



## DEUTSCH FDBA Series Filter Connectors

### NAS1599B



#### MATING COMPATIBILITY

- DEUTSCH RR/602 connectors
- ASNE connectors

#### VERSATILE

- Wide range of connector

#### SHELL CONFIGURATIONS

- Configurable filter topologies

#### RELIABLE

- Positive bayonet coupling
- High durability silicone elastomers

#### DESIGNED FOR HARSH ENVIRONMENTS

- Vibration and shock
- Temperature extremes
- High humidity
- Altitude
- Salt spray

DEUTSCH FDBA Series connectors were developed from the NAS1599B specification. The lightweight connectors offer medium-density insert arrangements, various plating options, five different keying options, and a bayonet coupling requiring only a 1/3 turn to mate fully.

#### SPECIFICATIONS

##### Environmental

- **Temperature Range:** -55°C to 125°C
- **Physical Shock:** Typical to EIA-364-27
- **Vibration:** Typical to EIA-364-28 test condition III
- **Fungus Resistance:** Based on MIL-STD-810
- **Fluid Immersion:** Typical as per MIL-DTL-26482 classes H, L and N (Table XXIX)
- **Salt Spray:** Typically based on EIA/ECA-364-26
- **Humidity:** Typically EIA-364-31 test method II
- **Durability:** 500 cycles per MIL-DTL-26482

##### Electrical

- **Grounded Line Resistance (Typ.):** 15 mΩ
- **Insulation Resistance (Typ.):** >5 GΩ
- **Dielectric Withstand (Typ.):** <5 μA
- **DWV:** up to 2000 VDC
- **Working Voltage:** up to 2000 VDC
- **Typical Test Specifications Used:**  
MIL-STD-810: Test Method Standard  
MIL-STD-202: Electrical & Electronic Component Parts  
RTCA DO-160: Test Procedures for Airborne Equipment  
EIA-364: Electrical Connector & Socket Test Procedures

##### Filtering

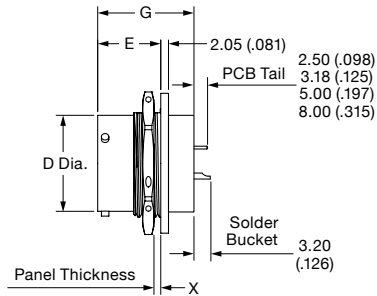
- **Capacitance Range:** 20 pF to 4 μF
- **Capacitance Tolerance:** Typically 20%
- **Unfiltered Line Cap (Typ.):** 15 pF
- **Filtering Topologies:** L, C, LC, CL, Pi, T, Double T

Transient protection available as per RTCA Publication DO 160 (see page 55).

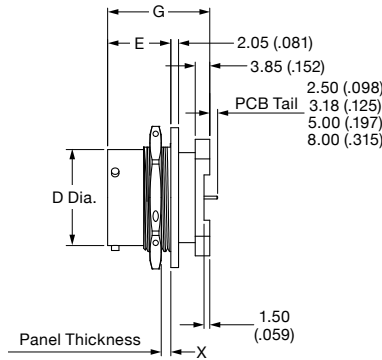


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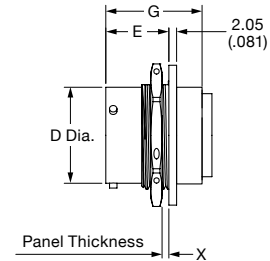
## Jam Nut Receptacles



