

# DEUTSCH DMC-M Series

Multicavity EN4165 Connectors

The Rugged, Modular Solution for  
Flexible, Reliable Aerospace Connectivity

# **DEUTSCH DMC-M Multicavity Connectors**



**Flexible Modularity  
Rugged for Harsh Environments  
EN4165 Compliant**

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# DEUTSCH DMC-M Series Multicavity EN4165

## 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

## FLEXIBLE

- Easily replaced modules for fast reconfiguration
- Allows mixing of male and female modules in each connector half
- Wide range of modules allows great flexibility in input/output configurations

## WEIGHT OPTIMIZATION

- Nickel or cadmium-plated composite shells
- Compact solution

## EASY TO INSTALL

- 36 keying possibilities
- Quick-install coupling

## RELIABLE

- Environmental sealing
- Vibration resistant
- EMI protection as per EN4165 standard
- Meets FAA flammability, smoke, and toxicity requirements
- EN4165 and BACC65 compliant

## Modular, Compact, and Weight Saving

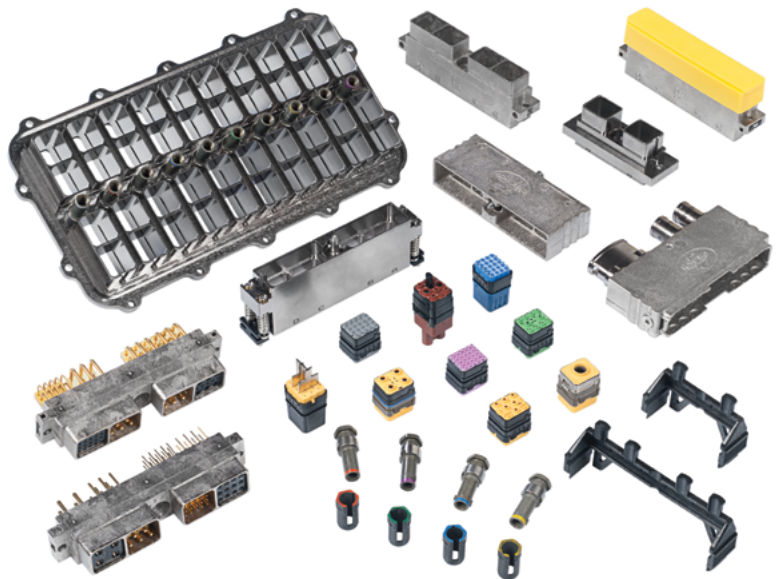
Originally designed in the 1980s, DEUTSCH DMC-M connectors from TE Connectivity (TE) have evolved into one of the most widely used connector styles for cabin applications in commercial aerospace. Standardized in European Standard EN4165, DMC-M connectors provide a modular, flexible, and reliable system. 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.



## TE Components . . . TE Technology . . . TE Know-how . . .

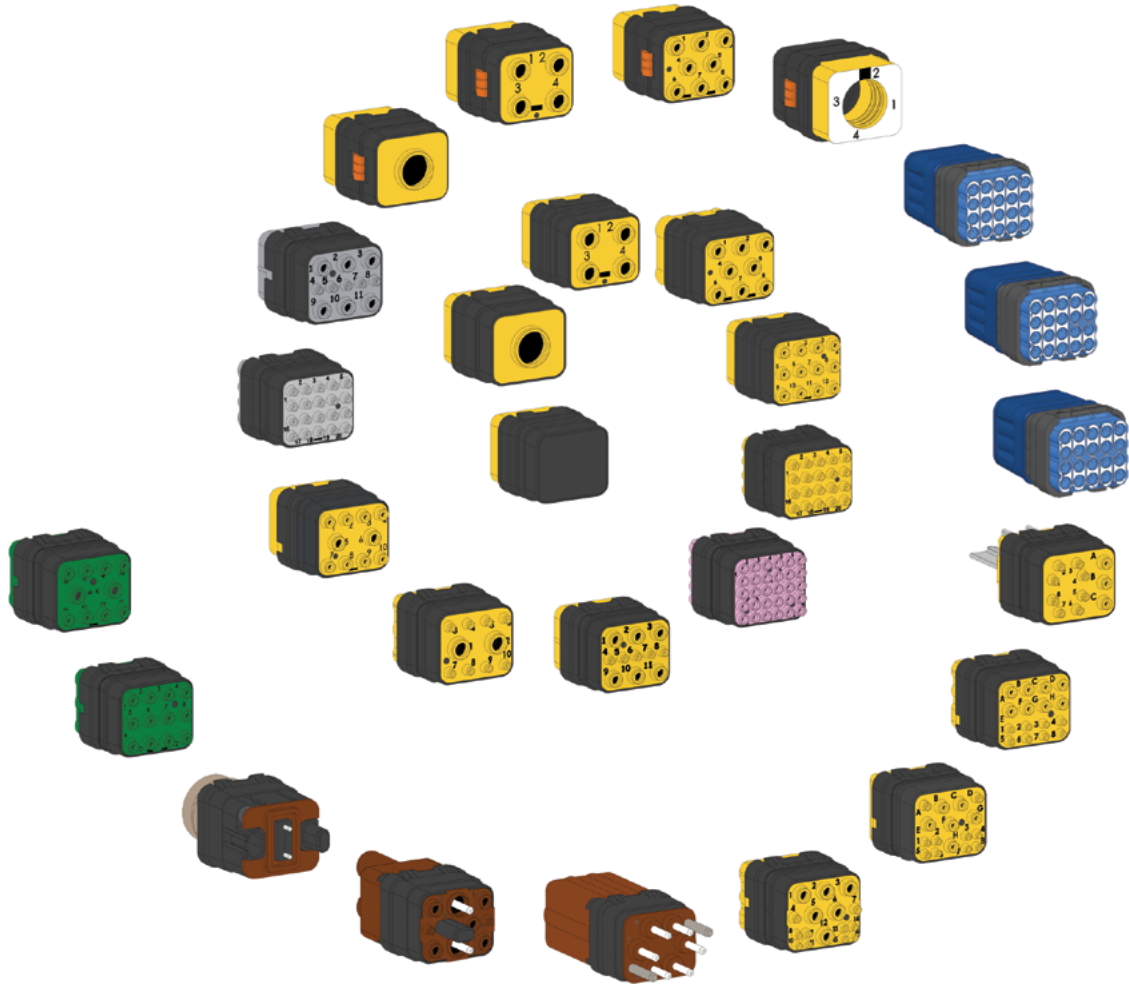
AMP | AGASTAT | CII | HARTMAN | KILOVAC | MICRODOT | NANONICS | POLAMCO | Raychem | Rochester | DEUTSCH  
SEACON Phoenix | LL ROWE | Phoenix Optix | AFP | SEACON

Get your product to market faster with a smarter, better solution.

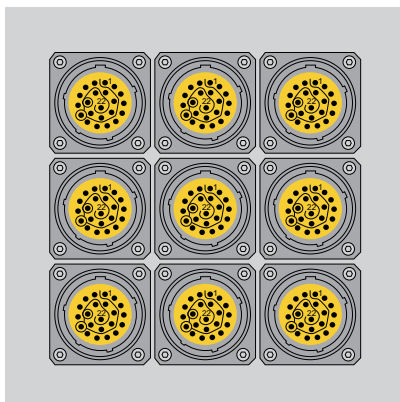




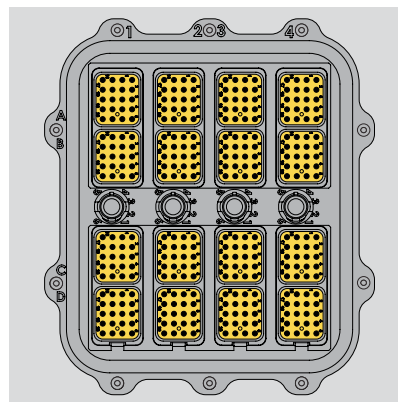
# FLEXIBLE MODULARITY



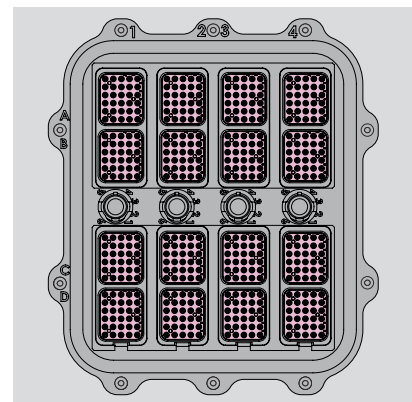
## Space Savings



**Circular Connectors**  
**Insert 13-35**  
**Size 22 Contacts, 5A**  
 198 contacts  
 309 g (without panel)  
 36 mounting screws  
 9 panel cutouts



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

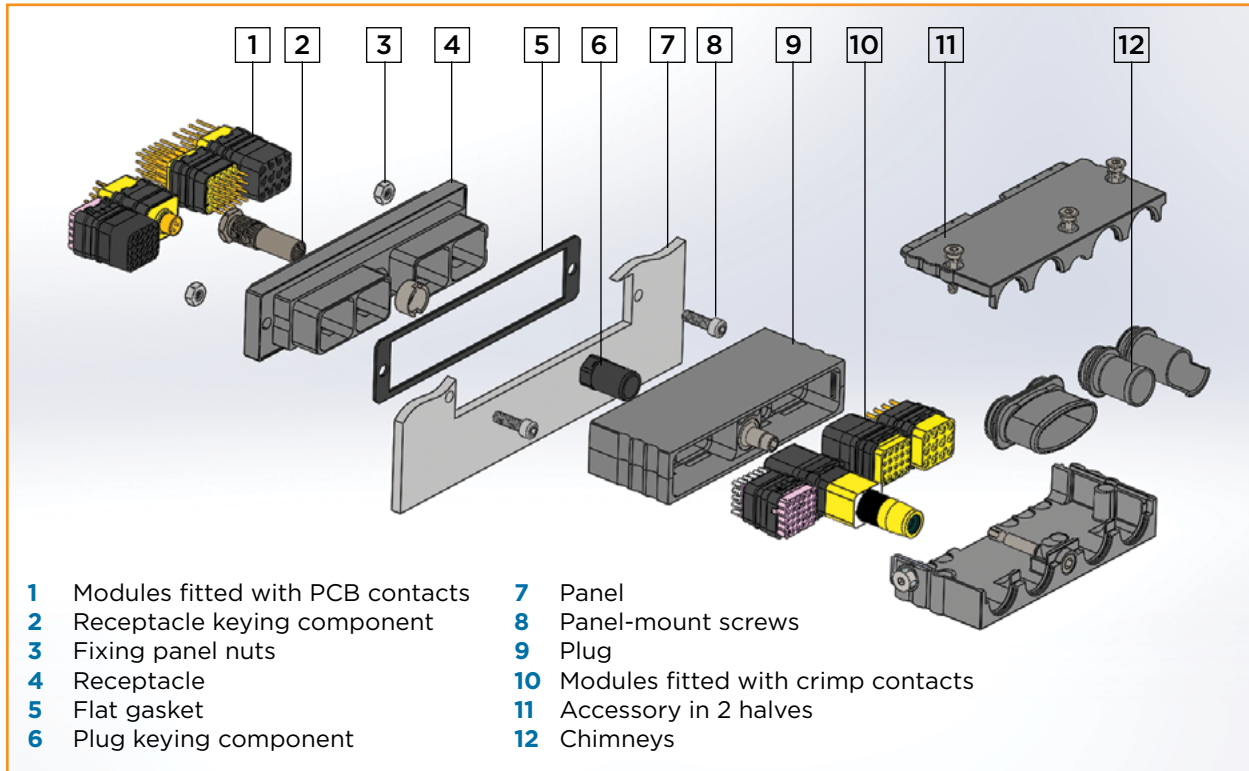


**DMC-M Connectors**  
**Insert 30-23**  
**Size 23 Contacts, 5A**  
 480 contacts  
 175 g (without panel)  
 10 mounting screws  
 1 panel cutout



