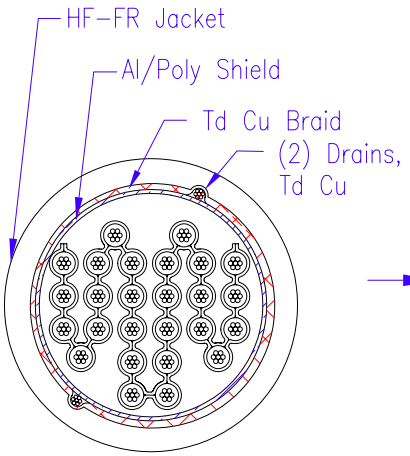
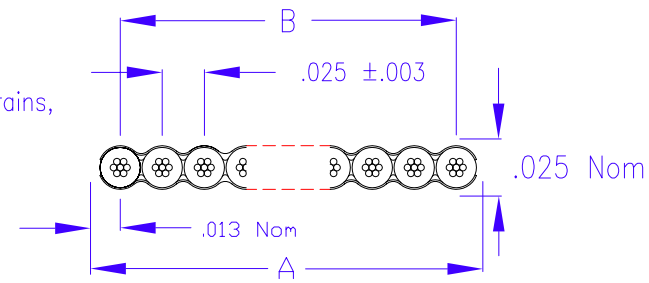
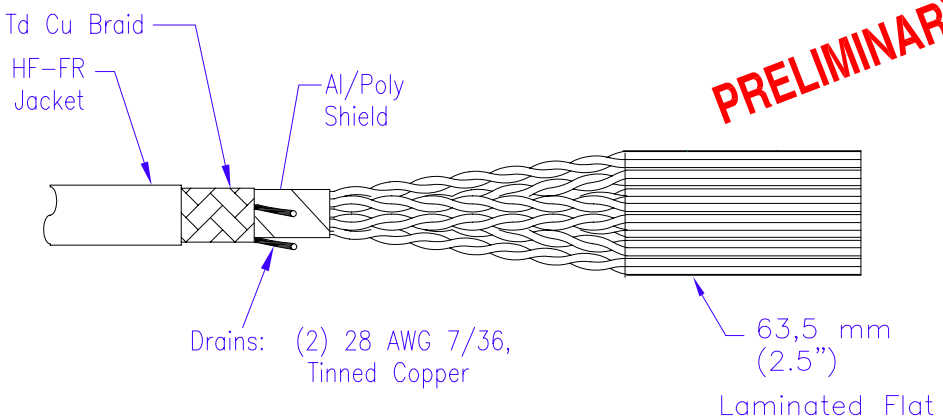


Cross Section at Flat



CROSS SECTION THRU FLAT



PRELIMINARY

PHYSICAL

Conductors:	30 AWG 7/38 Tinned Copper
Insulation:	.006" HF-FR Polyolefin
Laminate:	Polyester/Adhesive
Color Code:	1st Pair Red/White followed by Blue/White and Repeat
Drain:	(2) 28 AWG 7/36 Tinned Copper
Shield:	.001" Aluminum/Polyester
Braid:	Tinned Copper, 85% Min Coverage
Jacket:	.030" Blue HF-FR Polyoelfin
Temperature:	80°C

ELECTRICAL

Impedance:	90 ohms
Capacitance:	TBD
Current Rating:	.75 A @ 10°C Rise Above Ambient
Insulation Res:	10^{10} ohms – 10 ft minimum

Values Measured Differentially

APPROVALS:

UL Pending

Part Number	Count	Pairs	A-Span	B-Span	Ref Dia (Nom EST.)
168-3099-997	40	20	1.001" Nom	0.975" Nom	@ loose Pairs 0.285" @ Flat: 0.385"
168-3099-996	40	20	1.001" Nom	0.975" Nom	@ loose Pairs 0.285" @ Flat: 0.385"

Center – Center of Flats:

500 ±12,70 mm (19.69 ±0.50") and Repeat.

1000 ±12,70 mm (39.37 ±0.50") and Repeat.

Minimum Bend Radius: 3X's cable diameter, static bend

DRAWN	PROD ENG	QA	MKT	P/ECN#	
FITTS 2/3/03	11/25/03				

DRAWING NO. 168-3099-997/996

TITLE: Halogen-Free Loose Pair Round Twist 'N' Flat® Cable

AMPHENOL SPECTRA-STRIP
720 SHERMAN AVE TEL (203) 281-3200
HAMDEN CT 06514 FAX (203) 281-5872

Rev 5

PROPERTY	STANDARD	REQUIREMENTS	CABLE INSULATION/LAMINATE/JACKET
FLAME AND FIRE PROPAGATION:	IEC 332-1	PASS	PASS
SMOKE DENSITY:	ASTM E 662 IEC 1034-1 AND -2	D_s < 250 FLAMING AND NON-FLAMING MODES PASS	FLAMING - 15/47, NONFLAMING - 0/25 PASS
TOXICITY OF FIRE GASSES:	ATS 1000.001	HF <100 HCl <150 HCN <150 $SO_2 + H_2S$ <100 CO <3500 $NO_2 + NO_2$ <100	HF <100 HCl <150 HCN <150 $SO_2 + H_2S$ <100 CO <3500 NO + NO <100
CORROSIVITY OF FIRE GASSES:	IEC 754-2	pH >4, CONDUCTIVITY <100uS/cm	pH - 4.5, CONDUCTIVITY - NO
UV RESISTANCE:	IEC 68-2-5	NO DISCOLORATION OR STICKINESS	NA
RADIATION RESISTANCE:	IEC 544-2-5	INDEX >5.7	PASS per CERN, Inner Cable
ACID GAS GENERATION:	MIL-C-24643		0 %
SMOKE INDEX:	NES-711		NA
TOXICITY INDEX:	NES-713		0.917
LIMITING OXYGEN INDEX:	ASTM D 2863		39

ASTM E662: STANDARD TEST METHOD FOR SPECIFIC OPTICAL DENSITY OF SMOKE

ATS 1000.001: AIRBUS INDUSTRY TECHNICAL SPECIFICATION, FIRE TEST SPECIFICATION

IEC 68-2-5: SIMULATED SOLAR RADIATION AT GROUND LEVEL

IEC 332-1: TESTS ON ELECTRIC CABLES UNDER FIRE CONDITIONS

IEC 544-2,-4: GUIDE FOR DETERMINING THE EFFECTS OF IONIZING RADIATION ON INSULATING MATERIALS

IEC 754-2: TEST ON GASES EVOLVED DURING COMBUSTION OF ELECTRIC CABLES

IEC 1034-1,-2:TEST FOR THE MEASUREMENT OF SMOKE DENSITY OF ELECTRIC CABLES BURNING UNDER DEFINED CONDITIONS

PRELIMINARY

DRAWN	PROD ENG	QA	MKT	P/ECN#	
FITTS 2/3/03	11/25/03				

DRAWING NO. 168-3099-997/996

TITLE: Halogen-Free Loose Pair Round Twist 'N' Flat® Cable

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Rev 5