0019-01 A1142 for 2-module receptacles). A sealing flat gasket (part no. 108-0019-00 for 4-module receptacles and 108-0019-01 for 2-module receptacles) is also available but not supplied with receptacles.
## DEUTSCH DMC-M Series Connectors

### TE PART NUMBERING SYSTEM

<table>
<thead>
<tr>
<th>CONNECTOR TYPE</th>
<th>DMC-M Standard</th>
<th>DMC-MD Shielded</th>
</tr>
</thead>
</table>

### HOUSING TYPE

- Two-Module Receptacle
  - 42 Standard
  - 43 Short
  - 44 Flange Mount Standard
  - 45 Flange Mount Short
- Four-Module Receptacle
  - 82 Standard
  - 83 Short
  - 84 Flange Mount Standard
  - 85 Flange Mount Short

### SHELL DELIVERY CONFIGURATION (Optional)

- A: Without Keying Component
- B: With Keying Component Coded, Mounted or Not Mounted

### KEYING COMPONENT TYPE (Optional: B Configuration Only)

- 0: Type 0 (Black)
- 1: Type 1 (Purple)
- 2: Type 2 (Yellow)
- 3: Type 3 (Green)
- 4: Type 4 (Blue)
- 5: Type 5 (Orange)
- 6: Type 6 (White)

### KEYING COMPONENT ORIENTATION IN THE RECEPTACLE (Optional)

- 0: Not mounted
- 1, 2, 3, 4, 5, 6

### PLATING/FINISH (Optional)

- Aluminum Alloy Shell
- Black Nickel
- Olive Drab Cadmium
- Composite Shell
- Nickel (EN4165*0A4** Only)
- Olive Drab Cadmium (EN4165*0A4** Only)

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### MODIFICATIONS (Optional)

- A1064: Bright Nickel Finish

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## EN4165 PART NUMBERING SYSTEM

### CONNECTOR TYPE

- EN4165

### PLATING/FINISH (Optional)

- Aluminum Alloy Shell
- Black Nickel
- Olive Drab Cadmium
- Composite Shell
- Nickel (EN4165*0A4** Only)
- Olive Drab Cadmium (EN4165*0A4** Only)

### HOUSING TYPE

- 0: Receptacle Housing
  - 7: Flange-Mount Receptacle Housing

### SERIES

- A: Series 2
- B: Series 3 (Consult TE)

### COMPOSITION

- 2: 2 Modules
- 4: 4 Modules

### KEYING COMPONENT TYPE (Optional: B Configuration Only)

- 0: Type 0 (Black)
- 1: Type 1 (Purple)
- 2: Type 2 (Yellow)
- 3: Type 3 (Green)
- 4: Type 4 (Blue)
- 5: Type 5 (Orange)
- 6: Type 6 (White)

### KEYING COMPONENT ORIENTATION IN THE RECEPTACLE (Optional)

- 0: Not mounted
- 1, 2, 3, 4, 5, 6

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### MODIFICATIONS (Optional)

- A1064: Bright Nickel Finish

Consult TE for additional modifications.
MULTI-RECEPTACLE PLATES

These multi-receptacle plates receive 4-module rack and panel plugs or free plugs. No accessory can be mounted on the rear of the lightweight multi-receptacle versions.

STANDARD PLATE

SHORT PLATE

<table>
<thead>
<tr>
<th>No. of Rows</th>
<th>13</th>
<th>12</th>
<th>10</th>
<th>8</th>
<th>6</th>
<th>4</th>
<th>3</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version</td>
<td>044</td>
<td>0964</td>
<td>0804</td>
<td>0644</td>
<td>0484</td>
<td>0324</td>
<td>0244</td>
<td>0164</td>
</tr>
<tr>
<td>Dim A</td>
<td>232.2 (9.142)</td>
<td>216.2 (8.512)</td>
<td>184.2 (7.252)</td>
<td>152.2 (5.992)</td>
<td>120.2 (4.732)</td>
<td>68.6 (2.701)</td>
<td>52.6 (2.071)</td>
<td>36.6 (1.437)</td>
</tr>
</tbody>
</table>

Dimensions are mm (inches)

TE PART NUMBERING SYSTEM

CONNECTOR TYPE

DMC-M Standard
DMC-MD Shielded (includes Conductive Gasket)

SIZE/CAPACITY

1044 52 modules (13 rows)
0964 48 modules (12 rows)
0804 40 modules (10 rows)
0644 32 modules (8 rows)
0484 24 modules (6 rows)
0324 16 modules (4 rows)
0244 12 modules (3 rows)
0164 8 modules (2 rows)

Consult TE for other sizes

KEYING COMPONENT (Optional)

Omit - Without Keying Component
A Without Keying Component

PLATING/FINISH (Optional)

Aluminum Alloy Shell
Omit - Black Nickel
W Olive Drab Cadmium

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TYPE (Optional)

Omit - Standard Plate
A Short Plate (No Backshell Mount)

RECEPTACLE KEYING

DMC-M receptacles use keying components to allow 6 mating possibilities. An additional 6 keying orientations are possible providing a total of 36 keying options thereby preventing connector misalignment and mismating. Keying is especially useful for rack and multiconnector applications. The keys are provided in sealed and unsealed versions.

Unsealed EN4165-Compliant Keying

<table>
<thead>
<tr>
<th>Type</th>
<th>01</th>
<th>02</th>
<th>03</th>
<th>04</th>
<th>05</th>
<th>06</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN4165</td>
<td>EN4165R01</td>
<td>EN4165R02</td>
<td>EN4165R03</td>
<td>EN4165R04</td>
<td>EN4165R05</td>
<td>EN4165R06</td>
<td>EN4165R01D</td>
</tr>
</tbody>
</table>

The assembly coupling mechanism requires the use of the tool part no. 057-0590-80. It is delivered with a removable lock nut (coupling torque 0.15 ±0.02 daN.m (13.3 ±6.1 in. lbf.)).

Sealed Keying

<table>
<thead>
<tr>
<th>Type</th>
<th>01</th>
<th>02</th>
<th>03</th>
<th>04</th>
<th>05</th>
<th>06</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>TE (Sealed)</td>
<td>732-8074-01</td>
<td>732-8074-02</td>
<td>732-8074-03</td>
<td>732-8074-04</td>
<td>732-8074-05</td>
<td>732-8074-06</td>
<td>732-8074-10</td>
</tr>
</tbody>
</table>

TE (Standard) EN4165
TE (Sealed) (NOT EN4165)

O-Ring

Consult TE for other sizes
PLUGS

FREE PLUGS
DMC-M 80-01: 4 Modules

DMC-M 40-01: 2 Modules

RACK AND PANEL PLUGS
DMC-M 88-01: 4 Modules

DMC-M 48-01: 2 Modules

The receptacle/plug coupling is done with the tool 007-0380-80 or a standard Allen wrench (coupling torque 0.1 ±0.03 daN.m [8.8 ±2.6 in. lbf.]).

