



GORE® Space Cables and Assemblies

LEO Applications

Minimize Downtime for Manned Space Flight

GORE® Space Cables for Low Earth Orbit (LEO) Applications help integration teams stay on schedule and avoid costly downtime. GORE™ Space Cables for LEO Applications are particularly well-suited for use in satellites, manned space missions, and transport vehicles.

THE SCIENCE BEHIND THE CABLES

The key to the outstanding performance of GORE® Space Cables for LEO Applications is the proprietary material used in the cable insulation — expanded polytetrafluoroethylene (ePTFE). By incorporating ePTFE into the insulation, Gore uses a hybrid insulation that provides the best ATOX resistance available on the market today. This unique ePTFE material is chemically inert and thermal-resistant, which means that GORE® Space Cables for LEO Applications withstand atomic oxygen commonly found in low orbit environments.

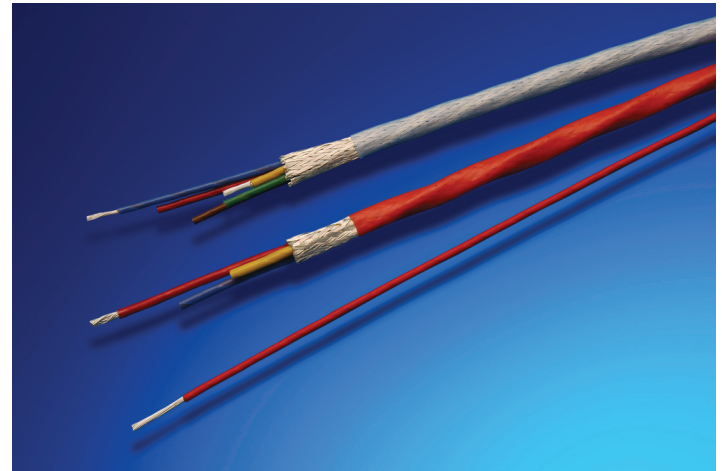
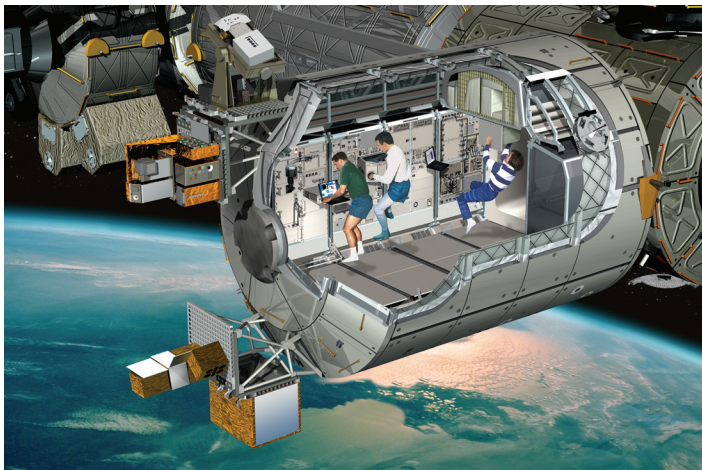
TYPICAL USES

- Low-frequency applications
- DC power distribution
- Optical instrumentation

SAMPLE APPLICATIONS

- International Space Station (ISS)
- BDPU
- European Robotic Arm (ERM)
- Columbus Module of ISS
- Automated Transport Vehicle (ATV)

Columbus Module
Image: ESA



Realize the Benefits of GORE® Space Cables for LEO Applications

KEY FEATURES

- High scrape abrasion
- High cut-through resistance
- High temperature range from -200°C to $+200^{\circ}\text{C}$

KEY BENEFITS

- Long-lasting life resulting from robust insulation
- Improved reliability within wide temperature span
- Valued reliability delivered from an ESA-qualified and a DIN EN ISO 9001:2000-certified manufacturing facility
- Superior sales and technical support from Gore's worldwide engineering team



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TECHNICAL SPECIFICATIONS

All GORE® Space Cables for LEO Applications meet the following technical specifications **according to ESCC 3901/018** and are **listed on the ESA QPL**. See the ordering information for the technical data specific to each cable

Property	Value
Operating temperature range	-200°C to +200°C
Maximum temperature for short periods	260°C
Dielectric material	Expanded PTFE
Outer jacket	PFA
Conductor construction	Concentric silver-plated copper
Maximum operating voltage	600 V RMS
Bending radius	10 x outer diameter (repeated) or 6 x outer diameter (once)

ORDERING INFORMATION

Specify 3901-018-XX with the XX being the appropriate variant number from the following table.

