



**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  $\mu$ 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

<b>Voltage Rating:</b>	<b>Service Rating 1</b>	<b>Service Rating II</b>
<b>Recommended Operating Voltage</b>		
@ Sea Level	600 VAC <sub>RMS</sub> /850 VDC	1000 VAC <sub>RMS</sub> /1275 VDC
<b>Test Voltages (V<sub>RMS</sub>)</b>		
@ Sea Level	1500	2300
@ 50,000 ft.	500	750
@ 70,000 ft.	375	500
@ 110,000 ft.	200	200

## Contacts

<b>Size</b>	<b>Pin Contact</b>	<b>Socket Contact</b>	<b>Seal Plug</b>	<b>Insertion/Removal Tool</b>
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,
22-12	—	—	12	N
22-21	—	21	—	N, W, X, Y,
22-32	32	—	—	N, W, X, Y, Z
22-41	27	14	—	N, W, X, Y,
22-55	55	—	—	N, W, X, Y, Z
24-19	—	—	19	N, W, X, Y,
24-31	—	31	—	N, W, X, Y,
24-61	61	—	—	N, W, X, Y, Z

## For More Information

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

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Consult TE for the latest dimensions and design specifications.