



8F51/8AF51 8F526/8AF526

Applications

- Military
- Aeronautical
- Industrial

Standards

8F51/8AF51 Series

MIL-C 26482 G Series I
NFC 93422, HE 301 B
BS 9522 - F 17
VG 95328

8F526/8AF526 Series

MIL-C 26482 G Series II
NFC 93422, HE 312
EL 2112 Pattern 602
NAS 1599



Description

8F51 and **8F526** circular filter connectors are widely used in industrial, military and aeronautical applications. They are suitable for severe operating conditions.

They are intermeatable and interchangeable as to the mounting with standard connectors of the same series.

8AF51 and **8AF526** adapters are the solution to easily retrofit existing non filtered equipments.

Characteristics

Mechanical

8F51/8AF51 and 8F526/8AF526 connectors are fitted with tubular filters.

- Shells : aluminum alloy, olive green cadmium or nickel plated.
- Insulators : thermo-setting plastic.
- Interfacial and peripheral seals :
8F51/8AF51 : neoprene
8F526/8AF526 : fluoro-silicone rubber.
- Contacts : machined copper alloy, gold plated, 1.27 micron min. gold over 2 microns min nickel on contact area.
Contact retention force : 67 N min

Environmental

- Temperature -55°C → 125°C - MIL-STD 1344, method 1003, condition A - NFC 20714
- Sealing leakage < 16 cm³/h - NFC 20717 Essai Qa - mated connectors, with differential pressure of 2 bars
- Humidity 10 cycles 24 h - MIL-STD 1344, method 1002, type II except step 7b - NFC 20703
- Salt spray
 - 48 h - L plating - MIL-STD 1344, method 1001, condition B - NFC 20711
 - 500 h-W plating - MIL-STD 1344, method 1001, condition C
- Durability 500 cycles - mating/unmating
- Vibration
 - 15 g (8F51/8AF51) - MIL-STD 1344, method 2005, condition III - NFC 20706
 - 43,92 Grms (8F526) - MIL-STD 202, method 214, condition II, letter J
- Shock
 - 50 g - 11 ms (8F51/8AF51) - MIL-STD 1344, method 2004, condition A - NFC 20727
 - 300 g - 3 ms (8F526) - MIL-STD 1344, method 2004, condition D

Electrical and filter types

Filter designation	B	M (# 16)	M (# 20)	T	H	
Filter type	C filter	π filter				
Max. voltage rating	200 Vdc 120 Vac	360 Vdc 220 Vac	200 Vdc 120 Vac rms 50 Hz or 400 Hz			
Max. current rating	7.5 A	13 A	7.5 A			
Insulation resistance, 25°C, 2mn electrification time	> 5000 MΩ (under 100 Vdc)					
DWV, sea level, 25°C	500 Vdc	900 Vdc	500 Vdc			
Contact resistance	7,5 mΩ max.					
Capacitance at 1kHz : 0.1Vrms at 25°C	100 000 pF min	6 000 pF to 12 000 pF	6 000 pF to 12 000 pF	2 300 pF to 5 000 pF	500 pF to 1 300 pF	
Attenuation per MIL-STD-220 at 25°C (with no applied voltage or current, in 50 Ω system)	frequency (MHz)	minimum attenuation (dB)				
	0.1	4				
	0.3	11				
	1	22	2	2		
	3	29	7	7	3	
	10	38	18	18	10	2
	30	44	35	35	22	10
	100	50	55	55	50	25
	300	50	60	60	55	40
1000	50	60	60	55	50	

The capacitance, insulation resistance and dielectric withstanding voltage are tested 100% on all contacts.

Note : • M filter is the most popular filter. If you require other filter types, indicate the maximum operating voltage, maximum capacitance and minimum attenuation required at various frequencies.

- B filter is substantially more expensive than other filters.



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Ordering information

Connector

basic series	8F526 07 G 20 41 P 1 N M -***
<ul style="list-style-type: none"> • 8F51 : MIL-C 26482 Series I, HE 301 B type • 8F526 : MIL-C 26482 Series II, HE 312 type 	
shell type	00 - square flange receptacle 07 - jam nut receptacle
plating	G - olive green cadmium (standard) W - olive green cadmium (salt spray 500 h) L - nickel
shell size	- 10-12-14-16-18-20-22-24
contact layout	see table next page
type contact	P - pin S - socket
termination	without indication - solder bucket 1 - straight spill
orientation	- N-W-X-Y-Z
filter type	- B-M-T-H
special modifiers	- partially loaded filter connector (with ground or non-filtered contacts) - connector with different types of filters (in this case the preceding letter does not appear) - non-standard filters