Variant Number	Construction	Number of Cores	Shield	Maximum Conductor Resistance (ohm/km)	Gauge Size (AWG)	Maximum Cable Diameter (mm)	Maximum Weight (kg/km)
01	Single wire	1	No	636.0	32	0.75	1.05
02	Single wire	1	No	375.0	30	0.82	1.35
03	Single wire	1	No	239.0	28	0.90	1.81
04	Single wire	1	No	150.0	26	1.03	2.68
05	Single wire	1	No	88.9	24	1.18	3.78
06	Single wire	1	No	50.0	22	1.35	5.47
07	Single wire	1	No	30.8	20	1.58	8.17
08	Single wire	1	No	15.3	16	2.12	15.80
09	Single wire	1	No	6.5	12	2.97	35.60
10	Twisted pair	2	No	649.0	32	1.50	2.26
11	Twisted pair	2	No	383.0	30	1.64	2.96
12	Twisted pair	2	No	244.0	28	1.80	3.87
13	Twisted pair	2	No	152.0	26	2.05	5.52
14	Twisted pair	2	No	90.7	24	2.36	8.09
15	Twisted pair	2	No	51.0	22	2.70	11.70
16	Twisted pair	2	No	31.4	20	3.16	17.50
17	Twisted pair	2	No	15.6	16	4.24	33.80
18	Twisted pair	2	No	6.6	12	5.94	76.20
19	Twisted pair	3	No	154.0	26	2.21	8.29
20	Twisted pair	3	No	91.6	24	2.54	12.10
21	Twisted pair	3	No	51.5	22	2.90	17.60
22	Twisted pair	3	No	31.7	20	3.40	26.20
23	Twisted pair	3	No	15.8	16	4.56	50.70
24	Twisted pair	3	No	6.7	12	6.39	114.00
25	Twisted pair	4	No	154.0	26	2.47	11.00
26	Twisted pair	4	No	91.6	24	2.83	16.20
27	Twisted pair	4	No	51.5	22	3.24	23.40
28	Twisted pair	4	No	31.7	20	3.79	35.00
29	Twisted pair	4	No	15.8	16	5.09	67.60
30	Twisted pair	4	No	6.7	12	7.13	153.00
31	Twisted pair	5	No	156.0	26	2.78	14.20
32	Twisted pair	5	No	92.5	24	3.19	20.70
33	Twisted pair	5	No	52.0	22	3.65	29.90
34	Twisted pair	5	No	32.0	20	4.27	44.50
35	Twisted pair	7	No	156.0	26	3.08	19.40
36	Twisted pair	7	No	92.5	24	3.54	28.30
37	Twisted pair	7	No	52.0	22	4.05	39.10
38	Twisted pair	7	No	32.0	20	4.74	61.30

ORDERING INFORMATION (CONTINUED)

