



**A complete range of wire & cable solutions  
for aerospace applications  
Issue 9 - June 2013**



## Symbols

**Rating temperature**



**Flexibility**



**Chemical attacks**



**Fire performances**



**Smoke**



**Corrosivity**



**Electro magnetic interference**



**Halogen free**



**RoHs compliant**



**Arc tracking resistant**



**Bending Radius**



**WC27500**





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## ■ New generation of aerospace platforms require smaller, lighter and more powerful cables

- A comprehensive range of aerospace wires and cable solutions
- Products that are compliant with a range of standards worldwide
- Lighter, smaller, tougher, and more reliable wires and cables
- Abrasion-, arc-tracking-, fire-, and fluid-resistant and low maintenance
- Customized solutions and support for complex and advanced designs

The Nexans product portfolio is comprehensive covering nearly all aerospace requirements. From airframe wires and cables to fire-zone and high-temperature cables, from power feeders to coax, databus, quad Ethernet, optical fiber for IFE and sub-systems. For every application, Nexans has a solution. For special needs, like flexibility, dynamic cut-through resistance, electromagnetic interference resistance, corona resistance, we can supply products customized to specific customer requirements that can be used in various types of harnesses.

## ■ Comprehensive offering

### Technology:

- **Insulation systems:**
  - Composite tape wrap
  - Smooth surface composite
  - Cross-linked ETFE or polyalkene/kynar extruded
  - ETFE or FEP extruded
  - PTFE extruded
- **Screen configurations:**
  - round and flat braids
  - semi conductive tapes
  - spiral shields
- **High bit rate technology**
- **New weight saving insulation for coaxial & data bus**

### Capability:

- **Design & Prototyping**
- **Testing & Qualification**
- **Manufacturing**

### Quality systems:

- **AS9100 / EN9100**
- **ISO 9001**
- **ISO 14001**



## ■ A worldwide presence supporting Commercial and Military Aerospace markets:

Industrial footprints in 3 countries:

- Elm City, (NC) USA
- Draveil, France
- Mohammedia, Morocco



## A full range of products and solutions you can trust



Airframe wires and cables

Cables for power transmission

Fire-zone and high-temperature area cables

Coaxial cables

Databus, quad Ethernet and optical fiber

Customized cables for specific applications

## Services solutions

### Customized kitting

Nexans can propose customized kitting and packaging to its customers, especially for pre-cut power cables. Kits can include other components, according to customer needs and specifications.

### Training modules

At the request of OEMs, harness makers and distributors, we provide custom training on our products to explain their specific performance characteristics and benefits.

### Resident engineers

If a customer has issues or questions related to wires and cables, we can assign a resident engineer to work with their research department to help them make the right choice, or facilitate acceptance according to design criteria, test information and applicable standards.



### Re-design to cost

In a world where size, weight and reliability are of the utmost importance, we can help suppliers, harness makers and OEMs find optimal solutions. For example, we have pioneered the use of aluminum to achieve significant weight reduction.

### Dedicated customer portals

While integrating with customer portals, Nexans can also set up dedicated portals to offer customized information according to design, manufacturing and operational needs (including technical data, commercial information, specifications, and billing).

## Chart A - Color identification of wires under AS22759, AS81044 & MIL-W-16878

Black	Brown	Red	Orange	Yellow	Green	Blue	Violet	Grey	White
<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>

### Wires AS22759 /5 to /23 (MIL-W-22759/5 to /23)

Specification	Main insulation material	Voltage rating	Cond. type	Temp. rating °C	AWG size	WC-27500 symbol	Appl.
AS22759/5	Heavy weight extruded PTFE mineral filled	600	SPC	200	24-4	VA	O
AS22759/6	Heavy weight extruded PTFE mineral filled	600	NPC	260	24-4	WA	O
AS22759/7	Medium weight extruded PTFE mineral filled	600	SPC	200	24-4	SA	O
AS22759/8	Medium weight extruded PTFE mineral filled	600	NPC	260	24-4	TA	O
AS22759/9	Heavy weight extruded PTFE	1000	SPC	200	28-8	LE	O
AS22759/10	Heavy weight extruded PTFE	1000	NPC	260	28-8	LH	O
AS22759/11	Light weight extruded PTFE	600	SPC	200	28-8	RC	P
AS22759/12	Light weight extruded PTFE	600	NPC	260	28-8	RE	P
AS22759/13	Medium weight extruded FEP/Kynar	600	TPC	135	24-01	CA	O
AS22759/14	Light weight extruded FEP/Kynar	600	TPC	135	26-12	CB	P
AS22759/15	Light weight extruded FEP/Kynar	600	SPA	135	26-20	CC	P
AS22759/16	Medium weight extruded ETFE	600	TPC	150	24-02	TE	O
AS22759/17	Medium weight extruded ETFE	600	SPA	150	26-20	TF	O
AS22759/18	Light weight extruded ETFE	600	TPC	150	26-10	TG	P
AS22759/19	Light weight extruded ETFE	600	SPA	150	26-20	TH	P
AS22759/20	Heavy weight extruded PTFE	1000	SPA	200	28-20	TK	O
AS22759/21	Heavy weight extruded PTFE	1000	NPA	260	28-20	TL	O
AS22759/22	Light weight extruded PTFE	600	SPA	200	28-20	TM	P
AS22759/23	Light weight extruded PTFE	600	NPA	260	28-20	TN	P

### Wires AS22759 /32 to /46 (MIL-W-22759 /32 to / 46)

Specification	Main insulation material	Voltage rating	Cond. type	Temp. rating °C	AWG size	WC-27500 symbol	Appl.
AS22759/32	Light weight XL-ETFE single layer	600	TPC	150	30-12	SB	P
AS22759/33	Light weight XL-ETFE single layer	600	SPA	200	30-20	SC	P
AS22759/34	Normal weight XL-ETFE dual layer	600	TPC	150	24-02	SD	O
AS22759/35	Normal weight XL-ETFE dual layer	600	SPA	200	26-20	SE	O
AS22759/41	Normal weight XL-ETFE dual layer	600	NPC	200	26-02	SM	O
AS22759/42	Normal weight XL-ETFE dual layer	600	NPA	200	26-20	SN	O
AS22759/43	Normal weight XL-ETFE dual layer	600	SPC	200	26-02	SP	O
AS22759/44	Light weight XL-ETFE single layer	600	SPC	200	28-12	SR	P
AS22759/45	Light weight XL-ETFE single layer	600	NPC	200	28-12	SS	P
AS22759/46	Light weight XL-ETFE single layer	600	NPA	200	28-20	ST	P

SPC - Silver plated copper, NPC - Nickel Plated Copper, TPC - Tin Plated Copper,  
 SPA - Silver Plated High Strength Copper Alloy, NPA - Nickel Plated High Strength Copper Alloy  
 O - Table A1 in specification AS50881 identifies products suitable for open wiring application in aircraft installations  
 P - Table A2 in specification AS50881 identifies products requiring additional protection in aircraft installations  
 A - For appliance application only

## Wires AS22759 /80 to /92 & 180 to /192 (MIL-DTL-22759 /80 to /92)

Specification	Main insulation material	Voltage rating	Cond. type	Temp. rating °C	AWG size	WC-27500 symbol	Appl.	MIL smooth equivalent.
AS22759/80	Light weight composite	600	TPC	150	26-10	WB	P	/180, DB
AS22759/81	Light weight composite	600	SPA	200	26-20	WC	P	/181, DC
AS22759/82	Light weight composite	600	NPA	260	26-20	WE	P	/182, DE
AS22759/83	Normal weight composite	600	SPC	200	8-04	WF	O	/183, DF
AS22759/84	Normal weight composite	600	NPC	260	8-04	WG	O	/184, DG
AS22759/85	Normal weight composite	600	TPC	150	8-04	WH	O	/185, DH
AS22759/86	Normal weight composite	600	SPC	200	26-04	WJ	O	/186, DJ
AS22759/87	Normal Weight composite	600	NPC	260	26-04	WK	O	/187, DK
AS22759/88	Normal weight composite	600	TPC	150	26-04	WL	O	/188, DL
AS22759/89	Normal weight composite	600	SPA	200	26-20	WM	O	/189, DM
AS22759/90	Normal weight composite	600	NPA	260	26-20	WN	O	/190, DN
AS22759/91	Light weight composite	600	SPC	200	26-10	WP	P	/191, DP
AS22759/92	Light weight composite	600	NPC	260	26-10	WR	P	/192, DR

## Wires AS81044 /5 to /13 (MIL-W-81044 /5 to /13)

Specification	Main insulation material	Voltage rating	Cond. type	Temp. rating °C	AWG size	WC-27500 symbol	Appl.
AS81044/5	Normal weight extruded XL polyalkene/Kynar	600	SPC	150	24-01	MD	O
AS81044/6	Normal weight extruded XL polyalkene/Kynar	600	TPC	150	24-01	ME	O
AS81044/7	Normal weight extruded XL polyalkene/Kynar	600	SPA	150	26-20	MF	O
AS81044/8	Medium weight extrud. XL polyalkene/Kynar	600	SPC	150	24-01	MG	O
AS81044/9	Medium weight extrud. XL polyalkene/Kynar	600	TPC	150	24-01	MH	O
AS81044/10	Medium weight extrud. XL polyalkene/Kynar	600	SPA	150	26-20	MJ	O
AS81044/11	Light weight extruded XL polyalkene/Kynar	600	SPC	150	30-12	MK	P
AS81044/12	Light weight extruded XL polyalkene/Kynar	600	TPC	150	30-12	ML	P
AS81044/13	Light weight extruded XL polyalkene/Kynar	600	SPA	150	30-20	MM	P

## Wires MIL-W-16878 /4 to /13 (HP3 & HP4)

Specification	Main insulation material	Voltage rating	Cond. type	Temp. rating °C	AWG size	WC-27500 symbol	Appl.
MIL-W-16878/4	.010 in. extruded PTFE	600	SPC	200	32-10	HP3-EX	A
MIL-W-16878/5	.015 in. extruded PTFE	1000	SPC	200	32-10	HP3-EEX	A
MIL-W-16878/6	.006 in. extruded PTFE	250	SPC	200	32-20	HP3-ETX	A
MIL-W-16878/11	.010 in. extruded FEP	600	SPC	200	32-8	HP4-K	A
MIL-W-16878/12	.015 in. extruded FEP	1000	SPC	200	32-2	HP4-KK	A
MIL-W-16878/13	.006 in. extruded FEP	250	SPC	200	32-20	HP4-KT	A

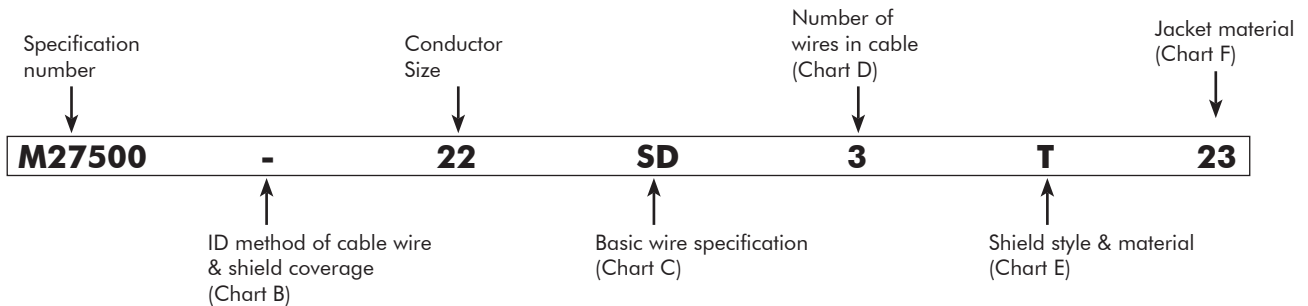
SPC - Silver plated copper, NPC - Nickel Plated Copper, TPC - Tin Plated Copper,  
 SPA - Silver Plated High Strength Copper Alloy, NPA - Nickel Plated High Strength Copper Alloy  
 O - Table A1 in specification AS50881 identifies products suitable for open wiring application in aircraft installations  
 P - Table A2 in specification AS50881 identifies products requiring additional protection in aircraft installations  
 A - For appliance application only

## Cable WC 27500 (MIL-C-27500)

This specification covers the requirements for cables used in aircraft and missile applications. These cables may be constructed from a variety of insulating materials having different characteristics. Nexans manufactures most of the combinations available in this specification. The cables can be obtained in configurations up to 15 conductors with just a shield, or just a jacket, or both single and double shields and jacket. Conductor colors are specified and the cable must be identified by methods described in the body of WC 27500.

## Cable Designation

Cable will be identified by a combination of digits and letter (not to exceed 16), in accordance with the following;



**Example:** M27500-22SD3T23 = 22 AWG, 3 conductor, tin shielded 85%, white XLETFE jacket.

## Chart B - Identification method of cable wire & shield

When an unshielded cable or wire, or a cable with a minimum shield coverage of 85 percent is required, specify:	When a minimum shield coverage of 90 percent is required, specify:
- for the preferred identification method using table 3-1	C for the preferred identification method using table 3-1
F for the preferred identification method using table 3-2	H for the preferred identification method using table 3-2
A for optional identification method A, table 3-1	D for optional identification method A, table 3-1
G for optional identification method A, table 3-2	J for optional identification method A, table 3-2
B for optional identification method B, table 3-3	E for optional identification method B, table 3-3
K for optional identification method C, table 3-3	M for optional identification method C, table 3-3
L for optional identification method D	N for optional identification method D
P for optional identification method E	R for optional identification method E
S for optional identification method F	T for optional identification method F
U for color codes specified by the procuring activity	V for color codes specified by the procuring activity

## Chart C - Basic wire specification

Symbol sequence	Symbol sequence	Symbol sequence	Symbol sequence
CA AS22759/13	JF MIL-DTL-25038/3	NL MIL-DTL-81381/22	TG AS22759/18
CB AS22759/14	LE AS22759/9	RA AS22759/3	TH AS22759/19
CC AS22759/15	LH AS22759/10	RB AS22759/4	TK AS22759/20
DB AS22759/180	ME AS81044/6	RC AS22759/11	TL AS22759/21
DC AS22759/181	MF AS81044/7	RE AS22759/12	TM AS22759/22
DE AS22759/182	MH AS81044/9	SA AS22759/7	TN AS22759/23
DF AS22759/183	MJ AS81044/10	SB AS22759/32	VA AS22759/5
DG AS22759/184	MK AS81044/11	SC AS22759/33	WA AS22759/6
DH AS22759/185	ML AS81044/12	SD AS22759/34	WB AS22759/80
DJ AS22759/186	MM AS81044/13	SE AS22759/35	WC AS22759/81
DK AS22759/187	MR MIL-DTL-81381/7	SM AS22759/41	WE AS22759/82
DL AS22759/188	MS MIL-DTL-81381/8	SN AS22759/42	WF AS22759/83
DM AS22759/189	MT MIL-DTL-81381/9	SP AS22759/43	WG AS22759/84
DN AS22759/190	MV MIL-DTL-81381/10	SR AS22759/44	WH AS22759/85
DP AS22759/191	MW MIL-DTL-81381/11	SS AS22759/45	WJ AS22759/86
DR AS22759/192	MY MIL-DTL-81381/12	ST AS22759/46	WK AS22759/87
E AS22759/2	NA MIL-DTL-81381/13	SV AS22759/47	WL AS22759/88
EA AS22759/1	NB MIL-DTL-81381/14	SW AS22759/48	WM AS22759/89
JA MIL-DTL-25038/1	NE MIL-DTL-81381/17	SX AS22759/49	WN AS22759/90
JB AS22759/28	NF MIL-DTL-81381/18	SY AS22759/50	WP AS22759/91
JC AS22759/29	NG MIL-DTL-81381/19	TA AS22759/8	WR AS22759/92
JD AS22759/30	NH MIL-DTL-81381/20	TE AS22759/16	
JE AS22759/31	NK MIL-DTL-81381/21	TF AS22759/17	

## Chart D - Number of wires per cable

1 to 15 for shielded or shielded and jacketed cables

2 to 15 for unshielded, unjacketed or unshielded jacketed cables

Cables with 10 to 15 conductors will be limited to conductor size 12awg and smaller.

## Chart E - Shield style and material

Symbol single shield style	Symbol double shield style	Shield material	Maximum temperature limit for shield material
U		No shield	-
T	V	Tin-coated copper, round	150°C (302°F)
S	W	Silver-coated copper, round	200°C (392°F)
N	Y	Nickel-coated copper, round	260°C (500°F)
F	Z	Stainless steel, round	400°C (752°F)
C	R	Nickel-coated copper 27%, round	400°C (752°F)
M	K	Silver-coated high strength copper alloy, round	200°C (392°F)
P	L	Nickel-coated high strength copper alloy, round	260°C (500°F)
G	A	Silver-coated copper, flat	200°C (392°F)
H	B	Silver-coated high strength copper alloy, flat	200°C (392°F)
*	#	Nickel-coated copper, flat	260°C (500°F)
J	D	Tin-coated copper, flat	150°C (302°F)
E	X	Nickel-coated high strength copper alloy, flat	260°C (500°F)
I	Q	Nickel-chromium alloy, flat	400°C (752°F)
\$	+	Heavy silver coated copper, round	200°C (392°F)

## Chart F - Jacket materials

Single jacket symbol	Double jacket symbol	Jacket material	Temp. limit for jacket material
00	00	No jacket	-
01 <sup>1</sup>	51 <sup>1</sup>	Extruded white polyvinyl chloride (PVC)	90°C (194°F)
02 <sup>2</sup>	52 <sup>2</sup>	Extruded clear polyamide	105°C (221°F)
03	53	White polyamide braid impregnated with clear polyamide finisher over a polyester tape	105°C (221°F)
04	54	Polyester braid impregnated with high temperature finisher over polyester tape	150°C (302°F)
05	55	Extruded clear fluorinated ethylene propylene (FEP)	200°C (392°F)
06	56	Extruded or taped and heat sealed white polytetrafluoroethylene (PTFE)	260°C (500°F)
07	57	White polytetrafluoroethylene (PTFE) treated glass braid impregnated and coated with polytetrafluoroethylene finisher over presintered polytetrafluoroethylene tape	260°C (500°F)
08 <sup>3</sup>	58 <sup>3</sup>	Crosslinked white extruded polyvinylidene fluoride (PVDF)	150°C (302°F)
09	59	Extruded white fluorinated ethylene propylene (FEP)	200°C (392°F)
10 <sup>3</sup>	60 <sup>3</sup>	Extruded clear polyvinylidene fluoride (PVDF)	125°C (257°F)
11 <sup>4</sup>	61 <sup>4</sup>	Tape of natural polyimide combined with clear fluorinated ethylene propylene (FEP) wrapped and heat sealed with (FEP) outer surface	200°C (392°F)
12 <sup>4</sup>	62 <sup>4</sup>	Tape of natural polyimide combined with fluorinated ethylene propylene (FEP) wrapped and heat sealed with polyimide outer surface	200°C (392°F)
14	64	Extruded white ethylene-tetrafluoroethylene copolymer (ETFE)	150°C (302°F)
15	65	Extruded clear ethylene-tetrafluoroethylene copolymer (ETFE)	150°C (302°F)
16	66	Braid of aromatic polyamide with high temperature finisher over presintered polytetrafluoroethylene (PTFE) tape	200°C (392°F)
17 <sup>5</sup>	67 <sup>5</sup>	White extruded ethylene chlorotrifluoro-ethylene (ECTFE)	150°C (302°F)
18 <sup>5</sup>	68 <sup>5</sup>	Clear extruded ethylene chlorotrifluoro-ethylene (ECTFE)	150°C (302°F)
20	70	Extruded white perfluoroalkoxy (PFA)	260°C (500°F)
21	71	Extruded clear perfluoroalkoxy (PFA)	260°C (500°F)
22 <sup>4</sup>	72 <sup>4</sup>	Taped of polyimide combined with clear fluorinated ethylene propylene (FEP) wrapped and heat sealed with opaque polyimide outer surface	200°C (392°F)
23	73	White, cross linked, extruded, modified, ethylene tetrafluoroethylene copolymer (XLETFE)	200°C (392°F)
24	74	Tape layer of white polytetrafluoroethylene (PTFE) wrapped over a tape layer of natural polyimide combined with fluoropolymer heated and fused	260°C (500°F)
25	75	Smooth surface tape layer of white polytetrafluoroethylene (PTFE) wrapped over a tape layer of natural polyimide combined with fluoropolymer heated and fused	260°C (500°F)
26	76	Extruded, white, low fluoride, crosslinked modified, ethylene-tetrafluoroethylene copolymer (XLETFE)	200°C (392°F)

<sup>1</sup> Polyvinyl chloride materials shall not be used for aerospace applications.

<sup>2</sup> Jacket material 02 is not to be used for cables having a diameter of 0.251 inch or greater.

<sup>3</sup> Jacket materials 08, 58, 10 & 60 are not to be used for cables having a diameter of 0.401 inch or greater.

<sup>4</sup> Not for Naval Air Systems Command usage.

<sup>5</sup> Inactive for new design.



## Hook-up wires for Civil, Military aircraft and helicopters

Voltage rating: 600 Volts RMS / Maximum operating frequency: 2000 Hz

Specification	Description	Maximum operating temperature					Arc tracking resistant	Single core	Multi-core	Screened	Sheathed	Page
		150	180	210	200	260						
ABS 0949 AD AWG 24 to 4	- Light weight wires - Nickel copper clad aluminium - UV Laser printable		●				●	●				28
ABS 0949 AD AWG 3 to 000	- Arc tracking resistant - Light weight wires - Nickel aluminium wires		●									30
ABS 1354 ADA, ADB, ADC, ADD	- Light weight wires - Nickel copper clad aluminium		●				●	●	●			32
ABS 1356	- UV laser printable - Nickel copper clad aluminium		●				●	●	●	●	●	36
EN 2267-010 A DR	- UV laser printable - Light weight wires - Composite insulation					●	●	●				38
EN 2267-009 DRB, DRC, DRD	- Light weight wires - Composite insulation					●	●		●			40
EN 2714-013 MLA, MLB, MLC, MLD	- UV laser printable - Light weight wires - Composite insulation					●	●	●	●	●	●	42
EN 2714-014 MME, MMF, MMG	- UV laser printable - Light weight wires - Composite insulation					●	●		●	●	●	44
EN2266-008 DRP - DRT - DRQ	- DR Multicores jacketed - UV Laser printable - Light weight wires					●	●		●		●	46
EN2713-012 MNA - MNB - MNC MND	- DR Multicores - Shielded jacketed - Silver plated screen - UV Laser printable - Light weight wires					●	●	●	●	●	●	48
VG 95218-20 type H FX 5301	- Flexible light weight wires - Silver plated conductors	●					●	●				50
VG 95218-22 type E VG 95218- 23 type D FX 5303	- Single core and multicore	●					●	●	●	●	●	52
MIL-W-16878/4 to 28 MIL-DTL-81381/7 to 22	- Aerospace composite wires (see MIL-SPEC product selection catalogue)	●			●	●		●				-
B080	Bombardier XLETFE wire & cables constructions ranging from thin wall to large walls constructions, tin - silver - nickel plating, aluminum - copper - high strength & ultra high strength copper-alloy, round - flat shields.	●			●			●	●	●	●	54
BMS 13-60	Boeing composite wire & cables constructions ranging from thin wall to large walls constructions, tin - silver - nickel plating, aluminum - copper - high strength & ultra high strength copper-alloy, round - flat shields.	●			●	●	●	●	●	●	●	58



Specification	Description	Maximum operating temperature					Arc tracking resistant	Single core	Multi-core	Screened	Sheathed	Page
		150	180	210	200	260						
WC 27500	- Cables constructions that can use any wires made under the AS22759, AS81044, MIL-DTL-23038 & MIL-DTL-81381 specifications combined with the shield types, jacket types and marking styles as listed in WC 27500. Characteristics depends of the combination selected.	●			●	●	●	●	●	●	●	12
DSCC SMOOTH (04034 to 04046 wires & 04049 cables)	- Equivalent to AS22759/180 to /192 & WC 27500 DB to DR.	●			●	●	●	●	●	●	●	62
AS22759/180 AWG 26 to 10	- Tin Coated Copper conductor Smooth Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable Light weight	●					●	●				66
AS22759/181 AWG 24 to 20	- Silver Coated High Strength Copper Alloy conductor Smooth Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable Light weight				●		●	●				66
AS22759/181 AWG 26	- Silver Coated Ultra High Strength Copper Alloy conductor Smooth Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable Light weight				●		●	●				66
AS22759/182 AWG 24 to 20	- Nickel Coated High Strength Copper Alloy conductor Smooth Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable Light weight					●	●	●				66
AS22759/182 AWG 26	- Nickel Coated Ultra High Strength Copper Alloy conductor Smooth Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable Light weight						●	●	●			66
AS22759/186 AWG 26 to 2/0	- Silver Coated Copper conductor Smooth Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable				●		●	●				68
AS22759/187 AWG 26 to 2/0	- Nickel Coated Copper conductor Smooth Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable					●	●	●				68
AS22759/188 AWG 26 to 2/0	- Tin Coated Copper conductor Smooth Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable	●					●	●				68
AS22759/189 AWG 24 to 20	- Silver Coated High Strength Copper Alloy conductor Smooth Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable				●		●	●				72
AS22759/189 AWG 26	- Silver Coated Ultra High Strength Copper Alloy conductor Smooth Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable				●		●	●				72

## Hook-up wires for Civil, Military aircraft and helicopters

Voltage rating: 600 Volts RMS / Maximum operating frequency: 2000 Hz

Specification	Description	Maximum operating temperature					Arc tracking resistant	Single core	Multi-core	Screened	Sheathed	Page
		150	180	210	200	260						
AS22759/190 AWG 24 to 20	- Nickel Coated High Strength Copper Alloy conductor Smooth Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable					●	●	●				72
AS22759/190 AWG 26	- Nickel Coated Ultra High Strength Copper Alloy conductor Smooth Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable					●	●	●				72
AS22759/191 AWG 26 to 10	- Silver Coated Copper conductor Smooth Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable Light weight				●		●	●				74
AS22759/192 AWG 26 to 10	- Nickel Coated Copper conductor Smooth Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable Light weight					●	●	●				74
AS22759/5 AWG 24 to 10	- Silver Coated Copper conductor Extruded PTFE Mineral Filled insulation				●			●				76
AS22759/6 AWG 24 to 10	- Nickel Coated Copper conductor Extruded PTFE Mineral Filled insulation					●		●				76
AS22759/7 AWG 24 to 10	- Silver Coated Copper conductor Extruded PTFE Mineral Filled insulation				●			●				78
AS22759/8 AWG 24 to 10	- Nickel Coated Copper conductor Extruded PTFE Mineral Filled insulation					●		●				78
AS22759/9 AWG 28 to 10	- Silver Coated Copper conductor Extruded PTFE insulation				●			●				80
AS22759/10 AWG 28 to 10	- Nickel Coated Copper conductor Extruded PTFE insulation					●		●				80
AS22759/11 AWG 28 to 10	- Silver Coated Copper conductor Extruded PTFE insulation				●			●				82
AS22759/12 AWG 28 to 10	- Nickel Coated Copper conductor Extruded PTFE insulation					●		●				82
AS22759/20 AWG 28 to 20	- Silver Coated High Strength Copper Alloy conductor Extruded PTFE insulation				●			●				84
AS22759/21 AWG 28 to 20	- Nickel Coated High Strength Copper Alloy conductor Extruded PTFE insulation					●		●				84
AS22759/22 AWG 28 to 20	- Silver Coated High Strength Copper Alloy conductor Extruded PTFE insulation				●			●				86
AS22759/23 AWG 28 to 20	- Nickel Coated High Strength Copper Alloy conductor Extruded PTFE insulation					●		●				86
AS22759/32 AWG 30 to 12	- Tin Coated Copper conductor Extruded XL-ETFE insulation UV Laser Markable Light weight	●						●				88
AS22759/44 AWG 30 - 12	- Silver Coated Copper conductor Extruded XL-ETFE insulation UV Laser Markable Light weight				●			●				88
AS22759/45 AWG 30 to 12	- Nickel Coated Copper conductor Extruded XL-ETFE insulation UV Laser Markable Light weight				●			●				88

Specification	Description	Maximum operating temperature					Arc tracking resistant	Single core	Multi-core	Screened	Sheathed	Page
		150	180	210	200	260						
AS22759/33 AWG 30 to 20	- Silver Coated High Strength Copper Alloy conductor Extruded XL-ETFE insulation UV Laser Markable Light weight				●			●				90
AS22759/46 AWG 30 to 20	- Nickel Coated High Strength Copper Alloy conductor Extruded XL-ETFE insulation UV Laser Markable Light weight				●			●				90
AS22759/35 AWG 26 to 20	- Silver Coated High Strength Copper Alloy conductor Extruded XL-ETFE insulation UV Laser Markable				●			●				92
AS22759/42 AWG 26 to 20	- Nickel Coated High Strength Copper Alloy conductor Extruded XL-ETFE insulation UV Laser Markable				●			●				92
AS22759/34 AWG 24 to 2/0	- Tin Coated Copper conductor Extruded XL-ETFE insulation UV Laser Markable Light weight	●						●				94
AS22759/41 AWG 26 to 2/0	- Nickel Coated Copper conductor Extruded XL-ETFE insulation UV Laser Markable Light weight				●			●				94
AS22759/43 AWG 26 to 2/0	- Silver Coated Copper conductor Extruded XL-ETFE insulation UV Laser Markable Light weight				●			●				94
AS81044/8 AWG 24 to 8	- Silver Coated Copper conductor Extruded XL-ETFE insulation	●						●				98
AS81044/9 AWG 24 to 8	- Tin Coated Copper conductor Extruded XL-Polyalkene/PVDF insulation	●						●				98
AS81044/10 AWG 26 to 20	- Silver Coated High Strength Copper Alloy conductor Extruded XL-Polyalkene/PVDF insulation	●						●				98
AS81044/11 AWG 30 to 12	- Silver Coated Copper conductor Extruded XL-ETFE insulation Light weight	●						●				100
AS81044/12 AWG 30 to 12	- Tin Coated Copper conductor Extruded XL-Polyalkene/PVDF insulation Light weight	●						●				100
AS81044/13 AWG 30 to 20	- Silver Coated High Strength Copper Alloy conductor Extruded XL-Polyalkene/PVDF insulation Light weight	●						●				100
AS22759/80 AWG 26 to 10	- Tin Coated Copper conduct Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable Light weight	●					●	●				102
AS22759/81 AWG 24 to 20	- Silver Coated High Strength Copper Alloy conductor Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable Light weight				●		●	●				102

## Hook-up wires for Civil, Military aircraft and helicopters

Voltage rating: 600 Volts RMS / Maximum operating frequency: 2000 Hz

Specification	Description	Maximum operating temperature					Arc tracking resistant	Single core	Multi-core	Screened	Sheathed	Page
		150	180	210	200	260						
AS22759/81 AWG 26	- Silver Coated Ultra High Strength Copper Alloy conductor Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable Light weight				●		●	●				102
AS22759/82 AWG 24 to 20	- Nickel Coated High Strength Copper Alloy conductor Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable Light weight					●	●	●				102
AS22759/82 AWG 26	- Nickel Coated Ultra High Strength Copper Alloy conductor Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable Light weight					●	●	●				102
AS22759/86 AWG 26 to 2/0	- Silver Coated Copper conductor Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable				●		●	●				104
AS22759/87 AWG 8 to 2/0	- Nickel Coated Copper conductor Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable					●	●	●				104
AS22759/88 AWG 26 to 2/0	- Tin Coated Copper conductor Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable	●					●	●				104
AS22759/89 AWG 24 to 20	- Silver Coated High Strength Copper Alloy conductor Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable				●		●	●				108
AS22759/89 AWG 26	- Silver Coated Ultra High Strength Copper Alloy conductor Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable				●		●	●				108
AS22759/90 AWG 24 to 20	- Nickel Coated High Strength Copper Alloy conductor Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable					●	●	●				108
AS22759/90 AWG 26	- Nickel Coated Ultra High Strength Copper Alloy conductor Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable					●	●	●				108
AS22759/91 AWG 26 to 10	- Silver Coated Copper conductor Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable Light weight				●		●	●				110
AS22759/92 AWG 26 to 10	- Nickel Coated Copper conductor Composite PTFE/Polyimide Tape Wrap insulation UV Laser Markable Light weight					●	●	●				110
CC1T AWG 30 to 10	- Tin Coated Copper conductor Extruded XL-ETFE insulation UV Laser Markable Light weight	●						●				112

Specification	Description	Maximum operating temperature					Arc tracking resistant	Single core	Multi-core	Screened	Sheathed	Page
		150	180	210	200	260						
CC1S AWG 26 to 10	- Silver Coated Copper conductor Extruded XL-ETFE insulation UV Laser Markable Light weight				●			●				112
CC1N AWG 26 to 10	- Nickel Coated Copper conductor Extruded XL-ETFE insulation UV Laser Markable Light weight				●			●				112
CC1V AWG 30 to 16	- Silver Coated High Strength Copper Alloy conductor Extruded XL-ETFE insulation UV Laser Markable Light weight				●			●				112
CC1K AWG 26 to 16	- Nickel Coated High Strength Copper Alloy conductor Extruded XL-ETFE insulation UV Laser Markable Light weight				●			●				112
CC2T AWG 26 to 2/0	- Tin Coated Copper conductor Extruded XL-ETFE insulation UV Laser Markable	●						●				116
CC2S AWG 26 to 4	- Silver Coated Copper conductor Extruded XL-ETFE insulation UV Laser Markable				●			●				116
CC2N AWG 24 to 2	- Nickel Coated Copper conductor Extruded XL-ETFE insulation UV Laser Markable				●			●				116
CC2V AWG 26 to 16	- Silver Coated High Strength Copper Alloy conductor Extruded XL-ETFE insulation UV Laser Markable				●			●				116
CC2K AWG 26 16	- Nickel Coated High Strength Copper Alloy conductor Extruded XL-ETFE insulation UV Laser Markable				●			●				116
CC3T AWG 26 to 2/0	- Tin Coated Copper conductor Extruded XL-ETFE insulation UV Laser Markable	●						●				120
CC3S AWG 26 to 1/0	- Silver Coated Copper conductor Extruded XL-ETFE insulation UV Laser Markable				●			●				120
CC3N AWG 26 to 2/0	- Nickel Coated Copper conductor Extruded XL-ETFE insulation UV Laser Markable				●			●				120
CC3V AWG 26 to 16	- Silver Coated High Strength Copper Alloy conductor Extruded XL-ETFE insulation UV Laser Markable				●			●				120
CC3K AWG 26 to 16	- Nickel Coated High Strength Copper Alloy conductor Extruded XL-ETFE insulation UV Laser Markable				●			●				120
CC4T AWG 26 to 10	- Tin Coated Copper conductor Extruded XL-ETFE insulation UV Laser Markable	●						●				124
CC4S AWG 26 to 10	- Silver Coated Copper conductor Extruded XL-ETFE insulation UV Laser Markable				●			●				124
CC4N AWG 26 to 10	- Nickel Coated Copper conductor Extruded XL-ETFE insulation UV Laser Markable				●			●				124
CC4V AWG 26 to 16	- Silver Coated High Strength Copper Alloy conductor Extruded XL-ETFE insulation UV Laser Markable				●			●				124

## Cables for power transmission

Voltage rating: 600 Volts RMS

Specification	Description	Maximum operating temperature				Arc Tracking Resistant	Single Core	Page
		150	180	200	260			
ASNE 0438 YV	- Flexible nickel plated aluminium wires - Single core, large sizes		●					130
ABS 0949 AD AWG 3 to 000	- Arc tracking resistant - Light weight wires - Nickel aluminium wires		●					30
NSA 935 308 YU	- Flexible aluminium wires - Polyimide insulation	●						132
AS22759/183 AWG 8 to 2/0	- Silver Coated Copper conductor - Smooth Composite PTFE/Polyimide Tape Wrap insulation - UV Laser Markable			●		●	●	134
AS22759/185 AWG 8 to 2/0	- Tin Coated Copper conductor - Smooth Composite PTFE/Polyimide Tape Wrap insulation - UV Laser Markable	●				●	●	134
AS22759/83 AWG 8 to 2/0	- Silver Coated Copper conductor - Composite PTFE/Polyimide Tape Wrap insulation - UV Laser Markable			●		●	●	136
AS22759/85 AWG 8 to 2/0	- Tin Coated Copper conductor - Composite PTFE/Polyimide Tape Wrap insulation - UV Laser Markable	●				●	●	136
VG 95218-20 type J - FX 5400	- High temperature - General purpose				●			138
NSA 935 131 DG EN 2854-003	- High temperature - General purpose				●			140
ESW 1000-010-XXX	- Large section - High temperature wire				●			142
SP 799	- Large section - High temperature wire		●				●	144

## Nacelles and engines : high temperature

Voltage rating: 600 Volts RMS

Maximum operating frequency : 2000 Hz

Specification	Description	Maximum operating temperature				Arc Tracking Resistant	Single core	Multi-core	Screened	Sheathed	Page
		250	260	280	300 +						
AS22759/184 AWG 8 to 2/0	- Nickel Coated Copper conductor - Smooth Composite PTFE/Polyimide Tape Wrap insulation - UV Laser Markable		●			●	●				150
AS22759/84 AWG 8 to 2/0	- Nickel Coated Copper conductor - Composite PTFE/Polyimide Tape Wrap insulation - UV Laser Markable		●			●	●				152
BMS 13-58 type 1 & type 5	- High temperature - General purpose - UV laser printable		●				●				154
2100	- Flexible cables for high ambient temperatures	●					●				158
2103	- Flexible cables for high ambient temperatures		●				●				160
1050	- Screened cables for high ambient temperatures	●					●	●	●	●	162
1053	- Screened cables for high ambient temperatures		●				●	●	●	●	164
9310-N01 9310-N02 9310-N03 AWG 24 & 22	- High temperature wire and cables for engine - Nickel coated High strength copper alloy - Composite insulation			●			●	●	●	●	166

## ■ Nacelles and engines : high temperature, fire resistant/fire proof cables

Voltage rating: 600 Volts RMS

Maximum operating frequency : 2000 Hz

Specification	Nexans reference	Description	Maximum operating temperature				Single core	Multi-core	Screened	Sheathed	Page
			250	260	280	300 +					
ESW 1200-010-XXX ESW 1201-010-XXX	-	- Fire resistant cable		●			●				170
ESW 1202-+++ -XXX ESW 1203-+++ -XXX	-	- Fire resistant cable		●			●	●	●	●	172
ESW 1250-010-XXX ESW 1251-010-XXX	-	- Fireproof cable		●			●				174
ESW 1252-+++ -XXX ESW 1253-+++ -XXX	-	- Fireproof cable		●			●	●	●	●	176
ESW 1254-010-002	-	- Fireproof cable		●			●				178
ESW 1254-022-002 ESW 1254-032-002	-	- Fireproof cable - 2 or 3 twisted cores		●				●	●	●	180
ESW 1600-010-XXX ESW 1601-010-XXX	-	- Thermocouple - Fire resistant cable		●			●				182
ESW 1602-022-XXX	-	- Thermocouple - Fire resistant cable - 2 twisted cores		●			●		●	●	184
EN 2346-005 DW	-	- Fire resistant wires - Light weight - UV laser printable		●			●				186
EN 4608-004 GPA, GPB, GPC	-	- Fire resistant cable - Light weight cables - UV laser printable		●			●	●	●	●	188
ASNE 0437 DL EN 2346-003	-	- Fire resistant wires - Normal weight		●			●				190
TMF MIL-W-25038/1 (QPL)	TMF	- High temperature fire resistant wires		●			●				192
TMF-VR (A) MIL-W-25038/3 (QPL)	TMF VRA-US TMF VR-US	- High temperature fire resistant wires		●			●				194
TYPE FRM-A-US FRM-US-M25038/3	FRM-A-US FRM-US	- High temperature fire resistant wires		●			●				196
TMF-VR (A)-US x SJ** MIL-W-27500 (JF)		- High temperature fire resistant wires		●			●	●	●	●	198
BMS 13-55 type 2 class 1	-	- High temperature fire resistant wires		●			●				200
3000 A		- Fire resistant cable			●		●				202
BMS 13-67		- Very high temperature - Fire resistant cable				●	●	●	●	●	204
STUDY 124585	ET 124 585	- Very high temperature - Fire resistant cable				●	●		●	●	206
NSA 935 132 DJ		- Very high temperature - Fire resistant cable	●	●				●			208
10310 N02		- Very high temperature - Fire resistant cable		●			●	●	●	●	210

## Coaxial cables for high frequency transmission

For information about MIL-C-17 specifications, see our standard catalogue

Specification	Nexans reference	Description	Maximum operating temperature			Impe- dance		Maximum operating frequency (MHz)	Maximum operating voltage	Page
			150	200	250	50	75			
SP 124962	ET 124962	UV laser miniature	●			●		3000	250	214
SP 124964	ET 124964	UV laser miniature triaxial cable	●			●		3000	250	216
SP 132868	ET 132868	UV laser miniature	●				●	3000	900	218
SP 132869	ET 132869	UV laser miniature triaxial cable	●				●	3000	900	220
EN 4604-003 WZ	-	50 ohms		●		●		3000	1700	222
EN 4604-004 WS	-	50 ohms		●		●		3000	1300	224
EN 4604-005 WL	-	75 ohms		●			●	3000	900	226
EN 4604-006 WM	-	50 ohms		●		●		5000	750	228
EN 4604-007 WN	-	50 ohms		●		●		6000	1000	230
EN 4604-008 WD	-	50 ohms		●		●		8000	1000	232
EN 4604-009 KW	-	50 ohms		●		●		6000	1000	234
EN 4604-010 KX	-	50 ohms		●		●		6000	1000	236
ECS 0757 KE	-	50 ohms triaxial cable		●		●		3000	250	238
ECS 0745 KC	ET 132954	75 ohms triaxial cable		●			●	3000	500	240
PAN 6422	-	50 ohms UV laser markable		●		●		1000	From 750 to 3700	242

DRAFT

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## Data bus and high speed transmission cables

Voltage rating: from 250 to 750 Volts RMS

Specification	Nexans reference	Description	Maximum operating temperature				Impedance (ohms)				Maximum operating voltage	Page
			125	150	200	260	75	77	100	125		
ABS 0972 KB 24	ET 2PC236	Shielded quad	●						●		600	250
ABS 1503 KD 24	ET 2PF870	Shielded quad	●						●		600	252
SP 69794 EN 3375-004-C WJ	ET 69794-01 ET 69794-02	Twinaxial cable high immunity			●			●			600	254
EN 3375-005-C WV	ET 133189	Twinaxial cable high immunity			●			●			250	258
EN 3375-006-D ASNE 0290 XM	-				●			●			600	260
EN 3375-007-C WW ECS 0700	ET 132041				●			●			250	262
EN 3375-009-C WX	ET 133199	Twinaxial cable BUS CAN			●						600	266
SP 124960	ET 124960			●				●			250	268
SP 124961	ET 124961			●				●			250	270
SP 96770 ASNE 0479 WJ EN 3375-004B	ET 96770-01 ET 96770-02			●				●			250	272
EN 4608-005-B 002 GPB 24	-	Twinaxial cable Fireproof				●				● (120)	600	274
PAN 6421 ZA 002	ET 65529			●				●			600	276
ASNE 0259 HE	ET 63247			●						●	600	278
STUDY 69654	ET 69654			●						●	600	280
ASNE 0849 HJ 26	ET 124843	Twinaxial cable high immunity			●		●				600	282
STUDY 61333	ET 61333	Twinaxial cable high immunity			●		●				600	284
SP 69899 ASNE 0811 WY	ET 69899-01 ET 68899-02	Twinaxial cable high immunity			●			●			250	286
ABS 0386 WF	ET 96897	Twinaxial cable high immunity			●				●		600	288
132873	ET 132873	Twinaxial cable Fireproof				●		●			600	290
133026	ET 133026	Twinaxial cable Dual shield	●							●	600	292
133195	ET 133195	Twinaxial cable 120 Ω	●							●	600	294

## Special cables

Specification	Nexans reference	Description	Maximum operating temperature		Maximum operating voltage	Page
			200	260		
STUDY 124401	ET 124401	Low noise screened pair cable, transmission cable		●	600	298
NSA 935 306 YK	ET 86891	Low noise screened pair cable, transmission cable		●	600	300
ESW 1404-022-006	ET 124762	Low noise screened pair cable, transmission cable		●	600	302
ESW 1405-024-006	ET 132057	Low noise screened pair cable, transmission cable		●	600	304
CAS 85-22 CAS 250-20P CAS 250-20SP CAS 250-22	ET 87067 ET 87208 ET 87209 ET 87068	Low noise coaxial cable	●		-	306
MBBN YH ++ + EN 4049	ET 96532 ET 96533	Thermocouple extension Nickel chromium/nickel aluminium		●	600	308
ASNE 0409 BG ASNE 0410 SU ASNE 0411 TV ASNE 0412 VF	-	Flight test wire, UV laser printable	●		600	310
ECS 0828 MQB	ET 133235	Multipair AWG 24	●		600	312
ECS 0829 MQD	ET 133236	Multipair AWG 24	●		600	312

## Optical cables

Maximum operating temperature: 125°C

Specification	Nexans reference	Description	Insulation	Sheath	Page
ABS 0963-003 LF	ET 132126	Multimode fiber optic cable	Zero halogen copolymer, high temperature	Polymer aromatic fiber braid + high temp dual layer compound	316
STUDY 133287	133287	Singlemode fiber optic	High temperature copolymer	High temperature copolymer	318
STUDY 132574	132574	Multimode fiber optic cable	High temperature copolymer		322

## Wires and cables for avionics

Specification	Description	Maximum operating temperature	Single core	Multi-core	Insulation	Page
KZ 04, KZ 05, KZ 06	- Unscreened hook-up wires - High temperature	200°C	●		PTFE	326
KZ 55, KZ 57, KZ 59	- Screened and jacketed hook-up wires - High temperature	200°C	●		PTFE	328
KZ 67, KZ 69, KZ 71	- Screened and jacketed pairs - High temperature	200°C		●	PTFE	330
KZ 79, KZ 81, KZ 83	- Screened and jacketed triples - High temperature	200°C		●	PTFE	332
ETF, EF, EEF	- Unscreened hook-up wires - High temperature	200°C	●		PTFE	334

# Part 1

## Hook-up wires for Civil, Military aircraft and helicopters

Copolymer High Temperatur

# ABS 0949 - AD AWG 24 to 4

Nickel copper clad aluminium alloy conductors  
UV laser printable

## Applications

Designed for general purpose aircraft wiring applications.

600 Volts RMS

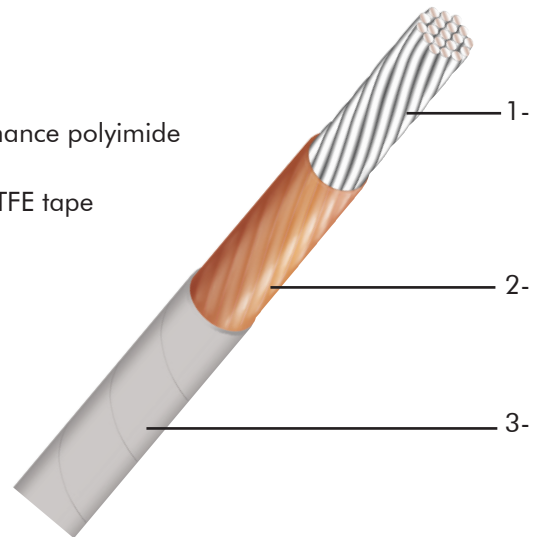
## Construction

### CONDUCTOR

- 1- AWG 24 and 22 :  
1 nickel plated copper alloy wire + 6 nickel copper clad aluminium alloy wire
- AWG 20 to 8 :  
Nickel copper clad aluminium alloy concentric conductor
- AWG 6 and 4 :  
Nickel copper clad aluminium alloy rope-lay conductor

### INSULATION

- 2- High performance polyimide tape
- 3- Special UV PTFE tape



## Other characteristics

Operating frequency : up to 2000 Hz  
Mould and fungus resistant

## Standards

- ABS 0957 (conductors)
- ABS 0958 (technical specification)
- ABS 0949 AD (product specification)



-65°C to +180°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Arc tracking  
resistant



RoHs



Very good  
resistance to  
aircraft fluids

## ■ ABS 0949 - AD AWG 24 to 4

Nexans references	AWG	Conductor			Finished wire				
		Stranding (Nbr x mm)	Diameter		Maximum DC resistance at 20°C (68°F) (Ohms/Km)	Diameter		Weight	
			Min. (mm)	Max. (mm)		Min. (mm)	Max. (mm)	Nom. (g/m)	Max. (g/m)
ABS 0949 AD 24	24	7 x 0.20	0.56	0.58	145	0.85	0.96	1.70	1.75
ABS 0949 AD 22	22	7 x 0.25	0.71	0.73	90.2	1.00	1.10	2.37	2.50
ABS 0949 AD 20	20	19 x 0.20	0.94	0.97	49.6	1.22	1.34	3.55	3.65
ABS 0949 AD 18	18	19 x 0.25	1.19	1.22	33.2	1.46	1.61	5.14	5.45
ABS 0949 AD 16	16	19 x 0.30	1.41	1.45	23	1.76	1.92	7.37	7.60
ABS 0949 AD 14	14	37 x 0.25	1.69	1.73	15.5	2.04	2.24	9.91	10.94
ABS 0949 AD 12	12	37 x 0.32	2.13	2.18	10.9	2.50	2.70	14.12	15.10
ABS 0949 AD 10	10	61 x 0.32	2.73	2.77	5.8	3.09	3.33	22.20	24.02
ABS 0949 AD 8	8	7 X 19 X 0.30	3.55	3.85	3.8	4.10	4.40	37.94	39.00
ABS 0949 AD 6	6	7 x 10 x 0.51	4.8	5.2	2.3	5.30	5.70	62.52	63.70
ABS 0949 AD 4	4	7 x 15 x 0.51	5.90	6.30	1.5	6.60	7.40	93.50	96.30

## ■ Identification

### Standard color :

Grey

### Marking on Jacket :

Green for AWG22, Blue for other gauges

### Wording :

AD \*\* FR F++

with :

\*\* = AWG

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)

++ = Year of production (i.e. 08 = 2008)

# ABS 0949 - AD AWG3 to 000

AWG 3 to 000

Nickel plated aluminium alloy conductors

UV laser printable

## Applications

Designed for general purpose aircraft wiring applications.

600 Volts RMS

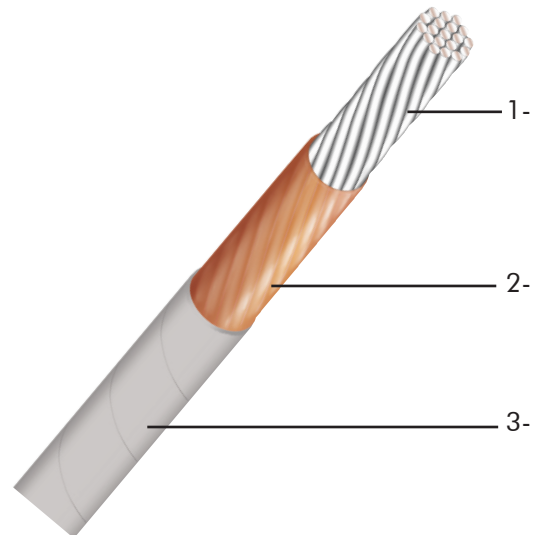
## Construction

### CONDUCTOR

1- Nickel plated aluminium rope-lay conductor

### INSULATION

2- High performance polyimide tape  
3- Special UV PTFE tape



## Other characteristics

Operating frequency : up to 2000 Hz  
Mould and fungus resistant

## Standards

ABS 0957 (conductors)  
ABS 0958 (technical specification)  
ABS 0949 AD (product specification)



-65°C to +180°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Arc tracking  
resistant



RoHs



Very good  
resistance to  
aircraft fluids

## ■ ABS 0949 - AD AWG 3 to 000

Nexans references	AWG	Conductor			Finished wire				
		Stranding (Nbr x mm)	Diameter		Maximum DC resistance at 20°C (68°F) (Ohms/Km)	Diameter		Weight	
			Min. (mm)	Max. (mm)		Min. (mm)	Max. (mm)	Nom. (g/m)	Max. (g/m)
ABS 0949 AD 3	3	7 x 19 x 0.51	6.5	7.1	1.18	7.28	7.74	91.26	94.00
ABS 0949 AD 2	2	7 x 24 x 0.51	7.4	8.0	0.94	8.07	8.57	113.1	116.5
ABS 0949 AD 1	1	7 x 30 x 0.51	8.3	8.9	0.75	8.94	9.50	139.17	143.5
ABS 0949 AD 0	0	19 x 14 x 0.51	9.7	10.3	0.60	0.29	10.93	175.81	181.0
ABS 0949 AD 00	00	19 x 18 x 0.51	11.1	11.7	0.43	11.65	12.37	222.96	230.0
ABS 0949 AD 000	000	19 x 22 x 0.51	12.4	13	0.36	12.91	13.71	267.57	276.0

Cables for power transmission

## ■ Identification

### Standard color :

Grey

### Marking on Jacket :

Blue

### Wording :

AD \*\* FR F++

with :

\*\* = AWG

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)

++ = Year of production (i.e. 08 = 2008)

# ABS 1354 ADB, ADC, ADD

Multicores nickel copper clad aluminium (AWG 24 to 4)  
 Multicores aluminium alloy (AWG 3 to 000)

## Applications

Designed for general purpose aircraft wiring applications.

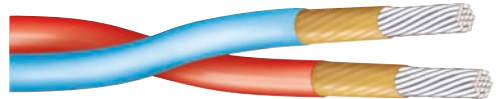
600 Volts RMS

## Construction

### CORES

2, 3 or 4 cores ABS 0949 ADA

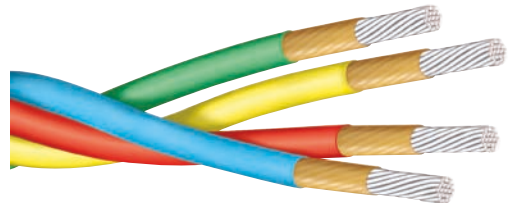
ADB



ADC



ADD



## Other characteristics

Operating frequency : up to 2000 Hz  
 Mould and fungus resistant

## Standards

ABS 1354 (product standard)  
 ABS 0958 (technical specification)



-65°C to +180°C



Flame retardant  
 FAR/JAR part 25  
 sec 25.869 (a)(4)  
 Appendix F  
 part 1 (3)



Arc tracking  
 resistant



RoHs



Very good  
 resistance to  
 aircraft fluids



**ABS 1354**

PART NUMBERS	AWG	Nbr of cores	Finished Wire					
			Colours cores	Maximum DC resistance at 20°C (68°K) (Ohms/Km)	Diameter (mm)		Weight (g/m)	
					Nom.	Max.	Nom.	Max.
ABS 1354 ADB	24	2	1 Red 1 Blue	149.4	1.78	1.9	3.47	3.70
ABS 1354 ADB	22	2		92.9	2.04	2.16	4.83	5.27
ABS 1354 ADB	20	2		51.1	2.58	2.75	7.24	7.53
ABS 1354 ADB	18	2		34.2	3.08	3.25	10.49	10.91
ABS 1354 ADB	16	2		23.7	3.70	3.85	15.03	15.63
ABS 1354 ADB	14	2		16	4.30	4.47	20.22	21.03
ABS 1354 ADB	12	2		11.2	5.12	5.31	28.80	30.07
ABS 1354 ADB	10	2		6	6.34	6.98	45.29	51.94
ABS 1354 ADB	8	2		3.91	8.58	8.92	77.4	80.5
ABS 1354 ADB	6	2		2.37	11.0	11.44	127.54	132.64
ABS 1354 ADB	4	2		1.55	13.42	13.96	190.74	198.37
ABS 1354 ADB	3	2		1.22	15.02	15.62	186.17	193.62
ABS 1354 ADB	2	2		0.97	16.64	17.31	230.72	239.95
ABS 1354 ADB	1	2		0.77	18.44	18.99	283.91	295.27
ABS 1354 ADB	0	2		0.62	21.22	21.86	358.65	372.99
ABS 1354 ADB	00	2		0.44	24.02	24.74	454.84	473.03
ABS 1354 ADB	000	2	0.37	26.62	27.42	545.84	567.68	
ABS 1354 ADC	24	3	1 Red 1 Blue 1 Yellow	149.4	1.92	2.04	5.20	5.55
ABS 1354 ADC	22	3		92.9	2.20	2.33	7.25	7.91
ABS 1354 ADC	20	3		51.1	2.78	2.96	10.86	11.29
ABS 1354 ADC	18	3		34.2	3.32	3.49	15.73	16.36
ABS 1354 ADC	16	3		23.7	3.99	4.15	22.55	23.45
ABS 1354 ADC	14	3		16	4.63	4.83	30.32	31.54
ABS 1354 ADC	12	3		11.2	5.52	5.73	43.21	45.10
ABS 1354 ADC	10	3		6	6.83	7.53	67.93	77.91
ABS 1354 ADC	8	3		3.91	9.24	9.61	116.10	120.74
ABS 1354 ADC	6	3		2.37	11.85	12.32	191.31	198.96
ABS 1354 ADC	4	3		1.55	14.46	15.04	286.11	297.55
ABS 1354 ADC	3	3		1.22	16.18	16.83	279.26	290.43
ABS 1354 ADC	2	3		0.97	17.93	18.65	346.09	359.93
ABS 1354 ADC	1	3		0.77	19.87	20.66	425.86	442.89
ABS 1354 ADC	0	3		0.62	22.86	23.50	537.98	559.5
ABS 1354 ADC	00	3		0.44	25.88	26.60	682.26	709.55
ABS 1354 ADC	000	3	0.37	28.68	29.48	818.76	851.51	

## ■ ABS 1354

PART NUMBERS	US AWG	Nbr of cores	Finished Wire					
			Colours cores	Maximum DC resistance at 20°C (68°K) (Ohms/Km)	Diameter (mm)		Weight (g/m)	
					Nom.	Max.	Nom.	Max.
ABS 1354 ADD	24	4	1 Red 1 Blue 1 Yellow 1 Green	149.4	2.15	2.28	6.94	7.41
ABS 1354 ADD	22	4		92.9	2.46	2.61	9.67	10.54
ABS 1354 ADD	20	4		51.1	3.11	3.32	14.48	15.06
ABS 1354 ADD	18	4		34.2	3.72	3.92	20.97	21.81
ABS 1354 ADD	16	4		23.7	4.47	4.65	30.07	31.27
ABS 1354 ADD	14	4		16	5.19	5.40	40.43	42.05
ABS 1354 ADD	12	4		11.2	6.18	6.42	57.61	60.13
ABS 1354 ADD	10	4		6	7.65	8.43	90.58	103.89
ABS 1354 ADD	8	4		3.91	10.36	10.77	154.8	160.99
ABS 1354 ADD	6	4		2.37	13.28	13.81	255.08	265.28
ABS 1354 ADD	4	4		1.55	16.20	16.85	381.48	396.74
ABS 1354 ADD	3	4		1.22	18.13	18.86	372.34	387.23
ABS 1354 ADD	2	4		0.97	20.08	20.88	461.45	479.91
ABS 1354 ADD	1	4		0.77	22.26	23.15	567.81	590.52

## ■ Identification

- 2 cores (ADB) :** Red - Blue
- 3 cores (ADC) :** Red - Blue - Yellow
- 4 cores (ADD) :** Red - Blue - Yellow - Green

### Marking in black

ADA \*\* FR F++

with :

\*\* = AWG

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)

++ = Year of production (i.e. 08 = 2008)



# ABS 1356 VNA, VNB, VNC, VND

Screened and jacketed single and multicores  
UV laser printable

## Applications

Designed for general purpose aircraft wiring applications.