Adapter

basic series	8AF526 20 G 20 41 P N M -***
<ul style="list-style-type: none"> • 8AF51 : MIL-C 26482 Series I, HE 301 B type • 8AF526 : MIL-C 26482 Series II, HE 312 type 	
shell type	20 - adapter versions - bayonet locking
plating	W - olive green cadmium (salt spray 500 h) L - nickel
shell size	- 10-12-14-16-18-20-22-24
contact layout	(see table next page)
type contact	P - pin S - socket Indicate contact type of mating receptacle
orientation	- N-W-X-Y-Z
filter type	- B-M-T-H
special modifiers	- partially loaded filter adapter (with ground or non-filtered contact) - adapter with different types of filters (in this case the preceding letter does not appear) - non-standard filters



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Contact layouts

viewed from front face of male insulator

shells				
10	<p>6</p> <p>6 Ø 1 (# 20)</p>			
12	<p>10</p> <p>10 Ø 1 (# 20)</p>			
14	<p>5</p> <p>5 Ø 1.6 (# 16)</p>	<p>12</p> <p>8 Ø 1 (# 20) 4 Ø 1.6 (# 16)</p>	<p>15</p> <p>14 Ø 1 (# 20) 1 Ø 1.6 (# 16)</p>	<p>19</p> <p>19 Ø 1 (# 20)</p>
16	<p>8</p> <p>8 Ø 1.6 (# 16)</p>	<p>26</p> <p>26 Ø 1 (# 20)</p>		
18	<p>32</p> <p>32 Ø 1 (# 20)</p>			
20	<p>39</p> <p>37 Ø 1 (# 20) 2 Ø 1.6 (# 16)</p>	<p>41</p> <p>41 Ø 1 (# 20)</p>		
22	<p>55</p> <p>55 Ø 1 (# 20)</p>			
24	<p>61</p> <p>61 Ø 1 (# 20)</p>			

- available male contact layouts
- available female contact layouts
- available contact layouts for adapters

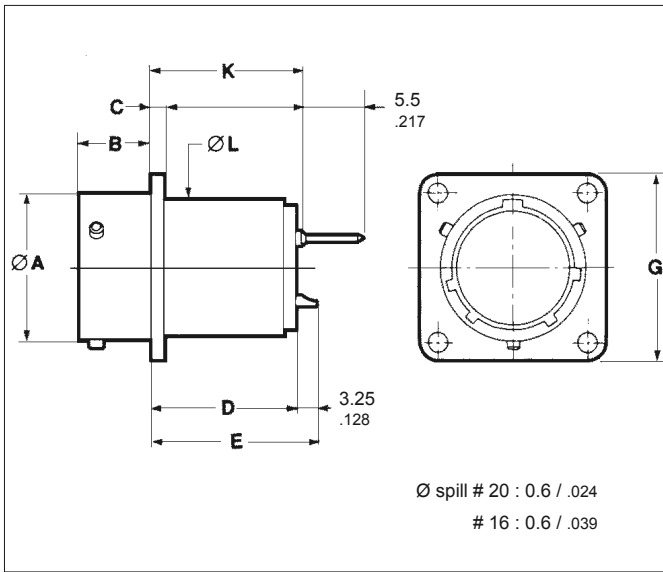
Consult factory for other contact layout availability



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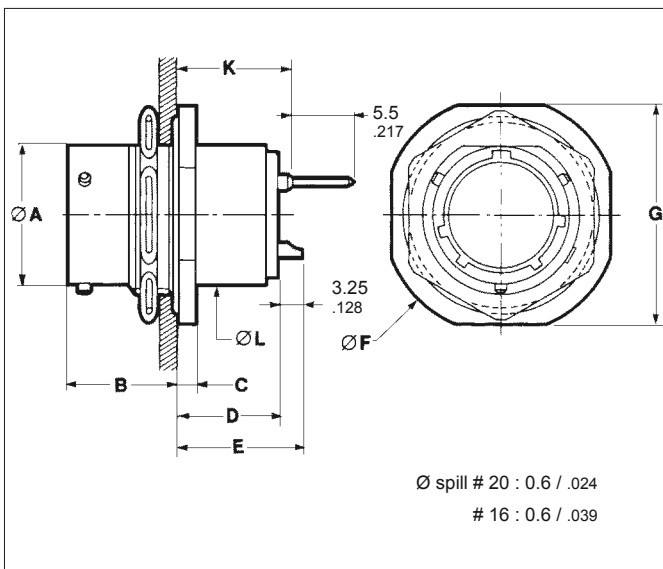
Dimensions (mm/inches)

