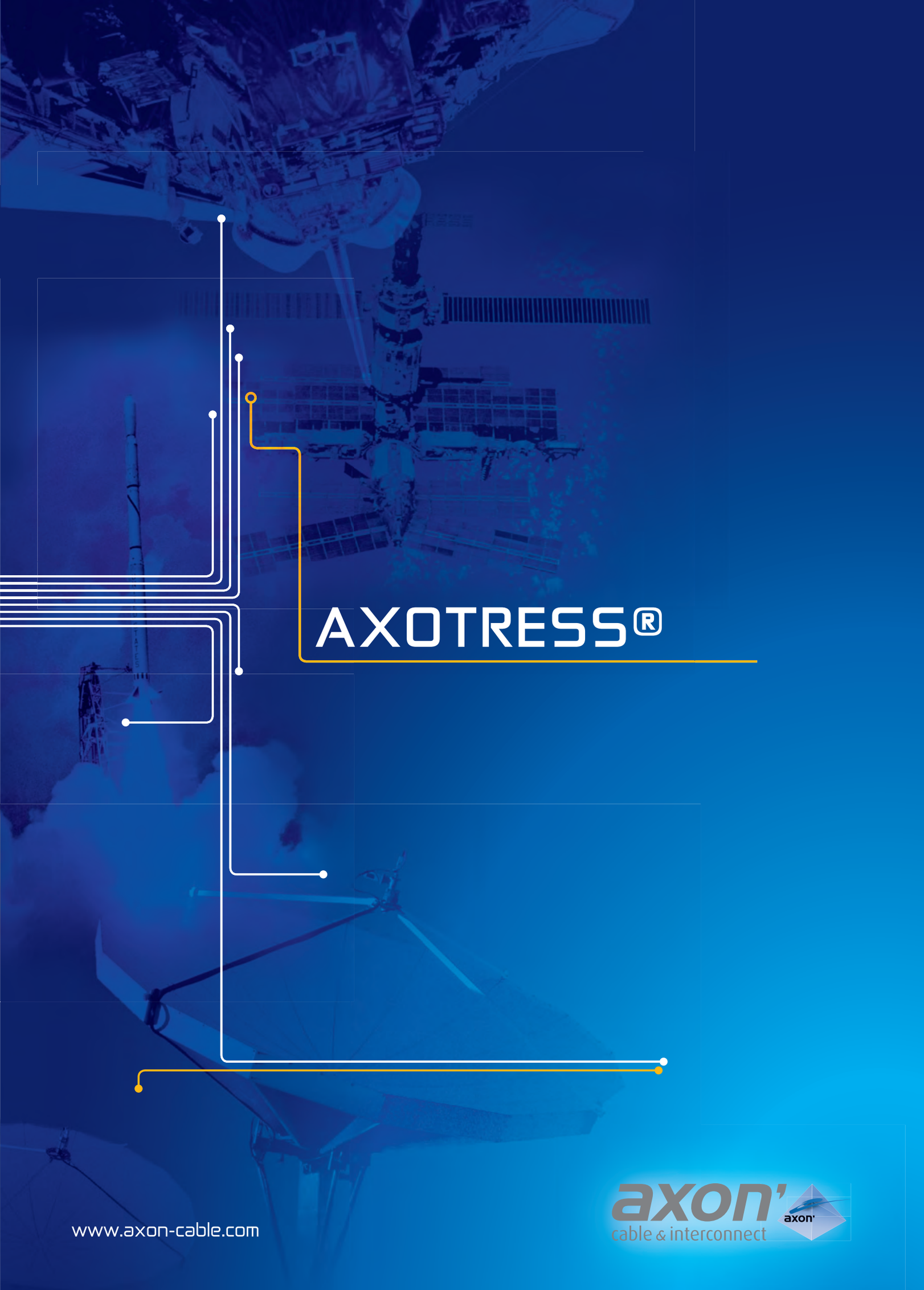
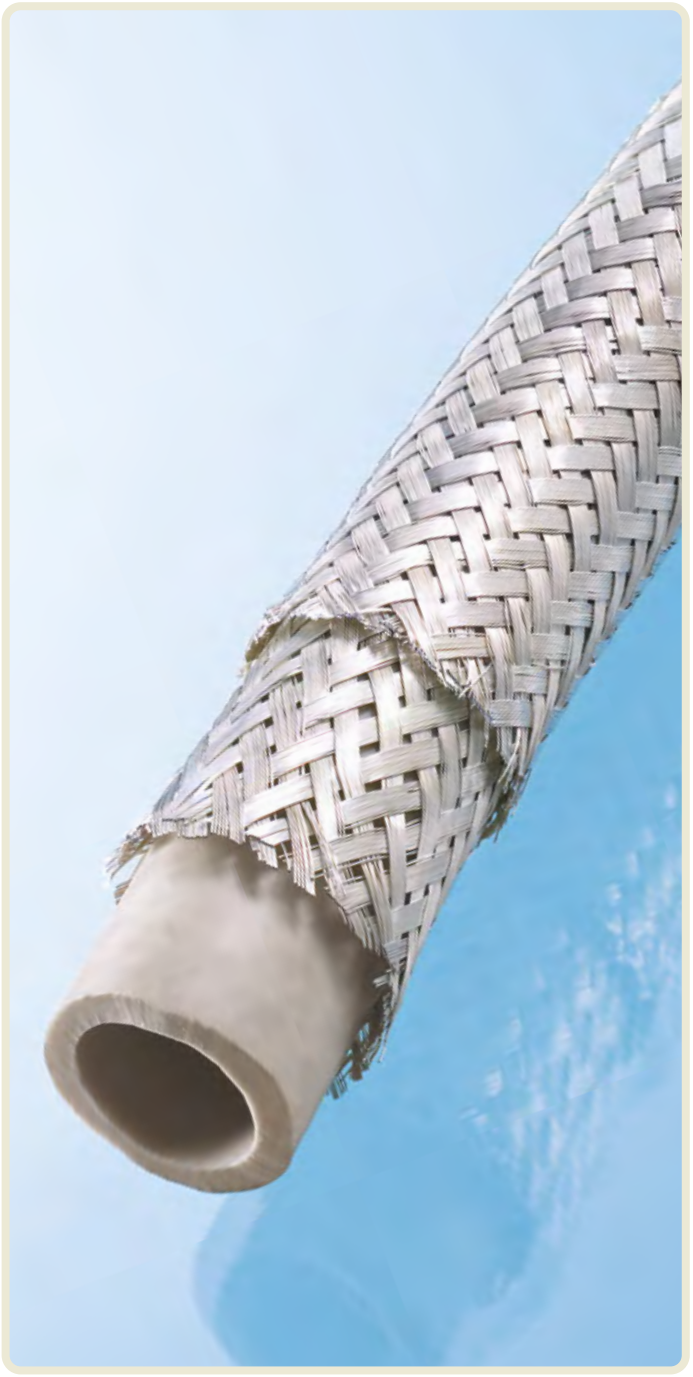