Variant Number	Construction	Number of Cores	Shield	Maximum Conductor Resistance (ohm/km)	Gauge Size (AWG)	Maximum Cable Diameter (mm)	Maximum Weight (kg/km)
39	Jacketed pair	1	Yes	636.0	32	1.37	4.40
40	Jacketed pair	1	Yes	375.0	30	1.44	5.33
41	Jacketed pair	1	Yes	239.0	28	1.60	6.52
42	Jacketed pair	1	Yes	150.0	26	1.71	8.25
43	Jacketed pair	1	Yes	88.9	24	1.86	9.62
44	Jacketed pair	1	Yes	50.0	22	2.04	12.30
45	Jacketed pair	1	Yes	30.8	20	2.27	15.30
46	Jacketed pair	1	Yes	15.3	16	2.83	25.80
47	Jacketed pair	1	Yes	6.5	12	3.69	48.50
48	Jacketed pair	2	Yes	649.0	32	2.20	9.31
49	Jacketed pair	2	Yes	383.0	30	2.35	11.00
50	Jacketed pair	2	Yes	244.0	28	2.51	12.20
51	Jacketed pair	2	Yes	152.0	26	2.74	15.40
52	Jacketed pair	2	Yes	90.7	24	3.06	18.40
53	Jacketed pair	2	Yes	51.0	22	3.41	24.20
54	Jacketed pair	2	Yes	31.4	20	3.87	30.50
55	Jacketed pair	2	Yes	15.6	16	5.21	55.40
56	Jacketed pair	2	Yes	6.6	12	7.03	111.00
57	Jacketed pair	3	Yes	652.0	32	2.32	10.60
58	Jacketed pair	3	Yes	385.0	30	2.48	12.70
59	Jacketed pair	3	Yes	245.0	28	2.66	14.30
60	Jacketed pair	3	Yes	152.0	26	2.90	18.50
61	Jacketed pair	3	Yes	90.7	24	3.23	24.50
62	Jacketed pair	3	Yes	51.0	22	3.62	30.30
63	Jacketed pair	3	Yes	31.4	20	4.11	41.40
64	Jacketed pair	3	Yes	15.6	16	5.53	73.00
65	Jacketed pair	3	Yes	6.6	12	7.49	151.00
66	Jacketed pair	4	Yes	655.0	32	2.59	12.90
67	Jacketed pair	4	Yes	386.0	30	2.77	15.90
68	Jacketed pair	4	Yes	246.0	28	2.98	18.00
69	Jacketed pair	4	Yes	154.0	26	3.27	23.50
70	Jacketed pair	4	Yes	91.6	24	3.66	29.00
71	Jacketed pair	4	Yes	51.5	22	4.10	38.60
72	Jacketed pair	4	Yes	31.7	20	4.68	52.70
73	Jacketed pair	4	Yes	15.8	16	6.39	101.00
74	Jacketed pair	4	Yes	6.7	12	8.65	191.00
75	Jacketed pair	5	Yes	661.0	32	2.74	15.60
76	Jacketed pair	5	Yes	390.0	30	2.95	17.80
77	Jacketed pair	5	Yes	249.0	28	3.16	20.40
78	Jacketed pair	5	Yes	156.0	26	3.47	26.90
79	Jacketed pair	5	Yes	92.5	24	3.89	33.80
80	Jacketed pair	5	Yes	52.0	22	4.38	45.40
81	Jacketed pair	5	Yes	32.0	20	5.00	62.70
82	Jacketed pair	7	Yes	661.0	32	2.98	18.10
83	Jacketed pair	7	Yes	390.0	30	3.19	20.80
84	Jacketed pair	7	Yes	249.0	28	3.44	26.10
85	Jacketed pair	7	Yes	156.0	26	3.78	32.40
86	Jacketed pair	7	Yes	92.5	24	4.25	43.70
87	Jacketed pair	7	Yes	52.0	22	4.79	58.90
88	Jacketed pair	7	Yes	32.0	20	5.79	89.70



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GORE EXPERIENCE AND EXPERTISE

With approximately \$2.5 billion in annual sales and more than 8,000 employees around the world, W. L. Gore & Associates provides diverse, high-performance solutions in consumer, industrial, electronic, medical, and surgical markets. As well-known for its unique corporate culture as for its products, Gore's 50-year success story rests equally on product and organizational innovation. With a reputation for providing the highest-quality products, Gore is ready to assist in developing cost-effective solutions for your electronics applications.

NOTICE — USE RESTRICTIONS APPLY
Not for use in food, drug, cosmetic or medical device
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