

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

Table of Contents

Introduction	4
Typical Configuration	6
Specifications	7
Receptacles	
Dimensional Drawings	8
Part Numbering System	10
Multi-Receptacle Plates	12
Receptacle Keying	13
Plugs	
Dimensional Drawings	14
Part Numbering System	16
Plug Keying	18
Modules	
Overview and Dimensions	19
Part Numbering System	22
Accessories	
Shielded Accessory Bodies	27
Nonshielded Cable Clamps	29
Chimneys for Shielded Accessories	30
Masses	32
Contacts and Tooling	
Electrical Contacts and Tooling	36
Fiber Optic Termini	38
Fiber Optic Tool Kits and Training	39
Panel Cutouts	40
Connector Tooling	41
User Manual	42

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

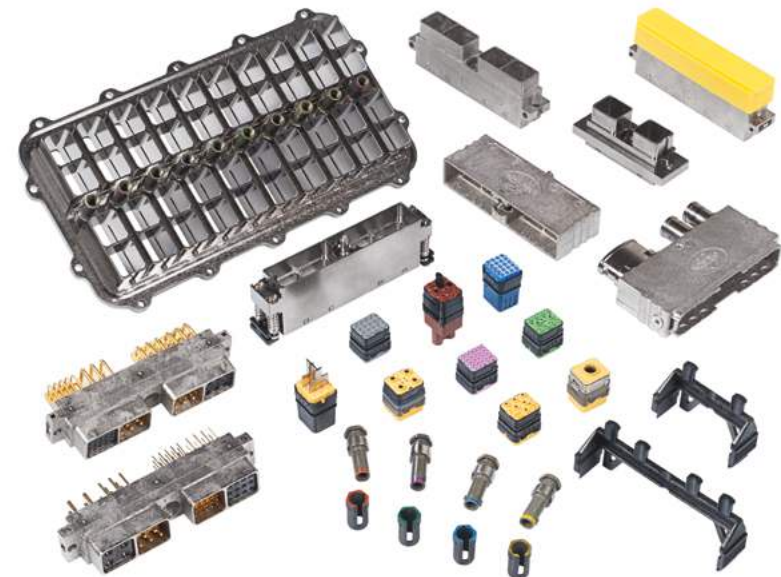
Originally designed in the 1980s, DEUTSCH DMC-M connectors from TE Connectivity (TE) have evolved into one of the most widely used connector styles for cabin applications in commercial aerospace. Standardized in European Standard EN4165, DMC-M connectors provide a modular, flexible, and reliable system.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

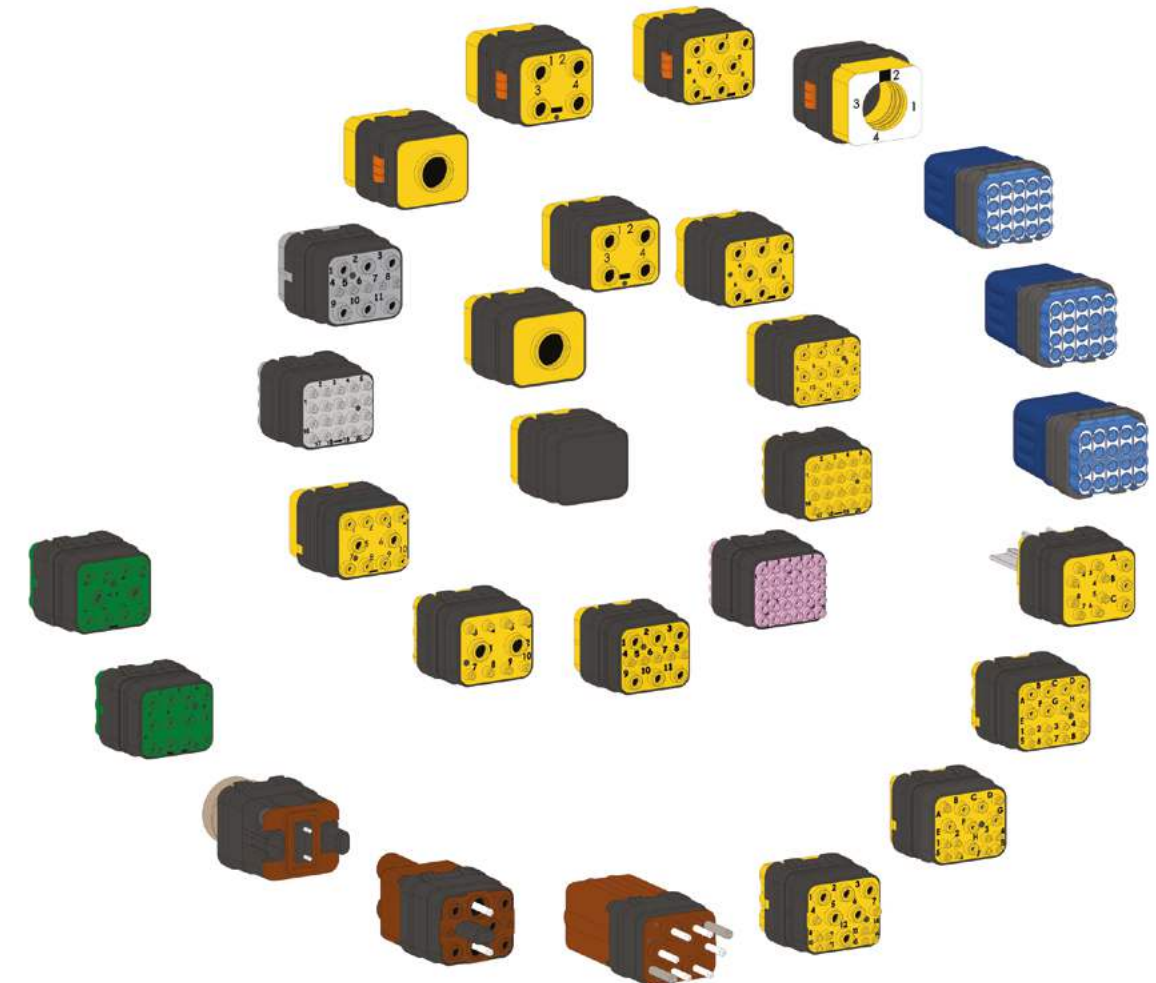


TE Components . . . TE Technology . . . TE Know-how . . .
AMP | AGASTAT | CII | HARTMAN | KILOVAC | MICRODOT | NANONICS | POLAMCO | Raychem
SEACON | Rochester | DEUTSCH

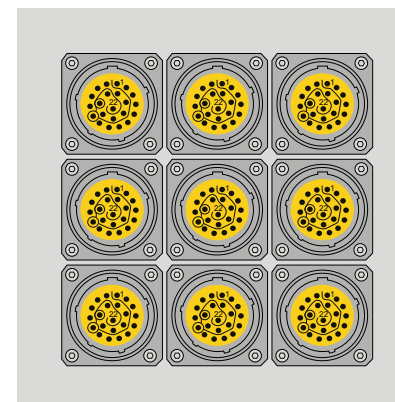
Empower Engineers to Solve Problems, Moving the World Forward.



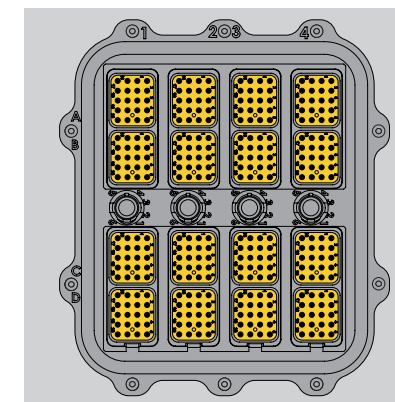
FLEXIBLE MODULARITY



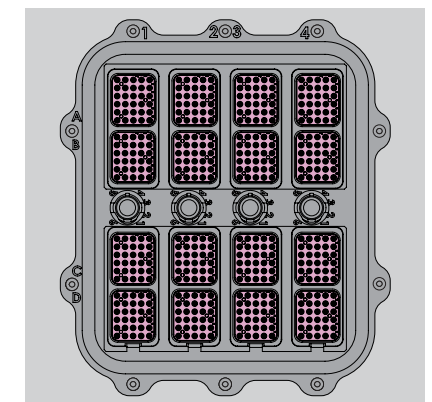
Space Savings



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

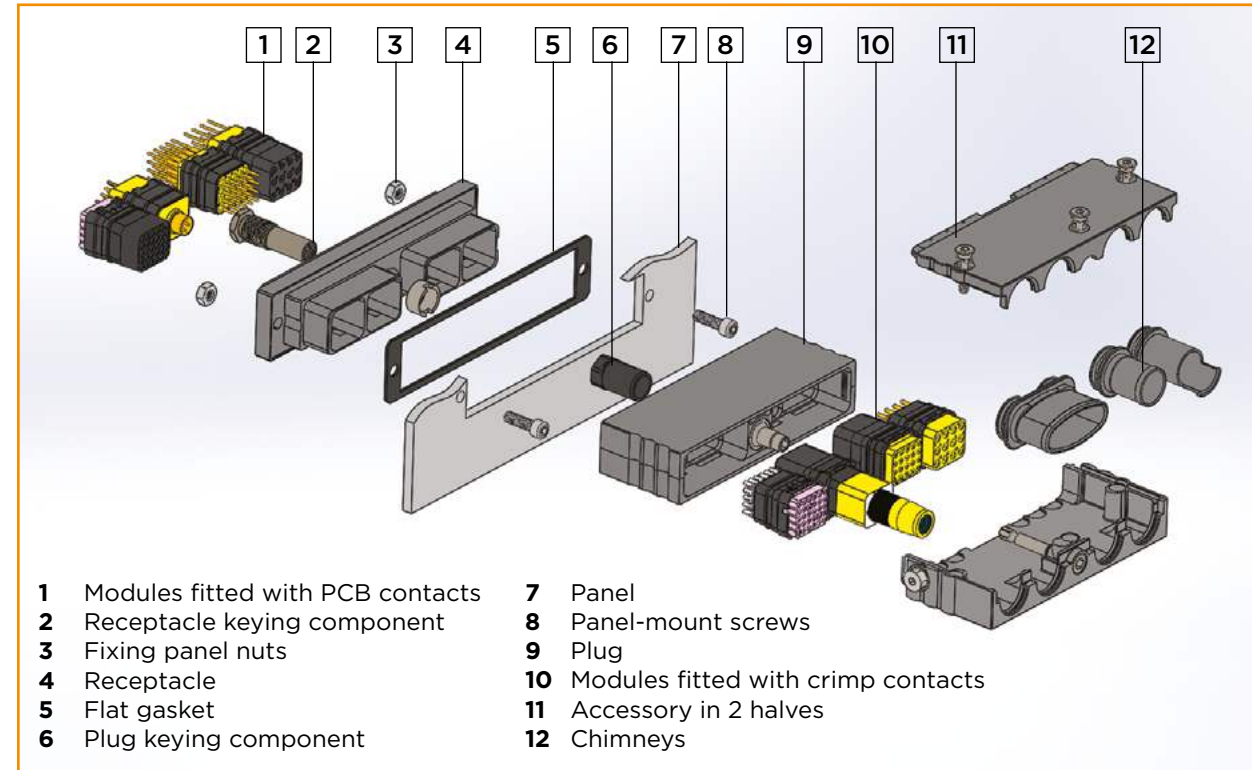


DMC-M Connectors
Insert 30-23
Size 23 Contacts, 5A
480 contacts
175 g (without panel)
10 mounting screws
1 panel cutout