Square flange receptacle 00 type



Dim.	Shell Size								
	8	10	12	14	16	18	20	22	24
A Max	12.03 .474	15.01 .591	19.07 .751	22.25 .876	25.42 1.001	28.60 1.126	31.77 1.251	34.95 1.376	38.12 1.501
B	11.60 .457	11.60 .457	11.60 .457	11.60 .457	11.60 .457	11.60 .457	14.25 .561	14.25 .561	15.10 .594
C	1.95 .077	1.95 .077	1.95 .077	1.95 .077	1.95 .077	1.95 .077	2.75 .108	2.75 .108	2.75 .108
D	22.74 .895	22.74 .895	22.74 .895	22.74 .895	22.74 .895	22.74 .895	21.64 .852	21.64 .852	20.77 .818
E	26.50 1.043	26.50 1.043	26.50 1.043	26.50 1.043	26.50 1.043	26.50 1.043	25.40 1.000	25.40 1.000	24.55 .967
G Max	21.00 .827	24.20 .953	26.55 1.045	28.95 1.140	31.30 1.232	33.70 1.327	36.90 1.453	40.08 1.578	43.25 1.703
K	22.35 .880	22.35 .880	22.35 .880	22.35 .880	22.35 .880	22.35 .880	21.25 .837	21.25 .837	20.40 .803
L Max	12.20 .480	15.40 .606	18.90 .744	22.10 .870	25.25 .994	26.80 1.055	30.00 1.181	33.20 1.307	36.35 1.431

Jam nut receptacle 07 type



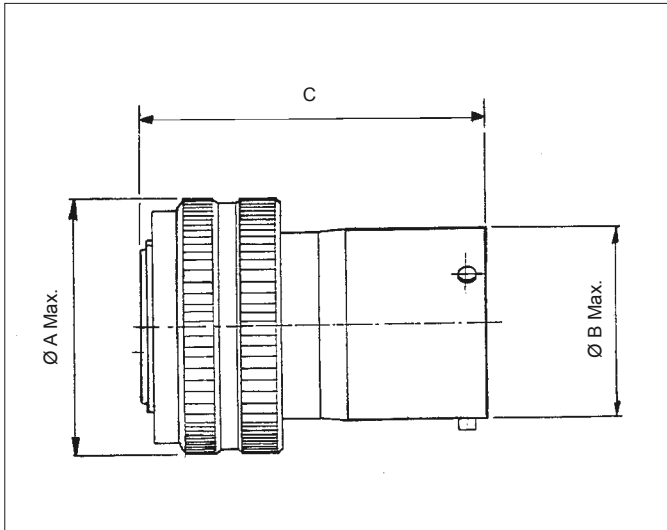
Dim.	Shell Size								
	8	10	12	14	16	18	20	22	24
A Max	12.03 .474	15.01 .591	19.07 .751	22.25 .876	25.42 1.001	28.60 1.126	31.77 1.251	34.95 1.376	38.12 1.501
B	17.55 .691	17.55 .691	17.55 .691	17.55 .691	17.55 .691	17.55 .691	19.15 .754	19.15 .754	19.15 .754
C	2.46 .097	2.46 .097	2.46 .097	2.46 .097	2.46 .097	2.46 .097	3.25 .128	3.25 .128	3.25 .128
D	16.74 .659	16.74 .659	16.74 .659	16.74 .659	16.74 .659	16.74 .659	16.70 .657	16.70 .657	16.70 .657
E	20.50 .807	20.50 .807	20.50 .807	20.50 .807	20.50 .807	20.50 .807	20.45 .805	20.45 .805	20.45 .805
F Max	27.25 1.073	30.40 1.197	35.20 1.386	38.40 1.512	41.50 1.634	44.70 1.760	49.50 1.949	52.60 2.071	55.80 2.197
G Max	24.10 .949	27.25 1.073	32.05 1.262	35.20 1.386	38.40 1.512	41.55 1.636	46.30 1.823	49.50 1.949	52.65 2.073
K	16.35 .644	16.35 .644	16.35 .644	16.35 .644	16.35 .644	16.35 .644	16.30 .642	16.30 .642	16.30 .642
L Max	12.20 .480	15.40 .606	18.90 .744	22.10 .870	25.25 .994	26.80 1.055	30.00 1.181	33.20 1.307	36.35 1.431

Note : in order to reduce the space used behind the receptacle, it is possible to manufacture the connector with the mounting flange re-positioned nearer the back. Consult factory.



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Dimensions (mm/inches)



Dim.	Shell Size							
	10	12	14	16	18	20	22	24
A Max	22.60 .890	25.70 1.012	29.70 1.169	32.90 1.295	35.30 1.390	38.70 1.524	41.80 1.646	45.00 1.772
B Max	14.96 .589	19.02 .749	22.20 .874	25.37 .999	28.55 1.124	31.72 1.249	34.90 1.374	38.07 1.499
C	42.80 1.685	42.80 1.685	42.80 1.685	42.80 1.685	42.80 1.685	44.40 1.748	44.40 1.748	44.40 1.748

Installation of the filter adapter