600 Volts RMS

## Construction

### CORES

1, 2, 3 or 4 cores ABS 0949 AD

### SCREEN

Nickel plated copper spiral screen

### JACKET

Polyimide tape  
UV PTFE tape



## Other characteristics

Operating frequency : up to 2000 Hz  
Mould and fungus resistant

## Standards

ABS 1356



-65°C to +180°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Arc tracking  
resistant



RoHs



Very good  
resistance to  
aircraft fluids

## ABS 1356

PART NUMBERS	US AWG	Nbr of Cores	Screen strands nominal diameter (mm)	Finished Wire						
				Colours		Maximum DC Resistance at 20°C (68°K) (Ohms/Km)	Diameter (mm)		Weight (g/m)	
				Cores	Jacket		Nom.	Max.	Nom.	Max.
ABS 1356 VNA	24	1	0.08	1 Grey	Grey	145	1.38	1.45	4.57	4.80
ABS 1356 VNA	22	1	0.08		Grey	90.2	1.51	1.60	5.58	5.86
ABS 1356 VNA	20	1	0.08		Grey	49.6	1.78	1.87	7.48	7.75
ABS 1356 VNA	18	1	0.08		Grey	33.2	2.03	2.11	9.73	10.40
ABS 1356 VNA	16	1	0.10		Grey	23	2.38	2.48	13.64	14.51
ABS 1356 VNA	14	1	0.10		Grey	15.5	2.68	2.79	17.10	17.96
ABS 1356 VNA	12	1	0.10		Grey	10.9	3.09	3.20	22.56	24.30
ABS 1356 VNA	10	1	0.12		Grey	5.8	3.74	3.89	33.91	36.07
ABS 1356 VNB	24	2	0.08	1 Red	Grey	149.4	2.27	2.40	7.84	8.15
ABS 1356 VNB	22	2	0.08		Grey	92.9	2.53	2.70	9.77	10.16
ABS 1356 VNB	20	2	0.10	1 Blue	Grey	51.1	3.11	3.27	14.31	14.88
ABS 1356 VNB	18	2	0.10		Grey	34.2	3.61	3.75	18.81	20.20
ABS 1356 VNB	16	2	0.12		Grey	23.7	4.27	4.44	26.26	28.10
ABS 1356 VNB	14	2	0.15		Grey	16.0	4.93	5.13	35.5	37.27
ABS 1356 VNB	12	2	0.20		Grey	11.2	5.85	6.09	51.50	55.78
ABS 1356 VNB	10	2	0.20		Grey	6.0	7.07	7.39	73.05	78.19
ABS 1356 VNC	24	3	0.10	1 Red 1 Blue 1 Yellow	Grey	149.4	2.45	2.59	11.14	11.59
ABS 1356 VNC	22	3	0.10		Grey	92.9	2.73	2.91	13.96	14.52
ABS 1356 VNC	20	3	0.12		Grey	51.1	3.35	3.52	20.34	21.15
ABS 1356 VNC	18	3	0.12		Grey	34.2	3.89	4.05	26.89	28.80
ABS 1356 VNC	16	3	0.15		Grey	23.7	4.62	4.80	38.23	40.80
ABS 1356 VNC	14	3	0.15		Grey	16.0	5.26	5.47	48.38	50.80
ABS 1356 VNC	12	3	0.20		Grey	11.2	6.25	6.50	70.04	75.81
ABS 1356 VNC	10	3	0.20		Grey	6.0	7.56	7.90	100.81	107.60
ABS 1356 VND	24	4	0.10	1 Red	Grey	149.4	2.68	2.84	13.74	14.29
ABS 1356 VND	22	4	0.10		Grey	92.9	2.99	3.19	17.37	18.06
ABS 1356 VND	20	4	0.12	1 Blue	Grey	51.1	3.68	3.86	25.38	26.39
ABS 1356 VND	18	4	0.12	1 Yellow	Grey	34.2	4.29	4.46	33.83	36.22
ABS 1356 VND	16	4	0.15	1 Green	Grey	23.7	5.10	5.30	48.14	51.30
ABS 1356 VND	14	4	0.20		Grey	16.0	5.92	6.16	66.67	70.00

## Identification

### Core marking in black

ADA \*\* FR F++

### Jacket marking

XXX \*\* FR F++

Color : Green for AWG 22, 18, 14 and 10 ; Blue for AWG 24, 20, 16 and 12

with :

XXX= Short designation (VNA, VNB, VNC, VND)

\*\* = AWG

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)

++ = Year of production (i.e. 08 = 2008)

# EN 2267-010A DR

Ligh weight UV laser printable

## Applications

Designed for general purpose aircraft wiring applications.

600 Volts RMS

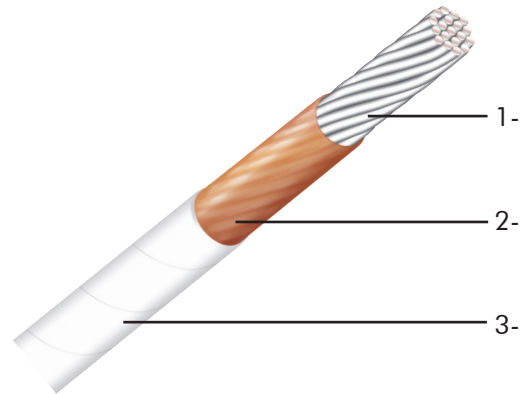
## Construction

### CORES

- 1- Stranded conductor in nickel plated high strength copper alloy (AWG 26 & 24) or nickel plated copper (AWG 22 to 2)

### INSULATION

- 2- Special polyimide tape
- 3- Special UV PTFE tape(s)



## Other characteristics

Operating frequency : up to 2000 Hz  
Mould and fungus resistant

## Standards

prEN2267-010 product standard  
prEN4434 for conductors AWG 26 to 6  
prEN2083 for conductors AWG 4 to 2  
prEN3475 for tests & performances



-55°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Arc tracking  
resistant



Very good  
resistance to  
aircraft fluids

## EN 2267-010A

PART NUMBERS	Code of nominal section	Color code	AWG	Conductor			Finished Wire					
				Stranding Number x Dia. of strands (mm)	Diameter (mm)		Maximum DC resistance at 20°C (68°F)  (Ohms/Km)	Diameter (mm)		tWeight (g/m)		
					Min.	Max.		Mini.	Max.	Nom.	Max.	
EN 2267-010A	001	S	26	19 x 0.100	0.47	0.49	160.0	0.75	0.84	1.95	2.08	
EN 2267-010A	002	S	24	19 x 0.120	0.555	0.585	114.0	0.85	0.96	2.64	2.72	
EN 2267-010A	004	S	22	19 x 0.150	0.71	0.73	60.0	1.00	1.10	3.89	4.14	
EN 2267-010A	006	S	20	19 x 0.200	0.94	0.97	33.2	1.22	1.34	6.57	6.85	
EN 2267-010A	010	S	18	19 x 0.250	1.19	1.22	21.1	1.46	1.61	10.15	10.43	
EN 2267-010A	012	S	16	19 x 0.300	1.41	1.45	14.5	1.76	1.92	14.05	14.61	
EN 2267-010A	020	S	14	37 x 0.250	1.69	1.73	10.9	2.04	2.24	19.31	19.78	
EN 2267-010A	030	S	12	37 x 0.320	2.13	2.18	6.8	2.50	2.70	29.25	31.33	
EN 2267-010A	051	S	10	61 x 0.320	2.73	2.77	4.1	3.13	3.33	47.37	49.85	
EN 2267-010A	090	S	8	127 x 0.300	3.55	3.85	2.3	4.10	4.40	87.81	90.00	
EN 2267-010A	140	S	6	27 x 7 x 0.300	4.80	5.20	1.58	5.30	5.70	132.41	135.00	
EN 2267-010A	220	S	4	37 x 12 x 0.250	-	6.80	0.97	6.71	7.41	215.15	222.00	
EN 2267-010A	340	S	2	37 x 19 x 0.250	-	8.60	0.61	8.28	9.16	336.10	347.00	

## Identification

### Standard colors code :

White except AWG 26 which is light yellow and AWG 22 which is light green  
AWG 24 is available in light blue color (EN2267-010A 02B)

### Marking green color:

EN DR \*\* FR F ++

with :

DR = Short designation

\*\* = AWG

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)

++ = Year of production (i.e. 08 = 2008)

# EN 2267-009 DRB DRC DRD

Multicore DRA

## Applications

Designed for general purpose aircraft wiring applications.

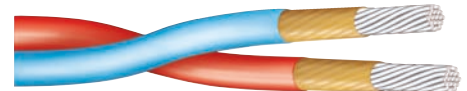
600 Volts RMS

## Construction

### CORES

2, 3 or 4 cores EN2267-009A

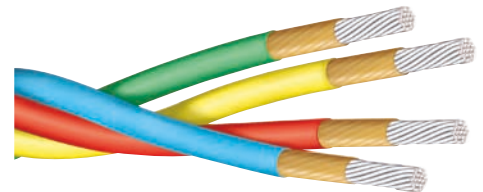
DRB



DRC



DRD



## Other characteristics

Operating frequency : up to 2000 Hz  
Mould and fungus resistant

## Standards

prEN2267-009 product standard  
prEN2267-002 general specification



-55°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Arc tracking  
resistant



Very good  
resistance to  
aircraft fluids



## EN 2267-009

PART NUMBERS	Code of nominal section	Color code	US AWG	Number of cores	Finished Wire					
					Colors Cores	Maximum DC resistance at 20°C (68°K) (Ohms/Km)	Diameter (mm)		Weight (g/m)	
							Nom.	Max.	Nom.	Max.
EN 2267-009B	001	P	26	2	1 Red 1 Blue	165	1.56	1.68	3.98	4.28
EN 2267-009B	002	P	24	2		117	1.82	1.92	5.39	5.60
EN 2267-009B	004	P	22	2		61.7	2.10	2.20	7.94	8.53
EN 2267-009B	006	P	20	2		34.1	2.60	2.68	13.40	14.11
EN 2267-009B	010	P	18	2		21.7	3.08	3.22	20.71	21.49
EN 2267-009B	012	P	16	2		14.9	3.66	3.84	28.66	30.10
EN 2267-009B	020	P	14	2		11.2	4.32	4.48	39.39	40.75
EN 2267-009B	030	P	12	2		6.99	5.14	5.40	59.67	64.54
EN 2267-009B	051	P	10	2		4.22	6.42	6.66	96.63	102.69
EN 2267-009B	090	P	8	2		2.37	8.60	8.80	179.13	185.40
EN 2267-009B	140	P	6	2		1.63	11.10	11.40	270.12	278.10
EN 2267-009B	220	P	4	2		1	14.12	14.82	438.91	457.32
EN 2267-009C	001	P	26	3		1 Red 1 Blue 1 Yellow	165	1.68	1.81	5.97
EN 2267-009C	002	P	24	3	117		1.96	2.06	8.08	8.40
EN 2267-009C	004	P	22	3	61.7		2.26	2.37	11.90	12.79
EN 2267-009C	006	P	20	3	34.1		2.80	2.88	20.10	21.17
EN 2267-009C	010	P	18	3	21.7		3.32	3.46	31.06	32.23
EN 2267-009C	012	P	16	3	14.9		3.94	4.13	42.99	45.14
EN 2267-009C	020	P	14	3	11.2		4.65	4.82	59.09	61.12
EN 2267-009C	030	P	12	3	6.99		5.54	5.81	89.50	96.81
EN 2267-009C	051	P	10	3	4.22		6.92	7.16	144.95	154.04
EN 2267-009C	090	P	8	3	2.37		9.27	9.46	268.7	278.10
EN 2267-009C	140	P	6	3	1.63		11.96	12.26	405.17	417.15
EN 2267-009C	220	P	4	3	1		15.21	15.93	658.36	685.98
EN 2267-009D	001	P	26	4	1 Red 1 Blue 1 Yellow 1 Green		165	1.88	2.02	7.96
EN 2267-009D	002	P	24	4		117	2.20	2.30	10.77	11.21
EN 2267-009D	004	P	22	4		61.7	2.53	2.64	15.87	17.06
EN 2267-009D	006	P	20	4		34.1	3.14	3.22	26.81	28.22
EN 2267-009D	010	P	18	4		21.7	3.72	3.86	41.41	42.97
EN 2267-009D	012	P	16	4		14.9	4.42	4.61	57.32	60.19
EN 2267-009D	020	P	14	4		11.2	5.21	5.38	78.78	81.49
EN 2267-009D	030	P	12	4		6.99	6.20	6.48	119.34	129.08
EN 2267-009D	051	P	10	4		4.22	7.75	7.99	193.27	205.38
EN 2267-009D	090	P	8	4		2.37	10.38	10.56	358.26	370.80
EN 2267-009D	140	P	6	4		1.63	13.40	13.68	540.23	556.20
EN 2267-009D	220	P	4	4		1	17.04	17.78	877.81	914.64

### Identification

**Marking white for red and green cores, green for blue and yellow cores :**

EN DRA \*\* FR F ++

with :

DRA = short designation

\*\* = AWG

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)

++ = Year of production (i.e. 08 = 2008)

# EN 2714-013 MLA MLB MLC MLD

Screened and jacketed, light weight, UV cable

## Applications

Designed for general purpose aircraft wiring applications.

600 Volts RMS

## Construction

### CORES

1, 2, 3 or 4 cores  
EN2267-009A

### SCREEN

Nickel plated copper spiral screen

### JACKET

Polyimide tape  
UV PTFE tape



## Other characteristics

Operating frequency : up to 2000 Hz

## Standards

prEN4434 for conductors  
prEN2267-009 for cores  
prEN2714-013 for screened and jacketed single and multicores



-55°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Arc tracking  
resistant



Very good  
resistance to  
aircraft fluids

## EN 2714-013

PART NUMBERS	Code of nom. section	Color code	AWG	Number of cores	Screen strands nom. Ø (mm)	Finished Wire						
						Colors		Maximum DC resistance at 20°C (68°K) (Ohms/Km)	Diameter (mm)		Weight (g/m)	
						Cores	Jacket		Nom.	Max.	Nom.	Max.
EN 2714-013A	001	F	26	1	0.08	Light yellow	White	160	1.23	1.31	4.35	4.68
EN 2714-013A	002	F	24	1	0.08	White	Light blue	114	1.36	1.45	5.37	5.76
EN 2714-013A	004	F	22	1	0.08	Light green	White	60	1.50	1.60	6.97	7.51
EN 2714-013A	006	F	20	1	0.08	White	Light blue	33.2	1.75	1.84	10.28	10.77
EN 2714-013A	010	F	18	1	0.08	White	White	21.1	1.99	2.08	14.47	14.97
EN 2714-013A	012	F	16	1	0.10	White	Light blue	14.5	2.32	2.43	19.95	20.97
EN 2714-013A	020	F	14	1	0.10	White	White	10.9	2.65	2.74	26.17	27.03
EN 2714-013A	030	F	12	1	0.10	White	White	6.8	3.06	3.20	37.31	39.70
EN 2714-013A	051	F	10	1	0.12	White	White	4.1	3.74	3.89	58.72	61.94
EN 2714-013B	001	F	26	2	0.08	1 Red 1 Blue	White	165	2.01	2.13	7.63	8.17
EN 2714-013B	002	F	24	2	0.08		Light blue	117	2.27	2.40	9.58	10.23
EN 2714-013B	004	F	22	2	0.08		White	61.7	2.55	2.70	12.70	13.64
EN 2714-013B	006	F	20	2	0.10		Light blue	34.1	3.09	3.22	20.17	21.05
EN 2714-013B	010	F	18	2	0.10		White	21.7	3.57	3.71	28.62	29.52
EN 2714-013B	012	F	16	2	0.12		Light blue	14.9	4.19	4.38	39.30	41.20
EN 2714-013B	020	F	14	2	0.15		White	11.2	4.91	5.04	54.19	55.83
EN 2714-013B	030	F	12	2	0.20		White	6.99	5.83	6.09	81.80	86.79
EN 2714-013B	051	F	10	2	0.20		White	4.22	7.11	7.39	123.94	130.51
EN 2714-013C	001	F	26	3	0.08	1 Red 1 Blue 1 Yellow	White	165	2.13	2.26	10.25	10.94
EN 2714-013C	002	F	24	3	0.10		Light blue	117	2.45	2.59	13.83	14.72
EN 2714-013C	004	F	22	3	0.10		White	61.7	2.75	2.91	18.45	19.76
EN 2714-013C	006	F	20	3	0.12		Light blue	34.1	3.33	3.48	29.23	30.44
EN 2714-013C	010	F	18	3	0.12		White	21.7	3.85	4.00	41.75	42.96
EN 2714-013C	012	F	16	3	0.15		Light blue	14.9	4.53	4.73	57.96	60.67
EN 2714-013C	020	F	14	3	0.15		White	11.2	5.25	5.39	76.59	78.83
EN 2714-013C	030	F	12	3	0.20		White	6.99	6.23	6.50	115.68	122.72
EN 2714-013C	051	F	10	3	0.20		White	4.22	7.61	7.90	177.31	186.69
EN 2714-013D	001	F	26	4	0.10	1 Red 1 Blue 1 Yellow 1 Green	White	165	2.37	2.51	13.69	14.57
EN 2714-013D	002	F	24	4	0.10		Light blue	117	2.69	2.84	17.37	18.47
EN 2714-013D	004	F	22	4	0.10		White	61.7	3.03	3.19	23.4	25.04
EN 2714-013D	006	F	20	4	0.12		Light blue	34.1	3.67	3.82	37.31	38.81
EN 2714-013D	010	F	18	4	0.12		White	21.7	4.25	4.41	53.73	55.22
EN 2714-013D	012	F	16	4	0.15		Light blue	14.9	5.01	5.23	74.58	78.02
EN 2714-013D	020	F	14	4	0.20		White	11.2	5.91	6.06	104.39	107.36

### Identification

#### Marking on cores:

EN DRA ++ FR F \*\* color : white for red and green cores, green for blue and yellow cores

#### Marking on jacket:

EN xxx ++ FR F \*\* color : green

with :

xxx = short designation (MLA, MLB, MLC, MLD)

++ = AWG

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of production (i.e. 08 = 2008)

# MME/MMF/MMG EN 2714-014

Screened and jacketed, light weight, UV cable

## Applications

Designed for general purpose aircraft wiring applications.

600 Volts RMS

## Construction

### CORES

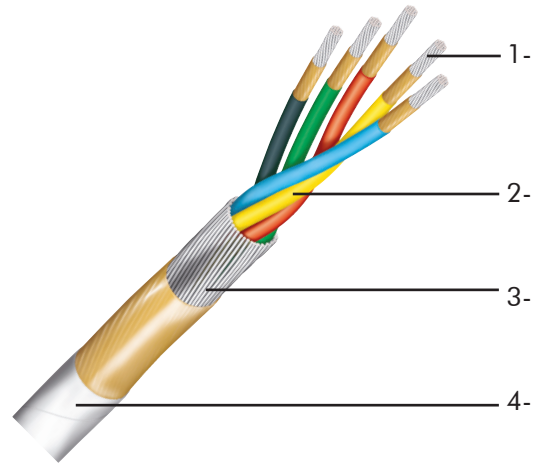
- 1- EN 2267-009A
- 2- Polyimide tape

### SCREEN

- 3- Nickel plated copper braid

### JACKET

- 4- Polyimide tape  
UV PTFE tape



## Other characteristics

Operating frequency : up to 2000 Hz

## Short designation

- 5 cores : MME
- 6 cores : MMF
- 7 cores : MMG
- 8 cores : MMH
- 10 cores : MMK

## Standards

prEN4434 for conductors  
prEN2267-009 for cores  
prEN2714-014 for screened and jacketed multicores



-55°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (q)(4)  
Appendix F  
part 1 (3)



Arc tracking  
resistant



Very good  
resistance to  
aircraft fluids

## EN 2714-014

PART NUMBERS	Code of nominal section	Color code	AWG	Nbr of cores	Screen strands nominal diameter (mm)	Finished Wire						
						Colours		Maximum DC resistance at 20°C (68°K) (Ohms/Km)	Diameter (mm)		Weight (g/m)	
						Cores	Jacket		Nom.	Max.	Nom.	Max.
EN 2714-014E	010	J	18	5	0.12		White	21.7	5.03	5.26	73.22	76.0
EN 2714-014E	012	J	16	5	0.12	White, Blue, Yellow, Red, Green	Light blue	14.9	5.82	6.10	97.31	102.2
EN 2714-014E	020	J	14	5	0.12		White	11.2	6.71	7.05	28.62	135.0
EN 2714-014E	030	H	12	5	0.15	Black, Blue, Yellow, Red, Green	Light blue	6.99	7.94	8.41	91.30	205.6
EN 2714-014E	002	F	24	5	0.10	Red, Blue, Yellow, Green, White	Light blue	117	3.21	3.29	24.79	26.2
EN 2714-014F	002	F	24	6	0.12	Red, Blue, Yellow, Green, White, Black	Light blue	117	3.56	3.65	31.9	32.2
EN 2714-014G	002	F	24	7	0.12	Red, Blue, Yellow, Green, White, Black, Brown	Light blue	117	3.61	3.80	32.96	34.60
EN 2714-014H	002	F	24	8	0.12	Red, Blue, Yellow, Green, White, Black, Brown, Orange	Light blue	117	4.12	4.37	42.25	42.95
EN 2714-014K	002	F	24	10	0.12	Red, Blue, Yellow, Green, White, Black, Brown, Orange, Violet, Grey	Light blue	117	4.51	4.74	46.43	48.75

## Identification

### Marking on cores:

EN DRA ++ FR F \*\*

White for black, red, brown, green and violet core

Green for blue, yellow, white, orange and grey core

### Marking on jacket:

EN xxx ++ FR F \*\* color : green

with :

xxx = short designation

++ = AWG

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of production (i.e. 08 = 2008)

# DRP/DRT/DRQ - EN 2266-008 TYPE

Multicore cables unshielded and jacketed  
200 °C, Light Weight , UV  
Arc Tracking Resistant

## Applications

Designed for general Purpose  
Aircraft Wiring Applications.

600 Volts RMS

## Construction

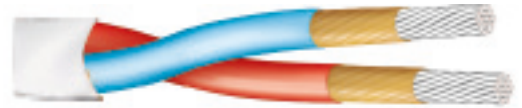
### CORES

2, 3 or 4 cores  
EN 2267-009A

### JACKET

Polyimide Tape  
UV Laser Markable  
Top coat

DRP



DRT



DRQ



## Other characteristics

Operating frequency: up to 2000 Hz  
Mould and fungus resistant

## Standards

For conductors:  
prEN 4434  
For cores:  
prEN 2267-09  
For Jacketed multicore cable:  
EN 2266-008  
For laser marking:  
EN 3475 - 705 -706



-55°C to +200°C  
(Ambient. + Rise.)



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Arc tracking  
resistant



Very good  
resistance to  
aircraft fluids

## EN 2266-008 Type

PART NUMBERS	Code of nominal section	Color code	US AWG	Nbr of Cores Number of cores	Finished Wire						
					Colours		Maximum DC resistance at 20°C (68°K) (Ohms/Km)	Diameter (mm)		Weight (g/m)	
					Cores	Jacket		Nom.	Max.	Nom.	Max.
DRP 26	001	P	26	2	1 Red 1 Blue	White	165	1.76	1.86	4.81	5.01
DRP 24	002	P	24	2		Light blue	117	2.02	2.10	6.34	6.54
DRP 22	004	P	22	2		White	61.7	2.30	2.39	9.26	9.47
DRP 20	006	P	20	2		Light blue	34.1	2.80	2.91	14.92	15.28
DRP 18	010	P	18	2		White	21.7	3.28	3.44	22.26	22.90
DRP 16	012	P	16	2		Light blue	14.9	3.85	4.02	30.48	31.78
DRP 14	020	P	14	2		White	11.2	4.53	4.67	41.59	42.61
DRP 12	030	P	12	2		White	6.99	5.34	5.50	63.88	65.82
DRT 26	001	P	26	3	1 Red 1 Blue 1 Yellow	White	165	1.87	1.99	6.94	7.28
DRT 24	002	P	24	3		Light blue	117	2.16	2.24	9.21	9.50
DRT 22	004	P	22	3		White	61.7	2.46	2.55	13.55	13.91
DRT 20	006	P	20	3		Light blue	34.1	3.00	3.12	21.96	22.55
DRT 18	010	P	18	3		White	21.7	3.52	3.68	32.91	33.91
DRT 16	012	P	16	3		Light blue	14.9	4.13	4.30	45.16	47.15
DRT 14	020	P	14	3		White	11.2	4.6	5.01	61.72	63.34
DRT 12	030	P	12	3		White	6.99	5.73	5.98	95.05	99.57
DRQ 26	001	P	26	4	1 Red 1 Blue 1 Yellow 1 Green	White	165	2.08	2.22	9.08	9.56
DRQ 24	002	P	24	4		Light blue	117	2.39	2.49	12.08	12.48
DRQ 22	004	P	22	4		White	61.7	2.73	2.87	17.84	18.34
DRQ 20	006	P	20	4		Light blue	34.1	3.34	3.50	29.00	29.82
DRQ 18	010	P	18	4		White	21.7	3.92	4.15	43.56	44.92
DRQ 16	012	P	16	4		Light blue	14.9	4.60	4.80	59.84	62.52
DRQ 14	020	P	14	4		White	11.2	5.42	5.48	81.85	84.06
DRQ 12	030	P	12	4		White	6.99	6.40	6.61	126.21	129.96

## Identification

### Cores:

Colour of marking: White for Red and Green core.  
Green for Blue, White and Yellow core.

Marking: EN DR A ++ FRF\*\*

### Jacket:

Colour of marking: Green

Marking: DRx ++ FRF\*\*

DRx = Short designation (DRP, DRT, DRQ)

++ =Awg

FR =Country of Origin (FR = France)

F =Manufacturer (F = Nexans)

\*\* =Year of manufacturing (ie. 10 = 2010)

# MNA/MNB/MNC/MND - EN 2713-012 TYPE

Multicore cables shielded and jacketed  
200 °C, Light Weight , UV  
Arc Tracking Resistant

## Applications

Designed for general purpose  
aircraft wiring applications

600 Volts RMS

## Construction

### CORES

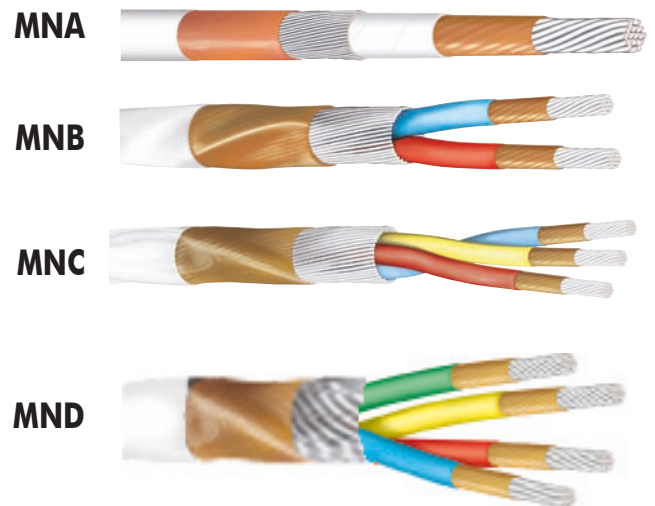
1, 2, 3 or 4  
cores EN 2267-009A

### SCREEN

Silver plated copper spiral  
screen

### JACKET

Polyimide Tape  
UV Laser Markable  
Top coat



## Other characteristics

Operating frequency: up to 2000 Hz  
Mould and fungus resistant

## Standards

For conductors:  
prEN 4434  
For cores:  
prEN 2267-009  
For Screened and Jacketed  
multicore cable:  
EN 2713-012  
For laser marking:  
EN 3475 - 705 -706



-55°C to +200°C  
(Ambient. + Rise.)



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Arc tracking  
resistant



Very good  
resistance to  
aircraft fluids



## EN 2713-012 Type

PART NUMBERS	Code of nominal section	Color code	US AWG	Nbr of Cores Number of cores	Screen Strands nominal diameter (mm)	Finished Wire						
						Colours		Maximum DC resistance at 20°C (68°K) (Ohms/Km)	Diameter (mm)		Weight (g/m)	
						Cores	Jacket		Nom.	Max.	Nom.	Max.
MNA 26	001	F	26	1		Light yellow	White	160	1.15	1.23	4.01	4.45
MNA 24	002	F	24	1		White	Light blue	114	1.28	1.35	4.99	5.30
MNA 22	004	F	22	1	0.08	Light green	White	60	1.42	1.49	6.67	7.16
MNA 20	006	F	20	1		White	Light blue	33.2	1.67	1.73	9.88	10.53
MNA 18	010	F	18	1		White	White	21.1	1.92	2.00	13.90	14.90
MNA 16	012	F	16	1		White	Light blue	14.5	2.24	2.35	19.27	20.82
MNA 14	020	F	14	1	0.1	White	White	10.9	2.58	2.66	25.44	26.54
MNA 12	030	F	12	1		White	White	6.8	2.99	3.13	37.25	39.75
MNA 10	051	F	10	1		White	White	4.1	3.61	3.76	57.28	60.05
MNB 26	001	F	26	2			White	165	1.94	2.07	7.15	7.96
MNB 24	002	F	24	2	0.08		Light blue	117	2.20	2.31	9.03	9.61
MNB 22	004	F	22	2			White	61.7	2.48	2.59	12.33	13.28
MNB 20	006	F	20	2	0.01	1 Red	Light blue	34.1	3.02	3.14	19.61	20.96
MNB 18	010	F	18	2		1 Blue	White	21.7	3.50	3.65	27.77	29.71
MNB 16	012	F	16	2			Light blue	14.9	4.11	4.31	38.26	41.29
MNB 14	020	F	14	2	0.12		White	11.2	4.79	4.93	50.73	53.08
MNB 12	030	F	12	2			White	6.99	5.61	5.83	74.69	78.84
MNC 26	001	F	26	3	0.08	1 Blue	White	165	2.05	2.20	9.69	10.75
MNC 24	002	F	24	3			Light blue	117	2.34	2.45	12.38	13.17
MNC 22	004	F	22	3	0.01	1 Red	White	61.7	2.64	2.76	17.17	18.36
MNC 20	006	F	20	3		1 Blue	Light blue	34.1	3.22	3.35	27.51	29.27
MNC 18	010	F	18	3	0.12	1 Yellow	White	21.7	3.73	3.89	39.42	42.02
MNC 16	012	F	16	3			Light blue	14.9	4.39	4.6	54.37	58.47
MNC 14	020	F	14	3	0.15		White	11.2	5.18	5.33	75.33	78.63
MNC 12	030	F	12	3			White	6.99	6.14	6.34	112.27	115.71
MND 26	001	F	26	4	0.08	1 Blue	White	165	2.26	2.41	12.24	13.54
MND 24	002	F	24	4			Light blue	117	2.57	2.70	15.72	16.67
MND 22	004	F	22	4	0.01	1 Red	White	61.7	2.95	3.08	23.07	24.55
MND 20	006	F	20	4		1 Blue	Light blue	34.1	3.56	3.70	35.40	37.59
MND 18	010	F	18	4	0.12	1 Yellow	White	21.7	4.18	4.35	52.61	55.87
MND 16	012	F	16	4		1 Green	Light blue	14.9	4.86	5.10	70.47	75.54
MND 14	020	F	14	4	0.15		White	11.2	5.83	6.06	98.75	104.47
MND 12	030	F	12	4			White	6.99	6.81	7.09	146.12	154.71

## Identification

### Cores:

Colour of marking: White for Red and Green core.  
Green for Blue, White and Yellow core.

Marking: EN DR A ++ FRF\*\*

### Jacket:

Colour of Jacket: See table on this datasheet

Colour of marking: Green

Marking: MNx ++ FRF\*\*

MNx = Short designation (MNA, MNB, MNC, MND)

++ =Awg

FR =Country of Origin (FR = France)

F =Manufacturer (F = Nexans)

\*\* =Year of manufacturing (ie. 10 = 2010)

# FX 5301

VG 95218-20 type H  
Single wire

## Applications

Designed for general purpose aircraft wiring applications.

600 Volts RMS

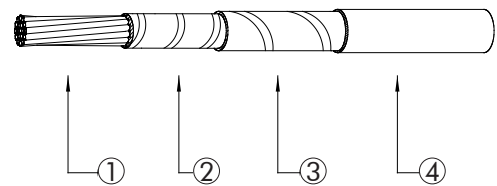
## Construction

### CONDUCTOR

- 1- Stranded conductor made of silver plated copper or high strength copper alloy (size 002)

### INSULATION

- 2- PTFE tape
- 3- Polyimide tape
- 4- UV laser markable FEP lacquer top coat



## Other characteristics

Operating frequency : up to 2000 Hz

## Standards

VG 95218-2 (may 1998)  
VG 95218-20 (february 2000)



-65°C to +150°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Arc tracking  
resistant



Very good  
resistance to  
aircraft fluids



RoHS

## FX 5301

VG Reference	NEXANS Part Number	Dash Number (VG)	Size Code (NEXANS)	AWG (1)	Conductor		
					Stranding Nbr x diam of strands (mm)	Diameter Min. (mm)	Diameter Max. (mm)
VG 95218T020H019	FX 5301-002	01	002	24	19 x 0.12	0.55	0.62
VG 95218T020H02A	FX 5301-004	02	004	22	19 x 0.15	0.70	0.80
VG 95218T020H039	FX 5301-006	03	006	20	19 x 0.20	0.94	1.04
VG 95218T020H049	FX 5301-010	04	010	18	19 x 0.25	1.18	1.29
VG 95218T020H059	FX 5301-012	05	012	16	19 x 0.30	1.39	1.53
VG 95218T020H069	FX 5301-020	06	020	14	37 x 0.25	1.68	1.82
VG 95218T020H079	FX 5301-030	07	030	12	37 x 0.32	2.12	2.28

VG Reference	NEXANS Part Number	Finished Wire			
		Diameter		Weight Max. (g/m)	Maximum DC resistance at 20°C (68°F) (Ohms/Km)
		Min. (mm)	Max. (mm)		
VG 95218T020H019	FX 5301-002	0.98	1.08	3.23	106
VG 95218T020H02A	FX 5301-004	1.12	1.24	4.59	55.3
VG 95218T020H039	FX 5301-006	1.33	1.47	7.29	31
VG 95218T020H049	FX 5301-010	1.58	1.72	10.69	19.6
VG 95218T020H059	FX 5301-012	1.81	1.97	14.86	13.6
VG 95218T020H069	FX 5301-020	2.07	2.19	19.43	10.2
VG 95218T020H079	FX 5301-030	2.53	2.69	30.83	6.4

(1) For information only.

## Identification

### Colors :

White (except size 004 in pale blue)

### Marking :

VG95218T020H \*\*£ F 0241 ++ AC

with :

\*\* = Dash number

£ = color (9=white, A=pale blue)

F0241 = Manufacturer's cage code

++ = Year of production (i.e. 08 = 2008)

AC = Cable code according to TR 6058

# FX 5303

**VG 95218-22 type E**  
**Single core shielded and jacketed**  
**VG 95218-23 type D**  
**Multicore shielded and jacketed**

## Applications

Designed for general purpose aircraft wiring applications.

**600 Volts RMS**

## Construction

### CORE

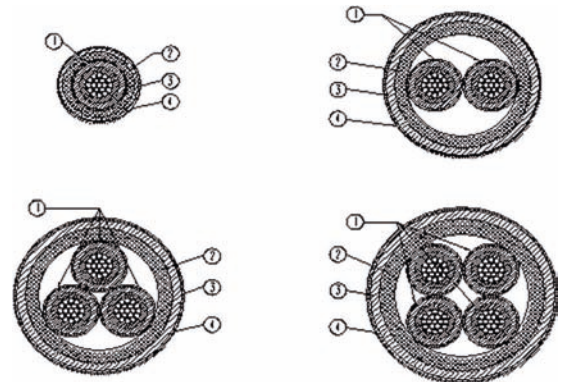
1- FX 5301

### SCREEN

2- Silver plated copper braided screen

### JACKET

3- Polyimide tapes  
 4- UV laser markable FEP lacquer top coat



## Other characteristics

Operating frequency : up to 2000 Hz

## Standards

VG 95218-2 (may 1998)  
 VG 95218-22 (october 1999)  
 VG 95218-23 (october 1999)



-65°C to +150°C



Flame retardant  
 FAR/JAR part 25  
 sec 25.869 (a)(4)  
 Appendix F  
 part 1 (3)



Arc tracking  
 resistant



Very good  
 resistance to  
 aircraft fluids



RoHS

## FX 5303

VG reference	NEXANS part number	Nbr. of cores	Dash number (VG)	Size code (NEXANS)	AWG	Diam. of screen strand (mm)	Finished Wire			
							Diameter		Weight Max. (g/m)	Max. DC Resistance at 20°C (68°F) (Ohms/Km)
							Min. (mm)	Max. (mm)		
VG 95218T022E001	FX 5303-1-002	1	001	002	24	0.08	1.52	1.68	7.04	106
VG 95218T022E002	FX 5303-1-004	1	002	004	22	0.08	1.66	1.85	8.85	55.3
VG 95218T022E003	FX 5303-1-006	1	003	006	20	0.08	1.87	2.08	12.2	31
VG 95218T022E004	FX 5303-1-010	1	004	010	18	0.10	2.21	2.39	17.56	19.6
VG 95218T022E005	FX 5303-1-012	1	005	012	16	0.10	2.44	2.64	22.59	13.6
VG 95218T022E006	FX 5303-1-020	1	006	020	14	0.10	2.70	2.86	27.94	10.2
VG 95218T022E007	FX 5303-1-030	1	007	030	12	0.10	3.16	3.36	41.06	6.4
VG 95218T023D001	FX 5303-2-002	2	001	002	24	0.08	2.47	2.73	12.27	109.2
VG 95218T023D002	FX 5303-2-004	2	002	004	22	0.08	2.76	3.05	15.77	57
VG 95218T023D003	FX 5303-2-006	2	003	006	20	0.10	3.25	3.59	23.97	31.9
VG 95218T023D004	FX 5303-2-010	2	004	010	18	0.10	3.76	4.08	32.29	30.2
VG 95218T023D005	FX 5303-2-012	2	005	012	16	0.10	4.22	4.58	42.20	14.0
VG 95218T023D006	FX 5303-2-020	2	006	020	14	0.10	4.73	5.03	52.81	10.5
VG 95218T023D007	FX 5303-2-030	2	007	030	12	0.10	5.66	6.02	78.85	6.6
VG 95218T023D008	FX 5303-3-002	3	008	002	24	0.08	2.61	2.89	16.44	109.2
VG 95218T023D009	FX 5303-3-004	3	009	004	22	0.08	2.93	3.23	21.45	57
VG 95218T023D010	FX 5303-3-006	3	010	006	20	0.10	3.45	3.81	32.85	31.9
VG 95218T023D011	FX 5303-3-010	3	011	010	18	0.10	4.00	4.34	44.90	30.2
VG 95218T023D012	FX 5303-3-012	3	012	012	16	0.10	4.50	4.88	59.32	14.0
VG 95218T023D013	FX 5303-3-020	3	013	020	14	0.10	5.04	5.36	74.82	10.5
VG 95218T023D014	FX 5303-3-030	3	014	030	12	0.10	6.05	6.43	113.00	6.6
VG 95218T023D015	FX 5303-4-002	4	015	002	24	0.08	2.86	3.16	20.61	109.2
VG 95218T023D016	FX 5303-4-004	4	016	004	22	0.08	3.20	3.54	27.13	57
VG 95218T023D017	FX 5303-4-006	4	017	006	20	0.10	3.78	4.18	41.74	31.9
VG 95218T023D018	FX 5303-4-010	4	018	010	18	0.10	4.41	4.77	57.51	30.2
VG 95218T023D019	FX 5303-4-012	4	019	012	16	0.10	4.96	5.38	76.43	14.0
VG 95218T023D020	FX 5303-4-020	4	020	020	14	0.10	5.58	5.92	96.83	10.5
VG 95218T023D021	FX 5303-4-030	4	021	030	12	0.10	6.69	7.11	147.14	6.6

## Identification

### Single core shielded and jacketed (type E)

#### Core color :

White (with exception of size 004 : Pale Blue)

#### Marking on Jacket :

White (with exception of size 004 : Pale Blue)

Marking VG95218T022E\*\*\* F 0241 ++ GE

with :

\*\*\* = Dash number (VG)

F0241 = Manufacturer's cage code

++ = Year of production (i.e. 08 = 2008)

## = Cable code according to TR 6058 : GF=2 cores - GG=3 cores - GH=4 cores

### Multicore shielded and jacketed (type D)

#### Core Identification :

White (except size 004 : Pale Blue)

Marking with colored arabic digits printed on the core and a dash placed under-neath it. :

Core number 1 : digit = 1

Core number 2 : digit = 2, a.s.o.

#### Marking on Jacket :

White (with exception of size 004 : Pale Blue)

Marking VG95218T023D\*\*\* F 0241 ++ ##

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## B080 SPECIFICATIONS

### ■ Applications

Bombardier specifications for general purpose aircraft wiring application.

600 V

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### ■ Construction

#### CONDUCTOR

Tin, Silver, Nickel plating with copper and high strength copper-alloy

#### INSULATION

Extruded XL-ETFE single and dual layer thin and medium walls

### ■ Temperature Rating

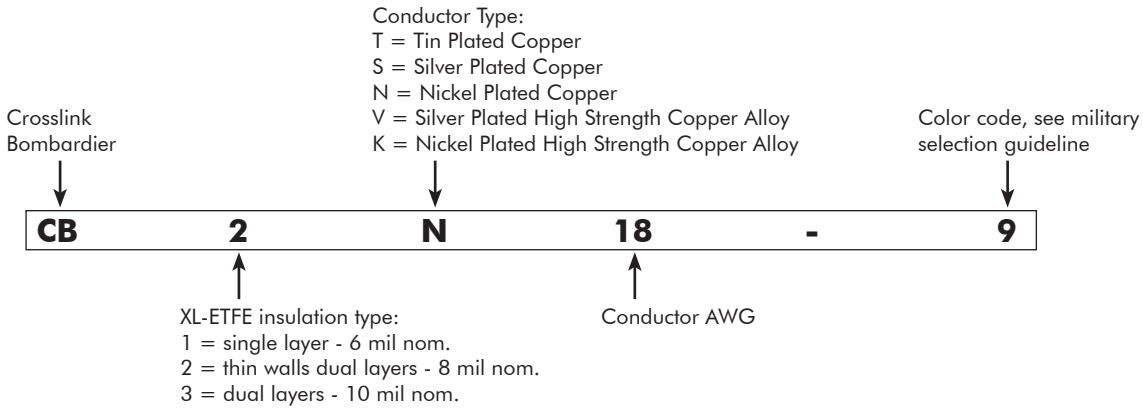
Tin coated: 150°C

Silver or Nickel coated: 200°C

## B080 SPECIFICATIONS

Bombardier #(*)	Nexans #	Conductor AWG	Conductor stranding	Conductor Type	Diameter (inch)		Weight (lbs/1000ft)	
					Nom.	Max.	Nom.	Max.
B0801150-20-*	CB2T20-*	20	19/32	T	0.0540	0.0557	4.42	4.57
B0801150-22-*	CB2T22-*	22	19/34	T	0.0455	0.0472	2.90	3.06
B0801190-22-*	CB2K22-*	22	19/34	K	0.0438	0.0455	2.90	3.06
B0801190-24-*	CB2K24-*	24	19/36	K	0.0395	0.0412	1.98	2.13
B0801200-22-*	CB2V22-*	22	19/34	V	0.0455	0.0472	2.90	3.06
B0801220-2-*	CB2N2-*	2	665/30	N	0.3830	0.3970	220.9	240.00
B0801220-8-*	CB2N8-*	8	133/29	N	0.1960	0.2030	57.98	59.90
B0801220-10-*	CB2N10-*	10	37/26	N	0.1290	0.1328	31.05	32.13
B0801220-12-*	CB2N12-*	12	37/28	N	0.1047	0.1074	19.58	20.30
B0801220-16-*	CB2N16-*	16	19/29	N	0.0710	0.0730	8.44	8.70
B0801220-18-*	CB2N18-*	18	19/30	N	0.0635	0.0654	6.63	6.90
B0801220-20-*	CB2N20-*	20	19/32	N	0.0540	0.0557	4.42	4.57
B0801220-22-*	CB2N22-*	22	19/34	N	0.0455	0.0472	2.90	3.06

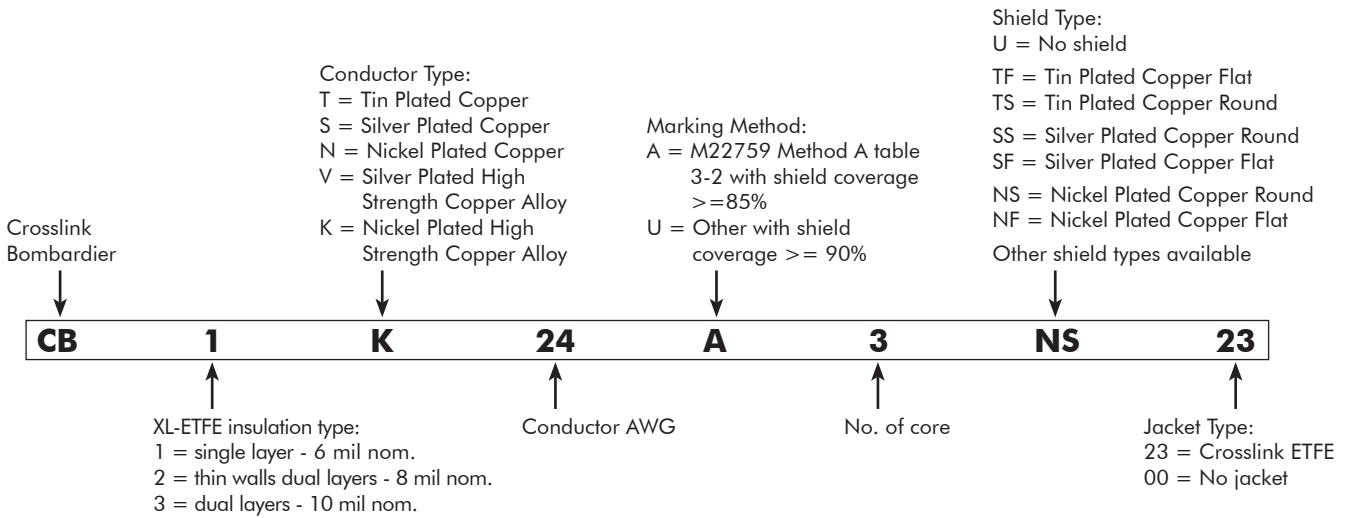
(\*) More constructions available on demand.



# B080 SPECIFICATIONS

Bombardier #(*)	Nexans #	Conductor AWG	# of core	Shield type	Shield strand AWG	Diameter (inch)		Weight (lbs/1000ft)	
						N/A	Max.	Nom.	Max.
B0801151-18	CB2T18A2U00	18	2	U	N/A	0.1270	0.1300		13.82
B0801162-10	CB2S10A3U00	10	3	U	N/A	0.2770	0.2870		98.30
B0801171-22	CB1T22A2TF23	22	2	TF	38	0.1050	0.1090		9.20
B0801172-22	CB1T22A3TF23	22	3	TF	38	0.1130	0.1180		12.72
B0801176-22	CB1T22A2TS23	22	2	TS	38	0.1140	0.1190		11.60
B0801222-12	CB2N12A3U00	12	3	U	N/A	0.2260	0.2320		61.19
B0801222-8	CB2N8A3U00	8	3	U	N/A	0.4230	0.4380		181.00
B0801236-22	CB2N22A2NS23	22	2	NS	38	0.1220	0.1270		12.50
B0801346-24	CB3K24A2NS23	24	2	NS	38	0.1180	0.1220		10.77
B0801347-24	CB3K24A3NS23	24	3	NS	38	0.1240	0.1310		14.15
B0801376-22	CB1N-	22	2	NS	38	0.1140	0.1190		11.60
B0801403-22	CB1T22U3TS23	22	3	TS	38	0.1220	0.1270		15.39
B0801436-24	CB1K24A2NS23	24	2	NS	38	0.1010	0.1050		8.91
B0801437-24	CB1K24A3NS23	24	3	NS	38	0.1060	0.1130		11.67
B0801671-22	CB1N22A2NF23	22	2	NF	38	0.1050	0.1090		9.20
B0801690-22	CB1K22A1NF23	22	1	NF	38	0.0620	0.0660		4.97
B0801690-24	CB1K24A1NF23	24	1	NF	38	0.0560	0.0600		3.82
B0801691-22	CB1K22A2NF23	22	2	NF	38	0.1050	0.1090		9.20
B0801691-24	CB1K24A2NF23	24	2	NF	38	0.0930	0.0970		6.95
B0801692-24	CB1K24A3NF23	24	3	NF	38	0.1000	0.1050		9.45

(\*) More constructions available on demand.







## **BMS 13-60**

**Arc Resistant, 600V, Annealed  
Copper, Copper Alloy,  
and Aluminium Wire and Cable**

### **■ Applications**

Boeing specifications for general purpose aircraft wiring application.

**600 V**

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### **■ Construction**

#### **CONDUCTOR**

Tin, Silver, Nickel plating with  
copper and high strength  
copper-alloy  
Aluminium

#### **INSULATION**

PTFE/POLYIMIDE TAPE WRAP

### **■ Temperature Rating**

Tin coated: 150°C  
Silver coated: 200°C  
Nickel coated: 260°C  
Aluminum: 175°C

**BMS 13-60**

Type	Class		Wire size (AWG)		Insulation thickness (mil)	Conductor		Shield				Jacket		Temperature rating (degrees C)	
	Min	Max	Min	Max		Material	Coating	Material	Coating	Shape	Nbr	Material	Nbr	Min	Max
1	1	8	22	4/0	8	Annealed Copper	Tin							-65	150
2	1	4	22	10	8	Annealed Copper	Tin	Copper Braid	Tin	Round	1	Polymide/PTFE	1	-65	150
3	2	4	22	10	8	Annealed Copper	Tin					Polymide/PTFE	1	-65	150
4	1	8	24	16	8	High Strength Copper Alloy	Nickel							-65	260
5	1	4	24	16	8	High Strength Copper Alloy	Nickel	Copper Braid	Tin	Round	1	Polymide/PTFE	1	-65	150
			14	10	8	Annealed Copper									
6	2	4	24	16	8	High Strength Copper Alloy	Nickel					Polymide/PTFE	1	-65	260
7	1	8	22	4/0	19	Annealed Copper	Nickel							-65	260
8	1	6	22	10	19	Annealed Copper	Nickel	Copper Braid	Nickel	Round	1	Polymide/PTFE	1	-65	260
9	2	4	22	10	19	Annealed Copper	Nickel					Polymide/PTFE	1	-65	260
	5	8	22	18											
10	1	8	24	16	19	High Strength Copper Alloy	Nickel							-65	260
11	1	6	24	16	19	High Strength Copper Alloy	Nickel	Copper Braid	Nickel	Round	1	Polymide/PTFE	1	-65	260
12	2	4	24	16	19	High Strength Copper Alloy	Nickel					Polymide/PTFE	1	-65	260
13	1	6	22	10	6	Annealed Copper	Tin	Copper Braid	Tin	Round	1	Polymide/PTFE	1	-65	150
14	2	6	22	10	6	Annealed Copper	Tin					Polymide/PTFE	1	-65	150
15	1	6	24	16	6	High Strength Copper Alloy	Nickel	Copper Braid	Tin	Round	1	Polymide/PTFE	1	-65	150
			14	10	6	Annealed Copper									
16	2	6	24	16	6	High Strength Copper Alloy	Nickel					Polymide/PTFE	1	-65	260
17	1	6	22	10	6	Annealed Copper	Nickel	Copper Braid	Nickel	Round	1	Polymide/PTFE	1	-65	260
18	2	6	22	10	6	Annealed Copper	Nickel					Polymide/PTFE	1	-65	260
19	1	8	22	4/0	8	Annealed Copper	Nickel							-65	260
20	1	5	22	10	8	Annealed Copper	Nickel	Copper Braid	Nickel	Round	1	Polymide/PTFE	1	-65	260
21	2	4	22	10	8	Annealed Copper	Nickel					Polymide/PTFE	1	-65	260
22	1	3	8	4/0	19	Aluminium								-65	175
23	10	10	18	18	8	High Strength Copper Alloy	Nickel					Polymide/PTFE	1	-65	260
24	7	7	20	20	8	Annealed Copper	Tin	Copper Braid	Nickel	Round	1	Polymide/PTFE	1	-65	150

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## BMS 13-60

Type	Class		Wire size (AWG)		Insulation thickness (mil)	Conductor		Shield				Jacket		Temperature rating (degrees C)	
	Min	Max	Min	Max		Material	Coating	Material	Coating	Shape	Nbr	Material	Nbr	Min	Max
25	1	4	24	16	8	High Strength Copper Alloy	Nickel	Copper Braid	Nickel	Round	2	Polymide/PTFE	1	-65	260
26	1	3	24	16	8	High Strength Copper Alloy	Nickel	Copper Braid	Tin	Flat	2	Polymide/PTFE	2	-65	150
27	1	3	22	16	8	High Strength Copper Alloy	Nickel	Copper Braid	Nickel	Round	2	Polymide/PTFE	2	-65	260
28	1	8	22	10	6	Annealed Copper	Tin							-65	150
29	1	8	22	10	6	Annealed Copper	Nickel							-65	260
30	1	8	24	16	6	High Strength Copper Alloy	Nickel							-65	260
31	1	6	22	16	6	Annealed Copper	Tin	Copper Braid	Tin	Flat	1	Polymide/PTFE	1	-65	150
32	1	6	24	16	6	High Strength Copper Alloy	Nickel	Copper Braid	Tin	Flat	1	Polymide/PTFE	1	-65	150
33	1	6	22	16	8	Annealed Copper	Tin	Copper Braid	Tin	Flat	1	Polymide/PTFE	1	-65	150
34	1	6	24	16	8	High Strength Copper Alloy	Nickel	Copper Braid	Tin	Flat	1	Polymide/PTFE	1	-65	150
35	1	8	26	16	6	High Strength Copper Alloy	Silver							-65	200
36	1	6	26	16	6	High Strength Copper Alloy	Silver	Copper Braid	Silver	Flat	1	Polymide/PTFE	1	-65	200
37	1	6	24	16	6	High Strength Copper Alloy	Nickel	Copper Braid	Silver	Flat	1	Polymide/PTFE	1	-65	200
38	1	6	22	10	6	Annealed Copper	Nickel	Copper Braid	Silver	Flat	1	Polymide/PTFE	1	-65	200
39	1	8	26	12	8	High Strength Copper Alloy	Silver							-65	200
40	1	6	26	16	8	High Strength Copper Alloy	Silver	Copper Braid	Silver	Flat	1	Polymide/PTFE	1	-65	200
41	1	6	24	16	8	High Strength Copper Alloy	Nickel	Copper Braid	Silver	Flat	1	Polymide/PTFE	1	-65	200
42	1	6	22	10	8	Annealed Copper	Nickel	Copper Braid	Silver	Flat	1	Polymide/PTFE	1	-65	200
43	1	6	22	10	19	Annealed Copper	Nickel	Copper Braid	Nickel	Flat	1	Polymide/PTFE	1	-65	260
44	1	4	22	16	10	Annealed Copper	Nickel							-65	260
45	1	4	24	20	10	High Strength Copper Alloy	Nickel							-65	260
46	1	4	24	16	8	High Strength Copper Alloy	Nickel	Copper Braid	Nickel	Round	1	Polymide/PTFE	1	-65	260
47	1	4	20	10	8	Annealed Copper	Nickel	Copper Braid	Nickel	Round	2	Polymide/PTFE	1	-65	260

## BMS 13-60

Type	Class		Wire size (AWG)		Insulation thickness (mil)	Conductor		Shield				Jacket		Temperature rating (degrees C)	
	Min	Max	Min	Max		Material	Coating	Material	Coating	Shape	Nbr	Material	Nbr	Min	Max
48	1	4	24	16	6	High Strength Copper Alloy	Nickel	Copper Braid	Nickel	Round	2	Polymide/PTFE	1	-65	260
49	1	4	22	10	6	Annealed Copper	Nickel	Copper Braid	Nickel	Round	2	Polymide/PTFE	1	-65	260
50	1	4	24	16	6	High Strength Copper Alloy	Nickel	Copper Braid	Nickel	Round	1	Polymide/PTFE	1	-65	260
51	1	4	24	16	6	High Strength Copper Alloy	Nickel	Copper Braid	Nickel	Flat	1	Polymide/PTFE	1	-65	260
52	1	4	22	10	6	Annealed Copper	Nickel	Copper Braid	Nickel	Flat	1	Polymide/PTFE	1	-65	260
53	1	3	22	16	6	High Strength Copper Alloy	Nickel	Copper Braid	Nickel	Round	2	Polymide/PTFE	2	-65	260
54	1	4	22	10	19	Annealed Copper	Nickel	Copper Braid	Nickel	Round	2	Polymide/PTFE	1	-65	260
55	2	2	24	22	8	High Strength Copper Alloy	Nickel	Copper Braid	Nickel	Round	2	Polymide/PTFE	1	-65	260
56	1	4	22	10	19	Aluminium								-65	175

# SMOOTH COMPOSITE WIRE & CABLES DSCC

## ■ Applications

Designed for general purpose military aircraft wiring application.

600 V

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## ■ Construction

### CONDUCTOR

Tin, Silver & Nickel plating with copper and high strength copper-alloy

### INSULATION

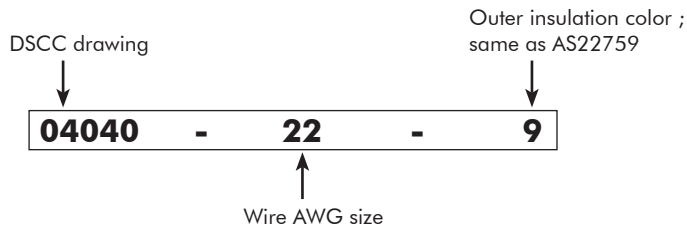
Smooth surface PTFE/POLYIMIDE TAPE WRAP.

