

# DEUTSCH DL and DBA Series Connectors

Qualified to MIL-DTL-83723 Series III

Weight-Saving Aluminum Connectors Designed for Rugged Use and High Temperatures

# DEUTSCH DL and DBA Series Connectors

Weight-Saving Connectors Designed for Rugged Use and High Temperatures



DEUTSCH DL Series bayonet coupling and DBA Series threaded coupling connectors are built to withstand extreme environmental conditions and are qualified to the MIL-DTL-83723 Series III standard.

## MATERIALS

- **Shell**
  - Class A:** Aluminum shell, black anodized finish
  - Class R:** Aluminum shell, electroless nickel finish
  - Class W:** Aluminum shell, olive drab cadmium over nickel base
- **Contacts:** Copper alloy, plated 50  $\mu$ m selective gold
- **Bayonet Pins:** Passivated stainless steel
- **Insulator:** Rigid plastic dielectric
- **Seals:** Silicone-based elastomer

## ENVIRONMENTAL

- **Temperature:** -65°C to +200°C (Class W -55°C to +175°C)
- **Durability:**
  - 500 mating cycles for all bayonet receptacles (M83723/71 through /76)
  - 250 mating cycles for plugs with RFI fingers (M83723/77 and /78)
  - 250 mating cycles for threaded connectors (M83723/82 through /87)
- **Vibration:** Meets performance requirements of MIL-DTL-83723
- **Shock:** Meets performance requirements of MIL-DTL-83723
- **Shielding:** RFI shielding as per MIL-DTL-83723
- **Conductivity (Voltage Drop):**
  - 5 mV max. (with RFI shielding)
  - 200 mV max. (without RFI shielding)
- **Shell Styles:** Square flange, jam nut, straight plug, and RFI plug (RFI plug in Bayonet series only)

## VOLTAGE RATING

Voltage Rating:	Service Rating 1	Service Rating II
<b>Recommended Operating Voltage</b>		
@ Sea Level	600 VAC <sub>RMS</sub> /850 VDC	900 VAC <sub>RMS</sub> /1250 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

### 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 and threaded coupling options
- Closed-entry socket insert for positive pin alignment
- Scoop proof
- Rear release crimp contact system for excellent contact stability
- Visual confirmation of complete coupling

### APPLICATIONS

- Military Aircraft
- Commercial Aircraft
- Communications Equipment
- High-Temperature Industrial Applications

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

Empower Engineers to Solve Problems, Moving the World Forward.



## Contact Retention

Contact Retention: · Size 20: 20lbs · Size 16: 25lbs · Size 12: 30lbs

Contact Size	Pin Contact	Socket Contact	Sealing Plug	Insertion/ Removal Tool
20	M39029/4-110	M39029/5-115	MS27488-20-1	M81969/14-11 (Red/White)
16	M39029/4-111	M39029/5-116	MS27488-16-1	M81969/14-03 (Blue/White)
12	M39029/4-113	M39029/5-118	MS27488-12-1	M81969/14-04 (Yellow/White)

Contact Size	Wire Range (AWG)	Wire Range (mm <sup>2</sup> )	Crimp Tool	Test Current (Amps)
20	24-20	0.20-0.52	M22520/1-01 or M22520/2-01	7.5
16	20-16	0.52-1.31	M22520/1-01	13
12	14-12	2.08-3.31	M22520/1-01	23

## Insert Arrangements For Bayonet Connectors

Inserts are QPL and available in 6, 7, 8, 9, or Y polarization (Insert 8-3 is not available with Y polarization)

Consult TE for insert arrangements for threaded connectors.

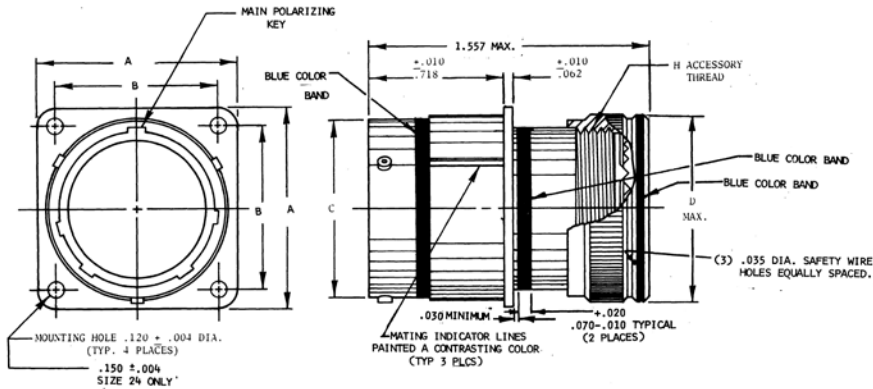
Insert	Contact Size		
	20	16	12
8-3	3		
10-2	2		
10-5	5		
10-6	6		
10-20		2	
12-3		3	
12-12		12	
14-04			4
14-07		7	
14-12	9	3	

