

COMBINE OUR ADVANCED CABLE EXPERTISE  
WITH YOUR AEROSPACE AND DEFENSE EXCELLENCE  
TO BOOST PERFORMANCE : CABLES AND WIRES RANGE



 **Nexans**  
BRINGS ENERGY TO LIFE

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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
  - 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

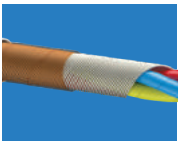
- AS9100 / EN9100
- ISO 9001
- ISO 14001







## A FULL RANGE OF PRODUCTS AND SOLUTIONS YOU CAN TRUST



Airframe wires and cables



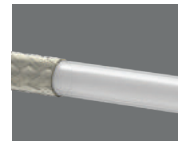
Cables for power transmission



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).

## A WORLDWIDE PRESENCE SUPPORTING COMMERCIAL AND MILITARY AEROSPACE MARKETS

Industrial footprints in 2 countries:

- Draveil, France
- Paillart, France
- Mohammedia, Morocco

# Guideline for aerospace cables

## 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		●				●	●				14
ABS 1354, ADB, ADC, ADD	- Light weight wires - Nickel copper clad aluminium		●				●	●	●			16
ABS 1356 VNA, VNB, VNC, VND	- UV laser printable - Nickel copper clad aluminium		●				●	●	●	●	●	18
EN 2267-010 A DR	- UV laser printable - Light weight wires - Composite insulation					●	●	●				20
EN 2267-009 DRB, DRC, DRD	- Light weight wires - Composite insulation					●	●		●			24
EN 2714-013 MLA, MLB, MLC, MLD	- UV laser printable - Light weight wires - Composite insulation					●	●	●	●	●	●	26
EN 2714-014 MME, MMF, MMG	- UV laser printable - Light weight wires - Composite insulation					●	●		●	●	●	28
EN2266-008 DRP - DRT - DRQ	- DR Multicores jacketed - UV Laser printable - Light weight wires				●		●		●		●	22
EN2713-012 MNA - MNB - MNC MND	- DR Multicores - Shielded jacketed - Silver plated screen - UV Laser printable - Light weight wires				●		●	●	●	●	●	30
VG 95218-20 type H FX 5301	- Flexible light weight wires - Silver plated conductors	●					●	●				32
VG 95218-22 type E VG 95218-23 type D FX 5303	- Single core and multicore	●					●	●	●	●	●	34

## 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 – ASN E0471 QP	- Flexible nickel plated aluminium wires		●					44
ABS 0949 AD AWG 3 to 000	- Arc tracking resistant - Light weight wires - Nickel aluminium wires		●					40
ABS 1354 ADB, ADC, ADD	- Light weight wires - Nickel copper clad aluminium		●					42
NSA 935 308 YU	- Flexible aluminium wires - Polyimide insulation	●				●		52
FX 5400 DG – VG 95218 20 TYPE J	- High temperature - General purpose				●			50
NSA 935 131 DG EN 2854-003	- High temperature - General purpose				●			54
ESW 1000-010-XXX	- Large section - High temperature wire				●			48
SP 799	- Large section - High temperature wire		●				●	56
EN 2267-010 A DR	- UV laser printable - Light weight wires - Composite insulation				●	●	●	46



## 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+						
BMS 13-58	- High temperature - General purpose - UV laser printable		●				●				66
2100	- Flexible cables for high ambient temperatures	●					●				100
2103	- Flexible cables for high ambient temperatures		●				●				102
1050	- Screened cables for high ambient temperatures	●					●	●	●	●	96
1053	- Screened cables for high ambient temperatures		●				●	●	●	●	98
9310-N01 9310-N02 9310-N03 AWG 24 & 22	- High temperature wire and cables for engine - Nickel coated High strength copper alloy - Composite insulation			●			●	●	●	●	60

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		●			●				72
ESW 1202+++XXX ESW 1203+++XXX	—	- Fire resistant cable		●			●	●	●	●	74
ESW 1250-010-XXX ESW 1251-010-XXX	—	- Fireproof cable		●			●				76
ESW 1252+++XXX ESW 1253+++XXX	—	- Fireproof cable		●			●	●	●	●	78
ESW 1254-010-002	—	- Fireproof cable		●			●				80
ESW 1254-022-002 ESW 1254-032-002	—	- Fireproof cable - 2 or 3 twisted cores		●				●	●	●	82
ESW 1602-022-XXX	—	- Thermocouple - Fire resistant cable - 2 twisted cores		●			●		●	●	84
EN 2346 005 DW – DWB – DWC	—	- Fire resistant wires - Light weight - UV laser printable		●			●	●			70
EN 4608-004 GPA, GPB, GPC	—	- Fire resistant cable - Light weight cables - UV laser printable		●			●	●	●	●	104
TMF MIL-W-25038/1 (QPL)	TMF	- High temperature fire resistant wires		●			●				88
TMF-VR (A) MIL-W-25038/3 (QPL)	TMF VRA-US TMF VR-US	- High temperature fire resistant wires		●			●				92
frm-a-us frm-usM25038/3	FRM-A-US FRM-US	- High temperature fire resistant wires		●			●				86
TMF-VR (A)-US x SJ** MIL-W-27500 (JF)		- High temperature fire resistant wires		●			●	●	●	●	90
BMS 13-55 type 2 class 1	—	- High temperature fire resistant wires		●			●				64
BMS 13-67		- Very high temperature - Fire resistant cable					●	●	●	●	68
STUDY 124585	ET 124 585	- Very high temperature - Fire resistant cable					●	●	●	●	94
10310 N02		- Very high temperature - Fire resistant cable		●			●	●	●	●	62
ABS 0053 PL	—	- High temperature - Good mechanical - Electrical performances		●				●			106

## COAXIAL CABLES FOR HIGH FREQUENCY TRANSMISSION

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

Specification	Nexans reference	Description	Maximum operating temperature			Impedance		Maximum operating	Maximum operating voltage	Page
			150	200	250	50	75			
SP 124962	ET 124962	UV laser miniature	●			●		3000	250	174
SP 124964	ET 124964	UV laser miniature triaxial cable	●			●		3000	250	176
SP 132868	ET 132868	UV laser miniature	●				●	3000	900	180
SP 132869	ET 132869	UV laser miniature triaxial cable	●				●	3000	900	182
EN 4604-003 WZ	—	50 ohms		●		●		3000	1700	134
EN 4604-004 WS	—	50 ohms		●		●		3000	1300	136
EN 4604-005 WL	—	75 ohms		●			●	3000	900	138
EN 4604-006 WM	—	50 ohms		●		●		5000	750	140
EN 4604-007 WN	—	50 ohms		●		●		6000	1000	142
EN 4604-008 WD	—	50 ohms		●		●		8000	1000	144
EN 4604-009 KW	—	50 ohms		●		●		6000	1000	146
EN 4604-010 KX	—	50 ohms		●		●		6000	1000	148
ECS 0757 KE	—	50 ohms triaxial cable		●		●		3000	250	124
ECS 0745 KC	ET 132954	75 ohms triaxial cable		●			●	3000	500	122
PAN 6422	—	50 ohms UV laser markable		●		●		1000	From 750 to 3700	156
ASNE 0293 XF	—	50 ohms		●		●		3000	1400	118
NSA 935 344 XE	—	50 ohms			●	●		3000	900	154
NSA 935 355 XS	—	50 ohms		●		●		10000	3700	152