## ■ Temperature Rating

Tin coated: 150°C  
Silver coated: 200°C  
Nickel coated: 260°C

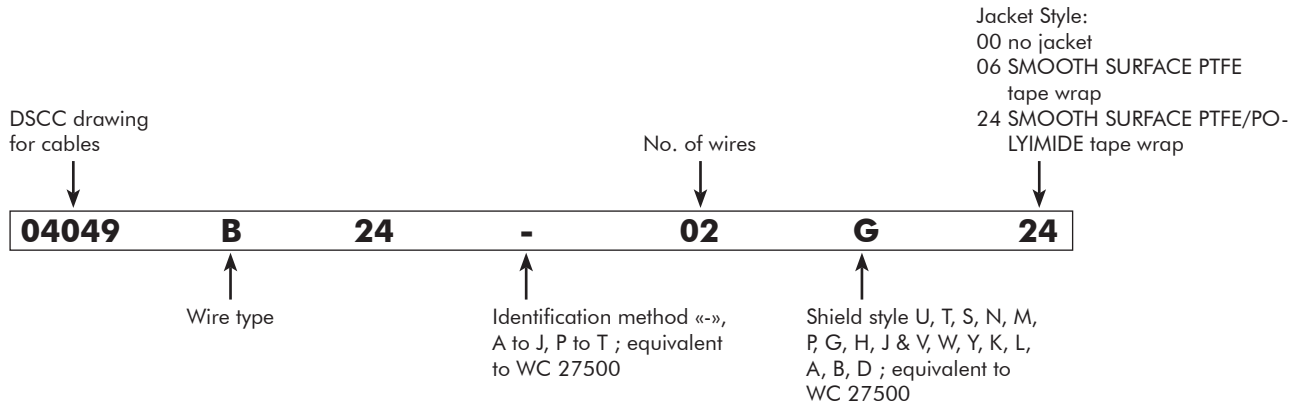
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## Part Identifying Number wires



DSCC drawing	"Equivalent AS22759 drawing"	AWG range	Temperature rating
04034	AS22759/180	26-10	150 °C
04035	AS22759/181	26-20	200 °C
04036	AS22759/182	26-20	260 °C
04037	AS22759/183	8-4/0	200 °C
04038	AS22759/184	8-4/0	260 °C
04039	AS22759/185	8-4/0	150 °C
04040	AS22759/186	26-4/0	200 °C
04041	AS22759/187	26-4/0	260 °C
04042	AS22759/188	26-4/0	150 °C
04043	AS22759/189	26-20	200 °C
04044	AS22759/190	26-20	260 °C
04045	AS22759/191	26-10	200 °C
04046	AS22759/192	26-10	260 °C

## Part Identifying Number cables



DSCC Wire type	Equivalent WC 27500 type	DSCC drawing	Description	AWG range
A	DB	04034	Light weight tin coated copper	26-10
B	DC	04035	Light weight silver coated copper alloy	26-20
C	DE	04036	Light weight nickel coated copper alloy	26-20
M	DP	04045	Light weight silver coated copper	26-10
N	DR	04046	Light weight nickel coated copper	26-10
P	N/A	04047	Light weight 30, 28, 26 awg	30-26
G	DJ	04040	Normal weight silver coated copper	26-4/0
H	DK	04041	Normal weight nickel coated copper	26-4/0
J	DL	04042	Normal weight tin coated copper	26-4/0
K	DM	04043	Normal weight silver coated copper alloy	26-20
L	DN	04044	Normal weight nickel coated copper alloy	26-20
Q	N/A	04048	Normal weight 26, 20, 18, 16 awg	26-16
D	DF	04037	Normal weight silver coated copper with meta-aramid fiber braid	8-4/0
E	DG	04038	Normal weight nickel coated copper with meta-aramid fiber braid	8-4/0
F	DH	04039	Normal weight tin coated copper with meta-aramid fiber braid	8-4/0

## Temperature rating

Minimum between DSCC wire type rating and shield style rating per WC27500.





# SMOOTH COMPOSITE WIRE SAE AS22759

AS22759/180, AS22759/181 and AS22759/182

## Applications

Designed for general purpose aircraft wiring application. These light weight thin wall constructions can be used only with additional protection, or in protected area, or inside a cable with a shield or a jacket.

600 V

## Construction

### CONDUCTOR

AS22759/180: Tin coated copper

AS22759/181: Silver coated high strength copper alloy  
26 AWG Ultra-High strength copper alloy

AS22759/182: Nickel coated high strength copper alloy  
26 AWG Ultra-High strength copper alloy

### INSULATION

Smooth surface

PTFE/POLYIMIDE TAPE WRAP

(5.8 - 6.7 NOM.)



## Temperature Rating

AS22759/180: 150°C

AS22759/181: 200°C

AS22759/182: 260°C

## DSCC Equivalent

AS22759/180: 04034

AS22759/181: 04035

AS22759/182: 04036



AS22759/180: -65° to 150°C  
AS22759/181: -65° to 200°C  
AS22759/182: -65° to 260°C



AS22759/180: DB  
AS22759/181: DC  
AS22759/182: DE



Arc resistant



Flame resistant



RoHS

## AS22759/180

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
759180-26	26	19*38	0.030	0.034	0.76	0.86	1.45
759180-24	24	19*36	0.034	0.038	0.86	0.97	2.00
759180-22	22	19*34	0.040	0.043	1.01	1.09	2.95
759180-20	20	19*32	0.048	0.051	1.21	1.29	4.45
759180-18	18	19*30	0.056	0.060	1.42	1.52	6.65
759180-16	16	19*29	0.063	0.067	1.60	1.70	8.35
759180-14	14	19*27	0.076	0.080	1.93	2.03	12.80
759180-12	12	37*28	0.096	0.100	2.43	2.54	20.30
759180-10	10	37*26	0.119	0.123	3.02	3.12	31.40

## AS22759/181

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
759181-26	26(*)	19*38	0.030	0.034	0.76	0.86	1.46
759181-24	24	19*36	0.034	0.038	0.86	0.97	1.99
759181-22	22	19*34	0.040	0.043	1.01	1.09	2.95
759181-20	20	19*32	0.048	0.051	1.21	1.29	4.44

(\*) Conductor shall be ultra-high strength copper alloy

## AS22759/182

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
759182-26	26(*)	19*38	0.030	0.034	0.76	0.86	1.45
759182-24	24	19*36	0.034	0.038	0.86	0.97	2.00
759182-22	22	19*34	0.040	0.043	1.01	1.09	2.95
759182-20	20	19*32	0.048	0.051	1.21	1.29	4.45

(\*) Conductor shall be ultra-high strength copper alloy

## Additional information

**Light weight**

**Arc Resistant** (greatly improved compare to non smooth technology)

**Fluid Resistant**

**Abrasion Resistant**

**UV Laser markable**

**Smooth outer surface**

# SMOOTH COMPOSITE WIRE SAE AS22759

AS22759/186, AS22759/187 and AS22759/188

## Applications

Designed for general purpose aircraft wiring application for 26 AWG to 10 AWG.

Designed for power transmission for 8 AWG and larger.

These constructions can be used in protected area, airframe and swamp area, or inside a cable.

AS22759/187 can be used in nacelles & engines high temperature area.

600 V

## Construction

### CONDUCTOR

AS22759/186: Silver coated copper

AS22759/187: Nickel coated copper

AS22759/188: Tin coated copper

### INSULATION

Smooth surface

PTFE/POLYIMIDE TAPE WRAP

(7.4 - 16.2 MIL NOM.)



## Temperature Rating

AS22759/186: 200°C

AS22759/187: 260°C

AS22759/188: 150°C

## DSCC Equivalent

AS22759/186: 04040

AS22759/187: 04041

AS22759/188: 04042



AS22759/186: -65° to 200°C  
AS22759/187: -65° to 260°C  
AS22759/188: -65° to 150°C



AS22759/186: DJ  
AS22759/187: DK  
AS22759/188: DL



Arc resistant



Flame resistant



RoHS

## AS22759/186

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				Weight Max. (LBS/1000 ft)
			Diameter				
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
759186-26	26	19*38	0.033	0.037	0.84	0.94	1.55
759186-24	24	19*36	0.038	0.042	0.97	1.06	2.20
759186-22	22	19*34	0.043	0.047	1.09	1.19	3.10
759186-20	20	19*32	0.051	0.055	1.29	1.39	4.70
759186-18	18	19*30	0.061	0.065	1.54	1.65	6.90
759186-16	16	19*29	0.068	0.073	1.72	1.85	8.80
759186-14	14	19*27	0.081	0.086	2.05	2.18	13.40
759186-12	12	37*28	0.100	0.105	2.54	2.66	20.40
759186-10	10	37*26	0.122	0.127	3.09	3.22	31.60
759186-8	8	133*29	0.180	0.188	4.57	4.77	58.5
759186-6	6	133*27	0.219	0.229	5.56	5.81	88.9
759186-4	4	133*25	0.276	0.288	7.01	7.31	144.0
759186-2	2	665*30	0.344	0.364	8.73	9.24	226.0
75986-1	1	817*30	0.388	0.408	9.85	10.36	292.0
759186-01	0	1045*30	0.420	0.450	10.66	11.43	352.0
759186-02	00	1330*30	0.475	0.505	12.06	12.82	448.0

## AS22759/187

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				Weight Max. (LBS/1000 ft)
			Diameter				
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
759187-26	26	19*38	0.033	0.037	0.84	0.94	1.55
759187-24	24	19*36	0.038	0.042	0.97	1.06	2.20
759187-22	22	19*34	0.043	0.047	1.09	1.19	3.10
759187-20	20	19*32	0.051	0.055	1.29	1.39	4.65
759187-18	18	19*30	0.061	0.065	1.54	1.65	6.85
759187-16	16	19*29	0.068	0.073	1.72	1.85	8.70
759187-14	14	19*27	0.081	0.086	2.05	2.18	13.30
759187-12	12	37*28	0.100	0.105	2.54	2.66	20.20
759187-10	10	37*26	0.122	0.127	3.09	3.22	31.60
759187-8	8	133*29	0.180	0.188	4.57	4.77	58.5
759187-6	6	133*27	0.219	0.229	5.56	5.81	88.9
759187-4	4	133*25	0.276	0.288	7.01	7.31	144.0
759187-2	2	665*30	0.344	0.364	8.73	9.24	226.0
759187-1	1	817*30	0.388	0.408	9.85	10.36	292.0
759187-01	0	1045*30	0.420	0.450	10.66	11.43	352.0
759187-02	00	1330*30	0.475	0.505	12.06	12.82	448.0

## AS22759/188

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				Weight Max. (LBS/1000 ft)
			Diameter				
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
759188-26	26	19*38	0.033	0.037	0.84	0.94	1.55
759188-24	24	19*36	0.038	0.042	0.97	1.06	2.20
759188-22	22	19*34	0.043	0.047	1.09	1.19	3.10
759188-20	20	19*32	0.051	0.055	1.29	1.39	4.65
759188-18	18	19*30	0.061	0.065	1.54	1.65	6.85
759188-16	16	19*29	0.068	0.073	1.72	1.85	8.70
759188-14	14	19*27	0.081	0.086	2.05	2.18	13.30
759188-12	12	37*28	0.100	0.105	2.54	2.66	20.20
759188-10	10	37*26	0.122	0.127	3.09	3.22	32.20
759188-8	8	133*29	0.180	0.188	4.57	4.77	58.5
759188-6	6	133*27	0.219	0.229	5.56	5.81	88.9
759188-4	4	133*25	0.276	0.288	7.01	7.31	144.0
759188-2	2	665*30	0.344	0.364	8.73	9.24	226.0
759188-1	1	817*30	0.388	0.408	9.85	10.36	292.0
759188-01	0	1045*30	0.420	0.450	10.66	11.43	352.0
759188-02	00	1330*30	0.475	0.505	12.06	12.82	448.0

## Additional information

**Arc Resistant** (greatly improved compare to non smooth technology)

**Fluid Resistant**

**Abrasion Resistant**

**UV Laser markable**

**Smooth outer surface**



# SMOOTH COMPOSITE WIRE SAE AS22759

AS22759/189 and AS22759/190

## Applications

Designed for general purpose aircraft wiring application. These constructions can be used in protected area, airframe area and swamp area, or inside a cable. AS22759/190 can be used in nacelles and engines high temperature area.

600 V

## Construction

### CONDUCTOR

AS22759/189: Silver coated high strength copper alloy  
26 AWG Ultra-High strength copper alloy  
AS22759/190: Nickel coated high strength copper alloy  
26 AWG Ultra-High strength copper alloy

### INSULATION

Smooth surface  
PTFE/POLYIMIDE TAPE WRAP (7.4 NOM.)



## Temperature Rating

AS22759/189: 200°C  
AS22759/190: 260°C

## DSCC Equivalent

AS22759/189: 04043  
AS22759/190: 04044



AS22759/189: -65° to 200°C  
AS22759/190: -65° to 260°C



AS22759/189: DM  
AS22759/190: DN



Arc resistant



Flame resistant



RoHS



## AS22759/189

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
759189-26	26 <sup>(*)</sup>	19*38	0.033	0.037	0.84	0.94	1.60
759189-24	24	19*36	0.038	0.042	0.97	1.06	2.20
759189-22	22	19*34	0.043	0.047	1.09	1.19	3.10
759189-20	20	19*32	0.051	0.055	1.29	1.39	4.65

(\*) Conductor shall be ultra-high strength copper alloy

## AS22759/190

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
759190-26	26 <sup>(*)</sup>	19*38	0.033	0.037	0.84	0.94	1.60
759190-24	24	19*36	0.038	0.042	0.97	1.06	2.20
759190-22	22	19*34	0.043	0.047	1.09	1.19	3.10
759190-20	20	19*32	0.051	0.055	1.29	1.39	4.65

(\*) Conductor shall be high strength copper alloy

## Additional information

**Arc Resistant** (greatly improved compare to non smooth technology)

**Fluid Resistant**

**Abrasion Resistant**

**UV Laser markable**

**Smooth outer surface**

# SMOOTH COMPOSITE WIRE SAE AS22759

AS22759/191 and AS22759/192

## Applications

Designed for general purpose aircraft wiring application. These light weight thin wall constructions can be used only with additional protection, or in protected area, or inside a cable with a shield or a jacket.

600 V

## Construction

### CONDUCTOR

AS22759/191: Silver coated copper  
AS22759/192: Nickel coated copper

### INSULATION

Smooth surface  
PTFE/POLYIMIDE TAPE WRAP  
(5.8 - 6.7 NOM.)



## Temperature Rating

AS22759/191: 200°C  
AS22759/192: 260°C

## DSCC Equivalent

AS22759/191: 04045  
AS22759/192: 04046



AS22759/191: -65° to 200°C  
AS22759/192: -65° to 260°C



AS22759/191: DP  
AS22759/192: DR



Arc resistant



Flame resistant



RoHS

## AS22759/191

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
759191-26	26	19*38	0.030	0.034	0.76	0.86	1.45
759191-24	24	19*36	0.034	0.038	0.86	0.97	2.00
759191-22	22	19*34	0.040	0.043	1.01	1.09	2.96
759191-20	20	19*32	0.048	0.051	1.21	1.29	4.50
759191-18	18	19*30	0.056	0.060	1.42	1.52	6.70
759191-16	16	19*29	0.063	0.067	1.6	1.70	8.40
759191-14	14	19*27	0.076	0.080	1.93	2.03	12.90
759191-12	12	37*28	0.096	0.100	2.43	2.54	19.90
759191-10	10	37*26	0.119	0.123	3.02	3.12	30.80

## AS22759/192

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
759192-26	26	19*38	0.030	0.034	0.76	0.86	1.45
759192-24	24	19*36	0.034	0.038	0.86	0.97	2.00
759192-22	22	19*34	0.040	0.043	1.01	1.09	2.95
759192-20	20	19*32	0.048	0.051	1.21	1.29	4.45
759192-18	18	19*30	0.056	0.060	1.42	1.52	6.65
759192-16	16	19*29	0.063	0.067	1.6	1.70	8.35
759192-14	14	19*27	0.076	0.080	1.93	2.03	12.80
759192-12	12	37*28	0.096	0.100	2.43	2.54	19.70
759192-10	10	37*26	0.119	0.123	3.02	3.12	30.80

## Additional information

**Light weight**

**Arc Resistant** (greatly improved compare to non smooth technology)

**Fluid Resistant**

**Abrasion Resistant**

**UV Laser markable**

**Smooth outer surface**

# EXTRUDED PTFE MINERAL FILLED SAE AS22759

AS22759/5 & AS22759/6

## Applications

Designed for general purpose aircraft wiring application. These constructions can be used in protected area, airframe area, swamp area and high vibration area, or inside a cable. AS22759/6 can be used in nacelles & engines high temperature area.

600 V

## Construction

### CONDUCTOR

AS22759/5: Silver coated conductor

AS22759/6: Nickel coated conductor

### INSULATION

25 to 40 mil nominal wall thickness

Extruded PTFE mineral filled



## Temperature Rating

AS22759/5: 200°C

AS22759/6: 260°C



AS22759/5: -65° to 200°C  
AS22759/6: -65° to 260°C



AS22759/5: VA  
AS22759/6: WA



## AS22759/5

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75905-24	24	19*36	0.070	0.080	1.78	2.03	6.0
75905-22	22	19*34	0.080	0.090	2.03	2.29	8.0
75905-20	20	19*32	0.090	0.100	2.29	2.54	10.0
75905-18	18	19*30	0.105	0.115	2.67	2.92	14.0
75905-16	16	19*29	0.120	0.130	3.05	3.30	18.0
75905-14	14	19*27	0.136	0.150	3.45	3.81	25.0
75905-12	12	19*25	0.153	0.167	3.89	4.24	34.5
75905-10	10	37*26	0.172	0.186	4.37	4.72	48.0

## AS22759/6

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75906-24	24	19*36	0.070	0.080	1.78	2.03	6.0
75906-22	22	19*34	0.080	0.090	2.03	2.29	8.0
75906-20	20	19*32	0.090	0.100	2.29	2.54	10.0
75906-18	18	19*30	0.105	0.115	2.67	2.92	14.0
75906-16	16	19*29	0.120	0.130	3.05	3.30	18.0
75906-14	14	19*27	0.136	0.150	3.45	3.81	25.0
75906-12	12	19*25	0.153	0.167	3.89	4.24	34.5
75906-10	10	37*26	0.172	0.186	4.37	4.72	48.0

## Additional information

**Abrasion Resistant**  
**Fluid Resistant**

# EXTRUDED PTFE MINERAL FILLED SAE AS22759

AS22759/7 & AS22759/8

## Applications

Designed for general purpose aircraft wiring application. These constructions can be used in protected area, airframe area and swamp area, or inside a cable.

600 V

## Construction

### CONDUCTOR

AS22759/7: Silver coated conductor

AS22759/8: Nickel coated conductor

### INSULATION

20 to 35 mil nominal wall thickness

Extruded PTFE mineral filled



## Temperature Rating

AS22759/7: 200°C

AS22759/8: 260°C



AS22759/7: -65° to 200°C  
AS22759/8: -65° to 260°C



AS22759/7: TA  
AS22759/8: SA



RoHs

## AS22759/7

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75907-24	24	19*36	0.060	0.064	1.52	1.62	4.3
75907-22	22	19*34	0.071	0.075	1.80	1.90	6.0
75907-20	20	19*32	0.080	0.084	2.03	2.13	8.1
75907-18	18	19*30	0.090	0.094	2.28	2.38	11.0
75907-16	16	19*29	0.099	0.105	2.51	2.66	13.8
75907-14	14	19*27	0.112	0.118	2.84	2.99	18.6
75907-12	12	19*25	0.131	0.137	3.32	3.47	28.5
75907-10	10	37*36	0.154	0.162	3.91	3.86	41.8

## AS22759/8

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75908-24	24	19*36	0.060	0.064	1.52	1.62	4.3
75908-22	22	19*34	0.071	0.075	1.80	1.90	6.0
75908-20	20	19*32	0.080	0.084	2.03	2.13	8.1
75908-18	18	19*30	0.090	0.094	2.28	2.38	11.0
75908-16	16	19*29	0.099	0.105	2.51	2.66	13.8
75908-14	14	19*27	0.112	0.118	2.84	2.99	18.6
75908-12	12	19*25	0.131	0.137	3.32	3.47	28.5
75908-10	10	37*36	0.154	0.162	3.91	3.86	41.8

## Additional information

**Abrasion Resistant**  
**Fluid Resistant**

# EXTRUDED PTFE SAE AS22759

AS22759/9 & AS22759/10

## Applications

Designed for general purpose aircraft wiring application. These constructions can be used in protected area, airframe and swamp area, or inside a cable. AS22759/10 can be used in nacelles & engines high temperature area.

1000 V

## Construction

### CONDUCTOR

AS22759/9: Silver coated conductor  
AS22759/10: Nickel coated conductor

### INSULATION

14 to 22 mil nominal wall thickness  
Extruded PTFE



## Temperature Rating

AS22759/9: 200°C  
AS22759/10: 260°C



AS22759/9: -65° to 200°C  
AS22759/10: -65° to 260°C



AS22759/9: LE  
AS22759/10: LH





## AS22759/9

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75909-28	28	7*36	0.041	0.045	1.04	1.14	1.90
75909-26	26	19*38	0.046	0.050	1.16	1.27	2.57
75909-24	24	19*36	0.051	0.055	1.29	1.39	3.33
75909-22	22	19*34	0.058	0.062	1.47	1.57	4.60
75909-20	20	19*32	0.066	0.070	1.67	1.77	6.40
75909-18	18	19*30	0.076	0.080	1.93	2.03	9.10
75909-16	16	19*29	0.083	0.087	2.10	2.20	11.00
75909-14	14	19*27	0.097	0.103	2.46	2.61	16.40
75909-12	12	19*25	0.116	0.124	2.94	3.14	25.30
75909-10	10	37*26	0.137	0.145	3.47	3.68	38.20

## AS22759/10

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75910-28	28	7*36	0.041	0.045	1.04	1.14	1.90
75910-26	26	19*38	0.046	0.050	1.16	1.27	2.57
75910-24	24	19*36	0.051	0.055	1.29	1.39	3.33
75910-22	22	19*34	0.058	0.062	1.47	1.57	4.60
75910-20	20	19*32	0.066	0.070	1.67	1.77	6.40
75910-18	18	19*30	0.076	0.080	1.93	2.03	9.10
75910-16	16	19*29	0.083	0.087	2.10	2.20	11.00
75910-14	14	19*27	0.097	0.103	2.46	2.61	16.40
75910-12	12	19*25	0.116	0.124	2.94	3.14	25.30
75910-10	10	37*26	0.137	0.145	3.47	3.68	38.20

## Additional information

Fluid Resistant

## EXTRUDED PTFE SAE AS22759

AS22759/11 & AS22759/12

### Applications

Designed for general purpose aircraft wiring application. These light weight thin wall constructions can be used only with additional protection, or in protected area, or inside a cable with a shield or a jacket.

600 V

### Construction

#### CONDUCTOR

AS22759/11: Silver coated conductor

AS22759/12: Nickel coated conductor

#### INSULATION

9 to 19 mil nominal wall thickness

Extruded PTFE



### Temperature Rating

AS22759/11: 200°C

AS22759/12: 260°C



AS22759/11: -65° to 200°C  
AS22759/12: -65° to 260°C



AS22759/11: RC  
AS22759/12: RE



## AS22759/11

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75911-28	28	7*36	0.031	0.035	0.79	0.89	1.36
75911-26	26	19*38	0.036	0.040	0.91	1.01	1.90
75911-24	24	19*36	0.041	0.045	1.04	1.14	2.58
75911-22	22	19*34	0.047	0.051	1.19	1.29	3.72
75911-20	20	19*32	0.056	0.060	1.42	1.52	5.43
75911-18	18	19*30	0.066	0.070	1.67	1.77	8.14
75911-16	16	19*29	0.073	0.077	1.85	1.95	10.00
75911-14	14	19*27	0.088	0.092	2.23	2.33	15.10
75911-12	12	19*25	0.108	0.114	2.74	2.89	24.10
75911-10	10	37*26	0.135	0.143	3.42	3.63	37.80

## AS22759/12

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75911-28	28	7*36	0.031	0.035	0.79	0.89	1.36
75911-26	26	19*38	0.036	0.040	0.91	1.01	1.90
75911-24	24	19*36	0.041	0.045	1.04	1.14	2.58
75911-22	22	19*34	0.047	0.051	1.19	1.29	3.72
75911-20	20	19*32	0.056	0.060	1.42	1.52	5.43
75911-18	18	19*30	0.066	0.070	1.67	1.77	8.14
75911-16	16	19*29	0.073	0.077	1.85	1.95	10.00
75911-14	14	19*27	0.088	0.092	2.23	2.33	15.10
75911-12	12	19*25	0.108	0.114	2.74	2.89	24.10
75911-10	10	37*26	0.135	0.143	3.42	3.63	39.00

## Additional information

**Fluid Resistant**

# EXTRUDED PTFE SAE AS22759

AS22759/20 & AS22759/21

## Applications

Designed for general purpose aircraft wiring application. These constructions can be used in protected area, airframe area and swamp area, or inside a cable.

1000 V

## Construction

### CONDUCTOR

AS22759/20: Silver coated high strength copper alloy

AS22759/21: Nickel coated high strength copper alloy

### INSULATION

15 mil nominal wall thickness  
Extruded PTFE



## Temperature Rating

AS22759/20: 200°C

AS22759/21: 260°C



AS22759/20: -65° to 200°C  
AS22759/21: -65° to 260°C



AS22759/20: TK  
AS22759/21: TL



## AS22759/20

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75920-28	28	7*36	0.041	0.045	1.04	1.14	1.91
75920-26	26	19*38	0.046	0.050	1.16	1.27	2.57
75920-24	24	19*36	0.051	0.055	1.29	1.39	3.35
75920-22	22	19*34	0.058	0.062	1.47	1.57	4.59
75920-20	20	19*32	0.066	0.070	1.67	1.77	6.41

## AS22759/21

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75921-28	28	7*36	0.041	0.045	1.04	1.14	1.93
75921-26	26	19*38	0.046	0.050	1.16	1.27	2.60
75921-24	24	19*36	0.051	0.055	1.29	1.39	3.38
75921-22	22	19*34	0.058	0.062	1.47	1.57	4.61
75921-20	20	19*32	0.066	0.070	1.67	1.77	6.43

## Additional information

Fluid Resistant

# EXTRUDED PTFE SAE AS22759

AS22759/22 & AS22759/23

## Applications

Designed for general purpose aircraft wiring application. These light weight thin wall constructions can be used only in protected area, or inside a cable.

600 V

## Construction

### CONDUCTOR

AS22759/22: Silver coated high strength copper alloy

AS22759/23: Nickel coated high strength copper alloy

### INSULATION

10 mil nominal wall thickness  
Extruded PTFE



## Temperature Rating

AS22759/22: 200°C

AS22759/23: 260°C



-65° to 260°C



AS22759/22: TM  
AS22759/23: TN



## AS22759/22

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75922-28	28	7*36	0.031	0.035	0.78	0.89	1.32
75922-26	26	19*38	0.036	0.040	0.91	1.01	1.91
75922-24	24	19*36	0.041	0.045	1.04	1.14	2.61
75922-22	22	19*34	0.047	0.051	1.19	1.29	3.68
75922-20	20	19*32	0.056	0.060	1.42	1.52	5.38

## AS22759/23

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75923-28	28	7*36	0.031	0.035	1.04	1.14	1.34
75923-26	26	19*38	0.036	0.040	1.16	1.27	1.92
75923-24	24	19*36	0.041	0.045	1.29	1.39	2.63
75923-22	22	19*34	0.047	0.051	1.47	1.57	3.73
75923-20	20	19*32	0.056	0.060	1.67	1.77	5.44

## Additional information

Fluid Resistant

# CROSSLINKED ETFE SAE AS22759

AS22759/32, AS22759/44 & AS22759/45

## Applications

Designed for general purpose aircraft wiring application. These light weight single layer constructions can be used only with additional protection, or in protected area, or inside a cable with a shield or a jacket.

600 V

## Construction

### CONDUCTOR

AS22759/32: Tin coated copper

AS22759/44: Silver coated copper

AS22759/45: Nickel coated copper

### INSULATION

6 mil nominal wall thickness

Extruded XL-ETFE Single layer



## Temperature Rating

AS22759/32: 150°C

AS22759/44: 200°C

AS22759/45: 200°C



AS22759/32: -65° to 150°C  
AS22759/44 & /45: -65° to 200°C



AS22759/32: SB  
AS22759/44: SR  
AS22759/45: SS





## AS22759/32

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75932-30	30	7*38	0.022	0.026	0.56	0.66	0.66
75932-28	28	7*36	0.025	0.029	0.64	0.74	0.91
75932-26	26	19*38	0.030	0.034	0.76	0.86	1.40
75932-24	24	19*36	0.035	0.039	0.89	0.99	2.00
75932-22	22	19*34	0.041	0.045	1.04	1.14	2.80
75932-20	20	19*32	0.048	0.052	1.21	1.32	4.30
75932-18	18	19*30	0.058	0.062	1.47	1.57	6.50
75932-16	16	19*29	0.066	0.070	1.67	1.77	8.30
75932-14	14	19*27	0.082	0.088	2.08	2.23	13.00
75932-12	12	37*28	0.100	0.106	2.54	2.69	19.70

## AS22759/44

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75944-28	28	7*36	0.025	0.029	0.64	0.74	0.91
75944-26	26	19*38	0.030	0.034	0.76	0.86	1.40
75944-24	24	19*36	0.035	0.039	0.89	0.99	2.00
75944-22	22	19*34	0.041	0.045	1.04	1.14	2.80
75944-20	20	19*32	0.048	0.052	1.21	1.32	4.30
75944-18	18	19*30	0.058	0.062	1.47	1.57	6.50
75944-16	16	19*29	0.066	0.070	1.67	1.77	8.30
75944-14	14	19*27	0.082	0.088	2.08	2.23	13.00
75944-12	12	37*28	0.100	0.106	2.54	2.69	19.70

## AS22759/45

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75945-28	28	7*36	0.025	0.029	0.64	0.74	0.91
75945-26	26	19*38	0.030	0.034	0.76	0.86	1.40
75945-24	24	19*36	0.035	0.039	0.89	0.99	2.00
75945-22	22	19*34	0.041	0.045	1.04	1.14	2.80
75945-20	20	19*32	0.048	0.052	1.21	1.32	4.30
75945-18	18	19*30	0.058	0.062	1.47	1.57	6.50
75945-16	16	19*29	0.066	0.070	1.67	1.77	8.30
75945-14	14	19*27	0.082	0.088	2.08	2.23	13.00
75945-12	12	37*28	0.100	0.106	2.54	2.69	19.70

## Additional information

Light weight

Fluid Resistant

UV markable for white, for other solid colors upon special request

# CROSSLINKED ETFE SAE AS22759

AS22759/33 & AS22759/46

## Applications

Designed for general purpose aircraft wiring application. These light weight single layer constructions can be used only with additional protection, or in protected area, or inside a cable with a shield or a jacket.

600 V

## Construction

### CONDUCTOR

AS22759/33: Silver coated high strength copper alloy

AS22759/46: Nickel coated high strength copper alloy

### INSULATION

6 mil nominal wall thickness  
Extruded XL-ETFE Single layer



## Temperature Rating

AS22759/33: 200°C

AS22759/46: 200°C



-65° to 200°C



AS22759/33: SC  
AS22759/46: ST



Compliant upon request

## AS22759/33

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75933-30	30	7*38	0.022	0.026	0.56	0.66	0.66
75933-28	28	7*36	0.025	0.029	0.64	0.74	0.91
75933-26	26	19*38	0.030	0.034	0.76	0.86	1.40
75933-24	24	19*36	0.035	0.039	0.89	0.99	2.00
75933-22	22	19*34	0.041	0.045	1.04	1.14	2.90
75933-20	20	19*32	0.048	0.052	1.21	1.32	4.40

## AS22759/46

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75946-28	28	7*36	0.025	0.029	0.64	0.74	0.91
75946-26	26	19*38	0.030	0.034	0.76	0.86	1.40
75946-24	24	19*36	0.035	0.039	0.89	0.99	2.00
75946-22	22	19*34	0.041	0.045	1.04	1.14	2.90
75946-20	20	19*32	0.048	0.052	1.21	1.32	4.40

## Additional information

**Light weight**

**Fluid Resistant**

**UV markable for white, for other solid colors upon special request**

# CROSSLINKED ETFE SAE AS22759

AS22759/35 & AS22759/42

## Applications

Designed for general purpose aircraft wiring application. These constructions can be used in protected area, airframe and swamp area, or inside a cable.

600 V

## Construction

### CONDUCTOR

AS22759/35: Silver coated high strength copper alloy

AS22759/42: Nickel coated high strength copper alloy

### INSULATION

10 mil nominal wall thickness

1<sup>st</sup> Layer: Extruded XL-ETFE

2<sup>ND</sup> Layer: Extruded XL-ETFE



## Temperature Rating

AS22759/35: 200°C

AS22759/42: 200°C



-65° to 200°C



AS22759/35: SE  
AS22759/42: SN



Compliant upon request

## AS22759/35

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75935-26	26	19*38	0.038	0.042	0.97	1.06	1.7
75935-24	24	19*36	0.043	0.047	1.09	1.19	2.3
75935-22	22	19*34	0.048	0.052	1.21	1.32	3.3
75935-20	20	19*32	0.056	0.060	1.42	1.52	4.8

## AS22759/42

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75942-26	26	19*38	0.038	0.042	0.97	1.06	1.7
75942-24	24	19*36	0.043	0.047	1.09	1.19	2.3
75942-22	22	19*34	0.048	0.052	1.21	1.32	3.3
75942-20	20	19*32	0.056	0.060	1.42	1.52	4.8

## Additional information

**Fluid Resistant**

**UV markable for white, for other solid colors upon special request**

# CROSSLINKED ETFE SAE AS22759

AS22759/34, AS22759/41, & AS22759/43

## Applications

Designed for general purpose aircraft wiring application. These constructions can be used in protected area, airframe and swamp area, or inside a cable.

600 V

## Construction

### CONDUCTOR

AS22759/34: Tin coated copper

AS22759/41: Nickel coated copper

AS22759/43: Silver coated copper

### BRAID

Treated aromatic polyamide for size 2 and larger

### INSULATION

10 mil nominal wall thickness

1<sup>st</sup> Layer: Extruded XL-ETFE

2<sup>ND</sup> Layer: Extruded XL-ETFE



## Temperature Rating

AS22759/34: 150°C

AS22759/41: 200°C

AS22759/43: 200°C



AS22759/34: -65° to 150°C  
AS22759/41, AS22759/43: -65° to 200°C



AS22759/34: SD  
AS22759/41: SM  
AS22759/43: SP



## AS22759/34

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75934-24	24	19*36	0.043	0.047	1.09	1.19	2.3
75934-22	22	19*34	0.048	0.052	1.27	1.32	3.2
75934-20	20	19*32	0.056	0.060	1.47	1.52	4.7
75934-18	18	19*30	0.067	0.073	1.75	1.85	7.2
75934-16	16	19*29	0.074	0.080	1.95	2.03	9.0
75934-14	14	19*27	0.091	0.097	2.31	2.46	13.8
75934-12	12	37*28	0.108	0.114	2.74	2.89	20.5
75934-10	10	37*26	0.130	0.138	3.30	3.50	32.4
75934-8	8	133*29	0.187	0.203	4.74	5.15	60.3
75934-6	6	133*27	0.231	0.251	5.86	6.37	94.5
75934-4	4	133*25	0.300	0.320	7.62	8.12	150.0
75934-2	2	665*30	0.390	0.428	9.90	10.87	239.0
75934-1	1	817*30	0.429	0.461	10.89	11.7	290.0
75934-01	0	1045*30	0.469	0.501	11.91	12.72	377.0
75934-02	00	1330*30	0.529	0.561	13.43	14.24	487.0

## AS22759/41

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75941-26	26	19*38	0.038	0.042	0.97	1.06	1.7
75941-24	24	19*36	0.043	0.047	1.09	1.19	2.3
75941-22	22	19*34	0.048	0.052	1.21	1.32	3.2
75941-20	20	19*32	0.056	0.060	1.42	1.52	4.7
75941-18	18	19*30	0.067	0.073	1.70	1.85	7.2
75941-16	16	19*29	0.074	0.080	1.87	2.03	9.0
75941-14	14	19*27	0.091	0.097	2.31	2.46	13.8
75941-12	12	37*28	0.108	0.114	2.74	2.89	20.5
75941-10	10	37*26	0.130	0.138	3.30	3.50	32.4
75941-8	8	133*29	0.187	0.203	4.74	5.15	60.3
75941-6	6	133*27	0.231	0.251	5.86	6.37	94.5
75941-4	4	133*25	0.300	0.320	7.62	8.12	150.0
75941-2	2	665*30	0.390	0.428	9.90	10.87	239.0
75941-1	1	817*30	0.429	0.461	10.89	11.7	290.0
75941-01	0	1045*30	0.469	0.501	11.91	12.72	377.0
75941-02	00	1330*30	0.529	0.561	13.43	14.24	518.0

## AS22759/43

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75943-26	26	19*38	0.038	0.042	0.97	1.06	1.7
75943-24	24	19*36	0.043	0.047	1.09	1.19	2.3
75943-22	22	19*34	0.048	0.052	1.21	1.32	3.2
75943-20	20	19*32	0.056	0.060	1.42	1.52	4.7
75943-18	18	19*30	0.067	0.073	1.70	1.85	7.2
75943-16	16	19*29	0.074	0.080	1.87	2.03	9.0
75943-14	14	19*27	0.091	0.097	2.31	2.46	13.8
75943-12	12	37*28	0.108	0.114	2.74	2.89	20.5
75943-10	10	37*26	0.130	0.138	3.30	3.50	32.4
75943-8	8	133*29	0.187	0.203	4.74	5.15	61.9
75943-6	6	133*27	0.231	0.251	5.86	6.37	94.5
75943-4	4	133*25	0.300	0.320	7.62	8.12	158.0
75943-2	2	665*30	0.390	0.428	9.90	10.87	239.0
75943-1	1	817*30	0.429	0.461	10.89	11.7	305.0
75943-01	0	1045*30	0.469	0.501	11.91	12.72	385.0
75943-02	00	1330*30	0.529	0.561	13.43	14.24	487.0

## Additional information

**Fluid Resistant**

**UV markable for white, for other solid colors upon special request**





# CROSSLINKED POLYALKENE SAE AS81044

AS81044/8, AS81044/9 & AS81044/10

## Applications

Designed for general purpose aircraft wiring application. These constructions can be used in protected and airframe area, or inside a cable.

600 V

## Construction

### CONDUCTOR

AS81044/8: Silver Coated Copper

AS81044/9: Tin Coated Copper

AS81044/10: Silver coated High Strength Copper Alloy

### INSULATION

15 mil nominal wall thickness

1<sup>st</sup> Layer: Extruded XL Polyalkene

2<sup>ND</sup> Layer: Extruded XL Polyvinylidene Fluoride (XL-PVDF)



## Temperature Rating

AS81044/8: 150°C

AS81044/9: 150°C

AS81044/10: 150°C



AS81044/8: -65° to 150°C  
AS81044/9: -65° to 150°C  
AS81044/10: -65° to 150°C



AS81044/8: MG  
AS81044/9: MH  
AS81044/10: MJ



AS81044/8 , AS81044/9 compliant  
AS81044/10 compliant upon request

## AS81044/8

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
84408-24	24	19*36	0.052	0.056	1.27	1.47	2.7
84408-22	22	19*34	0.059	0.065	1.42	1.72	3.9
84408-20	20	19*32	0.067	0.073	1.63	1.93	5.5
84408-18	18	19*30	0.077	0.083	1.88	2.18	8.0
84408-16	16	19*29	0.085	0.093	2.06	2.46	10.1
84408-14	14	19*27	0.104	0.112	2.54	2.95	15.5
84408-12	12	37*28	0.122	0.130	2.99	3.40	23.0
84408-10	10	37*26	0.150	0.160	3.68	4.19	35.7
84408-8	8	133*29	0.208	0.220	5.13	5.74	65.9

## AS81044/9

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
84409-24	24	19*36	0.052	0.056	1.27	1.47	2.7
84409-22	22	19*34	0.059	0.065	1.42	1.72	3.9
84409-20	20	19*32	0.067	0.073	1.63	1.93	5.5
84409-18	18	19*30	0.077	0.083	1.88	2.18	8.0
84409-16	16	19*29	0.085	0.093	2.06	2.46	10.1
84409-14	14	19*27	0.104	0.112	2.54	2.95	15.5
84409-12	12	37*28	0.122	0.130	2.99	3.40	23.0
84409-10	10	37*26	0.150	0.160	3.68	4.19	35.7
84409-8	8	133*29	0.208	0.220	5.13	5.74	65.9

## AS81044/10

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
84410-26	26	19*38	0,046	0,050	1,17	1,27	1,9
84410-24	24	19*36	0,052	0,056	1,32	1,42	2,7
84410-22	22	19*34	0,059	0,065	1,50	1,65	3,9
84410-20	20	19*32	0,067	0,073	1,70	1,85	5,5

# CROSSLINKED POLYALKENE SAE AS81044

AS81044/11, AS81044/12 & AS81044/13

## Applications

Designed for general purpose aircraft wiring application. These light weight thin wall dual layer constructions can be used only with additional protection, or in protected area, or inside a cable with a shield or a jacket.

600 V

## Construction

### CONDUCTOR

AS81044/11: Silver Coated Copper  
 AS81044/12: Tin Coated Copper  
 AS81044/13: Silver coated High Strength Copper Alloy

### INSULATION

7.5 mil nominal wall thickness  
 1<sup>st</sup> Layer: Extruded XL Polyalkene  
 2<sup>ND</sup> Layer: Extruded XL Polyvinylidene Fluoride (XL-PVDF)



## Temperature Rating

AS81044/11: 150°C  
 AS81044/12: 150°C  
 AS81044/13: 150°C



AS81044/11: -65° to 150°C  
 AS81044/12: -65° to 150°C  
 AS81044/13: -65° to 150°C



AS81044/11: MK  
 AS81044/12: ML  
 AS81044/13: MM



AS81044/11, AS81044/12 compliant  
 AS81044/13 compliant upon request

## AS81044/11

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
84411-30	30	7*38	0.025	0.029	0.06	0.74	0.71
84411-28	28	7*36	0.028	0.032	0.07	0.81	0.96
84411-26	26	19*38	0.032	0.036	0.08	0.91	1.40
84411-24	24	19*36	0.038	0.042	0.10	1.07	2.10
84411-22	22	19*34	0.045	0.049	1.14	1.24	3.10
84411-20	20	19*32	0.053	0.057	1.35	1.45	4.60
84411-18	18	19*30	0.063	0.067	1.60	1.70	7.00
84411-16	16	19*29	0.069	0.075	1.75	1.91	8.90
84411-14	14	19*27	0.085	0.093	2.16	2.36	13.90
84411-12	12	37*28	0.104	0.112	2.64	2.84	21.70

## AS81044/12

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
84412-30	30	7*38	0.025	0.029	0.06	0.74	0.71
84412-28	28	7*36	0.028	0.032	0.07	0.81	0.96
84412-26	26	19*38	0.032	0.036	0.08	0.91	1.40
84412-24	24	19*36	0.038	0.042	0.10	1.07	2.10
84412-22	22	19*34	0.045	0.049	1.14	1.24	3.10
84412-20	20	19*32	0.053	0.057	1.35	1.45	4.60
84412-18	18	19*30	0.063	0.067	1.60	1.70	7.00
84412-16	16	19*29	0.069	0.075	1.75	1.91	8.90
84412-14	14	19*27	0.085	0.093	2.16	2.36	13.90
84412-12	12	37*28	0.104	0.112	2.64	2.84	21.70

## AS81044/13

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
84413-30	30	7*38	0.025	0.029	0.06	0.74	0.71
84413-28	28	7*36	0.028	0.032	0.07	0.81	0.96
84413-26	26	19*38	0.032	0.036	0.08	0.91	1.40
84413-24	24	19*36	0.038	0.042	0.10	1.07	2.10
84413-22	22	19*34	0.045	0.049	1.14	1.24	3.10
84413-20	20	19*32	0.053	0.057	1.35	1.45	4.60

## Additional information

Light weight

# COMPOSITE WIRE SAE AS22759

AS22759/80, AS22759/81, and AS22759/82

## Applications

Designed for general purpose aircraft wiring application. These light weight thin wall constructions can be used only with additional protection, or in protected area, or inside a cable with a shield or a jacket.

600 V

## Construction

### CONDUCTOR

- AS22759/80: Tin coated copper
- AS22759/81: Silver coated high strength copper alloy  
26 AWG Ultra-High strength copper alloy
- AS22759/82: Nickel coated high strength copper alloy  
26 AWG Ultra-High strength copper alloy

### INSULATION

PTFE/POLYIMIDE TAPE WRAP  
(5.8 - 6.7 NOM.)



## Temperature Rating

- AS22759/80: 150°C
- AS22759/81: 200°C
- AS22759/82: 260°C



AS22759/80: -65° to 150°C  
AS22759/81: -65° to 200°C  
AS22759/82: -65° to 260°C



AS22759/80: WB  
AS22759/81: WC  
AS22759/82: WE



Arc resistant



Flame resistant



AS22759/80 : Red, Orange & Yellow solid colors: compliant upon request except White and other colors: compliant  
AS22759/81/AS22759/82: compliant upon request

## AS22759/80

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75980-26	26	19*38	0.030	0.034	0.76	0.86	1.45
75980-24	24	19*36	0.034	0.038	0.86	0.97	2.00
75980-22	22	19*34	0.040	0.043	1.01	1.09	2.95
75980-20	20	19*32	0.048	0.051	1.21	1.29	4.45
75980-18	18	19*30	0.056	0.060	1.42	1.52	6.65
75980-16	16	19*29	0.063	0.067	1.60	1.70	8.35
75980-14	14	19*27	0.076	0.080	1.93	2.03	12.80
75980-12	12	37*28	0.096	0.100	2.43	2.54	20.30
75980-10	10	37*26	0.119	0.123	3.02	3.12	31.40

## AS22759/81

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75981-26	26(*)	19*38	0.030	0.034	0.76	0.86	1.46
75981-24	24	19*36	0.034	0.038	0.86	0.97	1.99
75981-22	22	19*34	0.040	0.043	1.01	1.09	2.95
75981-20	20	19*32	0.048	0.051	1.21	1.29	4.44

(\*) Conductor shall be ultra-high strength copper alloy

## AS22759/82

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75982-26	26(*)	19*38	0.030	0.034	0.76	0.86	1.45
75982-24	24	19*36	0.034	0.038	0.86	0.97	2.00
75982-22	22	19*34	0.040	0.043	1.01	1.09	2.95
75982-20	20	19*32	0.048	0.051	1.21	1.29	4.45

(\*) Conductor shall be ultra-high strength copper alloy

## Additional information

Light weight  
 Fluid Resistant  
 Abrasion Resistant  
 UV Laser markable

# COMPOSITE WIRE SAE AS22759

AS22759/86, AS22759/87, and AS22759/88

## Applications

Designed for general purpose aircraft wiring application for 26 AWG to 10 AWG.

Designed for power transmission for 8 AWG and larger.

These constructions can be used in protected area, airframe and swamp area, or inside a cable.

AS22759/87 can be used in nacelles & engines high temperature area.

600 V

## Construction

### CONDUCTOR

AS22759/86: Silver coated copper

AS22759/87: Nickel coated copper

AS22759/88: Tin coated copper

### INSULATION

PTFE/POLYIMIDE TAPE WRAP

(7.4 - 16.2 MIL NOM.)



## Temperature Rating

AS22759/86: 200°C

AS22759/87: 260°C

AS22759/88: 150°C



AS22759/86: -65° to 200°C  
AS22759/87: -65° to 260°C  
AS22759/88: -65° to 150°C



AS22759/86: WJ  
AS22759/87: WK  
AS22759/88: WL



Arc resistant



Flame resistant



For Red, Orange & Yellow solid colors: compliant upon except  
White and other colors: compliant



**AS22759/86**

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75986-26	26	19*38	0.033	0.037	0.84	0.94	1.55
75986-24	24	19*36	0.038	0.042	0.97	1.06	2.20
75986-22	22	19*34	0.043	0.047	1.09	1.19	3.10
75986-20	20	19*32	0.051	0.055	1.29	1.39	4.70
75986-18	18	19*30	0.061	0.065	1.54	1.65	6.90
75986-16	16	19*29	0.068	0.073	1.72	1.85	8.80
75986-14	14	19*27	0.081	0.086	2.05	2.18	13.40
75986-12	12	37*28	0.100	0.105	2.54	2.66	20.40
75986-10	10	37*26	0.122	0.127	3.09	3.22	31.60
75986-8	8	133*29	0.180	0.188	4.57	4.77	58.5
75986-6	6	133*27	0.219	0.229	5.56	5.81	88.9
75986-4	4	133*25	0.276	0.288	7.01	7.31	144.0
75986-2	2	665*30	0.344	0.364	8.73	9.24	226.0
75986-1	1	817*30	0.388	0.408	9.85	10.36	292.0
75986-01	0	1045*30	0.420	0.450	10.66	11.43	352.0
75986-02	00	1330*30	0.475	0.505	12.06	12.82	448.0

**AS22759/87**

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75987-26	26	19*38	0.033	0.037	0.84	0.94	1.55
75987-24	24	19*36	0.038	0.042	0.97	1.06	2.20
75987-22	22	19*34	0.043	0.047	1.09	1.19	3.10
75987-20	20	19*32	0.051	0.055	1.29	1.39	4.65
75987-18	18	19*30	0.061	0.065	1.54	1.65	6.85
75987-16	16	19*29	0.068	0.073	1.72	1.85	8.70
75987-14	14	19*27	0.081	0.086	2.05	2.18	13.30
75987-12	12	37*28	0.100	0.105	2.54	2.66	20.20
75987-10	10	37*26	0.122	0.127	3.09	3.22	31.60
75987-8	8	133*29	0.180	0.188	4.57	4.77	58.5
75987-6	6	133*27	0.219	0.229	5.56	5.81	88.9
75987-4	4	133*25	0.276	0.288	7.01	7.31	144.0
75987-2	2	665*30	0.344	0.364	8.73	9.24	226.0
75987-1	1	817*30	0.388	0.408	9.85	10.36	292.0
75987-01	0	1045*30	0.420	0.450	10.66	11.43	352.0
75987-02	00	1330*30	0.475	0.505	12.06	12.82	448.0

## AS22759/88

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				Weight Max. (LBS/1000 ft)
			Diameter				
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75988-26	26	19*38	0.033	0.037	0.84	0.94	1.55
75988-24	24	19*36	0.038	0.042	0.97	1.06	2.20
75988-22	22	19*34	0.043	0.047	1.09	1.19	3.10
75988-20	20	19*32	0.051	0.055	1.29	1.39	4.65
75988-18	18	19*30	0.061	0.065	1.54	1.65	6.85
75988-16	16	19*29	0.068	0.073	1.72	1.85	8.70
75988-14	14	19*27	0.081	0.086	2.05	2.18	13.30
75988-12	12	37*28	0.100	0.105	2.54	2.66	20.20
75988-10	10	37*26	0.122	0.127	3.09	3.22	32.20
75988-8	8	133*29	0.180	0.188	4.57	4.77	58.5
75988-6	6	133*27	0.219	0.229	5.56	5.81	88.9
75988-4	4	133*25	0.276	0.288	7.01	7.31	144.0
75988-2	2	665*30	0.344	0.364	8.73	9.24	226.0
75988-1	1	817*30	0.388	0.408	9.85	10.36	292.0
75988-01	0	1045*30	0.420	0.450	10.66	11.43	352.0
75988-02	00	1330*30	0.475	0.505	12.06	12.82	448.0

## Additional information

**Fluid Resistant**  
**Abrasion Resistant**  
**UV Laser markable**



# COMPOSITE WIRE SAE AS22759

AS22759/89 and AS22759/90

## Applications

Designed for general purpose aircraft wiring application. These constructions can be used in protected area, airframe area and swamp area, or inside a cable. AS22759/90 can be used in nacelles & engines high temperature area.

600 V

## Construction

### CONDUCTOR

AS22759/89: Silver coated high strength copper alloy  
26 AWG Ultra-High strength copper alloy  
AS22759/90: Nickel coated high strength copper alloy  
26 AWG Ultra-High strength copper alloy

### INSULATION

PTFE/POLYIMIDE TAPE WRAP  
(7.4 NOM.)



## Temperature Rating

AS22759/89: 200°C  
AS22759/90: 260°C



AS22759/89: -65° to 200°C  
AS22759/90: -65° to 260°C



AS22759/89: WM  
AS22759/90: WN



Arc resistant



Flame resistant



Compliant upon request

## AS22759/89

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75989-26	26 <sup>(*)</sup>	19*38	0.033	0.037	0.84	0.94	1.60
75989-24	24	19*36	0.038	0.042	0.97	1.06	2.20
75989-22	22	19*34	0.043	0.047	1.09	1.19	3.10
75989-20	20	19*32	0.051	0.055	1.29	1.39	4.65

(\*) Conductor shall be ultra-high strength copper alloy

## AS22759/90

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75990-26	26 <sup>(*)</sup>	19*38	0.033	0.037	0.84	0.94	1.60
75990-24	24	19*36	0.038	0.042	0.97	1.06	2.20
75990-22	22	19*34	0.043	0.047	1.09	1.19	3.10
75990-20	20	19*32	0.051	0.055	1.29	1.39	4.65

(\*) Conductor shall be ultra-high strength copper alloy

## Additional information

- Fluid Resistant**
- Abrasion Resistant**
- UV Laser markable**

# COMPOSITE WIRE SAE AS22759

AS22759/91 and AS22759/92

## Applications

Designed for general purpose aircraft wiring application. These light weight thin wall constructions can be used only with additional protection, or in protected area, or inside a cable with a shield or a jacket.

600 V

## Construction

### CONDUCTOR

AS22759/91: Silver coated copper  
AS22759/92: Nickel coated copper

### INSULATION

PTFE/POLYIMIDE TAPE WRAP  
(5.8 - 6.7 NOM.)



## Temperature Rating

AS22759/91: 200°C  
AS22759/92: 260°C



AS22759/91: -65° to 200°C  
AS22759/92: -65° to 260°C



AS22759/91: WP  
AS22759/92: WR



Arc resistant



Flame resistant



For Red, Orange & Yellow solid colors: compliant upon except  
White and other colors: compliant

## AS22759/91

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75991-26	26	19*38	0.030	0.034	0.76	0.86	1.45
75991-24	24	19*36	0.034	0.038	0.86	0.97	2.00
75991-22	22	19*34	0.040	0.043	1.01	1.09	2.96
75991-20	20	19*32	0.048	0.051	1.21	1.29	4.50
75991-18	18	19*30	0.056	0.060	1.42	1.52	6.70
75991-16	16	19*29	0.063	0.067	1.6	1.70	8.40
75991-14	14	19*27	0.076	0.080	1.93	2.03	12.90
75991-12	12	37*28	0.096	0.100	2.43	2.54	19.90
75991-10	10	37*26	0.119	0.123	3.02	3.12	30.80

## AS22759/92

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75992-26	26	19*38	0.030	0.034	0.76	0.86	1.45
75992-24	24	19*36	0.034	0.038	0.86	0.97	2.00
75992-22	22	19*34	0.040	0.043	1.01	1.09	2.95
75992-20	20	19*32	0.048	0.051	1.21	1.29	4.45
75992-18	18	19*30	0.056	0.060	1.42	1.52	6.65
75992-16	16	19*29	0.063	0.067	1.6	1.70	8.35
75992-14	14	19*27	0.076	0.080	1.93	2.03	12.80
75992-12	12	37*28	0.096	0.100	2.43	2.54	19.70
75992-10	10	37*26	0.119	0.123	3.02	3.12	30.80

## Additional information

- Light weight
- Fluid Resistant
- Abrasion Resistant
- UV Laser markable

# CROSSLINKED ETFE CC: CROSSLINK COMMERCIAL

CC1T, CC1S, CC1N, CC1V, & CC1K

## Applications

Designed for general purpose aircraft wiring application. These light weight single layer constructions can only be used with additional protection, or in protected area, or inside a cable with a shield or a jacket.

600 V

## Construction

### CONDUCTOR

- CC1T: Tin coated copper
- CC1S: Silver coated copper
- CC1N: Nickel coated copper
- CC1V: Silver coated high strength copper alloy
- CC1K: Nickel coated high strength copper alloy

### INSULATION

- 6 mil nominal wall thickness
- Extruded XL-ETFE Single layer



## Temperature Rating

- CC1T: 150°C
- CC1S: 200°C
- CC1N: 200°C
- CC1V: 200°C
- CC1K: 200°C



CC1T: -65° to 150°C  
CC1S, CC1N, CC1V, CC1K: -65° to 200°C



CC1T, CC1S, CC1N compliant  
CC1V, CC1K compliant upon request



## CC1T

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
CC1T30	30	7*38	0.0113	0.0193	0.29	0.49	0.66
CC1T28	28	7*36	0.0258	0.0282	0.66	0.72	0.91
CC1T26	26	19*38	0.0303	0.0327	0.77	0.83	1.40
CC1T24	24	19*36	0.0341	0.0369	0.87	0.94	1.93
CC1T22	22	19*34	0.0401	0.0429	1.02	1.09	2.83
CC1T20	20	19*32	0.0481	0.0509	1.22	1.29	4.35
CC1T18	18	19*30	0.0573	0.0607	1.46	1.54	6.63
CC1T16	16	19*29	0.0646	0.0684	1.64	1.74	8.46
CC1T14	14	19*27	0.0789	0.0831	2.00	2.11	12.90
CC1T12	12	37*28	0.0974	0.1026	2.47	2.61	19.71
CC1T10	10	37*26	0.1220	0.1300	3.10	3.30	31.70

## CC1S

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
CC1S26	26	19*38	0.0303	0.0327	0.77	0.83	1.40
CC1S24	24	19*36	0.0341	0.0369	0.87	0.94	1.93
CC1S22	22	19*34	0.0401	0.0429	1.02	1.09	2.83
CC1S20	20	19*32	0.0481	0.0509	1.22	1.29	4.35
CC1S18	18	19*30	0.0573	0.0607	1.46	1.54	6.63
CC1S16	16	19*29	0.0646	0.0684	1.64	1.74	8.46
CC1S14	14	19*27	0.0789	0.0831	2.00	2.11	12.90
CC1S12	12	37*28	0.0974	0.1026	2.47	2.61	19.71
CC1S10	10	37*26	0.1220	0.1300	3.10	3.30	31.70

## CC1N

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
CC1N26	26	19*38	0.0303	0.0327	0.77	0.83	1.40
CC1N24	24	19*36	0.0341	0.0369	0.87	0.94	1.93
CC1N22	22	19*34	0.0401	0.0429	1.02	1.09	2.83
CC1N20	20	19*32	0.0481	0.0509	1.22	1.29	4.35
CC1N18	18	19*30	0.0573	0.0607	1.46	1.54	6.63
CC1N16	16	19*29	0.0646	0.0684	1.64	1.74	8.46
CC1N14	14	19*27	0.0789	0.0831	2.00	2.11	12.90
CC1N12	12	37*28	0.0974	0.1026	2.47	2.61	19.71
CC1N10	10	37*26	0.1220	0.1300	3.10	3.30	31.70

## CC1V

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				Weight Max. (LBS/1000 ft)
			Diameter				
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
CC1V30	30	7*38	0.0113	0.0193	0.29	0.49	0.66
CC1V28	28	7*36	0.0258	0.0282	0.66	0.72	0.91
CC1V26	26	19*38	0.0303	0.0327	0.77	0.83	1.40
CC1V24	24	19*36	0.0341	0.0369	0.87	0.94	1.93
CC1V22	22	19*34	0.0401	0.0429	1.02	1.09	2.83
CC1V20	20	19*32	0.0481	0.0509	1.22	1.29	4.35
CC1V18	18	19*30	0.0573	0.0607	1.46	1.54	6.63
CC1V16	16	19*29	0.0646	0.0684	1.64	1.74	8.46

## CC1K

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				Weight Max. (LBS/1000 ft)
			Diameter				
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
CC1K26	26	19*38	0.0303	0.0327	0.77	0.83	1.40
CC1K24	24	19*36	0.0341	0.0369	0.87	0.94	1.93
CC1K22	22	19*34	0.0401	0.0429	1.02	1.09	2.83
CC1K20	20	19*32	0.0481	0.0509	1.22	1.29	4.35
CC1K18	18	19*30	0.0573	0.0607	1.46	1.54	6.63
CC1K16	16	19*29	0.0646	0.0684	1.64	1.74	8.46

## Additional information

Equivalent to 55PC02  
 Fluid Resistant  
 UV markable



# CROSSLINKED ETFE CC: CROSSLINK COMMERCIAL

CC2T, CC2S, CC2N, CC2V, & CC2K

## Applications

Designed for general purpose aircraft wiring application. These thinwall dual layer constructions can be used in protected and airframe area, or inside a cable.