Insert	Contact Size		
	20	16	12
14-15	15		
16-10		10	
16-24	24		
18-8			8
18-14		14	
18-31	31		
20-16		16	
20-25	19		6
20-28	24		4
20-39	37	2	

Insert	Contact Size		
	20	16	12
20-41	41		
22-12			12
22-19		19	
22-32	26		6
22-39	27	12	
22-55	55		
24-19			19
24-43	23	20	
24-57	55		2
24-61	61		



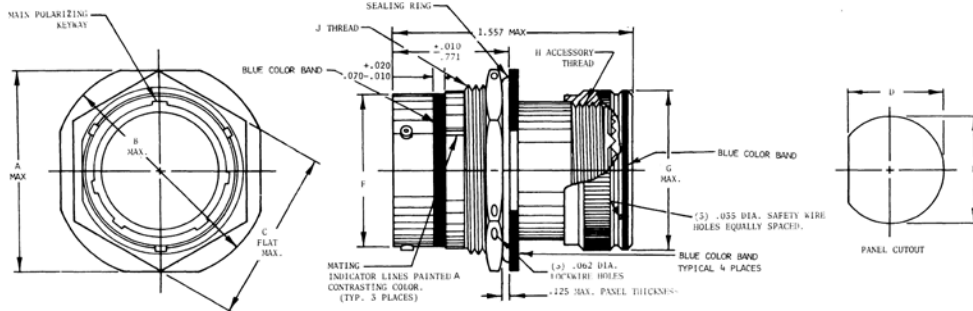
DL60 & M83723/71,72



DL60 & M83723/71,72

Size	A ± .005		B ± .005		C ± .000/-0.005		D		H Thread
	in	mm	in	mm	in	mm	in	mm	
8	0.812	20.625	0.594	15.088	0.536	13.614	0.617	15.672	1/2 - 20 UNEF 2A
10	0.937	23.800	0.719	18.263	0.659	16.739	0.734	18.644	5/8 - 24 UNEF 2A
12	1.031	26.187	0.812	20.625	0.829	21.057	0.858	21.793	3/4 - 20 UNEF 2A
14	1.125	28.575	0.906	23.012	0.898	22.809	0.984	24.994	7/8 - 20 UNEF 2A
16	1.250	31.750	0.969	24.613	1.025	26.035	1.112	28.245	1 - 20 UNEF 2A
18	1.343	34.112	1.062	26.975	1.131	28.727	1.218	30.937	1 1/16 - 18 UNEF 2A
20	1.437	36.500	1.156	29.362	1.256	31.902	1.345	34.163	1 3/16 - 18 UNEF 2A
22	1.562	39.675	1.250	31.750	1.381	35.077	1.468	37.287	1 5/16 - 18 UNEF 2A
24	1.703	43.256	1.375	34.925	1.506	38.252	1.593	40.462	1 7/16 - 18 UNEF 2A