## 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 1503 KD 24	ET 2PF870	Shielded quad	●							●	600	114
SP 69794 EN 3375-004-C WJ	ET 69794-01 ET 69794-02	Twinaxial cable high immunity			●			●			600	168
EN 3375-005-C WV	ET 133189	Twinaxial cable high immunity			●			●			250	126
EN 3375-006-D ASNE 0290 XM	—				●			●			600	128
EN 3375-007-C WW ECS 0700	ET 132041				●			●			250	130
EN 3375-009-C WX	ET 133199	Twinaxial cable BUS CAN			●						600	132
SP 124960	ET 124960			●				●			250	164
SP 124961	ET 124961			●				●			250	172
SP 96770 ASNE 0479 WJ EN 3375-004B	ET 96770-01 ET 96770-02			●				●			250	166
EN 4608-005-B 002 GPB 24	—	Twinaxial cable Fireproof				●				●	600	150
PAN 6421 ZA 002	ET 65529			●				●			600	158
ASNE 0259 HE	ET 63247			●						●	600	116
ASNE 0849 HJ 26	ET 124843	Twinaxial cable high immunity			●		●				600	160
Study 61333	ET 61333	Twinaxial cable high immunity			●		●				600	162
SP 69899 ASNE 0811 WY	ET 69899-01 ET 68899-02	Twinaxial cable high immunity			●			●			250	120
ABS 0386 WF	ET 96897	Twinaxial cable high immunity			●				●		600	110
132873	ET 132873	Twinaxial cable Fireproof				●			●		600	170



## SPECIAL CABLES

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

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	204
NSA 935 306 YK	ET 86891	Low noise screened pair cable, transmission cable		●	600	200
ESW 1404-022-006	ET 124762	Low noise screened pair cable, transmission cable		●	600	206
ESW 1405-024-006	ET 132057	Low noise screened pair cable, transmission cable		●	600	208
CAS 250-20P	ET 87067 ET 87208 ET 87209	Low noise coaxial cable	●		-	202
CAS 250-22	ET 87068					
MBBN YH +++ EN 4049	ET 96532 ET 96533	Thermocouple extension Nickel chromium/nickel aluminium		●	600	212
ECS 0828 MQB	ET 133235	Multipair AWG 24	●		600	210
ECS 0829 MQD	ET 133236	Multipair AWG 24	●		600	210
ASNE0413 HK	—	- Thermocouple Cable - Nickel chromium Nickel aluminium Jacketed, Shielded		●	—	216

## 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	112
STUDY 132574	132574	Multimode fiber optic cable	High temperature, copolymer		178

## WIRES AND CABLES FOR AVIONICS

Specification	Description	Maximum operating temperature	Single core	Multicore	Insulation	Page
KZ 05	- Unscreened hook-up wires - High temperature	200 °C	●		PTFE	36

# HOOK-UP WIRES



DESIGNATION	PAGE
ABS 0949 AD AWG 24 to 4	14
ABS 1354 ADB, ADC, ADD	16
ABS 1356 VNA, VNB, VNC, VND	18
EN 2267-010 A DR	20
EN 2266-008 DRP, DRT, DRQ	22
EN 2267-009 DRB, DRC, DRD	24
EN 2714-013 MLA, MLB, MLC, MLD	26
EN 2714-014 MMD, MME, MME, MMG, MMH, MMJ, MMK	28
EN 2713 012 Type MNA, MNB, MNC, MND	30
FX 5301	32
FX 5303	34
KZ 05	36

## APPLICATION

Hook-up wires are particularly recommended for the general wiring of the aircraft, including but not limited to, electronic equipments, cabin lights, and in a general manner, to low power energy distribution. Those cable families are designed to work with 115/230 VAC 400Hz tri-phase network and can accept 230/400 VAC 400Hz triphase network in certain conditions. Hook-up wires may also carry some low rate signal in aircraft environment. (cockpit, cabin, wings, etc.).

## ADVANTAGES

Nexans is committed to improve safety in aerospace by protecting people and fuselage with arc tracking resistant cables. Flexible and lighter cables are designed to meet the stringent requirements of our customers during cabling operations. Our R&D laboratories take a step forward on the restriction of the use of hazardous substances, the DR offer is cadmium free.

## MAIN PROPERTIES

- Flame retardant, low smoke and toxicity.
- Very good resistance to aircraft fluids.
- Arc tracking resistant.
- Moisture resistant.
- RoHS compliant.

## MAIN CHARACTERISTICS

- Maximum range of operating temperature:  $-65^{\circ}\text{C}$  to  $+260^{\circ}\text{C}$ .
- Rating voltage: 115/230 VAC 400Hz tri-phase,  
230/400 VAC 400Hz tri-phase.

## STANDARDS

The cables are designed to withstand fire tests according to FAR/JAR part 25 sec 25.869 (a)(4) Appendix F part 1 (3) NFC 32070 C1.

They are conform to various customer specification and/or European Standards "EN" product norms.





## HOOK-UP WIRES



Oil resistance  
Very good resistance  
to aircraft fluids

# ABS 0949 AD AWG 24 to 4

**Designed for general purpose aircraft wiring applications.**

Nickel Copper Clad Aluminium Alloy  
Conductors, UV laser printable.

### CABLE DESIGN

#### Conductor

AWG 24 and 22: 1 nickel plated copper alloy wire  
and + 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

High performance polyimide tape,  
Special UV PTFE tape

### IDENTIFICATION

Standard color: Grey

Color of marking: Green for AWG22,  
Blue for other gauges

Marking text: AD \*\* FR F++

\*\* = AWG

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)



++ = Year of production (i.e. 14 = 2014)

### STANDARDS

**International** prEN 3475

**National** ABS 0958; ABS 0949 AD

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz



Flame retardant  
FAR/JAR part 25 sec 25.869 (a)(4) Appendix F part1 (3)

Operating temperature  
-60°C to +180°C

Arc tracking resistant

HOOK-UP WIRES  
ABS 0949 AD AWG 24 to 4

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	AWG	CONDUCTOR			FINISHED WIRE				
		Strands (nb x mm)	Diameter (mm)		Max. DC Resistance at 20°C (Ω/km)	Diameter (mm)		Weight (g/m)	
			Min.	Max.		Min.	Max.	Nom.	Max.
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	4.80	5.20	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





## HOOK-UP WIRES



Oil resistance  
Very good resistance  
to aircraft fluids

# ABS 1354 ADB, ADC, ADD

**Designed for general purpose aircraft wiring applications.**

Multicores Nickel Copper Clad Aluminium (AWG 24 to 4)  
Multicores Aluminium Alloy (AWG 3 to 000).