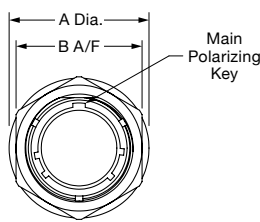
Single Flange



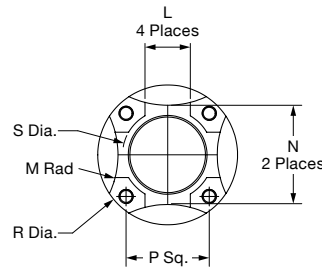
Double Flange



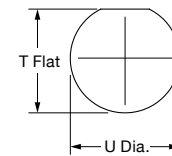
Single Flange, Crimp Contacts



Front View



Double Flange Footprint



Recommended Panel Cutout

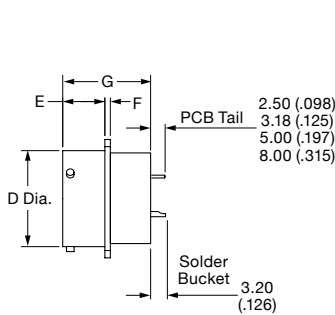
Shell Size	A Dia.	B A/F Max.	D Dia. Max.	E Max.	Length G Max.			X Panel Thick. Max.	L Ref.	M Rad Ref.	N Ref.	P Sq.	R Dia.	S Dia. T Flat	Mounting Dims	
					Single Flange	Double Flange	Crimp									
8	23.83 (0.938)	12.04 (0.474)	12.04 (0.474)					8.00 (0.315)	9.00 (0.354)	15.50 (0.610)	14.00 (0.551)	27.06 (1.065)	14.34 (0.565)	13.85 (0.545)	14.70 (0.579)	
10	26.97 (1.061)	15.01 (0.591)	15.01 (0.591)					8.00 (0.315)	9.00 (0.354)	15.50 (0.610)	14.00 (0.551)	27.06 (1.065)	14.34 (0.565)	17.05 (0.671)	17.85 (0.703)	
12	31.75 (1.250)	19.08 (0.751)	19.08 (0.751)	16.70 (0.657)	28.59 (1.122)	30.00 (1.181)	48.50 (1.909)	4.75 (0.187)	8.00 (0.315)	12.00 (0.472)	18.65 (0.734)	17.00 (0.669)	32.06 (1.262)	17.42 (0.686)	21.15 (0.833)	22.60 (0.890)
14	34.92 (1.374)	22.25 (0.876)	22.25 (0.876)						12.00 (0.472)	18.00 (0.709)	22.00 (0.866)	19.00 (0.748)	35.06 (1.380)	20.72 (0.816)	24.30 (0.957)	25.75 (1.014)
16	38.10 (1.500)	25.43 (1.001)	25.43 (1.001)						12.00 (0.472)	20.00 (0.787)	25.25 (0.994)	22.00 (0.866)	39.06 (1.538)	23.89 (0.941)	27.45 (1.081)	28.95 (1.138)
18	41.27 (1.624)	28.60 (1.126)	28.60 (1.126)						16.00 (0.630)	22.00 (0.866)	28.40 (1.118)	25.00 (0.984)	42.06 (1.656)	26.43 (1.041)	30.65 (1.207)	32.10 (1.264)
20	46.02 (1.812)	39.82 (1.568)	31.77 (1.251)					6.35 (0.250)	16.00 (0.630)	22.00 (0.866)	31.55 (1.242)	27.00 (1.063)	45.06 (1.774)	29.58 (1.165)	33.80 (1.331)	35.30 (1.390)
22	49.23 (1.938)	43.02 (1.694)	34.95 (1.376)	19.10 (0.752)	31.00 (1.220)	32.50 (1.280)	51.00 (2.008)		16.00 (0.630)	22.00 (0.866)	34.50 (1.358)	29.00 (1.142)	48.06 (1.892)	32.76 (1.290)	37.00 (1.457)	38.45 (1.514)
24	52.37 (2.062)	46.17 (1.818)	38.13 (1.501)					5.60 (0.220)	16.00 (0.630)	24.00 (0.945)	37.30 (1.469)	31.00 (1.221)	51.06 (2.010)	35.83 (1.411)	40.15 (1.581)	41.65 (1.640)

See page 40 for insert arrangements and back cover for configuration sheet.