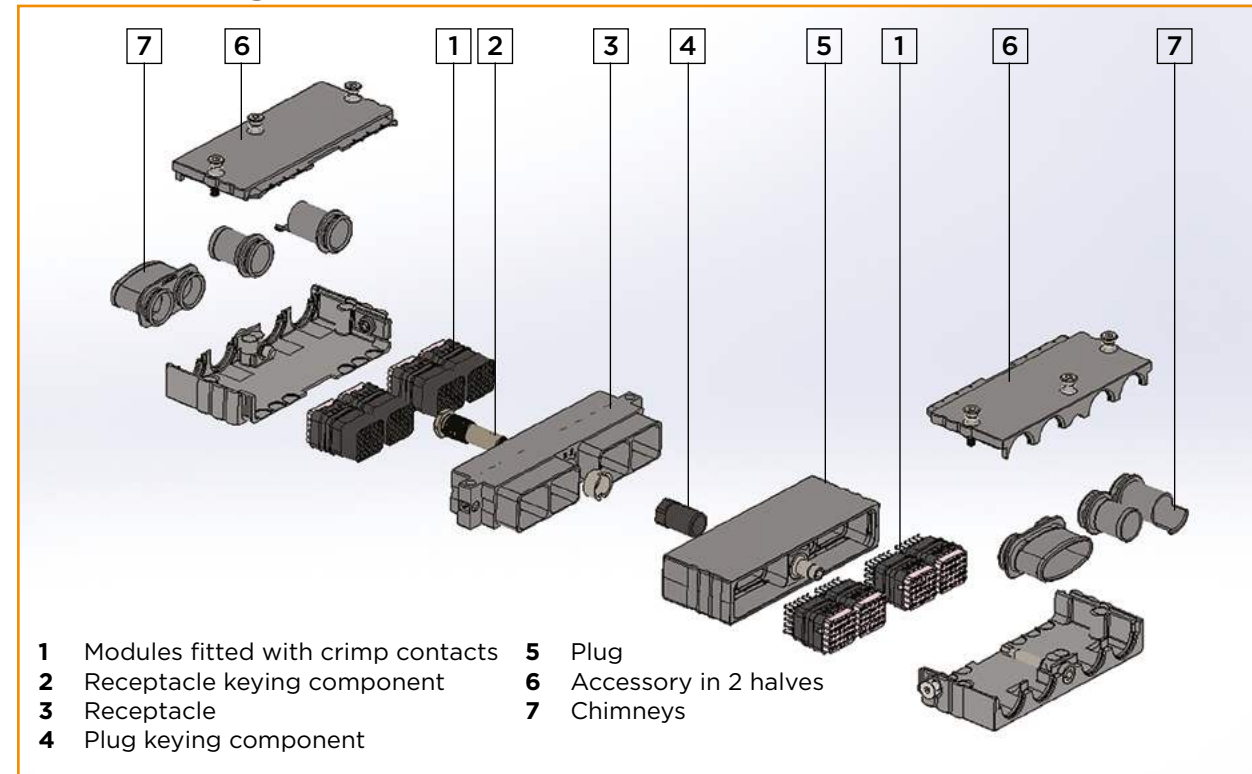
TYPICAL CONFIGURATIONS

Wire-to-Board Configuration



- 1 Modules fitted with PCB contacts
- 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: 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_{rms} 50 Hz, module size 24, 23 and 22
 - Service II: 1500 V_{rms} 50 Hz, module sizes 20, 16, 12 and 08
 - Altitude Immersion to 11 hPa (30,000 m/100,000 ft): 1000 V_{rms} 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 specific contacts)
- **Shielding Effectiveness:**
 - (With conductive shell finish and RFI spring fingers)

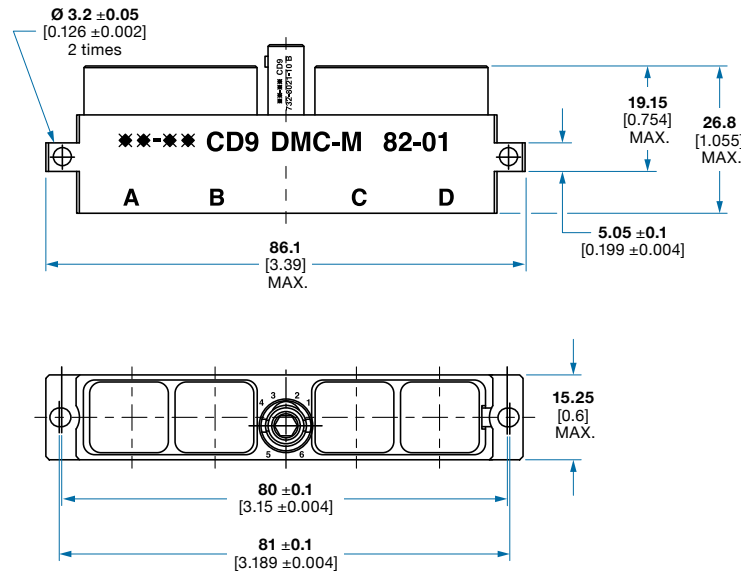
Frequency (MHz)	Attenuation, Min. (dB)	
	Aluminum Shell	Composite Shell
100	80	65
200	78	60
300	78	55
400	77	55
800	75	45
1000	75	45
1500	59	43
2000	55	40
3000	51	37
4000	48	35
6000	45	33
10,000	40	30



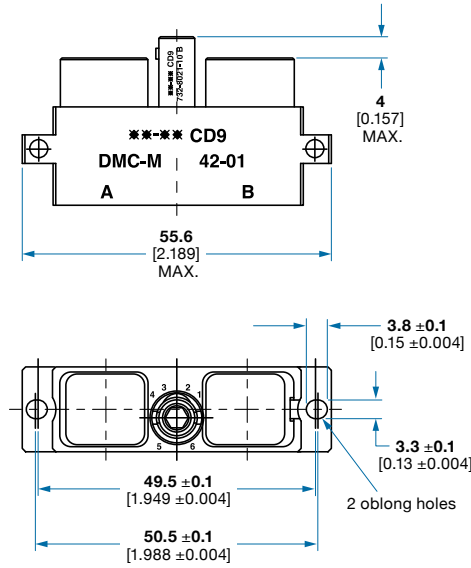
RECEPTACLES

STACKABLE RECEPTACLES

DMC-M 82-01: 4 Modules

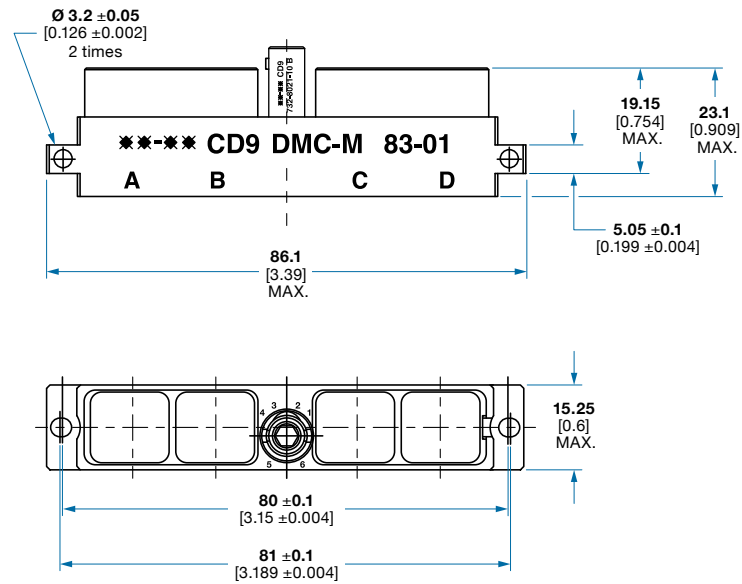


DMC-M 42-01: 2 Modules

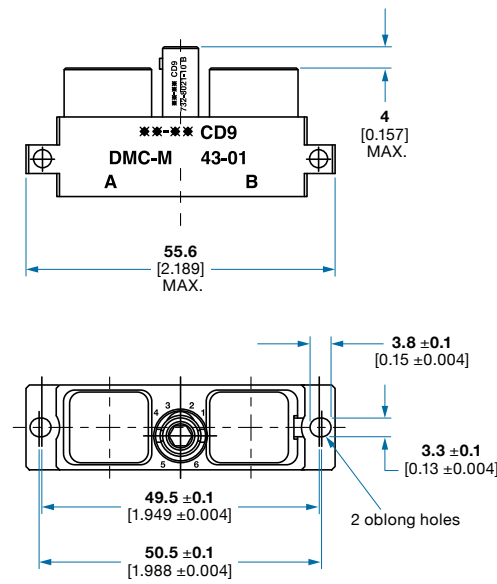


SHORT STACKABLE RECEPTACLES

DMC-M 83-01: 4 Modules



DMC-M 43-01: 2 Modules



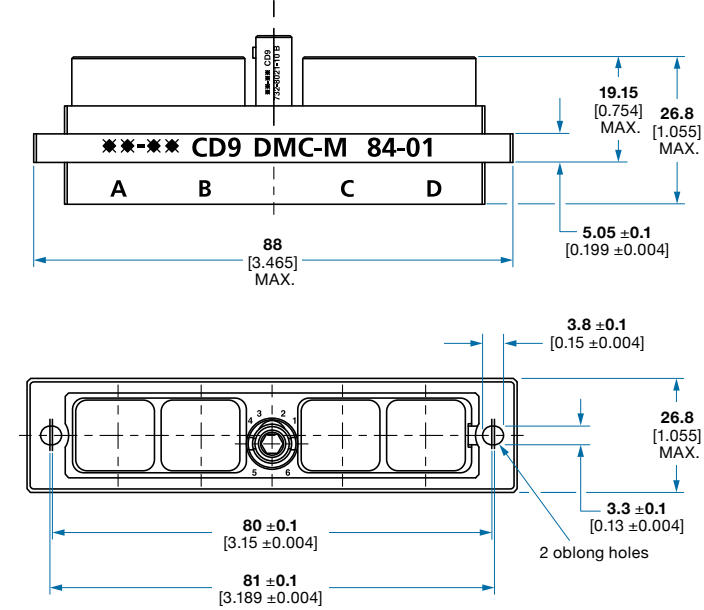
Note: No accessory can be mounted on the rear of short receptacle shell.



