

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 _{RMS} /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

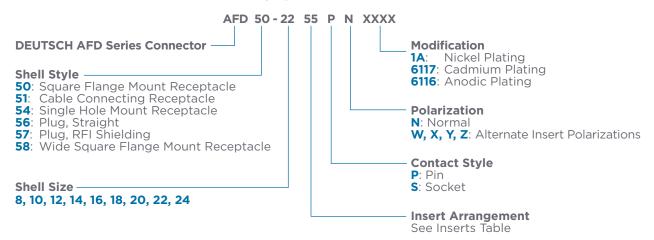
Size	Pin Contact	Socket Contact	Seal Plug	Insertion/Removal Tool
20	M39029/4-110	M39029/5-115	MS27488-20-2	M81969/14-11
16	M39029/4-111	M39029/5-116	MS27488-16-2	M81969/14-03
12	M39029/4-113	M39029/5-118	MS27488-12-2	M81969/14-04

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

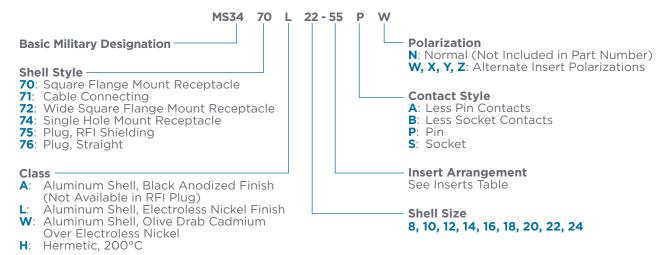
AMP | Agastat | CII | Hartman | Kilovac | Microdot | Nanonics | Raychem | Rochester | DEUTSCH

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

Imaaut	Contact Size			Insert
Insert	20	16	12	Positions
8-33	3	_	_	N, W
8-98	3	_	_	Ν
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

Contact Size			Insert
20	16	12	Positions
18	_	_	N, W, X, Y, Z
19	_	_	N, W, X
_	8	_	N, W, X, Y, Z
22	1	_	N, W
26	_	_	N, W, Y, Z
_	_	8	N, W
_	11	_	N, W, X, Y, Z
29	1	_	N, W, X, Y, Z
32	_	_	N, W, X, Y, Z
_	16	_	N, W, X, Y, Z
	20 18 19 - 22 26 - - 29	20 16 18 - 19 8 22 1 26 11 29 1 32 -	20 16 12 18 - - 19 - - - 8 - 22 1 - 26 - - - 8 - - 11 - 29 1 - 32 - -

Contact Size

	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
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For More Information

TE Technical Support Center

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Consult TE for the latest dimensions and design specifications.