AXOTRESS®

www.axon-cable.com

axon' cable & interconnect

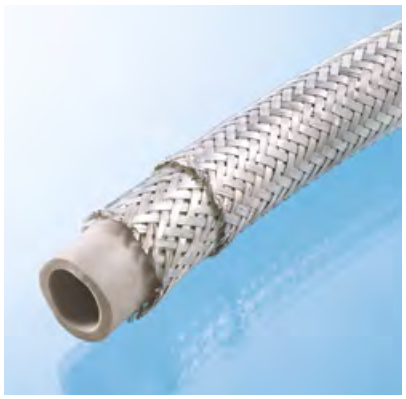
AXOTRESS



AXOTRESS

FOR SPACE APPLICATIONS

AXOTRESS



AXOTRESS DOUBLE BRAID

AXOTRESS

Single or double braids AXOTRESS are designed for manual shielding over a small length of assembly branches. The optimised versions have a guaranteed transfer impedance and can be used to manufacture harnesses with improved EMC.

Different strand material and platings are available.

STRAND MATERIAL	PLATING	TYPE OF BRAID
Copper	Tin, silver or nickel plating	Single braid
Copper	Tin plating	Single braid
Copper	Tin, silver or nickel plating	Single braid, optimized
Copper	Tin, silver or nickel plating	Double braid, optimized
Copper	2µm silver plating	Single braid
Copper	2µm silver plating	Single braid, optimized
Copper	2µm silver plating	Double braid, optimized
Aluminium	2µm silver plating	Single braid
Aluminium	2µm silver plating	Double braid

2µm silverplated products are designed for space applications.

