



# 200° C ElectroLoss FilterLine Wire and Cable



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## KEY FEATURES

Fail-safe EMI protection above 100 MHz, as an alternative to discrete filters and filter pin connectors

Cross-linked “non-melting” high temperature insulation system

200°C rated wires and cables

Low free-fluoride ion evolution

Lightweight cable constructions

200°C temperature rating allows for downsizing wire gauges based on 5088-1 derating curves

Uses standard mil spec 39029 contacts

## DESCRIPTION

An EMI filtering 600 Vrms wire that combines fail safe high frequency EMI protection, 100 MHz and above, of our existing ElectroLoss FilterLine cable with an enhanced temperature rating of 200°C.

Additionally, the insulating and jacket materials have been formulated for low free-fluoride ion evolution.

## APPLICATION

Rotary and Fixed Wing Aircraft	Sensitive Electronic Equipment
Weapons Pylons	Protection of Electronic Systems in Missiles

## STANDARDS & SPECS

SPEC 55F	Electrical Performance of AS85485
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## MATERIALS

Cross-linked modified high temperature fluoropolymers for all insulation layers.  
Flexible modified conductive ETFE jacket.

## MECHANICAL

Jacket optimized to withstand repetitive flexing during the installation process.

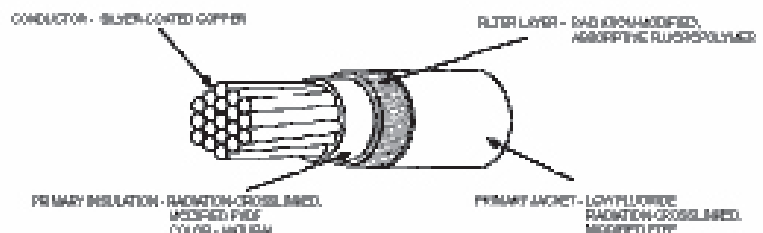
## ELECTRICAL

600 V  
Fail-safe high frequency EMI protection above 100 MHz  
Insertion loss is directly proportional to wire length  
Conductive jacket eliminates electrical pathways, sneak paths, from entering protected electronics through cable shields between adjacent cables.

## PHYSICAL OR OTHER PROPERTIES

200°C rated  
<150 ppm fluoride ion evolution  
Resistant to all typical aerospace fluids:  
Hydrocarbons  
Alcohols  
Glycols  
Fuels and Lubricants  
Cleaning Fluids  
Ketones  
Synthetic Fuels and Lubricants

## WIRE CONSTRUCTION



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## ORDERING INFORMATION

### Low Fluoride Specifications 200 °C Rated Wire

Table for single, primary wire. Unshielded, unjacketed cables are also available. Contact TE for more information.

AWG Size	Conductor Stranding (Number x AWG)	Maximum Outside Diameter mm (in)	Maximum Weight kg/km (lb/1000 ft)	TE Part No.
24	19 x 36 silver coated high strength copper alloy	1.19 [.047]	4.46 [3.0]	55FAF7128-24-*
22	19 x 34 silver coated copper	1.37 [.054]	5.95 [4.0]	55FAF0512-22-*
20	19 x 32 silver coated copper	1.57 [.062]	8.63 [5.8]	55FAF0512-20-*
18	19 x 30 silver coated copper	1.85 [.073]	12.95 [8.7]	55FAF0512-18-*
16	19 x 29 silver coated copper	2.08 [.082]	16.67 [11.2]	55FAF0512-16-*
14	19 x 27 silver coated copper	2.51 [.099]	23.96 [16.1]	55FAF0512-14-*
12	37 x 28 silver coated copper	2.95 [.116]	35.71 [24.0]	55FAF0512-12-*
10	37 x 26 silver coated copper	3.58 [.141]	55.06 [37.0]	55FAF0512-10-*

The color of the component wire shall be light yellow designated by 4L. The designated colors for components shall be light yellow for component 1 and light yellow with stripe designators for remaining component wires as follows:

Component Wire	1	2	3	4	5
Color Designation	4L	4L6	4L3	4L5	4L2

### Electroloss Filterline Wire and Cable Light Weight Ruggedized Constructions —200°C (Flat Braid)

AWG Size	Number of Conductors	Shield Size AWG Silver Coated Copper	Maximum Outside Diameter mm (in)	Maximum Weight kg/km (lb/1000 ft)	Tyco Electronics Part No.
24	1	38	2.13 [.084]	10.86 [7.3]	55FBF7129-*
22	1	38	2.31 [.091]	13.09 [8.8]	55FBF2512-22-*
20	1	38	2.51 [.099]	16.67 [11.2]	55FBF2512-20-*
18	1	38	2.79 [.110]	22.17 [14.9]	55FBF2512-18-*
16	1	38	3.02 [.119]	26.78 [18.0]	55FBF2512-16-*
14	1	38	3.45 [.136]	35.86 [24.1]	55FBF2512-14-*
12	1	38	3.89 [.153]	49.40 [33.2]	55FBF2512-12-*
10	1	38	4.55 [.179]	71.57 [48.1]	55FBF2512-10-*
24	2	38	3.33 [.131]	19.34 [13.0]	55FBF7130-*
22	2	38	3.68 [.145]	23.81 [16.0]	55FBF2522-22-*
20	2	38	4.09 [.161]	30.50 [20.5]	55FBF2522-20-*
18	2	38	4.65 [.183]	41.37 [27.8]	55FBF2522-18-*
16	2	38	5.11 [.201]	50.59 [34.0]	55FBF2522-16-*
14	2	38	6.02 [.237]	69.49 [46.7]	55FBF2522-14-*
24	3	38	3.53 [.139]	25.30 [17.0]	55FBF7131-*
22	3	38	3.91 [.154]	31.10 [20.9]	55FBF2532-22-*
20	3	38	4.34 [.171]	41.07 [27.6]	55FBF2532-20-*
18	3	38	4.95 [.195]	56.54 [38.0]	55FBF2532-18-*
16	3	38	5.44 [.214]	69.94 [47.0]	55FBF2532-16-*
14	3	38	6.43 [.253]	96.87 [65.1]	55FBF2532-14-*
24	4	38	4.19 [.165]	31.69 [21.3]	55FBF7132-*
22	4	38	4.67 [.184]	39.58 [26.6]	55FBF2542-22-*
20	4	38	5.23 [.206]	52.68 [35.4]	55FBF2542-20-*
18	4	38	5.99 [.236]	72.91 [49.0]	55FBF2542-18-*
16	4	38	6.68 [.263]	91.36 [61.4]	55FBF2542-16-*
14	4	38	7.85 [.309]	125.59 [84.4]	55FBF2542-14-*
24	5	38	4.52 [.178]	37.80 [25.4]	55FBF7133-*
22	5	38	5.05 [.199]	47.32 [31.8]	55FBF2552-22-*
20	5	38	5.66 [.223]	63.39 [42.6]	55FBF2552-20-*
18	5	38	6.55 [.258]	89.43 [60.1]	55FBF2552-18-*
16	5	38	7.24 [.285]	111.00 [74.6]	55FBF2552-16-*
14	5	38	8.53 [.336]	153.26 [103.0]	55FBF2552-14-*

## FOR MORE INFORMATION

### Technical Support

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