See page 40 for panel cutouts.

See page 40 for panel cutouts.
**PLUGS**

**TE PART NUMBERING SYSTEM**

 CONNECTOR TYPE
  DMC-M Standard
  DMC-MD Shielded

 HOUSING TYPE
  Two-Module Receptacle
  40 Free Plug
  48 Rack and Panel Plug
  49 Reversed Rack and Panel Plug
  Four-Module Receptacle
  80 Free Plug
  88 Rack and Panel Plug
  89 Reversed Rack and Panel Plug

 SHELL DELIVERY CONFIGURATION (Optional)
  Omit for Standard Keying Component Not Mounted
  A Without Keying Component
  B With Keying Component Coded, Mounted or Not Mounted

 KEYING COMPONENT TYPE (Optional: B Configuration Only)
  0 Type 0 (Black)
  1 Type 1 (Purple)
  2 Type 2 (Yellow)
  3 Type 3 (Green)
  4 Type 4 (Blue)
  5 Type 5 (Orange)
  6 Type 6 (White)

 KEYING COMPONENT ORIENTATION IN THE RECEPTACLE (Optional)
  Omit - Not Mounted
  1, 2, 3, 4, 5, 6

 PLATING/FINISH (Optional)
  Aluminum Alloy Shell
  Omit - Black Nickel
  W Olive Drab Cadmium
  Composite Shell
  M Nickel (Shell Type 80 Only)
  J Olive Drab Cadmium (Composite Shell 80 Only)

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 MODIFICATIONS (Optional)
  1064 Bright Nickel Finish
  Consult TE for additional modifications

**PLUGS**

**EN4165 PART NUMBERING SYSTEM**

 CONNECTOR TYPE
  EN4165

 PLATING/FINISH
  Aluminum Alloy Shell
  F Black Nickel
  W Olive Drab Cadmium
  Composite Shell
  M Nickel (EN4165/6A4** Only)
  J Olive Drab Cadmium (EN4165/6A4** Only)

 HOUSING TYPE
  6 Free Plug
  9 Rack and Panel Plug

 SERIES
  A Series 2
  B Series 3 (Consult TE)

 SIZE
  2 2 Modules
  4 4 Modules

 RACK AND PANEL ORIENTATION (Optional)
  Omit - Standard
  R Reversed

 KEYING COMPONENT TYPE (B Configuration Only)
  A Standard Keying Component (Black)
  0 Without Keying Component
  1 Type 1 (Purple)
  2 Type 2 (Yellow)
  3 Type 3 (Green)
  4 Type 4 (Blue)
  5 Type 5 (Orange)
  6 Type 6 (White)

 KEYING COMPONENT ORIENTATION IN THE RECEPTACLE
  Omit - Not Mounted
  1, 2, 3, 4, 5, 6

 PLATING/FINISH (Optional)
  Aluminum Alloy Shell
  Omit - Black Nickel
  W Olive Drab Cadmium
  Composite Shell
  M Nickel (Shell Type 80 Only)
  J Olive Drab Cadmium (Shell Type 80 Only)
**PLUG KEYING**

DMC-M plugs use an optional keying component to allow 6 mating possibilities. An additional 6 keying orientations are possible providing a total of 36 keying options thereby preventing connector misalignment and mismating. Keying is especially useful for rack and multiconnector applications. The assembly of these keys is toolless. Once clipped into their cavities, keys must be broken to be removed.

![Image of keying options]

**MODULES**

**ELECTRICAL MODULES / AS39029/57 AND /58 AND EN3155 CONTACT COMPLIANT**

<table>
<thead>
<tr>
<th>Arrangement</th>
<th>Configuration</th>
<th>Pin Contacts</th>
<th>Part No.</th>
<th>Socket Contacts</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-23</td>
<td>30 Contacts, Size 23</td>
<td>DMC-M 30-23 AN</td>
<td>EN4165A23-01NA</td>
<td>DMC-M 30-23 BN</td>
<td>EN4165A23-01NB</td>
</tr>
<tr>
<td>20-22</td>
<td>20 Contacts, Size 22</td>
<td>DMC-M 20-22 AN</td>
<td>EN4165A22-02NA</td>
<td>DMC-M 20-22 BN</td>
<td>EN4165A22-02NB</td>
</tr>
<tr>
<td>20-22*</td>
<td>20 Contacts, Size 22</td>
<td>DMC-M 20-22 AN</td>
<td>EN4165A22-02NA</td>
<td>DMC-M 20-22 BN</td>
<td>EN4165A22-02NB</td>
</tr>
<tr>
<td>12-20</td>
<td>12 Contacts, Size 20</td>
<td>DMC-M 12-20 AN</td>
<td>EN4165A20-04NA</td>
<td>DMC-M 12-20 BN</td>
<td>EN4165A20-04NB</td>
</tr>
<tr>
<td>12-20*</td>
<td>12 Contacts, Size 20</td>
<td>DMC-M 12-20 AN</td>
<td>EN4165A20-04NA</td>
<td>DMC-M 12-20 BN</td>
<td>EN4165A20-04NB</td>
</tr>
<tr>
<td>08-16</td>
<td>8 Contacts, Size 16</td>
<td>DMC-M 08-16 AN</td>
<td>EN4165A16-01NA</td>
<td>DMC-M 08-16 BN</td>
<td>EN4165A16-01NB</td>
</tr>
<tr>
<td>04-12</td>
<td>4 Contacts, Size 12</td>
<td>DMC-M 04-12 AN</td>
<td>EN4165A12-01NA</td>
<td>DMC-M 04-12 BN</td>
<td>EN4165A12-01NB</td>
</tr>
<tr>
<td>01-08</td>
<td>1 Contact, Size 08</td>
<td>DMC-M 01-08 AN</td>
<td>EN4165A08-01NA</td>
<td>DMC-M 01-08 BN</td>
<td>EN4165A08-01NB</td>
</tr>
<tr>
<td>09-01</td>
<td>6 Contacts, Size 22</td>
<td>DMC-M 09-01 AN</td>
<td>EN4165A22-02NA</td>
<td>DMC-M 09-01 BN</td>
<td>EN4165A22-02NB</td>
</tr>
<tr>
<td>09-01*</td>
<td>6 Contacts, Size 22</td>
<td>DMC-M 09-01 AN</td>
<td>EN4165A22-02NA</td>
<td>DMC-M 09-01 BN</td>
<td>EN4165A22-02NB</td>
</tr>
<tr>
<td>09-06</td>
<td>8 Contacts, Size 20</td>
<td>DMC-M 09-06 AN</td>
<td>EN4165A20-04NA</td>
<td>DMC-M 09-06 BN</td>
<td>EN4165A20-04NB</td>
</tr>
<tr>
<td>09-10</td>
<td>8 Contacts, Size 20</td>
<td>DMC-M 09-10 AN</td>
<td>EN4165A20-04NA</td>
<td>DMC-M 09-10 BN</td>
<td>EN4165A20-04NB</td>
</tr>
<tr>
<td>09-10*</td>
<td>6 Contacts, Size 22</td>
<td>DMC-M 09-10 AN</td>
<td>EN4165A22-02NA</td>
<td>DMC-M 09-10 BN</td>
<td>EN4165A22-02NB</td>
</tr>
<tr>
<td>12-20</td>
<td>12 Contacts, Size 20</td>
<td>DMC-M 12-20 AN</td>
<td>EN4165A20-04NA</td>
<td>DMC-M 12-20 BN</td>
<td>EN4165A20-04NB</td>
</tr>
</tbody>
</table>