AXOTRESS are braided on a carrier tube to maintain their shape during transport and ease installation.

According to the ordered length and diameter, the braids are packed on reels or drums.

Operating temperatures

PLATING	SPECIFICATIONS	OPERATING TEMP. (MAX.)
Tin	ASTM B33	150°C
Silver	ASTM B298	200°C
Nickel	ASTM B355	260°C

Single copper braid

AXO ST Ø xPC

AXO ST 4 xPC

AXON' REFERENCE

- AXO = AXOTRESS
- TYPE OF BRAID: ST = SINGLE BRAID
- DIAMETER UNDER BRAID
- PLATING
  - T = Tin plating
  - S = Silver plating
  - N = Nickel plating

The braids are supplied on a carrier tube.

REFERENCE	CARRIER TUBE*		BRAID		
	NOM. EXT. Ø mm	NOM. WEIGHT g/m	NOM. STRAND Ø mm	NOM. EXT. Ø mm	NOM. WEIGHT g/m
AXO ST 4 xPC	4	13	0.127	4.6	18
AXO ST 6 xPC	6	28	0.127	6.6	27
AXO ST 8 xPC	8	50	0.160	8.7	43
AXO ST 10 xPC	10	65	0.160	10.7	53
AXO ST 12 xPC	12	100	0.160	12.7	66
AXO ST 14 xPC	14	115	0.160	14.7	74
AXO ST 16 xPC	16	160	0.160	16.7	84
AXO ST 18 xPC	18	185	0.160	18.7	94
AXO ST 20 xPC	20	210	0.203	20.9	135
AXO ST 22 xPC	22	235	0.203	22.9	150
AXO ST 24 xPC	24	260	0.203	24.9	165
AXO ST 26 xPC	26	280	0.203	26.9	183
AXO ST 28 xPC	28	390	0.203	28.9	184
AXO ST 30 xPC	30	425	0.203	30.9	201

* Indicative values - Other diameters on request

Variable diameter tin plated copper single braid

ST Ø SN Ø

AXON' REFERENCE ST 12 SN 63

- TYPE OF BRAID: ST = SINGLE BRAID
- STRAND DIAMETER
- PLATING : SN = Tin plating (pure SN)
- CARRIER TUBE DIAMETER

	carrier tube Ø in mm	MIN. braid Ø in mm	MAX. braid Ø in mm
63	6.3	4	13
95	9.5	7	18
127	12.7	9	27
200	20.0	16	35

The braids are supplied on a carrier tube.

NOTE: Each braid can be stretched or contracted to either reduce or expand the braid diameter according to the wire bundle size required. The minimum and maximum braid diameters are shown above for each carrier tube dimension.

REFERENCE	DRAWING NUMBER	CARRIER TUBE*		BRAID			TRANSFER IMPEDANCE mΩ/m**			
		NOM. EXT. Ø mm	NOM. WEIGHT g/m	NOM. STRAND Ø mm	NOM. INT. Ø mm	NOM. WEIGHT g/m*	1 MHz	10 MHz	30 MHz	70 MHz
ST 12 SN 63	P534300	6.3	24	0.12	4.00	52	24	85	135	170
					6.30	52	20	82	130	140
					9.50	52	11	50	95	175
ST 12 SN 95	P534301	9.5	52	0.12	9.50	55	11	46	70	80
					12.70	55	8	25	40	50
					14.00	55	6	8	14	20
ST 12 SN 127	P534302	12.7	87	0.12	12.70	70	11	47	70	100
					16.00	70	6	16	28	35
					20.00	70	6	8	16	20
					23.00	70	7	25	45	50
ST 12 SN 200	P534303	20.0	178	0.12	20.00	112	7	25	38	40
					23.00	112	7	22	33	40
					28.00	112	5	4	4	6
					32.00	112	5	17	25	30

* Indicative values: other diameters on request
** Indicative values: for the given diameters only

Optimized single copper braid

AXO ST Ø xPC ZT

AXO ST 4 xPC ZT

AXON' REFERENCE

- AXO = AXOTRESS
- TYPE OF BRAID: ST = SINGLE BRAID
- DIAMETER UNDER BRAID
- PLATING
  - T = Tin plating
  - S = Silver plating
  - N = Nickel plating
- OPTIMIZED TRANSFER IMPEDANCE

The braids are supplied on a carrier tube.