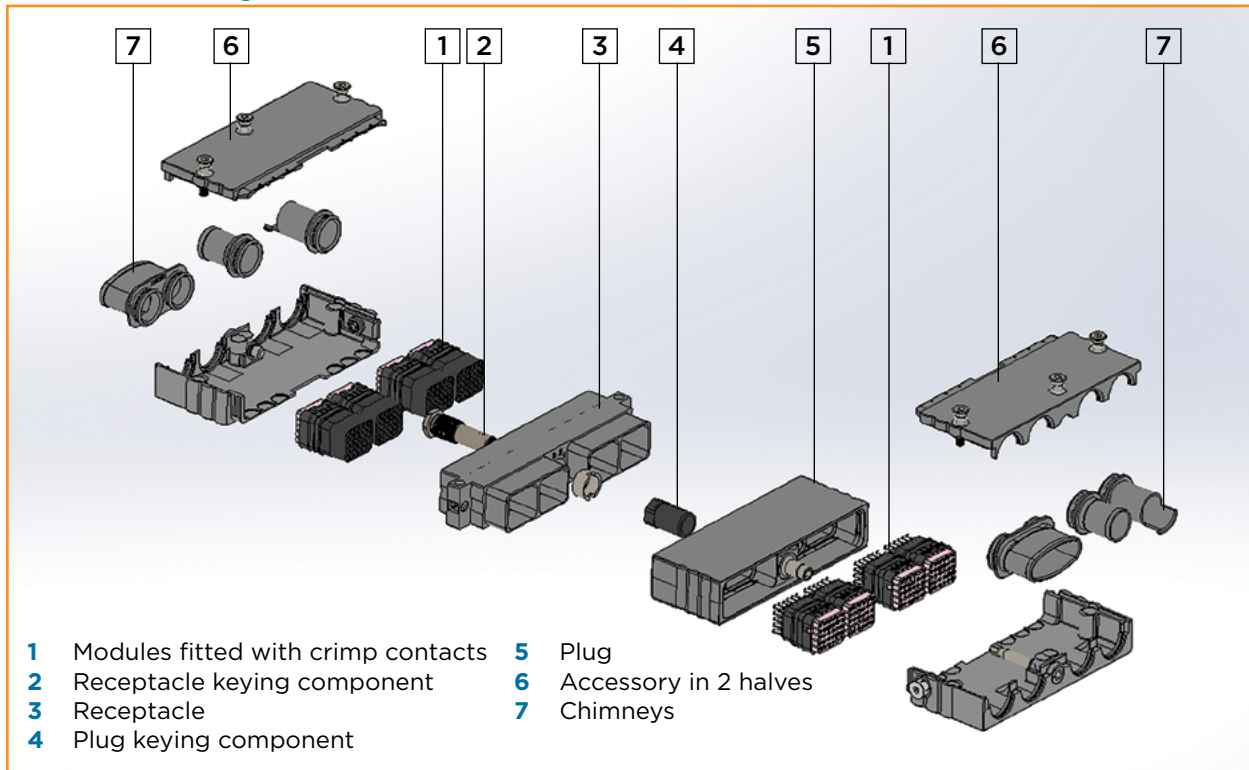
# TYPICAL CONFIGURATIONS

## Wire-to-Board Configuration



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

## Wire-to-Wire Configuration



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



# 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:**  $\geq 25.4$  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: 13.0 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 V<sub>rms</sub> 50 Hz, module size 24, 23 and 22
    - Service II: 1500 V<sub>rms</sub> 50 Hz, module sizes 20, 16, 12 and 08
  - Altitude Immersion to 11 hPa (30,000 m/100,000 ft): 1000 V<sub>rms</sub> 50 Hz (all module sizes)
- **Insulation Resistance**
  - At Sea Level:  $\geq 5000$  M $\Omega$
  - Altitude Immersion to 11 hPa (30,000 m/100,000 ft):  $\geq 1000$  M $\Omega$
- **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 specific contacts)
- **Shielding Effectiveness:**
  - (With conductive shell finish and RFI spring fingers)

Frequency (MHz)	Attenuation, Min. (dB)	
	Aluminum Shell	Composite Shell
100	80	65
200	78	60
300	78	55
400	77	55
800	75	45
1000	75	45
1500	59	43
2000	55	40
3000	51	37
4000	48	35
6000	45	33
10,000	40	30

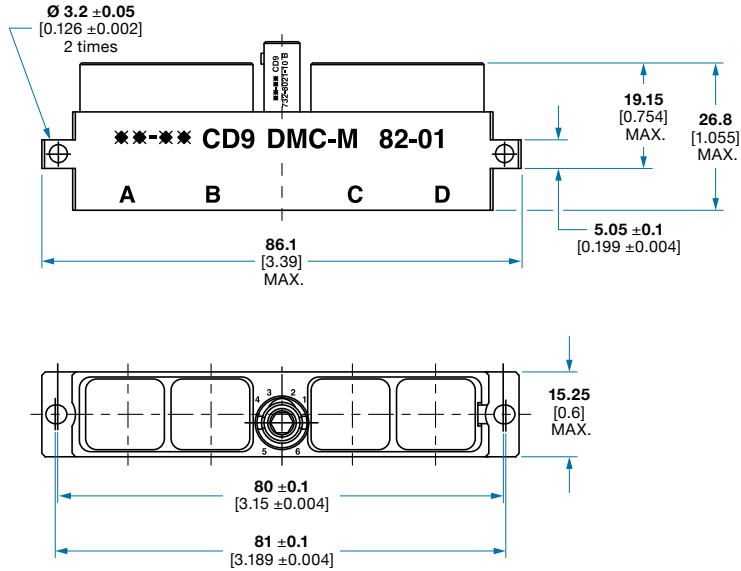




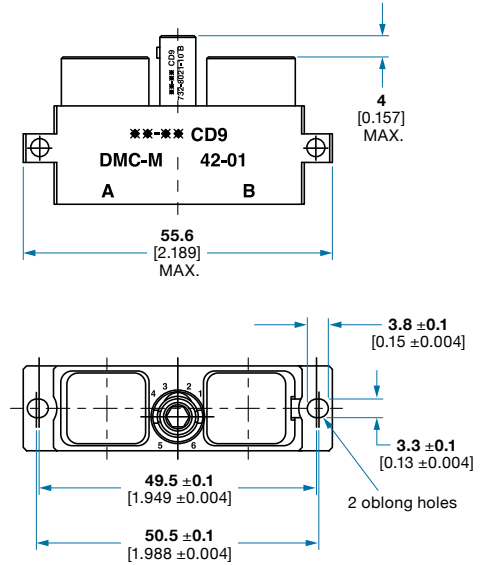
# RECEPTACLES

## STACKABLE RECEPTACLES

DMC-M 82-01: 4 Modules

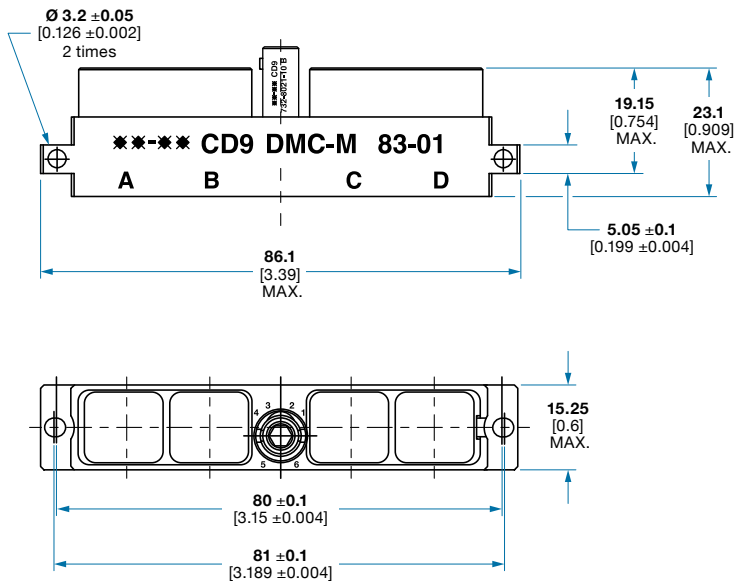


DMC-M 42-01: 2 Modules

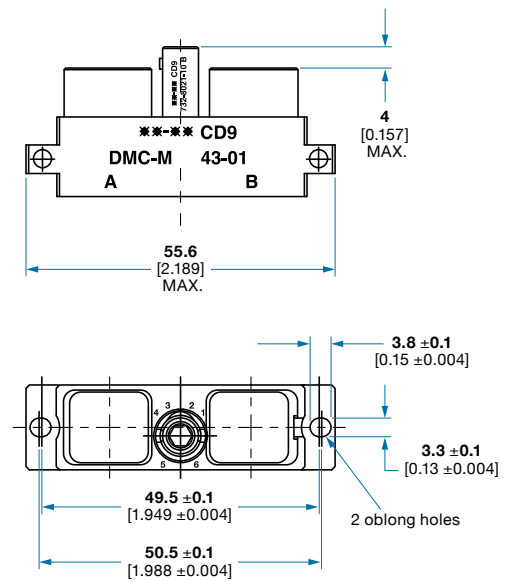


## SHORT STACKABLE RECEPTACLES

DMC-M 83-01: 4 Modules



DMC-M 43-01: 2 Modules



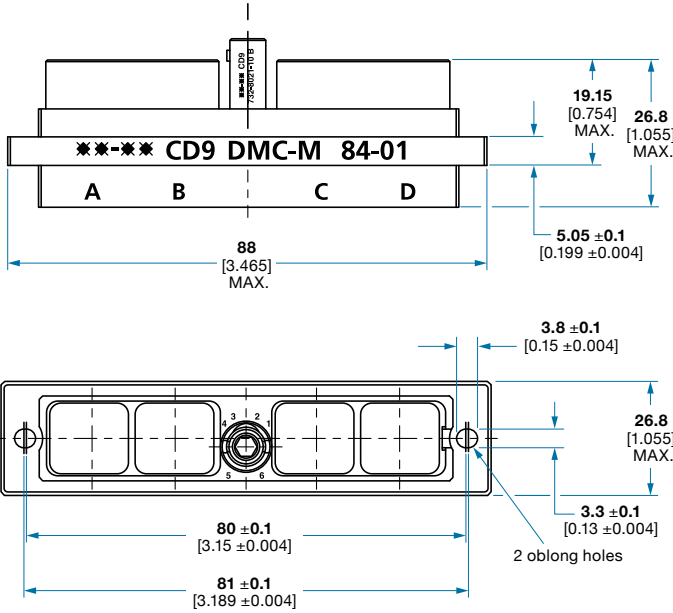
Note: No accessory can be mounted on the rear of short receptacle shell.



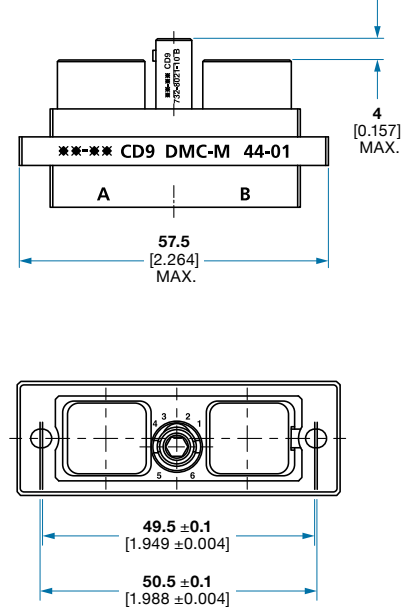
# RECEPTACLES

## FLANGE-MOUNT RECEPTACLES

DMC-M 84-01: 4 Modules

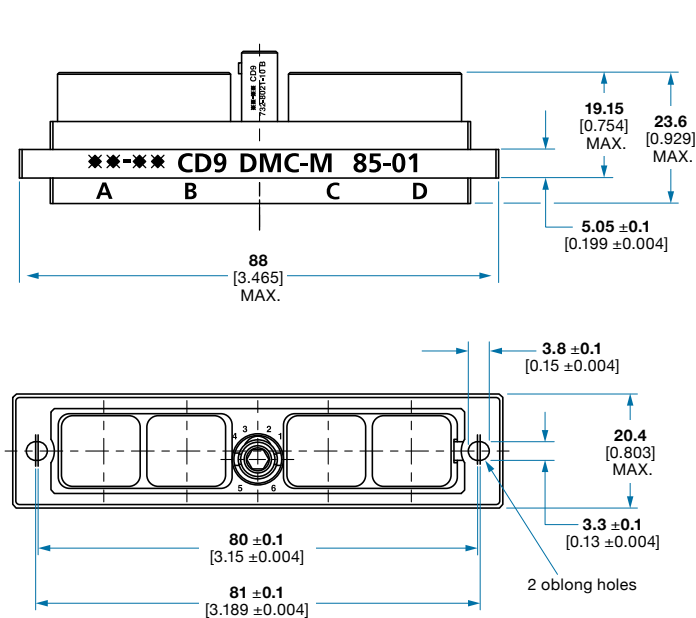


DMC-M 44-01: 2 Modules

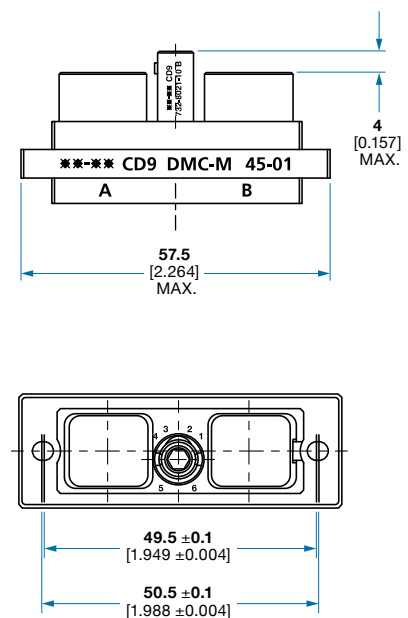


## SHORT FLANGE-MOUNT RECEPTACLES

DMC-M 85-01: 4 Modules



DMC-M 45-01: 2 Modules



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

DMC-MD 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.