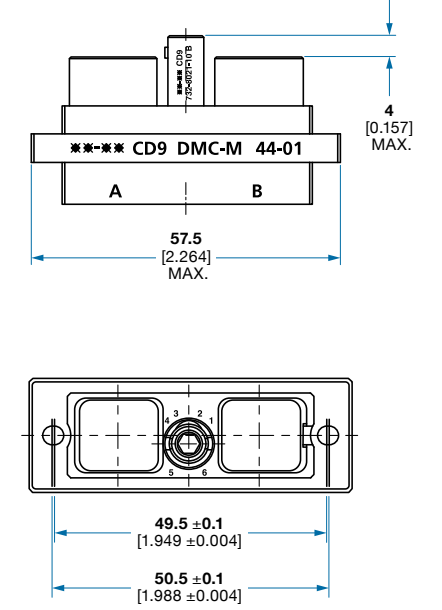
RECEPTACLES

FLANGE-MOUNT RECEPTACLES

DMC-M 84-01: 4 Modules

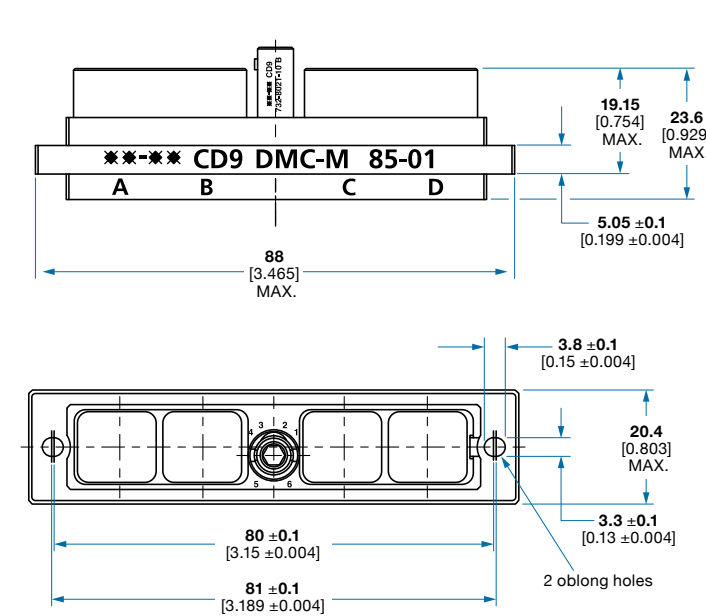


DMC-M 44-01: 2 Modules

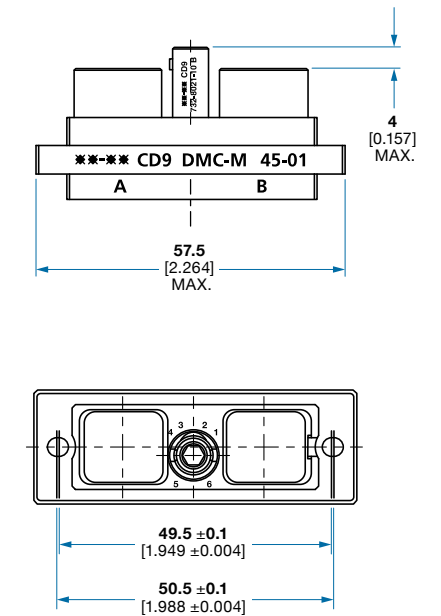


SHORT FLANGE-MOUNT RECEPTACLES

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)

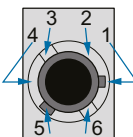
- Omit for Standard Keying Component Not Mounted
- A Without Keying Component
- B With Keying Component Coded, Mounted or Not Mounted

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

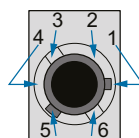
- 2 2 Modules
- 4 4 Modules

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



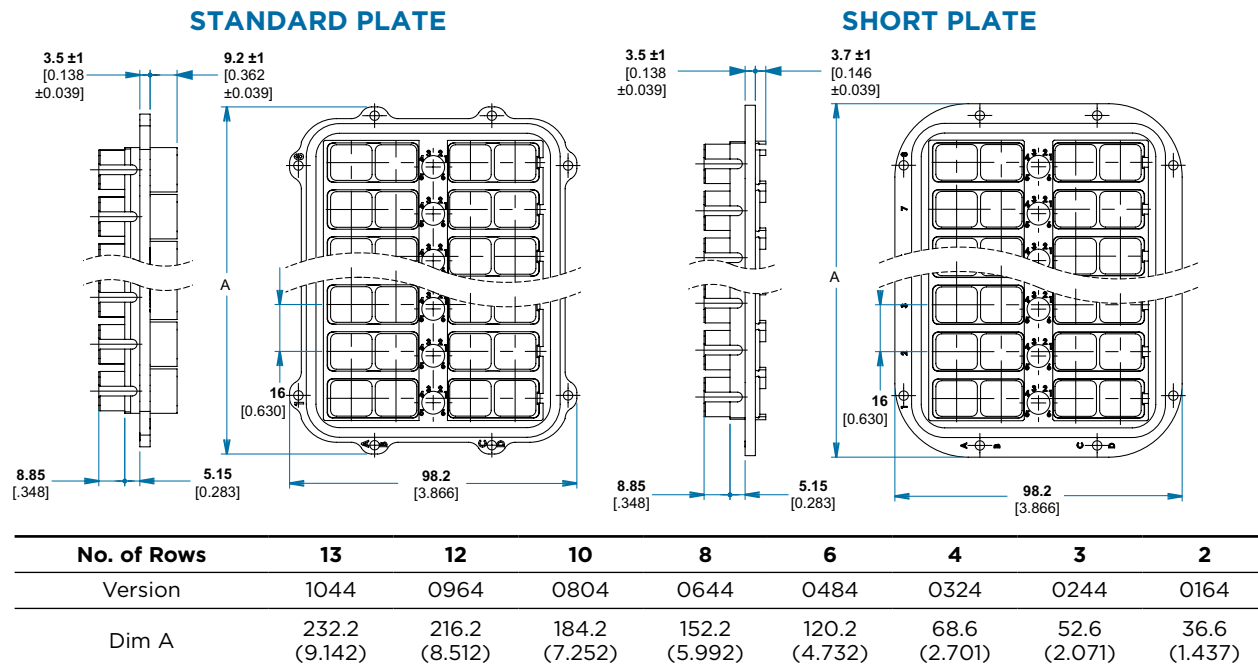
Keying Component Orientation

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.



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 - With Keying Component
- A** Without Keying Component

PLATING/FINISH (Optional)

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

ISSUE

01

TYPE (Optional)

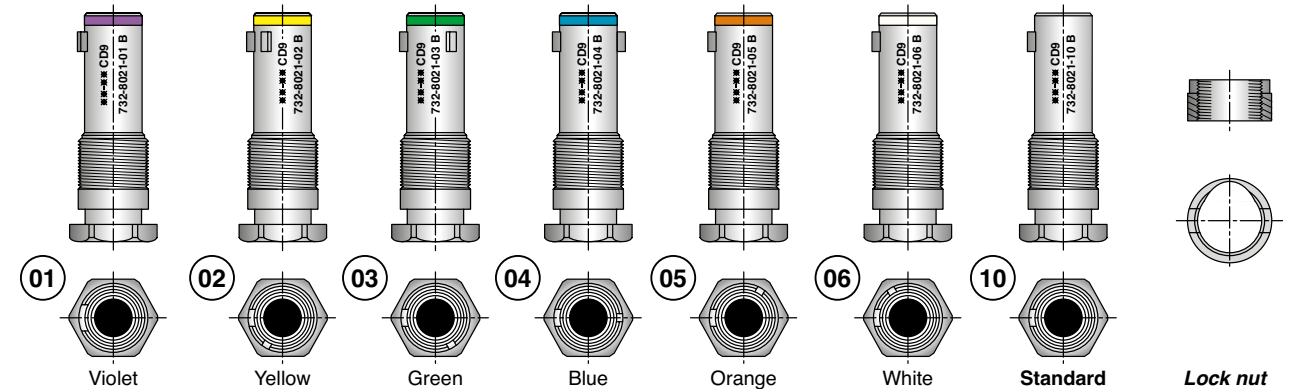
- Omit - Standard Plate
- A** Short Plate (No Backshell Mount)

DMC-MD 0484 A W 01 A



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.



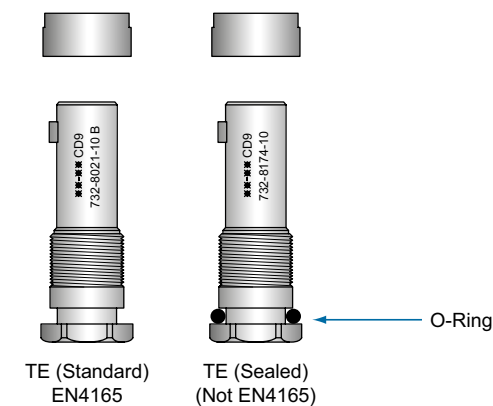
Unsealed EN4165-Compliant Keying

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

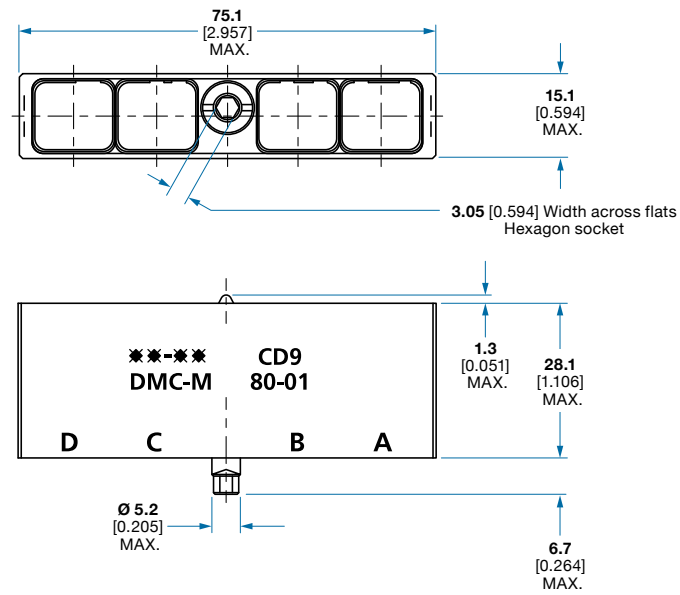




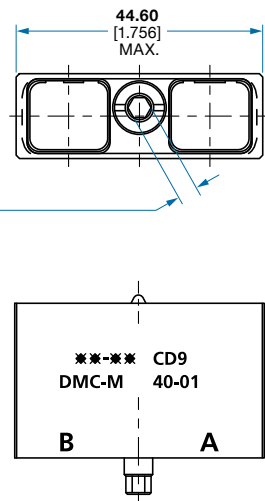
PLUGS

FREE PLUGS

DMC-M 80-01: 4 Modules



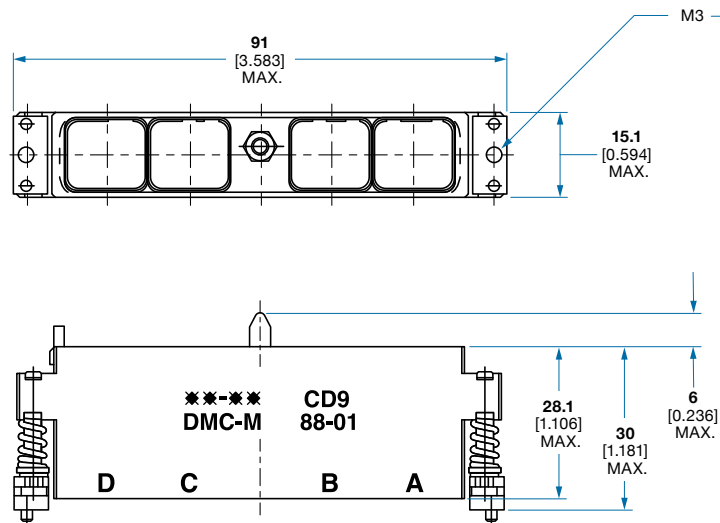
DMC-M 40-01: 2 Modules



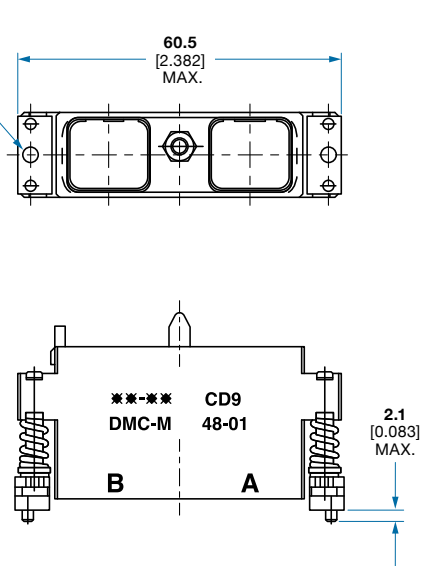
The receptacle/plug coupling is done with the tool 057-0592-80 or a standard Allen wrench (coupling torque 0.1 ±0.03 da.N.m [8.8 ±2.6 in. lbf.]).