*DMC-MA connector modules are compatible with aluminium cable contacts and with EN3155-070 / 071 size 22 contacts (for copper cable)

**ELECTRICAL MODULES / BACC47 CONTACT COMPLIANT**

<table>
<thead>
<tr>
<th>Arrangement</th>
<th>Configuration</th>
<th>Pin Contacts</th>
<th>Part No.</th>
<th>Socket Contacts</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>09-10</td>
<td>6 Size 20 Contacts</td>
<td>DMC-M 99-10 AN</td>
<td>EN4165A20-04NA</td>
<td>DMC-M 99-10 BN</td>
<td>EN4165A20-04NB</td>
</tr>
<tr>
<td>12-20</td>
<td>12 Size 20 Contacts</td>
<td>DMC-M 12-20 AN</td>
<td>EN4165A20-04NA</td>
<td>DMC-M 12-20 BN</td>
<td>EN4165A20-04NB</td>
</tr>
</tbody>
</table>

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**DEUTSCH Part Numbers (DMC-M)**

- BACI10BC0910PNB
- BACI10BC0910SNB
- BACI10BC0710PNB
- BACI10BC0710SNB
- BACI10BC0410PNB
- BACI10BC0410SNB
- BACI10BC0110PNB
- BACI10BC0110SNB

**Aluminium cable technology possible with size 22 contacts**

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**DEUTSCH DMC-M Series Connectors**

**DEUTSCH DMC-M Series Connectors**

AEROSPACE, DEFENSE & MARINE // DEUTSCH DMC-M SERIES MULTICAVITY EN4165 CONNECTORS

AEROSPACE, DEFENSE & MARINE // DEUTSCH DMC-M SERIES MULTICAVITY EN4165 CONNECTORS
## DEUTSCH DMC-M Series Connectors

### MODULES

**GROUNDING MODULES**

<table>
<thead>
<tr>
<th>Arrangement</th>
<th>Configuration</th>
<th>Pins/Contacts</th>
<th>View</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>09-16</td>
<td>8 Pin 16 Contacts</td>
<td></td>
<td></td>
<td>DMC-M-09-16 AN-G EN4165A2G16PA</td>
</tr>
<tr>
<td>04-12</td>
<td>4 Pin 12 Contacts</td>
<td></td>
<td></td>
<td>DMC-M-04-12 AN-G EN4165A2G12PA</td>
</tr>
<tr>
<td>01-06</td>
<td>1 Pin 06 Contact</td>
<td></td>
<td></td>
<td>DMC-M-01-06 AN-G EN4165A2G06PA</td>
</tr>
</tbody>
</table>

**BLANKING MODULES**

<table>
<thead>
<tr>
<th>Configuration</th>
<th>View</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blanking Module</td>
<td>DMC-M-00-00 PN EN6165-9H</td>
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</table>

**SHUNT MODULES**

**HIGH-SPEED ETHERNET MODULES**

<table>
<thead>
<tr>
<th>Arrangement</th>
<th>Configuration</th>
<th>Pins/Contacts</th>
<th>View</th>
<th>Part No.</th>
</tr>
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<tbody>
<tr>
<td>16-02</td>
<td>6 Contacts, Size 16 2 Contacts, Size 22 8 Contacts, Size 24</td>
<td></td>
<td></td>
<td>2226454-1 AN DMC-M 16-02 BN EN4165A08G161NA</td>
</tr>
<tr>
<td>99-02</td>
<td>8 Contacts, Size 22 3 Contacts, Size 20</td>
<td></td>
<td></td>
<td>2226455-1 AN DMC-M 99-02 AN DMC-M 99-02 BN</td>
</tr>
<tr>
<td>99-03</td>
<td>6 Contacts, Size 20 8 Contacts, Size 24</td>
<td></td>
<td></td>
<td>2226456-1 AN DMC-M 99-04 AN DMC-M 99-04 BN</td>
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</table>

**QUADRAX MODULES**

<table>
<thead>
<tr>
<th>Arrangement</th>
<th>Configuration</th>
<th>Pins/Contacts</th>
<th>View</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>01-09</td>
<td>1 Quadrax Contact</td>
<td></td>
<td></td>
<td>DMC-M-01-09 PN EN6165A01Q281NA</td>
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**FIBER OPTIC AND HYBRID MODULES**

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Module Part No.</th>
<th>Socket Part No.</th>
<th>Part No.</th>
<th>Alignment Sleeve</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 HCS Terminals</td>
<td>458235</td>
<td>458238</td>
<td>458237-C (Ceramic) 458237-H (Metal)</td>
<td></td>
</tr>
<tr>
<td>1 MT Female (12 or 24 Fibers)</td>
<td>DMC-M01-MCEN DMC-M01-MCEN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 ARINC 401 Terminals 5 Contacts, Size 16 2 Contacts, Size 22</td>
<td>459775 459776-0 (With Contacts) 459776-3 (Right Angle)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 MT Female (12 or 24 Fibers)</td>
<td>DMC-M01-MCEN DMC-M01-MCEN</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SERIES 2 MODULES**

**Module Dimensions (Except Fiber Optic Modules)**

- **L1 MAX.** [14.1 (0.555)]
- **L2 MAX.** [14.1 (0.555)]
- **Module Extraction** is done with the tool part no. 057-0289-00 A or B.

**Polarization Keys**

- **N**-keyed modules will fit into all shells.
- **A, B, C, or D** modules must be installed in a similarly polarized shell cavity. **N**-keyed modules will fit into all shells.