# RECEPTACLES

## TE PART NUMBERING SYSTEM

**DMC-MD 84 B 3 5 W 01 \*\*\*\***

### CONNECTOR TYPE

- DMC-M** Standard
- DMC-MD** Shielded

### 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)

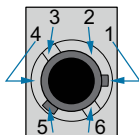
- Omit for Standard Keying Component Not Mounted
- A** Without Keying Component
- B** With Keying Component Coded, Mounted or Not Mounted

### 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**



**Keying Component Orientation**  
Viewed from front face of receptacle housing  
Largest keyway indicates orientation

### PLATING/FINISH (Optional)

- Aluminum Alloy Shell**
- Omit - Black Nickel
- W** Olive Drab Cadmium
- Composite Shell**
- M** Nickel (Shell Types 82 and 83 Only)
- J** Olive Drab Cadmium (Shell Types 82 and 83 Only)

### ISSUE

**01**

### MODIFICATIONS (Optional)

- A1064** Bright Nickel Finish
- Consult TE for additional modifications





# RECEPTACLES

## EN4165 PART NUMBERING SYSTEM

**EN4165 W 7 A 4 3 5**

### CONNECTOR TYPE

**EN4165**

### PLATING/FINISH (Optional)

**Aluminum Alloy Shell**

**F** Black Nickel

**W** Olive Drab Cadmium

**Composite Shell**

**M** Nickel (EN4165\*0A4\*\* Only)

**J** 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

**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)

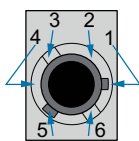
**5** Type 5 (Orange)

**6** Type 6 (White)

### KEYING COMPONENT ORIENTATION IN THE RECEPTACLE

**0** Not mounted

**1, 2, 3, 4, 5, 6**



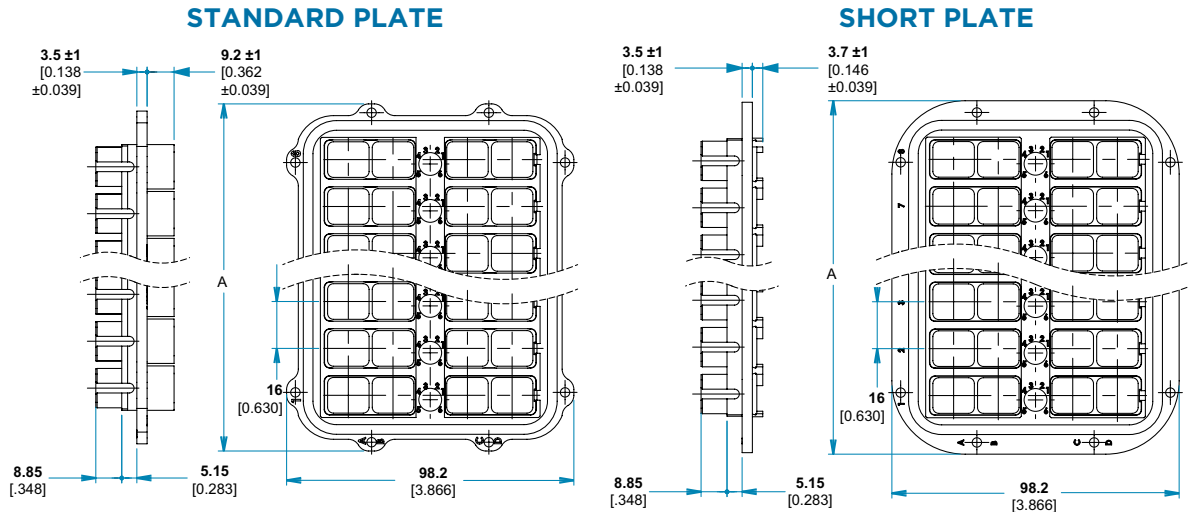
**Keying Component Orientation**

Viewed from front face of receptacle housing  
Largest keyway indicates orientation



# 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.



No. of Rows	13	12	10	8	6	4	3	2
Version	1044	0964	0804	0644	0484	0324	0244	0164
Dim A	232.2 (9.142)	216.2 (8.512)	184.2 (7.252)	152.2 (5.992)	120.2 (4.732)	68.6 (2.701)	52.6 (2.071)	36.6 (1.437)

Dimensions are mm (inches)

## TE PART NUMBERING SYSTEM

**DMC-MD 0484 A W 01 A**

### 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 - With Keying Component
- A** Without Keying Component

### PLATING/FINISH (Optional)

- Aluminum Alloy Shell**
- Omit - Black Nickel
- W** Olive Drab Cadmium

### ISSUE

- 01**

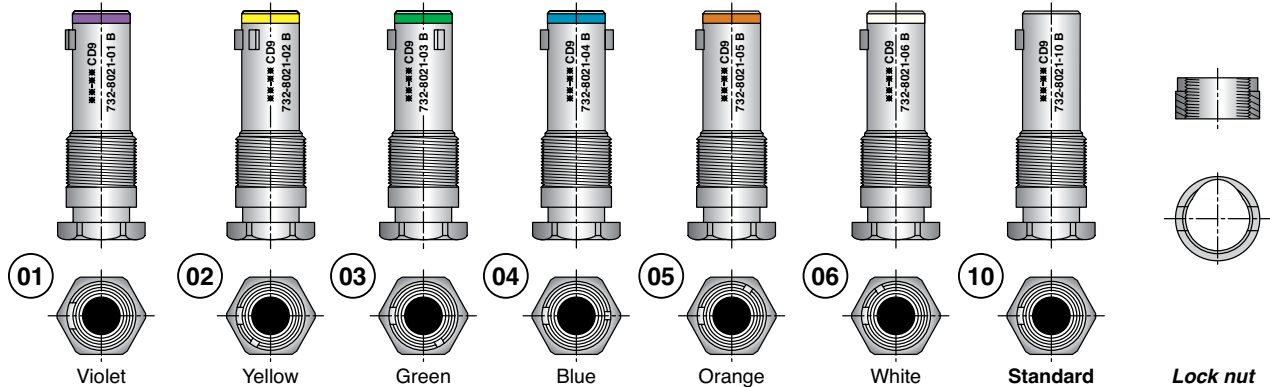
### TYPE (Optional)

- 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 mismatching. Keying is especially useful for rack and multiconnector applications. The keys are provided in sealed and unsealed versions.



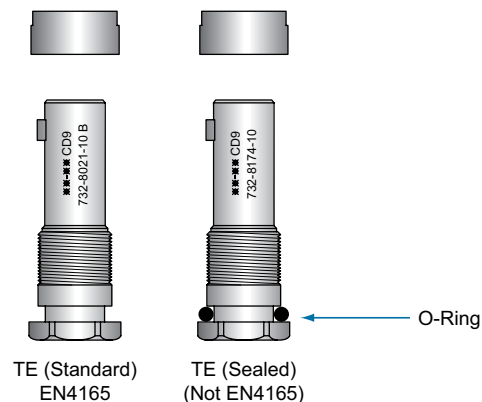
## Unsealed EN4165-Compliant Keying

Type	01	02	03	04	05	06	10
TE (Standard)	732-8021-01 B	732-8021-02 B	732-8021-03 B	732-8021-04 B	732-8021-05 B	732-8021-06 B	732-8021-10 B
EN4165	EN4165R01	EN4165R02	EN4165R03	EN4165R04	EN4165R05	EN4165R06	EN4165R10

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

Type	01	02	03	04	05	06	10
TE (Sealed)	732-8174-01	732-8174-02	732-8174-03	732-8174-04	732-8174-05	732-8174-06	732-8174-10



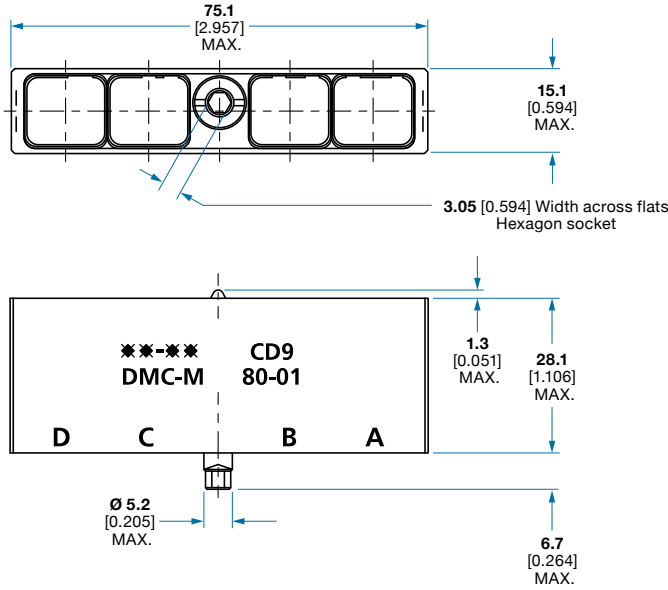




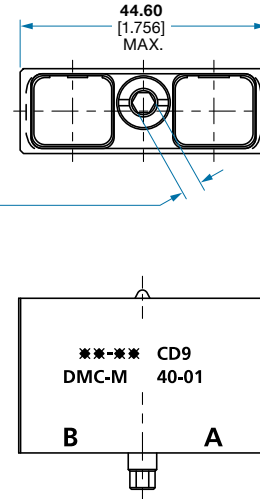
# PLUGS

## FREE PLUGS

DMC-M 80-01: 4 Modules



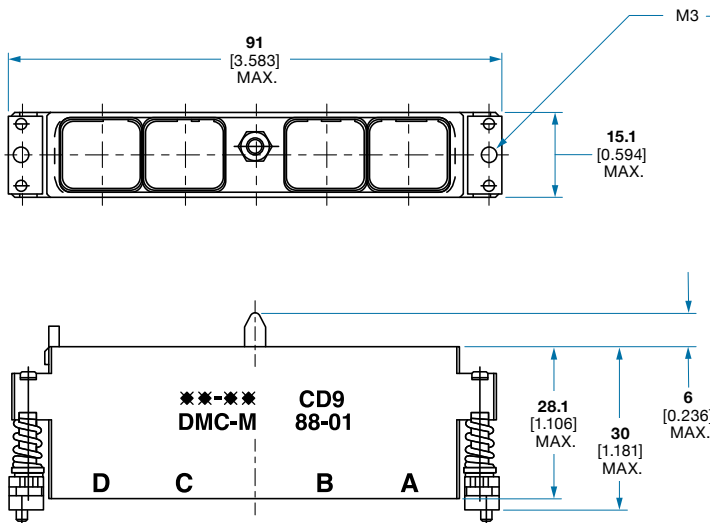
DMC-M 40-01: 2 Modules



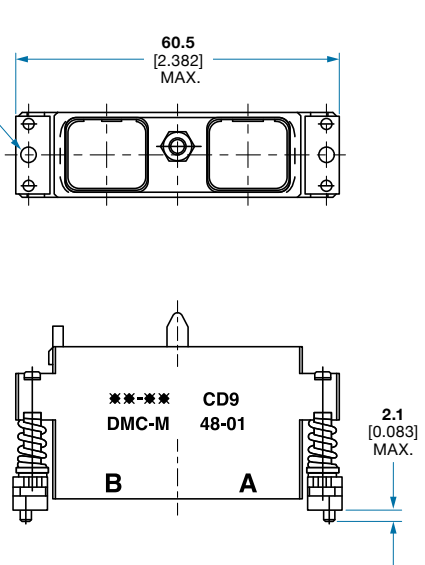
The receptacle/plug coupling is done with the tool 057-0592-80 or a standard Allen wrench (coupling torque  $0.1 \pm 0.03$  daN.m [8.8  $\pm$  2.6 in. lbf.]).

## RACK AND PANEL PLUGS

DMC-M 88-01: 4 Modules



DMC-M 48-01: 2 Modules



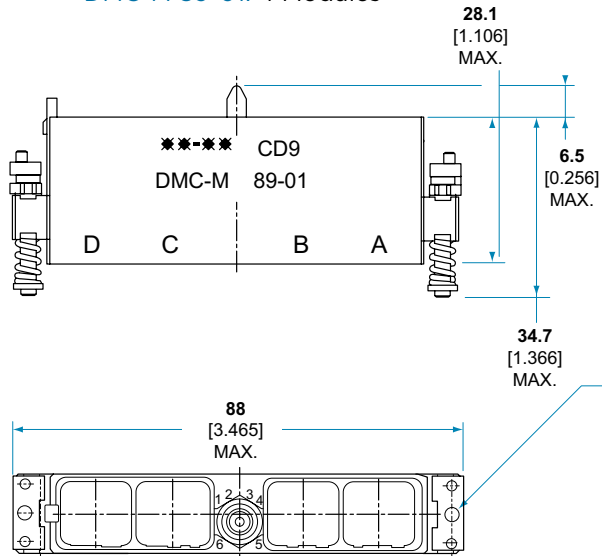
See page 40 for panel cutouts.



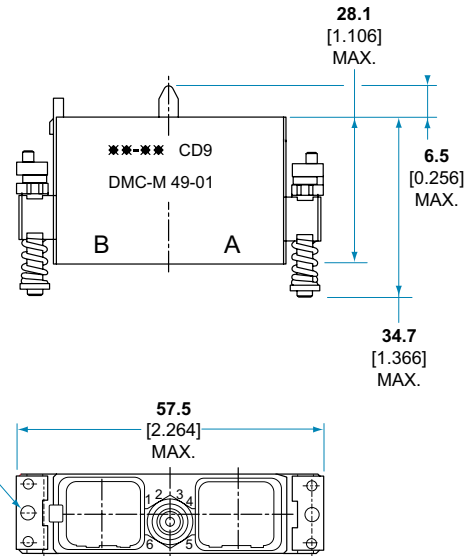
# PLUGS

## REVERSE RACK AND PANEL PLUGS

DMC-M 89-01: 4 Modules



DMC-M 49-01: 2 Modules



See page 40 for panel cutouts.