### CABLE DESIGN

#### Cores

2, 3 or 4 cores ABS 0949 ADA

### IDENTIFICATION

Colors of cores:

2 cores (ADB): Red, Blue

3 cores (ADC): Red, Blue, Yellow

4 cores (ADD): Red, Blue, Yellow, Green

Marking colour: Black

Marking text: ADA \*\* FRF++



\*\* = AWG

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)

++ = Year of production (i.e. 14 = 2014)

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz

### STANDARDS

**International** prEN 3475

**National** ABS 0958; ABS 1354



Flame retardant  
FAR/JAR part 25 sec 25.869 (a)(4) Appendix F part1 (3)

Operating temperature  
-65°C to +180°C

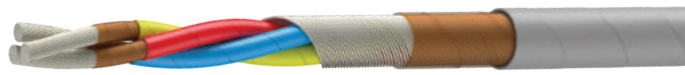
Arc tracking resistant

HOOK-UP WIRES  
ABS 1354 ADB, ADC, ADD

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	AWG	Nb of cores	Colors of cores	FINISHED WIRE					
				Max. DC Resistance at 20°C (Ω/km)	Diameter (mm)		Weight (g/m)		
					Nom.	Max.	Nom.	Max.	
ABS 1354 ADB	24	2	1 Red, 1 Blue	149.4	1.78	1.92	3.47	3.61	
ABS 1354 ADB	22	2		92.9	2.04	2.20	4.83	5.15	
ABS 1354 ADB	20	2		51.1	2.58	2.68	7.24	7.52	
ABS 1354 ADB	18	2		34.2	3.08	3.22	10.49	11.23	
ABS 1354 ADB	16	2		23.7	3.70	3.84	15.03	15.97	
ABS 1354 ADB	14	2		16	4.30	4.48	20.22	22.54	
ABS 1354 ADB	12	2		11.2	5.12	5.40	28.80	31.93	
ABS 1354 ADB	10	2		6	6.34	6.66	45.29	49.48	
ABS 1354 ADB	8	2		3.91	8.58	8.80	77.4	80.34	
ABS 1354 ADB	6	2		2.37	11.0	11.40	127.54	131.22	
ABS 1354 ADB	4	2		1.55	13.42	14.80	190.74	198.38	
ABS 1354 ADB	3	2		1.22	15.02	15.48	186.17	193.64	
ABS 1354 ADB	2	2		0.97	16.64	17.14	230.72	239.99	
ABS 1354 ADB	1	2		0.77	18.44	19.00	283.91	295.61	
ABS 1354 ADB	0	2		0.62	21.22	21.86	358.65	372.86	
ABS 1354 ADB	00	2		0.44	24.02	24.74	454.84	473.80	
ABS 1354 ADB	000	2		0.37	26.62	27.42	545.84	568.56	
ABS 1354 ADC	24	3		1 Red, 1 Blue, 1 Yellow	149.4	1.92	2.06	5.20	5.41
ABS 1354 ADC	22	3			92.9	2.20	2.37	7.25	7.73
ABS 1354 ADC	20	3	51.1		2.78	2.88	10.86	11.28	
ABS 1354 ADC	18	3	34.2		3.32	3.46	15.73	16.84	
ABS 1354 ADC	16	3	23.7		3.99	4.13	22.55	23.95	
ABS 1354 ADC	14	3	16		4.63	4.82	30.32	33.80	
ABS 1354 ADC	12	3	11.2		5.52	5.81	43.21	47.90	
ABS 1354 ADC	10	3	6		6.83	7.16	67.93	74.22	
ABS 1354 ADC	8	3	3.91		9.24	9.46	116.10	120.51	
ABS 1354 ADC	6	3	2.37		11.85	12.26	191.31	196.83	
ABS 1354 ADC	4	3	1.55		14.46	15.91	286.11	297.57	
ABS 1354 ADC	3	3	1.22		16.18	16.64	279.26	290.46	
ABS 1354 ADC	2	3	0.97		17.93	18.43	346.09	359.99	
ABS 1354 ADC	1	3	0.77		19.87	20.43	425.86	443.42	
ABS 1354 ADC	0	3	0.62		22.86	23.50	537.98	559.29	
ABS 1354 ADC	00	3	0.44		25.88	26.60	682.26	710.70	
ABS 1354 ADC	000	3	0.37		28.68	29.48	818.76	852.84	
ABS 1354 ADD	24	4	1 Red, 1 Blue, 1 Yellow, 1 Green		149.4	2.15	2.30	6.94	7.21
ABS 1354 ADD	22	4			92.9	2.46	2.64	9.67	10.30
ABS 1354 ADD	20	4		51.1	3.11	3.22	14.48	15.04	
ABS 1354 ADD	18	4		34.2	3.72	3.86	20.97	22.45	
ABS 1354 ADD	16	4		23.7	4.47	4.61	30.07	31.93	
ABS 1354 ADD	14	4		16	5.19	5.38	40.43	45.07	
ABS 1354 ADD	12	4		11.2	6.18	6.48	57.61	63.86	
ABS 1354 ADD	10	4		6	7.65	7.99	90.58	98.96	
ABS 1354 ADD	8	4		3.91	10.36	10.56	154.8	160.68	
ABS 1354 ADD	6	4		2.37	13.28	13.68	255.08	262.44	
ABS 1354 ADD	4	4		1.55	16.20	17.76	381.48	396.76	
ABS 1354 ADD	3	4		1.22	18.13	18.58	372.34	387.28	
ABS 1354 ADD	2	4		0.97	20.08	20.57	461.45	479.98	
ABS 1354 ADD	1	4		0.77	22.26	22.80	567.81	591.22	





## HOOK-UP WIRES



# ABS 1356 VNA, VNB, VNC, VND

**Designed for general purpose aircraft wiring applications.**

Screened and Jacketed Single and Multicores, UV Laser Printable.

Oil resistance  
Very good resistance  
to aircraft fluids

### CABLE DESIGN

#### Cores

1, 2, 3 or 4 cores ABS 0949 AD

#### Screen

Nickel-plated copper spiral screen

#### Jacket

Polyimide tape, UV PTFE tape

### IDENTIFICATION

Colors of cores:

1 core (VNA): Grey

2 cores (VNB): Red, Blue

3 cores (VNC): Red, Blue, Yellow

4 cores (VND): Red, Blue, Yellow, Green

Marking text: ADA \*\* FRF++

Jacket Identification:

Color of marking: Grey

Marking text: XXX \*\* FR F++

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

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



\*\* = AWG

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)

++= Year of production (i.e. 14 = 2014)

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz

### STANDARDS

**International** prEN 3475

**National** ABS 1356





Flame retardant  
FAR/JAR part 25 sec 25.869 (a)(4) Appendix F part1 (3)

Operating temperature  
-65°C to +180°C

Arc tracking resistant

HOOK-UP WIRES  
ABS 1356 VNA, VNB, VNC, VND

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	AWG	Nb of cores	Screen strands nominal diameter (mm)	Colors of cores	Colors of jacket	FINISHED WIRE				
						Max. DC Resistance at 20°C (Ω/km)	Diameter (mm)		Weight (g/m)	
							Nom.	Max.	Nom.	Max.
ABS 1356 VNA	24	1	0.08		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		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		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	1 Red, 1 Blue	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		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	1 Red, 1 Blue, 1 Yellow	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		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		Grey	51.1	3.68	3.86	25.38	26.39
ABS 1356 VND	18	4	0.12		Grey	34.2	4.29	4.46	33.83	36.22
ABS 1356 VND	16	4	0.15	1 Red, 1 Blue, 1 Yellow, 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