Each module can have a specific polarization key A, B, C or D.
### DEUTSCH DMC-M Series Connectors

#### MODULES

**TE PART NUMBERING SYSTEM**

<table>
<thead>
<tr>
<th>Standard Modules</th>
<th>Aluminum Cable Compliant Modules</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CONNECTOR TYPE</strong></td>
<td><strong>CONNECTOR TYPE</strong></td>
</tr>
<tr>
<td>DMC-M</td>
<td>DMC-MA</td>
</tr>
<tr>
<td><strong>ARRANGEMENT</strong></td>
<td><strong>ARRANGEMENT</strong></td>
</tr>
<tr>
<td>See Pages 19 - 21</td>
<td>20-22</td>
</tr>
<tr>
<td><strong>CONTACTS</strong></td>
<td><strong>CONTACTS</strong></td>
</tr>
<tr>
<td>P Standard Male Contact</td>
<td>A Without Male Contact</td>
</tr>
<tr>
<td>S Standard Female Contact</td>
<td>B Without Female Contact</td>
</tr>
<tr>
<td>A Without Male Contact</td>
<td>C Male Contact, Enlarged Crimp Barrel</td>
</tr>
<tr>
<td>B Without Female Contact</td>
<td>D Female Contacts, Enlarged Crimp Barrel</td>
</tr>
<tr>
<td><strong>POLARIZATION</strong></td>
<td><strong>POLARIZATION</strong></td>
</tr>
<tr>
<td>N, A, B, C, D</td>
<td>N, A, B, C, D</td>
</tr>
<tr>
<td><strong>SEALING</strong> (Optional)</td>
<td><strong>SEALING</strong></td>
</tr>
<tr>
<td>Omit - Standard (No Sealing)</td>
<td>Unsealed</td>
</tr>
<tr>
<td>E Sealed</td>
<td>Sealed</td>
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</table>

**EN4165 PART NUMBERING SYSTEM**

<table>
<thead>
<tr>
<th>Aluminum Cable Compliant Modules</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CONNECTOR TYPE</strong></td>
</tr>
<tr>
<td>EN4165</td>
</tr>
<tr>
<td><strong>MODULE SERIES</strong></td>
</tr>
<tr>
<td>A Series 2</td>
</tr>
<tr>
<td>B Series 3 (Consult TE)</td>
</tr>
<tr>
<td><strong>ARRANGEMENT</strong></td>
</tr>
<tr>
<td><strong>CONTACTS</strong></td>
</tr>
<tr>
<td><strong>POLARIZATION</strong></td>
</tr>
<tr>
<td><strong>SEALING</strong></td>
</tr>
<tr>
<td><strong>CONTACTS</strong></td>
</tr>
</tbody>
</table>

*Standard contacts compliant with AS90029 and EN50555

---

**Note:** DMC-MA connector modules are compatible with aluminum cable contacts and with EN4165-070/071 size 22 contacts for copper cable.
### EN4165 Part Numbering System

**Quadrax Modules**

<table>
<thead>
<tr>
<th>FAMILY</th>
<th>EN4165</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODULE SERIES</td>
<td>A Series 2</td>
</tr>
<tr>
<td></td>
<td>B Series 3 (Consult TE)</td>
</tr>
</tbody>
</table>

| ARRANGEMENT | 01Q28 |

| SEALING | 1 Unsealed |

| POLARIZATION | N, A, B, C, D |

| CONTACTS | A Without Male Contact |

### TE Part Numbering System

**Grounding Modules**

| CONECTOR TYPE | DMC-M |

| MODULE TYPE | 01-08 |

| CONTACTS | P Standard Male Contact |

| POLARIZATION | N, A, B, C, D |

| GROUNDING | G |

| PLATING/FINISH (Optional) | Aluminum Alloy |

### TE Part Numbering System

**Quadrax Modules**

| CONECTOR TYPE | DMC-M |

| MODULE TYPE | 01-08 |

| CONTACTS | P Standard Male Contact |

| POLARIZATION | N, A, B, C, D |

| GROUNDING | G |

| PLATING/FINISH (Optional) | Aluminum Alloy |

### EN4165 Part Numbering System

**Grounding Modules**

| CONECTOR TYPE | EN4165 |

| MODULE SERIES | A Series 2 |

| ARRANGEMENT | 01G08 |

| SEALING | 1 Unsealed |

| POLARIZATION | N, A, B, C, D |

| CONTACTS | P Standard Male Contact |

| CONTACTS | M Standard Male Contact |

| CONTACTS | F Standard Female Contact |

| CONTACTS | A Without Male Contact |

| CONTACTS | B Without Female Contact |

| CONTACTS | C Male Contact, Enlarged Crimp Barrel |

| CONTACTS | D Female Contacts, Enlarged Crimp Barrel |

| PLATING/FINISH (Optional) | Aluminum Alloy |

---
DEUTSCH DMC-M Series Connectors

MODULEn

TE PART NUMBERING SYSTEM

Shunt Modules
CONNECTOR TYPE
DMC-M
ARRANGEMENTS
22-05 5 Shunts 4 Ways
22-07 3 Shunts 4 Ways and 4 Shunts 2 Ways
22-10 10 Shunts 2 Ways
CONTACT TYPE
S Female Contact
B Without Female Contact
POLARIZATION
N, A, B, C, D

EN4165 PART NUMBERING SYSTEM

Shunt Modules
FAMILY
EN4165
MODULE SERIES
A Series 2
B Series 3 (Consult TE)
ARRANGEMENTS
20Y22 5 Shunts 4 Ways
2AY22 3 Shunts 4 Ways and 4 Shunts 2 Ways
2BY22 10 Shunts 2 Ways
SEALING
1 Unsealed
POLARIZATION
N, A, B, C, D
CONTACT TYPE
B Without Female Contact
F With Female Contact

ACCESSORIES

SHIELDED ACCESSORY BODIES

732-8054-10 A: 4 Modules
732-8054-14 A: 2 Modules

TE PART NUMBERING SYSTEM

FAMILY
732
TYPE (Used With)
8052 Free Plug
8053 Rack and Panel Plug
8054 Receptacle
SHELL
Two-Module Accessory
01 Round Chimneys
14 No Chimney
Four-Module Accessory
00 4 Round Chimneys
10 No Chimney
PLATING/FINISH (Optional)
Aluminum Alloy Body
Omit - Black Nickel
W Olive Drab Cadmium
Composite Body
M Nickel (For Shell Types 00 and 10 Only)
J Olive Drab Cadmium (For Shell Types 00 and 10 Only)
ISSUE
A
DEUTSCH DMC-M Series Connectors

ACCESSORIES

EN PART NUMBERING SYSTEM

FAMILY

EN4165

PLATING/FINISH

Aluminum Alloy Body
- F Black Nickel
- W Olive Drab Cadmium

Composite Body
- J Olive Drab Cadmium (For Shell Types P4 and R4 Only)

BODY

14 Shielded Accessory Body

TYPE (Used With)

- P Free Plug
- R Receptacle and Rack and Panel Plug

SHELL

- 2 2 Modules
- 4 4 Modules

NONSHELDED CABLE CLAMPS

732-8002-00: 4 Modules

732-8002-01: 2 Modules

TE PART NUMBERING SYSTEM

FAMILY

732

MATERIAL

R002 Metal
R040 PEI Plastic

SIZE

- 00: 4 Module (Metal)
- 00A: 4 Module (PEI)
- 01: 2 Module (Metal and PEI)

PLATING/FINISH (Optional: Metal Clamps Only)

- Omit - Black Nickel
- W Olive Drab Cadmium

EN PART NUMBERING SYSTEM

FAMILY

EN4165

PLATING/FINISH

- F Black Nickel
- W Olive Drab Cadmium

TYPE

13 Cable Clamp

SERIES

- A Series 2
- B Series 3 (Consult TE)

SIZE

- 2 2 Modules
- 4 4 Modules
DEUTSCH DMC-M Series Connectors

ACCESSORIES

CHIMNEYS FOR SHIELDED ACCESSORIES

**732-8052-12 A**: Double Oval Chimney (1 for 2 cavities, for 4-module accessories only)

**732-8052-11 A**: Round Chimney (1 per cavity)

**732-8052-13 A**: Blank Chimney (1 per cavity)

**732-8052-18 A**: Anti-Rotational Round Chimney

**732-8052-19 A**: Anti-Rotational Round Chimney with Tie Wrap Option

---

TE PART NUMBERING SYSTEM

**CD9-333-90**

Ø 10.05 [0.412] MAX.