600 V

## Construction

### CONDUCTOR

- CC2T: Tin coated copper
- CC2S: Silver coated copper
- CC2N: Nickel coated copper
- CC2V: Silver coated high strength copper alloy
- CC2K: Nickel coated high strength copper alloy

### INSULATION

- 8 mil nominal wall thickness
- 1<sup>st</sup> Layer: Extruded XL-ETFE
- 2<sup>ND</sup> Layer: Extruded XL-ETFE



## Temperature Rating

- CC2T: 150°C
- CC2S: 200°C
- CC2N: 200°C
- CC2V: 200°C
- CC2K: 200°C



CC2T: -65° to 150°C  
CC2S, CC2N, CC2V, CC2K: -65° to 200°C



CC2T, CC2S, CC2N compliant  
CC2V, CC2K compliant upon request

**CC2T**

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
CC2T26	26	19*38	0.0338	0.0372	0.86	0.94	1.55
CC2T24	24	19*36	0.0378	0.0412	0.96	1.05	2.13
CC2T22	22	19*34	0.0438	0.0472	1.11	1.20	3.06
CC2T20	20	19*32	0.0523	0.0557	1.33	1.41	4.65
CC2T18	18	19*30	0.0611	0.0649	1.55	1.65	6.98
CC2T16	16	19*29	0.0690	0.0730	1.75	1.85	8.84
CC2T14	14	19*27	0.0838	0.0882	2.13	2.24	13.41
CC2T12	12	37*28	0.1020	0.1074	2.59	2.73	20.31
CC2T10	10	37*26	0.1252	0.1328	3.18	3.37	32.14
CC2T8	8	133*29	0.1884	0.2026	4.79	5.15	62.32
CC2T6	6	133*27	0.2333	0.2507	5.93	6.37	97.52
CC2T4	4	133*25	0.3003	0.3217	7.63	8.17	157.60
CC2T2	2	665*30	0.3830	0.3965	9.73	10.07	240.30
CC2T01	01	1045*30	0.4660	0.4830	11.84	12.27	365.80
CC2T02	02	1330*30	0.5250	0.5453	13.34	13.85	481.00

**CC2S**

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
CC2S26	26	19*38	0.0338	0.0372	0.86	0.94	1.55
CC2S24	24	19*36	0.0378	0.0412	0.96	1.05	2.13
CC2S22	22	19*34	0.0438	0.0472	1.11	1.20	3.06
CC2S20	20	19*32	0.0523	0.0557	1.33	1.41	4.65
CC2S18	18	19*30	0.0611	0.0649	1.55	1.65	6.98
CC2S16	16	19*29	0.0690	0.0730	1.75	1.85	8.84
CC2S14	14	19*27	0.0838	0.0882	2.13	2.24	13.41
CC2S12	12	37*28	0.1020	0.1074	2.59	2.73	20.31
CC2S10	10	37*26	0.1252	0.1328	3.18	3.37	32.14
CC2S8	8	133*29	0.1884	0.2026	4.79	5.15	62.32
CC2S6	6	133*27	0.2333	0.2507	5.93	6.37	97.52
CC2S4	4	133*25	0.3003	0.3217	7.63	8.17	157.60

## CC2N

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				Weight Max. (LBS/1000 ft)
			Diameter				
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
CC2N24	24	19*36	0.0378	0.0412	0.96	1.05	2.13
CC2N22	22	19*34	0.0438	0.0472	1.11	1.20	3.06
CC2N20	20	19*32	0.0523	0.0557	1.33	1.41	4.65
CC2N18	18	19*30	0.0611	0.0649	1.55	1.65	6.98
CC2N16	16	19*29	0.0690	0.0730	1.75	1.85	8.84
CC2N14	14	19*27	0.0838	0.0882	2.13	2.24	13.41
CC2N12	12	37*28	0.1020	0.1074	2.59	2.73	20.31
CC2N10	10	37*26	0.1252	0.1328	3.18	3.37	32.14
CC2N8	8	133*29	0.1884	0.2026	4.79	5.15	62.32
CC2N6	6	133*27	0.2333	0.2507	5.93	6.37	97.52
CC2N4	4	133*25	0.3003	0.3217	7.63	8.17	157.60
CC2N2	2	665*30	0.3830	0.3965	9.73	10.07	240.30
CC2N0	01	1045*30	0.4660	0.4830	11.84	12.27	365.80
CC2N2	02	1330*30	0.5250	0.5453	13.34	13.85	481.00

## CC2V

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				Weight Max. (LBS/1000 ft)
			Diameter				
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
CC2V26	26	19*38	0.0338	0.0372	0.86	0.94	1.55
CC2V24	24	19*36	0.0378	0.0412	0.96	1.05	2.13
CC2V22	22	19*34	0.0438	0.0472	1.11	1.20	3.06
CC2V20	20	19*32	0.0523	0.0557	1.33	1.41	4.65
CC2V18	18	19*30	0.0611	0.0649	1.55	1.65	6.98
CC2V16	16	19*29	0.0690	0.0730	1.75	1.85	8.84

## CC2K

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				Weight Max. (LBS/1000 ft)
			Diameter				
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
CC2K26	26	19*38	0.0338	0.0372	0.86	0.94	1.55
CC2K24	24	19*36	0.0378	0.0412	0.96	1.05	2.13
CC2K22	22	19*34	0.0438	0.0472	1.11	1.20	3.06
CC2K20	20	19*32	0.0523	0.0557	1.33	1.41	4.65
CC2K18	18	19*30	0.0611	0.0649	1.55	1.65	6.98
CC2K16	16	19*29	0.0690	0.0730	1.75	1.85	8.84

## Additional information

Equivalent to 55PC02  
 Fluid Resistant  
 UV markable



# CROSSLINKED ETFE CC: CROSSLINK COMMERCIAL

CC3T, CC3S, CC3N, CC3V, & CC3K

## Applications

Designed for general purpose aircraft wiring application. These constructions can be used in protected area, airframe area and swamp area, or inside a cable.

600 V

## Construction

### CONDUCTOR

- CC3T: Tin coated copper
- CC3S: Silver coated copper
- CC3N: Nickel coated copper
- CC3V: Silver coated high strength copper alloy
- CC3K: Nickel coated high strength copper alloy

### INSULATION

- 10 mil nominal wall thickness
- 1<sup>st</sup> Layer: XL-ETFE
- 2<sup>ND</sup> Layer: XL-ETFE



## Temperature Rating

- CC3T: 150°C
- CC3S: 200°C
- CC3N: 200°C
- CC3V: 200°C
- CC3K: 200°C



CC3T: -65° to 150°C  
CC3S, CC3N, CC3V, CC3K: -65° to 200°C



CC3T, CC3S, CC3N compliant  
CC3V, CC3K compliant upon request



**CC3T**

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
CC3T26	26	19*38	0.0380	0.0420	0.97	1.07	1.70
CC3T24	24	19*36	0.0416	0.0454	1.06	1.15	2.34
CC3T22	22	19*34	0.0476	0.0514	1.21	1.31	3.30
CC3T20	20	19*32	0.0561	0.0599	1.42	1.52	4.93
CC3T18	18	19*30	0.0659	0.0701	1.67	1.78	7.34
CC3T16	16	19*29	0.0737	0.0783	1.87	1.99	9.30
CC3T14	14	19*27	0.0896	0.0944	2.28	2.40	14.07
CC3T12	12	37*28	0.1076	0.1134	2.73	2.88	21.08
CC3T10	10	37*26	0.1290	0.1370	3.28	3.48	32.78
CC3T8	8	133*29	0.1884	0.2028	4.79	5.15	60.59
CC3T6	6	133*27	0.2333	0.2509	5.93	6.37	94.70
CC3T4	4	133*25	0.3003	0.3219	7.63	8.18	154.00
CC3T2	2	665*30	0.3695	0.3965	9.39	10.07	240.20
CC3T01	01	1045*30	0.4490	0.4830	11.40	12.27	365.80
CC3T02	02	1330*30	0.5047	0.5453	12.82	13.85	481.00

**CC3S**

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
CC3S26	26	19*38	0.0380	0.0420	0.97	1.07	1.70
CC3S24	24	19*36	0.0416	0.0454	1.06	1.15	2.34
CC3S22	22	19*34	0.0476	0.0514	1.21	1.31	3.30
CC3S20	20	19*32	0.0561	0.0599	1.42	1.52	4.93
CC3S18	18	19*30	0.0659	0.0701	1.67	1.78	7.34
CC3S16	16	19*29	0.0737	0.0783	1.87	1.99	9.30
CC3S14	14	19*27	0.0896	0.0944	2.28	2.40	14.07
CC3S12	12	37*28	0.1076	0.1134	2.73	2.88	21.08
CC3S10	10	37*26	0.1290	0.1370	3.28	3.48	32.78
CC3S8	8	133*29	0.1884	0.2028	4.79	5.15	60.59
CC3S6	6	133*27	0.2333	0.2509	5.93	6.37	94.70
CC3S4	4	133*25	0.3003	0.3219	7.63	8.18	154.00
CC3S2	2	665*30	0.3695	0.3965	9.39	10.07	240.20
CC3S01	01	1045*30	0.4490	0.4830	11.40	12.27	365.80

## CC3N

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				Weight Max. (LBS/1000 ft)
			Diameter				
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
CC3N26	26	19*38	0.0380	0.0420	0.97	1.07	1.70
CC3N24	24	19*36	0.0416	0.0454	1.06	1.15	2.34
CC3N22	22	19*34	0.0476	0.0514	1.21	1.31	3.30
CC3N20	20	19*32	0.0561	0.0599	1.42	1.52	4.93
CC3N18	18	19*30	0.0659	0.0701	1.67	1.78	7.34
CC3N16	16	19*29	0.0737	0.0783	1.87	1.99	9.30
CC3N14	14	19*27	0.0896	0.0944	2.28	2.40	14.07
CC3N12	12	37*28	0.1076	0.1134	2.73	2.88	21.08
CC3N10	10	37*26	0.1290	0.1370	3.28	3.48	32.78
CC3N8	8	133*29	0.1884	0.2028	4.79	5.15	60.59
CC3N6	6	133*27	0.2333	0.2509	5.93	6.37	94.70
CC3N4	4	133*25	0.3003	0.3219	7.63	8.18	154.00
CC3N2	2	665*30	0.3695	0.3965	9.39	10.07	240.20
CC3N01	01	1045*30	0.4490	0.4830	11.40	12.27	365.80
CC3N02	02	1330*30	0.5047	0.5453	12.82	13.85	481.00

## CC3V

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				Weight Max. (LBS/1000 ft)
			Diameter				
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
CC3V26	26	19*38	0.0380	0.0420	0.97	1.07	1.70
CC3V24	24	19*36	0.0416	0.0454	1.06	1.15	2.34
CC3V22	22	19*34	0.0476	0.0514	1.21	1.31	3.30
CC3V20	20	19*32	0.0561	0.0599	1.42	1.52	4.93
CC3V18	18	19*30	0.0659	0.0701	1.67	1.78	7.34
CC3V16	16	19*29	0.0737	0.0783	1.87	1.99	9.30

## CC3K

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				Weight Max. (LBS/1000 ft)
			Diameter				
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
CC3K26	26	19*38	0.0380	0.0420	0.97	1.07	1.70
CC3K24	24	19*36	0.0416	0.0454	1.06	1.15	2.34
CC3K22	22	19*34	0.0476	0.0514	1.21	1.31	3.30
CC3K20	20	19*32	0.0561	0.0599	1.42	1.52	4.93
CC3K18	18	19*30	0.0659	0.0701	1.67	1.78	7.34
CC3K16	16	19*29	0.0737	0.0783	1.87	1.99	9.30

## Additional information

Equivalent to 55PC08  
 Fluid Resistant  
 UV markable



# CROSSLINKED ETFE CC: CROSSLINK COMMERCIAL

CC4T, CC4S, CC4N, CC4V, & CC4K

## Applications

Designed for general purpose aircraft wiring application. These thick wall dual layer constructions can be used in protected area, airframe area, swamp area and high vibration area, or inside a cable.

1000 V

## Construction

### CONDUCTOR

- CC4T: Tin coated copper
- CC4S: Silver coated copper
- CC4N: Nickel coated copper
- CC4V: Silver coated high strength copper alloy
- CC4K: Nickel coated high strength copper alloy

### INSULATION

- 15 mil nominal wall thickness
- 1<sup>st</sup> Layer: XL-ETFE
- 2<sup>ND</sup> Layer: XL-ETFE



## Temperature Rating

- CC4T: 150°C
- CC4S: 200°C
- CC4N: 200°C
- CC4V: 200°C
- CC4K: 200°C



CC4T: -65° to 150°C  
CC4S, CC4N, CC4V, CC4K: -65° to 200°C



CC4T, CC4S, CC4N compliant  
CC4V, CC4K compliant upon request

## CC4T

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
CC4T26	26	19*38	0.0480	0.0520	1.22	1.32	2.24
CC4T24	24	19*36	0.0532	0.0578	1.35	1.47	3.08
CC4T22	22	19*34	0.0592	0.0638	1.50	1.62	4.19
CC4T20	20	19*32	0.0671	0.0719	1.70	1.83	5.86
CC4T18	18	19*30	0.0769	0.0821	1.95	2.09	8.40
CC4T16	16	19*29	0.0844	0.0896	2.14	2.28	10.42
CC4T14	14	19*27	0.0991	0.1049	2.52	2.66	15.29
CC4T12	12	37*28	0.1170	0.1240	2.97	3.15	22.54
CC4T10	10	37*26	0.1390	0.1480	3.53	3.76	34.62

## CC4S

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
CC4S26	26	19*38	0.0480	0.0520	1.22	1.32	2.24
CC4S24	24	19*36	0.0532	0.0578	1.35	1.47	3.08
CC4S22	22	19*34	0.0592	0.0638	1.50	1.62	4.19
CC4S20	20	19*32	0.0671	0.0719	1.70	1.83	5.86
CC4S18	18	19*30	0.0769	0.0821	1.95	2.09	8.40
CC4S16	16	19*29	0.0844	0.0896	2.14	2.28	10.42
CC4S14	14	19*27	0.0991	0.1049	2.52	2.66	15.29
CC4S12	12	37*28	0.1170	0.1240	2.97	3.15	22.54
CC4S10	10	37*26	0.1390	0.1480	3.53	3.76	34.62

## CC4N

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
CC4N26	26	19*38	0.0480	0.0520	1.22	1.32	2.24
CC4N24	24	19*36	0.0532	0.0578	1.35	1.47	3.08
CC4N22	22	19*34	0.0592	0.0638	1.50	1.62	4.19
CC4N20	20	19*32	0.0671	0.0719	1.70	1.83	5.86
CC4N18	18	19*30	0.0769	0.0821	1.95	2.09	8.40
CC4N16	16	19*29	0.0844	0.0896	2.14	2.28	10.42
CC4N14	14	19*27	0.0991	0.1049	2.52	2.66	15.29
CC4N12	12	37*28	0.1170	0.1240	2.97	3.15	22.54
CC4N10	10	37*26	0.1390	0.1480	3.53	3.76	34.62

## CC4V

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
CC4V26	26	19*38	0.0480	0.0520	1.22	1.32	2.24
CC4V24	24	19*36	0.0532	0.0578	1.35	1.47	3.08
CC4V22	22	19*34	0.0592	0.0638	1.50	1.62	4.19
CC4V20	20	19*32	0.0671	0.0719	1.70	1.83	5.86
CC4V18	18	19*30	0.0769	0.0821	1.95	2.09	8.40
CC4V16	16	19*29	0.0844	0.0896	2.14	2.28	10.42

## CC4K

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
CC4K26	26	19*38	0.0480	0.0520	1.22	1.32	2.24
CC4K24	24	19*36	0.0532	0.0578	1.35	1.47	3.08
CC4K22	22	19*34	0.0592	0.0638	1.50	1.62	4.19
CC4K20	20	19*32	0.0671	0.0719	1.70	1.83	5.86
CC4K18	18	19*30	0.0769	0.0821	1.95	2.09	8.40
CC4K16	16	19*29	0.0844	0.0896	2.14	2.28	10.42

## Additional information

Equivalent to 55PC07

Fluid Resistant

UV markable







## Part 2

### Cables for power transmission

# ASNE 0438 YV

Flexible light weight wires single core large sizes

## Applications

Designed for general purpose aircraft wiring applications.

600 Volts RMS

## Construction

### CONDUCTOR

Stranded conductor made of nickel plated aluminium

### INSULATION

3 polyimide tapes

### EXTERNAL PROTECTION

Aromatic polyimide braid impregnated with a non flammable varnish



## Other characteristics

Operating frequency : up to 2000 Hz  
Mould and fungus resistant

## Standards

AECMA EN3719 (conductors)  
ASNE 0438  
NSA 935000  
NSA 307110  
AS N°462396/85



-55°C to +180°C  
(up to +200°C peak)



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids

## ASNE 0438 YV (Inch, pound)

PART NUMBER	AWG	Conductor				Finished wire or cable		
		Stranding m x n x Diam. in inch	Diam. inch	Nbr of strands missing allowed	Maximum DC Resistance at 20°C (68°F) (Ohms/1000 ft)	Diameter (inch)		Maximum Weight (lb/1000 ft)
						Min.	Max.	
YV 06	6	7 x 10 x 0.020	0.197 ± 0.010	0	0.671	0.228	0.252	36.9
YV 04	4	7 x 15 x 0.020	0.240 ± 0.012	0	0.457	0.272	0.295	51.7
YV 03	3	7 x 19 x 0.020	0.268 ± 0.012	0	0.360	0.315	0.331	64.5
YV 02	2	7 x 24 x 0.020	0.303 ± 0.012	2	0.287	0.339	0.362	79.9
YV 01	1	7 x 30 x 0.020	0.339 ± 0.012	2	0.229	0.374	0.398	100.0
YV 0A	0	19 x 14 x 0.020	0.394 ± 0.012	3	0.183	0.425	0.457	124.9
YV 00	00	19 x 18 x 0.020	0.449 ± 0.012	3	0.131	0.480	0.520	161.1
YV 000 (1)	000	19 x 22 x 0.020	0.500 ± 0.012	4	0.110	0.524	0.571	194.7
YV 0000 (1)	0000	37 x 15 x 0.020	0.569 ± 0.014	5	0.088	0.594	0.642	248.4

## ASNE 0438 YV (Metric units)

PART NUMBER	AWG	Conductor				Finished wire or cable		
		Stranding (m x n x Diam.) mm	Diam. (mm)	Nbr of strands missing allowed	Maximum DC resistance at 20°C (68°F) (Ohms/Km)	Diameter (mm)		Maximum weight (g/m)
						Min.	Max.	
YV 06	6	7 x 10 x 0.51	5.0 ± 0.25	0	2.20	5.8	6.4	55
YV 04	4	7 x 15 x 0.51	6.1 ± 0.30	0	1.50	6.9	7.5	77
YV 03	3	7 x 19 x 0.51	6.8 ± 0.30	0	1.18	8.0	8.4	96
YV 02	2	7 x 24 x 0.51	7.7 ± 0.30	2	0.94	8.6	9.2	119
YV 01	1	7 x 30 x 0.51	8.6 ± 0.30	2	0.75	9.5	10.1	149
YV 0A	0	19 x 14 x 0.51	10.0 ± 0.30	3	0.60	10.8	11.6	186
YV 00	00	19 x 18 x 0.51	11.4 ± 0.30	3	0.43	12.2	13.2	240
YV 000 (1)	000	19 x 22 x 0.51	12.7 ± 0.30	4	0.36	13.3	14.5	290
YV 0000 (1)	0000	37 x 15 x 0.51	14.45 ± 0.35	5	0.29	15.1	16.3	370

(1) AWG not defined in ASN specification, values obtained by extension with defined construction

## Identification

By colored threads between polyimide tapes and external braid

1, 2 or 3 threads for manufacturer : i.e. Black + Grey = Nexans

2 threads for year of manufacturing : i.e. Yellow + Purple = 2008

Wire size AWG 06, 03, 01, 00 and 0000 are identified with 1 black carrier in the external aromatic polyamide braid

# NSA 935 308 YU

Flexible single core large sizes

## Applications

Designed for general purpose aircraft wiring applications.

600 Volts RMS

## Construction

### CONDUCTOR

Stranded conductor made of aluminium alloy

### INSULATION

3 polyimide tapes

### EXTERNAL PROTECTION

Aromatic polyimide braid impregnated with a non flammable varnish



## Other characteristics

Operating frequency : up to 2000 Hz  
Mould and fungus resistant

## Standards

AECMA EN3719 (conductors)  
NSA 935 308  
NSA 935000  
NSA 307110



-55°C to +150°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids

## ■ NSA 935 308 YU (Metric units)

PART NUMBER	AWG	Conductor				Finished wire or cable		
		Stranding (m x n x Diam.) mm	Diameter (mm)	Nbr of strands missing allowed	Max. DC resistance at 20°C (68°F) Ohms/Km	Diameter (mm)		Maximum weight (g/m)
						Min.	Max.	
YU 12 (1)	12	45 x 0.30	2.4 ± 0.20	0	10			16.5
YU 10 (1)	10	27 x 0.51	2.9 ± 0.20	0	5.8			26
YU 8 (1)	8	41 x 0.51	3.7 ± 0.20	0	3.8			35
YU 6 (1)	6	7 x 10 x 0.51	5.0 ± 0.25	0	2.20			55
YU 4	4	7 x 15 x 0.51	6.1 ± 0.30	0	1.50			84
YU 3 (1)	3	7 x 19 x 0.51	6.8 ± 0.30	0	1.18			96
YU 2 (1)	2	7 x 24 x 0.51	7.7 ± 0.30	2	0.94			120
YU 1 (1)	1	7 x 30 x 0.51	8.6 ± 0.30	2	0.75			149
YU 0	0	19 x 14 x 0.51	10.0 ± 0.30	3	0.66			199
YU 00	00	19 x 18 x 0.51	11.4 ± 0.30	3	0.43			256
YU 000	000	19 x 22 x 0.51	12.7 ± 0.30	4	0.36			309
YU 000	0000	37 x 15 x 0.51	14.45 ± 0.35	5	0.29			390

(1) AWG not defined in NSA specification, values obtained by extension with defined construction

## ■ Identification

By colored threads between polyimide tapes and external braid

Manufacturer color: Black + Grey = Nexans

Manufacturing year : Yellow + Purple = 2008

# SMOOTH COMPOSITE WIRE SAE AS22759

AS22759/183 and AS22759/185

## Applications

Designed for general purpose aircraft wiring application and for power transmission.

These constructions can be used in protected area, airframe area and swamp area, or inside a cable.

600 V

## Construction

### CONDUCTOR

AS22759/183: Silver coated copper

AS22759/185: Tin coated copper

### INSULATION

Smooth surface

PTFE/POLYIMIDE TAPE WRAP

(13.2 - 16.2 MIL NOM.)

META-ARAMID FIBER BRAID

### DSCC EQUIVALENT

AS22759/183: 04037

AS22759/185: 04039



## Temperature Rating

AS22759/183: 200°C

AS22759/185: 150°C



AS22759/183: -65° to 200°C  
AS22759/185: -65° to 150°C



AS22759/183: DF  
AS22759/185: DH



Arc resistant



Flame resistant



RoHs

## AS22759/183

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
759183-8	2	133*29	0.192	0.213	4.877	5.410	62.6
759183-6	6	133*27	0.231	0.254	5.867	6.452	93.0
759183-4	4	133.25	0.288	0.313	7.315	7.950	150.0
759183-2	2	665*30	0.356	0.389	9.042	9.881	231.0
759183-1	1	817*30	0.400	0.433	10.160	10.998	298.0
759183-01	0	1045*30	0.432	0.475	10.973	12.065	357.0
759183-02	00	1330*30	0.487	0.530	12.370	13.462	454.0

Cables for power transmission

## AS22759/185

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
759185-8	2	133*29	0.192	0.213	4.877	5.410	62.8
759185-6	6	133*27	0.231	0.254	5.867	6.452	93.0
759185-4	4	133.25	0.288	0.313	7.315	7.950	150.0
759185-2	2	665*30	0.356	0.389	9.14	9.65	231.0
759185-1	1	817*30	0.400	0.433	10.16	10.66	298.0
759185-01	0	1045*30	0.432	0.475	11.22	11.73	357.0
759185-02	00	1330*30	0.487	0.530	12.64	13.41	454.0

## Additional information

**Arc Resistant** (greatly improved compare to non smooth technology)

**Fluid Resistant**

**Abrasion Resistant**

**UV Laser markable**

**Smooth outer surface**

# COMPOSITE WIRE SAE AS22759

AS22759/83 and AS22759/85

## Applications

Designed for general purpose aircraft wiring application and for power transmission.

These constructions can be used in protected area, airframe area and swamp area, or inside a cable.

600 V

## Construction

### CONDUCTOR

AS22759/83: Silver coated copper

AS22759/85: Tin coated copper

### INSULATION

PTFE/POLYIMIDE TAPE WRAP

(13.2 - 16.2 MIL NOM.)

META-ARAMID FIBER BRAID



## Temperature Rating

AS22759/83: 200°C

AS22759/85: 150°C



AS22759/83: -65° to 200°C  
AS22759/85: -65° to 150°C



AS22759/83: WF  
AS22759/85: WH



Arc resistant



Flame resistant



For Red, Orange & Yellow  
solid colors: compliant  
upon except  
White and other colors:  
compliant



## AS22759/83

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75983-8	2	133*29	0.192	0.213	4.877	5.410	62.6
75983-6	6	133*27	0.231	0.254	5.867	6.452	93.0
75983-4	4	133.25	0.288	0.313	7.315	7.950	150.0
75983-2	2	665*30	0.356	0.389	9.042	9.881	231.0
75983-1	1	817*30	0.400	0.433	10.160	10.998	298.0
75983-01	0	1045*30	0.432	0.475	10.973	12.065	357.0
75983-02	00	1330*30	0.487	0.530	12.370	13.462	454.0

Cables for power transmission

## AS22759/85

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75985-8	2	133*29	0.192	0.213	4.877	5.410	62.8
75985-6	6	133*27	0.231	0.254	5.867	6.452	93.0
75985-4	4	133.25	0.288	0.313	7.315	7.950	150.0
75985-2	2	665*30	0.356	0.389	9.14	9.65	231.0
75985-1	1	817*30	0.400	0.433	10.16	10.66	298.0
75985-01	0	1045*30	0.432	0.475	11.22	11.73	357.0
75985-02	00	1330*30	0.487	0.530	12.64	13.41	454.0

## Additional information

- Arc Resistant
- Fluid Resistant
- Abrasion Resistant
- UV Laser markable

**FX 5400 DG**  
**VG 95218-20 type J**  
**Single wire**

**Applications**

Designed for general purpose aircraft wiring applications.

**600 Volts RMS**

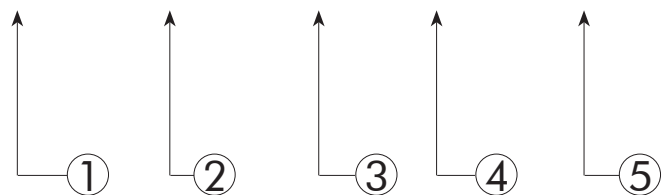
**Construction**

**CONDUCTOR**

1- Stranded conductor made of nickel plated copper

**INSULATION**

- 2- Polyimide tape
- 3- PTFE tape
- 4- Glass fiber tape
- 5- PTFE tape



**Other characteristics**

Operating frequency : up to 2000 Hz

**Standards**

VG 95218-2  
 VG 95218-20



-55°C to +260°C



Flame retardant  
 FAR/JAR part 25  
 sec 25.869 (a)(4)  
 Appendix F  
 part 1 (3)



Arc tracking  
 resistant



Very good  
 resistance to  
 aircraft fluids

## FX 5400

### TYPE J : single core nickel plated copper

VG Reference	NEXANS Part number	Dash number (VG)	Size code (NEXANS)	AWG (1)	Conductor	
					Stranding Nbr x Diam of strands	Diameter Max.
					(mm)	(mm)
VG 95218T020J019	FX 5400-050	01	050	10	73 x 0.30	3.3
VG 95218T020J029	FX 5400-090	02	090	8	127 x 0.30	4.5
VG 95218T020J039	FX 5400-140	03	140	6	27 x 7 x 0.30	5.6
VG 95218T020J049	FX 5400-220	04	220	4	37 x 12 x 0.25	7.3
VG 95218T020J059	FX 5400-340	05	340	2	37 x 19 x 0.25	8.8
VG 95218T020J069	FX 5400-420	06	420	1	37 x 23 x 0.25	10.0
VG 95218T020J079	FX 5400-530	07	530	0	37 x 29 x 0.25	11.3
VG 95218T020J089	FX 5400-680	08	680	00	37 x 37 x 0.25	12.5
VG 95218T020J099	FX 5400-850	09	850	000	48 x 36 x 0.25	14.4
VG 95218T020J109	FX 5400-107	10	107	0000	61 x 36 x 0.25	15.9

(1) For information only

VG Reference	NEXANS Part number	Finished Wire			
		Diameter (mm)		Weight max. (g/m)	Maximum DC resistance at 20°C (68°F) (Ohms/Km)
		min.	max.		
VG 95218T020J019	FX 5400-050	4.1	4.5	64.5	3.9
VG 95218T020J029	FX 5400-090	5.2	5.6	108	2.3
VG 95218T020J039	FX 5400-140	6.3	7.3	160	1.6
VG 95218T020J049	FX 5400-220	8.1	9.3	245	0.97
VG 95218T020J059	FX 5400-340	9.7	10.9	396	0.61
VG 95218T020J069	FX 5400-420	10.6	12.1	470	0.50
VG 95218T020J079	FX 5400-530	11.8	13.4	600	0.40
VG 95218T020J089	FX 5400-680	13.6	14.5	750	0.31
VG 95218T020J099	FX 5400-850	15.6	16.8	950	0.25
VG 95218T020J109	FX 5400-107	17.0	18.4	1200	0.20

## Identification

**Color** : white

**Marking** :

VG 95218T020J \*\* £ F 0241 ++ DG

With :

\*\* = Dash number

£ = Color (9: white)

F 0241 = Manufacturer's cage code

++ = Year of production (i.e. 08 = 2008)

DG = Cable code according to TR 6058

# NSA 935 131 - EN 2854-003 DG

Aircraft wire

## Applications

Designed for general purpose aircraft wiring applications.

600 Volts RMS

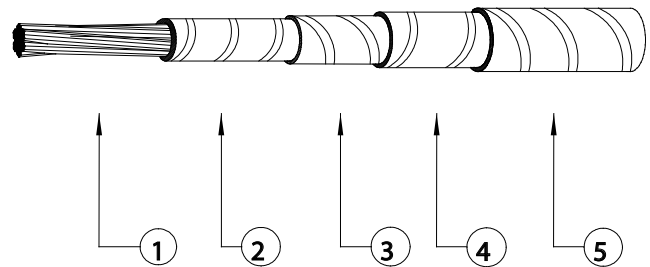
## Construction

### CONDUCTOR

1- Stranded conductor nickel plated copper

### INSULATION

- 2- Polyimide tape
- 3- PTFE tape(s)
- 4- Glass fiber tape
- 5- PTFE tape(s)



## Other characteristics

Operating frequency : up to 2000 Hz  
Mould and fungus resistant  
Non flammable

## Standards

NSA 935131  
EN 2854-003



-55°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Arc tracking  
resistant



Very good  
resistance to  
aircraft fluids

## NSA 935 131 - EN 2854-003

NEXANS Part Number	Nominal section (mm <sup>2</sup> )	AWG	Conductor		Finished Wire			
			Stranding Nbr x Dia. of strands (mm)	Diameter Max. (mm)	Diameter (mm)		Weight max. (g/m)	Maximum DC Resistance at 20°C (68°F) (Ohms/Km)
					Min.	Max.		
NSA 935 131 DG 10	5.15	10	73 x 0.30	3.3	4.1	4.5	64.5	3.9
NSA 935 131 DG 8	8.98	8	127 x 0.30	4.5	5.2	5.6	108	2.3
NSA 935 131 DG 6	13.4	6	27 x 7 x 0.30	5.6	6.3	7.3	160	1.6
NSA 935 131 DG 4	21.8	4	37 x 12 x 0.25	7.3	8.1	9.3	245	0.97
NSA 935 131 DG 2	34.5	2	37 x 19 x 0.25	8.8	9.7	10.9	396	0.61
NSA 935 131 DG 1	41.8	1	37 x 23 x 0.25	10.0	10.6	12.1	470	0.50
NSA 935 131 DG 0	52.7	0	37 x 29 x 0.25	11.3	11.8	13.4	600	0.40
NSA 935 131 DG 00	67.2	00	37 x 37 x 0.25	12.5	13.6	14.5	750	0.31
NSA 935 131 DG 000	84.8	000	48 x 36 x 0.25	14.4	15.6	16.8	950	0.25
NSA 935 131 DG 0000	107.8	0000	61 x 36 x 0.25	15.9	17.0	18.4	1200	0.20

Cables for power transmission

## Identification

**Color** : white

**Marking** :

DG \*\* FR F ++

With :

\*\* = AWG

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)

++ = Year of production (i.e. 08 = 2008)

# ESW 1000-010-XXX

## Large section high temperature cable

### Applications

Use in Aero-engine services

600 Volts RMS

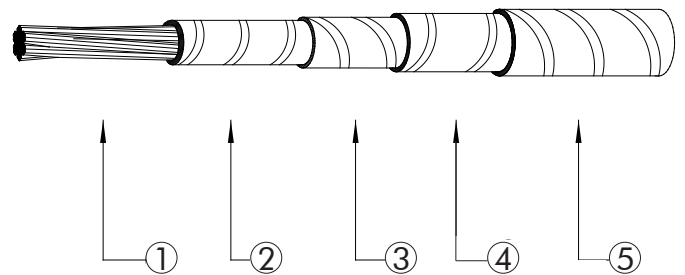
### Construction

#### CONDUCTOR

- 1- Stranded conductor made of nickel plated copper

#### INSULATION

- 2- Polyimide tape
- 3- PTFE tapes
- 4- PTFE coated fiberglass tape
- 5- PTFE tapes



### Other characteristics

Mould and fungus resistant

### Standards

ESW 1000-010



-65°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



## ESW 1000-010- XXX (Metric units)

REFERENCE	AWG	Conductor				Finished Cable		
		Stranding m x n x Diam. (mm)	Diameter (mm)	Number of Strands Max	Maximum DC resistance at 20°C (68°F)  (Ohms/Km)	Diameter (mm)		Maximum Weight  (Kg/Km)
			Max.			Nom.	Max.	
ESW1000-010-090	8	127 x 0.30	4.5	127	2.30	*	6.25	108
ESW1000-010-140	6	27 x 7 x 0.30	5.6	189	1.58	*	7.30	160
ESW1000-010-220	4	37 x 12 x 0.25	7.3	444	0.97	9.24	9.30	245
ESW1000-010-340	2	37 x 19 x 0.25	8.8	703	0.61	10.93	11.30	420
ESW1000-010-420	1	37 x 23 x 0.25	10.0	851	0.51	*	12.40	500
ESW1000-010-530	0	37 x 29 x 0.25	11.3	1073	0.40	12.55	13.15	630
ESW1000-010-680	00	37 x 37 x 0.25	12.5	1369	0.32	14.20	14.45	800
ESW1000-010-850	000	48 x 36 x 0.25	14.4	1728	0.25	15.58	16.05	1010
ESW1000-010-107	0000	61 x 36 x 0.25	15.9	2196	0.20	17.22	17.55	1270

\* To be defined

## Identification

**Color of cable** : white

**Marking** :

Color : Green

Marking:

ESW1000-010-xxx-FX-FF-\*\*

With :

xxx = Size code

\*\* = Year of production (ie. 08 = 2008)

# SP 799

**180 °C Operating Temperature  
Nickel Plated Aluminium  
Power Feeder Cables**

## Applications

Aero engine services

**600 Volts RMS**

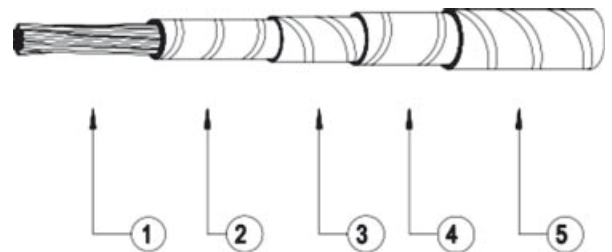
## Construction

### CONDUCTOR

- 1- A Stranded Conductor  
Made of Nickel Plated  
Aluminium

### INSULATION

- 2- POLYIMIDE Tape
- 3- PTFE tape(s)
- 4- PTFE Coated Fiberglass  
Tape
- 5- PTFE tapes



## Other characteristics

Mould and fungus resistant

## Standards

SP799- ESW1000-010 - JES 292



-65°C to +180°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



REFERENCE	AWG	Cross section (mm <sup>2</sup> )	Conductor			Finished Wire		
			Stranding m x n x Diam. (mm)	Diameter (mm) Max.	Resistance at 20°C (68°F) (Ohms/1000 ft) Max.	Diameter (mm)		Weight (Kg/Km)
						Min.	Max.	Max.
Study 133010	2	34.3	168 x 0.51	8.0	0.94	0.100	0.116	10.0
Study 133011	1	42.9	210 x 0.51	8.9	0.75	0.109	0.125	12.0
Study 133012	0	54.3	266 x 0.51	10.3	0.60	0.119	0.135	15.0
Study 132877	00	69.9	342 x 0.51	11.7	0.43	0.127	0.147	19.0
Study 133013	000	85.4	418 x 0.51	13.0	0.36	0.150	0.170	25.0
Study 132878	0000	110.3	540 x 0.51	14.8	0.29	0.165	0.185	35.0

Cables for power transmission

### Qualification test

JES 292 Annex C Ref	Title	No. of samples per cable size	Remarks		
001	Visual examination	2			
002	Examination of dimension and mass	1	See table I		
003	Mechanical properties of conductor (tensile strength only)	2	Tensile strength of each individual strand > 105 MPa.		
007	Notch propagation resistance test	1	Mandrel 22 times diameter of cable		
008	Resistance to fluids	14	RT Bend Test to ref. 062 of this Table		
010	Torsion test (delamination)	1	T1 = 180 ± 5°C T2 = 230 ± 5°C		
011	Identification durability	1	Test temperature 20 ± 5°C Min cycles 100 Applied Force 2.0N		
013	Fluid wicking	1	1% max weight increase		
017	Colour fastness to light	3			
018	Climatic cycle	3			
024	1. Delamination and shrinkage	2	Max shrinkage One half of max outside diameter. Time 6 hours at 230 ± 5°C		
025	Flame resistance test	1	Time to flame extinction 15 seconds		
050	High voltage test	3	Immersion: 2500 ± 75 V rms Dry impulse: 8000 ± 250 V peak		
051	Insulation resistance	1			
052	Surface resistance	2			
061	Accelerated ageing	1	Conduct at 230 ± 3°C		
062	Room temp bend test	2	<b>Size</b>		
			<b>Mandrel Diameter</b>		
			<b>Tension (N)</b>		
			340	22 x max OD	70
			420	"	70
530	"	120			
680	"	120			
850	"	150			
107	"	150			
066	High temp cyclic endurance	2	T1 = 180 ± 5°C T2 = 230 ± 5°C		

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## ■ Production acceptance test

JES 292 Annex C Ref	Title	Remarks
JES 292	Ohmic resistance	See table I
001	Visual examination	
002	Examination of dimension and mass	See table I
003	Mechanical properties of conductor or strand	
050	High voltage dry impulse	

## ■ Identification

### Colour of cable :

White

### Marking :

Colour: Green

Wording: ET 132877 FRF\*\*

With :

\*\*= Year of manufacturing





# Part 3-1

## Nacelles and engines high temperature

# SMOOTH COMPOSITE WIRE SAE AS22759

AS22759/184

## Applications

Designed for general purpose aircraft wiring application and for power transmission.

These constructions can be used in protected area, airframe area and swamp area, or inside a cable.

AS22759/184 can be used in nacelles and engines high temperature area.

600 V

## Construction

### CONDUCTOR

AS22759/184: Nickel coated copper

### INSULATION

Smooth surface

PTFE/POLYIMIDE TAPE WRAP

(13.2 - 16.2 MIL NOM.)

META-ARAMID FIBER BRAID



## Temperature Rating

AS22759/184: 260°C

## DSCC Equivalent

AS22759/184: 04038



AS22759/184: -65° to 260°C



AS22759/184: DG



Arc resistant



Flame resistant



RoHs

## AS22759/184

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
759184-8	2	133*29	0.192	0.213	4.877	5.410	62.5
759184-6	6	133*27	0.231	0.254	5.867	6.452	93.0
759184-4	4	133.25	0.288	0.313	7.315	7.950	150.0
759184-2	2	665*30	0.356	0.389	9.042	9.881	231.0
759184-1	1	817*30	0.400	0.433	10.160	10.998	298.0
759184-01	0	1045*30	0.432	0.475	10.973	12.065	357.0
759184-02	00	1330*30	0.487	0.530	12.370	13.462	454.0

## Additional information

**Arc Resistant** (greatly improved compare to non smooth technology)

**Fluid Resistant**

**Abrasion Resistant**

**UV Laser markable**

**Smooth outer surface**

Nacelles and engines:  
High temperature

# COMPOSITE WIRE SAE AS22759

AS22759/84

## Applications

Designed for general purpose aircraft wiring application and for power transmission.  
 These constructions can be used in protected area, airframe area and swamp area, or inside a cable.  
 AS22759/84 can be used in nacelles & engines high temperature area.

600 V

## Construction

### CONDUCTOR

AS22759/84: Nickel coated copper

### INSULATION

PTFE/POLYIMIDE TAPE WRAP  
 (13.2 - 16.2 MIL NOM.)  
 META-ARAMID FIBER BRAID



## Temperature Rating

AS22759/84: 260°C



AS22759/84: -65° to 260°C



AS22759/84: WG



Arc resistant



Flame resistant



For Red, Orange & Yellow solid colors: compliant upon except  
 White and other colors: compliant



## AS22759/84

Nexans references	AWG	Conductor Standing (Nbr x mm)	Finished wire				
			Diameter				Weight Max. (LBS/1000 ft)
			Min. (inch)	Max. (inch)	Min. (mm)	Max. (mm)	
75984-8	2	133*29	0.192	0.213	4.877	5.410	62.5
75984-6	6	133*27	0.231	0.254	5.867	6.452	93.0
75984-4	4	133.25	0.288	0.313	7.315	7.950	150.0
75984-2	2	665*30	0.356	0.389	9.042	9.881	231.0
75984-1	1	817*30	0.400	0.433	10.160	10.998	298.0
75984-01	0	1045*30	0.432	0.475	10.973	12.065	357.0
75984-02	00	1330*30	0.487	0.530	12.370	13.462	454.0

## Additional information

- Arc Resistant**
- Fluid Resistant**
- Abrasion Resistant**
- UV Laser markable**

Nacelles and engines:  
High temperature

# BMS 13-58

## High temperature, UV laser printable aircraft wire

### Applications

Designed for general purpose aircraft wiring where exposure to thermal changes and corrosive fluids is normal.

600 Volts RMS

### Construction

#### CONDUCTOR

- Nickel coated copper (type 1)
- Nickel coated high strength copper alloy (type 5)

#### INSULATION

- PTFE tape
- Polyimide tape
- PTFE coated glass tape (AWG 8 to 4/0 only)
- PTFE coated glass braid
- UV PTFE tapes jacket



### Other characteristics

- Operating frequency : up to 2000 Hz
- Abrasion resistant
- Good mechanical and electrical performances

### Standards

BMS 13-58 QPL

### Product range

- Shielded and jacketed T3, T7, T9 cables are available upon request
- Shielded T2, T6 cables are available upon request
- Jacketed T4, T8 cables are available upon request



-65°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Arc tracking  
resistant



Very good  
resistance to  
aircraft fluids

## BMS 13-58 Type 1 (Metric units)

PART NUMBER	US AWG	Conductor			Finished Wire				
		Stranding (Number of strands x Dia. of Strands (mm))	Diameter (mm)		Resistance at 20°C (68°F) (Ohms/Km)	Diameter (mm)		Weight (Kg/Km)	
			Nom.	Max.	Max.	Min.	Max.	Min.	Max.
BMS 13-58 T1	24	19 x 0.127	0.58	0.66	86	1.75	1.91	6.4	7.23
BMS 13-58 T1	22	19 x 0.16	0.74	0.84	52.5	1.85	2.01	7.89	8.72
BMS 13-58 T1	22	19 x 0.20	0.94	1.04	32.1	2.03	2.18	9.73	11.55
BMS 13-58 T1	18	19 x 0.25	1.17	1.30	22	2.31	2.46	13.91	16.07
BMS 13-58 T1	16	19 x 0.30	1.32	1.47	15.6	2.41	2.62	17.26	19.05
BMS 13-58 T1	14	19 x 0.36	1.65	1.85	9.84	2.77	2.97	24.10	26.93
BMS 13-58 T1	12	37 x 0.32	2.13	2.29	6.5	3.25	3.45	34.60	38.69
BMS 13-58 T1	10	37 x 0.40	2.69	2.90	4.07	3.71	4.01	51.48	57.88
BMS 13-58 T1	8	19 x 7 x 0.287	4.01	4.39	2.28	5.46	5.77	94.04	106.84
BMS 13-58 T1	6	19 x 7 x 0.360	5.03	5.51	1.43	6.38	7.14	138.23	161.75
BMS 13-58 T1	4	19 x 7 x 0.455	6.35	6.96	0.902	7.77	8.64	217.54	254.15
BMS 13-58 T1	2	19 x 35 x 0.254	8.13	8.64	0.581	9.83	10.49	348.04	401.46
BMS 13-58 T1	1/0	19 x 55 x 0.254	10.03	10.80	0.371	11.79	12.6	510.23	610.53
BMS 13-58 T1	2/0	19 x 70 x 0.254	11.18	12.07	0.292	12.88	14.15	566.18	765.58
BMS 13-58 T1	3/0	37 x 45 x 0.254	12.70	13.72	0.233	14.17	15.44	793.10	941.9
BMS 13-58 T1	4/0	37 x 57 x 0.254	14.35	15.37	0.184	15.95	17.25	1031.63	1125

Nacelles and engines:  
High temperature

## BMS 13-58 Type 1 (Inch, Pound)

PART NUMBER	US AWG	Conductor			Finished Wire				
		Stranding (number of strands x dia. of strands) inch	Diameter (inch)		Resistance at 20°C (68°F) Ohms/1000 ft	Diameter (inch)		Weight (Pound/1000 ft)	
			Min.	Max.	Max.	Min.	Max.	Min.	Max.
BMS 13-58 T1	24	19 x 0.050	0.023	0.026	26.20	0.069	0.075	4.30	4.86
BMS 13-58 T1	22	19 x 0.0063	0.029	0.033	16.00	0.073	0.079	5.30	5.86
BMS 13-58 T1	22	19 x 0.0080	0.037	0.041	9.77	0.080	0.086	6.54	7.76
BMS 13-58 T1	18	19 x 0.010	0.046	0.051	6.70	0.091	0.097	9.35	10.80
BMS 13-58 T1	16	19 x 0.0113	0.052	0.058	4.76	0.095	0.103	11.60	12.80
BMS 13-58 T1	14	19 x 0.0142	0.065	0.073	3.00	0.109	0.117	16.20	18.10
BMS 13-58 T1	12	37 x 0.0126	0.084	0.090	1.98	0.128	0.136	23.25	26.00
BMS 13-58 T1	10	37 x 0.0159	0.106	0.114	1.24	0.146	0.158	34.50	38.90
BMS 13-58 T1	8	19 x 7 x 0.0113	0.158	0.173	0.694	0.215	0.227	63.20	71.80
BMS 13-58 T1	6	19 x 7 x 0.0142	0.198	0.217	0.436	0.251	0.281	92.90	108.70
BMS 13-58 T1	4	19 x 7 x 0.0179	0.250	0.274	0.275	0.306	0.340	146.20	170.80
BMS 13-58 T1	2	19 x 35 x 0.0100	0.320	0.340	0.177	0.387	0.413	233.90	269.80
BMS 13-58 T1	1/0	19 x 55 x 0.0100	0.395	0.425	0.113	0.464	0.496	342.90	410.30
BMS 13-58 T1	2/0	19 x 70 x 0.0100	0.440	0.475	0.089	0.507	0.557	380.50	514.50
BMS 13-58 T1	3/0	37 x 45 x 0.0100	0.500	0.540	0.071	0.558	0.608	533.00	633.00
BMS 13-58 T1	4/0	37 x 57 x 0.0100	0.565	0.605	0.056	0.628	0.679	693.30	756.20

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## ■ BMS 13-58 Type 5 (Metric units)

PART NUMBER	US AWG	Conductor			Finished Wire				
		Stranding (number of strands x dia. of strands) (mm)	Diameter (mm)		Resistance at 20°C (68°F) (Ohms/Km)	Diameter (mm)		Weight (Kg/Km)	
			Min.	Max.	Max.	Min.	Max.	Min.	Max.
BMS 13-58 T5	24	19 x 0.127	0.58	0.66	98.8	1.75	1.91	6.4	7.23
BMS 13-58 T5	22	19 x 0.16	0.74	0.84	61.0	1.85	2.01	7.89	8.72
BMS 13-58 T5	20	19 x 0.20	0.94	1.04	37.4	2.03	2.18	10.42	11.55
BMS 13-58 T5	18	19 x 0.25	1.17	1.30	23.6	2.31	2.46	15.19	16.07
BMS 13-58 T5	16	19 x 0.30	1.32	1.47	18.4	2.41	2.62	17.26	19.05

## ■ BMS 13-58 Type 5 (Inch, Pound)

PART NUMBER	US AWG	Conductor			Finished Wire				
		Stranding (Number of Strands x Dia. of Strands) inch	Diameter (inch)		Resistance at 20°C (68°F) (Ohms/1000ft)	Diameter (inch)		Weight (Pounds/1000 ft)	
			Min.	Max.	Max.	Min.	Max.	Min.	Max.
BMS 13-58 T5	24	19 x 0.050	0.023	0.026	30.1	0.069	0.075	4.30	4.86
BMS 13-58 T5	22	19 x 0.0063	0.029	0.033	18.6	0.073	0.079	5.30	5.86
BMS 13-58 T5	20	19 x 0.0080	0.037	0.041	11.4	0.080	0.086	7.00	7.76
BMS 13-58 T5	18	19 x 0.010	0.046	0.051	7.2	0.091	0.097	10.20	10.80
BMS 13-58 T5	16	19 x 0.0113	0.052	0.058	5.6	0.095	0.103	11.60	12.80

## ■ Identification

### Marking :

In accordance with BMS 13-58 specification.



# TYPE 2100

Flexible cables for high ambient temperatures

## Applications

Designed for use at high ambient temperatures up to 289°C at peak. Excellent flame resistance, non-flammable, they withstand most solvents.

600 Volts RMS

## Construction

### 1- CONDUCTOR

Stranded nickel plated copper

### 2- Thin wrapped PTFE layer

### 3- INSULATION

Polyimide

### 4- OUTER JACKET

#### a) From 0.38 to 1.34 mm<sup>2</sup>:

Extruded PTFE sheath (high abrasion resistance)

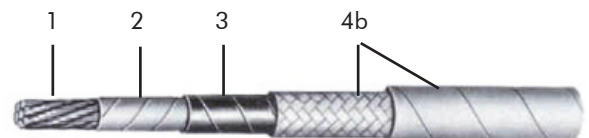
#### b) From 1.91 mm<sup>2</sup> :

Composite glass fiber + PTFE + wrapped and sintered PTFE sheath

Cross sections from 0.38 to 1.34 mm<sup>2</sup>



Cross sections from 1.91 mm<sup>2</sup>



## Technical requirements and control conditions

AIR 4524 specification (09/1965) - Category 250/280°C,  
NFL 52-125A french draft specification (07/1978) - Category C -  
Standard cables.

## Interchangeability

MIL-W-22759 D specification - Index 8 A (06/1973) and MS 18001  
(up to 12 AWG).

## Standards

AIR 4524, B.N.Aé, MIL-W-22759 D  
Approved by the Air Ministry under  
letter: N°42707 STA/EQ/E2 (03-  
12- 68)  
Registered at B.N.Aé : N° 6418 401



-50°C to +250°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHs

## TYPE 2100

Nexans reference			Conductor		Core			Electrical Values	
			Construction	Maxi. Ø	Overall Ø	Weight		DC resistance at 20°C (max.)	Current rating
Type	Cross section	Gauge AWG	n x Ø mm	mm	mm	nom. g/m	max. g/m	Ω / km	A
2100	0.38	22	12 x 0.20	0.85	1.90 ± 0.10	8.6	9.3	54.50	7
2100	0.60	20	19 x 0.20	1.00	2.20 ± 0.10	12.1	12.4	34.40	11
2100	0.93	18	19 x 0.25	1.25	2.40 ± 0.10	15.8	17	22.00	16
2100	1.34	16	19 x 0.30	1.50	2.70 ± 0.10	19.6	20	15.30	22
2100	1.91	14	27 x 0.30	1.85	2.95 ± 0.10	26.1	27	10.80	32
2100	3.18	12	45 x 0.30	2.40	3.60 ± 0.15	40.8	46.7	6.50	41
2100	5.15	10	73 x 0.30	3.10	4.20 ± 0.20	60.4	65	3.40	55
2100	8.98	8	127 x 0.30	4.00	5.30 ± 0.20	102	108	2.30	75
2100	13.40	6	27 x 7 x 0.30	5.10	7.00 ± 0.30	158	160	1.60	100
2100	21.80	4	37 x 12 x 0.25	6.60	9.00 ± 0.30	237	245	0.97	135
2100	34.50	2	37 x 19 x 0.25	8.20	10.60 ± 0.30	391	396	0.61	181
2100	41.80	1	37 x 23 x 0.25	9.80	11.80 ± 0.30	460	470	0.50	211
2100	52.70	0	37 x 29 x 0.25	10.80	13.10 ± 0.30	580	600	0.40	245
2100	67.20	00	37 x 37 x 0.25	12.40	14.20 ± 0.30	736	750	0.31	283

The currents shown are valid for single wires in air. For current ratings in bundle see AIR 7822 specification.

## Identification

According to AIR 0107 (10/1961).

Nacelles and engines:  
High temperature

# TYPE 2103

## Flexible cables for high ambient temperature

### Applications

Designed for use at high ambient temperature up to 300°C at peak.  
 Vital circuits : they withstand overloads for 15 seconds to 2 minutes (870°C to 1040°C) according to MIL-W-7139 B standard. Non-flammable, good abrasion resistance, they withstand most solvents.

**600 Volts RMS**

### Construction

#### 1- CONDUCTOR

Stranded nickel plated copper or nickel plated copper alloy for 0.21 sq mm size (alloy providing a high mechanical resistance)

#### 2- Thin PTFE layer

#### 3- INSULATION

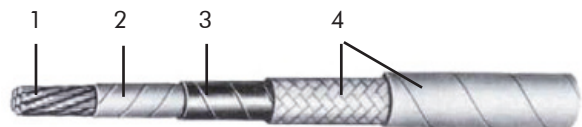
Polyimide insulation

#### 4- PROTECTIVE INSULATION

PTFE + glass fiber tape coated with PTFE

Wrapped PTFE finish sheath

These tapes are intimately bonded to each other



### Technical requirements and control conditions

AIR 4524 specification - Category 250/280°C  
 NFL 52-125A french draft specification (high temperature cable)  
 MIL-W-22759 B specification class 2 (Nickel plated copper conductor).

### Standards

AIR 4524, MIL-W-22759 B  
 Approved by the Air Ministry under letters : N°34672 STA/EQ/E3 (25-05-77) for cross section from 0.38 mm<sup>2</sup> to 107.80 mm<sup>2</sup> ; N°40784 STA/EQ/E3 (22-12-77) for cross section 0.21 mm<sup>2</sup>  
 Registered at B.N.Aé : N° 6418404A



-90°C to +260°C



Flame retardant  
 FAR/JAR part 25  
 sec 25.869 (a)(4)  
 Appendix F  
 part 1 (3)



Very good  
 resistance to  
 aircraft fluids





## TYPE 2103

References		Gauge AWG	Conductor			Core		Electrical Values	
Type	Cross Section		Construction n x Ø mm	Maxi. diameter mm	Tensile Strength daN	Overall diameter (max.) mm	Maxi. weight g/m	D.C. resistance at 20°C (max.) Ω / km	Current rating A
2103	0.21	24	19 x 0.12 N.P.C.A.	0.65	7	1.80	8.4	112.30	4
2103	0.38	22	12 x 0.20 N.P.C.	0.85	8	1.95	9.5	54.50	7
2103	0.60	20	19 x 0.20 N.P.C.	1.03	16	2.10	12.5	34.40	11
2103	0.93	18	19 x 0.25 N.P.C.	1.28	> 20	2.20	17.5	22.00	16
2103	1.34	16	19 x 0.30 N.P.C.	1.53	> 20	2.80	21.5	15.30	22
2103	1.91	14	27 x 0.30 N.P.C.	1.87	> 20	3.20	31.5	10.80	32
2103	3.18	12	45 x 0.30 N.P.C.	2.40	> 20	3.70	47.5	6.40	41
2103	5.15	10	73 x 0.30 N.P.C.	3.10	> 20	4.35	65	3.98	55
2103	8.98	8	127 x 0.30 N.P.C.	4.20	> 20	5.55	108	2.29	75
2103	13.40	6	27 x 7 x 0.30 N.P.C.	5.60	> 20	7.30	160	1.58	100
2103	21.80	4	37 x 12 x 0.25 N.P.C.	7.30	> 20	9.30	262	0.97	135
2103	34.50	2	37 x 19 x 0.25 N.P.C.	8.80	> 20	10.90	396	0.61	181
2103	41.80	1	37 x 23 x 0.25 N.P.C.	9.80	> 20	12.10	470	0.50	211
2103	52.70	0	37 x 29 x 0.25 N.P.C.	10.80	> 20	13.40	600	0.40	245
2103	67.20	00	37 x 37 x 0.25 N.P.C.	12.40	> 20	14.50	750	0.31	283
2103	84.80	000	48 x 36 x 0.25 N.P.C.	13.80	> 20	16.90	980	0.25	328
2103	107.80	0000	61 x 36 x 0.25 N.P.C.	15.80	> 20	18.70	1220	0.19	380

The currents shown are valid for single wires in air. For current ratings in bundle see AIR 7822 specification.  
N.P.C.A. = nickel plated annealed copper alloy - N.P.C. = nickel plated annealed electrolytic copper

## Identification

### Color coding:

According to AIR 0107 (10/1961).