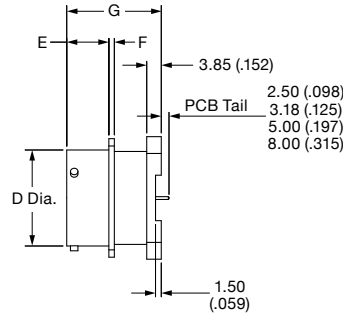


# DEUTSCH FDBA Series Filter Connectors

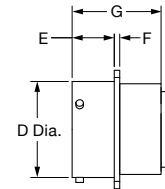
## Square Flange Receptacles



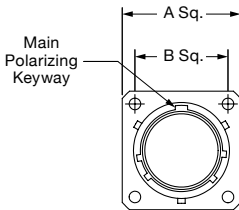
Single Flange



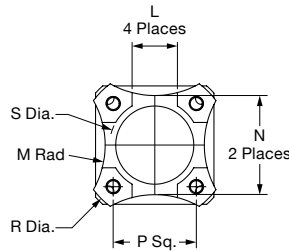
Double Flange



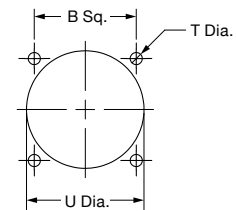
Single Flange, Crimp Contacts



Front View



Double Flange Footprint



Square Flange Mounting

Shell Size	A Sq. Max.	B Sq.	D Dia. Max.	E	F Max.	Length G			L Ref.	M Rad Ref.	N Ref.	P Sq.	R Dia.	S Dia.	Mounting Holes	
						Single Flange	Double Flange	Crimp							T Dia.	U Dia.
8	21.03 (0.828)	15.08 (0.594)	12.03 (0.474)						8.00 (0.315)	9.00 (0.354)	15.50 (0.610)	14.00 (0.551)	27.06 (1.065)	14.34 (0.565)		16.05 (0.632)
10	24.23 (0.954)	18.26 (0.719)	15.01 (0.591)						8.00 (0.315)	12.00 (0.472)	18.65 (0.734)	17.00 (0.669)	32.06 (1.262)	17.42 (0.686)		19.00 (0.748)
12	26.59 (1.047)	20.62 (0.812)	19.07 (0.751)						12.00 (0.472)	18.00 (0.709)	22.00 (0.866)	19.00 (0.748)	35.06 (1.380)	20.72 (0.816)		22.25 (0.876)
14	28.98 (1.141)	23.02 (0.906)	22.24 (0.876)	11.13 (0.438)	1.45 (0.057)	28.59 (1.122)	30.00 (1.181)	48.50 (1.909)	12.00 (0.472)	20.00 (0.787)	25.25 (0.994)	22.00 (0.866)	39.06 (1.538)	23.89 (0.941)		25.40 (1.000)
16	31.34 (1.234)	24.58 (0.968)	25.42 (1.001)						16.00 (0.630)	22.00 (0.866)	28.40 (1.118)	25.00 (0.984)	42.06 (1.656)	26.43 (1.041)	3.15 (0.124)	28.60 (1.126)
18	33.73 (1.328)	26.98 (1.062)	28.60 (1.126)						16.00 (0.630)	22.00 (0.866)	31.55 (1.242)	27.00 (1.063)	45.06 (1.774)	29.58 (1.165)		31.75 (1.250)
20	36.91 (1.453)	29.36 (1.156)	31.77 (1.251)						16.00 (0.630)	22.00 (0.866)	34.50 (1.358)	29.00 (1.142)	48.06 (1.892)	32.76 (1.290)		34.90 (1.374)
22	40.08 (1.578)	31.76 (1.250)	34.94 (1.376)	14.85 (0.585)	2.25 (0.089)	31.00 (1.220)	32.50 (1.280)	51.00 (2.008)	16.00 (0.630)	24.00 (0.945)	37.30 (1.469)	31.00 (1.221)	51.06 (2.010)	35.83 (1.411)		38.10 (1.500)
24	43.26 (1.703)	34.92 (1.375)	38.12 (1.501)	15.70 (0.618)					16.00 (0.630)	24.00 (0.945)	37.30 (1.469)	31.00 (1.221)	51.06 (2.010)	35.83 (1.411)	3.73 (0.147)	41.30 (1.626)

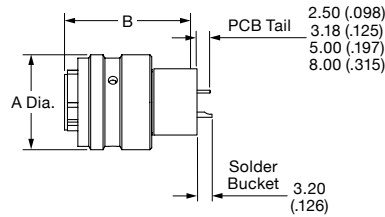
See page 40 for insert arrangements and back cover for configuration sheet.