DL64 & M83723/73,74

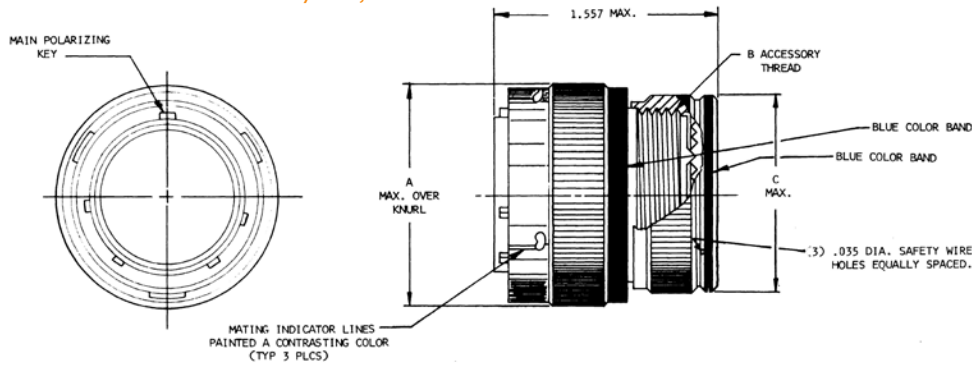


DL64 & M83723/73,74

Size	A		B		C		D ± .005		E ± .005		F ± .000/-0.005		G	H Thread	J Thread	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm				
8	0.979	24.867	1.068	27.127	0.828	21.031	0.605	15.367	0.635	16.129	0.536	13.614	0.617	15.672	1/2 - 20 UNF	5/8 - 20 UNEF
10	1.104	28.042	1.192	30.277	0.935	23.749	0.730	18.542	0.760	19.304	0.659	16.739	0.734	18.644	5/8 - 24 UNF	3/4 - 20 UNEF
12	1.291	32.791	1.380	35.052	1.140	28.956	0.917	23.292	0.947	24.054	0.829	21.057	0.858	21.793	3/4 - 20 UNF	15/16 - 20 UNEF
14	1.391	35.331	1.505	38.227	1.250	31.750	0.980	24.892	1.010	25.654	0.898	22.809	0.984	24.994	7/8 - 20 UNF	1 - 20 UNEF
16	1.516	38.506	1.630	41.402	1.329	33.757	1.105	28.067	1.135	28.829	1.025	26.035	1.112	28.245	1 - 20 UNF	1 1/8 - 20 UNEF
18	1.641	41.681	1.756	44.602	1.455	36.957	1.225	31.115	1.260	32.004	1.131	28.727	1.218	30.937	1 1/16 - 18 UNF	1 1/4 - 18 UNEF
20	1.766	44.856	1.860	47.244	1.642	41.707	1.350	34.290	1.385	35.179	1.256	31.902	1.345	34.163	1 3/16 - 18 UNF	1 3/8 - 18 UNEF
22	1.954	49.632	2.068	52.527	1.705	43.307	1.475	37.465	1.510	38.354	1.381	35.077	1.468	37.287	1 5/16 - 18 UNF	1 1/2 - 18 UNEF
24	2.079	52.807	2.160	54.864	1.829	46.457	1.600	40.640	1.635	41.529	1.506	38.252	1.593	40.462	1 7/16 - 18 UNF	1 5/8 - 18 UNEF



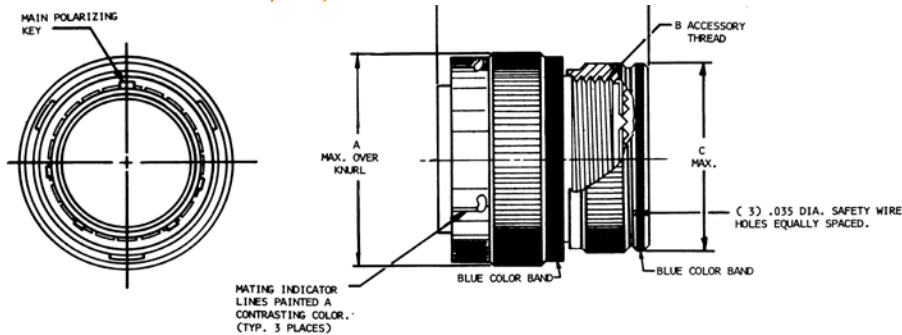
DL66 & M83723/75,76



DL66 & M83723/75,76

Size	A		B Thread	C	
	in	mm		in	mm
8	0.766	19.456	1/2 - 20 UNEF	0.617	15.672
10	0.906	23.012	5/8 - 24 UNEF	0.734	18.644
12	1.078	27.381	3/4 - 20 UNEF	0.858	21.793
14	1.141	28.981	7/8 - 20 UNEF	0.984	24.994
16	1.266	32.156	1 - 20 UNEF	1.112	28.245
18	1.375	34.925	1 1/16 - 18 UNEF	1.218	30.937
20	1.510	38.354	1 3/16 - 18 UNEF	1.345	34.163
22	1.625	41.275	1 5/16 - 18 UNEF	1.468	37.287
24	1.760	44.704	1 7/16 - 18 UNEF	1.593	40.462