# PLUGS

## TE PART NUMBERING SYSTEM

**DMC-MD 89 B 3 5 W 01 \*\*\*\***

### 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)

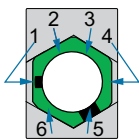
- Omit for Standard Keying Component Not Mounted
- A Without Keying Component
- B With Keying Component Coded, Mounted or Not Mounted

### 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



**Keying Component Orientation**

Viewed from front face of plug housing  
Largest keyway indicates orientation

### 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)

### ISSUE

01

### MODIFICATIONS (Optional)

- A1064 Bright Nickel Finish
- Consult TE for additional modifications





# PLUGS

## EN4165 PART NUMBERING SYSTEM

**EN4165 W 9 A 4 R 3 5**

### 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)

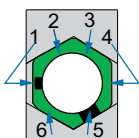
**5** Type 5 (Orange)

**6** Type 6 (White)

### KEYING COMPONENT ORIENTATION IN THE RECEPTACLE

**0** Not Mounted

**1, 2, 3, 4, 5, 6**



**Keying Component Orientation**

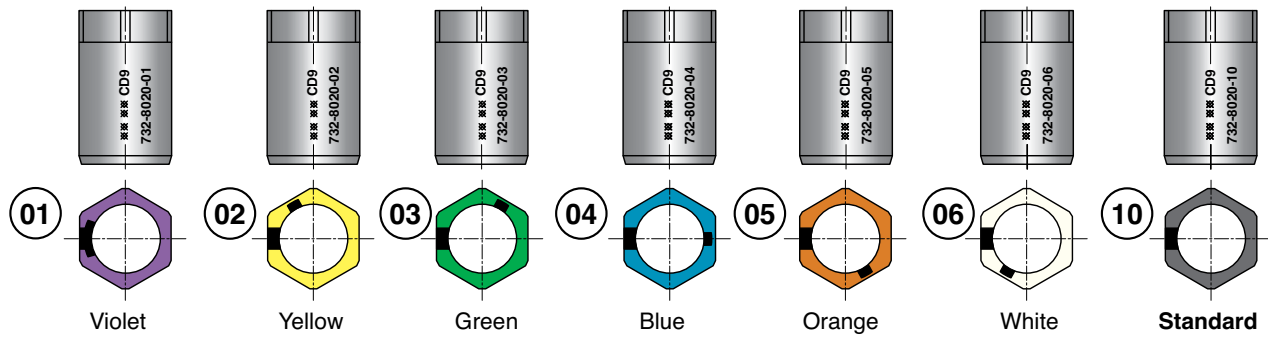
Viewed from front face of plug housing  
Largest keyway indicates orientation



# 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 mismatching. 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.



Type	01	02	03	04	05	06	10
TE	732-8020-01	732-8020-02	732-8020-03	732-8020-04	732-8020-05	732-8020-06	732-8020-10
EN4165	EN4165P01	EN4165P02	EN4165P03	EN4165P04	EN4165P05	EN4165P06	EN4165P10



# MODULES

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

Arrangement	Configuration	Pin Contacts		Socket Contacts	
		View	Part No.	View	Part No.
30-23	30 Contacts, Size 23		DMC-MR 30-23 AN		DMC-MR 30-23 BN
20-22	20 Contacts, Size 22		DMC-M 20-22 AN BAC10BC2022PNB EN4165A20-221NA		DMC-M 20-22 BN BAC10BC2022SNB EN4165A20-221NB
20-22*	20 Contacts, Size 22		DMC-MA 20-22 AN EN4165A20A221NA		DMC-MA 20-22 BN EN4165A20A221NB
12-20	12 Contacts, Size 20		DMC-M 12-20 AN BAC10BC1220PNB EN4165A12-201NA		DMC-M 12-20 BN BAC10BC1220SNB EN4165A12-201NB
08-16	8 Contacts, Size 16		DMC-M 08-16 AN BAC10BC0816PNB EN4165A08-161NA		DMC-M 08-16 BN BAC10BC0816SNB EN4165A08-161NB
04-12	4 Contacts, Size 12		DMC-M 04-12 AN EN4165A04-121NA		DMC-M 04-12 BN EN4165A04-121NB
01-08	1 Contact, Size 08		DMC-M 01-08 AN EN4165A01-081NA		DMC-M 01-08 BN EN4165A01-081NB
99-01	6 Contacts, Size 16 5 Contacts, Size 22		DMC-M 99-01 AN BAC10BC1622PNB EN4165A99-011NA		DMC-M 99-01 BN BAC10BC1622SNB EN4165A99-011NB
99-01*	6 Contacts, Size 16 5 Contacts, Size 22		DMC-MA 99-01 AN EN4165A99A011NA		DMC-MA 99-01 BN EN4165A99A011NB
99-06	8 Contacts, Size 22 2 Contacts, Size 12		DMC-M 99-06 AN BAC10BC1001PNB		DMC-M 99-06 BN BAC10BC1001SNB
99-10	8 Contacts, Size 20 2 Contacts, Size 16		DMC-M 99-10 AN EN4165A99-101NA		DMC-M 99-10 BN EN4165A99-101NB

## ELECTRICAL MODULES / BACC47 CONTACT COMPLIANT

Arrangement	Configuration	Pin Contacts		Socket Contacts	
		View	Part No.	View	Part No.
99-10	8 Size 20 Contacts 2 Size 16 Contacts		DMC-MB 99-10 AN BAC10BC0910PNB		DMC-MB 99-10 BN BAC10BC0910SNB
12-20	12 Size 20 Contacts		DMC-MB 12-20 AN BAC10BC1220APNB		DMC-MB 12-20 BN BAC10BC1220ASNB

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




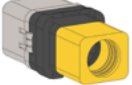
Aluminium cable technology possible with size 22 contacts

DEUTSCH Part Numbers (DMC-M)  
BAC10BC Part Numbers  
EN4165 Part Numbers



# MODULES

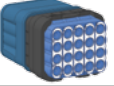
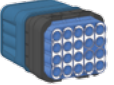
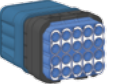
## GROUNDING MODULES

Arrangement	Configuration	Pin Contacts		
		View	Part No.	
08-16	8 Size 16 Contacts		DMC-M 08-16 AN-G EN4165A08G161NA	
04-12	4 Size 12 Contacts		DMC-M 04-12 AN-G EN4165A04G121NA	
01-08	1 Size 08 Contact		DMC-M 01-08 AN-G EN4165A02G081NA	
				DMC-M 01-08 BN-G EN4165A02G081NB

## BLANKING MODULES









Configuration	View	Part No.
Blanking Module		DMC-M 00-00 PN EN4165-1N

## SHUNT MODULES



Arrangement	Configuration	View	Part No.
22-05	20 Contacts, Size 22 5 Shunts 4 Ways		DMC-M 22-05 BN EN4165A20Y221NB
22-07	20 Contacts, Size 22 3 Shunts 4 Ways 4 Shunts 2 Ways		DMC-M 22-07 BN EN4165A2AY221NB
22-10	20 Contacts, Size 22 10 Shunts 2 Ways		DMC-M 22-10 BN EN4165A2BY221NB

Distribution shunt modules use dedicated contacts based on standard AS39029. The shunt modules can only be mated with DMC-M 20-22 AN or DMC-MA 20-22 AN modules.

## HIGH-SPEED ETHERNET MODULES

Arrangement	Configuration	Pin Contacts		Socket Contacts	
		View	Part No.	View	Part No.
16-02	6 Contacts, Size 16 2 Contacts, Size 22 8 Contacts, Size 24		2226454-1 DMC-M 16-02 AN		266455-1 DMC-M 16-02 BN
99-02	8 Contacts, Size 22 3 Contacts, Size 20		DMC-M 99-02 AN		DMC-M 99-02 BN
99-03	8 Contacts, Size 20 8 Contacts, Size 24		DMC-M 99-03 AN		DMC-M 99-03 BN
99-04	6 Contacts, Size 20 2 Contacts, Size 22 8 Contacts, Size 24		DMC-M 99-04 AN		DMC-M 99-04 BN

## QUADRAX MODULES

Arrangement	Configuration	Pin Contacts		Socket Contacts	
		View	Part No.	View	Part No.
01-09	1 Quadrax Contact		DMC-M 01-08 AN-GQ EN4165A01Q281NA		DMC-M 01-08 BN-GQ EN4165A01Q281NB

DEUTSCH Part Numbers (DMC-M)  
BAC10BC Part Numbers  
EN4165 Part Numbers



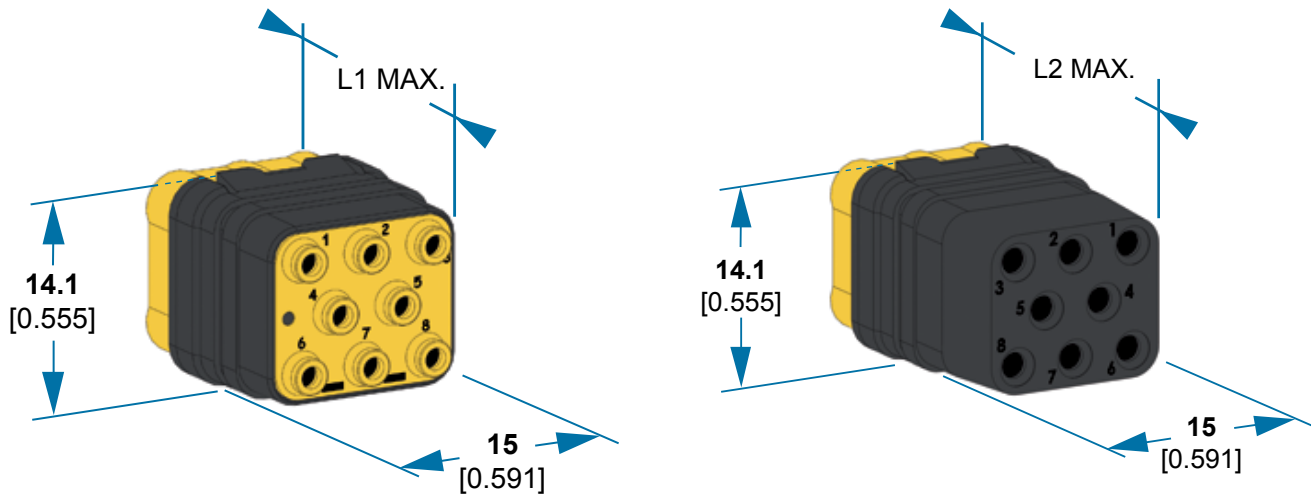
# MODULES

## FIBER OPTIC AND HYBRID MODULES

Configuration	Module Part No.		Socket	Part No.	Alignment Sleeve
	Pin	Part No.			
6 MC5 Termini		458235		458238	458237-C (Ceramic) 458237-M (Metal)
1 MT Ferrule (12 or 24 Fibers)		DMC-M01-MC6N		DMC-M01-MC6N	Not required
2 ARINC 801 Termini 5 Contacts, Size 16 2 Contacts, Size 22		459736 459736-P (With Contacts) 459823 (Right Angle)		459737 (Ceramic Sleeve) 459737-S (Ceramic Sleeve with Contacts) 459737-M (Metal Sleeve) 459737-M-S (Metal Sleeve with Contacts)	Included with socket module

## Module Dimensions (Except Fiber Optic Modules)

### SERIES 2 MODULES

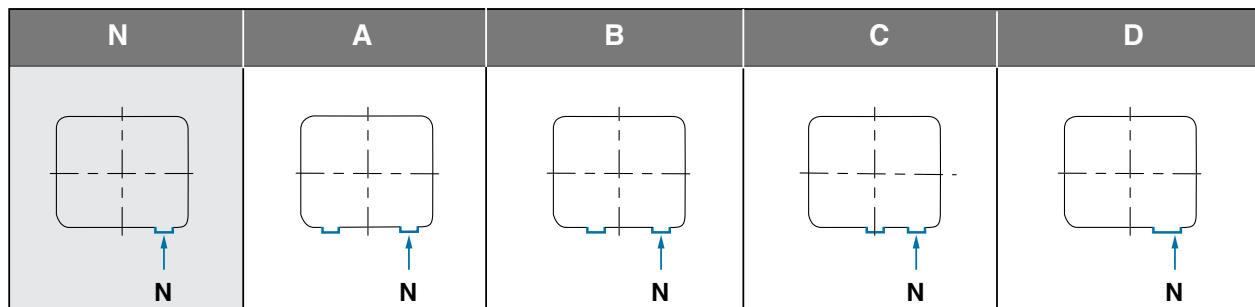


Modules for Contact Size	L1 (Short)	L2 (Long)
24, 23, 22, 20, 16, 12	16.46 (0.648)	22.40 (0.882)
08	18.70 (0.736)	33.20 (1.307)

Module extraction is done with the tool part no. 057-0289-00 A or B. The module insertion into the plug or receptacle is done manually.

## Polarization Keys

(Module viewed from front face)



Each module can have a specific polarization key A, B, C or D. The polarized modules must be installed in a similarly polarized shell cavity. N-keyed modules will fit into all shells.





