

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 in 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 µin 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 <sub>RMS</sub> /850 VDC	1000 VACRMS/1275 VDC			
Test Voltages (VRMS)					
@ Sea Level	1500	2300			
@ 50,000 ft.	500	750			
@ 70,000 ft.	375	500			
@ 110,000 ft.	200	200			

# Contacts

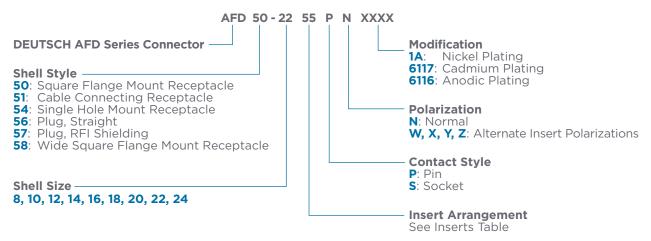
Size	Pin Contact	Socket Contact	Seal Plug	Insertion/Removal Tool
20	M39029/4-110	M39029/5-115	MS27488-20-2	M81969/14-11
16	M39029/4-111	M39029/5-116	MS27488-16-2	M81969/14-03
12	M39029/4-113	M39029/5-118	MS27488-12-2	M81969/14-04

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

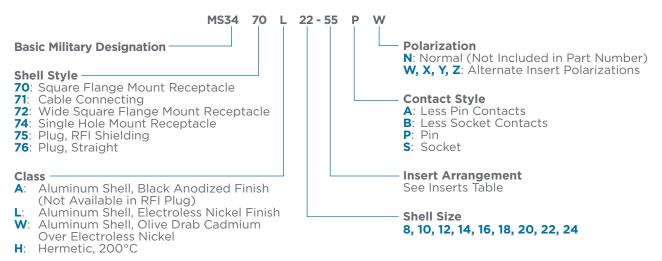
AMP | Agastat | CII | Hartman | Kilovac | Microdot | Nanonics | Raychem | Rochester | DEUTSCH

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**

Incost	Contact Size		Size	Insert	Inco	
Insert	20	16	12	Positions	Inse	
8-33	3	_	_	N, W	14-1	
8-98	3	_	—	N	14-1	
10-6	6	_	_	N, W	16-	
12-3	_	3	_	N, Y	16-2	
12-8	8	_	_	N, W, X, Y, Z	16-2	
12-10	10	_	_	N, W, X, Y, Z	18-	
14-4	_	_	4	N, W	18-	
14-5	_	5	_	N, W, X, Y, Z	18-3	
14-12	8	4	_	N, W, X	18-3	
14-15	14	1	_	N, W, X, Y, Z	20-	

Incort	Contact Size			Insert
Insert	20	16	12	Positions
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

Incent	Contact Size			Insert
Insert	20	16	12	Positions
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.