Other color codings on request (stripes or printed identification).

# TYPE 1050

## Screened cables for high ambient temperatures

### Applications

Designed for use at high ambient temperatures up to 280°C at peak.  
Non-flammable, they withstand most solvents.

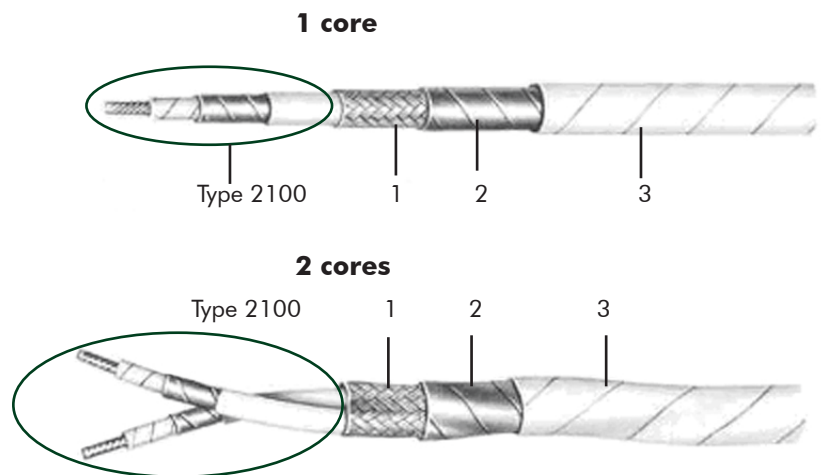
Very good electrical insulation of the screen, very efficient protection of the screen against oxidation and corrosion, easy fitting of the cable, good mechanical protection of the screen, safer handling.

600 Volts RMS

### Construction

1, 2 or 3 cores, type 2100 covered with

- 1- A braided screen made u of nickel plated copper
- 2- A polyimide sheath
- 3- A wrapped and sintered PTFE sheath



### Technical requirements and control conditions

Cores: see datasheet on type 2100  
Screen: MIL-7078 A specification (08/1971)  
Coding : AIR 0107 A specification (10/1961) and note N°348/SIB distributed under N°5927/STT/SIB (05/1961).

### Standards

AIR 4524, B.N.Aé, MIL-W-22759 D & B.M.S. 13-58



-50 °C to +250 °C



Flame retardant  
FAR/JAR part 25 sec  
25.869 (a)(4) Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHs

## TYPE 1050

References			2100 Cores				Screen and Protection			
Type	Nb. cores	Cross section	Gauge AWG	Construction n x Ø mm	Overall diameter of the core mm	Colour of cores	Screen strands Ø mm	PTFE outer sheath Color	Overall diameter (max.) mm	Average weight g/m
1050	1	0.38	22	12 x 0.20 NPC	1.90	White	12/100	White	3.2	20.8
1050	1	0.60	20	19 x 0.20 NPC	2.20	Light blue	12/100	Blue	3.5	25.9
1050	1	0.93	18	19 x 0.25 NPC	2.40	White	12/100	White	3.8	30.8
1050	1	1.34	16	19 x 0.30 NPC	2.70	Light blue	12/100	Blue	4.1	36.3
1050	1	1.91	14	27 x 0.30 NPC	2.95	White	12/100	White	4.4	44.3
1050	2	0.38	22	12 x 0.20 NPC	1.90	White + blue	12/100	White	5.3	42.2
1050	2	0.60	20	19 x 0.20 NPC	2.20	Light blue + blue	12/100	Blue	5.9	51.0
1050	2	0.93	18	19 x 0.25 NPC	2.40	White + blue	12/100	White	6.3	63.2
1050	2	1.34	16	19 x 0.30 NPC	2.70	Light blue + blue	12/100	Blue	6.9	75.2
1050	2	1.91	14	27 x 0.30 NPC	2.95	White + blue	12/100	White	7.6	92.6
1050	3	0.38	22	12 x 0.20 NPC	1.90	White + blue + Yellow	12/100	White	5.6	53.0
1050	3	0.60	20	19 x 0.20 NPC	2.20	Light blue + blue + Yellow	12/100	Blue	6.2	66.1
1050	3	0.93	18	19 x 0.25 NPC	2.40	White + blue + Yellow	12/100	White	6.6	82.7
1050	3	1.34	16	19 x 0.30 NPC	2.70	Light blue + blue + Yellow	12/100	Blue	7.3	98.6
1050	3	1.91	14	27 x 0.30 NPC	2.95	White + blue + Yellow	12/100	White	8.1	122.3

N.P.C. = nickel plated copper

Nacelles and engines:  
High temperature

# TYPE 1053

## Screened cables for high ambient temperatures

### Applications

Designed for use at high ambient temperatures up to 300°C at peak. Non-flammable, good abrasion resistance, they withstand most solvents.

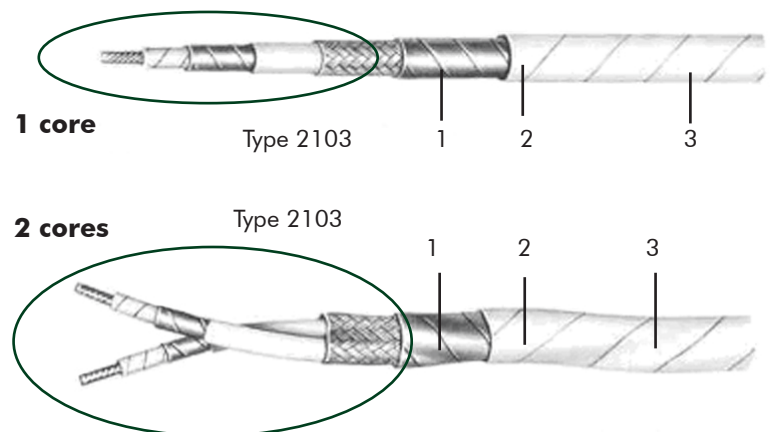
Very good electrical insulation of the screen, very efficient protection of the screen against oxidation and corrosion, easy fitting of the cable, safer handling.

**600 Volts RMS**

### Construction

1, 2 or 3 cores type 2103 covered with:

- 1-** A braided screen made up of nickel plated copper (62% minimum coverage)
- 2-** A polyimide sheath
- 3-** A wrapped and sintered PTFE sheath



### Technical requirements and control conditions

Cores: see datasheet on type 2103  
 Screen: MIL-C-7078 A specification (08/1971)  
 Coding: AIR 0107 A specification (10/1961) and note N°348/SIB distributed under N°5927/STT/SIB (05/1961)

### Standards

AIR 4524, B.N.Aé, MIL-W-22759 B & MIL-C-7078C



-90°C to +260°C



Flame retardant  
 FAR/JAR part 25  
 sec 25.869 (a)(4)  
 Appendix F  
 part 1 (3)



Very good  
 resistance to  
 aircraft fluids



RoHs

## TYPE 1053

References			2103 Cores				Screen and Protection			
Type	Nb. cores	Cross Section	Gauge AWG	Construction n x Ø mm	Overall diameter of the core mm	Colour of cores	Screen strands Ø mm	PTFE outer sheath Color	Overall diameter (max.) mm	Average weight g/m
1053	1	0.38	22	12 x 0.20 NPC	1.80	White	10/100	White	2.9	16.5
1053	1	0.60	20	19 x 0.20 NPC	1.95	Light blue	10/100	Blue	3.0	19.3
1053	1	0.93	18	19 x 0.25 NPC	2.10	White	10/100	White	3.2	24.0
1053	1	1.34	16	19 x 0.30 NPC	2.20	Light blue	12/100	Blue	4.1	32.7
1053	1	1.91	14	27 x 0.30 NPC	2.80	White	12/100	White	4.4	41.3
1053	2	0.38	22	12 x 0.20 NPC	1.80	White + blue	12/100	White	4.9	38.0
1053	2	0.60	20	19 x 0.20 NPC	1.95	Light blue + blue	12/100	Blue	5.2	44.0
1053	2	0.93	18	19 x 0.25 NPC	2.10	White + blue	12/100	White	5.5	56.0
1053	2	1.34	16	19 x 0.30 NPC	2.20	Light blue + blue	12/100	Blue	7.1	70.0
1053	2	1.91	14	27 x 0.30 NPC	2.80	White + blue	12/100	White	7.8	91.0
1053	3	0.38	22	12 x 0.20 NPC	1.80	White + blue + Yellow	12/100	White	5.4	48.0
1053	3	0.60	20	19 x 0.20 NPC	1.95	Light blue + blue + Yellow	12/100	Blue	5.6	57.0
1053	3	0.93	18	19 x 0.25 NPC	2.10	White + blue + Yellow	12/100	White	5.8	73.0
1053	3	1.34	16	19 x 0.30 NPC	2.20	Light blue + blue + Yellow	12/100	Blue	7.5	95.0
1053	3	1.91	14	27 x 0.30 NPC	2.80	White + blue + Yellow	12/100	White	8.4	121.0

Nacelles and engines:  
High temperature

This cable type accomodates connectors according to MIL-C-83723 specification  
N.P.C. = nickel plated annealed electrolytic copper

# 9310/N01/N02/N03 AWG 24 & AWG 22

260 C°

Wire Jacketed Shielded Cable

## Applications

Aero Engine and High Temperature Application

600 Volts RMS

## Construction

### CONDUCTOR

- 1- AWG 24  
19 x 0.127 mm  
(S = 0.24 mm<sup>2</sup>)
- AWG 22  
19 x 0.16 mm  
(S = 0.38 mm<sup>2</sup>)
- Nickel coated high strength  
copper alloy

### INSULATION

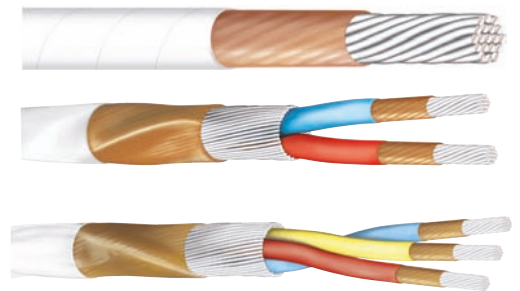
- Polyimide tape
- PTFE tapes

### SHIELD

- 2- Nickel plated copper spiral  
screen

### JACKET

- 3- Polyimide Tape
- 4- PTFE Tape



## Other characteristics

Operating frequency : up to 2000 Hz

## Standards

448-009-3-10



-65°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids

## 9310-N01 – N02 – N03 - AWG 24 & AWG 22 (Metric units)

AWG	Number of cores	Screen	Nominal DC resistance of screen at 20°C (Ohms/Km)	Maximum DC resistance of conductor at 20°C (Ohms/Km)	Finished Cable			
		Strand Diameter (mm)			Min. Diameter (mm)	Max. Diameter (mm)	Max. Weight (g.m)	Cores colour single wires
24	2	0,08	71	117	2.20	2.55	12.4	white
22	2	0.08	56	62	2.60	2.90	18.0	green
24	3	0.10	44	117	2.40	2.70	17.9	white
22	3	0.10	37	62	2.85	3.15	24.9	green

AWG	Conductor		Maximum DC resistance at 20°C (Ω/Km)	Finished Wire			
	Construction	Nom. Diameter (mm)		Min. Diameter (mm)	Max. Diameter (mm)	Max. Weight (g/m)	Wire colour
24	19 x 0.127	0.61	114	0.96	1.11	3.50	white
22	19 x 0.16	0.76	60	1.15	1.30	5.40	white

Nacelles and engines:  
High temperature

## Identification

### Marking :

Colour : Green

9310-N££CA\*\*## F0241 + + + +

££ = Number of Cores

\*\* = AWG

(+ + + +) = Year of manufacturing

## = BL (Spiral screen), ( ) Single wire





## **Part 3-2**

### **Nacelles and engines high temperature, fire resistant/fire proof cables**

# ESW 1200-010-XXX

# ESW 1201-010-XXX

Fire resistant cable single core

## Applications

Use in Aero-engine services

600 Volts RMS

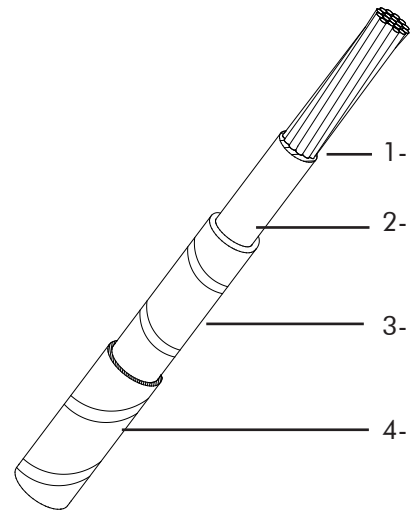
## Construction

### CONDUCTOR

- 1- Stranded conductor made of nickel clad copper alloy (ESW1200)
- Nickel clad copper (ESW1201)

### INSULATION

- 2- Fire resistant insulation
- 3- Polyimide tape
- 4- PTFE tape



## Other characteristics

Very good fire resistance

## Standards

ESW 1200-010 / 1201-010



-65°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHS

## ESW 1200-010- XXX (Metric units)

REFERENCE	Size Code (AECMA)	Gauge (AWG)	Finished Cable			
			DC Resistance at 20°C ( Ohms/Km )	Diameter (mm)		Weight ( g/m )
			Max.	Min.	Max.	Max.
ESW1200-010-004	004	22	95	1.45	1.85	8.4
ESW1200-010-006	006	20	51.1	1.60	2.00	10.5
ESW1200-010-010	010	18	32.7	1.90	2.32	14.4
ESW1200-010-012	012	16	25.6	2.10	2.57	18.7

## ESW 1201-010-XXX (Metric units)

REFERENCE	Size Code (AECMA)	Gauge (AWG)	Finished Cable			
			DC Resistance at 20°C ( Ohms/Km )	Diameter (mm)		Weight ( g/m )
			Max.	Min.	Max.	Max.
ESW1201-010-004	004	22	87.9	1.45	1.85	8.4
ESW1201-010-006	006	20	43.6	1.60	2.00	10.5
ESW1201-010-010	010	18	27.9	1.90	2.32	14.4
ESW1201-010-012	012	16	21.9	2.10	2.57	18.7

Nacelles and engines:  
high temperature,  
fire resistant/fire proof cables

## Identification

**Color of cable** : white with a helical red stripe

**Marking** :

ESW1200-010-xxx-FX-FF-\*\*

ESW1201-010-xxx-FX-FF-\*\*

With :

xxx = Size code

\*\* = Year of production (ie. 08 = 2008)

# ESW 1202-+++ -XXX ESW 1203-+++ -XXX

**Fire resistant cable  
single and multi-cores screened and jacketed**

## Applications

Use in Aero-engine services

**600 Volts RMS**

## Construction

### CORE

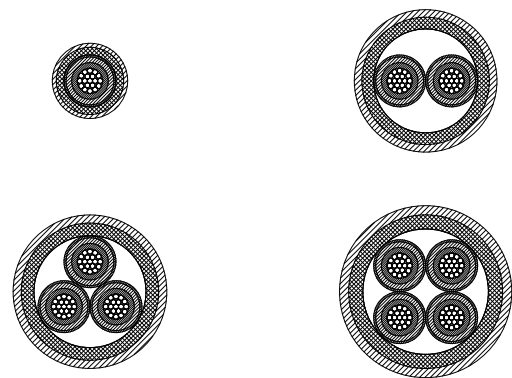
- ESW 1200
- ESW 1201
- 004 : 19 x 0.15 mm
- 006 : 19 x 0.20 mm
- 010 : 19 x 0.25 mm
- 012 : 19 x 0.30 mm

### SCREEN

Nickel plated copper braid

### JACKET

PTFE tape(s)



## Other characteristics

Very good fire resistance

## Standards

ESW 1202 / 1203-+++ -XXX



-65°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



## ESW 1202-+++ -XXX (Metric units)

REFERENCE	AWG	Size Code	Finished Cable					
			Nbr of cores	Colours of cores	DC Resistance at 20°C ( Ohms/Km )	Diameter (mm)		Weight (g/m)
					Max.	Min.	Max.	Max.
ESW1202-012-004	22	004	1	White	95.0	2.40	3.25	22.5
ESW1202-012-006	20	006	1		51.1	2.65	3.35	28.3
ESW1202-012-010	18	010	1		32.7	2.90	3.60	34.0
ESW1202-012-012	16	012	1		25.6	3.15	3.90	40.5
ESW1202-022-004	22	004	2	1 Red 1 Blue	96.9	3.89	5.35	43.5
ESW1202-022-006	20	006	2		52.1	4.21	5.64	50.6
ESW1202-022-010	18	010	2		33.4	4.70	6.00	60.3
ESW1202-022-012	16	012	2		26.1	5.20	6.50	72.8
ESW1202-032-004	22	004	3	1 Red 1 Blue 1 Yellow	96.9	4.10	5.65	55.7
ESW1202-032-006	20	006	3		52.1	4.40	5.97	67.0
ESW1202-032-010	18	010	3		33.4	5.16	6.40	81.0
ESW1202-032-012	16	012	3		26.1	5.54	6.80	94.0
ESW1202-042-004	22	004	4	1 Red 1 Blue 1 Yellow 1 Green	96.9	4.55	5.95	66.5
ESW1202-042-006	20	006	4		52.1	4.92	6.30	76.3
ESW1202-042-010	18	010	4		33.4	5.69	7.00	98.9
ESW1202-042-012	16	012	4		26.1	6.29	7.50	115.0

Nacelles and engines:  
high temperature,  
fire resistant/fire proof cables

## ESW 1203-+++ -XXX (Metric units)

REFERENCE	AWG	Size Code	Finished Cable					
			Nbr of cores	Colours of cores	DC Resistance at 20°C ( Ohms/Km )	Diameter (mm)		Weight (g/m)
					Max.	Min.	Max.	Max.
ESW1203-012-004	22	004	1	White	87.9	2.40	3.25	22.5
ESW1203-012-006	20	006	1		43.6	2.65	3.35	28.3
ESW1203-012-010	18	010	1		27.9	2.90	3.60	34.0
ESW1203-012-012	16	012	1		21.9	3.15	3.90	40.5
ESW1203-022-004	22	004	2	1 Red 1 Blue	89.66	3.89	5.35	43.5
ESW1203-022-006	20	006	2		44.47	4.21	5.64	50.6
ESW1203-022-010	18	010	2		28.46	4.70	6.00	60.3
ESW1203-022-012	16	012	2		22.34	5.20	6.50	72.8
ESW1203-032-004	22	004	3	1 Red 1 Blue 1 Yellow	89.66	4.10	5.65	55.7
ESW1203-032-006	20	006	3		44.47	4.40	5.97	67.0
ESW1203-032-010	18	010	3		28.46	5.16	6.40	81.0
ESW1203-032-012	16	012	3		22.34	5.54	6.80	94.0
ESW1203-042-004	22	004	4	1 Red 1 Blue 1 Yellow 1 Green	89.66	4.55	5.95	66.5
ESW1203-042-006	20	006	4		44.47	4.92	6.30	76.3
ESW1203-042-010	18	010	4		28.46	5.69	7.00	98.9
ESW1203-042-012	16	012	4		22.34	6.29	7.50	115.0

## Identification

### Jacket identification :

White with narrow red stripe

### Marking :

ESW1202-+++ -xxx-FX-FF-\*\*

ESW1203-+++ -xxx-FX-FF-\*\*

With :

+++ = Form code

xxx = Size code

\*\* = Year of production (ie. 08 = 2008)

# ESW 1250-010-XXX ESW 1251-010-XXX

Fireproof cable single core

## Applications

Use in essential services

600 Volts RMS

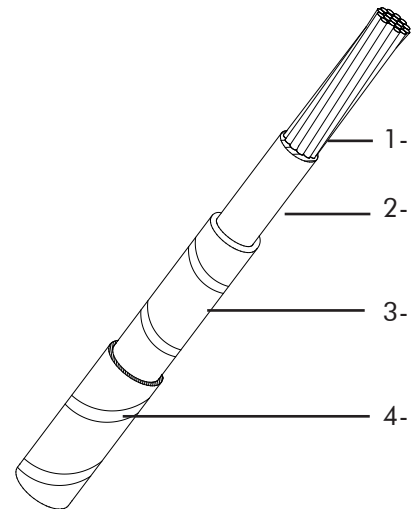
## Construction

### CONDUCTOR

- 1- Stranded conductor made of nickel clad copper alloy (ESW1250)
- Nickel clad copper (ESW1251)

### INSULATION

- 2- Fire resistant insulation
- 3- Polyimide tape
- 4- PTFE tape



## Other characteristics

Very good fire resistance

## Standards

ESW 1250-010 / 1251-010



-65°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHs

## ESW 1250-010- XXX (Metric units)

REFERENCE	Size Code (AECMA)	Gauge (AWG)	Finished Cable			
			DC Resistance at 20°C ( Ohms/Km )	Diameter (mm)		Weight (g/m )
			Max.	Min.	Max.	Max.
ESW1250-010-004	004	22	95	1.45	1.85	10.4
ESW1250-010-006	006	20	51.1	1.60	2.00	13.0
ESW1250-010-010	010	18	32.7	1.90	2.32	17.0
ESW1250-010-012	012	16	25.6	2.10	2.57	22.0

## ESW 1251-010-XXX (Metric units)

REFERENCE	Size Code (AECMA)	Gauge (AWG)	Finished Cable			
			DC Resistance at 20°C ( Ohms/Km )	Diameter (mm)		Weight (g/m )
			Max.	Min.	Max.	Max.
ESW1251-010-004	004	22	87.9	1.45	1.85	10.4
ESW1251-010-006	006	20	43.6	1.60	2.00	13.0
ESW1251-010-010	010	18	27.9	1.90	2.32	17.0
ESW1251-010-012	012	16	21.9	2.10	2.57	22.0

Nacelles and engines:  
high temperature,  
fire resistant/fire proof cables

## Identification

### Core identification :

White with a helical red stripe

### Marking :

ESW1250-010-xxx-FX-FF-\*\*

ESW1251-010-xxx-FX-FF-\*\*

With :

xxx = Size code

\*\* = Year of production (ie. 08 = 2008)

# ESW 1252-+++ -XXX ESW 1253-+++ -XXX

**Fireproof cable  
single and multi-cores screened and jacketed**

## Applications

Use in essential services

**600 Volts RMS**

## Construction

### CORE

ESW 1250

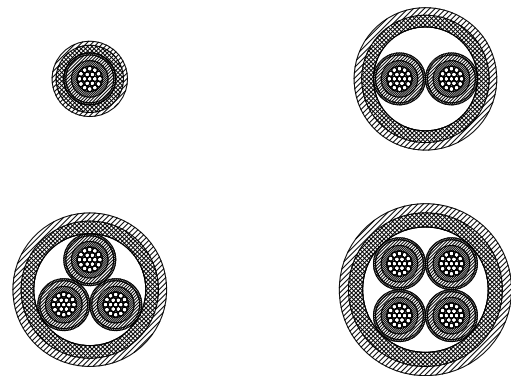
ESW 1251

### SCREEN

Nickel plated copper braid

### JACKET

PTFE tape(s)



## Other characteristics

Very good fire resistance

## Standards

ESW 1252 / 1253-+++ -XXX



-65°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids





## ESW 1252-+++ - XXX (Metric units)

REFERENCE	AWG	Size Code	Finished Cable					
			Nbr of cores	Colours of cores	DC Resistance at 20°C ( Ohms/Km )	Diameter (mm)		Weight (g/m)
					Max.	Min.	Max.	Max.
ESW1252-012-004	22	004	1	White	95.0	2.40	3.25	22.5
ESW1252-012-006	20	006	1		51.1	2.65	3.50	30.0
ESW1252-012-010	18	010	1		32.7	2.90	3.80	36.0
ESW1252-012-012	16	012	1		25.6	3.15	4.10	38.0
ESW1252-022-004	22	004	2	1 Red 1 Blue	96.9	3.89	5.35	40.0
ESW1252-022-006	20	006	2		52.1	4.21	5.64	48.0
ESW1252-022-010	18	010	2		33.4	4.70	6.00	59.0
ESW1252-022-012	16	012	2		26.1	5.20	6.50	72.8
ESW1252-032-004	22	004	3	1 Red 1 Blue 1 Yellow	96.9	4.10	5.65	52.0
ESW1252-032-006	20	006	3		52.1	4.40	5.97	62.0
ESW1252-032-010	18	010	3		33.4	5.16	6.40	81.0
ESW1252-032-012	16	012	3		26.1	5.54	6.80	94.0
ESW1252-042-004	22	004	4	1 Red 1 Blue 1 Yellow 1 Green	96.9	4.55	5.95	66.5
ESW1252-042-006	20	006	4		52.1	4.92	6.30	76.3
ESW1252-042-010	18	010	4		33.4	5.69	7.00	98.9
ESW1252-042-012	16	012	4		26.1	6.29	7.50	115.0

Nacelles and engines:  
high temperature,  
fire resistant/fire proof cables

## ESW 1253-+++ -XXX (Metric units)

REFERENCE	AWG	Size Code	Finished Cable					
			Nbr of cores	Colours of cores	DC Resistance at 20°C ( Ohms/Km )	Diameter (mm)		Weight (g/m)
					Max.	Min.	Max.	Max.
ESW1253-012-004	22	004	1	White	87.9	2.40	3.25	22.5
ESW1253-012-006	20	006	1		43.6	2.65	3.50	33.4
ESW1253-012-010	18	010	1		27.9	2.90	3.80	40.12
ESW1253-012-012	16	012	1		21.9	3.15	4.10	47.8
ESW1253-022-004	22	004	2	1 Red 1 Blue	89.66	3.89	5.35	43.5
ESW1253-022-006	20	006	2		44.47	4.21	5.64	50.6
ESW1253-022-010	18	010	2		28.46	4.70	6.00	60.3
ESW1253-022-012	16	012	2		22.34	5.20	6.50	72.8
ESW1253-032-004	22	004	3	1 Red 1 Blue 1 Yellow	89.66	4.10	5.65	55.7
ESW1253-032-006	20	006	3		44.47	4.40	5.97	67.0
ESW1253-032-010	18	010	3		28.46	5.16	6.40	81.0
ESW1253-032-012	16	012	3		22.34	5.54	6.80	94.0
ESW1253-042-004	22	004	4	1 Red 1 Blue 1 Yellow 1 Green	89.66	4.55	5.95	66.5
ESW1253-042-006	20	006	4		44.47	4.92	6.30	76.3
ESW1253-042-010	18	010	4		28.46	5.69	7.00	98.9
ESW1253-042-012	16	012	4		22.34	6.29	7.50	115.0

## Identification

### Core identification :

White with narrow red stripe

### Marking :

ESW1252-+++ -xxx-FX-FF-\*\*

ESW1253-+++ -xxx-FX-FF-\*\*

With :

+++ = Form code

xxx = Size code

\*\* = Year of production (ie. 08 = 2008)

# ESW 1254-010-002

Fireproof cable single core

## Applications

Use in Aero engine services

600 Volts RMS

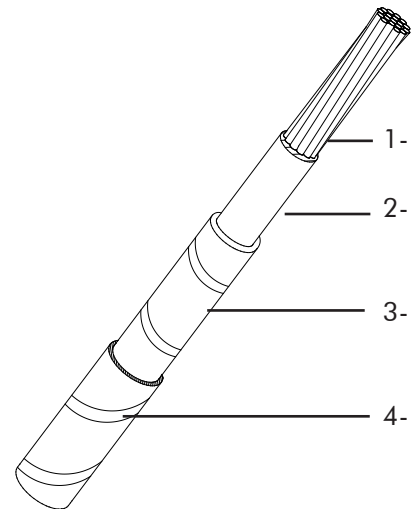
## Construction

### CONDUCTOR

- 1- Stranded conductor made of nickel clad copper alloy  
002 : 19 x 0.12 mm

### INSULATION

- 2- Fire resistant insulation
- 3- Polyimide tape
- 4- PTFE tape



## Other characteristics

Very good fire resistance

## Standards

ESW 1254-010-002



-65°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHS

## ■ ESW 1254-010-002 (Metric units)

REFERENCE	Size Code	Gauge (AWG)	Finished Cable			
			DC Resistance at 20°C ( Ohms/Km )	Diameter (mm)		Weight (g/m)
			Max.	Min.	Max.	Max.
ESW1254-010-002	002	24	131	1.20	1.65	9.50

## ■ Identification

### Core identification :

White with a helical red stripe

### Marking :

ESW1254-010-002-FX-FF-\*\*

With :

FX = Country of origin

FF = Manufacturer's code

\*\* = Year of production (ie. 08 = 2008)

Nacelles and engines:  
high temperature,  
fire resistant/fire proof cables

# ESW 1254-022-002 ESW 1254-032-002

Fireproof cable

Two or three-cores twisted screened and jacketed

## Applications

Use in Aero engine services

600 Volts RMS

## Construction

### CORE

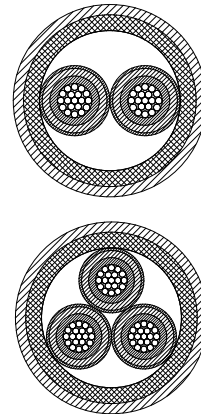
ESW 1254-010

### SCREEN

Nickel plated copper braid

### JACKET

PTFE tape(s)



## Other characteristics

Very good fire resistance

## Standards

ESW 1254-022-002

ESW 1254-032-002



-65°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHS

## ■ ESW 1254-022-002 & ESW 1254-032-002 (Metric units)

REFERENCE	AWG	Size Code	Finished Cable						
			Nbr of cores	Colours of cores	DC Resistance at 20°C ( Ohms/Km )	Diameter (mm)		Nom. Weight ( g/m )	Max weight ESW Spec. ( g/m )
					Max.	Min.	Max.		
ESW1254-022-002	24	002	2	1 Red 1 Blue	135	2.95	4.45	25	38
ESW1254-032-002	24	002	3	1 Red 1 Blue 1 Yellow	135	3.50	4.75	31	37

## ■ Identification

### Core identification :

White with narrow red stripe

### Marking :

ESW1254-022-002-FX-FF-\*\*

With :

FX = Country of origin

FF = Manufacturer's code

\*\* = Year of production (ie. 08 = 2008)

Nacelles and engines:  
high temperature,  
fire resistant/fire proof cables

**ESW 1600-010-XXX**  
 Thermocouple nickel chromium  
**ESW 1601-010-XXX**  
 Thermocouple nickel aluminium  
 Fire resistant cable

**Applications**

Use in Aero engine services

**600 Volts RMS**

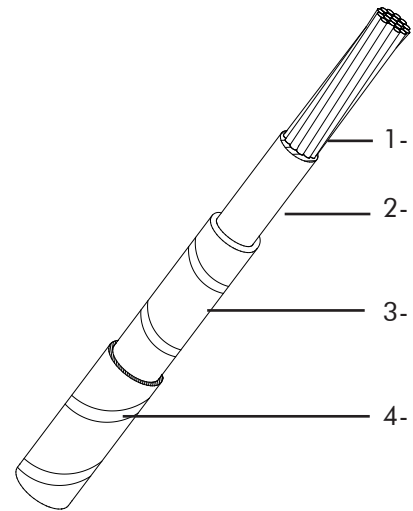
**Construction**

**CONDUCTOR**

- 1- Stranded conductor made of nickel chromium (ESW 1600)  
 nickel aluminium (ESW 1601)

**INSULATION**

- 2- Fire resistant insulation
- 3- Polyimide tape
- 4- PTFE tape



**Other characteristics**

Very good fire resistance

**Standards**

ESW 1600-010-XXX  
 ESW 1601-010-XXX



-65°C to +260°C



Flame retardant  
 FAR/JAR part 25  
 sec 25.869 (a)(4)  
 Appendix F  
 part 1 (3)



Very good  
 resistance to  
 aircraft fluids



RoHS

## ESW 1600-010-XXX (Metric units)

REFERENCE	Size Code (AECMA)	Gauge (AWG)	Finished Cable				
			DC Resistance at 20°C ( Ohms/Km )		Diameter (mm)		Weight ( g/m )
			Min.	Max.	Min.	Max.	Max.
ESW1600-010-006	006	20	1100	1300	1.60	2.00	10.5
ESW1600-010-010	010	18	705	851	1.92	2.32	14.4
ESW1600-010-012	012	16	489	591	2.17	2.57	18.7
ESW1600-010-050	050	10	133	162	3.65	4.05	56.5

## ESW 1601-010-XXX (Metric units)

REFERENCE	Size Code (AECMA)	Gauge (AWG)	Finished Cable				
			DC Resistance at 20°C ( Ohms/Km )		Diameter (mm)		Weight ( g/m )
			Min.	Max.	Min.	Max.	Max.
ESW1601-010-006	006	20	434	524	1.60	2.00	10.5
ESW1601-010-010	010	18	278	336	1.92	2.32	14.4
ESW1601-010-012	012	16	193	234	2.17	2.57	18.7
ESW1601-010-050	050	10	52	64	3.65	4.05	56.5

Nacelles and engines:  
high temperature,  
fire resistant/fire proof cables

## Identification

### Core identification :

White (ESW 1600)

Green (ESW 1601)

### Marking :

ESW1600-010-xxx-FX-FF-\*\*

ESW1601-010-xxx-FX-FF-\*\*

With :

xxx = Size code

\*\* = Year of production (ie. 08 = 2008)

# ESW 1602-022-XXX

**Fire resistant cable**  
**Thermocouple nickel chromium / nickel aluminium**

## Applications

Use in Aero engine services

**600 Volts RMS**

## Construction

### CORE

ESW 1600-010

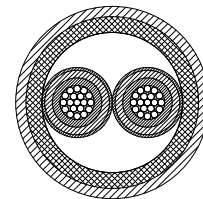
ESW 1601-010

### SCREEN

Nickel plated copper braid

### JACKET

PTFE tape(s)



## Other characteristics

Very good fire resistance

## Standards

ESW 1602-022-xxx



-65°C to +260°C



Flame retardant  
 FAR/JAR part 25  
 sec 25.869 (a)(4)  
 Appendix F  
 part 1 (3)



Very good  
 resistance to  
 aircraft fluids



RoHS



## ESW 1602-022-XXX (Metric units)

REFERENCE	AWG	Size Code	Finished Cable						
			DC Resistance at 20°C ( Ohms/Km )				Diameter (mm)		Weight ( g/m )
			Nickel Chromium		Nickel Aluminium		Min.	Max.	Max.
			Min.	Max.	Min.	Max.			
ESW1602-022-006	20	006	1122	1357	443	534	4.40	5.64	50.6
ESW1602-022-010	18	010	719	868	283	343	4.70	6.0	60.3
ESW1602-022-012	16	012	499	603	197	239	5.20	6.50	72.8
ESW1602-022-050	10	050	136	165	53	65	7.50	9.50	148.8

## Identification

### Core identification :

Nickel chromium : White

Nickel aluminium : Green

### Marking :

ESW1602-022-xxx-FX-FF-\*\*

With :

xxx = Size code

FX = Country of origin

FF = Manufacturer's code

\*\* = Year of production (ie. 08 = 2008)

Nacelles and engines:  
high temperature,  
fire resistant/fire proof cables

# EN 2346-005 DW - DWB - DWC

## Fireproof cables single and multicore assembly light weight

### Applications

Use in the on-board electrical systems of aircraft.

600 Volts RMS

### Construction

#### CONDUCTOR

Stranded conductor  
 Nickel clad copper alloy for size 24 and 22  
 Nickel clad copper for other sizes

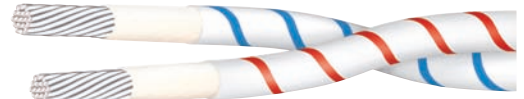
#### INSULATION

Fireproof insulation  
 Polyimide tape  
 PTFE tape, UV laser markable (for single core)

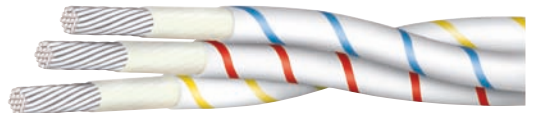
DW



DWB



DWC



### Other characteristics

Operating frequency : up to 2000 Hz  
 Fire resistance : >10 kΩ

### Standards

EN 2346-005



-65°C to +260°C



Flame retardant  
 FAR/JAR part 25  
 sec 25.869 (a)(4)  
 Appendix F  
 part 1 (3)



Very good  
 resistance to  
 aircraft fluids



RoHs

## EN 2346-005 DW - DWB - DWC (Metric units)

REFERENCE	No of core	Size Code (AECMA)	Gauge (AWG)	Finished Cable			
				DC Resistance at 20°C ( Ohms/km )	Diameter (mm)		Weight ( g/m )
					Max.	Min.	
EN 2346-005A 002	1	002	24	131.0	1.53	1.68	5.00
EN 2346-005A 004	1	004	22	80.9	1.59	1.80	6.66
EN 2346-005A 006	1	006	20	44.3	1.89	2.11	10.61
EN 2346-005A 010	1	010	18	27.9	2.34	2.54	16.45
EN 2346-005A 012	1	012	16	18.8	2.50	2.70	20.35
EN 2346-005A 020	1	020	14	13.9	2.95	3.25	28.02
EN 2346-005A 030	1	030	12	8.9	3.48	3.80	42.31
EN 2346-005B 002	2	002	24	133.6	-	3.36	10.30
EN 2346-005B 004	2	004	22	82.5	-	3.60	13.72
EN 2346-005B 006	2	006	20	45.2	-	4.22	21.86
EN 2346-005B 010	2	010	18	28.5	-	5.08	33.89
EN 2346-005B 012	2	012	16	19.2	-	5.40	41.92
EN 2346-005B 020	2	020	14	14.2	-	6.50	57.72
EN 2346-005B 030	2	030	12	9.1	-	7.60	87.16
EN 2346-005C 002	3	002	24	133.6	-	3.61	15.45
EN 2346-005C 004	3	004	22	82.5	-	3.87	20.58
EN 2346-005C 006	3	006	20	45.2	-	4.54	32.79
EN 2346-005C 010	3	010	18	28.5	-	5.46	50.83
EN 2346-005C 012	3	012	16	19.2	-	5.81	62.88
EN 2346-005C 020	3	020	14	14.2	-	6.99	86.58
EN 2346-005C 030	3	030	12	9.1	-	8.17	130.74

Nacelles and engines:  
high temperature,  
fire resistant/fire proof cables

## Identification

### Core identification :

Colors:

- 1 core : white with helical red stripe
- 2 cores : white with helical red / blue stripe
- 3 cores : white with helical red / blue / yellow stripe

### Marking :

EN DW ++ FR F\*\* for single core

EN DW A ++ FR F\*\* for multicore

With :

DW = short designation

++ = AWG

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of production (ie. 08 = 2008)

# EN 4608-004

## Fireproof cables single and multicore screened and jacketed

### Applications

Use in the on-board electrical systems of aircraft.

600 Volts RMS

### Construction

#### CONDUCTOR

Stranded conductor : Nickel clad copper alloy for size 22  
Nickel clad copper for other sizes

#### INSULATION

Fireproof insulation  
Polyimide tape  
PTFE tape

#### SCREEN

Nickel plated copper braid

#### JACKET

UV PTFE tape(s)

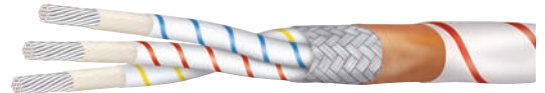
GPA



GPB



GPC



### Other characteristics

Operating frequency : up to 2000 Hz  
Fire resistance : >10 kΩ

### Standards

EN 4608-004



-65°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHs

## EN 4608-004 (Metric units)

REFERENCE	Size Code	AWG	Max. Transfer Impedance from 0 to 1 MHz	Finished Cable				
				Nbr of cores	Nom. Diameter of shield strands (mm)	DC Resistance at 20°C (Ohms/Km)	Diameter (mm)	Weight (g/m)
			(mΩ/m)			Max.	Max.	Max.
EN 4608-004A 002	002	24	60	1	0.10	131.0	2.61	14.15
EN 4608-004A 004	004	22		1	0.10	80.9	2.73	16.51
EN 4608-004A 006	006	20		1	0.10	44.3	3.01	21.54
EN 4608-004A 010	010	18		1	0.12	27.9	3.57	31.19
EN 4608-004A 012	012	16		1	0.12	18.8	3.72	36.94
EN 4608-004A 020	020	14		1	0.12	13.9	4.24	46.40
EN 4608-004A 030	030	12		1	0.12	8.9	4.79	62.87
EN 4608-004B 002	002	24	40	2	See EN 4608-005B			
EN 4608-004B 004	004	22		2	0.12	82.5	4.30	29.66
EN 4608-004B 006	006	20		2	0.12	45.2	4.90	40.51
EN 4608-004B 010	010	18		2	0.12	28.5	5.90	56.25
EN 4608-004B 012	012	16		2	0.12	19.2	6.20	65.71
EN 4608-004B 020	020	14		2	0.12	14.2	7.20	85.98
EN 4608-004B 030	030	12		2	0.12	9.1	8.30	118.48
EN 4608-004C 002	002	24	35	3	0.12	133.6	4.40	33.61
EN 4608-004C 004	004	22		3	0.12	82.5	4.50	39.15
EN 4608-004C 006	006	20		3	0.12	45.2	5.20	54.46
EN 4608-004C 010	010	18		3	0.12	28.5	6.20	77.01
EN 4608-004C 012	012	16		3	0.12	19.2	6.60	90.47
EN 4608-004C 020	020	14		3	0.15	14.2	7.80	125.75
EN 4608-004C 030	030	12		3	0.15	9.1	9.00	174.02

Nacelles and engines:  
high temperature,  
fire resistant/fire proof cables

## Identification

### Core identification :

Colors:

- 1 core : white with helical red stripe
- 2 cores : white with helical red / blue stripe
- 3 cores : white with helical red / blue / yellow stripe

Marking:

EN DW A ++ FR F \*\*

### Jacket identification :

Color : white with narrow red stripe

Marking:

EN £££ ++ FR F\*\*

With :

£££ = short designation (GPA, GPB, GPC)

++ = AWG

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of production (ie. 08 = 2008)

# TYPE ASNE 0437

High temperature fire resistant cables

## Applications

Heavy duty applications in aero-engines and high temperature areas with good mechanical and electrical performances.

600 Volts RMS

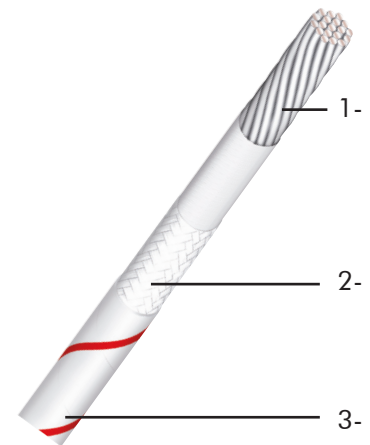
## Construction

### CONDUCTOR

- 1- Stranded conductor:  
Nickel clad high strength copper alloy for size 22  
Nickel clad copper for other sizes

### INSULATION

- 2- Special fire resistant composite insulation
- 3- PTFE tape(s)



## Other characteristics

Operating frequency : up to 2000 Hz

## Standards

ASNE 0437 DL  
MIL-W-25038



-55°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHs

## TYPE ASNE 0437 (Metric units)

PART NUMBERS	US AWG	Conductor			Finished Wire				
		Stranding (Nbr x Diam. of strands) mm	Diameter (mm)		Maximum DC resistance at 20°C (Ohms/Km)	Diameter (mm)		Weight (g/m)	
			Nom.	Maxi.		Min.	Max.	Nom.	Max.
ASNE 0437 DL 22	22	19 x 0.160	0.78	0.84	84.0	1.93	2.11	8.33	9.7
ASNE 0437 DL 20	20	19 x 0.204	0.98	1.04	47.8	2.13	2.36	11.38	13.4
ASNE 0437 DL 18	18	19 x 0.254	1.22	1.32	30.0	2.38	2.61	15.08	17.1
ASNE 0437 DL 16	16	19 x 0.287	1.40	1.55	22.5	2.51	2.97	18.22	21.6

## Identification

**Color** : white with red stripe

**Marking** : green color

DL ++ FR F\*\*

With :

++ = AWG

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of production (ie. 08 = 2008)

Nacelles and engines:  
high temperature,  
fire resistant/fire proof cables

# TYPE TMF (M25038/1)

## High temperature and fire resistant wires

### Applications

Heavy duty applications in aero-engines and high temperature areas with good mechanical and electrical performances. Intended for use in essential services.

600 Volts RMS

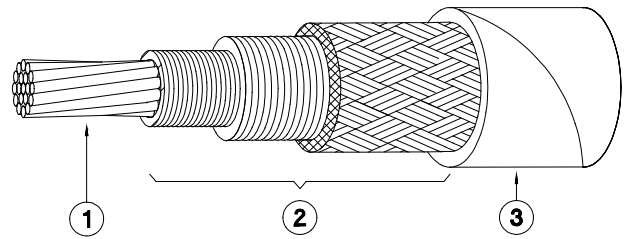
### Construction

#### CONDUCTOR

1- Nickel clad copper conductor

#### INSULATION

- 2- Special fire resistant composite insulation
- 3- PTFE tape(s)



### Other characteristics

Operating frequency : up to 2000 Hz  
 Very good fire resistance: pass BMS 13-55 and M25038 fire test (aged and unaged)

### Standards

MIL-W-25038/1 and BMS 13-55 for fire tests  
 Military QPL approval



-65°C to +260°C



Flame retardant  
 FAR/JAR part 25  
 sec 25.869 (a)(4)  
 Appendix F  
 part 1 (3)



Very good  
 resistance to  
 aircraft fluids



RoHs



## TYPE TMF (Inch, pound)

PART NUMBER	US AWG	Conductor			Finished Wire			
		Stranding (Nbr of strands x AWG gauge of strands)	Diameter (inch)		Resistance at 20°C (68°F) (Ohms/1000 ft) Max.	Diameter (inch)		Weight (lb/1000ft) Max.
			Nom.	Max.		Min.	Max.	
TMF-1-22	22	19 x 34	0.031	0.033	23.7	0.100	0.116	10.0
TMF-1-20	20	19 x 32	0.039	0.041	14.6	0.109	0.125	12.0
TMF-1-18	18	19 x 30	0.048	0.052	9.14	0.119	0.135	15.0
TMF-1-16	16	19 x 29	0.055	0.061	6.85	0.127	0.147	19.0
TMF-1-14	14	19 x 27	0.069	0.074	4.32	0.150	0.170	25.0
TMF-1-12	12	19 x 25	0.087	0.093	2.78	0.165	0.185	35.0
TMF-1-10	10	49 x 27	0.122	0.128	1.68	0.210	0.230	55.0
TMF-1-8	8	133 x 29	0.159	0.176	0.936	0.256	0.280	85.0
TMF-1-6	6	133 x 27	0.200	0.218	0.591	0.318	0.342	127
TMF-1-4	4	133 x 25	0.253	0.272	0.375	0.383	0.407	192
TMF-1-2	2	665 x 30	0.315	0.345	0.241	0.460	0.484	291
TMF-1-1	1	817 x 30	0.350	0.384	0.196	0.497	0.533	347
TMF-1-01	0	1045 x 30	0.395	0.432	0.153	0.537	0.573	415
TMF-1-02	00	1330 x 30	0.446	0.490	0.120	0.595	0.635	520
TMF-1-03	000	1672 x 30	0.505	0.548	0.096	0.660	0.700	648
TMF-1-04	0000	2109 x 30	0.562	0.615	0.077	0.730	0.770	793

Nacelles and engines:  
high temperature,  
fire resistant/fire proof cables

## TYPE TMF (Metric units)

PART NUMBER	US AWG	Conductor			Finished Wire			
		Stranding (Nbr of Strands x Diam. of Strands in mm)	Diameter (mm)		Resistance at 20°C (68°F) (Ohms/Km) Max.	Diameter (mm)		Weight (Kg/Km) Max.
			Nom.	Max.		Nom.	Max.	
TMF-1-22	22	19 x 0.160	0.78	0.84	77.8	2.54	2.94	14.9
TMF-1-20	20	19 x 0.203	0.98	1.04	47.9	2.77	3.17	17.9
TMF-1-18	18	19 x 0.254	1.22	1.32	30.0	3.03	3.43	22.3
TMF-1-16	16	19 x 0.287	1.40	1.55	22.5	3.23	3.73	28.3
TMF-1-14	14	19 x 0.361	1.76	1.88	14.8	3.81	4.31	37.2
TMF-1-12	12	19 x 0.455	2.20	2.36	9.12	4.20	4.70	52.1
TMF-1-10	10	7 x 7 x 0.360	3.09	3.25	5.51	5.30	5.84	81.8
TMF-1-8	8	19 x 7 x 0.287	4.05	4.47	3.07	6.50	7.12	127
TMF-1-6	6	19 x 7 x 0.361	5.09	5.54	1.94	8.10	8.69	189
TMF-1-4	4	19 x 7 x 0.455	6.42	6.91	1.23	9.70	10.4	286
TMF-1-2	2	19 x 35 x 0.254	8.01	8.76	0.790	11.7	12.3	433
TMF-1-1	1	19 x 43 x 0.254	8.88	9.75	0.643	12.6	13.6	516
TMF-1-01	0	19 x 55 x 0.254	10.04	10.97	0.502	13.6	14.6	618
TMF-1-02	00	19 x 70 x 0.254	11.33	12.45	0.394	15.1	16.1	774
TMF-1-03	000	37 x 46 x 0.254	12.82	13.92	0.315	16.8	17.8	964
TMF-1-04	0000	37 x 57 x 0.254	14.27	15.62	0.253	18.5	19.6	1180

# TYPE TMF-VRA-US TMF-VR-US (M25038/3) High temperature fire resistant cables

## Applications

Heavy duty applications in aero-engines and high temperature areas with good mechanical and electrical performances.  
Intended for use in essential services.

600 Volts RMS

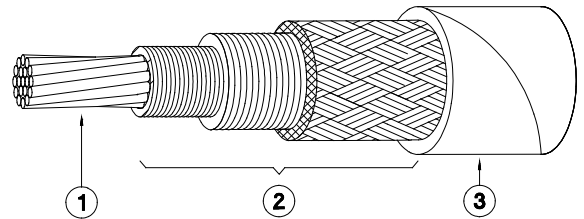
## Construction

### CONDUCTOR

- 1- **TMF-VRA-US** (AWG 22H and 20)  
nickel clad high strength copper alloy conductor
- TMF-VR-US** (other AWG)  
Nickel clad copper conductor

### INSULATION

- 2- Special fire resistant composite insulation
- 3- PTFE tape(s)



## Other characteristics

Operating frequency : up to 2000 Hz  
Very good resistance fire resistance:  
according to MIL-W-25038

## Standards

MIL-W-25038/3  
Military QPL approval



-65°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHs

## TYPE TMF-VRA-US & TMF-VR-US (Inch, pound)

PART NUMBER	US AWG	Conductor			Finished Wire			
		Stranding (Nbr of Strands x AWG of Strands)	O.D. (inch)		Resistance at 20°C (68°F)(Ohms/1000 ft)	Diameter (inch)		Weight (lb/1000ft)
			Nom.	Max.	Max.	Mini.	Max.	Max.
TMF-VRA-US-22H	22	19 x 34	0.031	0.033	23.70	0.055	0.075	6.00
TMF-VRA-US-20	20	19 x 32	0.039	0.041	15.27	0.048	0.083	9.00
TMF-VR-US-18	18	19 x 30	0.048	0.052	8.50	0.065	0.097	10.5
TMF-VR-US-16	16	19 x 29	0.055	0.061	6.66	0.068	0.103	13.5
TMF-VR-US-14	14	19 x 27	0.069	0.074	4.32	0.097	0.123	19.5
TMF-VR-US-12	12	19 x 25	0.088	0.093	2.78	0.100	0.142	28.0

## TYPE TMF-VRA-US & TMF-VR-US (Metric units)

PART NUMBER	US AWG	Conductor			Finished Wire			
		Stranding (Nbr of Strands x Diam. of Strands in mm)	O.D. (mm)		Resistance at 20°C (68°F) (Ohms/Km)	Diameter (mm)		Weight (Kg/Km)
			Nom.	Max.	Max.	Mini.	Max.	Max.
TMF-VRA-US-22H	22	19 x 0.160	0.78	0.84	77.8	1.40	1.91	8.90
TMF-VRA-US-20	20	19 x 0.203	0.99	1.04	50.1	1.22	2.11	13.40
TMF-VR-US-18	18	19 x 0.254	1.22	1.32	30.0	1.65	2.46	15.60
TMF-VR-US-16	16	19 x 0.287	1.40	1.55	22.5	1.73	2.62	20.10
TMF-VR-US-14	14	19 x 0.361	1.76	1.88	14.2	2.46	3.12	29.00
TMF-VR-US-12	12	19 x 0.455	2.23	2.36	9.12	2.54	3.61	41.70

Nacelles and engines:  
high temperature,  
fire resistant/fire proof cables

# TYPE FRM-A-US

## FRM-US (M25038/3)

High temperature fire resistant cables

### Applications

Heavy duty applications in aero-engines and high temperature areas with good mechanical and electrical performances. Intended for use in essential services.

600 Volts RMS

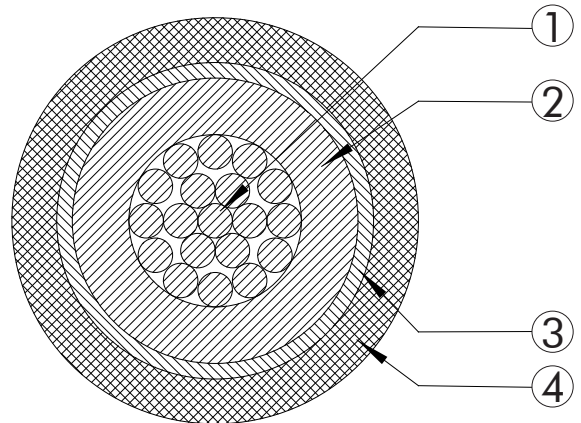
### Construction

#### CONDUCTOR

- 1- **FRM-A-US** (AWG 22, 22H and 20)  
nickel clad high strength copper alloy conductor
- FRM-US** (other AWG)  
Nickel clad copper conductor

#### INSULATION

- 2- Inorganic barrier
- 3- Polyimide tape
- 4- PTFE tape



### Other characteristics

Operating frequency : up to 2000 Hz

### Standards

MIL-W-25038/3



-65°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHS

## TYPE FRM-A-US & FRM-US (Inch, pound)

US AWG	Conductors			Finished Wire				
	Strands (No / AWG)	O.D. (inch)		Maximum DC resistance at 20°C (68°F) (Ohms/1000 ft)	Diameter (inch)			Weight (lb/1000ft)
		Nom.	Max.		Min.	Nom.	Max.	Nom.
22	19/34	0.031	0.033	23.70	0.040	0.053	0.054	3.37
22H	19/34	0.031	0.033	23.70	0.055	0.060	0.075	3.84
20	19/32	0.039	0.041	15.27	0.048	0.067	0.083	5.38
18	19/30	0.049	0.052	8.50	0.065	0.077	0.097	7.72
16	19/29	0.055	0.061	6.66	0.068	0.084	0.103	9.75
14	19/27	0.069	0.074	4.32	0.097	0.101	0.123	14.95
12	19/25	0.087	0.093	2.78	0.100	0.118	0.142	22.20

## TYPE FRM-A-US & FRM-US (Metric units)

US AWG	Conductors			Finished Wire				
	Strands (No / AWG)	O.D. (mm)		Maximum DC resistance at 20°C (68°F) (Ohms/Km)	Diameter (mm)			Weight (Kg/Km)
		Nom.	Max.		Min.	Nom.	Max.	Nom.
22	19/34	0.78	0.84	77.8	1.02	1.34	1.37	5.01
22H	19/34	0.78	0.84	77.8	1.40	1.52	1.91	5.72
20	19/32	0.99	1.04	50.1	1.22	1.71	2.11	8.00
18	19/30	1.24	1.32	27.9	1.65	1.95	2.46	11.49
16	19/29	1.40	1.55	21.8	1.73	2.13	2.62	14.51
14	19/27	1.76	1.88	14.2	2.46	2.56	3.12	22.24
12	19/25	2.20	2.36	9.12	2.54	3.00	3.61	33.03

Nacelles and engines:  
high temperature,  
fire resistant/fire proof cables

# FILOTEX® TYPE TMF-VRA-US-SJ / TMF-VR-US-SJ M27500A\*\*JF\*N06

## Applications

Fire resistant cable.

