



DEUTSCH

AFD SERIES CONNECTORS

QUALIFIED TO MIL-DTL-26482 SERIES II

Miniature Circular Connectors with Quick-Connect Bayonet Coupling and Environmental Sealing to Help Withstand Harsh Environments

DEUTSCH AFD SERIES CONNECTORS

Miniature Connectors Sealed To Help Withstand Harsh Environments



WITHSTAND HARSH ENVIRONMENTS

- Triple wire sealed for sealing over a wide range of wire diameters
- Raised moisture barriers around each pin for individual contact sealing

EASY INSTALLATION

- Bayonet coupled
- Closed entry socket insert for positive pin alignment
- Rear-release crimp contact system for superior contact stability

VERSATILE AND ROBUST DESIGN OPTIONS

- Variety of shell styles including square flange, single hole mount, cable connecting, solder mount (hermetic only).
- Aluminum alloy material, nickel, black anodic, and olive drab chromate (cadmium) over nickel platings available
- Power and shielded contacts
- Intermateable with MIL-DTL-26482 Series I connectors

APPLICATIONS

- Commercial Aerospace
- Military Aerospace
- Military Ground Vehicles

TE Connectivity's DEUTSCH AFD series connectors are MIL-DTL-26482 Series II-qualified connectors. They feature bayonet coupling and rear release contacts in a miniature circular connector system with environmental sealing.

This series features four receptacle mounting styles: square flange, wide square flange, cable connecting, and single-hole mount. Plugs are available with and without EMI fingers.

MATERIALS

- **Shell:** Aluminum alloy
- **Shell Plating:** Nickel, black anodized, or olive drab cadmium over nickel base
- **Contacts:** Copper alloy, selectively plated 50 μ m gold
- **Insulator:** Rigid plastic dielectric
- **Seals:** Silicone-based elastomer

ENVIRONMENTAL

- **Temperature:** -55° to 200°C (class W rated to 175°C)
- **Durability:** 500 mating cycles
250 cycles for parts with EMI fingers
- **Vibration:** Meets performance requirements of MIL-DTL-26482
- **Shock:** Meets performance requirements of MIL-DTL-26482

ELECTRICAL

- **Shielding:** EMI spring fingers as per MIL-DTL-26482 Series II
- **Conductivity:** 5 mV max. drop (with EMI Shielding)
200 mV max. drop (except class A) (without EMI Shielding)
- **Contact Retention:** Minimum axial force:
Size 20: 20 lb • Size 16: 25 lb • Size 12: 30 lb

| Voltage Rating: | Service Rating 1 | Service Rating II |
|--|---------------------------------|-----------------------------------|
| Recommended Operating Voltage | | |
| @ Sea Level | 600 VAC _{RMS} /850 VDC | 1000 VAC _{RMS} /1275 VDC |
| Test Voltages (V_{RMS}) | | |
| @ Sea Level | 1500 | 2300 |
| @ 50,000 ft. | 500 | 750 |
| @ 70,000 ft. | 375 | 500 |
| @ 110,000 ft. | 200 | 200 |

Contacts

| Size | Pin Contact | Socket Contact | Seal Plug | Insertion/Removal Tool |
|-------------|--------------------|-----------------------|------------------|-------------------------------|
| 20 | M39029/4-110 | M39029/5-115 | MS27488-20-2 | M81969/14-11 |
| 16 | M39029/4-111 | M39029/5-116 | MS27488-16-2 | M81969/14-03 |
| 12 | M39029/4-113 | M39029/5-118 | MS27488-12-2 | M81969/14-04 |

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

AMP | Agastat | CII | Hartman | Kilovac | Microdot | Nanonics | Raychem | Rochester | DEUTSCH

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

DEUTSCH AFD Series Part Numbering System



MIL-DTL-26482 Part Numbering System



Insert Arrangements

| Insert | Contact Size | | | Insert Positions |
|--------|--------------|----|----|------------------|
| | 20 | 16 | 12 | |
| 8-33 | 3 | — | — | N, W |
| 8-98 | 3 | — | — | N |
| 10-6 | 6 | — | — | N, W |
| 12-3 | — | 3 | — | N, Y |
| 12-8 | 8 | — | — | N, W, X, Y, Z |
| 12-10 | 10 | — | — | N, W, X, Y, Z |
| 14-4 | — | — | 4 | N, W |
| 14-5 | — | 5 | — | N, W, X, Y, Z |
| 14-12 | 8 | 4 | — | N, W, X |
| 14-15 | 14 | 1 | — | N, W, X, Y, Z |

| Insert | Contact Size | | | Insert Positions |
|--------|--------------|----|----|------------------|
| | 20 | 16 | 12 | |
| 14-18 | 18 | — | — | N, W, X, Y, Z |
| 14-19 | 19 | — | — | N, W, X |
| 16-8 | — | 8 | — | N, W, X, Y, Z |
| 16-23 | 22 | 1 | — | N, W |
| 16-26 | 26 | — | — | N, W, Y, Z |
| 18-8 | — | — | 8 | N, W |
| 18-11 | — | 11 | — | N, W, X, Y, Z |
| 18-30 | 29 | 1 | — | N, W, X, Y, Z |
| 18-32 | 32 | — | — | N, W, X, Y, Z |
| 20-16 | — | 16 | — | N, W, X, Y, Z |

| Insert | Contact Size | | | Insert Positions |
|--------|--------------|----|----|------------------|
| | 20 | 16 | 12 | |
| 20-39 | 37 | 2 | — | N, W, X, Y, Z |
| 20-41 | 41 | — | — | N, W, X, Y, Z |
| 22-12 | — | — | 12 | N |
| 22-21 | — | 21 | — | N, W, X, Y, Z |
| 22-32 | 32 | — | — | N, W, X, Y, Z |
| 22-41 | 27 | 14 | — | N, W, X, Y, Z |
| 22-55 | 55 | — | — | N, W, X, Y, Z |
| 24-19 | — | — | 19 | N, W, X, Y, Z |
| 24-31 | — | 31 | — | N, W, X, Y, Z |
| 24-61 | 61 | — | — | N, W, X, Y, Z |