# MODULES

## TE PART NUMBERING SYSTEM

**DMC-M 20-22 A N E**

### Standard Modules

**CONNECTOR TYPE**  
DMC-M

**ARRANGEMENT**  
See Pages 19 - 21

**CONTACTS\***

- P Standard Male Contact
- S Standard Female Contact
- A Without Male Contact
- B Without Female Contact
- C Male Contact, Enlarged Crimp Barrel
- D Female Contacts, Enlarged Crimp Barrel

**POLARIZATION**  
N, A, B, C, D

**SEALING (Optional)**  
Omit - Standard (No Sealing)  
E Sealed

## EN4165 PART NUMBERING SYSTEM

**EN4165 A 20-22 2 N A**

### Standard Modules

**CONNECTOR TYPE**  
EN4165

**MODULE SERIES**

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

**ARRANGEMENT**  
See Pages 19 - 21

**SEALING**

- 1 Unsealed
- 2 Sealed

**POLARIZATION**  
N, A, B, C, D

**CONTACTS\***

- F Standard Female Contact
- M Standard Male Contact
- A Without Male Contact
- B Without Female Contact
- C Male Contact, Enlarged Crimp Barrel
- D Female Contacts, Enlarged Crimp Barrel

\*Standard contacts compliant with AS39029 and EN3155



# MODULES

## TE PART NUMBERING SYSTEM

### Aluminum Cable Compliant Modules

**CONNECTOR TYPE**  
DMC-MA

**ARRANGEMENT**  
20-22  
99-01

**CONTACTS**  
A Without Male Contact  
B Without Female Contact

**POLARIZATION**  
N, A, B, C, D

DMC-MA 20-22 A N

## EN4165 PART NUMBERING SYSTEM

### Aluminum Cable Compliant Modules

**CONNECTOR TYPE**  
EN4165

**MODULE SERIES**  
A Series 2  
B Series 3 (Consult TE)

**ARRANGEMENT**  
20A22  
99A01

**SEALING**  
1 Unsealed

**POLARIZATION**  
N, A, B, C, D

**CONTACTS**  
A Without Male Contact  
B Without Female Contact

EN4165 A 20A22 1 N A

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



# MODULES

## TE PART NUMBERING SYSTEM

**DMC-M 01-08 B N - G W**

### Grounding Modules

**CONNECTOR TYPE**  
DMC-M

**MODULE TYPE**  
01-08  
04-12  
08-16

**CONTACTS**  
P Standard Male Contact  
S Standard Female Contact  
A Without Male Contact  
B Without Female Contact

**POLARIZATION**  
N, A, B, C, D

**GROUNDING**  
G

**PLATING/FINISH (Optional)**  
Aluminum Alloy  
Omit - Black Nickel  
W Olive Drab Cadmium

## EN4165 PART NUMBERING SYSTEM

**EN4165 A 01G08 2 N B**

### Grounding Modules

**CONNECTOR TYPE**  
EN4165

**MODULE SERIES**  
A Series 2  
B Series 3 (Consult TE)

**ARRANGEMENT**  
01G08  
04G12  
08G16

**SEALING**  
1 Unsealed  
2 Sealed

**POLARIZATION**  
N, A, B, C, D

**CONTACTS**  
F Standard Female Contact  
M Standard Male Contact  
A Without Male Contact  
B Without Female Contact  
C Male Contact, Enlarged Crimp Barrel  
D Female Contacts, Enlarged Crimp Barrel



# MODULES

## TE PART NUMBERING SYSTEM

### Quadrax Modules

**CONNECTOR TYPE**  
DMC-M

**ARRANGEMENT**  
01-08 Only

**CONTACT TYPE**  
A Without Male Contact  
B Without Female Contact

**POLARIZATION**  
N, A, B, C, D

**GROUNDING**  
G

**QUADRAX**  
Q

**PLATING/FINISH (Optional)**  
Aluminum Alloy  
Omit - Black Nickel  
W Olive Drab Cadmium

DMC-M 01-08 B N-G Q W

## EN4165 PART NUMBERING SYSTEM

### Quadrax Modules

**FAMILY**  
EN4165

**MODULE SERIES**  
A Series 2  
B Series 3 (Consult TE)

**ARRANGEMENTS**  
1Q28

**SEALING**  
1 Unsealed  
2 Sealed

**POLARIZATION**  
N, A, B, C, D

**CONTACTS**  
A Without Male Contact  
B Without Female Contact

EN4165 A 01Q28 2 N B



# MODULES

## TE PART NUMBERING SYSTEM

DMC-M 22-05 B N

### 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

EN4165 A 20Y22 1 N B

### 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



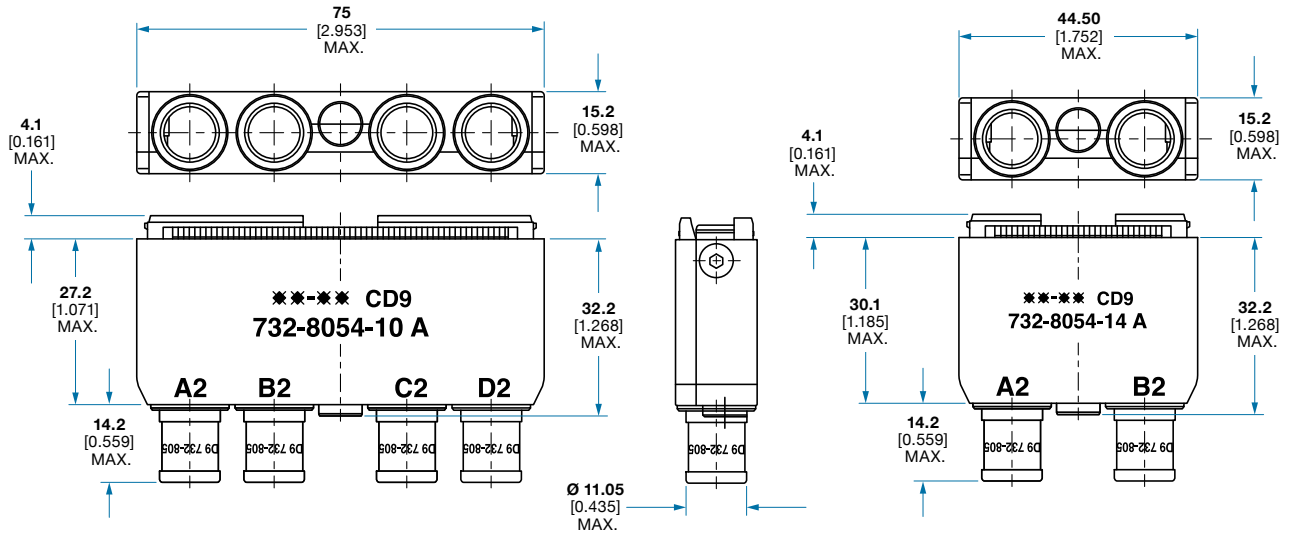


# ACCESSORIES

## SHIELDED ACCESSORY BODIES

732-8054-10 A: 4 Modules

732-8054-14 A: 2 Modules



### TE PART NUMBERING SYSTEM

732 - 8052 - 00 W A

**FAMILY** \_\_\_\_\_

732

**TYPE (Used With)** \_\_\_\_\_

- 8052 Free Plug
- 8053 Rack and Panel Plug
- 8054 Receptacle

**SHELL** \_\_\_\_\_

- Two-Module Accessory**
- 01 2 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



# ACCESSORIES

## EN PART NUMBERING SYSTEM

**EN4165**   **F**   **14**   **P**   **4**

### FAMILY

**EN4165**

### PLATING/FINISH

**Aluminum Alloy Body**

**F** Black Nickel

**W** Olive Drab Cadmium

**Composite Body**

**M** Nickel (For Shell Types P4 and R4 Only)

**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

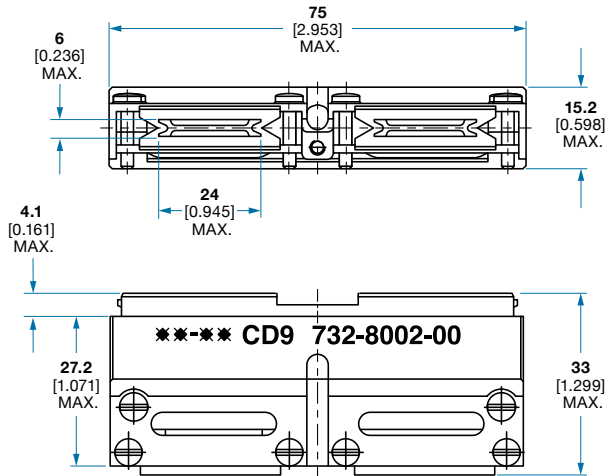
**4** 4 Modules



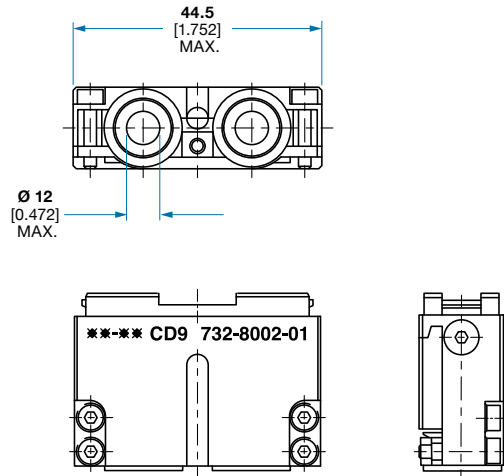
# ACCESSORIES

## NONSHIELDED CABLE CLAMPS

732-8002-00: 4 Modules



732-8002-01: 2 Modules



### TE PART NUMBERING SYSTEM

**732 - 8002 - 00 W**

**FAMILY**  
732

**MATERIAL**  
8002 Metal  
8040 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

**EN4165 F 13 A 4**

**FAMILY**  
EN4165

**PLATING/FINISH**  
F Black Nickel  
W Olive Drab Cadmium

**TYPE**  
13 Cable Clamp

**SERIES**  
A Series 2  
B Series 3 (Consult TE)

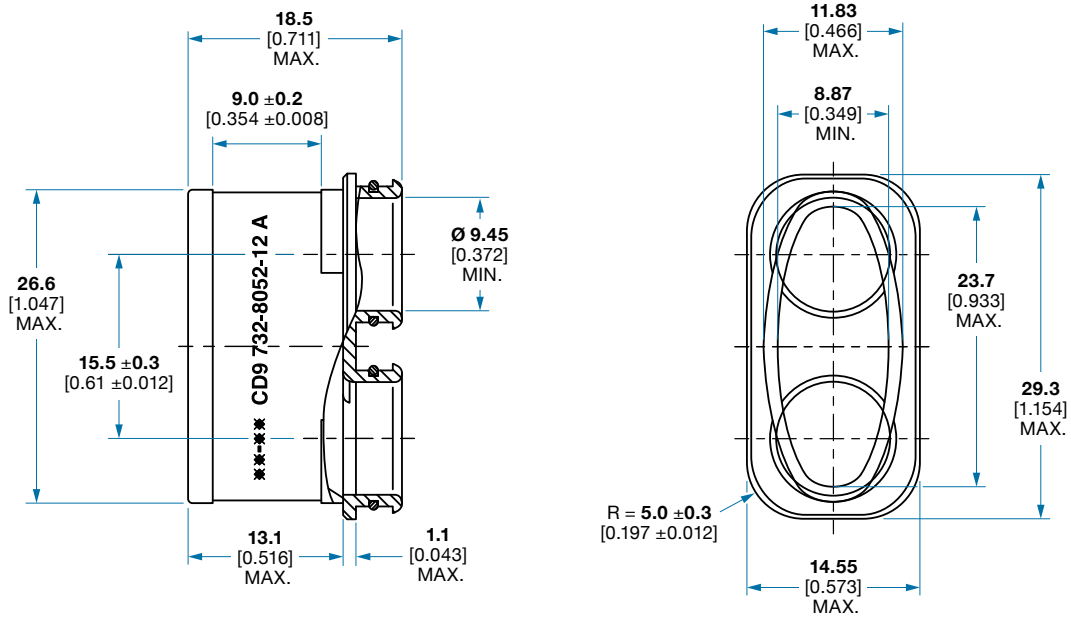
**SIZE**  
2 2 Modules  
4 4 Modules



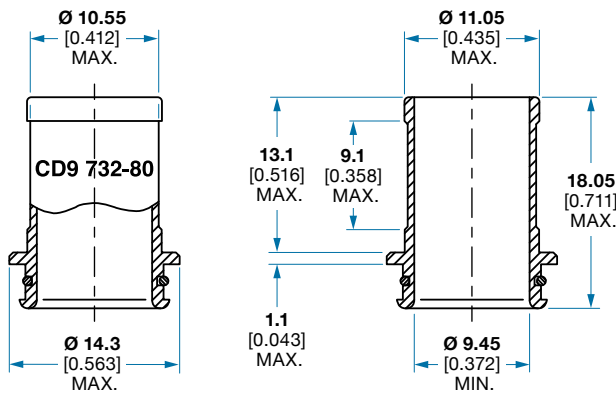
# ACCESSORIES

## CHIMNEYS FOR SHIELDED ACCESSORIES

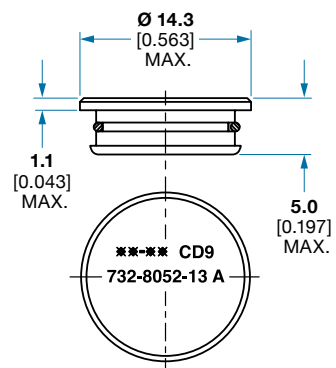
732-8052-12 A: Double Oval Chimney (1 for 2 cavities, for 4-module accessories only)



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



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



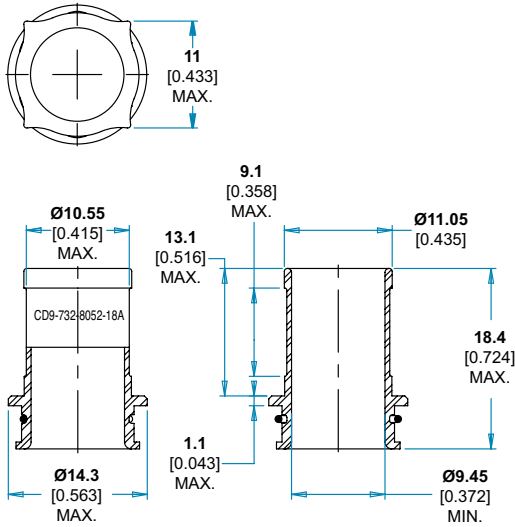


# ACCESSORIES

## CHIMNEYS FOR SHIELDED ACCESSORIES

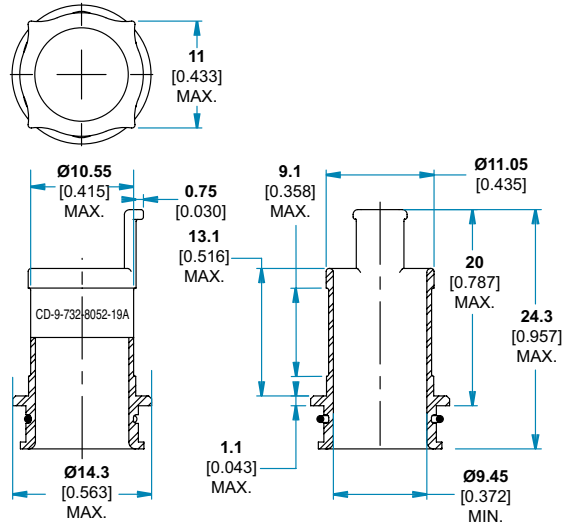
732-8052-18 A:

Anti-Rotational Round Chimney



732-8052-19 A

Anti-Rotational Round Chimney with Tie Wrap Option



### TE PART NUMBERING SYSTEM

732-8052 - 11 W A

#### FAMILY

732-8052

#### TYPE

- 11 Round Chimney
- 12 Double Oval Chimney
- 13 Blank Chimney
- 18 Anti-Rotational Round Chimney
- 19 Anti-Rotational Round Chimney with Tie Wrap Option

#### PLATING/FINISH

- Omit for Black Nickel
- W Olive Drab Cadmium

#### ISSUE

A

### EN PART NUMBERING SYSTEM

EN4165 16 F

#### STANDARD

EN4165

#### TYPE

- 15 Round Chimney
- 15A Anti-Rotational Round Chimney with Tie Wrap Option
- 16 Double Oval Chimney
- 17 Blank Chimney

#### PLATING/FINISH

- F Black Nickel
- W Olive Drab Cadmium



# MASSES

## Receptacles

Type	Nickel Finish		Olive Drab Cadmium Finish		Mass, Max. (g)	Page
	TE Part No.	EN Part No.	TE Part No.	EN Part No.		
<b>2-Module Receptacles</b>						
Standard	DMC-M 42 A 01	EN4165FOA200	DMC-M 42 AW 01	EN4165WOA200	17	8
Short	DMC-M 43 A 01	—	DMC-M 43 AW 01	—	15	8
Flange Mount	DMC-M 44 A 01	EN4165F7A200	DMC-M 44 AW 01	EN4165W7A200	22	9
Short, Flange Mount	DMC-M 45 A 01	—	DMC-M 45 AW 01	—	21	9
<b>4-Module Receptacles</b>						
Standard (Aluminum)	DMC-M 82 A 01	EN4165FOA400	DMC-M 82 AW 01	EN4165WOA400	22	8
Standard (Composite)	DMC-MD 82 AM 01	EN4165MOA400	DMC-MD 82 AJ 01	EN4165JOA400	15	8
Short (Aluminum)	DMC-M 83 A 01	—	DMC-M 83 AW 01	—	20	8
Short (Composite)	DMC-MD 83 AM 01	—	DMC-MD 83 AJ 01	—	14	8
Flange Mount	DMC-M 84 A 01	EN4165F7A400	DMC-M 84 AW 01	EN4165W7A400	28	9
Short, Flange Mount	DMC-M 85 A 01	—	DMC-M 85 AW 01	—	27	9

## Multi-Receptacle Housings

Size (No. of Modules)	Type	TE Part No.	Mass (g)	Page
8	Standard	DMC-M 0164-01	98	12
	Lightweight	DMC-M 0164-01 A	55	12
12	Standard	DMC-M 0244-01	127	12
	Lightweight	DMC-M 0244-01 A	75	12
16	Standard	DMC-M 0324-01	156	12
	Lightweight	DMC-M 0324-01 A	95	12
24	Standard	DMC-M 0484-01	214	12
	Lightweight	DMC-M 0484-01 A	131	12
32	Standard	DMC-M 0644-01	273	12
	Lightweight	DMC-M 0644-01 A	171	12
40	Standard	DMC-M 0804-01	331	12
	Lightweight	DMC-M 0804-01 A	211	12
48	Standard	DMC-M 0964-01	390	12
	Lightweight	DMC-M 0964-01 A	251	12
52	Standard	DMC-M 1044-01	419	12
	Lightweight	DMC-M 1044-01 A	271	12

## Receptacle Keying Component

Type	TE Part No.	EN Part No.	Mass, Max. (g)	Page
Keying	732-8021-** B	EN4165R**	2.5	13

## Plugs

Type	Nickel Finish		Olive Drab Cadmium Finish		Mass, Max. (g)	Page
	TE Part No.	EN Part No.	TE Part No.	EN Part No.		
<b>2-Module Plugs</b>						
Free Hanging (Aluminum)	DMC-M 40 A 01	EN4165F6A200	DMC-M 40 AW 01	EN4165W6A200	22	14
Rack and Panel	DMC-M 48 A 01	EN4165F9A200	DMC-M 48 AW 01	EN4165W9A200	33	14
Reversed Rack and Panel	DMC-M 49 A 01	EN4165F9A2R00	DMC-M 49 AW 01	EN4165W9A2R00	33	15
<b>4-Module Plugs</b>						
Type	Nickel Finish		Olive Drab Cadmium Finish		Mass, Max. (g)	Page
	TE Part No.	EN Part No.	TE Part No.	EN Part No.		
Free Hanging (Aluminum)	DMC-M 80 A 01	EN4165F6A400	DMC-M 80 AW 01	EN4165W6A400	22	14
Free Hanging (Composite)	DMC-MD 80 AM	EN4165M6A400	DMC-MD 80 AJ	EN4165J6A400	19	14
Rack and Panel	DMC-M 88 A 01	EN4165F9A400	DMC-M 88 AW 01	EN4165W9A400	38	14
Reversed Rack and Panel	DMC-M 89 A 01	EN4165F9A4R00	DMC-M 89 AW 01	EN4165W9A4R00	38	15





# MASSES

## Plug Keying Component

Type	TE Part No.	EN Part No.	Mass, Max. (g)	Page
Keying	732-8020-**	EN4165P**	0.7	18

## Modules

Insert	Contact Type	TE Part No.	EN Part No.	Mass, Max. (g)	Page
<b>Standard Modules</b>					
00-00 (Blank)	—	DMC-M 00-00 PN	EN4165-1N	3.0	20
01-08	Male	DMC-M 01-08 A*	EN4165A01-081*A	2.9	19
	Female	DMC-M 01-08 B*	EN4165A01-081*B	4.4	19
04-12	Male	DMC-M 04-12 A*	EN4165A04-121*A	2.8	19
	Female	DMC-M 04-12 B*	EN4165A04-121*B	3.7	19
08-16	Male	DMC-M 08-16 A*	EN4165A08-161*A	2.9	19
	Female	DMC-M 08-16 B*	EN4165A08-161*B	3.9	19
12-20	Male	DMC-M 12-20 A*	EN4165A12-201*A	3.2	19
	Female	DMC-M 12-20 B*	EN4165A12-201*B	4.1	19
20-22	Male	DMC-M 20-22 A*	EN4165A20-221*A	3.1	19
	Female	DMC-M 20-22 B*	EN4165A20-221*B	4.1	19
99-01	Male	DMC-M 99-01 A*	EN4165A99-011*A	2.4	19
	Female	DMC-M 99-01 B*	EN4165A99-011*B	3.2	19
99-06	Male	DMC-M 99-06 A*		??	19
	Female	DMC-M 99-06 B*		??	19
99-10	Male	DMC-M 99-10 A*	EN4165A99-101*A	3.2	19
	Female	DMC-M 99-10 B*	EN4165A99-101*B	4.2	19
<b>High-Density Modules</b>					
30-23	Male	DMC-MR 30-23 A*	—	3.4	19
	Female	DMC-MR 30-23 B*	—	2.5	19
<b>Aluminum Cable Compatible Modules</b>					
20-22	Male	DMC-MA 20-22 A*	EN4165A20A221*A	2.9	19
	Female	DMC-MA 20-22 B*	EN4165A20A221*B	3.2	19
99-01	Male	DMC-MA 99-01 A*	EN4165A99A011*A	2.9	19
	Female	DMC-MA 99-01 B*	EN4165A99A011*B	3.7	19
<b>Grounding Modules</b>					
01-08	Male	DMC-M 01-08 A*-G*	EN4165A01G081*A	3.6	20
	Female	DMC-M 01-08 B*-G*	EN4165A01G081*B	7.5	20
04-12	Male	DMC-M 04-12 A*-G*	EN4165A04G121*A	3.8	20
	Female	DMC-M 04-12 B*-G*	EN4165A04G121*B	6.7	20
08-16	Male	DMC-M 08-16 A*-G*	EN4165A08G161*A	3.9	20
	Female	DMC-M 08-16 B*-G*	EN4165A08G161*B	6.9	20
<b>BACC47 Contact Compliant</b>					
99-10	Male	DMC-MB 99-10 A*	—	2.9	19
	Female	DMC-MB 99-10 B*	—	4.1	19
12-20	Male	DMC-MB 12-20 A*	—	2.9	19
	Female	DMC-MB 12-20 B*	—	4.1	19



# MASSES

## Modules (continued)

Insert	Contact Type	TE Part No.	EN Part No.	Mass, Max. (g)	Page
<b>Quadrax Modules</b>					
01-08 (Ni)	Male	DMC-M 01-08 A*-GQ	EN4165A01Q281*A	3.5	20
	Female	DMC-M 01-08 B*-GQ	EN4165A01Q281*B	7.4	20
01-08 (Cd)	Male	DMC-M 01-08 A*-GQW	—	3.5	20
	Female	DMC-M 01-08 B*-GQW	—	7.4	20
<b>Shunt Modules</b>					
20-22 (5 Shunts 4 Ways)	Female	DMC-M 22-05 B*	EN4165A20Y221*B	3.8	20
20-22 (3 Shunts 4 Ways and 4 Shunts 2 Ways)	Female	DMC-M 22-07 B*	EN4165A2AY221*B	3.7	20
20-22 (10 Shunts 2 Ways)	Female	DMC-M 22-10 B*	EN4165A2BY221*B	3.7	20
<b>High-Speed Modules</b>					
99-02	Male	DMC-M 99-02 A*	—	3.6	20
	Female	DMC-M 99-02 B*	—	4.4	20
99-03	Male	DMC-M 99-03 A*	—	2.5	20
	Female	DMC-M 99-03 B*	—	3.35	20
99-04	Male	DMC-M 99-04 A*	—	2.9	20
	Female	DMC-M 99-04 B*	—	3.4	20
16-02	Male	2226454-1/ DMC-M 16-02 A*	—	2.5	20
	Female	2226455-1/ DMC-M 16-02 B*	—	3.4	20
<b>Optical and Hybrid Modules</b>					
MC5	Male	458235	—	5.5	21
	Female	458238	—	8.9	21
T47 Hybrid	Male	459736-x	—	4.3	21
	Female	459739-x	—	5.3	21
MC6	Hermaphroditic	DMC-M01-MC6N	—	12.5	21



# MASSES

## Shielded Accessory Bodies

Type	Nickel Finish		Olive Drab Cadmium Finish		Mass, Max. (g)	Page
	TE Part No.	EN Part No.	TE Part No.	EN Part No.		
<b>2-Module Plugs</b>						
Free Hanging	732-8052-14 A	EN4165F14P2	732-8052-14 WA	EN4165W14P2	25	27
Rack and Panel	732-8053-14 A	—	732-8053-14		23	27
<b>4-Module Plugs</b>						
Free Hanging (Aluminum)	732-8052-10 A	EN4165F14P4	732-8052-10 WA	EN4165W14P4	34	27
Free Hanging (Composite)	732-8052-10 M	EN4165M14P4	732-8052-10 J	EN4165J14P4	26	27
Rack and Panel	732-8053-10 A	—	732-8053-10 WA	—	32	27
<b>2-Module Receptacles</b>						
Standard and Short	732-8054-14 A	EN4165F14R2	732-8054-14 WA	EN4165W14R2	23	27
<b>4-Module Receptacles</b>						
Standard and Short	732-8054-10 A	EN4165F14R4	732-8054-10 WA	EN4165W14R4	32	27

## Non-Shielded Cable Clamps

Type	Nickel Finish		Olive Drab Cadmium Finish		Mass, Max. (g)	Page
	TE Part No.	EN Part No.	TE Part No.	EN Part No.		
4-Module Shells	732-8002-00	EN4165F13A4	732-8002-00 W	EN4165W13A4	34	29
2-Module Shells	732-8002-01	EN4165F13A2	732-8002-01 W	EN4165W13A2	22	29

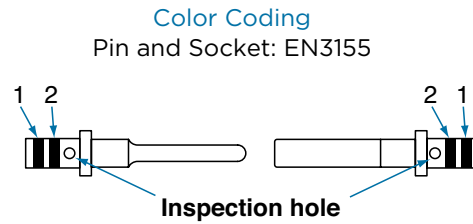
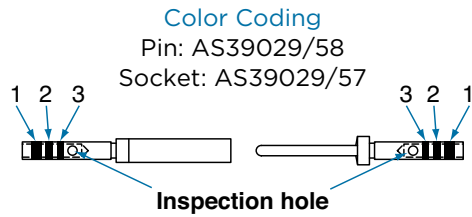
## Chimneys for Shielded Accessories