High temperature fire resistant shielded and jacketed cables

600 Volts RMS

## Construction

### CONDUCTOR

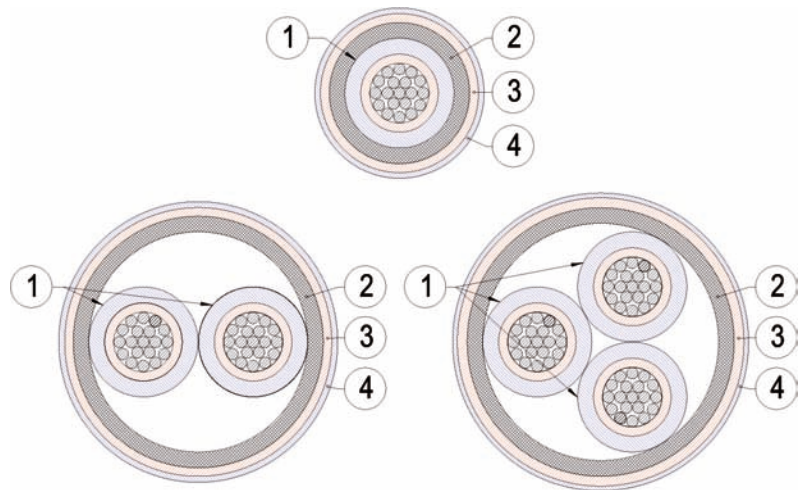
- 1- Filotex® Type TMF VRA-US  
Nickel Clad High Strength  
Copper Alloy Conductor for  
AWG 26 to 20
- Filotex® Type TMF VR-US  
Nickel Clad Copper Conductor  
for other AWG

### SCREEN

- 2- Nickel coated copper braided  
screen

### JACKET

- 3,4- PTFE tapes



## Other characteristics

Operating frequency : up to 2000 Hz

## Standards

MIL-W-25038/3  
MIL-DTL-27500

\*\* AWG

\* Number of cores



-65°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHs

## Type TMF-VRA-US-SJ / TMF-VR-US-SJ (Inch, pound)

PART NUMBERS	PART NUMBERS	US AWG	Number of cores	Screen		Finished Cable				
				Strands AWG size	O.D. (inch) Nom.	Resistance at 20°C (68°F) of cores (Ohms/1000 ft)	Diameter (inch)		Weight (lb/1000ft)	
						Max.	Nom.	Max.	Nom.	Max.
TMF VRA-US 1 SJ 22	M27500A 22 JF 1 N06	22	1	38	0.069	23.70	0.094	0.099	9.55	10.03
TMF VRA-US 1 SJ 20	M27500A 20 JF 1 N06	20	1	36	0.097	15.27	0.122	0.127	15.95	16.59
TMF VR-US 1 SJ 18	M27500A 18 JF 1 N06	18	1	36	0.106	8.50	0.131	0.136	19.17	19.94
TMF VR-US 1 SJ 16	M27500A 16 JF 1 N06	16	1	36	0.113	6.66	0.138	0.144	21.97	22.84
TMF VRA-US 2 SJ 22	M27500A 22 JF 2 N06	22	2	36	0.128	24.20	0.153	0.160	17.70	18.58
TMF VRA-US 2 SJ 20	M27500A 20 JF 2 N06	20	2	36	0.174	15.60	0.199	0.207	27.46	28.56
TMF VR-US 2 SJ 18	M27500A 18 JF 2 N06	18	2	36	0.191	8.70	0.217	0.225	33.68	35.02
TMF VR-US 2 SJ 16	M27500A 16 JF 2 N06	16	2	36	0.206	6.80	0.231	0.240	39.10	40.66
TMF VRA-US 3 SJ 22	M27500A 22 JF 3 N06	22	3	36	0.136	24.20	0.161	0.169	22.94	24.09
TMF VRA-US 3 SJ 20	M27500A 20 JF 3 N06	20	3	36	0.186	15.60	0.211	0.219	36.46	37.91
TMF VR-US 3 SJ 18	M27500A 18 JF 3 N06	18	3	36	0.205	8.70	0.230	0.239	45.36	47.17
TMF VR-US 3 SJ 16	M27500A 16 JF 3 N06	16	3	36	0.220	6.80	0.245	0.255	53.15	55.27

Nacelles and engines: high temperature, fire resistant/fire proof cables

## Type TMF-VRA-US-SJ / TMF-VR-US-SJ (Metric units)

PART NUMBERS	MIL SPEC PART NUMBER	US AWG	Number of cores	Screen		Finished Cable				
				Strands (mm)	O.D. (mm) Nom.	Resistance at 20°C (68°F) of cores (Ohms/Km)	Diameter (mm)		Weight (Kg/Km)	
						Max.	Nom.	Max.	Nom.	Max.
TMF VRA-US 1 SJ 22	M27500A 22 JF 1 N06	22	1	0.10	1.76	77.78	2.40	2.52	14.21	14.92
TMF VRA-US 1 SJ 20	M27500A 20 JF 1 N06	20	1	0.13	2.47	50.1	3.11	3.23	23.74	24.69
TMF VR-US 1 SJ 18	M27500A 18 JF 1 N06	18	1	0.13	2.69	28	3.33	3.46	28.53	29.67
TMF VR-US 1 SJ 16	M27500A 16 JF 1 N06	16	1	0.13	2.87	21.9	3.51	3.65	32.69	33.99
TMF VRA-US 2 SJ 22	M27500A 22 JF 2 N06	22	2	0.13	3.24	79.4	3.88	4.07	26.34	27.65
TMF VRA-US 2 SJ 20	M27500A 20 JF 2 N06	20	2	0.13	4.42	51.1	5.06	5.26	40.86	42.5
TMF VR-US 2 SJ 18	M27500A 18 JF 2 N06	18	2	0.13	4.86	28.6	5.50	5.72	50.12	52.12
TMF VR-US 2 SJ 16	M27500A 16 JF 2 N06	16	2	0.13	5.22	22.3	5.86	6.09	58.18	60.51
TMF VRA-US 3 SJ 22	M27500A 22 JF 3 N06	22	3	0.13	3.45	79.4	4.09	4.29	34.14	35.85
TMF VRA-US 3 SJ 20	M27500A 20 JF 3 N06	20	3	0.13	4.72	51.1	5.36	5.57	54.25	56.42
TMF VR-US 3 SJ 18	M27500A 18 JF 3 N06	18	3	0.13	5.20	28.6	5.83	6.07	67.50	70.20
TMF VR-US 3 SJ 16	M27500A 16 JF 3 N06	16	3	0.13	5.58	22.3	6.22	6.47	79.09	82.25

# BMS 13-55 TYPE 2 CLASS 1

## High temperature fire resistant wires

### Applications

Heavy duty applications in aero-engines and high temperature areas with good mechanical and electrical performances.

600 Volts RMS

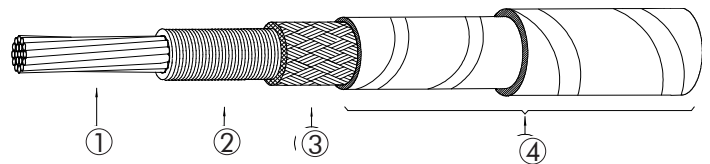
### Construction

#### CONDUCTOR

- 1- Nickel clad high strength copper alloy strands

#### INSULATION

- 2- Impregnated inorganic fiber
- 3- TFE coated glass braid
- 4- PTFE tapes (fused)



### Other characteristics

Operating frequency : up to 2000 Hz

### Standards

BMS 13-55 fire test (aged and unaged)



-65°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHS



## BMS 13-55 TYPE 2 CLASS 1 (Inch, pound)

PART NUMBER	US AWG	Conductor			Finished Wire					
		Stranding (Nbr of strands / gauge of strands)	Diameter (inch)		Nominal area (circular mils)	Resistance at 20°C (68°F)	Diameter (inch)		Weight (lb/1000ft)	
			Nom.	Max.		Max.	Min.	Max.	Min.	Max.
BMS 13-55 T02 C01 G022	22	19 / 34	0.031	0.033	754	24.63	0.082	0.090	6.03	6.76
BMS 13-55 T02 C01 G020	20	19 / 32	0.039	0.041	1214	15.27	0.088	0.097	7.61	8.55
BMS 13-55 T02 C01 G018	18	19 / 30	0.049	0.052	1900	9.77	0.096	0.105	10.00	11.21
BMS 13-55 T02 C01 G016	16	19 / 29	0.055	0.061	2426	7.66	0.103	0.112	12.07	13.67
BMS 13-55 T02 C01 G014	14	19 / 27	0.070	0.074	3838	4.97	0.117	0.128	17.33	19.46
BMS 13-55 T02 C01 G012	12	19 / 25	0.088	0.093	6097	3.20	0.149	0.164	27.65	30.56
BMS 13-55 T02 C01 G010	10	7 x 7 / 25	0.122	0.128	9898	1.93	0.183	0.200	42.74	47.24

## BMS 13-55 TYPE 2 CLASS 1 (Metric units)

PART NUMBER	US AWG	Conductor			Finished Wire					
		Stranding (Nbr of Strand x Diam. of strands) mm	Diameter (mm)		Nominal Area (mm <sup>2</sup> )	Resistance at 20°C (68°F) (Ohms/Km.)	Diameter (mm)		Weight (Kg/Km)	
			Nom.	Max.		Max.	Min..	Max.	Min..	Max.
BMS 13-55 T02 C01 G022	22	19 x 0.16	0.79	0.84	0.38	80.81	2.08	2.29	8.97	10.6
BMS 13-55 T02 C01 G020	20	19 x 0.20	0.99	1.04	0.62	50.10	2.24	2.46	11.32	12.72
BMS 13-55 T02 C01 G018	18	19 x 0.25	1.24	1.32	0.96	32.05	2.44	2.67	14.88	16.68
BMS 13-55 T02 C01 G016	16	19 x 0.287	1.40	1.55	1.23	25.13	2.62	2.84	17.96	20.34
BMS 13-55 T02 C01 G014	14	19 x 0.36	1.78	1.88	1.94	16.31	2.97	3.25	25.79	28.96
BMS 13-55 T02 C01 G012	12	19 x 0.45	2.24	2.36	3.09	10.50	3.78	4.17	41.14	45.47
BMS 13-55 T02 C01 G010	10	7 x 7 x 0.36	3.10	3.25	5.02	6.33	4.65	5.08	63.60	70.29

## Identification

**Color** : white with red stripe

**Marking** :

\*W55/2/1- \*\* F0241

With :

\* = Specification revision letter

\*\* = AWG

# TYPE 3000 A

## Fire resistant cable

### Applications

Used at high ambient temperatures, up to 300°C at peak. They withstand a 1090°C flame applied for 5 minutes. Non-flammable, they withstand most solvents.

600 Volts RMS

### Construction

#### CONDUCTOR

- 1- Stranded nickel clad copper  
Feltlike winding of siliceous fibers

#### INSULATION

- 2- PTFE (wrapped)

#### BRAID

- 3- Glass fiber braid coated with a  
4- PTFE varnish



### Other characteristics

Very good fire resistance

### Technical requirements and control conditions

AIR 4527 specification (high temperature cables and fire resistant cables),  
B.N.Aé N.F.L 52-127 specification (07/1978)  
- RC Aero 140-55 A (03/1962).

### Interchangeability

MIL-W-25038

### Standards

AIR 4527, B.N.Aé  
Approved by the Air Ministry under letters n°31573 STA/EQ/E2 (10-02-65)  
Registered at the B.N.Aé n°6418  
400 C



-50°C to +280°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHs

## TYPE 3000 A (Metric units)

References		Gauge	Conductor			Core		Electrical Values	
			Construction	Nominal diameter	Tensile strength	Overall diameter + 0.1	Average weight	D.C. resistance at 20°C (maxi.)	Current rating
Type	Cross section	AWG	n x Ø mm	mm	daN	mm	g/m	Ω / km	A
3000A	0.38	22	12 x 0.20	0.85	10.5	2.5	9.5	71.20	7
3000A	0.60	20	19 x 0.20	1.03	16.5	2.8	12.5	45.00	11
3000A	0.93	18	19 x 0.25	1.28	24.0	3.1	17.5	28.80	16
3000A	1.34	16	19 x 0.30	1.53	> 30.0	3.5	21.5	20.00	22
3000A	1.91	14	27 x 0.30	1.87	> 30.0	4.0	31.5	14.40	32
3000A	3.18	12	45 x 0.30	2.40	> 30.0	4.5	47.5	8.45	41
3000A	5.15	10	73 x 0.30	3.10	> 30.0	5.3	71.0	5.20	55
3000A	8.98	8	127 x 0.30	4.20	> 30.0	6.7	114.0	3.00	75
3000A	13.40	6	27 x 7 x 0.30	5.60	> 30.0	8.1	172.0	2.07	100
3000A	21.80	4	37 x 12 x 0.25	7.30	> 30.0	9.6	262.0	1.27	135
3000A	34.50	2	37 x 19 x 0.25	8.80	> 30.0	11.5	414.0	0.80	181
3000A	41.80	1	37 x 23 x 0.25	9.80	> 30.0	12.8	480.0	0.66	211
3000A	52.70	0	37 x 29 x 0.25	10.80	> 30.0	14.2	618.0	0.52	245
3000A	67.20	00	37 x 37 x 0.25	12.40	> 30.0	15.7	781.0	0.41	283

The currents shown are valid for single wires in air. If the ambient temperature is lower than 250°C the current ratings can be above those quoted in Air 7822 Specification, provided that the conductor temperature does not exceed 300°C. For cables in bundle please refer to Air 7822 Specification.

## Identification

### Color coding :

Natural color + red stripe

Nacelles and engines:  
high temperature,  
fire resistant/fire proof cables

# BMS 13-67

310°C rating very high temperatures fire resistant shielded and jacketed cables

## Applications

Aero engines and very high temperature applications, fire resistant cable.

600 Volts RMS

## Construction

### CONDUCTOR

1- Nickel clad high strength copper alloy conductor

### INSULATION

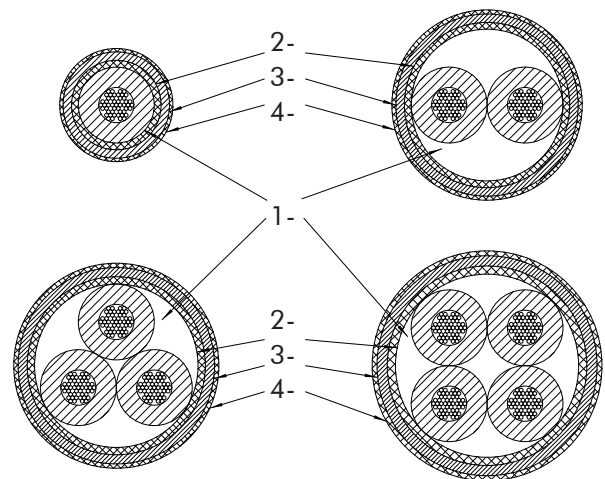
Very high temperature and fire resistant insulation  
High temperature PTFE tapes  
PTFE coated fiber glass braid

### SHIELD

2- Nickel clad copper braid

### JACKET

3- High temperature PTFE tapes  
4- PTFE coated fiber glass braid



## Other characteristics

Operating frequency : up to 2000 Hz  
Fire resistance : insulation resistance 10 000 Ohms minimum  
Bend radius : minimum 5 times cable O.D.

## Standards

BMS 13-67 QPL



-65°C to +321°C (for 10 000 hours)  
-65°C to +313°C (for 20 000 hours)



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Arc tracking  
resistant



Very good  
resistance to  
aircraft fluids



RoHS

## ■ BMS 13-67 (Metric units)

### CORE (only for use as BMS13-67T02 Core)

CORE	US AWG	Conductors			Finished Wire					
		Strands (Nbr x mm)	O.D. (mm)		Maximum DC Resistance (Ohms/Km)		Diameter (mm)		Weight (g/m)	
			Nom.	Max .	at 23°C (73°F)	at 370°C (698°F)	Nom.	Max.	Nom.	
BMS13-67T0*C01G018	18	7 x 7 x 0.150	1.30	1.32	32.0	74.28	2.91	3.03	16.70	
BMS13-67T0*C01G016	16	7 x 7 x 0.175	1.51	1.55	25.1	55.77	3.10	3.22	20.11	

### FINISHED CABLE

PART NUMBER	US AWG	Nbr of cores	Shield		Finished Cable						
			Strands O.D. (mm)	O.D. (mm)	Resistance at 23°C (73°F) of Cores (Ohms/Km)	Diameter (mm)			Weight (g/m)		
						Nom.	Max.	Min.	Nom.	Max.	Min.
BMS13-67T02C01G018	18	1	0.13	3.43	32.0	4.04	4.18	4.34	35.77	38.06	40.34
BMS13-67T02C01G016	16	1	0.13	3.62	25.1	4.19	4.36	4.55	39.51	42.02	44.55

Nacelles and engines:  
high temperature,  
fire resistant/fire proof cables

# STUDY 124585

## Very high temperatures fire resistant wires

### Applications

Heavy duty applications in Aero-engines and very high temperature areas.

600 Volts RMS

### Construction

#### CONDUCTOR

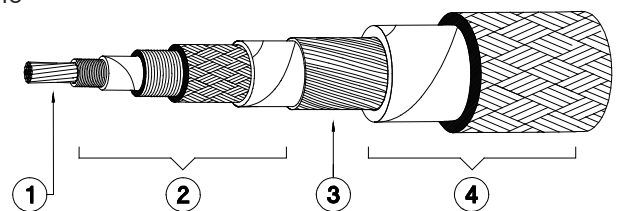
- 1- 19 strands of nickel clad copper conductor ( $\varnothing$  of the strands 0.287 mm)
- 2- Special fire resistant composite insulation, very high temperature

#### SCREEN

- 3- Nickel clad copper helicoidal screen ( $\varnothing$  of the strands 0.13 mm)

#### JACKET

- 4- Very high temperature resistant composite



### Other characteristics

Operating frequency : up to 2000 Hz

### Standards

BMS 13-55 for fluids and fire resistance  
ST 448 006 3 01 A



-65°C to +300°C  
(for 20 000 hours)



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



## STUDY 124585 (Metric units)

Reference	US AWG	Conductor					Insulation		Screen		Finished cable		
		Construction (N x mm)	Diameter (mm)		DC resistance (Ohms/Km)		Diameter (mm)		Strands (mm)	Nom. (mm)	Ext. Diameter (mm)		Weight (Kg/Km)
			Nom.	Max.	Max. at 20°C	Nom. 370°C	Nom.	Max.			Mini.	Max.	Max.
Et.124585	16	19 x 0.287	1.40	1.55	22.5	55.8	2.90	3.40	0.13	3.45	4.15	4.45	42

## Operating life (approx.)

### Combinaison of :

- 30 hours at +370°C
- + 330 hours at +350°C
- + 300 hours at +310°C
- + 2500 hours at +300°C
- + 32840 hours at +260°C

Nacelles and engines:  
high temperature,  
fire resistant/fire proof cables

# NSA 935132 DJ

## 260°C Operating Fire Resistant Wires

### Applications

Heavy duty applications in Aero-engines and very high temperature areas.

600 Volts RMS

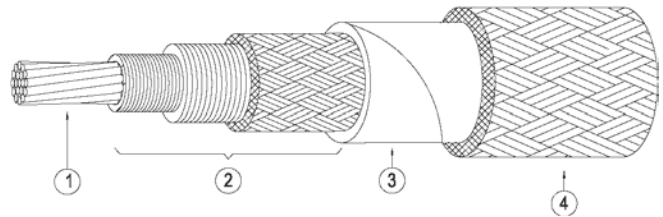
### Construction

#### CONDUCTOR

- 1- Stranded conductor nickel plated copper

#### INSULATION

- 2- Special Fire Resistant Composite Insulation
- 3- PTFE tape(s)
- 4- PTFE Coated Fiber Glass Braid



### Other characteristics

- Operating frequency : up to 1800 Hz
- Mould and fungus resistant
- Non flammable

### Standards

- NSA935132
- MIL-DTL-25038



-55°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



## NSA 935132 DJ

NEXANS Part Number	US AWG	Conductor		Finished Wire			
		Stranding Nbr x Dia. of strands (mm)	Diameter Max. (mm)	Diameter (mm)		Weight max. (g/m)	Maximum DC Resistance at 20°C (68°F) (Ohms/Km)
				Min.	Max.		
NSA 935132 DJ	22	12 x 0.20	0.85	0.85	2.50	10.0	71.20
NSA 935132 DJ	20	19 x 0.20	1.10	1.10	2.60	13.0	45.00
NSA 935132 DJ	18	19 x 0.25	1.32	1.32	2.90	18.0	28.80
NSA 935132 DJ	16	19 x 0.30	1.60	1.60	3.10	22.0	20.00
NSA 935132 DJ	14	27 x 0.30	1.95	1.95	3.60	32.0	14.40
NSA 935132 DJ	12	45 x 0.30	2.50	2.50	4.50	48.0	8.45
NSA 935132 DJ	10	75 x 0.30	3.30	3.30	5.30	71.5	5.20
NSA 935132 DJ	8	127 x 0.30	4.50	4.50	6.40	115	3.00
NSA 935132 DJ	6	27 x 7 x 0.30	5.60	5.60	7.80	175	2.07
NSA 935132 DJ	4	37 x 12 x 0.25	7.30	7.30	9.50	265	1.27
NSA 935132 DJ	2	37 x 19 x 0.25	8.80	8.80	11.30	415	0.805
NSA 935132 DJ	1	37 x 23 x 0.25	10.00	10.00	12.20	485	0.66
NSA 935132 DJ	0	37 x 29 x 0.25	11.30	11.30	13.30	625	0.525
NSA 935132 DJ	00	37 x 37 x 0.25	12.50	12.50	15.40	785	0.414

Nacelles and engines:  
high temperature,  
fire resistant/fire proof cables

## Identification

**Color** : Wire Standard Colour : Natural with Red stripe.

# 10310-NO\*\*C\*

**Fire Resistant Cable  
Single and Multi-cores Screened  
and Jacketed**

## Applications

Aero engine services.

**600 Volts RMS**

## Construction

### CORE

- 1- Stranded conductor :  
Nickel clad copper alloy (AWG22)  
or Nickel clad copper (AWG20 to 16)
- 004 : 19 x 0.15 mm
- 006 : 19 x 0.20 mm
- 010 : 19 x 0.25 mm
- 012 : 19 x 0.30 mm

### INSULATION

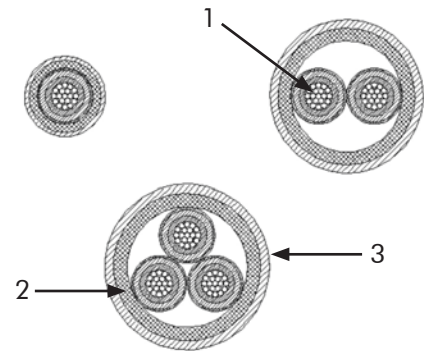
- Fire resistant insulation
- Polyimide Tape
- PTFE Tape

### SCREEN

- 2- Nickel plated  
copper braid

### JACKET

- 3- UV PTFE Tape(s)



## Other characteristics

Operating frequency : up to 2000 Hz

## Standards

448-010-3-10



-65°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids

## 10310-N0\*\*C\*

Reference	Size code (NEXANS)	AWG	Diam. of screen strand (mm)	Finished Wire				
				Nbr. of cores	Colours of cores	Diameter Max. (mm)	Weight Max. (g/m)	Max. DC Resistance at 20°C (68°F) (Ohms/Km)
10310-N01CB22BL	004	22	0.10	1	White with red stripe	1.68	7.04	106
10310-N01CA20BL	006	20	0.10	1		1.85	8.85	55.3
10310-N01CA18BL	010	18	0.12	1		2.08	12.2	31
10310-N01CA16BL	012	16	0.12	1		2.39	17.56	19.6
10310-N02CB22BL	004	22	0.12	2	1 White with red stripe 1 White with blue stripe	2.73	12.27	109.2
10310-N02CA20BL	006	20	0.12	2		3.05	15.77	57
10310-N02CA18BL	010	18	0.12	2		3.59	23.97	31.9
10310-N02CA16BL	012	16	0.12	2		4.08	32.29	30.2
10310-N03CB22BL	004	22	0.12	3	1 White with red stripe 1 White with blue stripe 1 White with yellow stripe	2.89	16.44	109.2
10310-N03CA20BL	006	20	0.12	3		3.23	21.45	57
10310-N03CA18BL	010	18	0.12	3		3.81	32.85	31.9
10310-N03CA16BL	012	16	0.12	3		4.34	44.90	30.2

Nacelles and engines:  
high temperature,  
fire resistant/fire proof cables

## Identification

### Single core:

White with Red stripe

### Two cores:

White with Red stripe - White with Blue stripe

### Three cores:

White with Red stripe - White with Blue stripe  
- White with Yellow stripe

### Marking on Jacket :

White with Red stripe

10310-N0\*\*C\* \*\* BL F0241 + + + +

with :

\*\* = Number of Cores

\* = A : Nickel clad copper, B : Nickel clad copper alloy

+ + + + = Year of manufacturing



# Part 4

## Coaxial cables for high frequency transmission

# STUDY 124962

## 50 Ohms, UV laser markable miniature

### Applications

With similar transmission characteristics to KX 22A / RG 316U. This cable has the following advantages :

- Lower diameter and weight .
- Better bendability.
- Better screening effectiveness ( Double braid )
- UV Laser markability

Recommended for Aeronautics uses and miniature systems.

### Construction

#### CONDUCTOR

- 1- 19x0.098 mm silvered plated copper alloy (Nom.  $\varnothing = 0.48$  mm)

#### INSULATION

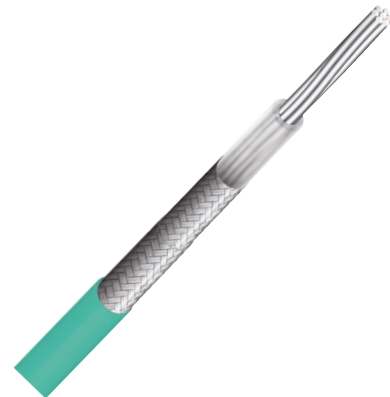
- 2- Expanded PTFE (Nom.  $\varnothing = 1.35$  mm)

#### SHIELD

- 3- Silver plated copper 7/100 double braid Coverage  $\geq 85\%$  US (Nom.  $\varnothing = 2.00$  mm)

#### JACKET

- 4- ETFE UV Laser markable OD  $2.35 \pm 0.05$  mm



### Bend radius

Static : 12 mm  
Dynamic : 25 mm

### Standards

NF C 93-550  
MIL C 17



-65°C to +150°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHs

## ■ Study 124962 - Electrical characteristics

Characteristic impedance		50 ± 5 Ω
Linear capacitance a 1 kHz	Nominal value	90 pF/m
	Maximal value	100 pF/m
Attenuation at	10 MHz	0.09 dB/m
	100 MHz	0.26 dB/m
	200 MHz	0.37 dB/m
	500 MHz	0.65 dB/m
	1000 MHz	1.06 dB/m
	1500 MHz	1.33 dB/m
Voltage rating		250 Volts eff. 50 Hz
Voltage withstanding between dielectric and shield		3000 Volts eff. 50 Hz
Jacket dry impulse test		5000 Volts
DC resistance at 20°C		≤ 144 Ω/km
Insulation resistance	Between dielectric and shield	≥ 1500 MΩ.km
	Jacket	≥ 1500 MΩ.km
Nominal relative velocity of propagation		76 %

## ■ Study 124962 - Physical characteristics

Weight	Nominal	13.0 g/m
	Maximum	14.0 g/m
Strippability		Mechanical device or automatic stripper
Outer jacket color		Green

# STUDY 124964

## 50 Ohms, UV laser markable miniature

### Applications

With similar transmission characteristics to KX 22A / RG 316U. This cable has the following advantages :

- Lower diameter and weight
- Better bendability
- Better screening effectiveness (Double braid)
- UV Laser markability

Recommended for Aeronautics uses and miniature systems.

### Construction

#### CONDUCTOR

- 1- 19x0.098 mm silver plated copper alloy (Nom.  $\varnothing$  0.48 mm)

#### INSULATION

- 2- Expanded PTFE  
Nom.  $\varnothing$  1.35 mm

#### SHIELD

- 3- Silver plated copper 7/100 double braid  
Coverage  $\geq$  62%  
Nom.  $\varnothing$  2.00 mm

#### INNER JACKET

- 4- FEP OD  $\varnothing$  2.35  $\pm$  0.05 mm

#### SHIELD

- 5- Silver plated copper 10/100  
Coverage  $\geq$  62%  
Nom.  $\varnothing$  2.80 mm

#### OUTER JACKET

- 6- ETFE UV laser markable  
OD  $\varnothing$  3.45  $\pm$  0.10 mm



### Minimum bending radius

Static : 17 mm  
Dynamic : 35 mm

### Standards

NF C 93 550  
MIL C 17



-65°C to +150°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHS



## ■ Study 124964 - Electrical characteristics

Characteristic impedance		50 ± 5 Ω
Linear capacitance a 1 kHz	Nominal value	90 pF/m
	Maximal value	100 pF/m
Attenuation at	10 MHz	0.09 dB/m
	100 MHz	0.26 dB/m
	200 MHz	0.37 dB/m
	500 MHz	0.65 dB/m
	1000 MHz	1.06 dB/m
	1500 MHz	1.33 dB/m
Voltage rating		250 Volts eff. 50 Hz
Voltage withstanding between dielectric and shield		3000 Volts eff. 50 Hz
Jacket dry impulse test		5000 Volts
DC resistance at 20°C		≤ 144 Ω/km
Insulation resistance	Between dielectric and shield	≥ 1500 M Ω.km
	Jacket	≥ 1500 M Ω.km
Nominal relative velocity of propagation		76 %

## ■ Study 124964 - Physical characteristics

Weight	Nominal	27.0 g/m
	Maximum	30.0 g/m
Strippability		Mechanical device or automatic stripper
Outer jacket color		Green

# STUDY 132868

**CAC 875 - 75 Ohms coaxial cable  
UV laser markable miniature**

## Applications

Designed for high frequency signal transmission in aircraft radio communication systems.

**900 Volts RMS**

## Construction

### CONDUCTOR

- 1- 7x0.10 mm high strength silver plated copper alloy ( $\varnothing 0.30 \pm 0.025$  mm)

### INSULATION

- 2- Fluorocarbon dielectric with low epsilon (Max.  $\varnothing 1.30$  mm)

### SHIELD

- 3- Silver plated copper double braid  
Strands  $\varnothing 0.08$ mm  
Min.  $\varnothing 1.75$  mm  
Max.  $\varnothing 1.95$  mm

### JACKET

- 4- ETFE UV laser markable  
Max.  $\varnothing 2.37$  mm



## Bending radius

Static : 15 mm  
Dynamic : 25 mm

## Standards

prEN 4604-001, -002 and  
SP132868  
prEN 3475

## Other characteristics

Operating frequency : up to 3 GHz  
Mould and fungus resistant



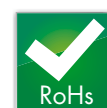
-65°C to +150°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHS

## ■ Study 132868 - Electrical characteristics

Dry test voltage between core and shield	2000 V eff 50 Hz
Jacket dry impulse test	5000 V
Ohmic resistance of conductor	384 $\Omega$ /km max.
Insulation resistance	$\geq 5000$ M $\Omega$ .km
Characteristic impedance	75 $\pm$ 5 $\Omega$
Linear capacitance	60 pF/m max.
Velocity of propagation	$\geq 222\ 000$ km/s (74% relative)

Frequency (MHz)	Max rated power (W)	Attenuation at 20°C (dB/100m)
50	1250	23
100	900	30
200	600	43
300	450	53
400	400	63
1000	270	102
3000	150	176

## ■ Study 132868 - Physical characteristics

Maximum weight	12.5 g/m
Outer jacket color	Light blue

# STUDY 132869

**CAC 876 - 75 Ohms triaxial cable  
UV laser markable miniature**

## Applications

Designed for high frequency signal transmission in aircraft radio communication systems.

**900 Volts RMS**

## Construction

### CONDUCTOR

1- 7x0.10 mm high strength silver plated copper alloy  
( $\varnothing$  0.30  $\pm$  0.025mm)

### INSULATION

2- Fluorocarbon dielectric with low epsilon (Max.  $\varnothing$  1.30 mm)

### SHIELD

3- Silver plated copper double braid  
Strand  $\varnothing$  0.08 mm  
Min.  $\varnothing$  1.75 mm  
Max.  $\varnothing$  1.95 mm

### INNER JACKET

4- ETFE  
 $\varnothing$  2.32  $\pm$  0.05 mm

### SHIELD

Silver plated copper  
Strands  $\varnothing$  0.10 mm

### OUTER JACKET

Laser UV ETFE  
Max.  $\varnothing$  3.47 mm



## Bend radius

Static : 17 mm  
Dynamic : 35 mm

## Standards

prEN 4604-001, -002 and  
SP132869  
prEN 3475

## Other characteristics

Operating frequency : up to 3 GHz  
Mould and fungus resistant



-65°C to +150°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHS

## ■ Study 132869 - Electrical characteristics

Dry tes voltage between core and shield	2000 V eff 50 Hz
Jacket dry impulse test	5000 V
Ohmic resistance of conductor	384 $\Omega$ /km max.
Insulation resistance	$\geq 5000$ M $\Omega$ .km
Characteristic impedance	75 $\pm$ 5 $\Omega$
Linear capacitance	60 pF/m max.
Velocity of propagation	$\geq 222\,000$ km/s (74% relative)

Frequency (MHz)	Max rated power (W)	Attenuation at 20°C (dB/100m)
50	1250	23
100	900	30
200	600	43
300	450	53
400	400	63
1000	270	102
3000	150	176

## ■ Study 132869 - Physical characteristics

Maximum weight	25.5 g/m
Inner color jacket	Light blue
Outer jacket color	Light blue

## EN 4604-003 WZ

50 Ohms coaxial cable

### Applications

Designed for signal transmission applications in aeronautic environment.

### Construction

#### CONDUCTOR

Solid silver plated copper  
(OD 0.88 to 0.93 mm)

#### INSULATION

Fluoropolymer  
(OD  $2.35 \pm 0.15$  mm)

#### SHIELD

Metallized foil  
Silver plated copper braid  
(OD  $3.05 \pm 0.15$  mm)

#### JACKET

White Fluoropolymer - UV laser  
(OD  $3.55 \pm 0.15$  mm)



### Bend radius

Static : 37 mm  
Dynamic : 100 mm

### Standards

prEN 4604-001, -002 and -003  
prEN 3475 and prEN 3838

### Other characteristics

Operating frequency : up to 3 GHz  
Mould and fungus resistant  
UV laser markable



-65°C to +200°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHS

## ■ EN 4604-003 WZ - Electrical characteristics

Dielectric strength	4000 V eff 50 Hz
Corona extinction	1900 V eff 50 Hz
Insulation resistance	≥ 1000 MΩ.km
Characteristic impedance	50 ± 2 Ω
Linear capacitance	88 pF/m max.
Velocity of propagation	≥ 225 000 Km/s (75% relative)
Transfert impedance	30 mΩ/m, up to 3 GHz max.

Frequency (MHz)	Max rated power (W)	Attenuation at 20°C (dB/100m)
50	1100	11
200	660	19
400	450	28
1000	250	47
3000	150	90

## ■ EN 4604-003 WZ - Physical characteristics

Maximum weight	30 g/m
Jacket color identification	Green or black
Cable identification	EN WZ FRF**

With :

FR = Country of Origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 08 = 2008)

# EN 4604-004 WS

## 50 Ohms coaxial cable

### Applications

Designed for high frequency signal transmission application in aircraft radio communication systems.

### Construction

#### CONDUCTOR

7x0.16 mm silver plated copper - (OD 0.48 mm)

#### INSULATION

Fluorocarbon (OD 1.50 mm)

#### SHIELD

1st layer  
Silver plated copper braid (Strand Ø 0.085 mm)  
2nd layer  
High permeability tape

3rd layer

Silver plated copper braid  
Strand Ø 0.085 mm  
OD : 2.20 ± 0.14 mm

#### JACKET

2 polyimide tapes  
OD 2.40 ± 0.16 mm  
Color : amber



### Bend radius

Static : 15 mm  
Dynamic : 28 mm

### Standards

prEN 4604-001, -002 and -004  
prEN 3475

### Other characteristics

Operating frequency : up to 3 GHz  
Mould and fungus resistant  
Specially designed for high EMC performances



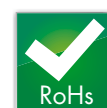
-55°C to +200°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHS



## ■ EN 4604-004 WS - Electrical characteristics

Dielectric strength	1500 Vac
Operating voltage	1300 Vac
Insulation resistance	≥5000 MΩ.km
Characteristic impedance	50 ±5 Ω
Linear capacitance	95 ±10 pF/m
Velocity of propagation	207 000 km/s nominal (69% relative)
Transfert impedance	45 mΩ/m, up to 100 MHz max.

Frequency (MHz)	Max rated power (W)	Attenuation at 20°C (dB/100m)
50	600	26
100	400	36
200	270	55
400	180	78
1000	120	140
3000	75	195

## ■ EN 4604-004 WS - Physical characteristics

Maximum weight	20 g/m
Cable identification in black	EN WS FRF**

With :

FR = Country of Origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 08 = 2008)

# EN 4604-005 WL

## 75 Ohms coaxial cable

### Applications

Designed for high frequency signal transmission in aircraft radio communication systems.

### Construction

#### CONDUCTOR

7x0.10 mm strands of high strength silver plated copper alloy ( $\varnothing$  0.30  $\pm$  0.025 mm )

#### INSULATION

Fluorocarbon  
Max  $\varnothing$  1.30 mm

#### SHIELD

Silver plated copper double braid  
Strand  $\varnothing$  0.08 mm  
Min.  $\varnothing$  1.75 mm  
Max.  $\varnothing$  1.95 mm

#### JACKET

4- Fluorocarbon  
(Max.  $\varnothing$  2.35 mm)



### Bend radius

Static : 15 mm  
Dynamic : 25 mm

### Standards

prEN 4604-001, -002 and -005  
prEN 3475-100

### Other characteristics

Operating frequency : up to 3 GHz  
Mould and fungus resistant



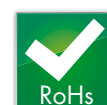
-55°C to +200°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHs

## ■ EN 4604-005 WL - Electrical characteristics

Dielectric strength	2000 Vac
Operating voltage	900 V RMS max.
Ohmic resistance of conductor	384 Ω/Km max.
Insulation resistance	≥5000 MΩ/Km
Characteristic impedance at 200 MHz	75 ±5 Ω
Linear capacitance	60 pF/m max.
Velocity of propagation	≥ 222 000 Km/s (74% relative)
Transfert impedance max.	30 mΩ/m, up to 0.1 MHz
	15 mΩ/m, at 1 MHz
	3 mΩ/m, at 20 MHz
	11 mΩ/m, at 100 MHz

Frequency (MHz)	Max. rated power (W)	Attenuation at 20°C (dB/100m)
50	1250	23
100	900	30
200	600	43
300	450	53
400	400	63
1000	270	102
3000	150	176

Coaxial cables for high frequency transmission

## ■ EN 4604-005 WL - Physical characteristics

Maximum weight	12.5 g/m
Jacket color	Blue
Cable identification in black	EN WL FRF**

With :

FR = Country of Origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 08 = 2008)

# EN 4604-006 WM

## 50 Ohms coaxial cable

### Applications

Designed for high frequency signal transmission in aircraft electrical systems.

### Construction

#### CONDUCTOR

Solid silver plated copper  
OD 1.02 ±0.03 mm

#### INSULATION

Low density PTFE  
OD 2.84 ±0.10 mm

#### SHIELD

1st layer  
Silver plated copper tape  
2nd layer  
Silver plated copper braid  
Strand Ø 0.10 mm  
OD 3.50 ±0.20 mm

#### JACKET

Violet Fluoropolymer  
OD 3.85 ±0.15 mm



### Bend radius

Static : 25 mm  
Dynamic : 70 mm

### Standards

prEN 4604-001, -002 and -006  
prEN 3475

### Other characteristics

Operating frequency : up to 5 GHz  
Mould and fungus resistant



-55°C to +200°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHs

## ■ EN 4604-006 WM - Electrical characteristics

Dielectric strength	2500 Vac
Operating voltage	750 Vac
Insulation resistance	≥5000 MΩ.km
Characteristic impedance	50 ±3 Ω
Linear capacitance	82 pF/m max.
Velocity of propagation	243 000 km/s nominal (81% relative)

Frequency (MHz)	Max rated power (W)	Attenuation at 20°C (dB/100m)
50	2800	8
100	2000	11.5
400	1100	20.5
1000	600	40
5000	300	85

## ■ EN 4604-006 WM - Physical characteristics

Maximum weight	35 g/m
Jacket color	Violet
Cable identification in black	EN WM FRF**

With :

FR = Country of Origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 08 = 2008)

# EN 4604-007 WN

## 50 Ohms coaxial cable

### Applications

Designed for high frequency signal transmission in aircraft electrical systems.

### Construction

#### CONDUCTOR

Solid silver plated copper  
OD  $2.30 \pm 0.03$  mm

#### INSULATION

Expanded PTFE  
OD  $6.20 \pm 0.10$  mm

#### SHIELD

1st layer  
Silver plated copper tape  
2nd layer  
Silver plated copper braid  
Strand  $\varnothing$  0.20 mm  
OD  $7.50 \pm 0.20$  mm

#### JACKET

Violet Fluoropolymer  
OD  $8.00 \pm 0.20$  mm



### Bend radius

Static : 80 mm  
Dynamic : 120 mm

### Standards

prEN 4604-001, -002 and -007  
prEN 3475

### Other characteristics

Operating frequency : up to 6 GHz  
Mould and fungus resistant



-55°C to +200°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHs

## ■ EN 4604-007 WN - Electrical characteristics

Dielectric strength	3000 Vac
Operating voltage	1000 Vac
Insulation resistance	≥5000 MΩ.km
Characteristic impedance	50 ±3 Ω
Linear capacitance	82 pF/m max.
Velocity of propagation	243 000 km/s nominal (81% relative)

Frequency (MHz)	Max. rated power (W)	Attenuation at 20°C (dB/100m)
50	8000	3.5
100	5000	5.5
400	3000	10
1000	2000	15
5000	800	35
6000	700	41

## ■ EN 4604-007 WN - Physical characteristics

Maximum weight	145 g/m
Jacket color	Violet
Cable identification in black	EN WN FRF**

With :

FR = Country of Origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 08 = 2008)

# EN 4604-008 WD

## 50 Ohms coaxial cable

### Applications

Designed for high frequency radio communications applications in aeronautic environment.

### Construction

#### CONDUCTOR

37x0.34 mm silver plated copper  
 $\varnothing 2.33 \pm 0.05$  mm

#### DIELECTRIC

Low density Fluorocarbon  
 $\varnothing 6.0 \pm 0.10$  mm

#### SHIELD

Two braids  
 Silver plated copper 0.13 mm  
 $\varnothing 7.10 \pm 0.10$  mm

#### JACKET

White Fluoropolymer  
 $\varnothing 7.70 \pm 0.20$  mm



### Bend radius

Static : 40 mm  
 Dynamic : 80 mm

### Standards

prEN 4604-001, -002 and -008  
 prEN 3475

### Other characteristics

Operating frequency : up to 8 GHz  
 Mould and fungus resistant



-55°C to +200°C



Flame retardant  
 FAR/JAR part 25  
 sec 25.869 (a)(4)  
 Appendix F  
 part 1 (3)



Very good  
 resistance to  
 aircraft fluids



RoHs



## ■ EN 4604-008 WD - Electrical characteristics

Dielectric strength	2500 Vac
Ionization extinction voltage	1500 Vac
Insulation resistance	≥ 5000 MΩ.km
Characteristic impedance	50 ±2 Ω
Linear capacitance	90 pF/m max.
Velocity of propagation	240 000 km/s nominal

Frequency (MHz)	Nom. rated power (W)	Max. attenuation at 20°C (dB/100m)
50	5700	5.0
100	4000	7.2
150	3100	9.1
200	2700	10.7
400	1800	16.1
1000	1000	28.6
1600	730	39.6
2500	530	55.0
3000	480	61.0
8000	250	110.0

## ■ EN 4604-008 WD - Transfer impedance

Frequency (MHz)	Maximum values (mΩ/m)
From 0 to 0.01	4.2
0.1	4.0
1	1.3
5	0.6
10	1.0
30	2.3
100	5.5

## ■ EN 4604-008 WD - Physical characteristics

Maximum weight	137 g/m
Jacket color	White
Cable identification in black	EN WD FRF**

With :

FR = Country of Origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 08 = 2008)

# EN 4604-009 KW

## 50 ohms low loss light weight coaxial cable

### Applications

Designed for high frequency signal transmission in aircraft electrical systems.

DRAFT

### Construction

#### 1- CONDUCTOR

Solid silver plated copper clad aluminum

Ø : 2.30 ± 0.02 mm

#### 2- INSULATION

Expanded fluoropolymer

Ø : 6.20 ± 0.10 mm

#### 3- SHIELD

1st layer

Silver plated copper tape

2nd layer

Silver plated copper clad aluminum braid

Strand diameter : 0.13 mm

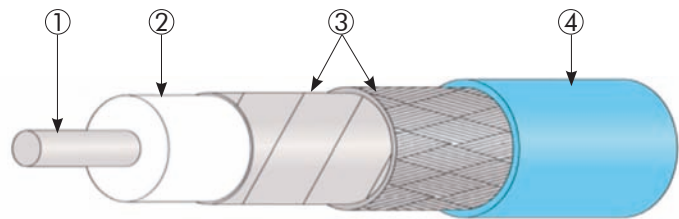
Ø : 6.87 ± 0.20 mm

OD 7.50 ± 0.20 mm

#### 4- JACKET

Fluoropolymer

Ø : 7.65 ± 0.15 mm



### Bend radius

Static : 80 mm

Dynamic : 120 mm

### Standards

prEN 4604-010 P3D2

### Other characteristics

Operating frequency : up to 6 GHz

Mould and fungus resistant



-55°C to +180°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHS

## ■ EN 4604-009 KW - Electrical characteristics

Dielectric strength	3000 Vac
Operating voltage	1000 Vac
Insulation resistance	≥5000 MΩ.km
Characteristic impedance at 200 MHz	50 ±2 Ω
Linear capacitance	80 pF/m max.
Velocity of propagation	≥81% relative
Maximum conductor ohmic resistance	7.15 Ω/km
Maximum transfer impedance up to 400 MHz	20 m Ω /m

Frequency (MHz)	Maximum attenuation at 20°C (dB/100m)	Maximum Return Loss
50	3.5	1.1
100	5.5	1.1
400	10	1.15
1000	15	1.15
5000	35	1.2
6000	41	1.35

## ■ EN 4604-009 KW - Physical characteristics

Maximum weight	95 g/m
Jacket color	Turquoise
Cable identification in black	EN KW FRF**

With :

FR = Country of Origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 13 = 2013)

# EN 4604-010 KX

50 ohms low loss light weight coaxial cable

## Applications

Designed for high frequency signal transmission in aircraft electrical systems.

DRAFT

## Construction

### 1- CONDUCTOR

Solid silver plated copper  
 $\varnothing : 1.40 \pm 0.02 \text{ mm}$

### 2- INSULATION

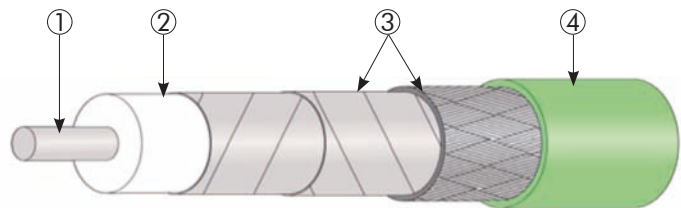
Expanded fluoropolymer  
 $\varnothing : 4.20 +0.10/-0.15 \text{ mm}$

### 3- SHIELD

1st layer  
 Silver plated copper tapes  
 2nd layer  
 Silver plated copper braid  
 Strand diameter : 0.13 mm  
 $\varnothing : 4.80 \pm 0.20 \text{ mm}$

### 4- JACKET

Fluoropolymer  
 $\varnothing : 5.40 \pm 0.15 \text{ mm}$



## Bend radius

Static : 30 mm  
 Dynamic : 50 mm

## Standards

prEN 4604-010 P3D1

## Other characteristics

Operating frequency : up to 6 GHz  
 Mould and fungus resistant



-55°C to +200°C



Flame retardant  
 FAR/JAR part 25  
 sec 25.869 (a)(4)  
 Appendix F  
 part 1 (3)



Very good  
 resistance to  
 aircraft fluids



RoHS

## EN 4604-010 KX - Electrical characteristics

Dielectric strength	2500 Vac
Operating voltage	1000 Vac
Insulation resistance	≥5000 MΩ.km
Characteristic impedance	50 ±2 Ω
Linear capacitance	88 pF/m max.
Velocity of propagation	≥75% relative
Maximum conductor ohmic resistance	11.53 Ω/km

Frequency (MHz)	Maximum attenuation at 20°C (dB/100m)	Maximum Return Loss
50	5.1	1.10
100	7.2	1.10
150	9.1	1.10
200	10.7	1.15
400	16.1	1.15
1000	28.6	1.15
1600	39.6	1.20
2500	55.0	1.20
3000	61.0	1.20
6000	110.0	1.35

Frequency (MHz)	Maximum Transfer Impedance (mΩ/m)
0 to 0.01	9.0
0.1	9.0
1	5.0
5	1.8
10	1.0
30	0.5
100	0.5

## EN 4604-010 KX - Physical characteristics

Maximum weight	80 g/m
Jacket color	Light Green
Cable identification in black	EN KX FRF**

With :

FR = Country of Origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 13 = 2013)

## ECS 0757 KE

Miniature triaxial cable

### Applications

Miniature triaxial cable in aeronautic environment.

### Construction

#### CONDUCTOR

7 x 0.175 mm silver plated  
copper alloy  
Ø 0.53 mm

#### INSULATION

PTFE  
Ø 1.52 mm

#### SHIELD

Silver plated copper 10/100  
Coverage ≥ 65%  
Nom. Ø 1.98 mm

#### INNER JACKET

FEP (OD 2.49 ± 0.10 mm)

#### SHIELD

Silver plated copper 10/100  
Coverage ≥ 65%  
Nom. Ø 2.94 mm

#### JACKET

FEP (OD 3.50 ± 0.15 mm)



### Minimum bending radius

Static : 18 mm  
Dynamic : 35 mm

### Standards

ECS 0757

### Nexans part number

Study 132847



-65°C to +200°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHS

## ■ ECS 0757 KE - Electrical characteristics

Characteristic impedance		50 ± 2 Ω
Linear capacitance at 1 kHz	Maximal value	105 pF/m
Attenuation at	10 MHz	9.5 dB/100 m
	100 MHz	35 dB/100 m
	200 MHz	49 dB/100 m
	400 MHz	69 dB/100 m
	500 MHz	77 dB/100 m
	1000 MHz	108 dB/100 m
	1500 MHz	133 dB/100 m
Voltage rating		900 Volts eff. 50 Hz
Voltage withstanding between dielectric and shield		2000 Volts eff. 50 Hz
Jacket dry impulse test		5000 Volts impulse
DC resistance at 20°C		≤ 124 Ω/km
Insulation resistance	Between dielectric and shield	≥ 5000 MΩ.km
	Jacket	≥ 1500 MΩ.km
Nominal relative velocity of propagation		69.5 %

## ■ ECS 0757 KE - Physical characteristics

Nominal weight	30.0 g/m
Strippability	Mechanical device or automatic stripper
Inner and Outer color jacket	Transparent green
Cable identification	KE FR F **

With :

FR = Country of Origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 08 = 2008)

# ECS 0745 KC

75 Ohms triaxial cable  
200°C operating temperature

## Applications

Designed for radio frequency signal transmission in aircraft radio communication systems.

## Construction

### CONDUCTOR

7 x 0.10 mm strands of high strength silver plated copper alloy  
 $\varnothing 0.30 \pm 0.025$  mm

### INSULATION

Fluorocarbon  
 Max.  $\varnothing 1.30$  mm

### SHIELD

Silver plated copper double braid  
 Strands  $\varnothing 0.08$  mm  
 Max.  $\varnothing 1.95$  mm

### INNER JACKET

Fluorocarbon  
 Max.  $\varnothing 2.37$  mm

### SHIELD

Silver plated copper  
 Strands  $\varnothing 0.10$  mm

### OUTER JACKET

Fluorocarbon  
 $\varnothing 3.40 \pm 0.10$ mm



## Bend radius

Static : 17 mm  
 Dynamic : 35 mm

## Standards

ECS 0745  
 prEN 3475

## Other characteristics

Operating frequency : up to 3 GHz  
 Mould and fungus resistant



-65°C to +200°C



Flame retardant  
 FAR/JAR part 25  
 sec 25.869 (a)(4)  
 Appendix F  
 part 1 (3)



Very good  
 resistance to  
 aircraft fluids



RoHs



## ■ ECS 0745 KC - Electrical characteristics

Dry test voltage between core and shield	2000 Vac
Inner and outer jacket dry impulse test	5000 V
Operating voltage	500 V RMS max.
Ohmic resistance of conductor	384 Ω/km max.
Insulation resistance	≥ 5000 MΩ.km (conductor/shield) ≥ 1500 MΩ.km (between shields)
Characteristic impedance	75 ±5 Ω
Linear capacitance	60 pF/m max. at 1kHz
Velocity of propagation	222 000 km/s (74% relative)
Transfer impedance	30 mΩ/m up to 100 MHz

Frequency (MHz)	Max rated power (W)	Attenuation at 20°C (dB/100m)
10	640	10
50	290	23
100	200	30
200	140	43
300	110	53
400	100	63
1000	65	102
3000	37	176

## ■ ECS 0745 KC - Physical characteristics

Maximum weight	27 g/m
Inner and Outer jacket color	Blue
Cable identification in black	KC FR F**

With :

FR = Country of Origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 08 = 2008)

## PAN 6422

### UV laser markable PTFE coaxial cables

#### ■ Applications

Designed for general purpose coaxial cables.

#### ■ Construction

##### CONDUCTOR

Stranded conductor in silver plated copper or silver plated copper covered steel

##### INSULATION

Extruded PTFE

##### SHIELD

Silver plated copper single or double braid

##### JACKET

Polyimide tape, UV laser PTFE tape(s) (Munsell color limits 5YR 6/4 to 5YR 7/4)



#### ■ Bend radius

6 times cable O.D.

#### ■ Standards

PAN 6422  
MIL-C-17  
BS 2316

#### ■ Other characteristics

Operating frequency : up to 1 GHz  
Very good resistance to solvents  
Very good resistance to soldering operations.



-65°C to +200°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHs

## PAN 6422 (Metric units)

PART NUMBER	MIL-C-17 PART NUMBER	CONDUCTOR			INSULATION	SHIELD		FINISHED CABLE	
		Composition (Nbr x Dia. of strand) (mm)	Nature	Nom. Dia. (mm)	Nom. Diameter (mm)	Number	Nature	Nom. Diameter (mm)	Nom. Weight (Kg/ Km)
PAN 6422 XQ	M17/172-00001 (RG316/U)	7 x 0.17	SPCCS	0.51	1.52	1	SPC	2.22	14
PAN 6422 XR	M17/175-00001 (RG400/U)	19 x 0.195	SPC	0.96	2.95	2	SPC	4.28	58
PAN 6422 XT	M17/169-00001 (RG178/U)	7 x 0.10	SPCCS	0.30	0.82	1	SPC	1.54	7.2
PAN 6422 XU	URM107	7 x 0.82	SPC	2.46	7.25	1	SPC	8.66	180
PAN 6422 XY	M17/94-RG179 (RG179/U)	7 x 0.10	SPCCS	0.30	1.60	1	SPC	2.30	14
PAN 6422 XZ	M17/95-RG180 (RG180/U)	7 x 0.10	SPCCS	0.30	2.59	1	SPC	3.29	26

SPC : Silver plated copper

SPCCS : Silver plated Copper covered Steel

## PAN 6422 - Electrical characteristics

PART NUMBER	MIL-C-17 PART NUMBER	Nominal Impedance ( $\Omega$ )	Attenuation dB/100m at (MHz)				Volts RMS (Max)
			10	100	400	1000	
PAN 6422 XQ	M17/172-00001 (RG316/U)	50	19.7	37.4	65.6	101.5	900
PAN 6422 XR	M17/175-00001 (RG400/U)	50	3.96	14.4	31.6	53.2	1400
PAN 6422 XT	M17/169-00001 (RG178/U)	50	18.45	46.0	92.0	151.0	750
PAN 6422 XU	URM107	50	1.7	6.3	13.6	23.4	3500
PAN 6422 XY	M17/94-RG179 (RG179/U)	75	17.45	32.9	52.5	79.0	900
PAN 6422 XZ	M17/95-RG180 (RG180/U)	95	3.96	14.4	31.6	53.2	1100

# ASNE 0293 XF

50 Ohms coaxial cables

## Applications

Designed for avionic interconnection.

## Construction

### CORE

19 x 0.20 silver plated copper

### INSULATION

Extruded PTFE

Nom.  $\varnothing$  2.95 mm

### SCREEN

Dual silver plated copper braid

Strands  $\varnothing$  0.13 mm

Overall nom.  $\varnothing$  4.06 mm

### JACKET

FEP (Max.  $\varnothing$  5.08 mm)



## Minimum bend radius

50 mm

## Standards

ASNE 0293



-65°C to +200°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



RoHs

## ■ ASNE 0293 XF - Electrical characteristics

Characteristic impedance		50 ± 2 Ω
Nominal capacitance		95 pF/m
Attenuation at	10 MHz	4.3 dB/100 m
	200 MHz	19 dB/100 m
	400 MHz	28 dB/100 m
	3000 MHz	95 dB/100 m
	10000 MHz	210 dB/100 m
Voltage rating		600 Volts RMS

## ■ ASNE 0293 XF - Physical characteristics

Nominal weight	67 g/m
Outer jacket color	Brown
Cable identification in green	XF FR F **

With :

- FR = Country of Origin (FR = France)
- F = Manufacturer (F = Nexans)
- \*\* = Year of manufacturing (ie. 08 = 2008)

# TYPE NSA 935344 XE

## Applications

Designed for high frequency interconnections.

900 Volts RMS

## Construction

### CONDUCTOR

7 x 0.17 silver plated copper covered steel ( $\varnothing$  0.51 mm)

### INSULATION

Extruded PTFE  
 $\varnothing$  1.52  $\pm$  0.07 mm

### SHIELD

Single silver plated copper braid  
 Strands  $\varnothing$  0.10 mm

### JACKET

White PTFE tapes  
 ( $\varnothing$  2.70  $\pm$  0.10 mm)



## Other characteristics

Maximum operating frequency : 1.8 Ghz

## Standards

NSA 935344 XE



-65°C to +250°C



Flame retardant  
 FAR/JAR part 25  
 sec 25.869 (a)(4)  
 Appendix F  
 part 1 (3)



Very good  
 resistance to  
 aircraft fluids



RoHs

## ■ NSA 935344 XE - Electrical characteristics

Impedance at 200 Mhz	50 ± 2 Ω
Nominal capacitance	95 pF/m
Nominal attenuation at 900 MHz	0.8 dB/m
Voltage rating	900 Volts RMS

## ■ NSA 935344 XE - Physical characteristics

Nominal weight	18 g/m
Outer jacket color	White
Cable identification	XE FR F **

With :

FR = Country of Origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 08 = 2008)





## Part 5

### Data bus and high speed transmission cables

# ABS 0972 KB 24

## Shielded quad 100 Ohms

### Applications

High speed data transmission (Ethernet networks) 100 Mbit/s and in-flight entertainment application.

