

Space Application Light Weight Radiation Resistant Shielded Cables

F A3901-2-P

CHARACTERISTICS:

Environmental:

- Operating Temperature: -100°C to + 200°C (ambient temperature + current heating).
- High resistance to space radiations
- High resistance to chemical agents and aircraft fluids.
- Non flammable
- Very good solderability.
- The 2 µm thick of silver plating on the conductor and the shield give the best protection against the red plague phenomenon.

Mechanical :

- The wrapped construction technology allows very thin wall insulation, yielding weight and space savings and higher performances.
- Superior mechanical resistance eliminating handling and installation damage.
- Good strippability.
- Polyimide jacket insure a good mechanical and electrical protection to the helical screen.
- Bending radius: 10 times outer diameter.

Electrical:

- Maximum operating voltage : 600Vac
- Insulation resistance of core:
> 750 MΩ.km at 20°C (500V– 1min.)

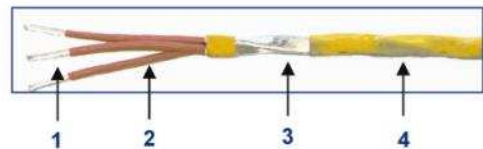
APPLICATIONS:

- Wires and cables for use in satellites and other space applications.

PACKAGING:

- On plastic spools (flange diameter : 180 or 280 mm). Spools are heat sealed into polyethylene bags with humidity indicator inside.

CONSTRUCTION:



- 1- Conductor: Silver plated copper or Silver plated copper alloy.
- 2- Polyimide tape + Polyimide top coat.
- 3- Spiral shield - Silver plated copper
- 4- Polyimide tape

STANDARDS/SPECIFICATONS:

Cores according to specification ESA/SCC N° 3901/002 (light weight wires).

INSPECTION LEVEL:

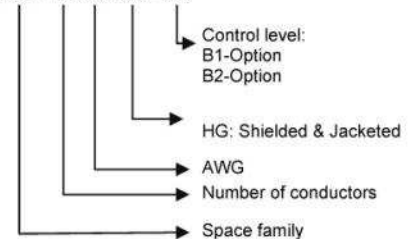
Level of lot acceptance which, in order of decreasing testing requirements, are designated « B1 », « B2 », « B3 ».

Should the lowest "standard" level be considered insufficient, then add « B2 » or « B1 » to Draka Fileca references.

Example : F A3901-2-P-2-28HG-B2

ORDERING CODE:

F A3901-X-P- X- XX-XX -XX



Space Application Light Weight Radiation Resistant Shielded Cables

F A3901-2-P

Draka part number	AWG*	Nb of cores	Cores as per ESA/SCC references	Conductor		Nominal Core Ø (mm)	Shield Strand Diameter (mm)	Maximum linear resistance at 20°C (Ω/Km)	Maxi O.D (mm)	Max. Weight (g/m)
				Silver plated copper Stranding (nxmm)	Nominal Cross section (mm ²)					
F A3901-2-P-1-28HG	28	1	3901/002-61	19x0.08 (1)	0.10	0.63	0.08	242	1.02	2.95
F A3901-2-P-1-26HG	26	1	3901/002-56	19x0.10 (1)	0.15	0.73	0.08	148	1.09	3.75
F A3901-2-P-1-24HG	24	1	3901/002-57	19x0.12 (1)	0.21	0.83	0.08	105	1.19	4.65
F A3901-2-P-1-22HG	22	1	3901/002-58	19x0.16	0.38	1.03	0.08	50.9	1.39	6.75
F A3901-2-P-1-20HG	20	1	3901/002-59	19x0.20	0.60	1.23	0.08	32.2	1.59	9.3
F A3901-2-P-1-18HG	18	1	3901/002-60	19x0.25	0.93	1.48	0.10	20.6	1.87	13.65
F A3901-2-P-2-28HG	28	2	3901/002-61	19x0.08(1)	0.10	0.63	0.08	254	1.67	5.5
F A3901-2-P-2-26HG	26	2	3901/002-56	19x0.10(1)	0.15	0.73	0.08	155	1.87	7.4
F A3901-2-P-2-24HG	24	2	3901/002-57	19x0.12(1)	0.21	0.83	0.10	110	2.10	9.8
F A3901-2-P-2-22HG	22	2	3901/002-58	19x0.16	0.38	1.03	0.10	53.5	2.5	14.0
F A3901-2-P-2-20HG	20	2	3901/005-59	19x0.20	0.60	1.23	0.10	33.8	2.90	19.4
F A3901-2-P-2-18HG	18	2	3901/002-60	19x0.25	0.93	1.48	0.12	21.6	3.40	28.2
F A3901-2-P-3-28HG	28	3	3901/002-61	19x0.08(1)	0.10	0.63	0.10	254	1.81	7.9
F A3901-2-P-3-26HG	26	3	3901/002-56	19x0.10(1)	0.15	0.73	0.10	155	2.02	10.6
F A3901-2-P-3-24HG	24	3	3901/002-57	19x0.12(1)	0.21	0.83	0.10	110	2.24	13.3
F A3901-2-P-3-22HG	22	3	3901/002-58	19x0.16	0.38	1.03	0.10	53.5	2.67	19.2
F A3901-2-P-3-20HG	20	3	3901/002-59	19x0.20	0.60	1.23	0.12	33.8	3.14	28.4
F A3901-2-P-3-18HG	18	3	3901/002-60	19x0.25	0.93	1.48	0.15	21.6	3.67	42.0

- (1) Silver plated Copper Alloy
* Closest American wire gauge

Identification:

Core colour :
 AWG 28: Brown
 AWG 26: Black
 AWG 24 : Khaki beige
 AWG 22: Red
 AWG 20 : Green
 AWG 18: Yellow

Jacket: Amber + stripes (see color coding table)