Type	Nickel Finish		Olive Drab Cadmium Finish		Mass, Max. (g)	Page
	TE Part No.	EN Part No.	TE Part No.	EN Part No.		
Round	732-8052-11 A	EN4165F15	732-8052-11 WA	EN4165W15	1.5	30
Double Oval	732-8052-12 A	EN4165F16	732-8052-12 WA	EN4165W16	3.5	30
Blank	732-8052-13 A	EN4165F17	732-8052-13 WA	EN4165W17	2	30
Anti-Rotation Round	732-8052-18 A	—	732-8052-18 WA	—	1.55	31
Anti-Rotation Round/Tie Wrap	732-8052-19 A	EN4165F15A	732-8052-19 WA	EN4165W15A	1.7	30



# CONTACTS

## ELECTRICAL CONTACTS



Size	Part No.	Type	Color Bands		Wire Range	
			AS39029	EN3155	AWG	mm <sup>2</sup>
24/24	<b>724-0001-24</b>	Pin	—	—	26-24	0.15 - 0.25
	<b>724-0003-24</b>	Socket	—	—		
23/22	<b>182-4043-23</b>	Pin	—	Green-Purple	26-22	0.15 - 0.4
	<b>182-4042-23</b>	Socket	—	Green-Purple		
22/22	<b>724-0001-22</b>	Pin	Orange-Blue-Black	Green-Green	26-22	0.15 - 0.40
	<b>724-0003-22</b>	Socket	Orange-Green-Yellow			
22/20	182-0860-22	Pin	—	Red-Green	24-20	0.25 - 0.60
	182-0862-22	Socket	—			
20/20	<b>724-0001-20</b>	Pin	Orange-Blue-Orange	Red-Red	24-20	0.25 - 0.60
	<b>724-0003-20</b>	Socket	Orange-Green-Purple			
20/18	724-1063-20	Pin	—	Brown-Red	24-18	0.25 - 1.00
	724-1064-20	Socket	—			
16/16	<b>724-0001-16</b>	Pin	Orange-Blue-Yellow	Blue-Blue	20-16	0.60 - 1.20
	<b>724-0003-16</b>	Socket	Orange-Green-Gray			
16/14	724-1063-16	Pin	—	White-Blue	20-14	0.60 - 2.00
	724-1064-16	Socket	—			
12/12	<b>724-0001-12</b>	Pin	Orange-Blue-Green	Yellow-Yellow	14-12	2.00 - 3.00
	<b>724-0003-12</b>	Socket	Orange-Green-White			
12/10	724-1063-12	Pin	—	White-Yellow	12-10	3.00 - 5.00
	724-1064-12	Socket	—			
08 (Power)	724-0001-08	Pin	—	—	08	5.30 - 8.98
	724-0003-08	Socket	—			
08 (Power)	182-0001-08	Pin	—	—	08	
	182-0003-08	Socket	—			
Microcoax	724-0004-16	Pin	Yellow-Red-Yellow	—	KX 22	0.057 - 0.158
	724-0005-16	Socket	Yellow-Orange-Red			
08 (Coax)	182-0125-08	Pin	—	—	ALPEN A 26 DT	
	182-0126-08	Socket	—			
08	182-0048-08	Pin	—	—	SMA Interface	
	182-0044-08	Socket	—			
22 (Shunt)	<b>724-1272-22</b>	Socket	—	—	26-22	0.15 - 0.40

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

## Databus Contacts (Twisted Pair) As Per AS39029

Cable Type	Part No.	Type	Color Bands	Conductor Size, Max.	Braid OD, Max.
Single Braid	<b>182-0034-03</b>	Pin	Brown-Red	2 x 0.34 mm <sup>2</sup>	3.48
	<b>182-0035-03</b>	Skt			
Double Braid	182-0034-04	Pin	Red-Red	2 x 0.34 mm <sup>2</sup>	3.91
	Olive Drab Cadmium	Skt			



# CONTACTS

## TOOLING



Part No.	Crimp Tool		Positioner		Insertion/Extraction Tool
	Part No.	Mil Part No.	Part No.	Mil Part No.	
<b>724-0001-24</b> <b>724-0003-24</b>	057-0463-12	M22520/2-01	057-1030-02 057-1030-01	—	605837-22
<b>182-4043-23</b> <b>182-4042-23</b>	057-0463-12	M22520/2-01	057-0467-32 057-0515-32	M22520/2-09 M22520/2-06	M81969/14-01
<b>724-0001-22</b> <b>724-0003-22</b>	057-0463-12	M22520/2-01	057-0467-32 057-0515-32	M22520/2-09 M22520/2-06	M81969/14-01
182-0860-22 182-0862-22	057-0463-12	M22520/2-01	057-0467-32 057-0515-32	M22520/2-09 M22520/2-06	M81969/14-01
<b>724-0001-20</b> <b>724-0003-20</b>	057-0461-11	M22520/1-01	057-0466-21	M22520/1-04	M81969/14-10
724-1063-20 724-1064-20	057-0461-11	M22520/1-01	056-0466-21	M22520/1-04	M81969/14-10
<b>724-0001-16</b> <b>724-0003-16</b>	057-0461-11	M22520/1-01	057-0466-21	M22520/1-04	M81969/14-03
724-1063-16 724-1064-16	057-0461-11	M22520/1-01	056-0466-21	M22520/1-04	M81969/14-03
<b>724-0001-12</b> <b>724-0003-12</b>	057-0461-11	M22520/1-01	057-0466-21	M22520/1-04	M81969/14-04
724-1063-12 724-1064-12	057-0461-11	M22520/1-01	056-0466-21	M25520/1-04	—
724-0001-08 724-0003-08	057-0064-05 A	N/A	057-0065-05 A	N/A	114-008 or M81969/14-06
182-0001-08 182-0003-08	057-0064-05 A	N/A	057-0065-05 A	N/A	114-008 or M81969/14-06
724-0004-16 724-0005-16	057-0463-12 (Center Contact) 057-0509-14 (Outer Contact)	N/A	057-0539-32 (Center Contact) 057-0511-34 (Outer Contact)	N/A	M15570-16
182-0125-08 182-0126-08	N/A	N/A	N/A	N/A	114-008 or M81969/14-06
182-0048-08 182-0044-08	N/A	N/A	N/A	N/A	114-008 or M81969/14-06
<b>724-1272-22</b>	057-0463-12	M22520/2-01	057-0515-32	M22520/2-06	M81969/14-01

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

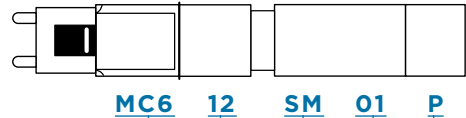
## Tooling for Databus Contacts

Cable Type	Sleeve Type	Center Conductor	Ferrule	Insertion/Extraction Tool
Single Braid	Thermoplastic and Silicone	TDB-CY-08	TDB-CT-HEX Mark C	114-008 or M81969/14-06
Double Braid	Thermoplastic and Silicone	TDB-CT-08	TDB-CT-08HEX Mark D	



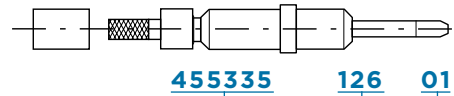
# FIBER OPTIC TERMINI

## MC6 Termini



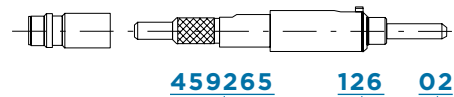
- FAMILY** ————— MC6
- NUMBER OF FIBERS** ————— 12
- FIBER TYPE** ————— SM Single Mode  
MM Multimode
- CABLE TYPE** ————— 01 Ruggedized Oval Aerospace Multifiber Cable, 3.95 mm x 1.60 mm max. Jacket  
02 Round Multifiber Cable, Ø 3.96 mm max. Jacket
- FERRULE TYPE** ————— P Male, with Alignment Pins  
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

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### FIBER OPTIC TRAINING

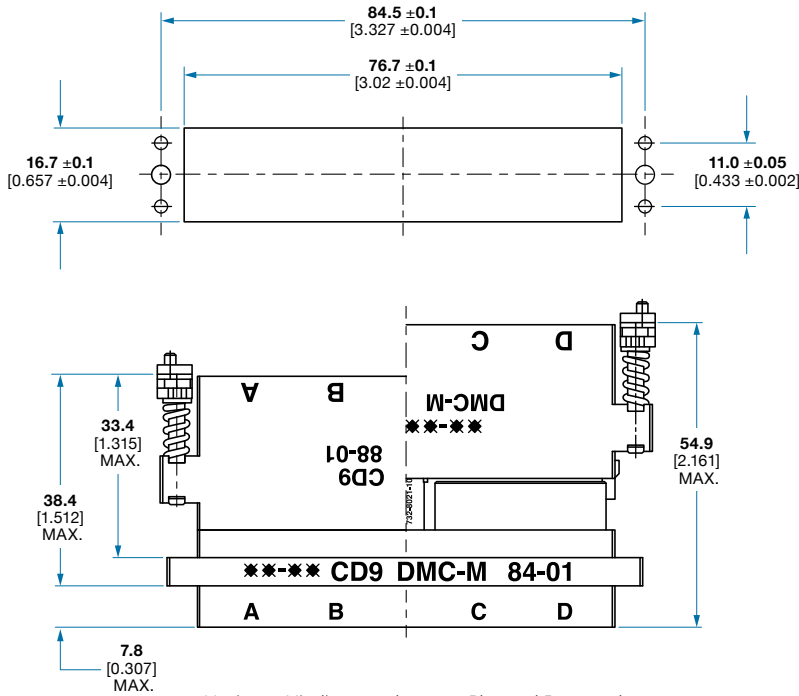
Our training equips technicians with best practices for handling fiber and termination it in a range of TE connectors. Contact TE for further details.



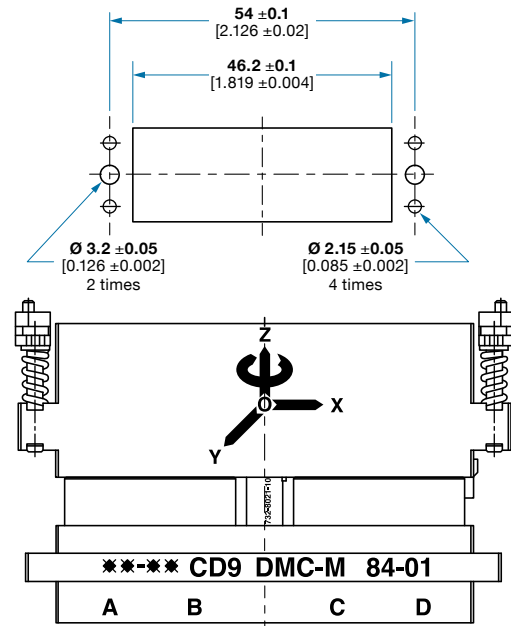
# PANEL CUTOUTS

## Panel Cutouts for Rack and Panel Plugs

### TYPES 88, 89



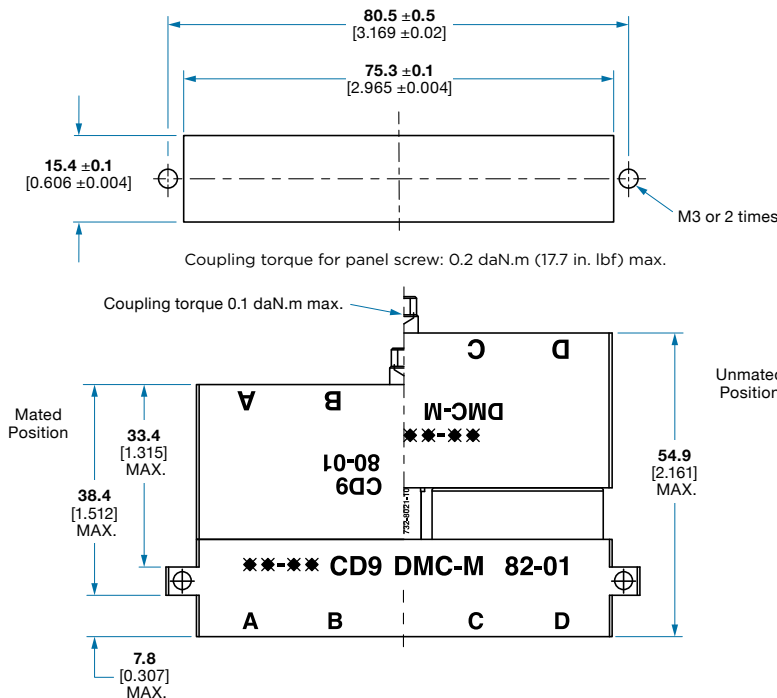
### TYPES 48, 49



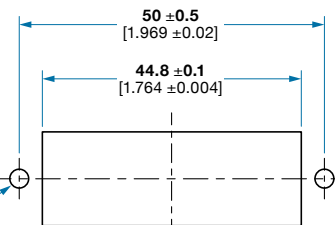
Maximum Misalignment between Plug and Receptacle  
 OZ: ±2 mm (±0.79 in.) OY: ±0.75 mm (±0.030 in.) OX: ±0.75 mm (±0.030 in.) ø: ±1°