## HOOK-UP WIRES

# EN 2267-010 A DR



Oil resistance  
Very good resistance  
to aircraft fluids

**Designed for general purpose aircraft wiring applications.**

UV Laser printable Wire  
260°C Operating Temperature Light Weight  
Arc Tracking Resistant

### CABLE DESIGN

#### Core

Stranded Conductor: Nickel Plated High Strength Copper Alloy (AWG 26 & 24) or Nickel Plated Copper (AWG 22 to 2)

#### Insulation

Special Polyimide Tape,  
Special UV PTFE Tape(s)

### IDENTIFICATION

Standard color 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 002B)

Color of marking: green

Marking text: EN DR \*\* FR F ++

DR = *Short designation*

\*\* = *AWG Wire Size*

FR = *Country of origin (FR = France)*



F = *Manufacturer (F = Nexans)*

++ = *Year of production (i.e. 13 = 2013)*

### STANDARDS

**International** EN 2267-010; prEN 3475

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz



Operating temperature  
-55°C to +260°C

Arc tracking resistant

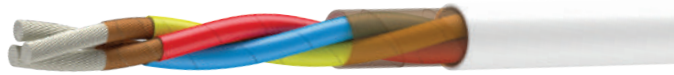
Flame retardant  
FAR/JAR part 25 sec 25.869 (a)(4) Appendix F part 1 (3)

POWER DISTRIBUTION  
EN 2267-010A DR

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCE	Code of nominal section	Color code	AWG	CONDUCTOR				FINISHED CABLE			
				Strands (nb x mm)	Diameter (mm)		Max. DC Resistance at 20°C (Ω/km)	Diameter (mm)		Weight (g/m)	
					Min.	Max.		Min.	Max.	Nom.	Max.
EN 2267-010A 001	S 26	S	26	19 x 0.10	0.47	0.49	160.0	0.75	0.84	1.95	2.08
EN 2267-010A 002	S 24	S	24	19 x 0.12	0.555	0.585	114.0	0.85	0.96	2.64	2.72
EN 2267-010A 004	S 22	S	22	19 x 0.15	0.71	0.73	60.0	1.00	1.10	3.89	4.14
EN 2267-010A 006	S 20	S	20	19 x 0.20	0.94	0.97	33.2	1.22	1.34	6.57	6.85
EN 2267-010A 010	S 16	S	16	19 x 0.25	1.19	1.22	21.1	1.46	1.61	10.15	10.43
EN 2267-010A 012	S 18	S	18	19 x 0.30	1.41	1.45	14.5	1.76	1.92	14.05	14.61
EN 2267-010A 020	S 14	S	14	37 x 0.25	1.69	1.73	10.9	2.04	2.24	19.31	19.78
EN 2267-010A 030	S 12	S	12	37 x 0.32	2.13	2.18	6.8	2.50	2.70	29.25	31.33
EN 2267-010A 051	S 10	S	10	61 x 0.32	2.73	2.77	4.1	3.13	3.33	47.37	49.85
EN 2267-010A 090	S 8	S	8	127 x 0.30	3.55	3.85	2.3	4.10	4.40	87.81	90.00
EN 2267-010A 140	S 6	S	6	27 x 7 x 0.30	4.80	5.20	1.58	5.30	5.70	132.41	135.00
EN 2267-010A 220	S 4	S	4	37 x 12 x 0.25	-	6.80	0.97	6.71	7.41	215.15	222.00
EN 2267-010A 340	S 2	S	2	37 x 19 x 0.25	-	8.60	0.61	8.28	9.16	336.10	347.00





## HOOK-UP WIRES

# EN 2266-008 DRP, DRT, DRQ



Oil resistance  
Very good resistance  
to aircraft fluids

**Designed for general purpose aircraft wiring applications.**

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

### CABLE DESIGN

#### Cores

2, 3 or 4 cores EN2267-009A

#### Jacket

Polyimide tape, UV Laser Markable, Top coat

### IDENTIFICATION

#### Cores

Colors of marking:  
White for Red and Green cores /  
Green for Blue, White and Yellow cores

Marking text: EN DRA \*\* FRF++

#### Jacket

Color of marking: Green

Marking text: DRx ++ FRF\*\*

DRx = short designation (DRP, DRT, DRQ)

++ = AWG

FR = Country of origin (FR = France)



F = Manufacturer (F = Nexans)

++ = Year of production (i.e. 14 = 2010)

### STANDARDS

International EN 2267-009; prEN 3475

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz



Flame retardant  
FAR/JAR part 25 sec 25.869 (a)(4) Appendix F part1 (3)

Operating temperature  
-55°C to +200°C

Arc tracking resistant

HOOK-UP WIRES  
EN 2266-008 DRP, DRT, DRQ

## DIMENSIONS AND WEIGHTS

PART NUMBER	Code of nominal section	Color code	AWG	Nb of cores	Colors of cores	Colors of jacket	FINISHED WIRE				
							Max. DC Resistance at 20°C (Ω/km)	Diameter (mm)		Weight (g/m)	
								Nom.	Max.	Nom.	Max.
DRP 26	001	P	26	2		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	1 Red,	Light blue	34.1	2.80	2.91	14.92	15.28
DRP 18	010	P	18	2	1 Blue	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		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	13.56	13.91
DRT 20	006	P	20	3	1 Red,	Light blue	34.1	3.00	3.12	21.96	22.55
DRT 18	010	P	18	3	1 Blue,	White	21.7	3.52	3.68	32.91	33.91
DRT 16	012	P	16	3	1 Yellow	Light blue	14.9	4.13	4.30	45.16	47.15
DRT 14	020	P	14	3		White	11.2	4.86	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		White	165	2.08	2.22	9.09	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	1 Red,	Light blue	34.1	3.34	3.50	29.00	29.82
DRQ 18	010	P	18	4	1 Blue,	White	21.7	3.92	4.15	43.56	44.92
DRQ 16	012	P	16	4	1 Yellow,	Light blue	14.9	4.60	4.80	59.84	62.52
DRQ 14	020	P	14	4	1 Green	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







## HOOK-UP WIRES

# EN 2267-009 DRB, DRC, DRD



Oil resistance  
Very good resistance  
to aircraft fluids

Designed for general purpose aircraft wiring applications.

Multicores DRA.