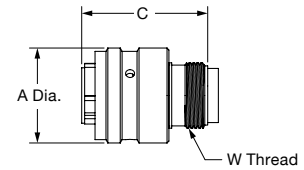
# DEUTSCH FDBA Series Filter Connectors

## Plugs

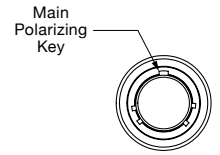
Shell Size	A Dia.	B Max.	C Max.	W Thread Class 2A
8	17.75 (0.699)			0.5000-20 UNF
10	21.05 (0.829)			0.6250-24 UNEF
12	24.60 (0.969)	28.60 (1.126)	48.60 (1.913)	0.7500-20 UNEF
14	28.05 (1.104)			0.8750-20 UNEF
16	31.10 (1.224)			1.0000-20 UNEF
18	34.40 (1.354)			1.0625-18 UNEF
20	37.65 (1.482)			1.1875-18 UNEF
22	40.90 (1.610)	30.10 (1.185)	50.10 (1.972)	1.3125-18 UNEF
24	44.10 (1.736)			1.4375-18 UNEF



PCB/Solder Bucket Contacts

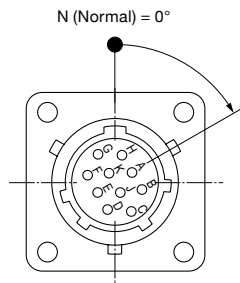


Crimp Contacts



Front View

## Keying Options (Plug Mating Face Shown)



Insert Arrangement	Position (Degrees)			
	W	X	Y	Z
8-3A/8-98	60	—	—	—
8-33	90	—	—	—
10-6	90	—	—	—
12-3	—	—	180	—
12-8	90	112	203	292
12-10	60	155	270	295
14-4	45	—	—	—
14-5	40	92	184	273
14-12	43	90	—	—
14-15	17	110	155	234
14-19	30	165	315	—
16-8	54	152	180	331

Insert Arrangement	Position (Degrees)			
	W	X	Y	Z
16-21	—	—	—	—
16-26	60	—	275	338
18-11	62	119	241	340
18-32	85	138	222	265
20-16	238	318	333	347
20-39	63	144	252	333
20-41	45	126	225	—
22-21	16	135	175	349
22-12	—	—	—	—
22-41	39	—	—	—
22-55	30	142	226	314
24-61	90	180	270	324

See page 40 for insert arrangements and back cover for configuration sheet.



## DEUTSCH FDBA Series Filter Connectors

### Insert Arrangements

- Filter Connector Series: FDBA
- Industry Specification: MIL-C-26482
- Insert Arrangement Specification: MIL-STD-1669

Shell Size	Arrangement	Contact Size and Type		
		20	16	12
8	08-3A/0898	3	—	—
	08-33	3	—	—
10	10-06	6	—	—
	12-03	—	3	—
12	12-08	8	—	—
	12-10	10	—	—
	14-4	—	—	4
14	14-5	—	5	—
	14-12	8	4	—
	14-15	14	1	—
	14-19	19	—	—
	16-08	—	8	—
16	16-21	26	—	—
	16-26	—	11	—
	18-11	—	11	—
18	18-32	32	—	—
	20-16	—	16	—
20	20-39	37	2	—
	20-41	41	—	—
	22-12	—	—	12
22	22-21	—	21	—
	22-41	27	14	—
	22-55	55	—	—
24	24-61	61	—	—