Ø 11.05 [0.435] MAX.

Ø 14.3 [0.561] MAX.

Ø 9.45 [0.372] MIN.

Ø 12.3 [0.484] MAX.

1.1 [0.043] MAX.

5.0 [0.197] MAX.

9.1 [0.358] MAX.

11.16 [0.439] MAX.

1.1 [0.043] MAX.

1.1 [0.043] MAX.

18.4 [0.724] MAX.

24.3 [0.957] MAX.

20 [0.787] MAX.

24.3 [0.957] MAX.

CD-9-732-8052-19A

CD9-732-8052-18A

Ø 10.55 [0.415] MAX.

Ø 14.3 [0.561] MAX.

13.1 [0.516] MAX.

13.1 [0.516] MAX.

13.1 [0.516] MAX.

Ø 10.55 [0.415] MAX.

Ø 11.05 [0.435] MAX.

13.1 [0.516] MAX.

13.1 [0.516] MAX.

13.1 [0.516] MAX.

1.1 [0.043] MAX.

1.1 [0.043] MAX.

9.1 [0.358] MAX.

9.1 [0.358] MAX.

9.1 [0.358] MAX.

0.75 [0.030] MAX.

20 [0.787] MAX.

24.3 [0.957] MAX.

24.3 [0.957] MAX.

Ø 9.45 [0.372] MIN.

Ø 14.3 [0.561] MAX.

Ø 11.05 [0.435] MAX.

9.1 [0.358] MAX.

1.1 [0.043] MAX.

1.1 [0.043] MAX.

0.75 [0.030] MAX.

9.1 [0.358] MAX.

1.1 [0.043] MAX.

1.1 [0.043] MAX.

0.75 [0.030] MAX.
DEUTSCH DMC-M Series Multicavity EN4165 Connectors

AEROSPACE, DEFENSE & MARINE // DEUTSCH DMC-M SERIES MULTICAVITY EN4165 CONNECTORS

MASSES

Receptacles

<table>
<thead>
<tr>
<th>Size (No. of Modules)</th>
<th>Type</th>
<th>TE Part No.</th>
<th>Mass (g)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Standard (Aluminum) DMC-M 01A</td>
<td>DMC-M 01A</td>
<td>98</td>
<td>12</td>
</tr>
<tr>
<td>12</td>
<td>Standard (Aluminum) DMC-M 02A</td>
<td>DMC-M 02A</td>
<td>127</td>
<td>12</td>
</tr>
<tr>
<td>16</td>
<td>Standard (Aluminum) DMC-M 03A</td>
<td>DMC-M 03A</td>
<td>156</td>
<td>12</td>
</tr>
<tr>
<td>24</td>
<td>Standard (Aluminum) DMC-M 06A</td>
<td>DMC-M 06A</td>
<td>254</td>
<td>12</td>
</tr>
<tr>
<td>32</td>
<td>Standard (Aluminum) DMC-M 08A</td>
<td>DMC-M 08A</td>
<td>371</td>
<td>12</td>
</tr>
<tr>
<td>48</td>
<td>Standard (Aluminum) DMC-M 12E</td>
<td>DMC-M 12E</td>
<td>290</td>
<td>12</td>
</tr>
<tr>
<td>52</td>
<td>Standard (Aluminum) DMC-M 16E</td>
<td>DMC-M 16E</td>
<td>291</td>
<td>12</td>
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</table>

Multi-Receptacle Housings

<table>
<thead>
<tr>
<th>Size (No. of Modules)</th>
<th>Type</th>
<th>TE Part No.</th>
<th>Mass (g)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Standard (Aluminum) DMC-M 01D</td>
<td>DMC-M 01D</td>
<td>98</td>
<td>12</td>
</tr>
<tr>
<td>12</td>
<td>Standard (Aluminum) DMC-M 02D</td>
<td>DMC-M 02D</td>
<td>127</td>
<td>12</td>
</tr>
<tr>
<td>16</td>
<td>Standard (Aluminum) DMC-M 03D</td>
<td>DMC-M 03D</td>
<td>156</td>
<td>12</td>
</tr>
<tr>
<td>24</td>
<td>Standard (Aluminum) DMC-M 06D</td>
<td>DMC-M 06D</td>
<td>254</td>
<td>12</td>
</tr>
<tr>
<td>32</td>
<td>Standard (Aluminum) DMC-M 08D</td>
<td>DMC-M 08D</td>
<td>371</td>
<td>12</td>
</tr>
<tr>
<td>48</td>
<td>Standard (Aluminum) DMC-M 12E</td>
<td>DMC-M 12E</td>
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<td>12</td>
</tr>
<tr>
<td>52</td>
<td>Standard (Aluminum) DMC-M 16E</td>
<td>DMC-M 16E</td>
<td>291</td>
<td>12</td>
</tr>
</tbody>
</table>

Plug Keying Component

<table>
<thead>
<tr>
<th>Type</th>
<th>TE Part No.</th>
<th>EN Part No.</th>
<th>Mass (g)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keying (Blank)</td>
<td>DMC-M 00-00 PN</td>
<td>EN4165-00-00</td>
<td>3.0</td>
<td>18</td>
</tr>
<tr>
<td>00-08</td>
<td>Male</td>
<td>DMC-M 00-08 A</td>
<td>EN4165A00-08A</td>
<td>2.9</td>
</tr>
<tr>
<td>04-12</td>
<td>Female</td>
<td>DMC-M 04-12 B</td>
<td>EN4165A04-12B</td>
<td>4.4</td>
</tr>
<tr>
<td>08-16</td>
<td>Male</td>
<td>DMC-M 08-16 A</td>
<td>EN4165A08-16A</td>
<td>3.9</td>
</tr>
<tr>
<td>12-20</td>
<td>Female</td>
<td>DMC-M 12-20 B</td>
<td>EN4165A12-20B</td>
<td>3.2</td>
</tr>
<tr>
<td>09-06</td>
<td>Male</td>
<td>DMC-M 09-06 A</td>
<td>EN4165A09-06A</td>
<td>3.9</td>
</tr>
<tr>
<td>09-10</td>
<td>Female</td>
<td>DMC-M 09-10 B</td>
<td>EN4165A09-10B</td>
<td>4.2</td>
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</table>