RACK AND PANEL PLUGS

DMC-M 88-01: 4 Modules



DMC-M 48-01: 2 Modules



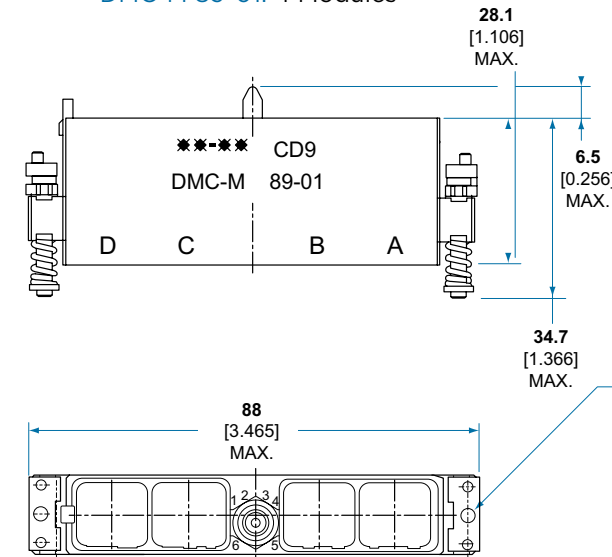
See page 40 for panel cutouts.



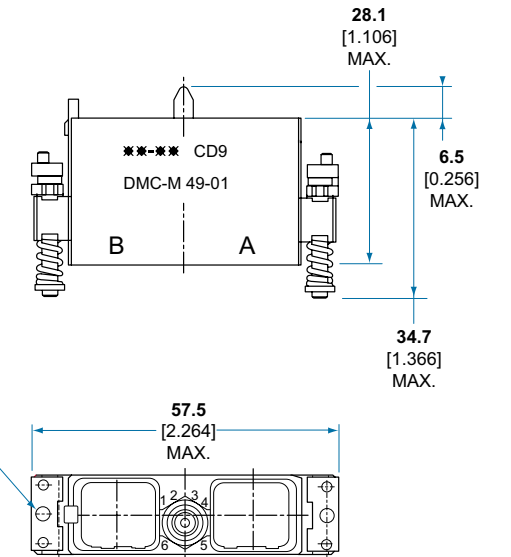
PLUGS

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)

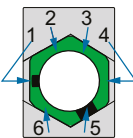
- Omit for Standard Keying Component Not Mounted
- A Without Keying Component
- B With Keying Component Coded, Mounted or Not Mounted

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)

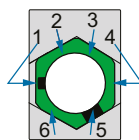
- Omit - Standard
- R Reversed

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

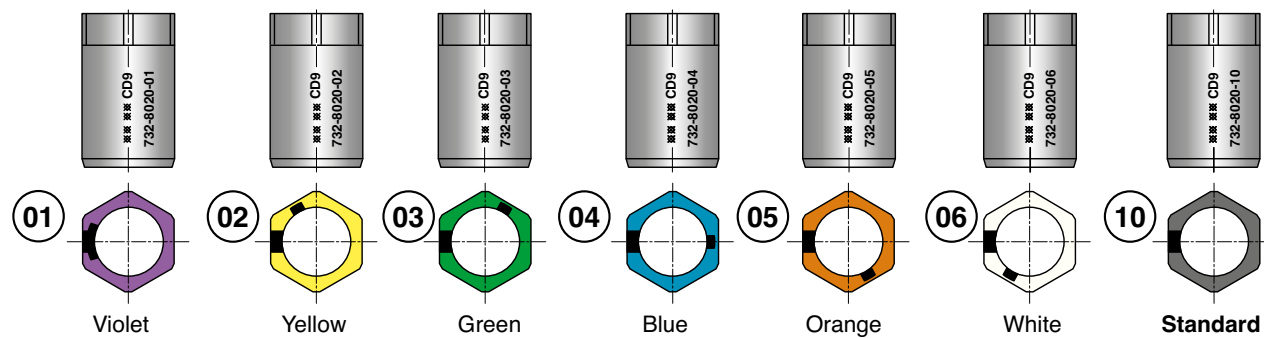
Viewed from front face of plug housing
Largest keyway indicates orientation



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 BAC110BC2022PNB EN4165A20-221NA		DMC-M 20-22 BN BAC110BC2022SNB 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 BAC110BC1220PNB EN4165A12-201NA		DMC-M 12-20 BN BAC110BC1220SNB EN4165A12-201NB
08-16	8 Contacts, Size 16		DMC-M 08-16 AN BAC110BC0816PNB EN4165A08-161NA		DMC-M 08-16 BN BAC110BC0816SNB 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 BAC110BC1622PNB EN4165A99-011NA		DMC-M 99-01 BN BAC110BC1622SNB 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 BAC110BC1001PNB		DMC-M 99-06 BN BAC110BC1001SNB
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 BAC110BC0910PNB		DMC-MB 99-10 BN BAC110BC0910SNB
12-20	12 Size 20 Contacts		DMC-MB 12-20 AN BAC110BC1220APNB		DMC-MB 12-20 BN BAC110BC1220ASNB

*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)
BAC110BC 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		2226455-1 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

QUADRIX MODULES

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

DEUTSCH Part Numbers (DMC-M)
BAC110BC Part Numbers
EN4165 Part Numbers



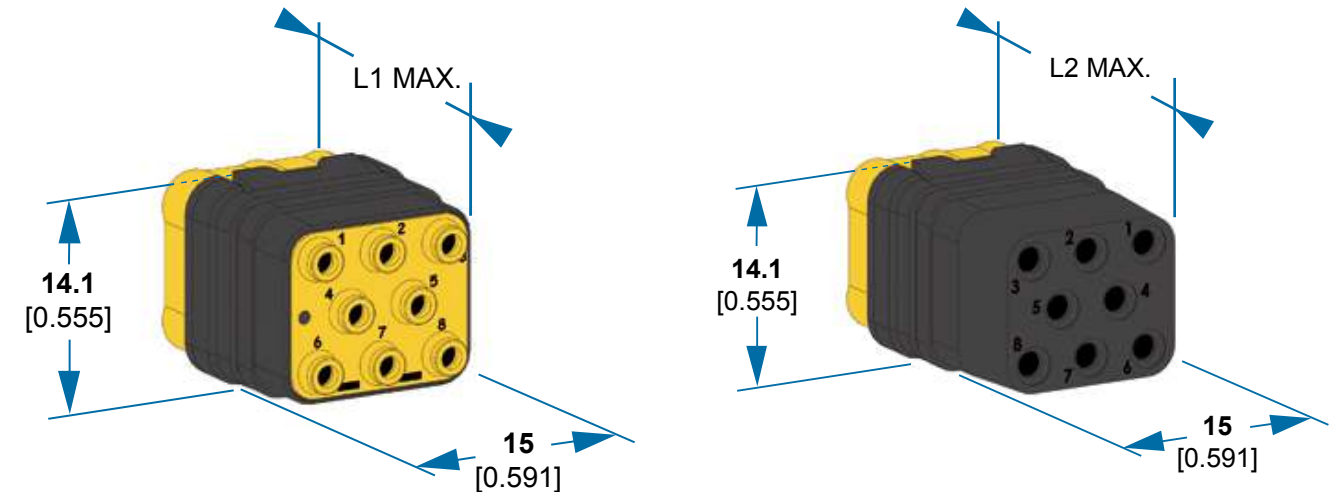
MODULES

FIBER OPTIC AND HYBRID MODULES

Configuration	Pin	Module Part No.		Alignment Sleeve
		Part No.	Socket	
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

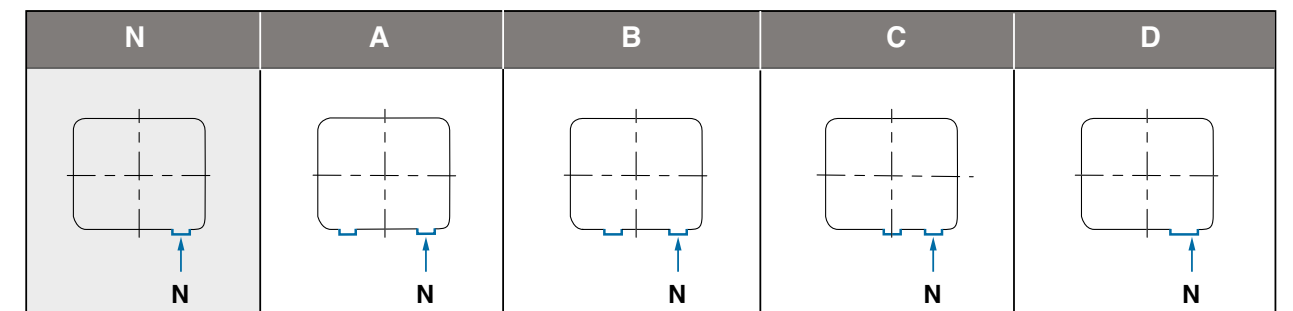


Modules for Contact Size	L1 (Short)	L2 (Long)
24, 23, 22, 20, 16, 12	16.46 (0.648)	22.40 (0.882)
08	18.70 (0.736)	33.20 (1.307)