DL68 & M83723/77,78



DL68 & M83723/77,78

Size	A		B Thread	C	
	in	mm		in	mm
8	0.766	19.456	1/2 - 20 UNEF	0.617	15.672
10	0.906	23.012	5/8 - 24 UNEF	0.734	18.644
12	1.078	27.381	3/4 - 20 UNEF	0.858	21.793
14	1.141	28.981	7/8 - 20 UNEF	0.984	24.994
16	1.266	32.156	1 - 20 UNEF	1.112	28.245
18	1.375	34.925	1 1/16 - 18 UNEF	1.218	30.937
20	1.510	38.354	1 3/16 - 18 UNEF	1.345	34.163
22	1.625	41.275	1 5/16 - 18 UNEF	1.468	37.287
24	1.760	44.704	1 7/16 - 18 UNEF	1.593	40.462



## Bayonet Coupling Connectors

### MIL-DTL-83723 Series III System

**M83723/ 72 R 22 55 N**

**MILITARY DESIGNATION** \_\_\_\_\_

**SHELL TYPE** \_\_\_\_\_

- 71** Square Flange Mount Receptacle, Socket Contacts
- 72** Square Flange Mount Receptacle, Pin Contacts
- 73** Jam Nut Receptacle, Socket Contacts
- 74** Jam Nut Receptacle, Pin Contacts
- 75** Straight Plug, Socket Contacts
- 76** Straight Plug, Pin Contacts
- 77** RFI Grounding Plug, Socket Contacts (Not Available in A Class)
- 78** RFI Grounding Plug, Pin Contacts (Not Available in A Class)

**CLASS (MATERIAL AND FINISH)** \_\_\_\_\_

- A** Aluminum Shell, Black Anodized Finish
- R** Aluminum Shell, Electroless Nickel Finish
- W** Aluminum Shell, Olive Drab Cadmium over Nickel Base

**SHELL SIZE** \_\_\_\_\_

**8, 10, 12, 14, 16, 18, 20, 22, 24**

**INSERT ARRANGEMENT** \_\_\_\_\_

See insert arrangement table

**CLOCKING/KEYING POSITION** \_\_\_\_\_

- N** Normal
- 6, 7, 8, 9, Y** (Y Not Available in Size 8 Shell)

### DEUTSCH DL Series System

**DL 66 R 18 14 P 8 6116**

**CONNECTOR SERIES** \_\_\_\_\_

**SHELL MOUNTING STYLE** \_\_\_\_\_

- 60** Square Flange Receptacle (/71 Socket; /72 Pin)
- 64** Jam Nut Receptacle (/73 Socket; /74 Pin)
- 66** Straight Plug (/75 Socket; /76 Pin)
- 68** RFI Plug (/77 Socket; /78 Pin)

**CLASS** \_\_\_\_\_

- R** Nonconductive Finish (Black Anodized)
- G** Conductive Finish (Nickel)

**SHELL SIZE** \_\_\_\_\_

**8, 10, 12, 14, 16, 18, 20, 22, 24**

**INSERT ARRANGEMENT** \_\_\_\_\_

See insert arrangement table

**CONTACT STYLE** \_\_\_\_\_

- P** Pin
- S** Socket

**CLOCKING/KEYING POSITION** \_\_\_\_\_

- N, 6, 7, 8, 9, 10** (10 Not Available in Size 8 Shell)
- (Consult TE for available alternate clocking)

**MODIFICATION** \_\_\_\_\_

- 6116** Black Anodized Finish, Blue Color Bands, Less Backshell
- 6106** Electroless Nickel Finish, Blue Color Bands, Less Backshell
- 6117** Olive Drab Cadmium over Nickel Base, Blue Color Bands, Less Backshell



**Threaded Connectors**  
**MIL-DTL-83723 Series III System**

**M83723 84 R 22 55 N**

<b>MILITARY DESIGNATION</b>	_____	_____	_____	_____	_____	_____
<b>SHELL TYPE</b>	_____	_____	_____	_____	_____	_____
<b>82</b>	Square Flange Mount Receptacle, Socket Contacts					
<b>83</b>	Square Flange Mount Receptacle, Pin Contacts					
<b>84</b>	Jam Nut Receptacle, Socket Contacts					
<b>85</b>	Jam Nut Receptacle, Pin Contacts					
<b>86</b>	Straight Plug, Socket Contacts					
<b>87</b>	Straight Plug, Pin Contacts					
<b>CLASS (MATERIAL AND FINISH)</b>	_____	_____	_____	_____	_____	_____
<b>A</b>	Aluminum Shell, Black Anodized Finish					
<b>R</b>	Aluminum Shell, Electroless Nickel Finish					
<b>W</b>	Aluminum Shell, Olive Drab Cadmium over Nickel Base					
<b>SHELL SIZE</b>	_____	_____	_____	_____	_____	_____
	<b>8, 10, 12, 14, 16, 18, 20, 22, 24</b>					
<b>INSERT ARRANGEMENT</b>	_____	_____	_____	_____	_____	_____
	Consult TE					
<b>CLOCKING/KEYING POSITION</b>	_____	_____	_____	_____	_____	_____
<b>N</b>	Normal					
	<b>6, 7, 8, 9, Y</b> (Y Not Available in Size 8 Shell)					