600 Volts RMS

### Construction

#### 4 CONDUCTORS

19 x 0.13 mm silver copper stranded AWG 24  
FEP Insulated  
 $\varnothing = 1.40 \pm 0.05$  mm  
Color : Blue, Red, Yellow, Green

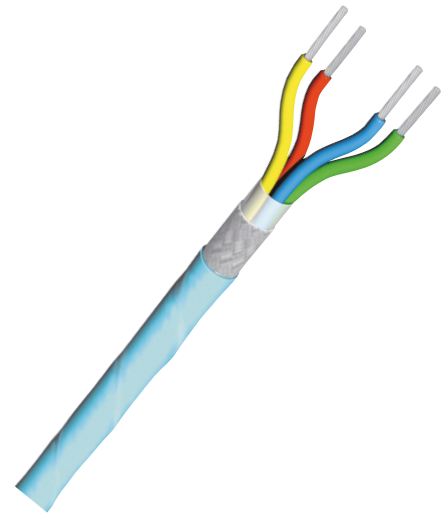
#### Natural FEP filler

#### SCREEN


Wrapping tape  
0.10 mm silver copper braid  
 $\varnothing = 3.90 \pm 0.15$  mm

#### SHEATH

Clear blue FEP jacket for UV laser marking  
 $\varnothing = 4.40 \pm 0.20$  mm



### Other characteristics

 Minimum Bending Radius  
Static = 20 mm

### Standards

ABS 0972

### Nexans part number

Study 2PC236



-55°C to +125°C  
(operating temperature)  
-55°C to +200°C  
(storage temperature)



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)

## ■ ABS 0972 KB 24 - Electrical characteristics

Loop resistance at 20°C (Max)		19.2 Ω/100 m
Insulation resistance at 20°C		1500 MΩ.km
Impedance		100 Ω ± 15 Ω from 1 to 100 MHz
Velocity of propagation		≥69%
N.E.X.T.		> 68 -15 x log (F) dB from 1 to 100 MHz
Attenuation at (nominal values)	1 MHz	2.1 dB/100m
	4 MHz	4.1 dB/100m
	10 MHz	6.5 dB/100m
	16 MHz	8.2 dB/100m
	20 MHz	9.3 dB/100m
	31.25 MHz	11.7 dB/100m
	62.5 MHz	17 dB/100m
	100 MHz	22 dB/100m

## ■ ABS 1503 KD 24 - Physical characteristics

Nominal weight	40.28 g/m
----------------	-----------

## ■ Identification

Inkjet marking pitch length ≈ 300 mm  
 Pitch length between the two next marking ≈ 150 mm  
 AB KB 24 FR F “year of manufacturing”

# ABS 1503 KD 24

Shielded quad 100 Ohms

## Applications

High speed data transmission (Ethernet networks) 100 Mbit/s and in-flight entertainment application.

600 Volts RMS

## Construction

### 4 CONDUCTORS

19 x 0.13 mm silver copper stranded AWG 24  
FEP Insulated  
 $\varnothing = 1.40 \pm 0.05$  mm  
Color : Blue, Red, Yellow, Green

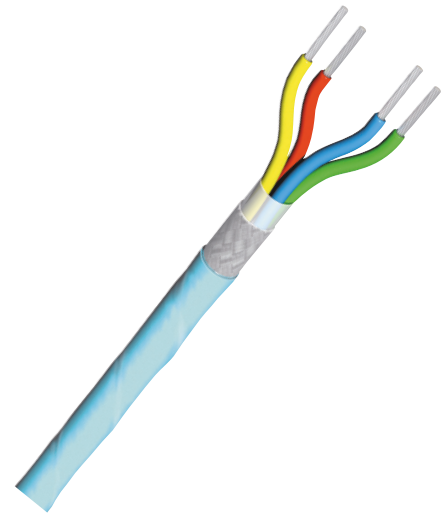
### Natural FEP filler

### SCREEN


Wrapping tape  
0.10 mm silver copper braid  
 $\varnothing = 3.90 \pm 0.15$  mm

### SHEATH

Clear blue FEP jacket for UV laser marking  
 $\varnothing = 4.40 \pm 0.20$  mm



## Other characteristics

 Minimum Bending Radius  
Static = 20 mm

## Standards

ABS 1503

## Nexans part number

Study 2PF870



-55°C to +125°C  
(operating temperature)  
-55°C to +200°C  
(storage temperature)



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)

## ■ ABS 1503 KD 24 - Electrical characteristics

Loop resistance at 20°C (Max)		19.2 Ω/100 m
Insulation resistance at 20°C		1500 MΩ.km
Impedance		100 Ω ± 15 Ω from 1 to 100 MHz
Velocity of propagation		≥70%
N.E.X.T.		> 68 -15 x log (F) dB from 1 to 100 MHz
Attenuation at (nominal values)	1 MHz	2.1 dB/100m
	4 MHz	4.1 dB/100m
	10 MHz	6.5 dB/100m
	16 MHz	8.2 dB/100m
	20 MHz	9.3 dB/100m
	31.25 MHz	11.7 dB/100m
	62.5 MHz	17 dB/100m
	100 MHz	22 dB/100m

## ■ ABS 1503 KD 24 - Physical characteristics

Nominal weight	40.28 g/m
----------------	-----------

## ■ Identification

Inkjet marking pitch length ≈ 300 mm  
 Pitch length between the two next marking ≈ 150 mm  
 AB KD 24 FR F “year of manufacturing”

# STUDY 69794 - EN 3375-004 C - WJ

## 77 Ohms, Bus lines for multiplexed transmission

### Applications

Data bus cables for multiplexed transmission.  
Used for bus system MIL STD 1553.

600 Volts RMS

### Construction

#### 2 FILLERS

#### 2 CORES

AWG 24, 0.21mm<sup>2</sup>  
19 x 0.12 silver plated  
copper alloy (EN 2083)  
Fluoropolymer  
Ø = 1.05 ± 0.10 mm

#### LAY-UP

Ø nom. = 2.10 mm

#### SHIELD

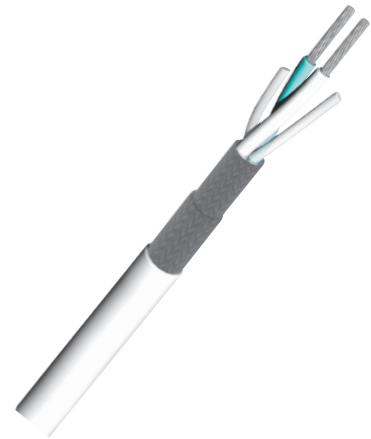
Silver plated copper 10/100

#### SHIELD


Silver plated copper 10/100  
Ø < 3.50 mm

#### JACKET

FEP jacket  
Ø = 3.65 ± 0.25 mm



### Other characteristics

 Minimum static Bend Radius  
45 mm

### Standards

EN3375-004



-65°C to +200°C



Very good  
resistance to  
aircraft fluids



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)

## EN 3375-004 C - WJ - Dimensions and weight

Reference	US AWG	Compos. N x d (mm)	Conductor			Insulation		Braid		Finished cable		
			Diameter (mm)		Ohmic resistance at 20°C (Ohms/Km)	Diameter (mm)		Ø Strand	Ø Max.	Overall diameter (mm)		Weight (Kg/Km)
			Nom.	Max.	Max.	Nom.	Max.	(mm)	(mm)	Nom.	Max.	Max.
69794	24	19 x 0.12	0.59	0.62	109	1.05	1.30	0.10	3.50	3.65	3.90	37

## EN 3375-004 C - WJ - Electrical characteristics

Characteristic impedance at 1 MHz		77 ± 7 Ω
Nominal mutual capacitance		65 pF/m
Nominal capacitance between 1 core and shield		110 pF/m
Nominal capacitance between cores and shield		180 pF/m
Nominal attenuation at 1 MHz		2.7 dB/100m
Linear resistance		≤ 109 Ω/km
Insulation resistance		≥ 1500 MΩ.km
Voltage withstanding	between conductors	1000 Volts
	between conductors and shield	1000 Volts
Jacket dry impulse		5000 Volts
Voltage rating		250 Volts
Maximum transfer impedance	DC current	15 mΩ/m
	1 MHz	5 mΩ/m
	10 MHz	5 mΩ/m
	30 MHz	10 mΩ/m

## EN 3375-004 C - WJ - Physical characteristics

Nominal weight	28 g/m
Maximum weight	37 g/m
Outer jacket color	White
Color of cores	White, blue
Marking	FILOTEX FRANCE ET 69794-**

With :

\*\* = Year of manufacturing (ie. 08 = 2008)

Red marking for the main line (EN 3375-004 C01, Nexans reference : ETUDE 69794-01)

Blue marking for the branch line (EN 3375-004 C02, Nexans reference : ETUDE 69794-02)

## ■ Marking

Jacket code "none":  
Colour of marking: Green  
Marking text: FILOTEX FRANCE ET 69794-\*\*

Jacket code "01":  
Colour of marking: Red for the main line  
Marking text: FILOTEX FRANCE ET 69794-\*\*

Jacket code "02":  
Colour of marking: Blue for the branch line  
Marking text: FILOTEX FRANCE ET 69794-\*\*

(\*\*) = Year of manufacturing

## ■ EN 3375-004 C - WJ - Maximum transfert impedance

Frequency (MHz)	Max. Transfert impedance (mohm/m)
DC	15
1	5
10	5
30	10





# EN 3375-005 C - WV

Bus lines for multiplexed transmission

## Applications

Use for bus system MIL STD 1553

600 Volts RMS

## Construction

### 2 FILLERS

### 2 CORES

AWG 24, 0.21mm<sup>2</sup>  
 19 x 0.12 silver plated  
 copper alloy (EN 2083)  
 Fluoropolymer  
 $\varnothing = 1.05 \pm 0.10$  mm

### LAY-UP

$\varnothing$  nom. = 2.10 mm

### SHIELD

Silver plated copper 10/100

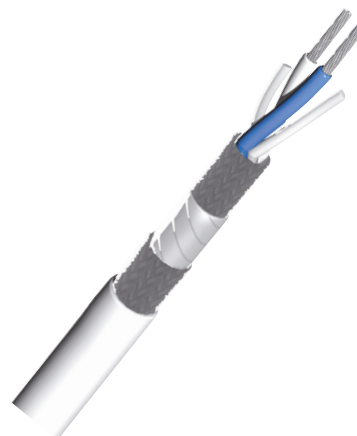
### HIGH IMMUNITY TAPE

### SHIELD

Silver plated copper 10/100  
 $\varnothing < 3.75$  mm

### JACKET

FEP jacket  
 $\varnothing = 3.85 \pm 0.25$  mm



## Other characteristics



Minimum Bending Radius  
 Static : 40 mm

## Standards

EN3375-005

## Nexans part number

Study 133189



-65°C to +200°C



Very good  
 resistance to  
 aircraft fluids



Flame retardant  
 FAR/JAR part 25  
 sec 25.869 (a)(4)  
 Appendix F  
 part 1 (3)

## EN 3375-005 C - WV - Dimensions and weight

Reference	US AWG	Conductor Compos. N x d (mm)	Conductor			Insulation		Braid		Finish cable		
			Diameter (mm)		Ohmic resistance at 20°C (Ohms/Km)	Diameter (mm)		Ø Strand	Ø Max.	Overall diameter (mm)		Weight (Kg/Km)
			Nom.	Max.	Max.	Nom.	Max.	(mm)	(mm)	Nom.	Max.	Max.
133189	24	19 x 0.12	0.59	0.62	109	1.05	1.30	0.10	3.75	3.85	4.10	43.3

## EN 3375-005 C - WV - Electrical characteristics

Characteristic impedance at 1 MHz	77 ± 7 Ω	
Maximum mutual capacitance	78 pF/m	
Maximum attenuation at 1 MHz	3.6 dB/100m	
Maximum linear resistance	109 Ω/km	
Minimum insulation resistance	1500 MΩ.km	
Voltage withstanding	between conductors	1500 Volts
	between conductors and shield	1000 Volts
Jacket dry impulse	5000 Volts	
Voltage rating	600 Volts AC	

## EN 3375-005 C - WV - Maximum transfert impedance

Frequency (MHz)	Max. Transfert impedance (mohm/m)
DC	15
1	0.025
10	0.025
30	0.1

## EN 3375-005 C - WV - Physical characteristics

Nominal weight	34 g/m
Maximum weight	43.3 g/m

## Marking

- Jacket code "none":
  - Colour of marking : Green
  - Marking text : EN WV 24 FRF\*\*
- Jacket code "01":
  - Colour of marking : Red for the main line
  - Marking text : EN WV R24 FRF\*\*
- Jacket code "02":
  - Colour of marking : Blue for the branch line
  - Marking text : EN WV B24 FRF\*\*

(\*\*) = Year of manufacturing

# ASNE 0290 XM 24 - EN 3375-006 D

Bus pair, high temperature

## Applications

General electronic wiring.  
Communication data bus,  
compatible RS 422.

## Construction

### 2 CORES

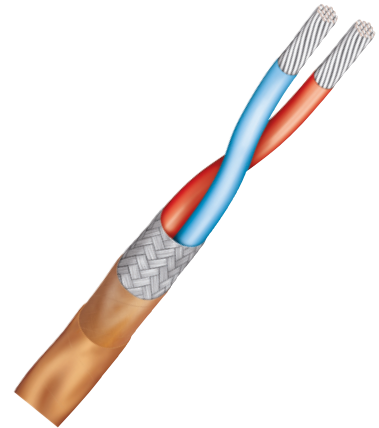
Standed conductors  
19 x 0.12 nickel plated high  
strength copper alloy  
Extruded colored PTFE insulation  
 $\varnothing = 1.13$  to  $1.33$  mm

### SCREEN


0.08 mm nickel plated copper  
braid (Kr = 0.65 min.)

### JACKET

Polyimide tapes  
 $\varnothing$  Max. = 3.10 mm



## Other characteristics

 Minimum Bending Radius  
25 mm

## Standards

ASNE 0290  
EN 3375-006



-55°C to +200°C



Very good  
resistance to  
aircraft fluids



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)

## ■ EN3375-006 D - Electrical characteristics

Impedance at 200 MHz		78 ± 7 Ω
Lineic capacitance		64 ± 10 % pF/m
Linear attenuation (max)	at 1 MHz	0.035 dB/m
	at 10 MHz	0.15 dB/m
Voltage rating		600 Volts RMS

## ■ EN3375-006 D - Physical characteristics

Maximum weight	15 g/m
Outer jacket color	Natural
Color of cores	Light blue, red
Marking	Marking tape beneath the jacket - XM 24 ** -FRF

With :

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 09 = 2009)

## ECS 0700 - EN 3375-007 C - WW

### AWG 26 Bus line for multiplexed transmission

#### Applications

Bus line for multiplexed transmission

#### Construction

##### 2 FILLERS

##### 2 CORES

AWG 26, 0.15 mm<sup>2</sup>

19 x 0.10 silver plated copper alloy (EN2083)

Fluoropolymer

∅ = 0.80 ± 0.05 mm

##### LAY-UP

∅ nom. = 1.60 mm

##### SHIELD

Silver plated copper 8/100

∅ < 2.00 mm

##### SHIELD

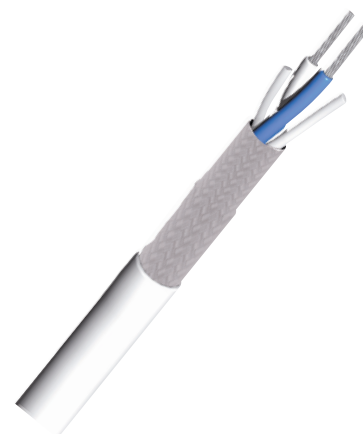
Silver plated copper 8/100

∅ < 2.40 mm

##### JACKET

FEP jacket

∅ = 2.90 ± 0.10 mm



#### Minimum bending radius

Static : 20 mm

#### Standards

ECS 0700

EN 3375-007

#### Nexans part number

Study 132041



-65°C to +200°C



Very good resistance to aircraft fluids



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)

## ECS 0700 - EN 3375-007 C - WW - Dimensions and weight

Reference	US AWG	Conductor				Insulation		Braid		Finish cable		
		Compos. N x d (mm)	Diameter (mm)		Ohmic resistance at 20°C (Ohms/Km)	Diameter (mm)		Ø Strand	Ø Max.	Overall diameter (mm)		Weight (Kg/Km)
			Nom.	Max.	Max.	Nom.	Max.	(mm)	(mm)	Nom.	Max.	Max.
132041	26	19 x 0.10	0.49	0.53	153	0.8	0.85	0.08	2.40	2.90	3.10	21

## ECS 0700 - EN 3375-007 C - WW - Electrical characteristics

Characteristic impedance at 1 MHz		77 ± 7 Ω
Maximum mutual capacitance		75 pF/m
Maximum attenuation at 1 MHz		4.1 dB/100m
Linear resistance		≤ 153 Ω/Km
Insulation resistance		≥ 1500 MΩ.km
Voltage withstanding	between conductors	1000 Volts
	between conductors and shield	1000 Volts
Jacket dry impulse		5000 Volts
Voltage rating		250 Volts

## ECS 0700 - EN 3375-007 C - WW - Maximum transfer impedance

DC current	30 mΩ/m
1 MHz	15 mΩ/m
10 MHz	15 mΩ/m
30 MHz	15 mΩ/m

## ECS 0700 - EN 3375-007 C - WW - Physical characteristics

Maximum weight	21 g/m
Outer jacket color	White
Color of cores	White, blue

## ■ Marking

For ECS 0700 & Study 133041:

Colour of marking:

Black

Marking text:

ECS 0700 WW FR F \*\*

For EN 3375-007:

Jacket code "none":

Colour of marking:

Green

Marking text :

EN WW 26 FRF \*\*

Jacket code "C01":

Colour of marking:

Red for the main line

Marking text:

EN WW R 26 FRF \*\*

Jacket code "C02":

Colour of marking:

Blue for the branch line

Marking text:

EN WW B 26 FRF \*\*

(\*\*) = Year of manufacturing





# EN 3375-009-C WX ET 133199

**120 Ohms AWG26, Data Bus cable High Temperature**

## Applications

Data bus cables for aeronotic application.  
Used for BUS CAN.

**600 Volts RMS**

## Construction

### CORES

7 x 0.16 mm Silver Plated  
High Strength Copper Alloy  
Aerated fluoropolymer  
insulation

### ASSEMBLY

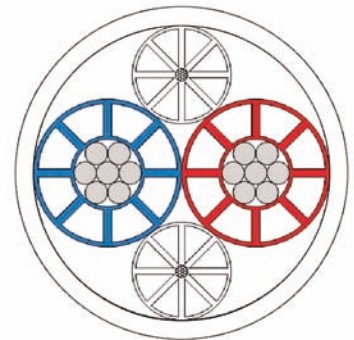
2 cores twisted with 2  
aerated fillers

### SHIELD


Silver Plated Copper braid  
Strand diameter : 0.08 mm  
Coverage  $\geq 62\%$

### JACKET

Fluoropolymer  
 $\varnothing : 2.80 \pm 0.10$  mm  
Max. lineic mass : 18 kg/km



## Other characteristics

 Minimum Bending Radius  
Static : 20 mm  
Dynamic: 30 mm

## Standards

EN 3375-009



-55°C to +200°C



Very good  
resistance to  
aircraft fluids



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)

## EN 3375-009-C WX - ET 133139 - Dimensions and weight

Reference	US AWG	Conductor				Insulation		Braid		Finished cable		
		Compos. N x d (mm)	Diameter (mm)		Ohmic resistance at 20°C (Ohms/Km)	Diameter (mm)		Ø Strand	Ø Max.	Overall diameter (mm)		Weight (Kg/Km)
			Nom.	Max.	Max.	Nom.	Max.	(mm)	(mm)	Nom.	Max.	Max.
133199	26	7 x 0.16	0.47	0.48	145	1.05	1.12	0.08	2.50	2.80	2.90	18

## EN 3375-009-C WX - ET 133139 - High Frequency performances

Frequency (MHz)	Max Impedance (dB/100m)
1	108 < Z <sub>c</sub> < 132
20	100 < Z <sub>c</sub> < 120

Frequency (MHz)	Max Attenuation (dB/100m)
1	3
5	8

Frequency (MHz)	Nom. Transfert impedance (MΩ/m)
DC	50
1	50
10	50
30	100

## EN 3375-009-C WX - ET 133139 - Physical characteristics

Color of cores	Blue, red
Outer jacket color	White
Color of cores	Black
Marking	EN WX 26 FRF**

With :

\*\* = Year of manufacturing (ie. 08 = 2008)

# STUDY 124960

## 77 Ohms, bus lines for multiplexed transmission

### Applications

Bus lines for multiplexed transmissions.

### Construction

#### 2 FILLERS

1- PTFE

#### 2 CORES

2- AWG 26, 0.15mm<sup>2</sup>

19 x 0.10 mm silver plated copper alloy (EN2083)  
Extruded PTFE insulation  
Ø = 0.80 ± 0.05 mm

#### LAY-UP

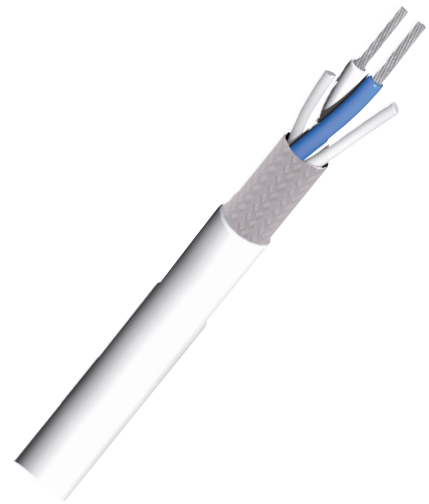
3- Nominal Ø = 1.60 mm

#### SHIELD

4- Silver plated copper 10/100  
Ø < 2.00 mm

#### JACKET

5- UV laser markable ETFE  
Ø = 2.50 ± 0.10 mm



### Minimum radius bending

Static : 15 mm

### Standards

EN 3375



-65°C to +150°C



Very good resistance to aircraft fluids



Flame retardant FAR/JAR part 25 sec 25.869 (a)(4) Appendix F part 1 (3)

## ■ Study 124960 - Electrical characteristics

Characteristic impedance at 1 MHz	77 ± 7 Ω	
Nominal mutual capacitance	65 pF/m	
Nominal capacitance between 1 core and shield	110 pF/m	
Nominal capacitance between cores and shield	180 pF/m	
Nominal attenuation at 1 MHz	3.5 dB/100 m	
Linear resistance	≤ 146 Ω/km	
Insulation resistance	≥ 1500 MΩ.km	
Voltage withstanding between conductors	1000 Volts	
Voltage withstanding between conductors and shield	1000 Volts	
Jacket dry impulse	5000 Volts	
Voltage rating	250 Volts	
Maximum transfer impedance (mΩ/m)	DC current	50
	1 MHz	50
	10 MHz	50
	30 MHz	100

## ■ Study 124960 - Physical characteristics

Nominal weight	14.5 g/m
Maximum weight	19 g/m
Outer jacket color	White
Color of cores	White, blue
Marking	FILOTEX FRANCE ET 124960 - **

With :

\*\* = Year of manufacturing (ie. 08 = 2008)

Red marking for the main line (Nexans reference : ETUDE 124960-01)

Blue marking for the branch line (Nexans reference : ETUDE 124960-02)

# STUDY 124961

## 77 Ohms, Bus lines for multiplexed transmission

### Applications

Bus lines for multiplexed transmission.

### Construction

#### 2 FILLERS

PTFE

#### 2 CORES

AWG 24, 0.21mm<sup>2</sup>

19 x 0.12 mm silver plated copper alloy (EN2083)

Extruded PTFE insulation

∅ = 1.05 ± 0.10 mm

#### LAY-UP

Nominal ∅ = 2.10 mm

#### SHIELD

Silver plated copper 10/100

#### SHIELD

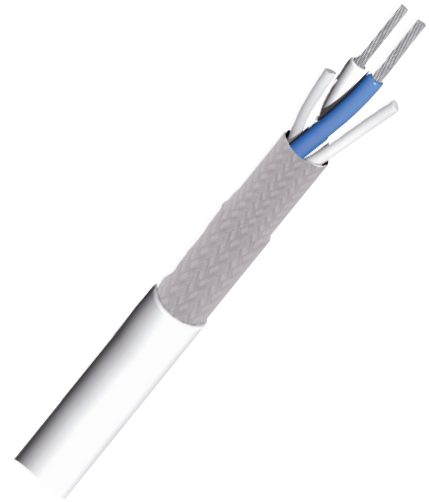
Silver plated copper 10/100

∅ < 3.50 mm

#### JACKET

UV laser markable ETFE

∅ = 3.65 ± 0.25 mm



### Minimum bending radius

Static : 20 mm

### Standards

EN 3375



-65°C to +150°C



Very good resistance to aircraft fluids



Flame retardant FAR/JAR part 25 sec 25.869 (a)(4) Appendix F part 1 (3)

## ■ Study 124961 - Electrical characteristics

Characteristic impedance at 1 MHz	77 ± 7 Ω	
Nominal mutual capacitance	65 pF/m	
Nominal capacitance between 1 core and shield	110 pF/m	
Nominal capacitance between cores and shield	180 pF/m	
Nominal attenuation at 1 MHz	2.7 dB/100 m	
Linear resistance	≤ 109 Ω/km	
Insulation resistance	≥ 1500 MΩ.km	
Voltage withstanding between conductors	1000 Volts	
Voltage withstanding between conductors and shield	1000 Volts	
Jacket dry impulse	5000 Volts	
Voltage rating	250 Volts	
Maximum transfer impedance (Ω/m)	DC current	15. 10 <sup>-3</sup>
	1 MHz	5. 10 <sup>-3</sup>
	10 MHz	5. 10 <sup>-3</sup>
	30 MHz	10. 10 <sup>-3</sup>

## ■ Study 124961 - Physical characteristics

Nominal weight	28 g/m
Maximum weight	37 g/m
Outer jacket color	White
Color of cores	White, blue
Marking	FILOTEX FRANCE ET 124961 - **

With :

\*\* = Year of manufacturing (ie. 08 = 2008)

Red marking for the main line (EN 3375-004C01, Nexans reference : ETUDE 124961-01)

Blue marking for the branch line (EN 3375-004C02, Nexans reference : ETUDE 124961-02)

# STUDY 96770 - ASNE 0479 WJ - EN 3375-004B

77 Ohms, Bus lines for multiplexed transmission

## Applications

Bus lines for multiplexed transmission.

## Construction

### 2 FILLERS

PTFE

### 2 CORES

AWG 24, 0.21mm<sup>2</sup>

19 x 0.12 mm silver plated copper alloy (EN2083)

Extruded PTFE insulation

∅ = 1.05 ± 0.10 mm

### LAY-UP

Nominal ∅ = 2.10 mm

### SHIELD

Tin plated copper 10/100

### SHIELD

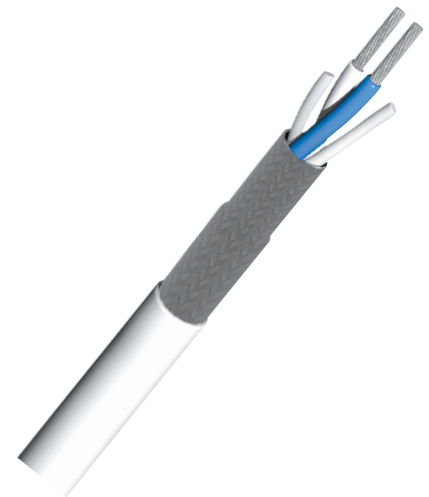
Tin plated copper 10/100

∅ < 3.50 mm

### JACKET

FEP jacket

∅ = 3.65 ± 0.25 mm



## Minimum bending radius

Static : 20 mm

## Standards

EN3375-004



-65°C to +150°C



Very good resistance to aircraft fluids



Flame retardant FAR/JAR part 25 sec 25.869 (a)(4) Appendix F part 1 (3)



## ■ Study 96770 - Electrical characteristics

Characteristic impedance at 1 MHz	77 ± 7 Ω	
Nominal mutual capacitance	65 pF/m	
Nominal capacitance between 1 core and shield	110 pF/m	
Nominal capacitance between cores and shield	180 pF/m	
Nominal attenuation at 1 MHz	2.7 dB/100 m	
Linear resistance	≤ 109 Ω/km	
Insulation resistance	≥ 1500 MΩ.km	
Voltage withstanding between conductors	1000 Volts	
Voltage withstanding between conductors and shield	1000 Volts	
Jacket dry impulse	5000 Volts	
Voltage rating	250 Volts	
Maximum transfer impedance (Ω/m)	DC current	15. 10 <sup>-3</sup>
	1 MHz	5. 10 <sup>-3</sup>
	10 MHz	5. 10 <sup>-3</sup>
	30 MHz	10. 10 <sup>-3</sup>

## ■ Study 96770 - Physical characteristics

Nominal weight	28 g/m
Maximum weight	37 g/m
Outer jacket color	White
Color of cores	White, blue
Marking	FILOTEX FRANCE ET 96770 - **

With :

\*\* = Year of manufacturing (ie. 08 = 2008)

Red marking for the main line (EN 3375-004B01, Nexans reference : ETUDE 96770-01)

Blue marking for the branch line (EN 3375-004B02, Nexans reference : ETUDE 96770-02)

## EN 4608-005 B - GPB 24

Fireproof cable for data transmission  
2 cores twisted screened and jacketed

### Applications

Use in the onboard electrical systems of aircraft.

### Construction

#### 2 CORES

Stranded conductor 19 x 0.120  
nickel clad copper alloy

#### INSULATION

Fire resistant insulation

Polyimide tape

PTFE tape

Ø = 1.20 to 1.65 mm

#### SCREEN

0.12 mm nickel plated copper  
braid

#### JACKET

UV PTFE tape(s)



### Other characteristics

Operating frequency : up to 125 KHz

### Standards

EN 4608-005



-65°C to +200°C



Very good  
resistance to  
aircraft fluids



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Fire resistant  
> 10k Ω  
during 15 min

## EN 4608-005 B 002 - GPB 24 - Dimensions and weight

REFERENCE	Size Code	AWG	Finished Cable			
			No of cores	DC Resistance at 20°C ( Ohms/Km ) Max.	Diameter (mm) Max.	Weight ( g/m ) Max.
EN 4608-005B 002	002	24	2	135	4.00	27.5

## EN 4608-005 B 002 - GPB 24 - Electrical characteristics

Impedance at 100 KHz	120 ± 20 % Ω
Transfer impedance at 100 KHz	< 30 mΩ
Capacitance at 100 KHz	< 85 pF/m
Attenuation at 100 KHz	1.6 dB/100m
Voltage rating	600 Volts RMS
Fire resistance -15 mn	> 10k Ω

## EN 4608-005 B 002 - GPB 24 - Physical characteristics

Core identification	2 cores	White with a helical red/blue stripe
Jacket identification	Color	White with narrow red stripe
	Marking	GPB 24 FRF**

With :

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 08 = 2008)

# PAN 6421 ZA

77 Ohms, Special electric cable (MIL-STD-1553B Data bus)

## Applications

Bus lines for multiplexed transmissions.

## Construction

### CORES

Stranded conductor :  
19 x 0.118 mm silver plated  
copper alloy  
Insulation : Polyimide/FEP  
tape plus dispersion  
Ø = 1.22, Max. = 1.26 mm

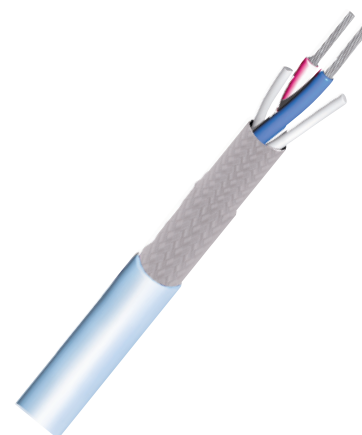
### PTFE FILLERS

### SCREEN

Inner screen 0.08 mm silver  
plated copper braid  
Outer screen 0.08 mm silver  
plated copper braid

### SHEATH

Extruded FEP jacket  
0.20 mm minimum wall  
thickness  
Ø min. = 3.15 mm  
Ø Max. = 3.80 mm  
Max. Weight = 29.0 g/m



## Standards

PANAVIA 75.6421  
SP-P-99301-00-P

## Nexans part number

Study 65529



-65°C to +150°C



Very good  
resistance to  
aircraft fluids



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)

## ■ PAN 6421 ZA 002 - Electrical characteristics

Characteristic impedance	77 ± 3 Ω
Mutual capacitance	98.4 pF/m
Attenuation	4.92 dB/100 m max.
Voltage rating	600 Volts RMS

## ■ PAN 6421 ZA 002 - Physical characteristics

Maximal weight	29 kg/km
Outer jacket color	Blue
Color of cores	Red, blue
Marking in black	PAN 6421 ZA 002 FR F **

With :

\*\* = Year of manufacturing (ie. 08 = 2008)

## ASNE 0259 HE 24

125 Ohms, Bus cable (AWG 24, single braid, polyimide jacket)

### Applications

Bus lines.

### Construction

#### CORES

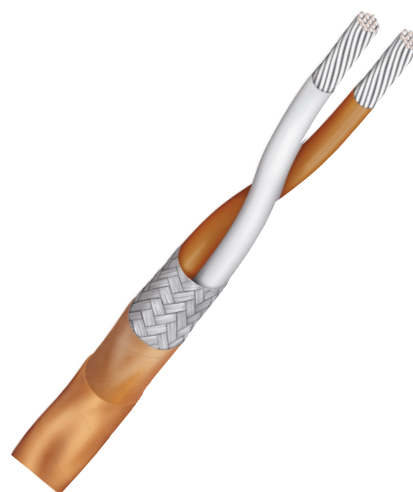
2 twisted cores AWG 24  
Stranded conductor :  
19 x 0.12 mm silver plated  
high strength copper alloy  
Insulation : Extruded PTFE  
 $\varnothing = 1.97 \pm 0.03$  mm

#### SHIELD

0.10 mm nickel plated copper  
braid (covering  $\geq 62\%$ )

#### JACKET

Polyimide tape(s)  
Max.  $\varnothing = 4.50$  mm



### Other characteristics

Non flammable

### Standards

ASNE 0259

### Nexans part number

Study 63247



-55°C to +150°C



Very good  
resistance to  
aircraft fluids



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)

## ■ ASNE 0259 HE 24 - Electrical characteristics

Characteristic impedance	125 $\Omega \pm 10\%$
Mutual capacitance	40 pF/m
Attenuation at 500 KHZ	2.5 dB/100m
Attenuation at 1 MHZ	3.1 dB/100m
Voltage withstanding between conductors	1500 Volts
Voltage withstanding between conductors and shield	1500 Volts
Maximum linear resistance of conductor at 20°C	97.2 $\Omega$ /km
Voltage rating	600 Volts RMS

## ■ ASNE 0259 HE 24 - Physical characteristics

Nominal weight	27 g/m
Outer jacket color	Natural jacket
Color of cores	White, brown

## STUDY 69654

125Ohms, Bus cable (AWG 24, single braid, polyimide jacket)

### ■ Applications

Bus lines.

### ■ Construction

#### 1- CORES

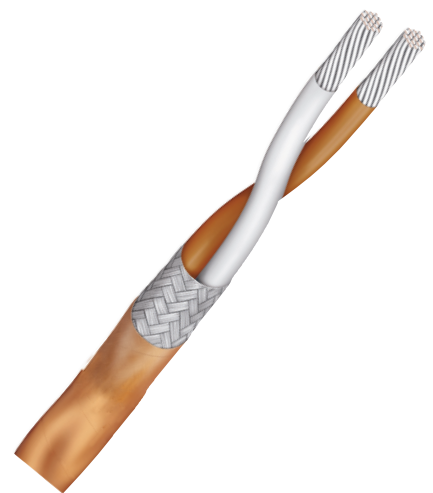
19 x 0.127 mm silver plated  
copper alloy  
Extruded PTFE insulation  
 $\varnothing = 1.85 \pm 0.13$  mm  
Assembly 2 cores

#### SHIELD

2- 0.10 mm tin plated copper  
braid (covering : 68%)

#### JACKET

3- Polyimide tape  
 $\varnothing = 4.45 \pm 0.38$  mm



### ■ Standards

Honeywell n° P7500579  
(12/01/1988)



-55°C to +150°C



Very good  
resistance to  
aircraft fluids



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



## ■ Study 69654 - Electrical characteristics

Impedance at 1 MHz	125 $\Omega$ $\pm$ 10%
Capacitance	40 $\pm$ 6.5 pF/m
Voltage withstanding between conductors	1500 Volts
Voltage withstanding between conductors and shield	1500 Volts
Voltage withstanding dry impulse of the jacket	3500 Volts
Insulation resistance	$\geq$ 1500 M $\Omega$ .km
Voltage rating	600 Volts RMS

## ■ Study 69654 - Physical characteristics

Nominal weight	27 g/m
Outer jacket color	Natural jacket
Color of cores	White, brown

# STUDY 124843 - ASNE 0849 HJ 26

75 Ohms, Twinaxial cable high immunity

## Applications

General electronic wiring.

## Construction

### 2 CORES

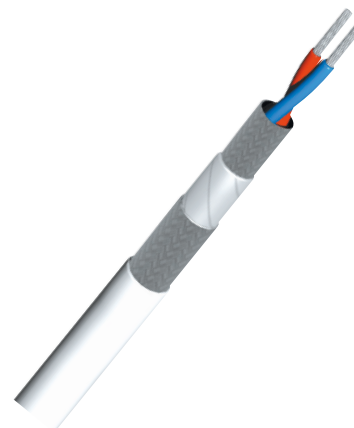
Stranded conductor  
 19 x 0.100 mm nickel plated  
 high strength copper alloy  
 Insulation :  
 Polyimide tape(s)  
 PTFE topcoat  
 □ Max. = 0.84 mm

### SCREEN

0.08 mm nickel plated  
 copper braid High immunity  
 tapes  
 Ø nom. = 2.06 mm  
 0.10 mm nickel plated  
 copper braid  
 Ø nom. = 2.50 mm

### JACKET

FEP  
 □ Max. = 3 mm



## Minimum bend radius

30 mm

## Standards

ASNE 0849



-65°C to +200°C



Very good  
 resistance to  
 aircraft fluids



Flame retardant  
 FAR/JAR part 25  
 sec 25.869 (a)(4)  
 Appendix F  
 part 1 (3)

## ■ ASNE 0849 HJ 26 - Electrical characteristics

Impedance max.		75 Ω
Capacitance		40 ± 6.5 pF/m
Transfer impedance	DC	28.10 <sup>-3</sup> Ω/m
	10 kHz	8.7.10 <sup>-3</sup> Ω/m
	100 kHz	0.85.10 <sup>-3</sup> Ω/m
	2 MHz	0.8.10 <sup>-5</sup> Ω/m
Voltage rating		600 Volts RMS

## ■ ASNE 0849 HJ 26 - Physical characteristics

Maximum weight	22 g/m
Outer jacket color	White
Color of cores	Light blue, red
Marking of the external sheath in black	HJ 26 FR F

With :

FR = Country of Origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 08 = 2008)

# STUDY 61333

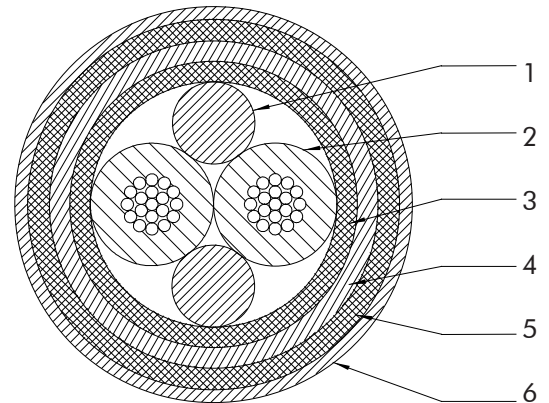
## 75 Ohms, Bus lines for multiplexed transmission

### Applications

Bus lines for multiplex transmission.

### Construction

- |   |  |
|---|--|
| <p>1- <b>2 PTFE FILLERS</b></p> <p>2- <b>2 CORES</b><br/>AWG 22, 0.38mm<sup>2</sup><br/>19 x 0.16 silver plated copper</p> <p>Insulation : Extruded PTFE<br/>Ø = 1.50 ± 0.03 mm<br/>Lay up :<br/>Ø nom. = 3.00 mm</p> <p>3- <b>SHIELD</b><br/>Silver plated copper 12/100</p> <p>4- <b>TAPE</b><br/>High permeability alloy</p> | <p>5- <b>SHIELD</b><br/>Silver plated copper 12/100<br/>Ø nom. = 4.06 mm</p> <p>6- <b>JACKET</b><br/>Polyimide PTFE<br/>Ø = 4.55 ± 0.25 mm</p> |
|---|--|



### Standards

Approved by the Defense Ministry  
under letters N°8981/STTE/CTG  
(10/09/1986)  
Registered at B.N.Aé N°6415 401



-65°C to +200°C



Very good  
resistance to  
aircraft fluids



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)

## ■ Study 61333 - Electrical characteristics

Characteristic impedance		$75 \pm 5 \Omega$
Mutual capacitance		$65 \pm 5 \text{ pF/m}$
Capacitance unbalance		$\leq 5\%$
Nominal attenuation	at 1 MHz	2.6 dB/100m
	at 10 MHz	10 dB/100m
Linear resistance		$\leq 50.2 \Omega/\text{km}$
Insulation resistance under 500 volts		$> 5000 \text{ M}\Omega.\text{km}$
Voltage withstanding	between conductors	2000 Volts RMS
	between conductors and shield	2000 Volts RMS
Jacket dry impulse		5000 Volts
Voltage rating		600 Volts
Transfer impedance at 1 MHz		$2.5 \cdot 10^{-5} \Omega/\text{m}$

## ■ Study 61333 - Physical characteristics

Maximum weight	55.4 g/m
Outer jacket color	White
Color of cores	White, blue

# ASNE 0811 WY

77 Ohms, Bus lines for multiplexed transmission

## Applications

Use for bus system MIL STD 1553

## Construction

### 2 PTFE FILLERS

### 2 CORES

AWG 26, 0.15mm<sup>2</sup> 19x0.10  
silver plated copper alloy  
(EN2083)

Insulation : Extruded PTFE  
∅ = 0.80 ± 0.05 mm

### Lay up :

∅ nom. = 1.60 mm

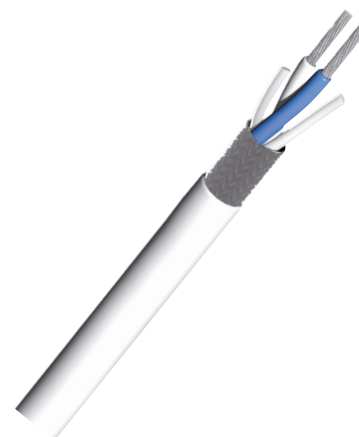
### SHIELD

Silver plated copper 10/100  
∅ < 2.00 mm

### JACKET

FEP

∅ = 2.50 ± 0.10 mm



## Minimum bending radius

Static : 15 mm

## Standards

ASNE 0811

## Nexans part number

Study 69899-01

Study 69899-02



-65°C to +200°C



Very good  
resistance to  
aircraft fluids



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)

## ASNE 0811 WY - Electrical characteristics

Characteristic impedance at 1 MHz		77 ± 7 Ω
Nominal mutual capacitance		65 pF/m
Nominal capacitance between 1 core and shield		110 pF/m
Nominal capacitance between cores and shield		180 pF/m
Nominal attenuation at 1 MHz		3.5 dB/100m
Linear resistance		≤ 146 Ω/km
Insulation resistance		≥ 1500 MΩ.km
Voltage withstanding	between conductors	1000 Volts
	between conductors and shield	1000 Volts
Jacket dry impulse		5000 Volts
Voltage rating		250 Volts
Maximum transfer impedance	DC current	50 mΩ/m
	1 MHz	50 mΩ/m
	10 MHz	50 mΩ/m
	30 MHz	100 mΩ/m

## ASNE 0811 WY - Physical characteristics

Nominal weight	14.5 g/m
Maximum weight	19 g/m
Outer jacket color	White
Color of cores	White, blue
Marking	FILOTEX FRANCE ET 69899-**

With :

\*\* = Year of manufacturing (ie. 08 = 2008)

Red marking for the main line (Nexans reference : ETUDE 69899-01)

Blue marking for the branch line (Nexans reference : ETUDE 69899-02)

# ABS 0386 WF

100 Ohms

## Applications

Data bus cable

## Construction

### 2 CORES

19 x 0.12 nickel plated copper alloy  
PTFE insulation

### ASSEMBLY

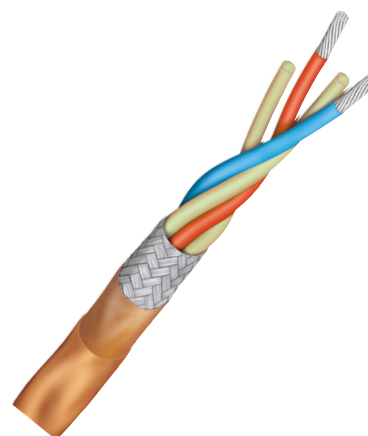
2 cores twisted with fiber glass fillers

### SCREEN

Nickel plated copper braid  
Strand  $\varnothing$  0.08 mm

### JACKET

Polyimide tapes



## Minimum bend radius

25 mm

## Standards

ABS 0386

## Nexans part number

Study 96897



-55°C to +200°C



Very good resistance to aircraft fluids



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



## ASNE 0386 WF - Dimensions and weight

Reference	US AWG	Conductor			Insulation		Braid		Finish cable		
		Composition (N x mm)	Diameter (mm) Nom.	Ohmic resistance at 20°C (Ohms/Km)	Diameter (mm)		Ø Strand (mm)	Nom. (mm)	Overall diameter (mm)		Weight (Kg/Km)
				Max.	Nom.	Max.			Nom.	Max.	Max.
Study 96897	24	19 x 0.12	0.59	117.5	1.40	1.50	0.08	3.12	3.30	3.50	23.4

## ASNE 0386 WF - Electrical characteristics

Characteristic impedance at 5 MHz		100 ± 10 Ω
Maximum capacitance		60 pF/m
Attenuation	at 1 MHz	0.03 dB/m
	at 5 MHz	0.06 dB/m
	at 10 MHz	0.12 dB/m
Voltage rating		600 Volts

## ASNE 0386 WF - Physical characteristics

Identification	1 core	Light blue
Color of cores	1 core	Red
Outer color jacket		Amber
Marking		WF 24 FR F ** + dash

# ET 132873

## 100 OHMS AWG 24 DATA BUS CABLE FIREPROOF CABLE

### Applications

Data bus cable for aeronautic applications.

600 Volts RMS

### Construction

#### CORES

19 x 0.12 mm  
Nickel Clad Copper Alloy  
Fire resistant insulation  
Polyimide Tape  
PTFE Tape

#### ASSEMBLY

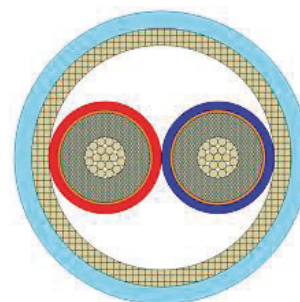
2 cores twisted

#### SHIELD

Nickel Plated Copper braid  
Strand diameter : 0.12 mm  
Coverage  $\geq 62\%$

#### JACKET

PTFE Tape(s)  
 $\varnothing$  : 4.12 mm  
Max. lineic mass : 38 kg/km



### Standards

ESW 1254-010 (For cores)



-65°C to +260°C



Very good  
resistance to  
aircraft fluids



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Fire resistant  
> 10k  $\Omega$   
during 15 min

## ET 132873 - Dimensions and weight

Reference	US AWG	Conductor				Insulation		Braid		Finished cable		
		Compos. N x d (mm)	Diameter (mm)		Ohmic resistance at 20°C (Ohms/Km)	Diameter (mm)		Ø Strand	Ø Nom.	Overall diameter (mm)		Weight (Kg/Km)
			Nom.	Max.	Max.	Nom.	Max.	(mm)	(mm)	Nom.	Max.	Max.
132873	24	19 x 0.12	0.58	0.62	135	1.58	1.65	0.12	3.64	4.12	4.45	38

## ET 132873 - Electrical characteristics

Operating frequency	125 kHz
Maximum capacitance	85 pF/m
Characteristic impedance	100 Ω at 1 MHz
Maximum attenuation	1.6 dB/100 m at 0.1 MHz
Maximum transfert impedance	30m Ω /m at 0.1 MHz

## ET 132873 - Identification

Colour of cores	Blue + Red
Colour of jacket	Light Blue with narrow red stripe
Colour of marking	Green
Marking text	ET 132873 FRF**

\*\* = Year of manufacturing (ie. 09 = 2009)

### Applications

Data bus cable for aeronautic applications.

600 Volts RMS

### Construction

#### CORES

19 x 0.12 mm Silver Plated High Strength Copper Alloy  
Aerated fluoropolymer insulation

#### ASSEMBLY

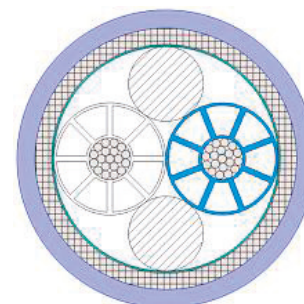
2 cores twisted with 2 fillers

#### SHIELD

Metallized foil  
Silver Plated Copper braid  
Strand diameter : 0.10 mm  
Coverage  $\geq 62\%$

#### JACKET

Fluoropolymer  
 $\varnothing : 4.10 \pm 0.20$  mm  
Max. lineic mass : 35 kg/km



### Other characteristics



Minimum Bending Radius  
23 mm



-55°C to +125°C



Very good  
resistance to  
aircraft fluids



Flame retardant  
FAR/JAR part 25  
sec 25.869 (q)(4)  
Appendix F  
part 1 (3)

## ET 133026 - Dimensions and weight

Reference	US AWG	Conductor				Insulation		Braid		Finished cable		
		Compos. N x d (mm)	Diameter (mm)		Ohmic resistance at 20°C (Ohms/Km)	Diameter (mm)		Ø Strand	Ø Nom.	Overall diameter (mm)		Weight (Kg/Km)
			Nom.	Max.	Max.	Nom.	Max.	(mm)	(mm)	Nom.	Max.	Max.
133026	24	19 x 0.12	0.59	0.63	105	1.55	1.60	0.10	3.60	4.10	4.30	35

## ET 133026 - Electrical characteristics

Characteristic impedance at 1 MHz	124 ± 7 Ω
Nominal capacitance	36 pF/m
Relative Velocity of propagation	80 % nom.
Attenuation (typical) at 10 MHz	6.6 dB/100 m

## ET 133026 - Identification

Colour of cores	Blue + White
Colour of jacket	Translucent Blue
No marking text	

# ET 133195

## 120 OHMS AWG 22 DATA BUS CABLE

### Applications

Data bus cable for aeronautic applications.

600 Volts RMS

### Construction

#### CORES

19 x 0.15 mm  
Silver Plated Copper  
Aerated fluoropolymer insulation

#### ASSEMBLY

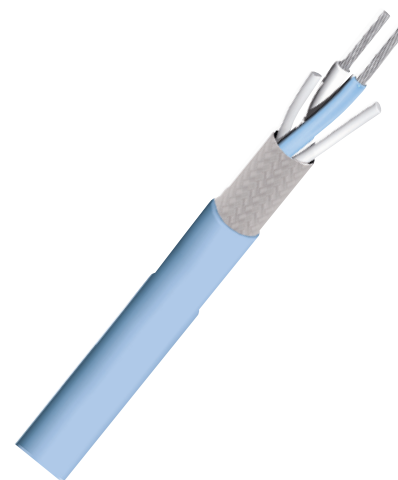
2 cores twisted with 2 aerated fillers

#### SHIELD

Silver Plated Copper braid  
Strand diameter : 0.10 mm  
Coverage  $\geq 62\%$

#### JACKET

Fluoropolymer  
 $\varnothing : 4.66 \pm 0.25$  mm  
Max. lineic mass : 38 kg/km



### Other characteristics



Minimum Bending Radius  
45 mm



-55°C to +125°C



Very good  
resistance to  
aircraft fluids



Flame retardant  
FAR/JAR part 25  
sec 25.869 (q)(4)  
Appendix F  
part 1 (3)

## ET 133195 - Dimensions and weight

Reference	US AWG	Conductor				Insulation		Braid		Finished cable		
		Compos. N x d (mm)	Diameter (mm)		Ohmic resistance at 20°C (Ohms/Km)	Diameter (mm)		Ø Strand	Ø Nom.	Overall diameter (mm)		Weight (Kg/Km)
			Nom.	Max.	Max.	Nom.	Max.	(mm)	(mm)	Nom.	Max.	Max.
133195	22	19 x 0.15	0.74	0.76	56	1.90	1.97	0.10	4.11	4.66	4.91	38

## ET 133195 - Electrical characteristics

Characteristic impedance at 1 MHz	120 ± 7 Ω
Nominal capacitance	36 pF/m
Relative Velocity of propagation	80 % nom.
Attenuation (typical) at 10 MHz	5.6 dB/100 m

## ET 133195 - Identification

Colour of cores	Blue + White
Colour of jacket	Translucent Blue
No marking text	-





## Part 6 Special cables

# STUDY 124401

## Low noise screened pair transmission cable

### Applications

General electronic wiring.

### Construction

#### 1- 2 CORES

Stranded conductor 19 x 0.203  
nickel plated copper alloy  
Insulation : Extruded PTFE +  
Semi-conductive tape  
Ø = 1.78 mm

#### 2- GLASS FIBER FILLERS

#### 3- SEMI-CONDUCTIVE TAPE

Ø = 3.74 mm

#### 4- SHIELD

0.12 mm nickel plated copper  
braid - 91% (US) min. coverage  
Ø = 4.22 mm

#### 5- INNER JACKET

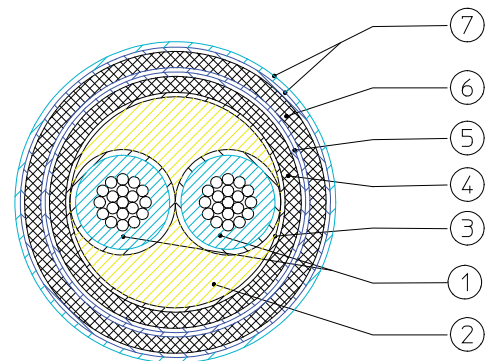
Polyimide tape(s)  
51% minimum overlap

#### 6- SHIELD

0.12 mm nickel plated copper  
braid  
91%(US) minimum coverage  
Ø = 4.83 mm

#### 7- OUTER JACKET

Polyimide tape(s)  
PTFE tape(s)  
51% minimum overlap  
Ø = 5.20 ± 0.20 mm



### Standards

Nexans specification



-54°C to +260°C



Very good  
resistance to  
aircraft fluids



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)

## STUDY 124401 - Electrical characteristics

Capacitance	between conductors	100 pF/m
	between conductors and shield	200 pF/m
Voltage withstanding	insulation	2000 Volts RMS
	jacket	5000 Volts Impulse
Voltage rating		600 Volts RMS
Insulation resistance (core/core and core/screen)		> 10 <sup>12</sup> Ω.m
Triboelectrical noise	from 30 to 90 Hz	Displacement 2 mm pk-pk <0.15 pC
	from 20 to 50 Hz	Displacement 5 mm pk-pk <1 pC
	at 2 Hz	Displacement 40 mm pk-pk <10 pC

## STUDY 124401 - Physical characteristics

Nominal weight	68.9 g/m
Outer jacket color	Black
Color of cores	Red, blue

# NSA 935 306 YK

Low noise screened pair transmission cable

## Applications

Low noise cable.

## Construction

### 2 CORES

19 x 0.17 silver plated copper clad steel

Insulation :

Extrusion PTFE 1.40 ±0.05mm

Semi-conductive tape

Ø nom. = 1.58 mm

### GLASS FIBER FILLERS

### SEMI-CONDUCTIVE TAPE

### SHIELD

Nickel plated copper braid

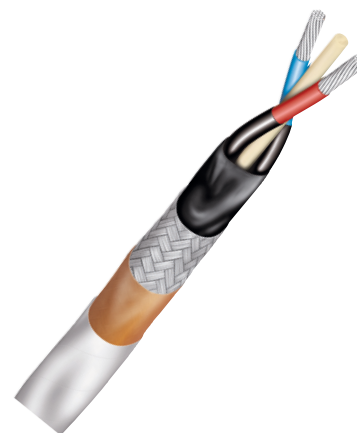
Kr>70% - Ø = 0.12 mm

### JACKET

Polyimide tape(s)

PTFE tape(s)

Ø Max. = 4.35 mm



## Standards

NSA 935306

## Nexans part number

Study 86891



-55°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



## ■ NSA 935 306 YK - Electrical characteristics

Capacitance	between conductors	100 pF/m
	between conductors and shield	200 pF/m
Voltage withstanding	between conductors	1500 Volts AC
	between conductors and shield	1500 Volts AC
Voltage rating		600 Volts AC
Insulation resistance		$\geq 1000 \text{ M}\Omega\cdot\text{km}$
Triboelectrical noise	at 2 Hz	Displacement 40 mm pk-pk $\leq 10 \text{ pC}$
	from 5 to 50 Hz	Displacement 5 mm pk-pk $\leq 1 \text{ pC}$
	from 10 to 70 Hz	Displacement 2 mm pk-pk $\leq 0.15 \text{ pC}$

## ■ NSA 935 306 YK - Physical characteristics

Nominal weight	38.2 g/m
Outer jacket color	White
Color of cores	Red, blue

# ESW 1404-022-006

## Low noise screened pair transmission cable

### Applications

Low noise transmission cable.

### Construction

#### 1- 2 CORES

19x0.20 mm nickel plated  
copper clad steel  
Semi-conductive tape  
PTFE tape(s) insulation  
 $\varnothing = 1.80 \pm 0.10$  mm  
Semi-conductive tape  
 $\varnothing$  nom. = 1.95 mm

#### 2- GLASS FIBER FILLERS

#### 3- SEMI-CONDUCTIVE TAPE

#### 4- SHIELD

Nickel plated copper 12/100  
Coverage factor > 85%

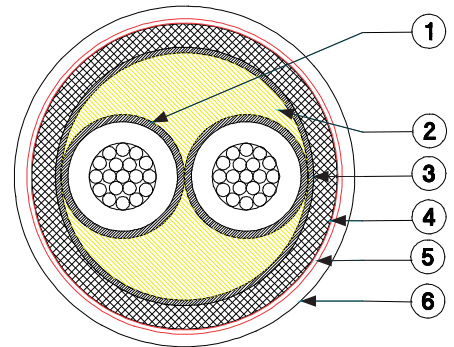
#### JACKET

5- Polyimide tape(s)

6- PTFE tape(s)

$\varnothing$  min. = 4.50 mm

$\varnothing$  Max. = 4.80 mm



### Standards

ESW 1404-022-006  
DSS-1747

### Nexans part number

Study 124762



-65°C to +260°C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



## ■ ESW 1404-022-006 - Electrical characteristics

Capacitance between conductors and shield		310 pF/m $\pm$ 10%
Maximum unbalance capacitance		15 pF/m
Voltage withstanding	between conductors	1500 Volts AC
	between conductors and shield	1500 Volts AC
Voltage rating		600 Volts AC
Insulation resistance		$\geq$ 1000 M $\Omega$ .km
Electrical resistance at 20°C		$\leq$ 75.1 $\Omega$ /km
Triboelectrical noise	at 3 Hz	Displacement 10 mm pk-pk : $\leq$ 0.3 pC
	from 5 to 50 Hz	Displacement 5 mm pk-pk : $\leq$ 0.3 pC
	from 50 to 120 Hz	Displacement 2.5 mm pk-pk : $\leq$ 0.3 pC

## ■ ESW 1404-022-006 - Physical characteristics

Maximum weight	53 g/m
Outer jacket color	White
Color of cores	White, blue
Marking	ESW1404-022-006-FX-FF-**

With :

\*\* = Year of manufacturing (ie. 09 = 2009)

# ESW 1405-024-006

## Low noise screened pair transmission cable

### Applications

Low noise transmission cable.