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

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

DMC-M 20-22 A N E

EN4165 PART NUMBERING SYSTEM

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

EN4165 A 20-22 2 N A

*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

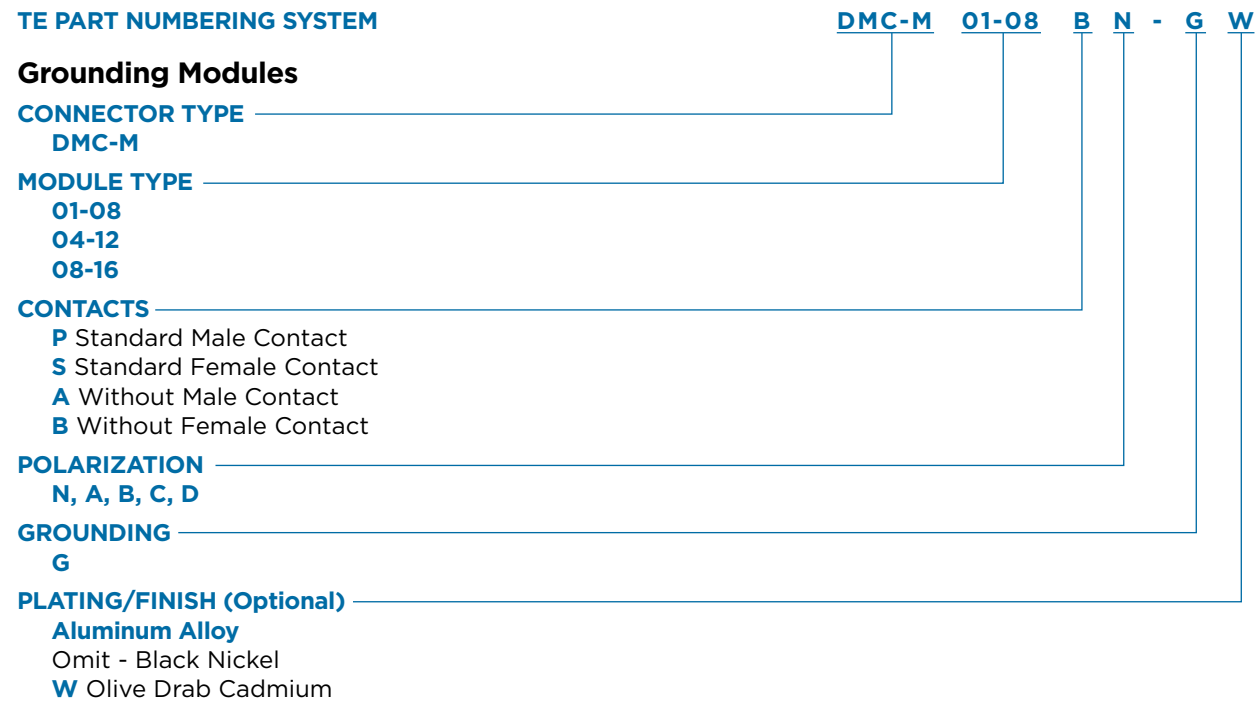
EN4165 A 20A22 1 N A

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

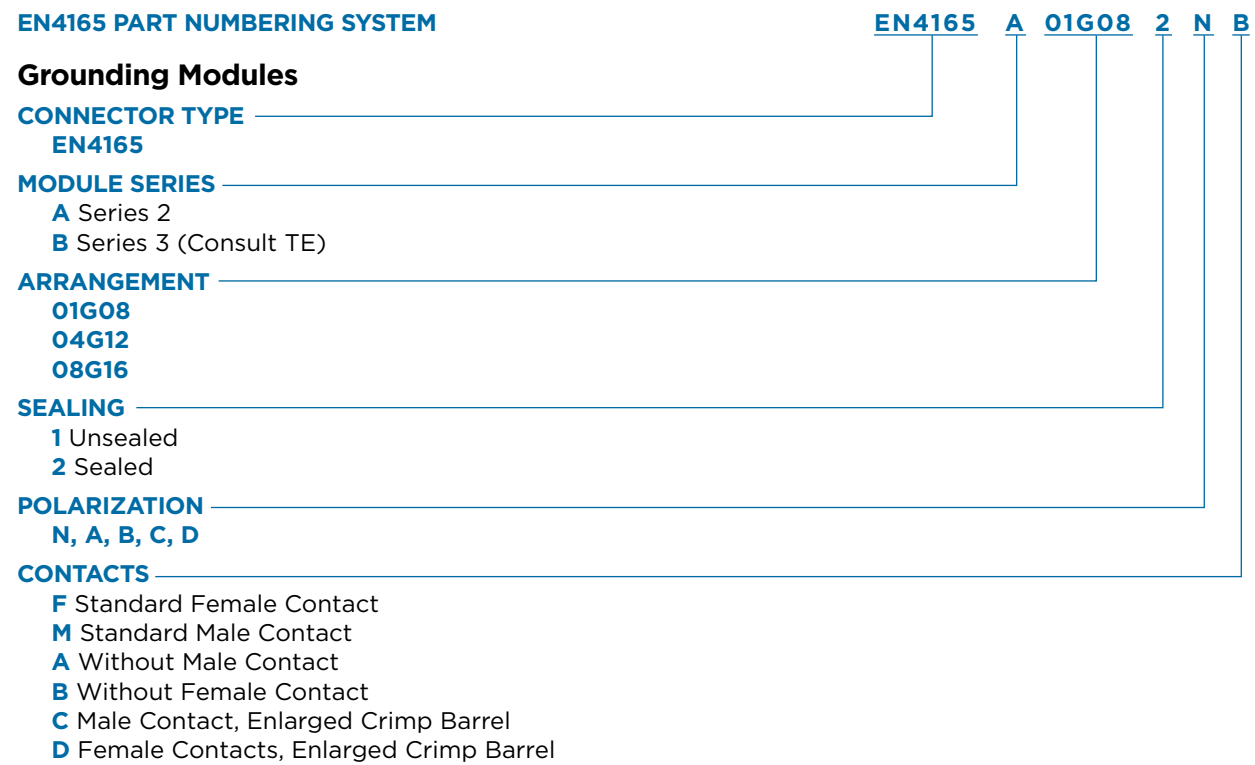


MODULES

TE PART NUMBERING SYSTEM

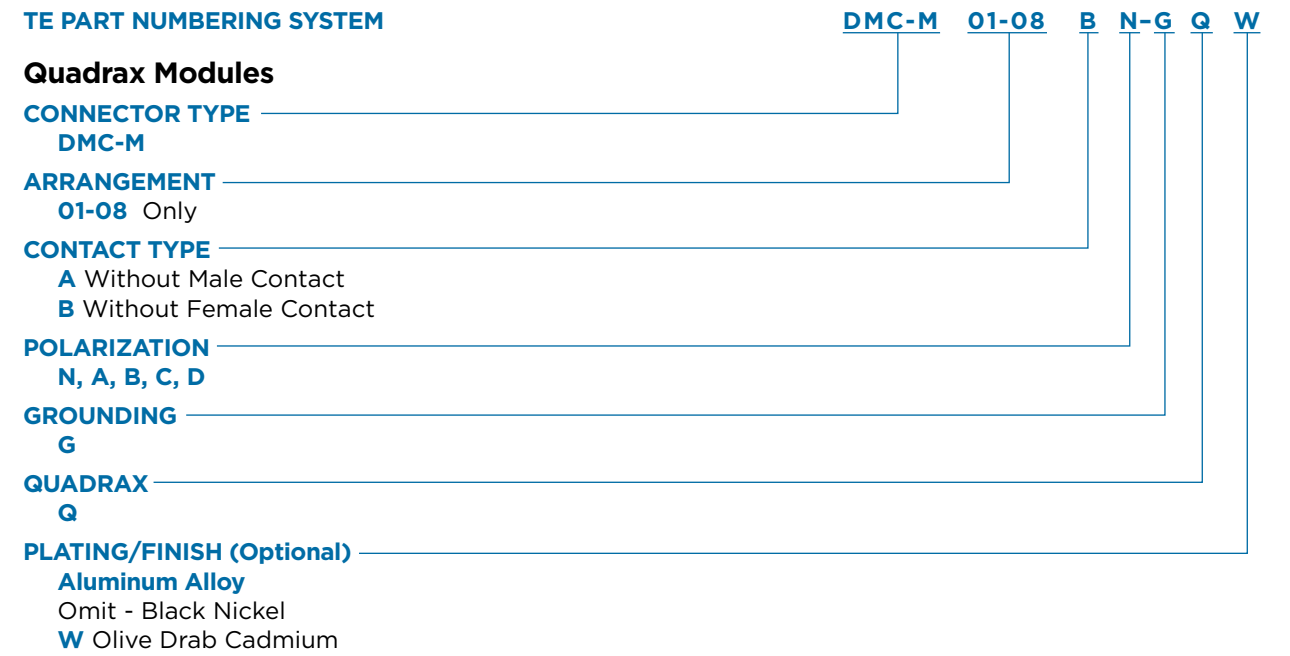


EN4165 PART NUMBERING SYSTEM

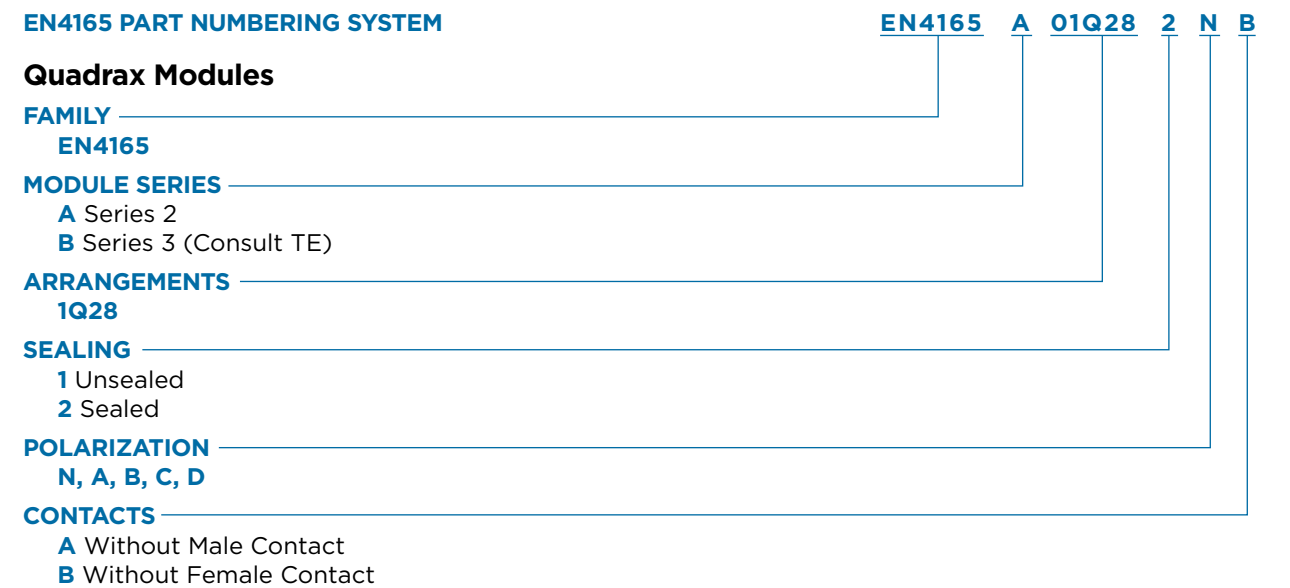


MODULES

TE PART NUMBERING SYSTEM



EN4165 PART NUMBERING SYSTEM





MODULES

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

DMC-M 22-05 B N

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

EN4165 A 20Y22 1 N B

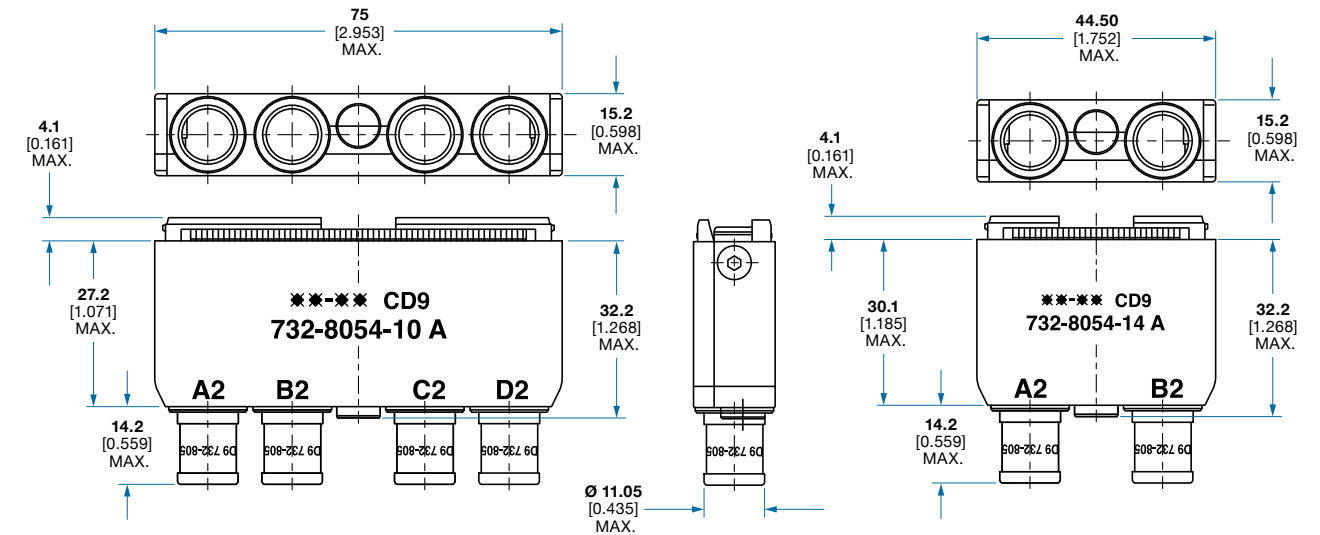


ACCESSORIES

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 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