### CABLE DESIGN

#### Cores

2, 3 or 4 cores EN 2267-009A

#### IDENTIFICATION

Colors of cores: See table in this datasheet

Colors of marking:

White for red and green core,  
green for blue and yellow cores

Marking text: EN DRA \*\* FR F ++

DRA = *short designation*



\*\* = *AWG*

FR = *Country of origin (FR = France)*

F = *Manufacturer (F = Nexans)*

++ = *Year of production (i.e. 14 = 2014)*

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz

### STANDARDS

International EN 2267-009; prEN 3475



Flame retardant  
FAR/JAR part 25 sec 25.869 (a)(4) Appendix F part1 (3)

Operating temperature  
-55°C to +260°C

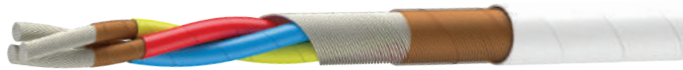
Arc tracking resistant

HOOK-UP WIRES  
EN 2267-009 DRB, DRC, DRD

## DIMENSIONS AND WEIGHTS

PART NUMBER	Code of nominal section	Color code	AWG	Nb of cores	Colors of cores	FINISHED WIRE				
						Max. DC Resistance at 20°C (Ω/km)	Diameter (mm)		Weight (g/m)	
							Nom.	Max.	Nom.	Max.
DRB 26	001	P	26	2		165	1.56	1.68	3.98	4.28
DRB 24	002	P	24	2		117	1.82	1.92	5.39	5.60
DRB 22	004	P	22	2		61.7	2.10	2.20	7.94	8.53
DRB 20	006	P	20	2		34.1	2.60	2.68	13.40	14.11
DRB 18	010	P	18	2		21.7	3.08	3.22	20.71	21.49
DRB 16	012	P	16	2	1 Red,	14.9	3.66	3.84	28.66	30.10
DRB 14	020	P	14	2	1 Blue	11.2	4.32	4.48	39.39	40.75
DRB 12	030	P	12	2		6.99	5.14	5.40	59.67	64.54
DRB 10	051	P	10	2		4.22	6.42	6.66	96.63	102.69
DRB 8	090	P	8	2		2.37	8.60	8.80	179.13	185.40
DRB 6	140	P	6	2		1.63	11.10	11.40	270.12	278.10
DRB 4	220	P	4	2		1	14.12	14.82	438.91	457.32
DRC 26	001	P	26	3		165	1.68	1.81	5.97	6.43
DRC 24	002	P	24	3		117	1.96	2.06	8.08	8.40
DRC 22	004	P	22	3		61.7	2.26	2.37	11.90	12.79
DRC 20	006	P	20	3		34.1	2.80	2.88	20.10	21.17
DRC 18	010	P	18	3		21.7	3.32	3.46	31.06	32.23
DRC 16	012	P	16	3	1 Red,	14.9	3.94	4.13	42.99	45.14
DRC 14	020	P	14	3	1 Blue,	11.2	4.65	4.82	59.09	61.12
DRC 12	030	P	12	3	1 Yellow	6.99	5.54	5.81	89.50	96.81
DRC 10	051	P	10	3		4.22	6.92	7.16	144.95	154.04
DRC 8	090	P	8	3		2.37	9.27	9.46	268.7	278.10
DRC 6	140	P	6	3		1.63	11.96	12.26	405.17	417.15
DRC 4	220	P	4	3		1	15.21	15.93	658.36	685.98
DRD 26	001	P	26	4		165	1.88	2.02	7.96	8.57
DRD 24	002	P	24	4		117	2.20	2.30	10.77	11.21
DRD 22	004	P	22	4		61.7	2.53	2.64	15.87	17.06
DRD 20	006	P	20	4		34.1	3.14	3.22	26.81	28.22
DRD 18	010	P	18	4		21.7	3.72	3.86	41.41	42.97
DRD 16	012	P	16	4	1 Red,	14.9	4.42	4.61	57.32	60.19
DRD 14	020	P	14	4	1 Blue,	11.2	5.21	5.38	78.78	81.49
DRD 12	030	P	12	4	1 Yellow,	6.99	6.20	6.48	119.34	129.08
DRD 10	051	P	10	4	1 Green	4.22	7.75	7.99	193.27	205.38
DRD 8	090	P	8	4		2.37	10.38	10.56	358.26	370.80
DRD 6	140	P	6	4		1.63	13.40	13.68	540.23	556.20
DRD 4	220	P	4	4		1	17.04	17.78	877.81	914.64





## HOOK-UP WIRES

# EN 2714-013 MLA, MLB, MLC, MLD



Oil resistance  
Very good resistance  
to aircraft fluids

**Designed for general purpose aircraft wiring applications.**

260°C, Screened and Jacketed, Light Weight,  
UV cable, Arc tracking Resistant.

### CABLE DESIGN

#### Cores

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

#### Screen

Nickel plated copper spiral screen

#### Jacket

Polyimide tape, UV PTFE tape

### IDENTIFICATION

#### Cores

1 core (MLA): White except code 001 :  
Light Yellow / code 004 : Light Green

2 cores (MLB): Red, Blue

3 cores: Red, Blue, Yellow

4 cores: Red, Blue, Yellow, Green

Marking text: EN DRA ++ FRF \*\*

Color of marking: White for red and green  
core, Green for blue and yellow core

#### Jacket

Color: White except code 002, 006, 012 : Light Blue

Marking: EN xxx ++ FRF \*\*

Colour of marking: Green

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



++ = AWG

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of production (i.e. 14 = 2014)

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz

### STANDARDS

#### International

EN 2267-009; EN 2714-013; prEN 3475



Flame retardant  
FAR/JAR part 25 sec 25.869 (a)(4) Appendix F part1 (3)