REFERENCE	CARRIER TUBE*		BRAID			TRANSFER IMPEDANCE mΩ/m			
	NOM. EXT. Ø mm	NOM. WEIGHT g/m	NOM. STRAND Ø mm	NOM. EXT. Ø mm	NOM. WEIGHT g/m	10 kHz	100 kHz	1 MHz	30 MHz
AXO ST 4 xPC ZT	4	13	0.127	4.6	22	15	15	18	50
AXO ST 6 xPC ZT	6	28	0.127	6.6	33	10	10	12	35
AXO ST 8 xPC ZT	8	50	0.160	8.7	52	6.0	6.0	7.0	30
AXO ST 10 xPC ZT	10	65	0.160	10.7	63	5.0	5.0	6.0	25
AXO ST 12 xPC ZT	12	100	0.160	12.7	63	5.0	5.0	8.0	50
AXO ST 14 xPC ZT	14	115	0.160	14.7	94	3.5	3.5	5.25	17.5
AXO ST 16 xPC ZT	16	160	0.160	16.7	108	3.2	4.0	6.0	30
AXO ST 18 xPC ZT	18	185	0.160	18.7	119	2.8	2.8	4.2	14
AXO ST 20 xPC ZT	20	210	0.203	20.9	177	2.0	2.0	3.0	10
AXO ST 22 xPC ZT	22	235	0.203	22.9	198	1.8	1.8	2.7	9.0
AXO ST 24 xPC ZT	24	260	0.203	24.9	206	1.7	1.7	2.55	8.5
AXO ST 26 xPC ZT	26	280	0.203	26.9	218	1.6	1.6	2.4	8.0
AXO ST 28 xPC ZT	28	390	0.203	28.9	231	1.5	1.5	2.25	7.5
AXO ST 30 xPC ZT	30	425	0.203	30.9	252	1.4	1.4	2.1	7.0

* Indicative values - Other diameters on request

Optimized double copper braid

AXO DT Ø xPC ZT

AXO DT 4 xPC ZT

AXON' REFERENCE

- AXO = AXOTRESS
- TYPE OF BRAID: DT = DOUBLE BRAID
- DIAMETER UNDER BRAID
- PLATING
  - T = Tin plating
  - S = Silver plating
  - N = Nickel plating
- OPTIMIZED TRANSFER IMPEDANCE

The braids are supplied on a carrier tube.

REFERENCE	CARRIER TUBE*		BRAID 1		BRAID 2		TOTAL BRAID		TRANSFER IMPEDANCE mΩ/m			
	NOM. EXT. Ø mm	NOM. WEIGHT g/m	NOM. STRAND Ø mm	NOM. WEIGHT g/m	NOM. STRAND Ø mm	NOM. WEIGHT g/m	NOM. EXT. Ø mm	NOM. WEIGHT g/m	10 kHz	100 kHz	1 MHz	30 MHz
AXO DT 4 xPC ZT	4	13	0.160	31	0.160	33	5.4	64	4.0	3.0	2.0	4.0
AXO DT 6 xPC ZT	6	28	0.160	42	0.160	47	7.4	89	3.5	2.5	0.8	2.5
AXO DT 8 xPC ZT	8	50	0.160	50	0.160	57	9.4	107	2.5	2.0	0.8	2.3
AXO DT 10 xPC ZT	10	65	0.160	63	0.160	73	11.4	136	2.5	2.0	1.0	4.0
AXO DT 12 xPC ZT	12	100	0.160	75	0.160	75	13.4	150	2.5	2.0	0.8	2.2
AXO DT 14 xPC ZT	14	115	0.160	94	0.160	95	15.4	189	1.6	1.5	0.6	1.0
AXO DT 16 xPC ZT	16	160	0.160	108	0.160	110	17.4	218	1.5	1.4	0.5	1.0
AXO DT 18 xPC ZT	18	185	0.160	119	0.160	119	19.4	238	1.3	1.5	0.6	1.0
AXO DT 20 xPC ZT	20	210	0.160	134	0.160	134	21.4	268	1.2	1.5	0.6	1.0
AXO DT 22 xPC ZT	22	235	0.160	135	0.160	135	23.4	270	1.2	1.2	0.5	0.9
AXO DT 24 xPC ZT	24	260	0.160	147	0.160	147	25.4	294	1.1	0.9	0.4	0.7
AXO DT 26 xPC ZT	26	280	0.160	159	0.160	167	27.4	326	1.0	0.9	0.4	0.7
AXO DT 28 xPC ZT	28	390	0.160	170	0.160	178	29.4	348	1.0	0.8	0.3	0.5
AXO DT 30 xPC ZT	30	425	0.160	181	0.160	189	31.4	370	1.0	0.8	0.3	0.5