For More Information

TE Technical Support Center

| | |
|----------------|--------------------|
| North America | +1 800 522 6752 |
| Asia Pacific | +86 0 400 820 6015 |
| Austria | +43 1 905 601 228 |
| Baltic Regions | +46 8 5072 5000 |
| Benelux | +31 73 6246 999 |
| Czech Republic | +420 800 701 462 |
| France | +33 1 34 20 86 86 |
| Germany | +49 6251 133 1999 |
| Hungary | +36 809 874 04 |
| Italy | +39 011 401 2632 |
| Nordic | +46 8 5072 5000 |
| Poland | +48 800 702 309 |
| Russia | +7495 790 790 2 |
| Spain/Portugal | +34 93 2910366 |
| Switzerland | +41 52 633 66 26 |
| United Kingdom | +44 800 267 666 |

Follow us on Twitter for all the latest product news
@TEConnectivity, and on Facebook, TEConnectivity.

deutsch.net

© 2015 TE Connectivity Ltd. family of companies. All Rights Reserved.

1-1773850-3 ADM/RRD 2.5M 01/2015

DEUTSCH, 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 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.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

TE Connectivity:

[MS3470L12-8BZ](#) [MS3472W18-30SX-LC](#) [MS3476L18-32BZ](#) [MS3471L8-33PW-LC](#) [MS3471L18-11SX-LC](#)
[MS3470L22-55SW-LC](#) [MS3475L20-16AY](#) [MS3471W22-21BY](#) [MS3472L12-8SZ-LC](#) [MS3476W12-3P](#) [MS3471L22-41S-LC](#) [MS3471W24-31S-LC](#) [MS3475W8-98S-LC](#) [MS3475W18-11SW-LC](#) [MS3472W12-8P](#) [MS3475W20-39BZ](#)
[MS3474L24-31SY-LC](#) [MS3474W18-32PZ](#) [MS3474W16-8A](#) [MS3476A14-5PY-LC](#) [MS3471L18-11SW](#) [MS3470W22-55PX](#) [MS3476W22-55BY](#) [MS3475L22-21SW](#) [MS3476L14-5BY](#) [MS3470W18-30SW-LC](#) [MS3476L14-18S](#)
[MS3471L12-8BZ](#) [MS3472W24-19SX](#) [MS3471L22-55SW-LC](#) [MS3475W22-41P](#) [MS3476L20-39P](#) [MS3474W18-11B](#)
[MS3475L20-16P](#) [MS3474L12-8A](#) [MS3471L18-30SX-LC](#) [MS3474W12-10AY](#) [MS3470L24-19SX](#) [MS3470W20-41P-LC](#)
[MS3475W14-12BX](#) [MS3476W20-16P](#) [MS3471W20-16PZ-LC](#) [MS3471W24-61SZ](#) [MS3476L18-32AX](#) [MS3474W18-11BY](#) [MS3470W12-8PZ](#) [MS3472L24-31SY-LC](#) [MS3471L22-55SY](#) [MS3472W18-32PX-LC](#) [MS3476W16-8PX](#)
[MS3472W24-19S-LC](#) [MS3475L20-16SW-LC](#) [MS3474W24-31PW](#) [MS3475W22-21SX-LC](#) [MS3475W20-16BZ](#)
[MS3470W22-41SW](#) [MS3476L14-5SY-LC](#) [MS3474W22-55BX](#) [MS3476W22-55SZ](#) [MS3470L18-11SX-LC](#)
[MS3471W12-8PZ-LC](#) [MS3474W12-8PW-LC](#) [MS3476L10-6PW-LC](#) [MS3472W8-33PW-LC](#) [MS3476A14-15AZ](#)
[MS3472W20-16SZ](#) [MS3476W18-30SY-LC](#) [MS3475W12-10SX-LC](#) [MS3470L22-41S-LC](#) [MS3476L22-21BZ](#)
[MS3471L18-11AX](#) [MS3471W20-41PX](#) [MS3476L24-61SW](#) [MS3475L20-41S](#) [MS3471W18-32BW](#) [MS3470W20-16BW](#)
[MS3472L12-8BZ](#) [MS3472L22-55S](#) [MS3471L24-61BX](#) [MS3475W20-39SZ-LC](#) [MS3475L16-26P](#) [MS3475L20-41PX-LC](#) [MS3476A14-15AW](#) [MS3471L20-16BY](#) [MS3475W14-5S-LC](#) [MS3475W14-18PZ](#) [MS3471L12-10SZ](#) [MS3471W12-10PW](#) [MS3470W20-39PZ-LC](#) [MS3475L18-11BX](#) [MS3475W20-16PY](#) [MS3475W12-8PW-LC](#) [MS3474W22-12B](#)
[MS3475L22-41AX](#) [MS3471W18-8S](#) [MS3476A14-5BX](#) [MS3476L24-19P-LC](#) [MS3475W24-61SY-LC](#) [MS3475W20-16PZ-LC](#) [MS3476L14-4SW](#)