Operating temperature  
-55°C to +260°C

Arc tracking resistant

HOOK-UP WIRES  
EN 2714-013 MLA, MLB, MLC, MLD

## DIMENSIONS AND WEIGHTS

NEXANS REF.	Code of nominal section	Color code	AWG	Screen strands nom. diameter (mm)	Nb of cores	Colors of cores	Colors of jacket	FINISHED WIRE				
								Max. DC Resistance at 20°C (Ω/km)	Diameter (mm)		Weight (g/m)	
									Nom.	Max.	Nom.	Max.
MLA 26	001	F 26	0.08	1	Light yellow	White	160	1.23	1.31	4.35	4.68	
MLA 24	002	F 24	0.08	1	White	Light blue	114	1.36	1.45	5.37	5.76	
MLA 22	004	F 22	0.08	1	Light green	White	60	1.50	1.60	6.97	7.51	
MLA 20	006	F 20	0.08	1	White	Light blue	33.2	1.75	1.84	10.28	10.77	
MLA 18	010	F 18	0.08	1	White	White	21.1	1.99	2.08	14.47	14.97	
MLA 16	012	F 16	0.10	1	White	Light blue	14.5	2.32	2.43	19.95	20.97	
MLA 14	020	F 14	0.10	1	White	White	10.9	2.65	2.74	26.17	27.03	
MLA 12	030	F 12	0.10	1	White	White	6.8	3.06	3.20	37.31	39.70	
MLA 10	051	F 10	0.12	1	White	White	4.1	3.74	3.89	58.72	61.94	
MLB 26	001	F 26	0.08	2		White	165	2.01	2.13	7.63	8.17	
MLB 24	002	F 24	0.08	2		Light blue	117	2.27	2.40	9.58	10.23	
MLB 22	004	F 22	0.08	2		White	61.7	2.55	2.70	12.70	13.64	
MLB 20	006	F 20	0.10	2		Light blue	34.1	3.09	3.22	20.17	21.05	
MLB 18	010	F 18	0.10	2	1 Red, 1 Blue	White	21.7	3.57	3.71	28.62	29.52	
MLB 16	012	F 16	0.12	2		Light blue	14.9	4.19	4.38	39.30	41.20	
MLB 14	020	F 14	0.15	2		White	11.2	4.91	5.04	54.19	55.83	
MLB 12	030	F 12	0.20	2		White	6.99	5.83	6.09	81.80	86.79	
MLB 10	051	F 10	0.20	2		White	4.22	7.11	7.39	123.94	130.51	
MLC 26	001	F 26	0.08	3		White	165	2.13	2.26	10.25	10.94	
MLC 24	002	F 24	0.10	3		Light blue	117	2.45	2.59	13.83	14.72	
MLC 22	004	F 22	0.10	3		White	61.7	2.75	2.91	18.45	19.76	
MLC 20	006	F 20	0.12	3		Light blue	34.1	3.33	3.48	29.23	30.44	
MLC 18	010	F 18	0.12	3	1 Red, 1 Blue, 1 Yellow	White	21.7	3.85	4.00	41.75	42.96	
MLC 16	012	F 16	0.15	3		Light blue	14.9	4.53	4.73	57.96	60.67	
MLC 14	020	F 14	0.15	3		White	11.2	5.25	5.39	76.59	78.83	
MLC 12	030	F 12	0.20	3		White	6.99	6.23	6.5	115.68	122.72	
MLC 10	051	F 10	0.20	3		White	4.22	7.61	7.90	177.31	186.69	
MLD 26	001	F 26	0.10	4		White	165	2.37	2.51	13.69	14.57	
MLD 24	002	F 24	0.10	4		Light blue	117	2.69	2.84	17.37	18.47	
MLD 22	004	F 22	0.10	4		White	61.7	3.03	3.19	23.4	25.04	
MLD 20	006	F 20	0.12	4		Light blue	34.1	3.67	3.82	37.31	38.81	
MLD 18	010	F 18	0.12	4	1 Red, 1 Blue, 1 Yellow, 1 Green	White	21.7	4.25	4.41	53.73	55.22	
MLD 16	012	F 16	0.15	4		Light blue	14.9	5.01	5.23	74.58	78.02	
MLD 14	020	F 14	0.20	4		White	11.2	5.91	6.06	104.39	107.36	





## HOOK-UP WIRES

# EN 2714-014 MMD, MME, MMF, MMG, MMH, MMJ, MMK



Oil resistance  
Very good resistance  
to aircraft fluids

Designed for general purpose aircraft wiring applications.

260°C, Screened and Jacketed, Light Weight,  
UV cable, Arc tracking Resistant.

### CABLE DESIGN

#### Cores

EN 2267-009A, Polyimide tape

#### Screen

Nickel plated copper braid

#### Jacket

Polyimide tape, UV PTFE tape

### IDENTIFICATION

#### Short designation

- 4 cores: MMD
- 5 cores: MME
- 6 cores: MMF
- 7 cores: MMG
- 8 cores: MMH
- 9 cores: MMJ
- 10 cores: MMK

#### Cores



Colors: See table on this datasheet

Marking EN DRA ++ FRF \*\*

Color of marking:

White for Black / Red /  
Brown / Green and Violet core  
Green for Blue / Yellow / White /  
Orange / Grey and Light green core"

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz

#### Jacket

Colors: See table on this datasheet

Marking: EN xxx ++ FRF \*\*

Colour of marking: Green

xxx = Short designation (MMD, MME...)

++ = AWG

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of production (i.e. 14 = 2014)

### STANDARDS

#### International

EN 2267-009; EN 2714-014; prEN 3475





Flame retardant  
FAR/JAR part 25 sec 25.869 (a)(4) Appendix F part1 (3)

Operating temperature  
-55°C to +260°C

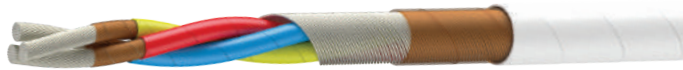
Arc tracking resistant

**HOOK-UP WIRES**  
**EN 2714-014**  
**MMD, MME, MME, MMF, MMG, MMH, MMJ, MMD**

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	Code of nominal section	Color code	AWG	Screen strands nom. diameter (mm)	Nb of cores	Colors of cores	Colors of jacket	FINISHED WIRE				
								Max. DC Resistance at 20°C (Ω/km)	Diameter (mm)		Weight (g/m)	
									Nom.	Max.	Nom.	Max.
EN 2714-014D 004	F 22	F 22	0.10	4	Red, Blue, Yellow, Green	White	61.7	3.28	3.45	26.88	28.23	
EN 2714-014D 006	F 20	F 20	0.12	4	Red, Blue, Yellow, Green	Light Blue	34.1	3.99	4.19	42.10	44.21	
EN 2714-014E 002	F 24	F 24	0.10	5	Red, Blue, Yellow, Green, White	Light Blue	117	3.21	3.29	24.79	26.2	
EN 2714-014E 004	F 22	F 22	0.12	5	Red, Blue, Yellow, Green, White	White	61.7	3.68	3.87	35.65	37.43	
EN 2714-014E 006	F 20	F 20	0.12	5	Red, Blue, Yellow, Green, White	Light Blue	34.1	4.38	4.60	52.80	55.43	
EN 2714-014E 010	F 18	F 18	0.12	5	White, Blue, Yellow, Red, Green	White	21.7	5.03	5.26	73.22	76.0	
EN 2714-014E 012	F 16	F 16	0.12	5	White, Blue, Yellow, Red, Green	Light Blue	14.9	5.82	6.10	97.31	102.2	
EN 2714-014E 020	F 14	F 14	0.12	5	White, Blue, Yellow, Red, Green	White	11.2	6.71	7.05	128.62	135.0	
EN 2714-014E 030	F 12	F 12	0.15	5	Black, Blue, Yellow, Red, Green	Light blue	6.99	7.94	8.41	191.3	205.6	
EN 2714-014F 002	F 24	F 24	0.12	6	Red, Blue, Yellow, Green, White, Black	Light blue	117	3.56	3.65	31.9	32.2	
EN 2714-014F 006	F 20	F 20	0.15	6	Red, Blue, Yellow, Green, White, Black	Light blue	34.1	4.90	5.15	66.17	70	
EN 2714-014F 012	F 16	F 16	0.15	6	Red, Blue, Yellow, Green, White, Black	Light blue	14.9	6.45	6.77	120.7	126.7	
EN 2714-014G 002	F 24	F 24	0.12	7	Red, Blue, Yellow, Green, White, Black, Brown	Light blue	117	3.61	3.80	32.96	34.60	
EN 2714-014G 004	F 22	F 22	0.12	7	Red, Blue, Yellow, Green, White, Black, Brown	White	61.7	3.99	4.19	44.52	46.75	
EN 2714-014H 002	F 24	F 24	0.12	8	Red, Blue, Yellow, Green, White, Black, Orange	Light blue	117	4.12	4.37	42.25	42.95	
EN 2714-014H 006	F 20	F 20	0.15	8	Red, Blue, Yellow, Green, White, Black, Orange	Light blue	34.1	5.69	5.97	88.94	93	
EN 2714-014J 004	F 22	F 22	0.12	9	Red, Blue, Yellow, Green, White, Black, Orange, Violet	White	61.7	4.63	4.86	55.97	58.77	
EN 2714-014K 002	F 24	F 24	0.12	10	Red, Blue, Yellow, Green, White, Black, Orange, Violet, Grey	Light blue	117	4.51	4.74	46.43	48.75	
EN 2714-014? 004	-	-	22	0.12	11	Red, Blue, Yellow, Green, White, Black, Orange, Violet, Grey, Light Green	White	61.7	5.21	5.47	68.26	71.67