* Indicative values - Other diameters on request

2µm silverplated copper single braid

BRAID ST Ø SPC 2µ

BRAID ST 6 SPC 2µ

AXON' REFERENCE

- TYPE OF BRAID: ST = SINGLE BRAID
- DIAMETER UNDER BRAID
- CONDUCTOR MATERIAL

Designed for space applications.
The braids are supplied on a carrier tube.

REFERENCE	DRAWING NUMBER	CARRIER TUBE*		BRAID		
		NOM. EXT. Ø mm	NOM. WEIGHT g/m	NOM. STRAND. Ø mm	NOM. EXT. Ø mm	NOM. WEIGHT g/m
Braid ST 2 SPC 2 microns	P543321	2	4	0.102	2.5	8
Braid ST 3 SPC 2 microns	P516787	3	9	0.102	3.5	12
Braid ST 4 SPC 2 microns	P530072	4	12	0.102	4.5	13
Braid ST 5 SPC 2 microns	P515268	5	15	0.127	5.6	22
Braid ST 6 SPC 2 microns	P516788	6	20	0.102	6.5	22
Braid ST 8 SPC 2 microns	P530073	8	25	0.127	8.6	33
Braid ST 10 SPC 2 microns	P515270	10	50	0.160	10.7	56
Braid ST 12 SPC 2 microns	P531296	12	80	0.160	12.7	75
Braid ST 14 SPC 2 microns	P546895	14	115	0.160	14.7	74
Braid ST 15 SPC 2 microns	P516790	15	106	0.127	15.6	64
Braid ST 16 SPC 2 microns	P546896	16	160	0.160	16.7	84
Braid ST 18 SPC 2 microns	P546897	18	185	0.160	18.7	94
Braid ST 20 SPC 2 microns	P515273	20	210	0.254	21.1	180
Braid ST 22 SPC 2 microns	P546898	22	235	0.203	22.9	150
Braid ST 24 SPC 2 microns	P546899	24	260	0.203	24.9	165
Braid ST 26 SPC 2 microns	P546900	26	280	0.203	26.9	183
Braid ST 28 SPC 2 microns	P546901	28	390	0.203	28.9	184
Braid ST 30 SPC 2 microns	P546902	30	425	0.203	30.9	201

* Indicative values - Other diameters on request

Optimized 2µm silverplated copper single braid

BRAID ST Ø SPC 2µ ZT

BRAID ST 3 SPC 2µ ZT

- AXON' REFERENCE
- TYPE OF BRAID: ST = SINGLE BRAID
- DIAMETER UNDER BRAID
- CONDUCTOR MATERIAL
- OPTIMIZED TRANSFER IMPEDANCE

Designed for space applications.
The braids are supplied on a carrier tube.