Grounding Modules

<table>
<thead>
<tr>
<th>Type</th>
<th>TE Part No.</th>
<th>EN Part No.</th>
<th>Mass (g)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>05-08</td>
<td>Male</td>
<td>DMC-M 05-08 A</td>
<td>EN4165A05-08A</td>
<td>3.6</td>
</tr>
<tr>
<td>04-12</td>
<td>Female</td>
<td>DMC-M 04-12 B</td>
<td>EN4165A04-12B</td>
<td>5.5</td>
</tr>
<tr>
<td>08-16</td>
<td>Male</td>
<td>DMC-M 08-16 A</td>
<td>EN4165A08-16A</td>
<td>3.8</td>
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<tr>
<td>12-20</td>
<td>Female</td>
<td>DMC-M 12-20 B</td>
<td>EN4165A12-20B</td>
<td>4.1</td>
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BACC47 Contact Compliant

<table>
<thead>
<tr>
<th>Type</th>
<th>TE Part No.</th>
<th>EN Part No.</th>
<th>Mass (g)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>99-01</td>
<td>Male</td>
<td>DMC-M 99-01 A</td>
<td>EN4165A99-01A</td>
<td>2.9</td>
</tr>
<tr>
<td>99-10</td>
<td>Female</td>
<td>DMC-M 99-10 B</td>
<td>EN4165A99-10B</td>
<td>3.2</td>
</tr>
</tbody>
</table>

DEUTSCH DMC-M Series Connectors

AEROSPACE, DEFENSE & MARINE // DEUTSCH DMC-M SERIES MULTICAVITY EN4165 CONNECTORS
## DEUTSCH DMC-M Series Connectors

### MASSES

#### Modules (continued)

<table>
<thead>
<tr>
<th>Insert Contact Type</th>
<th>TE Part No.</th>
<th>EN Part No.</th>
<th>Mass, Max. (g)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>01-08 (Ni) Male</td>
<td>DMC-M 01-08 A*-GQ</td>
<td>EN4165A01Q281*A</td>
<td>3.5</td>
<td>20</td>
</tr>
<tr>
<td>Female</td>
<td>DMC-M 01-08 B*-GQ</td>
<td>EN4165A01Q281*B</td>
<td>7.4</td>
<td>20</td>
</tr>
<tr>
<td>01-08 (Cd) Male</td>
<td>DMC-M 01-08 A*-GQW</td>
<td>EN4165A01Q281*A</td>
<td>3.5</td>
<td>20</td>
</tr>
<tr>
<td>Female</td>
<td>DMC-M 01-08 B*-GQW</td>
<td>EN4165A01Q281*B</td>
<td>7.4</td>
<td>20</td>
</tr>
<tr>
<td>20-22 (5 Shunts 4 Ways) Male</td>
<td>DMC-M 22-05 B*</td>
<td>EN4165A22Y221B</td>
<td>3.8</td>
<td>20</td>
</tr>
<tr>
<td>Female</td>
<td>DMC-M 22-05 B*</td>
<td>EN4165A22Y221B</td>
<td>3.7</td>
<td>20</td>
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<tr>
<td>20-22 (10 Shunts 5 Ways) Male</td>
<td>DMC-M 22-10 B*</td>
<td>EN4165A28Y221B</td>
<td>3.7</td>
<td>20</td>
</tr>
<tr>
<td>Female</td>
<td>DMC-M 22-10 B*</td>
<td>EN4165A28Y221B</td>
<td>3.7</td>
<td>20</td>
</tr>
<tr>
<td>High-Speed Modules</td>
<td>DMC-M 99-02 A*</td>
<td>—</td>
<td>3.6</td>
<td>20</td>
</tr>
<tr>
<td>Female</td>
<td>DMC-M 99-02 B*</td>
<td>—</td>
<td>4.4</td>
<td>20</td>
</tr>
<tr>
<td>99-03 Male</td>
<td>DMC-M 99-03 A*</td>
<td>—</td>
<td>3.5</td>
<td>20</td>
</tr>
<tr>
<td>Female</td>
<td>DMC-M 99-03 B*</td>
<td>—</td>
<td>3.5</td>
<td>20</td>
</tr>
<tr>
<td>99-04 Male</td>
<td>DMC-M 99-04 A*</td>
<td>—</td>
<td>2.9</td>
<td>20</td>
</tr>
<tr>
<td>Female</td>
<td>DMC-M 99-04 B*</td>
<td>—</td>
<td>3.4</td>
<td>20</td>
</tr>
<tr>
<td>16-02 Male</td>
<td>DMC-M 16-02 A*</td>
<td>—</td>
<td>2.5</td>
<td>20</td>
</tr>
<tr>
<td>Female</td>
<td>DMC-M 16-02 B*</td>
<td>—</td>
<td>3.4</td>
<td>20</td>
</tr>
<tr>
<td>Optical and Hybrid Modules</td>
<td>458215</td>
<td>—</td>
<td>5.5</td>
<td>21</td>
</tr>
<tr>
<td>Female</td>
<td>458216</td>
<td>—</td>
<td>8.9</td>
<td>21</td>
</tr>
<tr>
<td>T47 Hybrid Male</td>
<td>459736-x</td>
<td>—</td>
<td>4.2</td>
<td>21</td>
</tr>
<tr>
<td>Female</td>
<td>459739-x</td>
<td>—</td>
<td>5.2</td>
<td>21</td>
</tr>
<tr>
<td>MCB Hermaphroditic</td>
<td>DMC-M01-MCBN</td>
<td>—</td>
<td>12.5</td>
<td>21</td>
</tr>
</tbody>
</table>

#### Shielded Accessory Bodies

<table>
<thead>
<tr>
<th>Type</th>
<th>TE Part No.</th>
<th>EN Part No.</th>
<th>Mass, Max. (g)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free Hanging Male</td>
<td>732-8052-14 A</td>
<td>EN4165S14F14</td>
<td>—</td>
<td>15</td>
</tr>
<tr>
<td>Female</td>
<td>732-8052-14 WA</td>
<td>EN4165S14F14</td>
<td>—</td>
<td>15</td>
</tr>
<tr>
<td>Rack and Panel Male</td>
<td>732-8052-14 A</td>
<td>—</td>
<td>—</td>
<td>20</td>
</tr>
<tr>
<td>Female</td>
<td>732-8052-14 WA</td>
<td>—</td>
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#### Non-Shielded Cable Clamps