## HOOK-UP WIRES

# EN 2713-012 Type MNA, MNB, MNC, MND



Oil resistance  
Very good resistance  
to aircraft fluids

**Designed for general purpose aircraft wiring applications.**

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

### CABLE DESIGN

#### Cores

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



#### Screen

Silver plated copper spiral screen

#### Jacket

Polyimide tape, UV Laser markable, Top coat

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz

### IDENTIFICATION

#### Cores

Color of cores: See table on this datasheet  
Color of marking: White for Red and Green core, Green for Blue, White and Yellow core  
Marking text: EN DR A ++ FRF\*\*

#### Jacket

Color of jacket: See table on this datasheet  
Color of marking: Green  
Marking text: 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)

### STANDARDS

International EN 2267-009; prEN 3475



Flame retardant  
FAR/JAR part 25 sec 25.869 (a)(4) Appendix F part1 (3)

Operating temperature  
-55°C to +200°C

Arc tracking resistant

HOOK-UP WIRES  
EN 2713-012 Type MNA, MNB, MNC, MND

## DIMENSIONS AND WEIGHTS

NEXANS REF.	Code of	Color code	Nb of cores	AWG	Nom. Screen strands diameter (mm)	Colors of cores	Colors of jacket	FINISHED WIRE				
								Max. DC Resistance at 20°C (Ω/km)	Diameter (mm)		Weight (g/m)	
									Nom.	Max.	Nom.	Max.
MNA 26	001	F	1	26	0.08	Light yellow	White	160	1.15	1.23	4.01	4.45
MNA 24	002	F	1	24	0.08	White	Light blue	114	1.28	1.35	4.99	5.30
MNA 22	004	F	1	22	0.08	Light green	White	60	1.42	1.49	6.66	7.16
MNA 20	006	F	1	20	0.08	White	Light blue	33.2	1.67	1.73	9.88	10.53
MNA 18	010	F	1	18	0.08	White	White	21.1	1.92	2.00	13.90	14.90
MNA 16	012	F	1	16	0.10	White	Light blue	14.5	2.24	2.35	19.27	20.82
MNA 14	020	F	1	14	0.10	White	White	10.9	2.58	2.66	25.44	26.54
MNA 12	030	F	1	12	0.10	White	White	6.8	2.99	3.13	37.25	39.75
MNA 10	051	F	1	10	0.10	White	White	4.1	3.61	3.76	57.28	60.05
MNB 26	001	F	2	26	0.08		White	165	1.94	2.07	7.15	7.96
MNB 24	002	F	2	24	0.08		Light blue	117	2.20	2.31	9.03	9.61
MNB 22	004	F	2	22	0.08		White	61.7	2.48	2.59	12.33	13.28
MNB 20	006	F	2	20	0.10	1 Red 1 Blue	Light blue	34.1	3.02	3.14	19.61	20.96
MNB 18	010	F	2	18	0.10		White	21.7	3.50	3.65	27.77	29.71
MNB 16	012	F	2	16	0.12		Light blue	14.9	4.11	4.31	38.26	41.29
MNB 14	020	F	2	14	0.12		White	11.2	4.79	4.93	50.73	53.08
MNB 12	030	F	2	12	0.12		White	6.99	5.61	5.83	74.69	78.84
MNC 26	001	F	3	26	0.08		White	165	2.05	2.20	9.69	10.75
MNC 24	002	F	3	24	0.08		Light blue	117	2.34	2.45	12.38	13.17
MNC 22	004	F	3	22	0.08		White	61.7	2.64	2.76	17.17	18.36
MNC 20	006	F	3	20	0.10	1 Red 1 Blue	Light blue	34.1	3.22	3.35	27.51	29.27
MNC 18	010	F	3	18	0.10	1 Red 1 Yellow	White	21.7	3.73	3.89	39.42	42.02
MNC 16	012	F	3	16	0.12		Light blue	14.9	4.39	4.60	54.37	58.47
MNC 14	020	F	3	14	0.15		White	11.2	5.18	5.33	75.33	78.63
MNC 12	030	F	3	12	0.15		White	6.99	6.14	6.34	112.27	115.71
MND 26	001	F	4	26	0.08		White	165	2.26	2.41	12.24	13.54
MND 24	002	F	4	24	0.08		Light blue	117	2.57	2.70	15.72	16.67
MND 22	004	F	4	22	0.10		White	61.7	2.95	3.08	23.07	24.55
MND 20	006	F	4	20	0.10	1 Red 1 Blue	Light blue	34.1	3.56	3.70	35.40	37.59
MND 18	010	F	4	18	0.12	1 Red 1 Yellow 1 Green	White	21.7	4.18	4.35	52.61	55.87
MND 16	012	F	4	16	0.12		Light blue	14.9	4.86	5.10	70.47	75.54
MND 14	020	F	4	14	0.15		White	11.2	5.83	6.06	98.75	104.47
MND 12	030	F	4	12	0.15		White	6.99	6.81	7.09	146.12	154.71





## HOOK-UP WIRES

# FX 5301



Oil resistance  
Very good resistance  
to aircraft fluids

Designed for general purpose aircraft wiring applications.

VG 95218-20 type H  
Single wire.

### CABLE DESIGN



#### Conductor

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

#### Insulation

PTFE tape, Polyimide tape,  
UV laser markable FEP lacquer top coat

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz

### IDENTIFICATION

Colors: White (except size 004 in pale blue)

Marking: VG95218T020H \*\*£ F 0241 ++ AC

\*\* = Dash number

£ = color (9=white, A=pale blue)

F0241 = Manufacturer's cage code

++ = Year of production (i.e. 13 = 2013)

AC = Cable code according to TR 6058

### STANDARDS

National VG 95218-2; VG 95218-20 H



Flame retardant  
**FAR/JAR part 25 sec 25.869 (a)(4) Appendix F part1 (3)**

Operating temperature  
**-65°C to +150°C**

Arc tracking resistant

**HOOK-UP WIRES  
 FX 5301**

### DIMENSIONS AND WEIGHTS

VG REFERENCES	NEXANS REFERENCES	Dash	Size code	AWG	CONDUCTOR			FINISHED WIRE			
					Strands (nb x mm)	Diameter (mm)		Max. DC Resistance at 20°C (Ω/km)	Diameter (mm)		Weight (g/m)
						Nom.	Max.		Min.	Max.	
VG 95218T020H019	FX 5301-002	01	002	24	19 x 0.12	0.55	0.62	106	0.98	1.08	3.23
VG 95218T020H02A	FX 5301-004	02	004	22	19 x 0.15	0.70	0.80	55.3	1.12	1.24	4.59
VG 95218T020H039	FX 5301-006	03	006	20	19 x 0.20	0.94	1.04	31	1.33	1.47	7.29
VG 95218T020H049	FX 5301-010	04	010	18	19 x 0.25	1.18	1.29	19.6	1.58	1.72	10.69
VG 95218T020H059	FX 5301-012	05	012	16	19 x 0.30	1.39	1.53	13.6	1.81	1.97	14.86
VG 95218T020H069	FX 5301-020	06	020	14	37 x 0.25	1.68	1.82	10.2	2.07	2.19	19.43
VG 95218T020H079	FX 5301-030	07	030	12	37 x 0.32	2.12	2.28	6.4	2.53	2.69	30.83