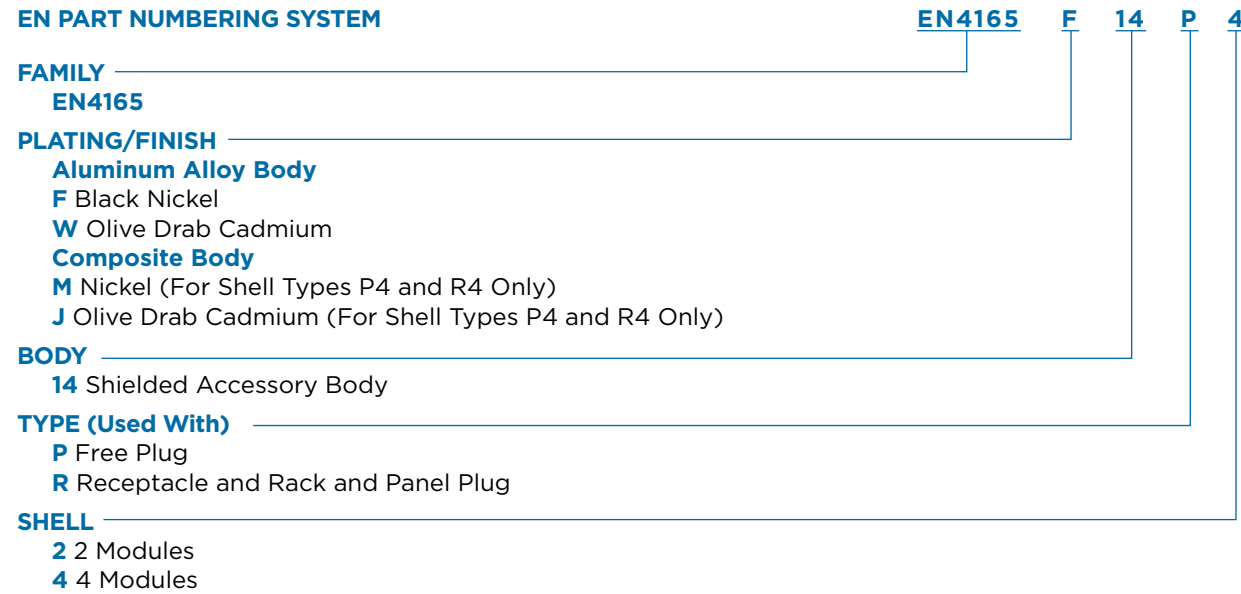
A

732 - 8052 - 00 W A



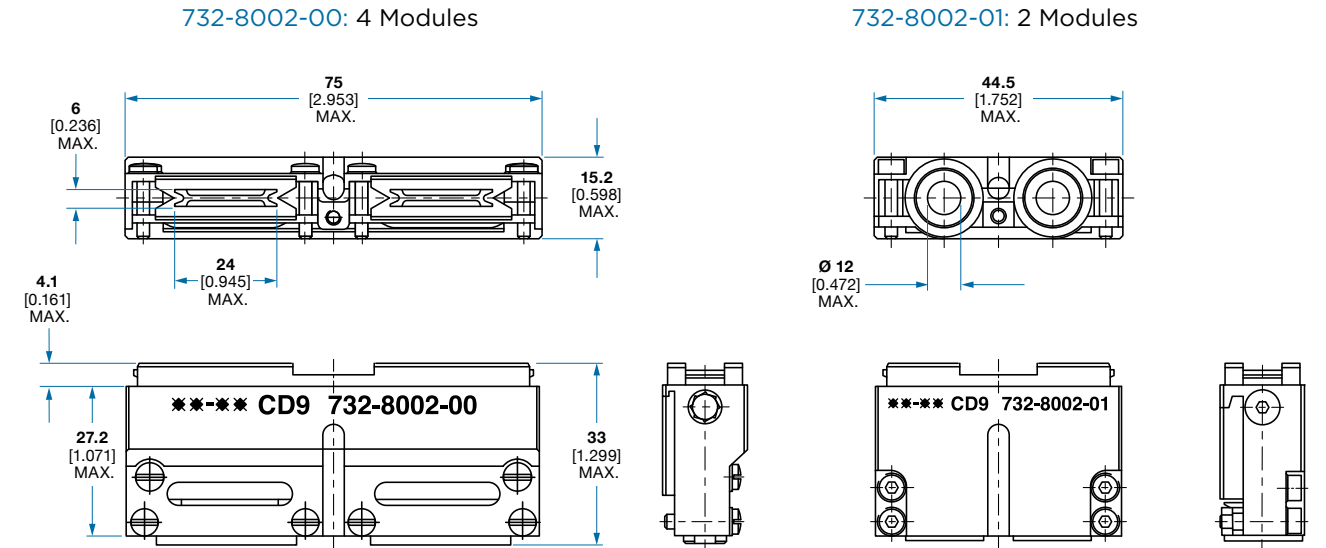
ACCESSORIES

EN PART NUMBERING SYSTEM

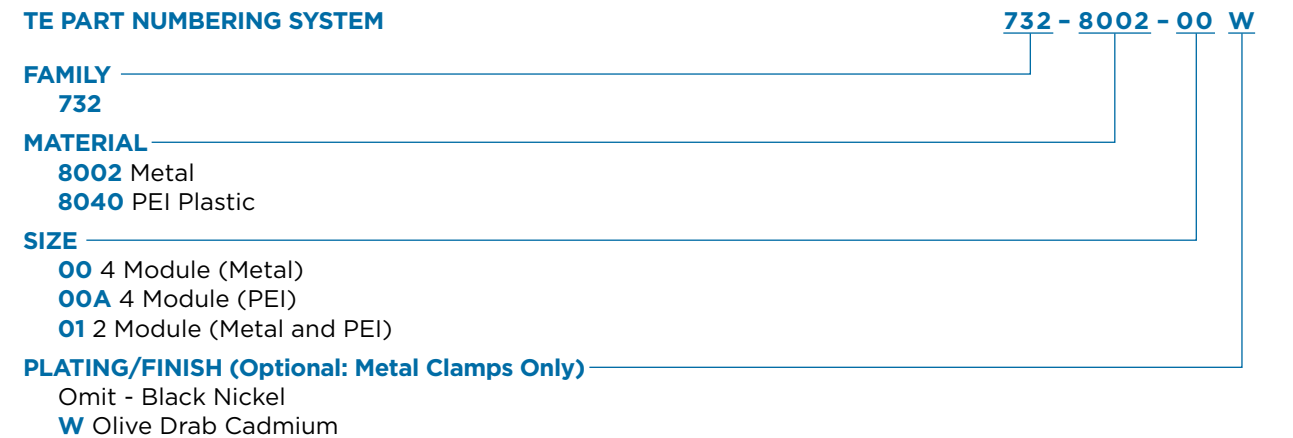


ACCESSORIES

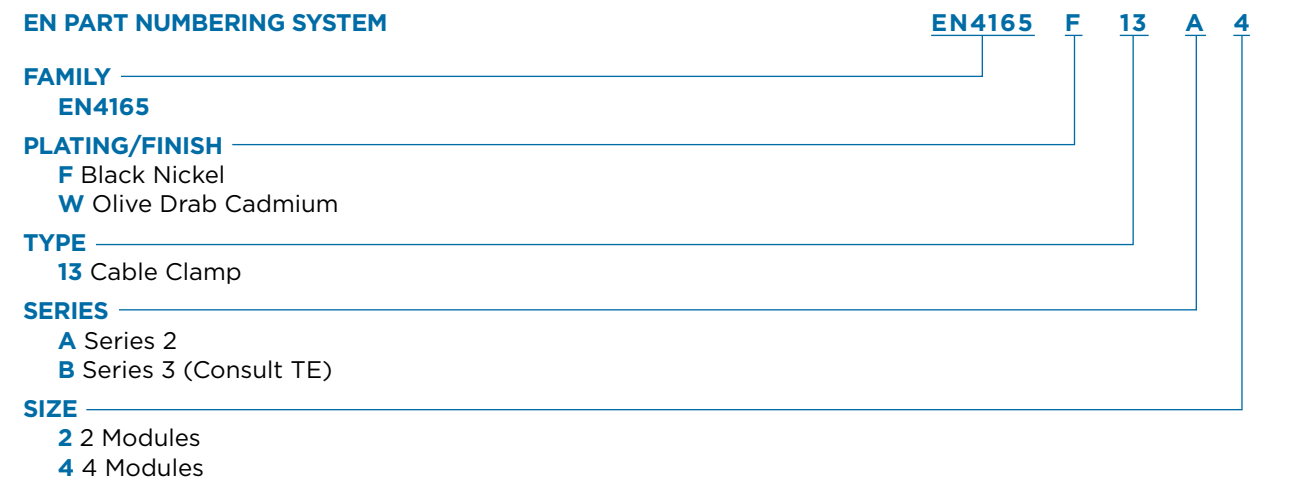
NONSHIELDED CABLE CLAMPS



TE PART NUMBERING SYSTEM



EN PART NUMBERING SYSTEM

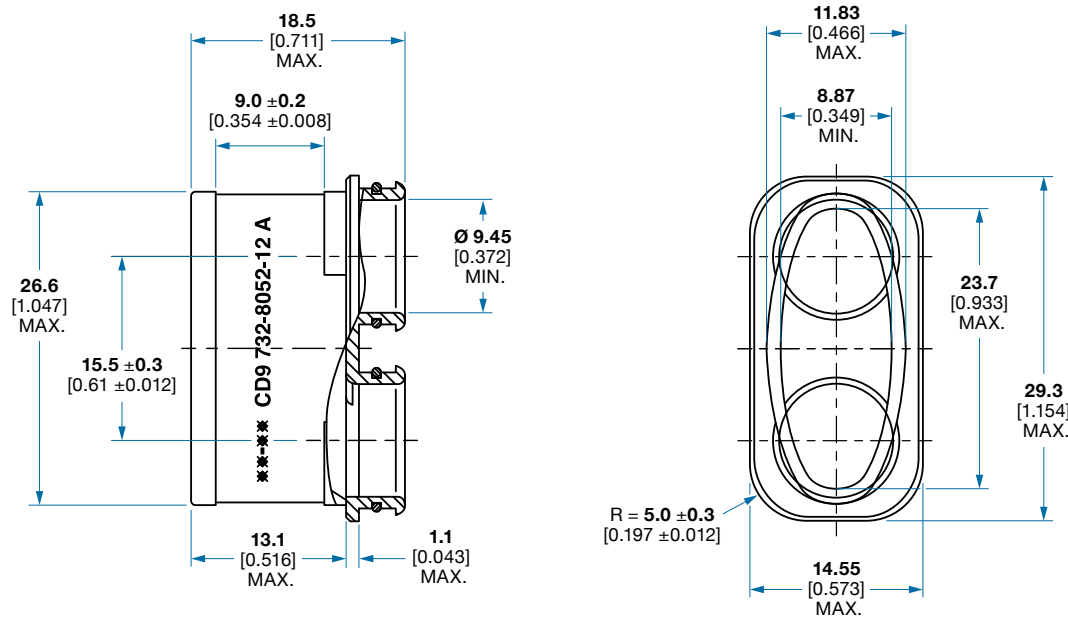




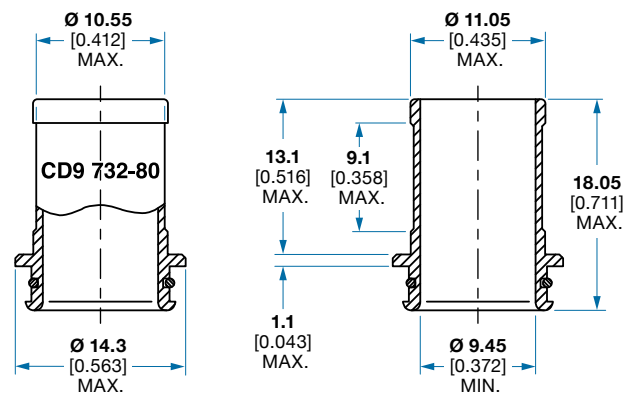
ACCESSORIES

CHIMNEYS FOR SHIELDED ACCESSORIES

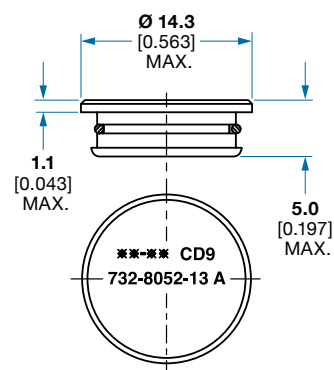
732-8052-12 A: Double Oval Chimney (1 for 2 cavities, for 4-module accessories only)



