

A close-up photograph of several thick, flexible cables. Two cables are yellow and two are black. They are arranged in a crisscross pattern, with some cables in the foreground and others in the background, creating a sense of depth. The background is a plain, light-colored surface.

# 200°C ElectroLoss FilterLine Wire and Cable

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Superb EMI Protection above 100 MHz



## 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

## APPLICATIONS

- Rotary and fixed wing aircraft
- Weapons pylons
- Sensitive electronic equipment
- Protection of electronic systems in Missiles

## Description

An EMI filtering 600 V<sub>rms</sub> 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.

## STANDARDS AND SPECS

- SPEC 55F
- Electrical Performance of AS85485

## 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

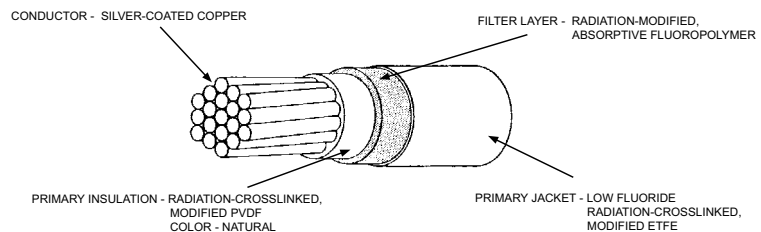
## ELECTRICAL

- 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                      Fuels and Lubricants
  - Alcohols                              Cleaning Fluids
  - Glycols                                Ketones
  - Synthetic Fuels and Lubricants

## WIRE CONSTRUCTION



## TE Components . . . TE Technology . . . TE Know-how . . .

AMP | AGASTAT | CII | HARTMAN | KILOVAC | MICRODOT | NANONICS | POLAMCO | Raychem | Rochester | DEUTSCH SEACON Phoenix | Phoenix Optix | AFP | SEACON

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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 Tin Coated Copper	Maximum Outside Diameter mm (in)	Maximum Weight kg/km (lb/1000 ft)	TE 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-*

## LET'S CONNECT

We make it easy to connect with our experts and are ready to provide all the support you need. Just call your local support number or visit [te.com](http://te.com) to chat with a Product Information Specialist.

## Technical Support

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Consult TE for the latest dimensions and design specifications.

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