REFERENCE	DRAWING NUMBER	CARRIER TUBE*		BRAID			TRANSFER IMPEDANCE mΩ/m			
		NOM. EXT. Ø mm	NOM. WEIGHT g/m	NOM. STRAND Ø mm	NOM. EXT. Ø mm	NOM. WEIGHT g/m	10 kHz	100 kHz	1 MHz	30 MHz
Braid ST 3 SPC 2 microns ZT	P519133	3	8	0.127	3.6	16	18	18	25	100
Braid ST 4 SPC 2 microns ZT	P516021	4	13	0.127	4.6	21	15	15	18	50
Braid ST 6 SPC 2 microns ZT	P516022	6	28	0.160	6.6	32	10	10	12	35
Braid ST 8 SPC 2 microns ZT	P516023	8	50	0.160	8.7	52	6.0	6.0	7.0	30
Braid ST 10 SPC 2 microns ZT	P516024	10	65	0.160	10.7	64	5.0	5.0	6.0	25
Braid ST 12 SPC 2 microns ZT	P516025	12	100	0.160	12.7	80	5.0	5.0	8.0	50
Braid ST 14 SPC 2 microns ZT	P516026	14	115	0.160	14.7	95	3.5	3.5	5.25	17.5
Braid ST 16 SPC 2 microns ZT	P546909	16	160	0.160	16.7	108	3.2	4.0	6.0	30
Braid ST 18 SPC 2 microns ZT	P546910	18	185	0.160	18.7	119	2.8	2.8	4.2	14
Braid ST 20 SPC 2 microns ZT	P546911	20	210	0.203	20.9	177	2.0	2.0	3.0	10
Braid ST 22 SPC 2 microns ZT	P546912	22	235	0.203	22.9	198	1.8	1.8	2.7	9.0
Braid ST 24 SPC 2 microns ZT	P546913	24	260	0.203	24.9	206	1.7	1.7	2.55	8.5
Braid ST 26 SPC 2 microns ZT	P546914	26	280	0.203	26.9	218	1.6	1.6	2.4	8.0
Braid ST 28 SPC 2 microns ZT	P546915	28	390	0.203	28.9	231	1.5	1.5	2.25	7.5
Braid ST 30 SPC 2 microns ZT	P546916	30	425	0.203	30.9	252	1.4	1.4	2.1	7.0

* Indicative values - Other diameters on request

Optimized 2µm silverplated copper double braid

BRAID DT Ø SPC 2µ ZT

BRAID DT 4 SPC 2µ ZT

- AXON' REFERENCE
- TYPE OF BRAID: DT = DOUBLE BRAID
- DIAMETER UNDER BRAID
- CONDUCTOR MATERIAL
- OPTIMIZED TRANSFER IMPEDANCE

Designed for space applications.
The braids are supplied on a carrier tube.

REFERENCE	DRAWING NUMBER	CARRIER TUBE*		BRAID 1		BRAID 2		TOTAL BRAID		TRANSFER IMPEDANCE mΩ/m			
		NOM. EXT. Ø mm	NOM. WEIGHT g/m	NOM. STRAND Ø mm	NOM. WEIGHT g/m	NOM. STRAND Ø mm	NOM. WEIGHT g/m	NOM. EXT. Ø mm	NOM. WEIGHT g/m	10 kHz	100 kHz	1 MHz	30 MHz
Braid DT 4 SPC 2µ ZT	P546917	4	13	0.160	31	0.160	33	5.4	64	4.0	3.0	2.0	4.0
Braid DT 6 SPC 2µ ZT	P546918	6	28	0.160	42	0.160	47	7.4	89	3.5	2.5	0.8	2.5
Braid DT 8 SPC 2µ ZT	P546919	8	50	0.160	50	0.160	57	9.4	107	2.5	2.0	0.8	2.3
Braid DT 10 SPC 2µ ZT	P546920	10	65	0.160	63	0.160	73	11.4	136	2.5	2.0	1.0	4.0
Braid DT 12 SPC 2µ ZT	P546921	12	100	0.160	75	0.160	75	13.4	150	2.5	2.0	0.8	2.2
Braid DT 14 SPC 2µ ZT	P546922	14	115	0.160	94	0.160	95	15.4	189	1.6	1.5	0.6	1.0
Braid DT 16 SPC 2µ ZT	P546923	16	160	0.160	108	0.160	110	17.4	218	1.5	1.4	0.5	1.0
Braid DT 18 SPC 2µ ZT	P546924	18	185	0.160	119	0.160	119	19.4	238	1.3	1.5	0.6	1.0
Braid DT 20 SPC 2µ ZT	P546925	20	210	0.160	134	0.160	134	21.4	268	1.2	1.5	0.6	1.0
Braid DT 22 SPC 2µ ZT	P546926	22	235	0.160	135	0.160	135	23.4	270	1.2	1.2	0.5	0.9
Braid DT 24 SPC 2µ ZT	P546927	24	260	0.160	147	0.160	147	25.4	294	1.1	0.9	0.4	0.7
Braid DT 26 SPC 2µ ZT	P546928	26	280	0.160	159	0.160	167	27.4	326	1.0	0.9	0.4	0.7
Braid DT 28 SPC 2µ ZT	P546929	28	390	0.160	170	0.160	178	29.4	348	1.0	0.8	0.3	0.5
Braid DT 30 SPC 2µ ZT	P546930	30	425	0.160	181	0.160	189	31.4	370	1.0	0.8	0.3	0.5