<table>
<thead>
<tr>
<th>Type</th>
<th>TE Part No.</th>
<th>EN Part No.</th>
<th>Mass, Max. (g)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Module Shells Male</td>
<td>732-8002-00</td>
<td>EN4165S13A4</td>
<td>3.6</td>
<td>20</td>
</tr>
<tr>
<td>Female</td>
<td>732-8002-00 WA</td>
<td>EN4165S13A4</td>
<td>3.4</td>
<td>20</td>
</tr>
<tr>
<td>2-Module Shells Male</td>
<td>732-8002-01</td>
<td>EN4165S12A2</td>
<td>3.4</td>
<td>20</td>
</tr>
<tr>
<td>Female</td>
<td>732-8002-01 WA</td>
<td>EN4165S12A2</td>
<td>3.2</td>
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#### Chimmies for Shielded Accessories

<table>
<thead>
<tr>
<th>Type</th>
<th>TE Part No.</th>
<th>EN Part No.</th>
<th>Mass, Max. (g)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round Male</td>
<td>732-8052-11 A</td>
<td>EN4165S15</td>
<td>—</td>
<td>15</td>
</tr>
<tr>
<td>Female</td>
<td>732-8052-11 WA</td>
<td>EN4165S15</td>
<td>—</td>
<td>15</td>
</tr>
<tr>
<td>Double Oval Male</td>
<td>732-8052-12 A</td>
<td>EN4165S16</td>
<td>—</td>
<td>15</td>
</tr>
<tr>
<td>Female</td>
<td>732-8052-12 WA</td>
<td>EN4165S16</td>
<td>—</td>
<td>15</td>
</tr>
<tr>
<td>Blank Male</td>
<td>732-8052-13 A</td>
<td>EN4165S17</td>
<td>—</td>
<td>20</td>
</tr>
<tr>
<td>Female</td>
<td>732-8052-13 WA</td>
<td>EN4165S17</td>
<td>—</td>
<td>20</td>
</tr>
<tr>
<td>Anti-Rotation Round Male</td>
<td>732-8052-18 A</td>
<td>—</td>
<td>—</td>
<td>155</td>
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<tr>
<td>Female</td>
<td>732-8052-18 WA</td>
<td>—</td>
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<td>155</td>
</tr>
<tr>
<td>Anti-Rotation Round/Tie Wrap Male</td>
<td>732-8052-19 A</td>
<td>EN4165S15A</td>
<td>—</td>
<td>17</td>
</tr>
<tr>
<td>Female</td>
<td>732-8052-19 WA</td>
<td>EN4165S15A</td>
<td>—</td>
<td>17</td>
</tr>
</tbody>
</table>
### CONTACTS

#### ELECTRICAL CONTACTS

**Color Coding**

- **Pins:** AS39029
- **Sockets:** EN3155

**Bold part numbers are standard contacts delivered with modules.**

#### Cable Type

- **Twisted Pair (Center Contact):** 3103-11-18
- **Twisted Pair (Outer Contact):** 3103-11-12

#### Wire Range

- **AWG mm²:** 0.15 - 0.40

#### Color Coding Wire Range

- **Brown-Red:** 2 x 0.34 mm²
- **Red-Green:** 2 x 0.34 mm²
- **Green-Purple:** 2 x 0.34 mm²
- **Red-Green-White:** 2 x 0.34 mm²

#### Databus Contacts (Twisted Pair) As Per AS39029

<table>
<thead>
<tr>
<th>Size</th>
<th>Part No.</th>
<th>Type</th>
<th>Color Bands</th>
<th>Wire Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>24/24</td>
<td>724-0001-24</td>
<td>Pin</td>
<td>AS39029</td>
<td>26-24</td>
</tr>
<tr>
<td>23/22</td>
<td>182-0049-23</td>
<td>Pin</td>
<td>Green-Purple</td>
<td>26-22</td>
</tr>
<tr>
<td>22/22</td>
<td>724-0003-22</td>
<td>Socket</td>
<td>Orange-Green-Black</td>
<td>26-22</td>
</tr>
<tr>
<td>22/20</td>
<td>182-0860-22</td>
<td>Pin</td>
<td>Red-Green</td>
<td>24-20</td>
</tr>
<tr>
<td>20/20</td>
<td>724-0001-20</td>
<td>Pin</td>
<td>Orange-Blue-Orange</td>
<td>24-20</td>
</tr>
<tr>
<td>20/18</td>
<td>724-1063-22</td>
<td>Pin</td>
<td>Brown-Red</td>
<td>24-14</td>
</tr>
<tr>
<td>16/16</td>
<td>724-0005-16</td>
<td>Pin</td>
<td>Orange-Green-Grey</td>
<td>20-14</td>
</tr>
<tr>
<td>16/14</td>
<td>724-1063-16</td>
<td>Pin</td>
<td>White-Blue</td>
<td>20-14</td>
</tr>
<tr>
<td>12/12</td>
<td>724-0005-12</td>
<td>Socket</td>
<td>Orange-Green-White</td>
<td>14-12</td>
</tr>
<tr>
<td>12/10</td>
<td>724-1063-12</td>
<td>Pin</td>
<td>White-Yellow</td>
<td>12-10</td>
</tr>
<tr>
<td>08 (Power)</td>
<td>724-0005-08</td>
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<td>08</td>
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<tr>
<td>08 (Power)</td>
<td>724-0003-08</td>
<td>Socket</td>
<td>—</td>
<td>08</td>
</tr>
<tr>
<td>08 (Power)</td>
<td>182-0007-08</td>
<td>Pin</td>
<td>—</td>
<td>08</td>
</tr>
<tr>
<td>08 (Power)</td>
<td>182-0003-08</td>
<td>Socket</td>
<td>—</td>
<td>08</td>
</tr>
<tr>
<td>08 (Power)</td>
<td>724-0005-16</td>
<td>Pin</td>
<td>Yellow-Red-Yellow</td>
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<tr>
<td>08 (Coax)</td>
<td>724-0005-16</td>
<td>Socket</td>
<td>Yellow-Orange-Red</td>
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<tr>
<td>08</td>
<td>182-0125-08</td>
<td>Pin</td>
<td>—</td>
<td>ALPEN A 26 DT</td>
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<tr>
<td>08</td>
<td>182-0126-08</td>
<td>Socket</td>
<td>—</td>
<td>SMA Interface</td>
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<tr>
<td>22 (Shunt)</td>
<td>182-0146-08</td>
<td>Pin</td>
<td>—</td>
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<tr>
<td>22 (Shunt)</td>
<td>724-1272-22</td>
<td>Socket</td>
<td>—</td>
<td>26-22</td>
</tr>
</tbody>
</table>

#### Tooling for Databus Contacts

**Part No.**

- **Crimp Tool Positioner:** N/A
- **Insertion/Extraction Tool:** N/A

**Tool Part No.**

- **MIL Part No.:** 114-008 or M81969/14-06
- **MIL Part No.:** 114-008 or M81969/14-06