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



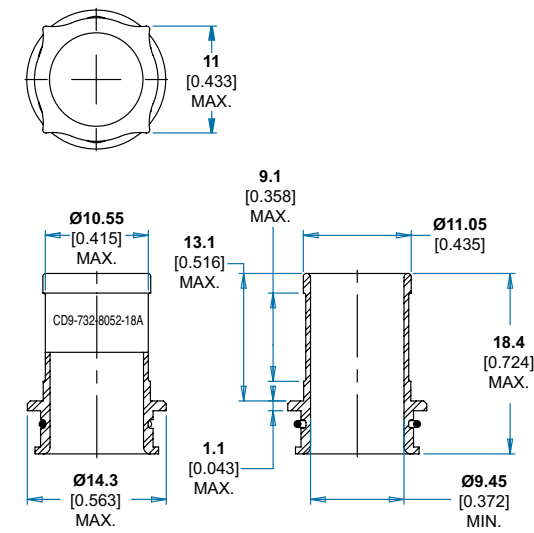
732-8052-13 A:
Blank Chimney (1 per cavity)



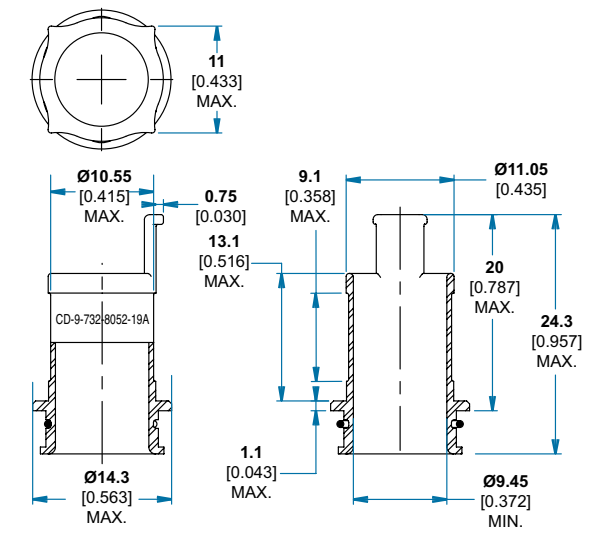
ACCESSORIES

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

- 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

732-8052 - 11 W A

EN PART NUMBERING SYSTEM

- 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

EN4165 16 F



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.		
2-Module Receptacles						
Standard	DMC-M 42 A 01	EN4165F0A200	DMC-M 42 AW 01	EN4165W0A200	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
4-Module Receptacles						
Standard (Aluminum)	DMC-M 82 A 01	EN4165F0A400	DMC-M 82 AW 01	EN4165W0A400	22	8
Standard (Composite)	DMC-MD 82 AM 01	EN4165M0A400	DMC-MD 82 AJ 01	EN4165J0A400	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.		
2-Module Plugs						
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
4-Module Plugs						
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
Standard Modules					
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
High-Density Modules					
30-23	Male	DMC-MR 30-23 A*	—	3.4	19
	Female	DMC-MR 30-23 B*	—	2.5	19
Aluminum Cable Compatible Modules					
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
Grounding Modules					
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
BACC47 Contact Compliant					
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
Quadrax Modules					
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
Shunt Modules					
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
High-Speed Modules					
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
Optical and Hybrid Modules					
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.		
2-Module Plugs						
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
4-Module Plugs						
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
2-Module Receptacles						
Standard and Short	732-8054-14 A	EN4165F14R2	732-8054-14 WA	EN4165W14R2	23	27
4-Module Receptacles						
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 ²
24/24	724-0001-24	Pin	—	—	26-24	0.15 - 0.25
	724-0003-24	Socket	—	—		
23/22	182-4043-23	Pin	—	Green-Purple	26-22	0.15 - 0.4
	182-4042-23	Socket	—	Green-Purple		
22/22	724-0001-22	Pin	Orange-Blue-Black	Green-Green	26-22	0.15 - 0.40
	724-0003-22	Socket	Orange-Green-Yellow	Green-Green		
22/20	182-0860-22	Pin	—	Red-Green	24-20	0.25 - 0.60
	182-0862-22	Socket	—	Red-Green		
20/20	724-0001-20	Pin	Orange-Blue-Orange	Red-Red	24-20	0.25 - 0.60
	724-0003-20	Socket	Orange-Green-Purple	Red-Red		
20/18	724-1063-20	Pin	—	Brown-Red	24-18	0.25 - 1.00
	724-1064-20	Socket	—	Brown-Red		
16/16	724-0001-16	Pin	Orange-Blue-Yellow	Blue-Blue	20-16	0.60 - 1.20
	724-0003-16	Socket	Orange-Green-Gray	Blue-Blue		
16/14	724-1063-16	Pin	—	White-Blue	20-14	0.60 - 2.00
	724-1064-16	Socket	—	White-Blue		
12/12	724-0001-12	Pin	Orange-Blue-Green	Yellow-Yellow	14-12	2.00 - 3.00
	724-0003-12	Socket	Orange-Green-White	Yellow-Yellow		
12/10	724-1063-12	Pin	—	White-Yellow	12-10	3.00 - 5.00
	724-1064-12	Socket	—	White-Yellow		
08 (Power)	724-0001-08	Pin	—	—	08	5.30 - 8.98
	724-0003-08	Socket	—	—		
08 (Power)	182-0001-08	Pin	—	—	08	5.30 - 8.98
	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	0.15 - 0.40
	182-0126-08	Socket	—	—		
08	182-0048-08	Pin	—	—	SMA Interface	0.15 - 0.40
	182-0044-08	Socket	—	—		
22 (Shunt)	724-1272-22	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	182-0034-03	Pin	Brown-Red	2 x 0.34 mm ²	3.48
	182-0035-03	Skt			
Double Braid	182-0034-04	Pin	Red-Red	2 x 0.34 mm ²	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.	
724-0001-24 724-0003-24	057-0463-12	M22520/2-01	057-1030-02 057-1030-01	—	605837-22
182-4043-23 182-4042-23	057-0463-12	M22520/2-01	057-0467-32 057-0515-32	M22520/2-09 M22520/2-06	M81969/14-01
724-0001-22 724-0003-22	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
724-0001-20 724-0003-20	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
724-0001-16 724-0003-16	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
724-0001-12 724-0003-12	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	M22520/1-04	—
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
724-1272-22	057-0463-12	M22520/2-01	057-0515-32	M22520/2-06	M81969/14-01

Bold part numbers are standard contacts delivered with modules.

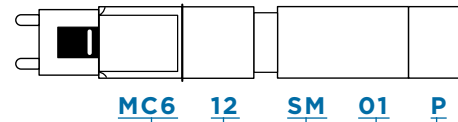
Tooling for Databus Contacts

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	



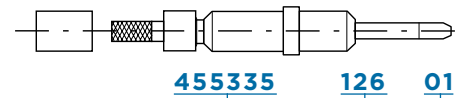
FIBER OPTIC TERMINI

MC6 Termini



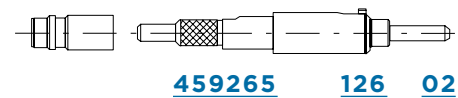
- FAMILY** ————— MC6
- NUMBER OF FIBERS** ————— 12
- FIBER TYPE** ————— SM Single Mode
MM Multimode
- CABLE TYPE** ————— 01 Ruggedized Oval Aerospace Multifiber Cable, 3.95 mm x 1.60 mm max. Jacket
02 Round Multifiber Cable, Ø 3.96 mm max. Jacket
- FERRULE TYPE** ————— P Male, with Alignment Pins
S Female,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

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.