## Panel Cutouts for Receptacles

### TYPES 82, 83, 84, 85

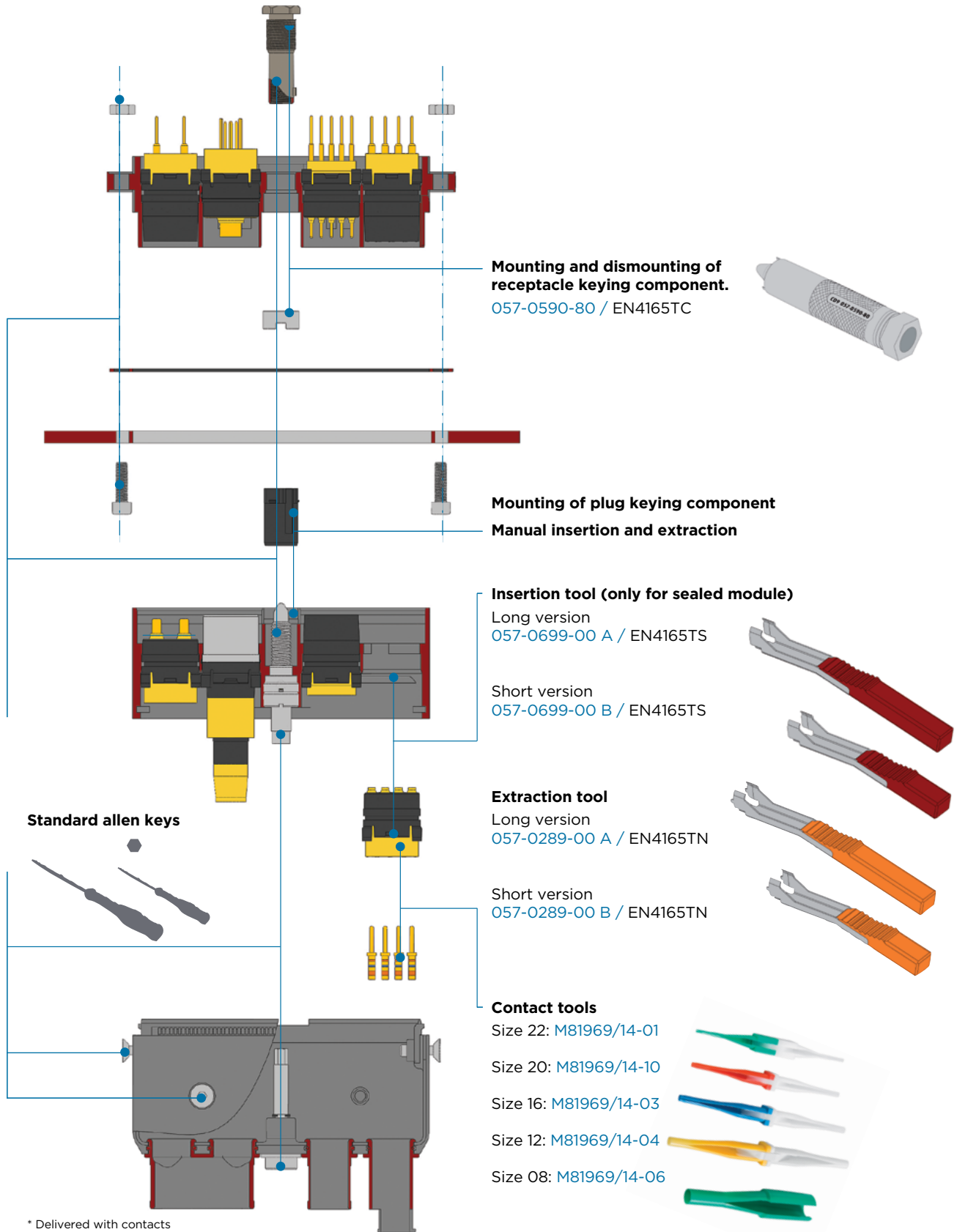


### TYPES 42, 43, 44, 45





# CONNECTOR TOOLING



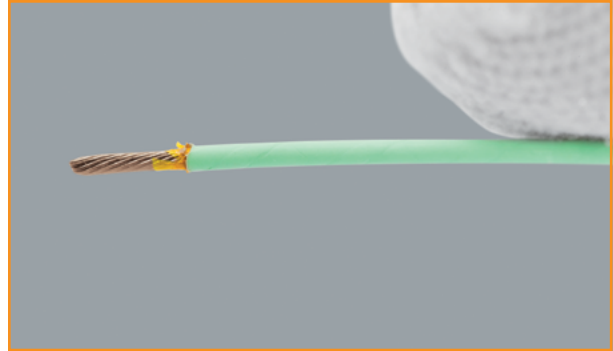


# USER MANUAL

## 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.)



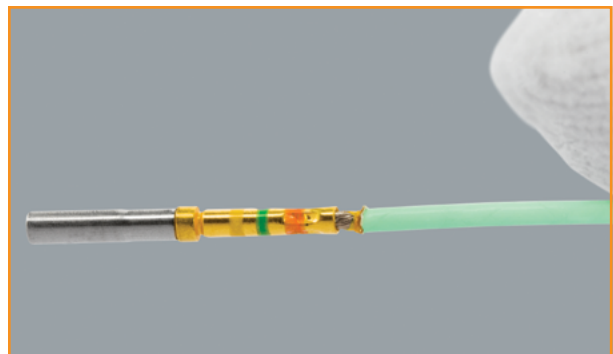
Insert the contact into the crimping tool.



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.



# USER MANUAL

## Contact Insertion and Withdrawal



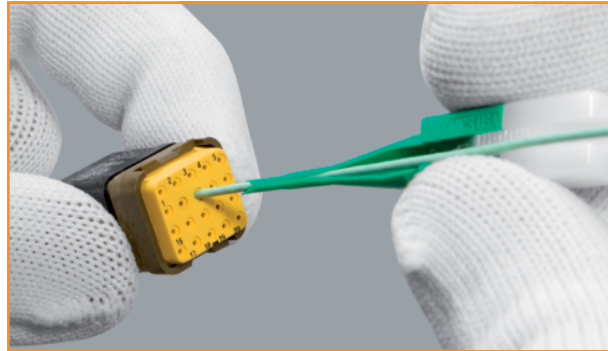
Use the appropriate plastic tool. There is one tool for each contact size.

Part Number	Contact Size
M81969/14-01	22
M81969/14-10	20
M81969/14-03	16
M81969/14-04	12
114-008 or M81969/14-06	08

### CONTACT INSERTION

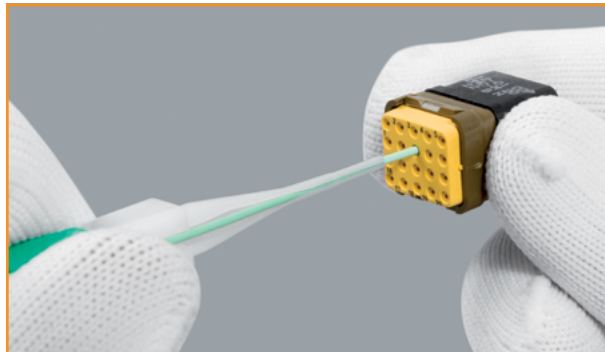


Insert the wire into the slot of the colored end of tool. Pull the wire until the contact butts against the tool.

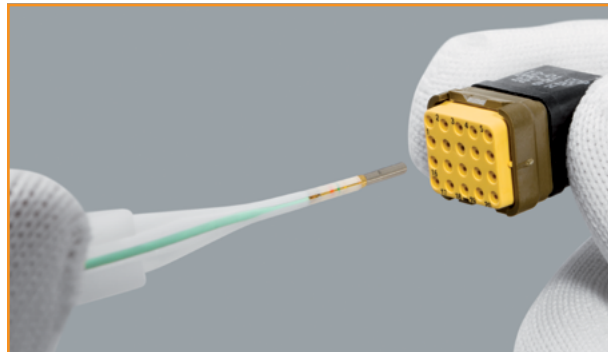


Insert the contact in the module cavity. Push the contact fully home. Then remove the tool and lightly pull back on the wire to make sure that the contact is fully seated.

### CONTACT WITHDRAWAL



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.



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





# USER MANUAL

## Module Insertion and Extraction

### MODULE INSERTION

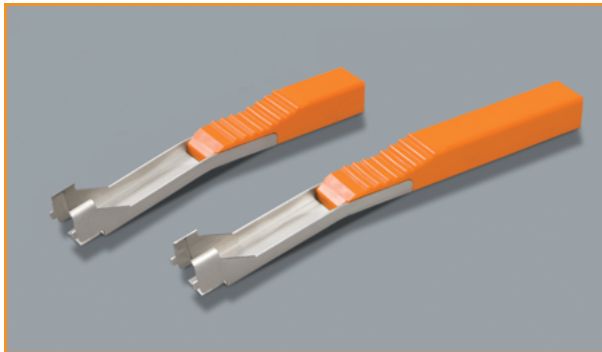


The module must be inserted from the rear side of the housing. The module polarization key must be visible from the marked side of the housing.



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.

### MODULE EXTRACTION



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.

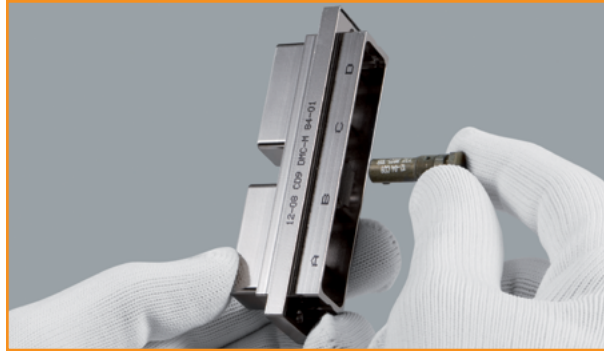


Press the cable between the tool and the fingers and pull back. If the module is not wired, use the same tool, but push the module from the front of the housing.

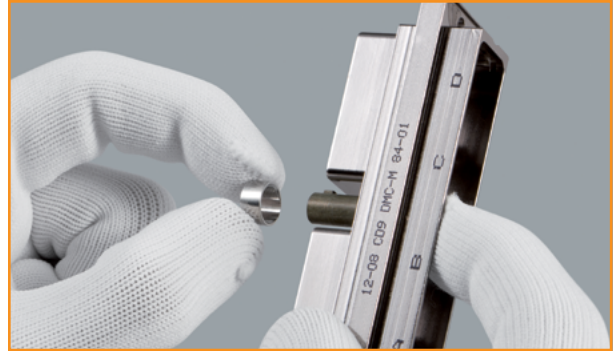


# USER MANUAL

## 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  $0.15 \pm 0.02$  daN.m ( $13.3 \pm 6.1$  in. lbf.) coupling torque.

## Mounting the Plug Keying Component



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



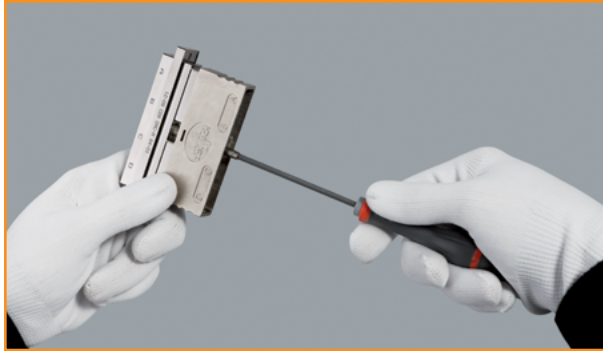
Insert the plug keying component in the front side of the plug housing. Make sure that it has the same orientation as the receptacle key. Then seat the plug keying component manually by pushing it fully into the cavity.





# USER MANUAL

## Free Plug/Receptacle Coupling

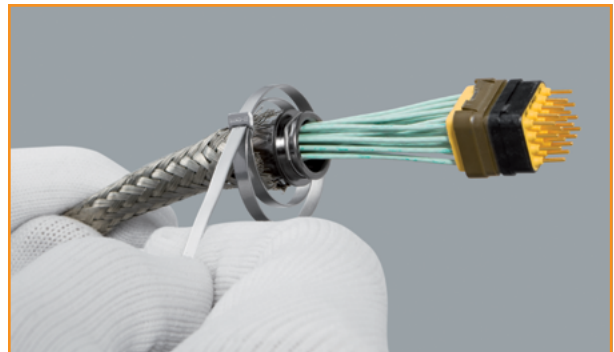


Use the tool part number 057-0592-80 or a standard allen key and apply a  $0.1 \pm 0.03$  daN.m ( $8.8 \pm 2.6$  in. lbf.) coupling torque.

## Mounting Shielded Braid on Chimney



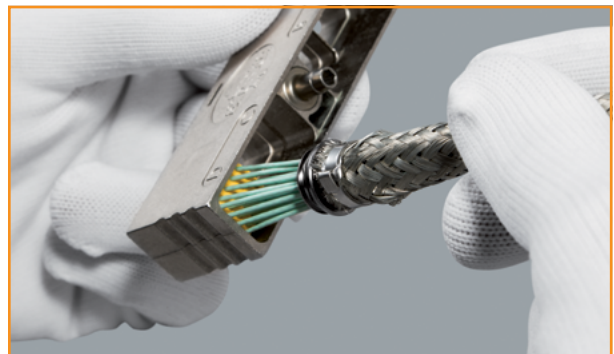
Slide the chimney and the shielded braid around the cable.



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



Use the tool 05 7-0450-00 to tighten the ring around the shielded braid over the chimney.

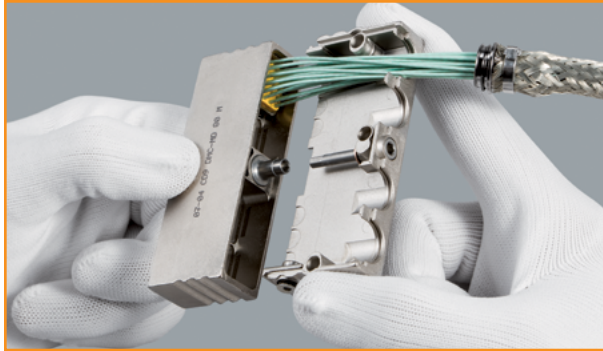


Insert the module in the housing.



# USER MANUAL

## 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.



Insert the chimneys in their 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.



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