**DEUTSCH DBA Series System**

**DBA 34 - 22-55 P N 6116**

<b>CONNECTOR SERIES</b>	_____	_____	_____	_____	_____	_____
<b>STYLE</b>	_____	_____	_____	_____	_____	_____
<b>30</b>	Square Flange Receptacle (/82 Socket; /83 Pin)					
<b>34</b>	Jam Nut Receptacle (/84 Socket; /85 Pin)					
<b>36</b>	Plug (/86 Socket; /87 Pin)					
<b>SHELL SIZE</b>	_____	_____	_____	_____	_____	_____
	<b>8, 10, 12, 14, 16, 18, 20, 22, 24</b>					
<b>INSERT ARRANGEMENT</b>	_____	_____	_____	_____	_____	_____
	Consult TE					
<b>PIN OR SOCKET</b>	_____	_____	_____	_____	_____	_____
<b>P</b>	Pin					
<b>S</b>	Socket					
<b>CLOCKING POSITION</b>	_____	_____	_____	_____	_____	_____
	Shell Clocking: <b>N, 6, 7, 8, 9, 10</b> (10 Not Available in Size 8 Shell)					
<b>MODIFICATION</b>	_____	_____	_____	_____	_____	_____
<b>6116</b>	Aluminum Shell, Black Anodized Finish					
<b>6106</b>	Aluminum Shell, Electroless Nickel Finish					
<b>6117</b>	Aluminum Shell, Olive Drab Cadmium over Nickel Base					

## 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 [te.com](http://te.com) to chat with a Product Information Specialist.

## Technical Support

[te.com/support-center](http://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		

[te.com/deutsch](http://te.com/deutsch)

AMP, AGASTAT, CII, DEUTSCH, HARTMAN, KILOVAC, MICRODOT, NANONICS, POLAMCO, Raychem, SEACON, TE, TE Connectivity and the TE connectivity (logo) are trademarks of TE Connectivity. 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.

© 2017 TE Connectivity. All Rights Reserved.

1-1773863-9 11/17



## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Circular MIL Spec Connector](#) category:*

*Click to view products by [TE Connectivity](#) manufacturer:*

Other Similar products are found below :

[89075GULPR](#) [0025-264-3014](#) [58-570121-04S](#) [58-584653-12P](#) [0134-213-1007](#) [0134-213-1208](#) [0134-213-2209](#) [0025-258-000](#) [60-042022-02P](#) [60-042022-19P](#) [60-042022-23P](#) [012-0467-000](#) [602GB06EG24-61SN](#) [0134-201-1207](#) [0134-207-2009](#) [0134-213-1006](#) [6104-207-2302](#) [6104-208-1902](#) [6131-202-19149P](#) [6131-204-21149P](#) [6131-207-13149P](#) [6131-208-13149P](#) [6131-209-17149P](#) [6131-210-11149P](#) [6131-211-19149P](#) [6131-216-19149P](#) [6131-220-25149P](#) [6131-259-11149P](#) [6131-259-21149P](#) [6131-259-23149P](#) [6131-263-19149P](#) [6131-265-17149P](#) [6131-265-19149P](#) [6134-203-21149](#) [CS3100A18-1P-472](#) [CS3100A-36-77S](#) [CS3101A36-79S-SR](#) [CS3102A-10SL-53P](#) [CS3102A10SL-64S](#) [CS3102A-20-15S](#) [CS3102A-22-70S](#) [CS3102A-24-79S](#) [CS3102A24-AJS](#) [CS3102A-32-17P](#) [CS3102A32-25S](#) [CS3106A10SL3S004](#) [CS3106A-18-73S](#) [CS3106A-28-20P](#) [CS3106A-32-82S](#) [CS3106A36-79P-SR](#)