### Construction

**1- 2 CORES**

19 x 0.20 mm nickel plated copper clad steel  
 $\varnothing = 0.99 \pm 0.05$  mm  
 Semi-conductive tape  
 PTFE tape(s) insulation  
 $\varnothing = 1.80 \pm 0.10$  mm  
 Semi-conductive tape  
 $\varnothing$  nom. = 1.95 mm

**2- GLASS FIBER FILLERS**

**3- SEMI-CONDUCTIVE TAPE**

**4- 1<sup>st</sup> SHIELD**

Nickel plated copper 12/100

**5- INNER JACKET**

Polyimide tape(s)

**6- 2<sup>nd</sup> SHIELD**

Nickel plated copper 12/100

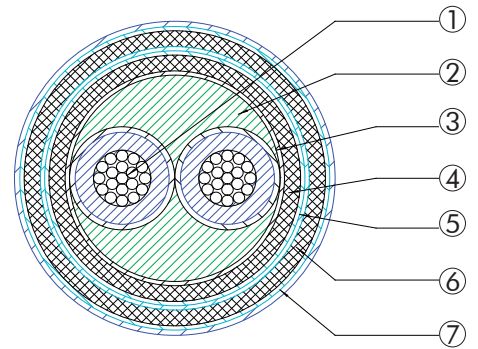
**7- OUTER JACKET**

Polyimide tape(s)

PTFE tape(s)

$\varnothing$  min. = 5.30 mm

$\varnothing$  Max. = 5.70 mm



### Standards

ESW 1405-024-xxx

### Nexans part number

Study 132057



-65°C to +260°C



Flame retardant  
 FAR/JAR part 25  
 sec 25.869 (a)(4)  
 Appendix F  
 part 1 (3)



Very good  
 resistance to  
 aircraft fluids





## ■ ESW 1405-024-006 - Electrical characteristics

Capacitance between conductors and shield		310 pF/m $\pm$ 10%
Voltage withstanding	between conductors	1500 Volts RMS
	between conductors and shield	1500 Volts RMS
	between shields	500 Volts DC
Voltage rating		600 Volts RMS
Insulation resistance		$\geq$ 1000 M $\Omega$ .km
Electrical resistance at 20°C		$\leq$ 75.1 $\Omega$ /Km
Triboelectrical noise	at 3 Hz	Displacement 10 mm pk-pk : $\leq$ 0.1 pC
	from 5 to 50 Hz	Displacement 5 mm pk-pk : $\leq$ 0.1 pC
	from 50 to 120 Hz	Displacement 2.5 mm pk-pk : $\leq$ 0.1 pC

## ■ ESW 1405-024-006 - Physical characteristics

Maximum weight	77 g/m
Outer jacket color	White
Color of cores	White, blue
Marking	ESW1405-024-006-FX-FF-**

With :

\*\* = Year of manufacturing (ie. 08 = 2008)

# LOW NOISE COAXIAL CABLES

CAS 85-22P  
 CAS 250-20 P  
 CAS 250-20 SP  
 CAS 250-22

## Applications

Cables designed for low frequency connections submitted to displacements and vibration during their operation.

250/600 Volts RMS

## Construction

### 1- CONDUCTOR

Stranded or solid silver plated copper covered steel (SPCCS)

### 2- DIELECTRIC

PE (CAS 85) or PTFE (CAS 250)

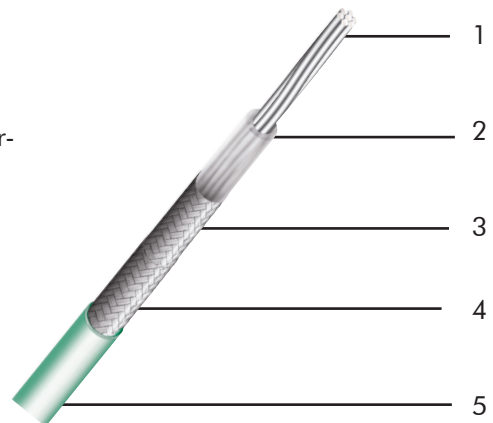
### 3- ANTIMICROPHONIC NOISE COATING

### 4- SCREEN

Bare copper or silver plated copper single braid

### 5- SHEATH

PVC or PTFE tape(s)  
 Color: green (for standard version), other colors on request.



## Minimum bend radius

Static : 10 x outer diameter

## Standards

NEXANS specification



Up to +85°C (CAS 85)  
 Up to +200°C (CAS 250)



Flexible



## Low noise cables

Dielectric	Designation	Nexans reference	Conductor			Dielectric Ø mm	Braids		Sheath	
			Composition n x Ø mm	Nature	Ø mm		Nb	Nature	Nature	Overall Ø mm
PE	<b>CAS 85-22P</b>	87067	1 x 0.30	SPCCS	0.30	1.10 ± 0.05	1	BC	PVC	2.15 ± 0.05
PTFE	<b>CAS 250-20 P</b>	87208	1 x 0.30	SPCCS	0.30	1.05 ± 0.05	1	SPC	PTFE	1.90 ± 0.10
PTFE	<b>CAS 250-20 SP</b>	87209	7 x 0.10	SPCCS	0.30	1.05 ± 0.05	1	SPC	PTFE	1.90 ± 0.10
PTFE	<b>CAS 250-22</b>	87068	1 x 0.30	SPCCS	0.30	0.98 ± 0.05	1	SPC	PTFE	2.15 ± 0.05

BC: Bare copper

SPC: Silver plated copper

Designation	Nexans reference	Average weight kg/km	Nominal capacitance pF/m	Velocity of propagation %	Continuous working voltage V	Triboelectric low noise level
<b>CAS 85-22P</b>	87067	8.0	95	70	600	<200 µvolts
<b>CAS 250-20 P</b>	87208	8.9	90	76	600	<200 µvolts
<b>CAS 250-20 SP</b>	87209	8.8	90	76	600	<200 µvolts
<b>CAS 250-22</b>	87068	11.6	90	76	250	<200 µvolts

# MBBN 3320 YH + + + - EN 4049-004

## Thermocouple cable

### Applications

Thermocouple cable

600 Volts RMS

### Construction

#### CONDUCTOR 1

Stranded conductor nickel chromium  
PTFE/Polyimide/PTFE tapes

#### CONDUCTOR 2

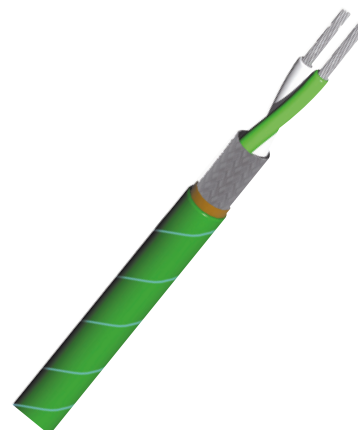
Stranded conductor nickel aluminium  
PTFE/Polyimide/PTFE tapes

#### SCREEN

Nickel plated copper braid

#### JACKET

Polyimide tape  
PTFE tape



### Other characteristics

Resistant to fungus  
EMF :  $10.56 \pm 0.12$  mV at +260°C

### Standards

MBBN 3320  
prEN 4049-004  
ISO 8056

### Nexans part number

Study 96532 (AWG 20)  
Study 96533 (AWG 22)



-55°C to +260°C



Very good  
resistance to  
aircraft fluids



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)

## ■ MBBN 3320 YH +++ - EN 4049-004 - Dimensions and weight

Code for nominal section	US AWG	Conductors		Cores	Screen	Ohmic resistance at 20°C				Finished cables	
		Construction n x mm	Nominal diameter (mm)	Maximal diameter (mm)	Strands diameter (mm)	Nickel chromium (Ω/m)		Nickel aluminium (Ω/m)		Maximal diameter (mm)	Maximal weight (g/m)
						Min.	Max.	Min.	Max.		
004	22	19 x 0.15	0.75	1.45	0.12	1.995	2.411	0.786	0.951	4.00	24.3
006	20	19 x 0.20	1.00	1.67	0.12	1.122	1.357	0.443	0.534	4.55	31.4

## ■ Identification

### Conductor color :

Nickel chromium conductor : White

Nickel aluminium conductor : Green

### Jacket color :

Green (size 006)

Green with narrow white stripe (size 004)

### Marking in black :

MBBN 3320 YH +++ FR F \*\*

with :

+++ = Code for nominal section

FR = Country of origin (FR = France)

F = Manufacturer (F= Nexans)

\*\* = Year of manufacturing (ie. 08 = 2008)

# TYPE ASNE 0409 BG - ASNE 0410 SU ASNE 0411 TV - ASNE 0412 VF

## Applications

Designed for flight testing wiring.

600 Volts RMS

## Construction

### CORE (ASNE 0409)

Conductor: 19 x 0.120 mm  
nickel plated copper (suitable for  
solderability)  
PTFE tape insulation

### ASSEMBLY (2 and 4 cores)

PTFE tape

### SHIELD

Nickel plated copper spinning

### SHEATH

Polyimide tape  
Orange PTFE UV tape

ASNE 0409 BG



ASNE 0410 SU



ASNE 0411 TV



ASNE 0412 VF



## Other characteristics

Operating frequency : up to 2500 Hz  
Mould and fungus resistant  
Solderability test on conductors : according to ASNE 0243

## Standards

ASNE 0409, ASNE 0410, ASNE  
0411, ASNE 0412, ASNE 0243  
NSA 935000  
SDF/B67-04/A/108/1128



-55°C to +200°C



Very good  
resistance to  
aircraft fluids



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)

## ASNE 0409 BG - ASNE 0410 SU - ASNE 0411 TV ASNE 0412 VF

Nexans PART NUMBER	Nbr of cores	Dia. of strand (mm)	Finished Cable						
			Colors		Max. DC resistance at 20°C (68°F) (Ohms/Km)	Diameter (mm)			Max. Weight g/m
			Cores	Sheath		Min.	Nom.	Max	
ASNE 0409 BG 24 UV	1	-	Orange	-	91.2	0.86	0.97	1.02	3.10
ASNE 0410 SU 24 UV	1	0.08	White	Orange	91.2	-	1.42	1.50	6.40
ASNE 0411 TV 24 UV	2	0.08	White + Light Blue	Orange	94	-	2.54	2.70	12.4
ASNE 0412 VF 24 UV	4	0.10	White + Light Blue + Red + Black	Orange	94	-	2.99	3.10	21.8

## Identification

### Marking color :

White on red and black wires

Dark green on other colors

### Marking on cores :

BG \*\* FR F ++

### Marking on sheath :

\$\$ \*\* £ FR F ++

with :

\$\$ = ASNE type (SU, TV or VF)

\*\* = AWG wire size

£ = Topcoat code (U or None)

FR = Country of origin (FR = France)

F = Manufacturer (F= Nexans)

++ = Year of manufacturing (ie. 08 = 2008)

# ECS0828 MQB, PAIR OF PAIRS ECS0829 MQD, QUAD OF PAIRS

Multi-cores Shielded and FEP Jacketed cable

## Applications

Designed for general Purpose Aircraft Wiring Applications,  
in replacement of AWG 24 ASN-E0642 HU and ASN-E0643 HV.

600 Volts RMS

## Construction

### CORES

Assembly 2 cores of  
EN 2267-009A  
Screen: 0.08 mm Nickel plated  
copper spiral screen  
Jacket: Polyimide Tape  
PTFE Tape

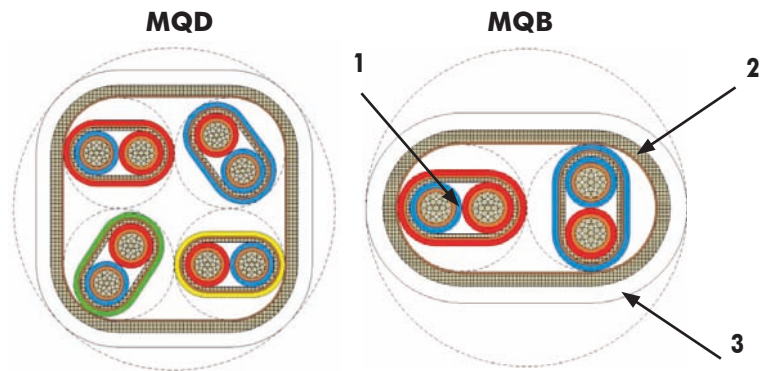
Assembly Two or Four cores  
Polyimide Tape

### SCREEN

Nickel plated copper braid

### JACKET

FEP



## Other characteristics

Mould and Fungus Resistant  
Operating frequency: up to 2000 Hz

## Standards

EN 2267-009 for cores  
EN 2714-013 for Screened and  
Jacketed multi-cores  
ECS 0828 / ECS 0829 for  
Screened and Jacketed cable



-55°C to 200°C



Very Good  
Resistance to  
Aircraft Fluids



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



## EN 2714-014 - Dimensions and weight

PART NUMBERS	US AWG	Nbr of Cores Number of cores	Screen Strands nominal diameter (mm)	Finished Cable						
				Colours		Maximum DC resistance at 20°C (68°K) (Ohms/Km)	Diameter (mm)		Weight (g/m)	
				Cores	Sheath		Nom.	Max.	Nom.	Max.
ECS0828 MQB	24	2	0.12	1 Red 1 Blue	White	117	5.16	5.90	44.15	47
ECS0829 MQD	24	4	0.12	1 Red 1 Blue 1 Yellow 1 Green	White	117	6.29	6.80	70.18	77

## Identification

### Basic Core identification Colours:

Two cores: Red - Blue  
 Marking : EN DR A ++ FRF\*\*  
 Colour : White for Red and  
 Green for Blue core.

### Finished Cable identification Colour:

Outer jacket : White

Marking : ### ++ FRF\*\*  
 Colour : Green

### = MQB Pair of pairs, MQD Quad of pairs  
 ++ = AWG  
 FR = Country of Origin (FR = France)  
 F = Manufacturer (F = Nexans)  
 \*\* = Year of manufacturing (ie. 10 = 2010)



## Part 7

### Optical cables

# ABS 0963-003 LF

## Multimode fiber optic cable 62.5/125

### Applications

With these high mechanical, chemical and optical properties, this cable has been designed for harsh environments such as :

- Aeronautical
- Geophysics,
- Space,
- Missile,
- Chemical industry.

### Construction

#### OPTICAL FIBER

Core + cladding + coating  
Silica/Silica/Silicone  
type 62.5/125/400  $\mu\text{m}$

#### PRIMARY JACKET

Copolymer zero halogen high temperature  
 $\varnothing = 0.90 \pm 0.05 \text{ mm}$

#### MECHANICAL STRENGTH

Polymer aromatic fiber braid

#### OUTER JACKET

Copolymer zero halogen high temperature

$\varnothing = 1.50 \text{ mm}$  (for info.)

+ ETFE

$\varnothing = 1.80 \pm 0.1 \text{ mm}$



### Minimum bend radius

Storage > 40 mm

Long term > 20 mm

Short term (installation) > 12 mm

### Standards

ABS 0963-003 LF

EN4641-100

### Nexans part number

Study 132126



-55°C to +125°C  
(long term)  
-65°C to +150°C  
(peak)



High chemical  
resistance



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)

## ■ ABS 0963-003 LF - Main data

- **Maximum pulling force :**
  - Long term : 10 daN
  - Short term : 25 daN
- **Tensile strength : > 100 daN**
- **Nominal weight : < 4 kg/km**
- **Maximum attenuation at 20°C :**
  - at 850 nm : 4 dB/km
  - at 1310 nm : 2 dB/km
- **Effective index of refraction:**
  - at 850 nm : 1.4970
  - at 1300 nm : 1.4919
- **Numerical aperture : 0.275 ± 0.015**
- **Cable Bandwidth (MHz. km) :**
  - at 850 nm : > 400
  - at 1310 nm : > 1000

## ■ ABS 0963-003 LF - Strong points

### Mechanical properties :

- High temperature
- High tensile resistance
- High flexibility
- Low weight / Small diameter
- Low bending radius
- Easy strippability

### Optical properties :

- High bandwidth
- Low cost ferrules (Telecom components)

### Chemical properties :

- High chemical resistance to on board fluids
- Very low smoke and toxicity (according to ABD0031 chart 1)
- Flamability : non flammable

## ■ ABS 0963-003 LF - Connection

Stripping of primary jacket , buffer and coating.

If mechanical stripping is used , we highly recommend :

- To strip directly from primary jacket to silica
- To carefully clean silica with a solvent such as MEK (Methylethylketone).

Residues of silicone can be removed with a wet tissue by wiping off of different angles in order to clean all the circumference of the silica.

If you dip bare fibre into solvent , take care to avoid contact between solvent and other part of the cable such as strength members, silicone and jacket.

DRAFT

### Applications

Harsh environments such as:  
aeronautics, geophysics,  
missile, chemical industry

### Construction

#### SPECIAL OPTICAL FIBRE

- 1- Core + cladding + coating  
Silica/Silica/Silicone  
Type (9/125/242)  $\mu\text{m}$

#### BUFFER

- 2- Silicone  
 $\varnothing : 400 \mu\text{m}$

#### PRIMARY JACKET

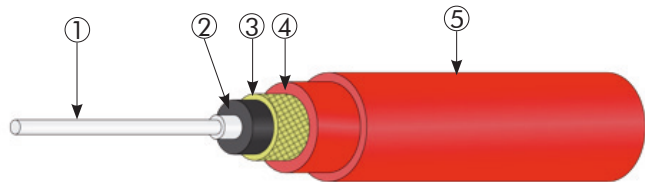
- 3- Copolymer High Temperature  
 $\varnothing : 0.90 \text{ mm} \pm 0.05 \text{ mm}$

#### MECHANICAL STRENGTH

- 4- High modulus tensile strength members

#### OUTER JACKET

- 5- Copolymer High Temperature  
 $\varnothing : 1.50 \text{ mm}$  (For info)  
+ Fluorinated polymer  
 $\varnothing : 1.80 \text{ mm} \pm 0.10 \text{ mm}$



### Cable preparation for connector mounting

Stripping of outer jacket.  
Comb textile members with your nail or a plastic tool to separate each textile fibre from each other.  
Strip optical fibre to remove silicone coating (Same tool as telecom fibre, for example: Miller stripping tool).

### Standards

#### Mechanical properties:

- High tensile resistance
- High flexibility
- Low weight / Small diameter
- Low bending radius
- Easy strippability

#### Optical properties

- High bandwidth
- Low cost ferrules  
(Telecom components)

#### Chemical properties:

- High chemical resistance
- Very low smoke and toxicity
- No flame propagation

## ■ Study 133287 - Main data

Operating temperature - Long term		-60 to +150°C
Jacket dry impulse test	Long Term	10 daN
	Short Term	25 daN
Minimum tensile strength		100 daN
Maximal weight		4 kg/km
Minimum bend radius	Storage	18 mm
	Long Term	9 mm
	Short Term (installation)	6 mm

## ■ Study 133287 - Optical properties

Maximum attenuation at 20°C:	At 1550 nm	0.5 dB/km
	At 1310 nm	0.5 dB/km
Maximum cut off wavelength (cable)		1260 nm
Effective index of refraction		1.47
Chromatic dispersion	At 1285/1300 nm	3.5 ps/(nm.km)
	At 1550 nm	18 ps/(nm.km)
	Zero dispersion wavelength	1300/1320 nm
	Maximum slope	0.092 ps/(nm <sup>2</sup> .km)
Other characteristics in accordance with		IEC pub 60793/1
		ITU G652
		Telcordia GR20-Core

## ■ Study 133287 - Identification

Colour of jacket	Red (TBC)
Color of marking	TBD
Marking text	TBD

## Study 133287 - Performances

PARAMETER and Measurement norm	TEST Description and Remarks	RESULTS
Core Diameter ANSI/EIA/TI – A455-58 A		$(9.0 \pm 0.5) \mu\text{m}$
Cladding Diameter ANSI/EIA/TI – A 455-45 B		$(125.0 \pm 1.0) \mu\text{m}$
Concentricity error ANSI/EIA/TI – A 455-45 B		$\leq 0.7 \mu\text{m}$
Cladding non circularity ANSI / EIA / TI – A 455 – 45 B		$\leq 1.0 \%$
Cable longitudinal stability EN 3745 – 205 +150°C / -60°C : 4 cycles	Silica vs primary jacket Primary jacket vs outer jacket	$< 100 \mu\text{m}$ for 20 m $< 170 \mu\text{m}$ for 20 m
Accelerated ageing EN 3745 – 401	100 m sample $\varnothing$ mandrel : 250 mm 24H @125 °C	Max variation of attenuation during test and residual : 0.10 dB @ 1310 nm 0.05 dB @ 1550 nm
Cable attenuation variation during temperature cycling EN 3745 – 306 +150°C / -65°C : 15 cycles	Sample length : 25 M	Max variation of attenuation : 0.30 dB @ 1310 nm 0.10 dB @ 1550 nm Max residual attenuation after 24 h : 0.10 dB @ 1310 and 1550 nm
Thermal shock EN 3745 – 404	15 cycles + 150°C / -65°C 25 M sample	Max variation of attenuation @ 1310 and 1550 nm : - during test $< 0.10$ dB - residual after 24 H $< 0.03$ dB
Flammability EN 3745 – 407	Time to flame extinction $< 7$ sec No falling of flaming particles No ignition of the tissue paper	Time to flame extinction : immediate Visual examination : pass
Resistance to fluids EN 3745 – 411 method 2	Fluids according to EN 3909	Weight variation $< 5 \%$ No cracks, no colour change Good printing legibility
Humidity resistance EN 3745 – 412	15 cycles, $>95\%$ R.H. ( 20 m ) Residual $\Delta\alpha$ after test $< 0.2$ dB Weight variation $< 5\%$ Visual examination	Max variation of attenuation during test and residual : 0.10 dB @ 1310 nm 0.05 dB @ 1550 nm Weight variation : 0 %
Fibre proof test EN 3745 – 501	1%/0.5 second exceed 100 KPSI	$\geq 1\%$ ( $\geq 100$ kpsi)
Cable tensile strength EN 3745 – 505	Test temperature : 20 °C Pulling speed : 50 mm/min	Max. variation of attenuation 0.07 dN @ 1310 and 1550 nm Rupture load $> 1000$ N
Kink test EN 3745 - 509	Loop diameter before kink 20 mm Test temperature 20°C	No kink - max variation of attenuation @ 1310 and 1550 nm : - during test $< 0.2$ dB - after test $< 0.02$ dB
Strippability EN 3745 – 701	Max load to be applied $< 20$ N	$< 7$ N both for buffer stripping and primary jacket stripping
Scrape abrasion EN 3745-503	Test temperature : 20 °C Applied load : 10 N	Max. variation of attenuation during 500 cycles test : 0.02 dB @ 1310 and 1550 nm Slight degradation of outer jacket
Micro-bending EN 3745 – 504	Load applied : 50 N Rate load applied : 50 N/min Mandrel size : 5 mm	Max. variation of attenuation : 0.1 dB @1310 nm 0.05 dB @1550 nm
Cable impact test EN 3745 – 506	Test temperature : 20°C Radius intermediate piece: 15 mm Test load : 5 N - drop height : 1 m Energy : 5 Joules - number of drops : 5	Max. variation of attenuation : 0.2 dB @1310 nm 0.1 dB @1550 nm
Cable cut-through EN 3745 – 507	Test temperature : 20°C Time of load application : 1 mn Test load : 50 N	Max. variation of attenuation : 0.2 dB @1310 nm 0.2 dB @1550 nm



## Study 133287 - Performances

PARAMETER and Measurement norm	TEST Description and Remarks	RESULTS
Torsion test EN 3745 – 508	Test temperature : 20°C 1000 cycles - test load 15 daN 250 mm between rotating and fixed grips	Max. variation of attenuation : 0.05 dB @1310 nm 0.05 dB @1550 nm
Bending test EN 3745 – 510	Test temperature : 20°C Load applied : 20N – 10 turns 18 mm mandrel diameter	Max. variation of attenuation : 0.05dB @1310/1550 nm during test No residual values after test
Cable to cable abrasion EN 3745-511	Optical vs Electrical (DM18) with 1daN Optical / Optical with 500g load	107 106
Flexure endurance EN 3745-512	Test temperature : 20°C 25 mm mandrel diameter	Max. variation of attenuation after 100 000 cycles 0.1 dB @1310 nm 0.05 dB @1550 nm
Cable crush resistance EN 3745 – 513	Test temperature : 20°C 4500 N load	Max. variation of attenuation 0.05 dB @ 1310/1550 nm
Cable tie clamping EN 3745 – 517	13 mm mandrel diameter – 6 ties 2.5mm width – 100 mm between ties	Max. variation of attenuation with cable tie tension setting #3 : 0.1 dB @1310 nm 0.05 dB @1550 nm
Cable immunity to ambient light coupling EN 3745 – 305		< -80 dBm
Cable cold bend test EN 3745 – 406	Test temperature : -55 °C Mandrel diameter : 40 mm 10 turns	Max attenuation variation 0.2dB @1310nm during test 0.3dB @1550nm 0.05dB@1310nm residual 0.10dB@1550nm

PARAMETER and Measurement norm		TEST Description and Remarks		RESULTS	
PARAMETERS		With Flame		Without Flame	
		Requested	Measured	Requested	Measured
Smoke density EN 3745-601	Dm 4 mn	≤ 200	65	≤ 200	0
	Dm 16 mn	-	207	-	50
Toxicity at 4 mn (ppm) EN 3745-602	HF	≤ 100	30	> 100	0
	HCL	≤ 150	0	≤ 150	0
	HCN	≤ 150	2	≤ 150	0
	SO2/H2S	≤ 100	0	≤ 100	0
	NO/NO2	≤ 100	5	≤ 100	0
	CO	≤ 1000	50	≤ 1000	≈ 0
Toxicity at 16 mn (ppm) EN 3745-602	HF	≤ 100	25	≤ 100	6
	HCL	≤ 150	0	≤ 150	0
	HCN	≤ 150	5	≤ 150	1
	SO2/H2S	≤ 100	0	≤ 100	0
	NO/NO2	≤ 100	10	≤ 100	0
	CO	≤ 1000	400	≤ 1000	50

# STUDY 132574

## Multimode Fibre Optic Cable 62.5/125

### Applications

Harsh environments such as:  
aeronautics, geophysics,  
missile, chemical industry

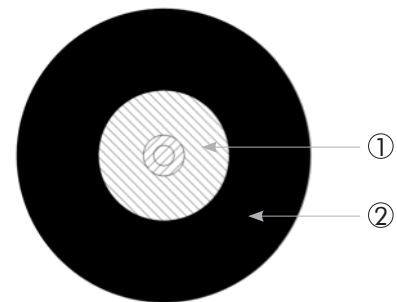
### Construction

#### OPTICAL FIBRE

1- Core + cladding + coating  
Silica/Silica/Silicone  
Type (62.5/125/400)  $\mu\text{m}$

#### OUTER JACKET

2- Copolymer 0 Halogen  
High temperature  
 $\varnothing$  : 0.90 mm  $\pm$  0.05 mm



### Cable preparation for connector mounting

Stripping of primary jacket, buffer and coating.

If mechanical stripping is used, we highly recommend :

To strip directly from primary jacket to silica

- To carefully clean silica with a solvent such as MEK (Methylethylketone).

Residues of silicone can be removed with a wet tissue by wiping off of different angles in order to clean all the circumference of the silica.

If you dip bare fibre into solvent, take care to avoid contact between solvent and other part of the cable such as strength members, silicone and jacket.

Mechanical properties:

- Small diameter
- Low weight
- High temperature
- High flexibility
- Low bending radius
- Easy strippability

### Standards

Optical properties

- High bandwidth
- Low cost ferrules  
(Telecom components)

Chemical properties:

- High chemical resistance to on board fluids
- Very low smoke and toxicity
- No flame propagation

## ■ Study 132574

Operating temperature - Long term		Value
	Long Term	-55 to +125 °C
	Peak	-65 to +150 °C
Maximum pulling force		10 N / 1 s
Maximal weight		1 kg/km
Minimum bend radius	Long Term	10 mm
	Short Term (installation)	6 mm

## ■ Study 132574 - Optical properties

Maximum attenuation at 20°C:	At 850 nm	4 dB/km
	At 1310 nm	2 dB/km
Effective index of refraction	At 850 nm	1.4970
	At 1310 nm	1.4919
Numerical aperture		0.275 ± 0.015
Cable Bandwith (MHz.km)	At 850 nm	> 400
	At 1300 nm	1 > 1000

## ■ Study 132574 - Identification

Colour of jacket	Black
Marking text	No

## ■ Specifications

According to EN4641-101



# Part 8

## Wires and cables for avionics

## KZ 04, KZ 05, KZ 06

Single core, unscreened hook-up wires  
High temperature

### Applications

Internal wiring in electronic equipment, aircraft and satellites.

Excellent chemical resistance.

In order to increase the operating temperature of the cables up to 250°C, all KZ types can be produced with a nickel plated copper conductor on request.

From 250 to 1000 Volts

### Construction

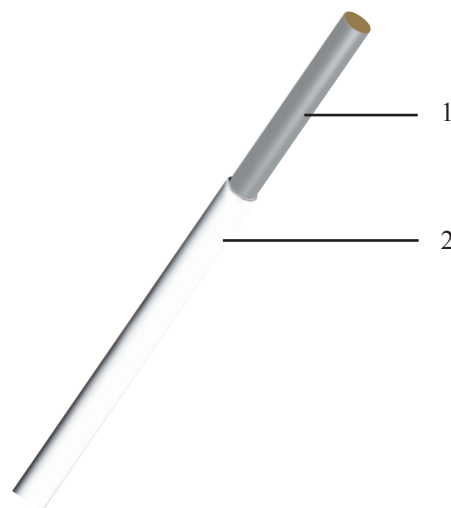
#### 1- CONDUCTOR

Stranded silver copper wires

#### 2- INSULATION

Extruded PTFE

or taped PTFE (for AWG 14 and 12)



### Standards

NF C 93-523

NF C 32-070 C1



-55 °C to +200 °C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



Flexible



RoHs

## KZ - Unscreened hook-up wires high temperature

NF C 93-523 and Nexans references	Gauge AWG	Cross section mm <sup>2</sup>	Construction n x Ø mm	Nominal Ø mm	DC resistance at 20°C max. Ohms/km	overall Ø		Max. weight kg/km	Operating voltage Volts
						min.	max.		
						mm			
KZ 04 - 01	32	0.035	7 x 0.08	0.24	546	0.48	0.58	0.95	250
KZ 04 - 02	30	0.055	7 x 0.10	0.30	349	0.56	0.66	1.3	
KZ 04 - 03	28	0.093	7 x 0.13	0.39	201	0.63	0.73	1.75	
KZ 04 - 04	26	0.14	7 x 0.16	0.48	132	0.74	0.84	2.4	
KZ 04 - 05	24	0.22	7 x 0.20	0.60	86	0.86	0.96	3.4	
KZ 04 - 06	22	0.34	7 x 0.25	0.75	54.4	1.01	1.11	5.0	
KZ 04 - 07	20	0.60	19 x 0.20	1.00	31.3	1.30	1.40	8.25	
KZ 05 - 01	32	0.035	7 x 0.08	0.24	546	0.63	0.84	1.65	600
KZ 05 - 02	30	0.055	7 x 0.10	0.30	349	0.71	0.91	2.1	
KZ 05 - 03	28	0.093	7 x 0.13	0.39	201	0.79	1.00	2.6	
KZ 05 - 04	26	0.14	7 x 0.16	0.48	132	0.89	1.10	3.4	
KZ 05 - 05	24	0.22	7 x 0.20	0.60	86	1.04	1.22	4.5	
KZ 05 - 06	22	0.34	7 x 0.25	0.75	54.4	1.17	1.37	6.2	
KZ 05 - 07	20	0.60	19 x 0.20	1.00	31.3	1.42	1.62	9.5	
KZ 05 - 08	18	0.93	19 x 0.25	1.25	20.5	1.67	1.92	14.1	
KZ 05 - 09	16	1.34	19 x 0.30	1.50	13.9	1.92	2.27	20.0	
KZ 05 - 10	14	1.91	27 x 0.30	1.85	10.0	2.30	2.66	27.0	
KZ 05 - 11	12	3.18	45 x 0.30	2.45	6.0	2.89	3.24	42.5	
KZ 06 - 01	32	0.035	7 x 0.08	0.24	546	0.88	1.09	2.6	1000
KZ 06 - 02	30	0.055	7 x 0.10	0.30	349	0.95	1.16	3.0	
KZ 06 - 03	28	0.093	7 x 0.13	0.39	201	1.04	1.24	3.7	
KZ 06 - 04	26	0.14	7 x 0.16	0.48	132	1.14	1.34	4.6	
KZ 06 - 05	24	0.22	7 x 0.20	0.60	86	1.27	1.47	5.75	
KZ 06 - 06	22	0.34	7 x 0.25	0.75	54.4	1.42	1.63	7.7	
KZ 06 - 07	20	0.60	19 x 0.20	1.00	31.3	1.66	1.86	11.0	
KZ 06 - 08	18	0.93	19 x 0.25	1.25	20.5	1.92	2.17	16.0	
KZ 06 - 09	16	1.34	19 x 0.30	1.50	13.9	2.10	2.41	21.1	
KZ 06 - 10	14	1.91	27 x 0.30	1.85	10.0	2.51	2.92	30.0	
KZ 06 - 11	12	3.18	45 x 0.30	2.45	6.0	3.14	3.55	47.5	

## KZ 55, KZ 57, KZ 59

Single core, screened and jacketed hook-up wires  
High temperature

### Applications

Internal wiring in electronic equipment, aircraft and satellites.  
Excellent chemical resistance. In order to increase temperature of the cables up to 250°C, all KZ can be produced with a nickel plated copper conductor on request.

From 250 to 1000 Volts

### Construction

#### 1- CONDUCTOR

Stranded silver copper wires

#### 2- INSULATION

Extruded PTFE or taped PTFE

#### 3- SCREEN

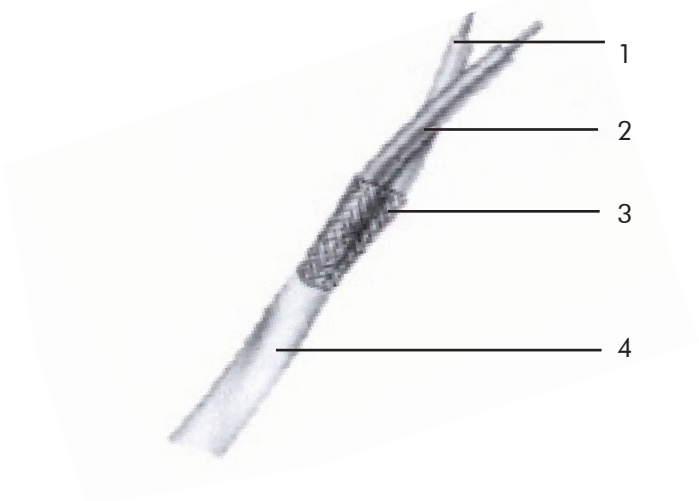
Silver copper braid

KZ 55 are reinforced with a polyimide tape

#### 4- OUTER JACKET

FEP

Radial thickness : 0.30 mm nominal



### Standards

NF C 93-523

NF C 32-070 C1



-55 °C to +200 °C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



Flexible



RoHS



## KZ 55, KZ 57, KZ 59 - Screened and jacketed hook-up wires

NF C 93-523 and Nexans references	Base core					D.C. resistance at 20°C max. Ohms/km	Braid nom. Ø of strands mm	Overall Ø		Max. weight kg/km	Operating voltage Volts
	Type	Conductor						min.	max.		
		Gauge AWG	Cross section mm <sup>2</sup>	Construction n x Ø mm	Nom. Ø mm						
<b>KZ 55-04</b>	KZ 04-04	26	0.14	7 x 0.16	0.48	132	0.10	1.85	2.05	8.11	<b>250</b>
<b>KZ 55-05</b>	KZ 04-05	24	0.22	7 x 0.20	0.60	86	0.10	1.97	2.17	9.66	
<b>KZ 55-06</b>	KZ 04-06	22	0.34	7 x 0.25	0.75	54.4	0.10	2.12	2.32	11.90	
<b>KZ 55-07</b>	KZ 04-07	20	0.60	19 x 0.20	1.00	31.3	0.10	2.40	2.60	16.50	
<b>KZ 57-01</b>	KZ 05-01	32	0.035	7 x 0.08	0.24	546	0.10	1.72	1.97	6.72	<b>600</b>
<b>KZ 57-02</b>	KZ 05-02	30	0.055	7 x 0.10	0.30	349	0.10	1.79	2.04	7.49	
<b>KZ 57-03</b>	KZ 05-03	28	0.093	7 x 0.13	0.39	201	0.10	1.88	2.13	8.39	
<b>KZ 57-04</b>	KZ 05-04	26	0.14	7 x 0.16	0.48	132	0.10	1.98	2.23	9.63	
<b>KZ 57-05</b>	KZ 05-05	24	0.22	7 x 0.20	0.60	86	0.10	2.11	2.36	11.30	
<b>KZ 57-06</b>	KZ 05-06	22	0.34	7 x 0.25	0.75	54.4	0.10	2.25	2.50	13.60	
<b>KZ 57-07</b>	KZ 05-07	20	0.60	19 x 0.20	1.00	31.3	0.13	2.65	2.90	20.00	
<b>KZ 57-08</b>	KZ 05-08	18	0.93	19 x 0.25	1.25	20.5	0.13	2.93	3.18	26.10	
<b>KZ 57-09</b>	KZ 05-09	16	1.34	19 x 0.30	1.50	13.9	0.13	3.23	3.53	33.50	
<b>KZ 57-10</b>	KZ 05-10	14	1.91	27 x 0.30	1.85	10.0	0.13	3.61	3.91	42.60	
<b>KZ 57-11</b>	KZ 05-11	12	3.18	45 x 0.30	2.45	6.0	0.13	4.19	4.49	61.10	
<b>KZ 59-01</b>	KZ 06-01	32	0.035	7 x 0.08	0.24	546	0.10	1.97	2.22	8.79	<b>1000</b>
<b>KZ 59-02</b>	KZ 06-02	30	0.055	7 x 0.10	0.30	349	0.10	2.03	2.28	9.45	
<b>KZ 59-03</b>	KZ 06-03	28	0.093	7 x 0.13	0.39	201	0.10	2.12	2.37	10.6	
<b>KZ 59-04</b>	KZ 06-04	26	0.14	7 x 0.16	0.48	132	0.10	2.22	2.47	11.9	
<b>KZ 59-05</b>	KZ 06-05	24	0.22	7 x 0.20	0.60	86	0.10	2.35	2.60	13.6	
<b>KZ 59-06</b>	KZ 06-06	22	0.34	7 x 0.25	0.75	54.4	0.13	2.65	2.90	18.2	
<b>KZ 59-07</b>	KZ 06-07	20	0.60	19 x 0.20	1.00	31.3	0.13	2.89	3.14	22.7	
<b>KZ 59-08</b>	KZ 06-08	18	0.93	19 x 0.25	1.25	20.5	0.13	3.18	3.43	29.2	
<b>KZ 59-09</b>	KZ 06-09	16	1.34	19 x 0.30	1.50	13.9	0.13	3.38	3.68	35.4	
<b>KZ 59-10</b>	KZ 06-10	14	1.91	27 x 0.30	1.85	10.0	0.13	3.84	4.19	46.8	
<b>KZ 59-11</b>	KZ 06-11	12	3.18	45 x 0.30	2.45	6.0	0.13	4.65	5.00	70.4	

## Identification

- White insulation
- White outer jacket

# KZ 67, KZ 69, KZ 71

2 cores, Screened and jacketed pairs  
High temperature

## Applications

Internal wiring in electronic equipment, aircrafts and satellites.

From 250 to 1000 Volts

## Construction

### 1- CONDUCTOR

Stranded silver copper wires

### 2- INSULATION

Extruded PTFE or taped PTFE

### 3- SCREEN

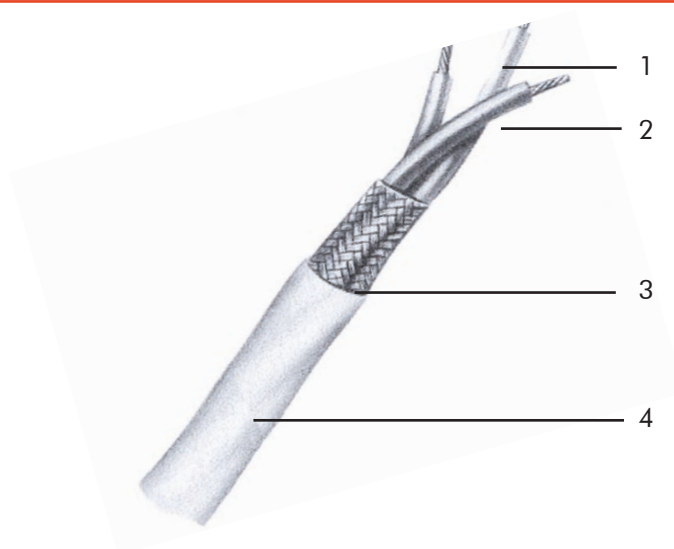
Silver copper braid

KZ 67 are reinforced with a polyimide tape

### 4- OUTER JACKET

FEP

Radial thickness : 0.30 mm nominal



## Standards

NF C 93-523

NF C 31-070 C1



-55 °C to +200 °C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Flexible



RoHs

## KZ 67, KZ 69, KZ 71 - Screened and jacketed pairs

NF C 93-523 and Nexans references	Base core					D.C. resistance at 20°C max. Ohms/km	Braid nom. Ø of strands mm	Overall Ø		Average weight kg/km	Operating voltage Volts
	Type	Conductor						Min.	Max.		
		Gauge AWG	Cross section mm <sup>2</sup>	Construction n x Ø mm	Nom. Ø mm			mm			
<b>KZ 67-01</b>	KZ 04-01	32	0.035	7 x 0.08	0.24	573	0.10	2.11	2.36	8.03	250
<b>KZ 67-02</b>	KZ 04-02	30	0.055	7 x 0.10	0.30	366	0.10	2.27	2.52	9.35	
<b>KZ 67-03</b>	KZ 04-03	28	0.093	7 x 0.13	0.39	211	0.10	2.41	2.62	10.8	
<b>KZ 67-04</b>	KZ 04-04	26	0.14	7 x 0.16	0.48	138	0.10	2.63	2.88	13.0	
<b>KZ 67-05</b>	KZ 04-05	24	0.22	7 x 0.20	0.60	90	0.13	3.02	3.27	17.9	
<b>KZ 67-06</b>	KZ 04-06	22	0.34	7 x 0.25	0.75	57	0.13	3.32	3.57	22.5	
<b>KZ 67-07</b>	KZ 04-07	20	0.60	19 x 0.20	1.00	33	0.13	3.90	4.15	31.7	
<b>KZ 69-01</b>	KZ 05-01	32	0.035	7 x 0.08	0.24	573	0.10	2.46	2.71	10.6	600
<b>KZ 69-02</b>	KZ 05-02	30	0.055	7 x 0.10	0.30	366	0.10	2.60	2.85	12.0	
<b>KZ 69-03</b>	KZ 05-03	28	0.093	7 x 0.13	0.39	211	0.10	2.78	3.03	13.7	
<b>KZ 69-04</b>	KZ 05-04	26	0.14	7 x 0.16	0.48	138	0.13	3.13	3.38	18.1	
<b>KZ 69-05</b>	KZ 05-05	24	0.22	7 x 0.20	0.60	90	0.13	3.39	3.64	21.5	
<b>KZ 69-06</b>	KZ 05-06	22	0.34	7 x 0.25	0.75	57	0.13	3.67	3.92	26.2	
<b>KZ 69-07</b>	KZ 05-07	20	0.60	19 x 0.20	1.00	33	0.13	4.17	4.42	35.1	
<b>KZ 69-08</b>	KZ 05-08	18	0.93	19 x 0.25	1.25	21.5	0.13	4.73	5.08	46.9	
<b>KZ 69-09</b>	KZ 05-09	16	1.34	19 x 0.30	1.50	14.6	0.13	5.51	5.86	64.4	
<b>KZ 69-10</b>	KZ 05-10	14	1.91	27 x 0.30	1.85	10.5	0.13	6.27	6.62	82.4	
<b>KZ 69-11</b>	KZ 05-11	12	3.18	45 x 0.30	2.45	6.3	0.13	7.43	7.78	120.0	
<b>KZ 71-01</b>	KZ 06-01	32	0.035	7 x 0.08	0.24	573	0.13	3.11	3.36	16.4	1000
<b>KZ 71-02</b>	KZ 06-02	30	0.055	7 x 0.10	0.30	366	0.13	3.23	3.48	17.7	
<b>KZ 71-03</b>	KZ 06-03	28	0.093	7 x 0.13	0.39	211	0.13	3.41	3.66	19.9	
<b>KZ 71-04</b>	KZ 06-04	26	0.14	7 x 0.16	0.48	138	0.13	3.61	3.86	22.6	
<b>KZ 71-05</b>	KZ 06-05	24	0.22	7 x 0.20	0.60	90	0.13	3.87	4.12	26.1	
<b>KZ 71-06</b>	KZ 06-06	22	0.34	7 x 0.25	0.75	57	0.13	4.17	4.42	31.4	
<b>KZ 71-07</b>	KZ 06-07	20	0.60	19 x 0.20	1.00	33	0.13	4.65	4.90	40.2	
<b>KZ 71-08</b>	KZ 06-08	18	0.93	19 x 0.25	1.25	21.5	0.13	5.39	5.64	55.6	
<b>KZ 71-09</b>	KZ 06-09	16	1.34	19 x 0.30	1.50	14.6	0.13	5.81	6.16	68.1	
<b>KZ 71-10</b>	KZ 06-10	14	1.91	27 x 0.30	1.85	10.5	0.13	6.73	7.08	90.7	
<b>KZ 71-11</b>	KZ 06-11	12	3.18	45 x 0.30	2.45	6.3	0.13	7.99	8.34	133	

## Identification

- White and light blue insulation
- White outer jacket

# KZ 79, KZ 81, KZ 83

3 cores, screened and jacketed triples  
High temperature

## Applications

Internal wiring in electronic equipment, aircrafts and satellites.

From 250 to 1000 Volts

## Construction

### 1- CONDUCTOR

Stranded silver copper wires

### 2- INSULATION

Extruded PTFE or tape PTFE

### 3- SCREEN

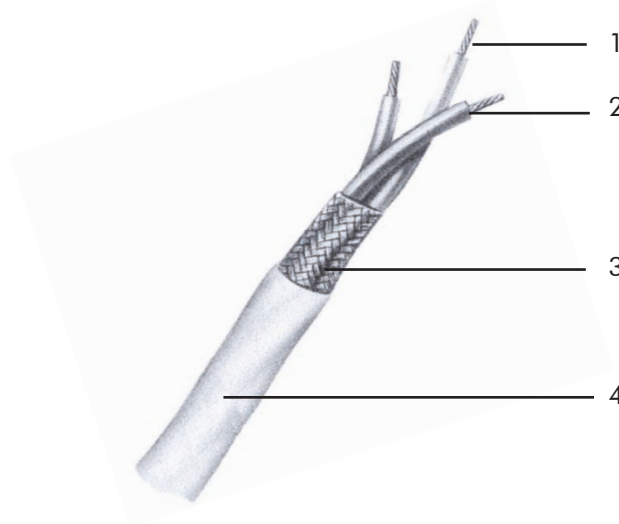
Silver copper braid

KZ 79 are reinforced with a polyimide tape

### 4- OUTER JACKET

FEP

Radial thickness : 0.30 mm nominal



## Standards

NF C 93-523

NF C 32-070 C1



-55°C to +200°C



Fire retardant  
(NF C 32-070/C1)



Flexible



## KZ 79, KZ 81, KZ 83- Screened jacketed triples

NF C 93-523 and Nexans references	Base core					D.C. resistance at 20°C max. Ohms/km	Braid nom. Ø of strands mm	Overall Ø		Average weight kg/ km	Operating voltage Volts
	Type	Conductor						min.	max.		
		Gauge AWG	Cross section mm <sup>2</sup>	Construction n x Ø mm	Nom. Ø mm						
<b>KZ 79-01</b>	KZ 04-01	32	0.035	7 x 0.08	0.24	573	0.10	2.19	2.44	9.85	250
<b>KZ 79-02</b>	KZ 04-02	30	0.055	7 x 0.10	0.30	366	0.10	2.36	2.61	11.7	
<b>KZ 79-03</b>	KZ 04-03	28	0.093	7 x 0.13	0.39	211	0.10	2.51	2.76	13.7	
<b>KZ 79-04</b>	KZ 04-04	26	0.14	7 x 0.16	0.48	138	0.13	2.90	3.15	18.7	
<b>KZ 79-05</b>	KZ 04-05	24	0.22	7 x 0.20	0.60	90	0.13	3.15	3.40	23.1	
<b>KZ 79-06</b>	KZ 04-06	22	0.34	7 x 0.25	0.75	57	0.13	3.48	3.73	29.6	
<b>KZ 79-07</b>	KZ 04-07	20	0.60	19 x 0.20	1.00	33	0.13	4.10	4.35	42.7	
<b>KZ 81-01</b>	KZ 05-01	32	0.035	7 x 0.08	0.24	573	0.10	2.57	2.82	13.4	600
<b>KZ 81-02</b>	KZ 05-02	30	0.055	7 x 0.10	0.30	366	0.13	2.87	3.12	17.4	
<b>KZ 81-03</b>	KZ 05-03	28	0.093	7 x 0.13	0.39	211	0.13	3.07	3.32	19.9	
<b>KZ 81-04</b>	KZ 05-04	26	0.14	7 x 0.16	0.48	138	0.13	3.28	3.53	23.4	
<b>KZ 81-05</b>	KZ 05-05	24	0.22	7 x 0.20	0.60	90	0.13	3.56	3.81	28.2	
<b>KZ 81-06</b>	KZ 05-06	22	0.34	7 x 0.25	0.75	57	0.13	3.86	4.11	34.8	
<b>KZ 81-07</b>	KZ 05-07	20	0.60	19 x 0.20	1.00	33	0.13	4.40	4.65	47.6	
<b>KZ 81-08</b>	KZ 05-08	18	0.93	19 x 0.25	1.25	21.5	0.13	5.18	5.53	67.5	
<b>KZ 81-09</b>	KZ 05-09	16	1.34	19 x 0.30	1.50	14.6	0.13	5.83	6.18	89.1	
<b>KZ 81-10</b>	KZ 05-10	14	1.91	27 x 0.30	1.85	10.5	0.13	6.64	7.00	115	
<b>KZ 81-11</b>	KZ 05-11	12	3.18	45 x 0.30	2.45	6.3	0.13	7.89	8.24	169	
<b>KZ 83-01</b>	KZ 06-01	32	0.035	7 x 0.08	0.24	573	0.13	3.26	3.51	20.9	1000
<b>KZ 83-02</b>	KZ 06-02	30	0.055	7 x 0.10	0.30	366	0.13	3.39	3.64	22.7	
<b>KZ 83-03</b>	KZ 06-03	28	0.093	7 x 0.13	0.39	211	0.13	3.58	3.83	25.8	
<b>KZ 83-04</b>	KZ 06-04	26	0.14	7 x 0.16	0.48	138	0.13	3.80	4.05	29.6	
<b>KZ 83-05</b>	KZ 06-05	24	0.22	7 x 0.20	0.60	90	0.13	4.08	4.33	34.5	
<b>KZ 83-06</b>	KZ 06-06	22	0.34	7 x 0.25	0.75	57	0.13	4.40	4.65	42.1	
<b>KZ 83-07</b>	KZ 06-07	20	0.60	19 x 0.20	1.00	33	0.13	5.09	5.34	57.6	
<b>KZ 83-08</b>	KZ 06-08	18	0.93	19 x 0.25	1.25	21.5	0.13	5.70	6.15	76.2	
<b>KZ 83-09</b>	KZ 06-09	16	1.34	19 x 0.30	1.50	14.6	0.13	6.15	6.60	94.8	
<b>KZ 83-10</b>	KZ 06-10	14	1.91	27 x 0.30	1.85	10.5	0.13	7.14	7.59	127	
<b>KZ 83-11</b>	KZ 06-11	12	3.18	45 x 0.30	2.45	6.3	0.13	8.49	8.94	188	

## Identification

- White, light blue and orange insulation
- White outer jacket

# ETF, EF & EEF

Unscreened hook-up wires  
High temperature

## Applications

Internal wiring in electronic equipment, aircraft and satellites.  
Excellent chemical resistance.

250, 600 and 1000 Volts

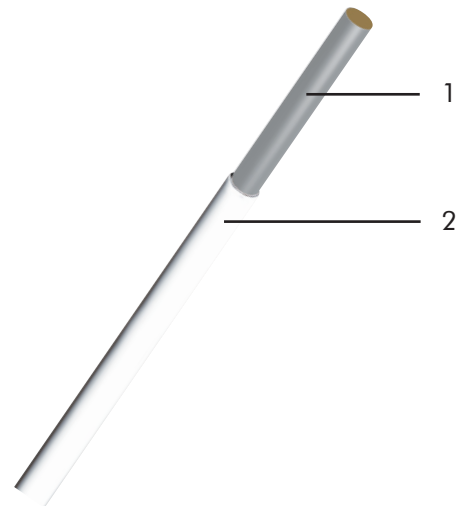
## Construction

### 1- CONDUCTOR

Stranded silver copper wires

### 2- INSULATION

Extruded PTFE



## Standards

According to  
MIL W 16878/4 (EF),  
MIL W 16878/5 (EEF)  
MIL W 16878/6 (ETF)  
NF C 32-070 C1



-55 °C to +200 °C



Flame retardant  
FAR/JAR part 25  
sec 25.869 (a)(4)  
Appendix F  
part 1 (3)



Very good  
resistance to  
aircraft fluids



Flexible



RoHs

## ETF, EF & EEF - Unscreened hook-up wires, high temperature

Nexans references	Gauge AWG	Croos section mm <sup>2</sup>	Construction n x Ø mm	Nominal Ø mm	Overall Ø		Operating voltage Volts
					min.	max.	
					mm		
<b>ETF 32-07</b>	32	0.035	7 x 0.079	0.24	0.50	0.61	<b>250</b>
<b>ETF 30-07</b>	30	0.057	7 x 0.102	0.30	0.56	0.66	
<b>ETF 30-19</b>	30	0.054	19 x 0.06	0.30	0.56	0.66	
<b>ETF 28-07</b>	28	0.089	7 x 0.127	0.39	0.63	0.74	
<b>ETF 28-19</b>	28	0.093	19 x 0.079	0.39	0.63	0.74	
<b>ETF 26-07</b>	26	0.14	7 x 0.16	0.48	0.74	0.84	
<b>ETF 26-19</b>	26	0.15	19 x 0.102	0.48	0.74	0.84	
<b>ETF 24-07</b>	24	0.22	7 x 0.203	0.59	0.86	0.96	
<b>ETF 24-19</b>	24	0.24	19 x 0.127	0.63	0.86	0.96	
<b>ETF 22-07</b>	22	0.36	7 x 0.254	0.74	1.01	1.12	
<b>ETF 22-19</b>	22	0.38	19 x 0.16	0.78	1.01	1.12	
<b>ETF 20-07</b>	20	0.56	7 x 0.32	0.95	1.22	1.32	
<b>ETF 20-19</b>	20	0.61	19 x 0.203	0.97	1.22	1.32	
<b>EF 32-07</b>	32	0.035	7 x 0.079	0.24	0.66	0.86	<b>600</b>
<b>EF 30-07</b>	30	0.057	7 x 0.102	0.30	0.71	0.91	
<b>EF 30-19</b>	30	0.054	19 x 0.06	0.34	0.71	0.91	
<b>EF 28-07</b>	28	0.089	7 x 0.127	0.39	0.79	1.00	
<b>EF 28-19</b>	28	0.093	19 x 0.079	0.39	0.79	1.00	
<b>EF 26-07</b>	26	0.14	7 x 0.16	0.48	0.89	1.10	
<b>EF 26-19</b>	26	0.15	19 x 0.102	0.48	0.89	1.10	
<b>EF 24-07</b>	24	0.22	7 x 0.203	0.59	1.02	1.22	
<b>EF 24-19</b>	24	0.24	19 x 0.127	0.63	1.02	1.22	
<b>EF 22-07</b>	22	0.36	7 x 0.254	0.74	1.17	1.37	
<b>EF 22-19</b>	22	0.38	19 x 0.16	0.78	1.17	1.37	
<b>EF 20-07</b>	20	0.56	7 x 0.32	0.95	1.37	1.57	
<b>EF 20-19</b>	20	0.61	19 x 0.203	0.97	1.37	1.57	
<b>EF 18-07</b>	18	0.89	7 x 0.404	1.19	1.63	1.88	
<b>EF 18-19</b>	18	0.96	19 x 0.254	1.21	1.63	1.88	
<b>EF 16-19</b>	16	1.23	19 x 0.287	1.45	1.85	2.21	
<b>EEF 32-07</b>	32	0.035	7 x 0.079	0.24	0.91	1.12	<b>1000</b>
<b>EEF 30-07</b>	30	0.057	7 x 0.102	0.30	0.97	1.17	
<b>EEF 30-19</b>	30	0.054	19 x 0.06	0.34	0.97	1.17	
<b>EEF 28-07</b>	28	0.089	7 x 0.127	0.39	1.04	1.24	
<b>EEF 28-19</b>	28	0.093	19 x 0.079	0.39	1.04	1.24	
<b>EEF 26-07</b>	26	0.14	7 x 0.16	0.48	1.14	1.35	
<b>EEF 26-19</b>	26	0.15	19 x 0.102	0.48	1.14	1.35	
<b>EEF 24-07</b>	24	0.22	7 x 0.203	0.59	1.27	1.47	
<b>EEF 24-19</b>	24	0.24	19 x 0.127	0.63	1.27	1.47	
<b>EEF 22-07</b>	22	0.36	7 x 0.254	0.74	1.42	1.63	
<b>EEF 22-19</b>	22	0.38	19 x 0.16	0.78	1.42	1.63	
<b>EEF 20-07</b>	20	0.56	7 x 0.32	0.95	1.63	1.83	
<b>EEF 20-19</b>	20	0.61	19 x 0.203	0.97	1.63	1.83	
<b>EEF 18-07</b>	18	0.89	7 x 0.404	1.19	1.88	2.13	
<b>EEF 18-19</b>	18	0.96	19 x 0.254	1.21	1.88	2.13	
<b>EEF 16-19</b>	16	1.23	19 x 0.287	1.45	2.10	2.41	







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Global expert in cables and cabling systems

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