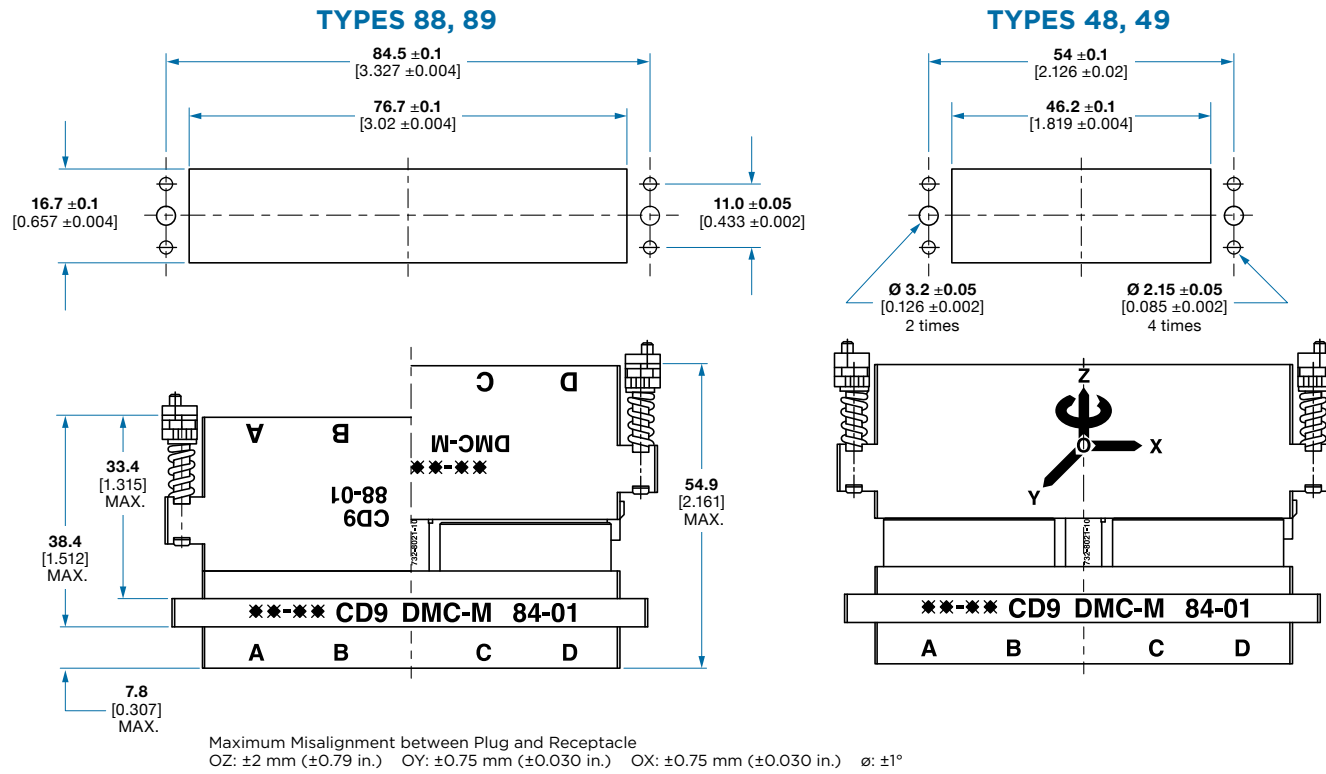
FIBER OPTIC TRAINING

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

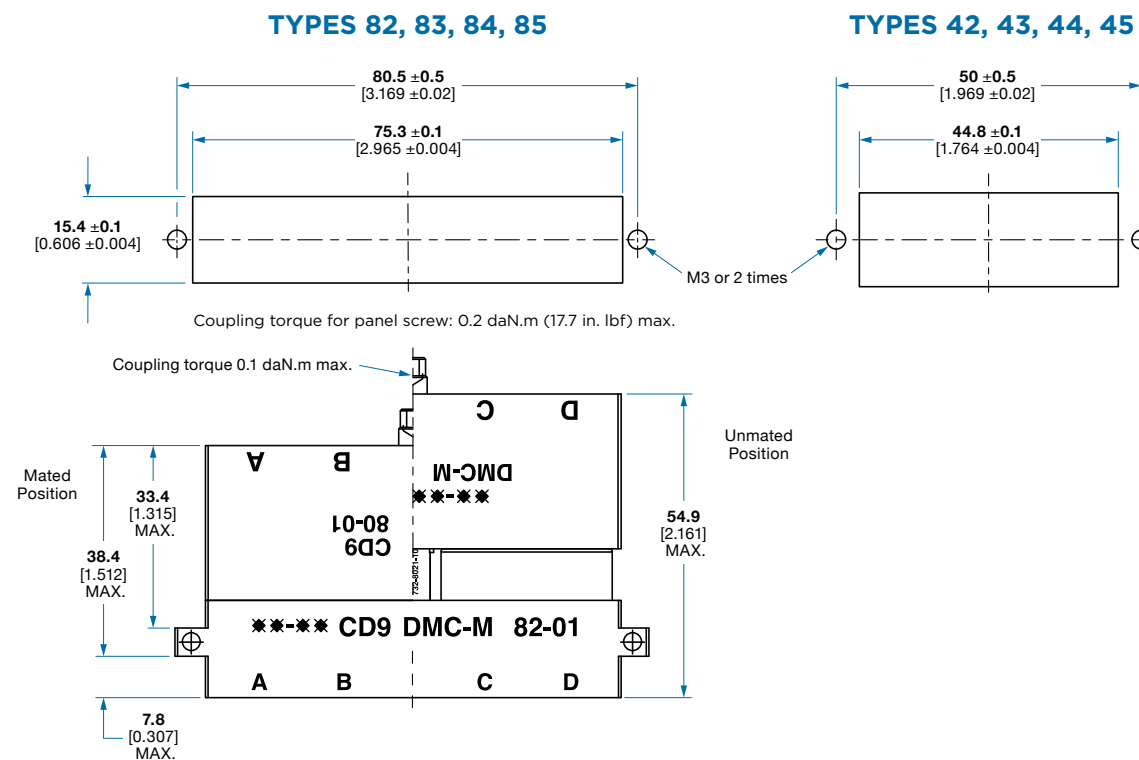


PANEL CUTOUTS

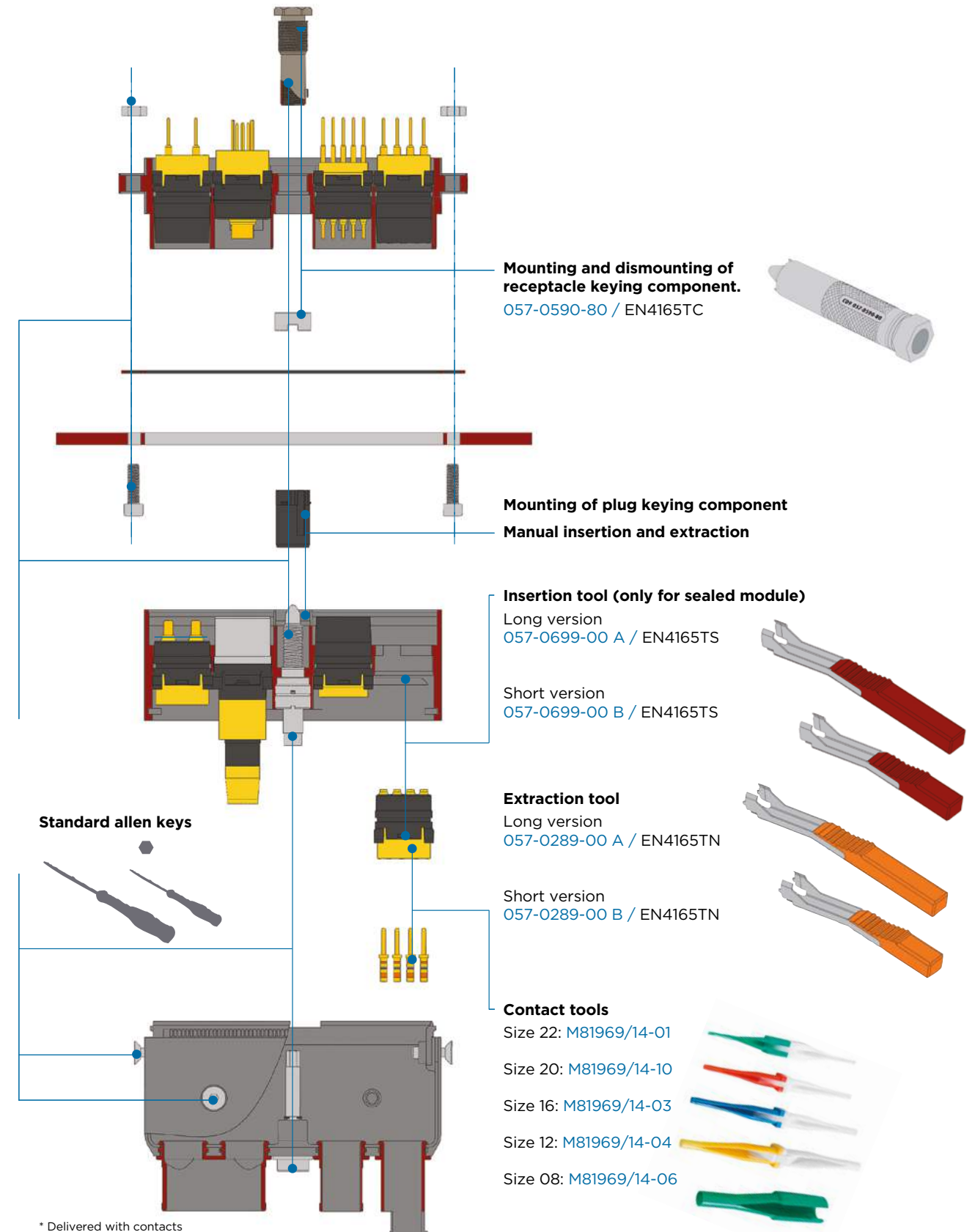
Panel Cutouts for Rack and Panel Plugs



Panel Cutouts for Receptacles



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



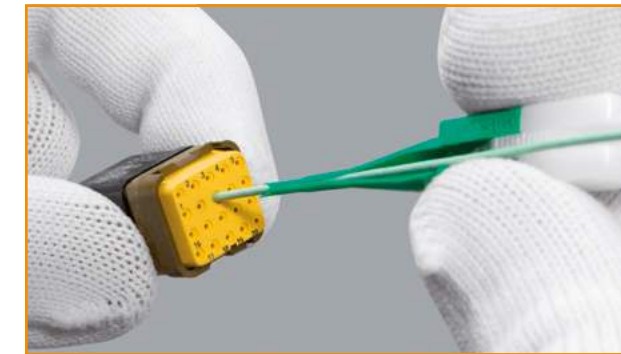
Use the appropriate plastic tool. There is one tool for each contact size.

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

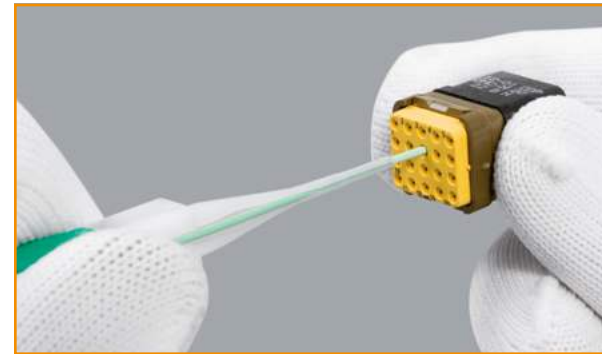


Insert the wire into the slot of the colored end of tool. Pull the wire until the contact butts against the tool.

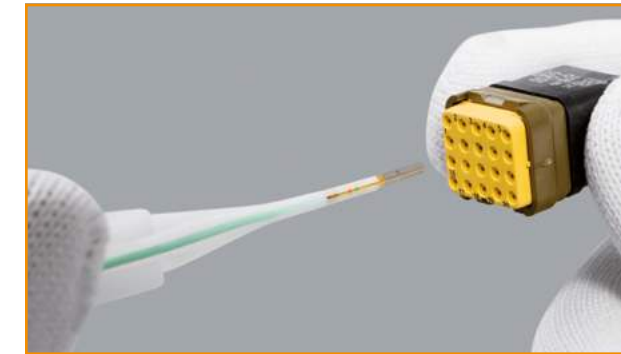


Insert the contact in the module cavity. Push the contact fully home. Then remove the tool and lightly pull back on the wire to make sure that the contact is fully seated.

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

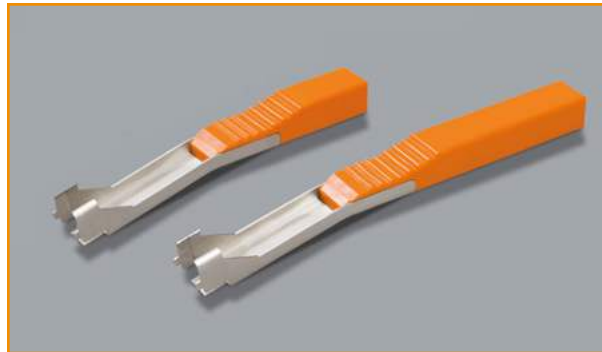


The module must be inserted from the rear side of the housing. The module polarization key must be visible from the marked side of the housing.



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 ± 0.02 daN.m (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

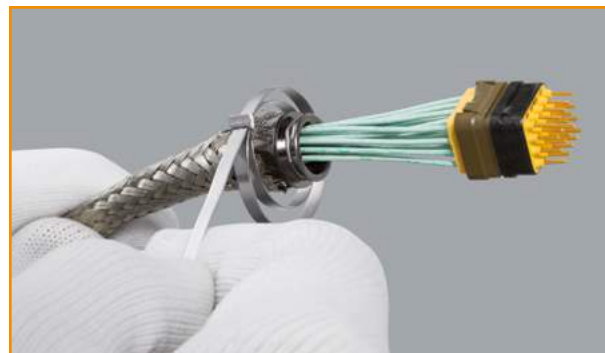


Use the tool part number 057-0592-80 or a standard allen key and apply a 0.1 ± 0.03 daN.m (8.8 ± 2.6 in. lbf.) coupling torque.

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.



LET'S CONNECT

We make it easy to connect with our experts and are ready to provide all the support you need. Just call your local support number or visit www.te.com/industrial to chat with a Product Information Specialist.

Technical Support

te.com/support-center

North America	+1 800 522 6752	Asia Pacific	+86 400 820 6015
North America (Toll)	+1 717 986 7777	Japan	+81 044 844 8180
EMEA/South Africa	+800 0440 5100	Australia	+61 2 9554 2695
EMEA (Toll)	+31 73 624 6999	New Zealand	+64 (0) 9 634 4580
India (Toll-Free)	+800 440 5100		

The Rugged, Modular Solution for Flexible, Reliable Aerospace Connectivity



te.com/dmc-m

AMP, AGASTAT, CII, DEUTSCH, HARTMAN, KILOVAC, MICRODOT, NANONICS, POLAMCO, Raychem, Rochester, SEACON, TE, TE Connectivity and the TE connectivity (logo) are trademarks of the TE Connectivity Ltd. family of companies. Other products, logos, and company names mentioned herein may be trademarks of their respective owners.

While TE Connectivity (TE) has made every reasonable effort to ensure the accuracy of the information herein, nothing herein constitutes any guarantee that such information is error-free, or any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. The TE entity issuing this publication reserves the right to make any adjustments to the information contained herein at any time without notice. All implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose are expressly disclaimed. The dimensions herein are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice.

Consult TE for the latest dimensions and design specifications.

© 2019 TE Connectivity Ltd. family of companies All Rights Reserved.

1-1773886-6 07/19