

# Technical Bulletin

No. 193 C

## FLC 38-50J Foam FLEXWELL® Coaxial Cable

Flexwell FLC 38-50J (3/8" inch) is a low loss flexible coaxial cable with easy handling and routing characteristics. The cable is suitable for low power RF applications from HF through microwave, including antenna feed line, jumper assemblies, and inter-equipment cabling.

The cable features a copper clad aluminum center conductor, a low density, low loss foam dielectric and an annular corrugated copper tube outer conductor. This type of cable construction provides greater mechanical strength and superior RFI/EMI shielding than found with braided cable designs.

Special jacketing with flame retardant properties is available for FLC cable that meet the testing requirements of Underwriters Laboratories type CATVR (Riser) rating code. (NEC Section 820-51 (b) Type CATV) - NEC® 1996.



FLC 3/8"

For improved product handling, FLC cable is sequentially marked at the factory in precise two foot intervals.

### Specifications

Type No. FLC 38-50J Foam Flexwell Part No. 810917-001 (Standard)	Type No. FLC 38-50J Foam Flexwell Part No. 810917-003, (Low VSWR)	Type No. FLC 38-50JFR Foam Flexwell Part No. 810917-F01, -F03 (Flame Retardant Jacketing)	
<b>Electrical</b>		<b>Mechanical</b>	
Frequency, Max. Oper.	13.5 GHz	Nominal Size	3/8"
Impedance	50 ohm	Diameter over Jacket	0.44 inch (11.2 mm)
Velocity of Propagation	88 %	Outer Conductor	Corrugated Copper Tube
Nominal Capacitance	23.0 pF/ft (75.5 pF/m)	Center Conductor	Copper-Clad Aluminum
Inductance	0.058 μH/ft (0.189 μHm)	Standard Jacket Material	Black Polyethylene
DC Breakdown	13,000 volts	Dielectric Type	Closed -Cell Foam Polyethylene
DC Resistance, inner conductor	1.06 ohms/1000 ft (3.5 ohms/1000 m)	Tensile Strength	250 lb (113 kg)
DC Resistance, outer conductor	1.00 ohms/1000 ft (3.3 ohms/1000 m)	Minimum Bending Radius	3.75 inch (95 mm)
Attenuation (nominal)		Minimum Bending Radius with Repeated Bends (15 minimum)	3.75 inch (95 mm)
10 MHz	0.322 dB/100 ft (1.05 dB/100 m)	Bending Moment,	1.4 lb-ft (1.9 N·m)
30 MHz	0.562 dB/100 ft (1.84 dB/100 m)	Weight	0.08 lb/ft (0.12 kg/m)
400 MHz	2.15 dB/100 ft (7.05 dB/100 m)		
1000 MHz	3.52 dB/100 ft (11.5 dB/100 m)		
2000 MHz	5.18 dB/100 ft (16.9 dB/100 m)		
Average Power (40° C)			
10 MHz	7.27 kW		
30 MHz	4.17 kW		
400 MHz	1.09 kW		
1000 MHz	0.665 kW		
2000 MHz	0.452 kW		
Peak Power Rating	15.6 kW		

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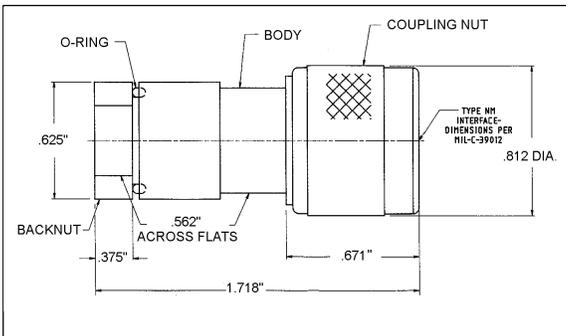
Flexwell 3/8" foam cable is available in continuous lengths and is supplied with a black polyethylene jacket suitable for direct burial applications.

Weatherproof connectors have been designed for low VSWR operation and for easy field installations using standard hand tools. Connectors are made from precision machined brass stock for high reliability and durability, and multiple connector O-rings assure a weatherproof assembly.

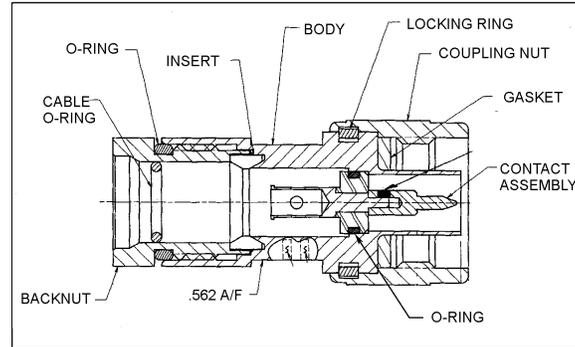
Flexwell Foam Coaxial Cable is available in size range from 1/4" to 2-1/4", contact the factory for more information.

Ordering Information		
Model Number	Standard Jacket (J)	Flame Retardant Jacket (JFR)
FLC 38-50 J, JFR (Standard)	810917-001	810917-F01
FLC 38-50 J, JFR (Low VSWR) <sup>1</sup>	810917-003	810917-F03

<sup>1</sup>Contact factory for VSWR specifications.



CONNECTOR TYPE FLC 38-50 NM  
P/N 734761



GROUNDING KIT  
P/N 915870-001



NF  
P/N 734762



NM  
P/N 734761



Connectors	
Part Number	Description
734761	N Male, self flare, brass, solder-on contact
734882	N Male, self flare, silver plated, basket contact
734762	N Female, self flare, brass, solder-on contact
734773	UHF Male, self flare, brass, solder-on contact
734774	UHF Female, self flare, brass, solder-on contact
734835	TNC Male, self flare, nickel plate, solder-on contact
734881	TNC Female, self flare, nickel plate, solder-on contact

Installation Accessories	
915870-001	Grounding Kit with factory installed 2 hole lug
915870-015	Grounding Kit with field installed 2 hole crimp-on lug
915870-029	Grounding Kit with field installed 1 hole screw-on lug
910061	Straptite stainless steel strapping, 100 ft
915153	Plastic Tie Wraps, 50 pcs
916132	Weatherproofing Kit