**Part No.**

- **MIL Part No.:** M22520/2-01
- **MIL Part No.:** M22520/2-01

---

**DEUTSCH DMC-M Series Connectors**

**AEROSPACE, DEFENSE & MARINE**
FIBER OPTIC TERMINI

MC6 Termini

- FAMILY: MC6
- NUMBER OF FIBERS: 12
- FIBER TYPE: SM Single Mode, MM Multimode
- CABLE TYPE:
  - 01 Ruggedized Oval Aerospace Multifiber Cable, 3.95 mm x 1.60 mm max. Jacket
  - 02 Round Multifiber Cable, Ø 3.96 mm max. Jacket
- FERRULE TYPE:
  - P Male, with Alignment Pins
  - S Female, without Alignment Pins

MC5 Termini

- FAMILY: 455335 MC5
- OPTICAL HOLE DIAMETER:
  - 126 126 μm
  - 127 127 μm
- CABLE TYPE:
  - 00 900 μm buffered fiber
  - 01 2.1 mm cable OD
  - 02 1.8 mm cable OD
  - 03 2.5 mm cable OD
  - 04 2.4 mm cable OD
  - 05 1.2 mm cable OD

ARINC 801 Termini for T47 Modules

- FAMILY: 459265 ARINC 801
- OPTICAL HOLE DIAMETER:
  - 126 126 μm
- CABLE TYPE:
  - 00 900 μm buffered fiber
  - 02 1.8 mm cable OD

FIBER OPTIC TOOL KITS AND TRAINING

FIBER OPTIC TOOL KITS
We offer tool kits to meet a range of needs, including emergency field terminations, workshop termination, fusion splicing, and testing and inspection. Kit can cover a generic range of connectors or can be tailored to specific products.

FIBER OPTIC TRAINING
Our training equips technicians with best practices for handling fiber and termination it in a range of TE connectors. Contact TE for further details.
**CONNECTION TOOLING**

- **Mounting and dismounting of receptacle keying component.**
  - Long version: 057-0699-80 / EN4165TC

- **Mounting of plug keying component**
  - Manual insertion and extraction
  - Insertion tool (only for sealed module)
    - Long version: 057-0699-00 A / EN4165TS
    - Short version: 057-0699-00 B / EN4165TS

- **Extraction tool**
  - Long version: 057-0289-00 A / EN4165TN
  - Short version: 057-0289-00 B / EN4165TN

- **Contact tools**
  - Size 22: M81969/14-01
  - Size 20: M81969/14-10
  - Size 16: M81969/14-03
  - Size 12: M81969/14-04
  - Size 8: M81969/14-06

**Panel Cutouts for Rack and Panel Plugs**

**Panel Cutouts for Receptacles**

**Maximum Misalignment between Plug and Receptacle**

- OZ: ±2 mm (±0.08 in.)
- OY: ±0.75 mm (±0.030 in.)
- OX: ±0.75 mm (±0.030 in.)

**Panel Cutouts for Rack and Panel Plugs**

- Types 88, 89
- Types 48, 49

**Panel Cutouts for Receptacles**

- Types 82, 83, 84, 85
- Types 42, 43, 44, 45
**USER MANUAL**

### Contact Crimping

- **Use a crimping tool with the appropriate pilot stop.**

- **Strip the insulation from the copper wire, with 5 mm maximum strip length. (For aluminum wire, consult TE.)**

- **Insert the contact into the crimping tool.**

- **Insert the wire into the contact.**

- **Tighten the crimping tool fully. The handles will not release until the tool is fully bottomed.**

- **Remove and inspect the completed termination. The contact must have 8 markings, and the wire must be seen in the contact side hole.**

**For the use of a shielded version, do not forget to slide the cables in the chimney before crimping the contacts.**

### Contact Insertion and Withdrawal

- **Use the appropriate plastic tool. There is one tool for each contact size.**

**CONTACT INSERTION**

- **Insert the wire into the slot of the colored end of tool. Pull the wire until the contact butts against the tool.**

**CONTACT WITHDRAWAL**

- **Insert the contact in the module cavity. Push the contact fully home. Then remove the tool and lightly pull back on the wire to make sure that the contact is fully seated.**

- **Press the wire between the fingers and the tool. Then pull the overall wire and tool back.**

- **For extraction, insert the wire in the slot of the white end of the tool. Slide the tool into the cavity and push it in until butts against the contact shoulder.**

**Part Number** | **Contact Size**
--- | ---
M81969/14-01 | 22
M81969/14-10 | 20
M81969/14-03 | 16
M81969/14-04 | 12
M1-008 or M81969/14-06 | Ø
Module Insertion and Extraction

**Module Insertion**

The module must be inserted from the rear side of the housing. The module polarization key must be visible from the marked side of the housing.

For extraction use the tool part number 057-0289-00 A or B.

**Module Extraction**

Manually push the module into the cavity until the module’s rear should butt against the shell.

For sealed modules, use the insertion tool part number 057-0699-00 A or B. Check that the module is properly seated either by pulling back the wires or by pushing the module from the front of the housing.

For extraction use the tool part number 057-0289-00 A or B.

Slide the tool around the cable. Then push the tool inside the cavity until the tool butts against the shell.

Note the tool’s different orientation depending on the A, B, C or D cavities.

Press the cable between the tool and the fingers and pull back. If the module is not wired, use the same tool, but push the module from the front of the housing.

User Manual

Mounting the Receptacle Keying Component

The receptacle keying component must be inserted from the rear side of the receptacle housing. The component can be rotated in 60° increments. Orientation is indicated by the largest keyway.

Insert the nut from the front of the receptacle housing.

For mounting and dismounting, use the tool 057-0590-80.

Tighten the nut with the tool, by applying a 0.15 ±0.02 daNm (13.3 ±6.1 in. lbf.) coupling torque.

Mounting the Plug Keying Component

Use the plug keying component corresponding to the receptacle keying component (same color code).

Insert the plug keying component in the front side of the plug housing. Make sure that it has the same orientation as the receptacle key. Then seat the plug keying component manually by pushing it fully into the cavity.
**USER MANUAL**

**Free Plug/Receptacle Coupling**

Use the tool part number 057-0592-80 or a standard allen key and apply a 0.1 ±0.03 daN.m (8.8 ±1.7 in. lbf.) coupling torque.

**Mounting Shielded Braid on Chimney**

Slide the chimney and the shielded braid around the cable.

Use the tool 05-0450-00 to tighten the ring around the shielded braid over the chimney.

**Shielded Accessories Assembly**

Choose the appropriate plug or receptacle accessory. Insert the accessory in the housing. Make sure that the marking of the accessory is in front of the respective housing’s cavities.

Fit the accessory cover, and tighten the overall screws by applying a 0.05 ±0.02 daN.m (4.4 ±1.7 in. lbf.) coupling torque with a standard allen key.

Insert the chimneys in their cavities.

**Insert the module in the housing.**

**Insert the shielded braid and the 3 mm band strap ring over the chimney.**
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