* Indicative values - Other diameters on request

24µm silverplated aluminium single braid

AXO ST Ø SPA

AXO ST 6 SPA

AXON' REFERENCE

- AXO = AXOTRESS
- TYPE OF BRAID: ST = SINGLE BRAID
- DIAMETER UNDER BRAID
- CONDUCTOR MATERIAL

Designed for space applications.
The braids are supplied on a carrier tube.

REFERENCE	DRAWING NUMBER	CARRIER TUBE*		BRAID		
		NOM. EXT. Ø mm	NOM. WEIGHT g/m	NOM. STRAND Ø mm	NOM. EXT. Ø mm	NOM. WEIGHT g/m
AXO ST 6 SPA	P546983	6	19	0.12	6.5	9.5
AXO ST 8 SPA	P546984	8	28	0.12	8.5	13.1
AXO ST 10 SPA	P536823	10	50	0.12	10.5	16.6
AXO ST 12 SPA	P546985	12	62	0.15	12.7	25.2
AXO ST 15 SPA	P546986	15	75	0.2	15.9	40.0
AXO ST 18 SPA	P546987	18	118	0.2	18.9	49.2
AXO ST 20 SPA	P546988	20	161	0.2	20.9	55.3
AXO ST 22 SPA	P546989	22	215	0.2	22.9	61.5
AXO ST 25 SPA	P546990	25	215	0.2	25.9	67.7
AXO ST 30 SPA	P546991	30	320	0.25	31.1	103.4

* Indicative values - Other diameters on request

2µm silverplated aluminium double braid

AXO DT Ø SPA

AXO DT 6 SPA

AXON' REFERENCE

- AXO = AXOTRESS
- TYPE OF BRAID: DT = DOUBLE BRAID
- DIAMETER UNDER BRAID
- CONDUCTOR MATERIAL

Designed for space applications.
The braids are supplied on a carrier tube.

REFERENCE	DRAWING NUMBER	CARRIER TUBE*		BRAID 1		BRAID 2		TOTAL BRAID	
		NOM. EXT. Ø mm	NOM. WEIGHT g/m	NOM. STRAND Ø mm	NOM. WEIGHT g/m	NOM. STRAND Ø mm	NOM. WEIGHT g/m	NOM. EXT. Ø mm	NOM. WEIGHT g/m
AXO DT 6 SPA	P546992	6	19	0.12	10.70	0.12	10.3	7.1	21.0
AXO DT 8 SPA	P541433	8	28	0.12	14.26	0.12	13.7	9.1	28.0
AXO DT 10 SPA	P546993	10	50	0.12	16.64	0.12	16.2	11.1	32.8
AXO DT 12 SPA	P546994	12	62	0.15	25.15	0.15	24.3	13.3	49.4
AXO DT 15 SPA	P546995	15	75	0.20	40.03	0.20	38.9	16.8	78.9
AXO DT 18 SPA	P546996	18	118	0.20	49.15	0.20	47.2	19.8	96.3
AXO DT 20 SPA	P546997	20	161	0.20	55.30	0.20	53.1	21.8	108.4
AXO DT 22 SPA	P546998	22	215	0.20	61.45	0.20	59.0	23.8	120.5
AXO DT 25 SPA	P546999	25	215	0.20	67.70	0.20	65.7	26.8	133.4
AXO DT 30 SPA	P547000	30	320	0.25	103.40	0.25	101.6	32.2	205.0