## HOOK-UP WIRES

# FX 5303



Oil resistance  
Very good resistance  
to aircraft fluids

**Designed for general purpose aircraft wiring applications.**

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

### CABLE DESIGN

#### Core

FX 5301



#### Screen

Silver plated copper braided screen

#### Jacket

Polyimide tapes, UV laser markable  
FEP lacquer, top coat

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz

### 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

#### 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

Colors of marking: White  
(with exception of size 004: Pale Blue)

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

\*\*\* = 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

### STANDARDS

**National** VG 95218-2; VG 95218-22 E



Flame retardant  
FAR/JAR part 25 sec 25.869 (a)(4) Appendix F part1 (3)

Operating temperature  
-65°C to +150°C

Arc tracking resistant

HOOK-UP WIRES  
FX 5303

## DIMENSIONS AND WEIGHTS

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





## HOOK-UP WIRES

# KZ 05



Flexible

Oil resistance  
Very good resistance  
to aircraft fluids

Single core, unscreened hook-up wires High temperature.

Internal wiring in electronic equipment, aircraft and satellites.  
Excelent chemical resistance.

### CABLE DESIGN


#### Conductor

Stranded silvered copper wires, Circular, stranded

#### Insulation

Extruded PTFE

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V

### IDENTIFICATION

Packaging: Reel

Color of the jacket: white or black or red  
or blue or yellow or green or grey

### STANDARDS

National NF C 32-070/C1; NF C 93-523



Flame retardant  
**FAR/JAR part 25 sec 25.869 (a)(4) Appendix F part1 (3)**

Operating temperature  
**-55°C to +200°C**

Arc tracking resistant

**HOOK-UP WIRES  
 KZ 05**

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	AWG	CONDUCTOR		FINISHED WIRE			Nom. Weight (g/m)
		Strands (nb x mm)	Nom. Diameter (mm)	Max. DC Resistance at 20°C (Ω/km)	Diameter (mm)		
					Min.	Max.	
KZ 05-05	24	7 x 0.20	0.60	86	1.04	1.22	4.5
KZ 05-06	22	7 x 0.25	0.75	54.4	1.17	1.37	6.2
KZ 05-07	20	19 x 0.20	1.00	31.3	1.42	1.62	9.5
KZ 05-08	18	19 x 0.25	1.25	20.5	1.67	1.92	14.1
KZ 05-09	16	19 x 0.30	1.50	13.9	1.92	2.27	20

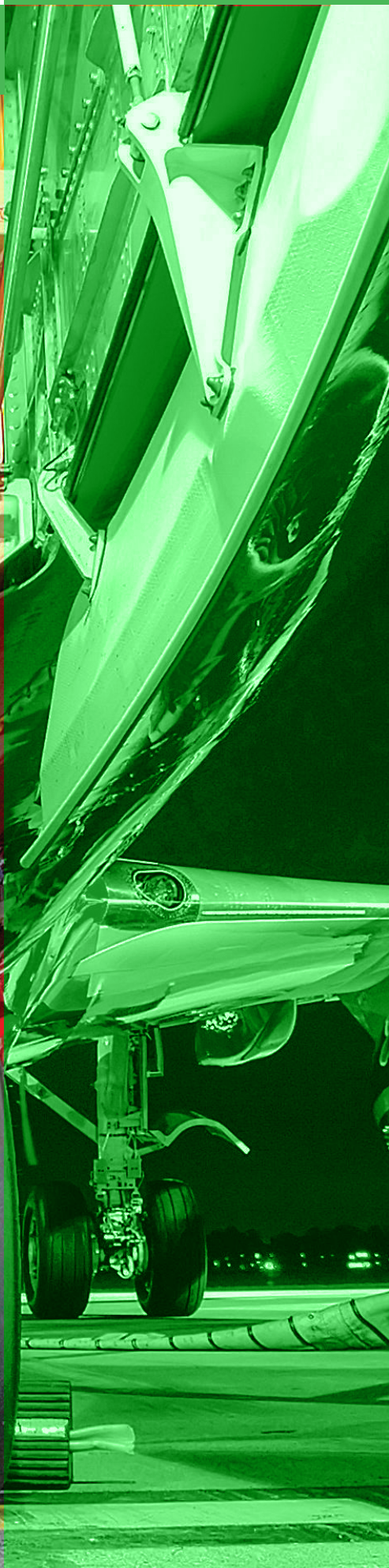
### Information

The maximum operating temperature is 200°C. For further temperature resistance, the KZ range is available in nickel version (maximum operating temperature up to 250°C).





# POWER DISTRIBUTION





DESIGNATION	PAGE
ABS 0949 AD AWG 3 TO 000	40
ABS 1354 ADB, ADC, ADD	42
ASNE 0438 YV – ASN E0471 QP	44
EN 2267-010A DR	46
ESW 1000-010-XXX	48
FX 5400 DG – VG 95218-20 TYPE J	50
NSA 935 308 YU	52
NSA 935 131 – EN 2854-003 DG	54
SP 799	57

## APPLICATION

Power distribution cables are designed to make the link between generators to distribution cabinet, and thus to carry high currents, up to several hundreds of amperes. Those cable families are designed to work with 115/230 VAC 400Hz tri-phase network and can accept 230/400 VAC 400Hz triphase network in certain conditions.

## ADVANTAGES

Nexans is committed to improve safety in aerospace by designing robust and/or lightweight power feeders. Flexibility and cable handling are also at the core of this cable family.

## MAIN PROPERTIES

- Very good resistance to aircraft fluids
- Flame retardant
- RoHS compliant

## MAIN CHARACTERISTICS

- Maximum range of operating temperature:  $-65^{\circ}\text{C}$  to  $+260^{\circ}\text{C}$ .
- Rating voltage: 115/230 VAC 400Hz tri-phase,  
230/400 VAC 400Hz tri-phase.

## STANDARDS

The cables are designed to withstand fire tests according to FAR/JAR part 25 sec 25.869 (a)(4) Appendix F part 1 (3) NFC 32070 C1.

They are conform to various customer specification and/or European Standards "EN" product norms.

## POWER DISTRIBUTION



# ABS 0949 AD AWG 3 to 000

**Designed for general purpose aircraft wiring applications.**

Nickel Plated Aluminium Alloy Conductors  
UV laser printable.

Oil resistance  
Very good resistance  
to aircraft fluids

## CABLE DESIGN

### Conductor

Nickel plated aluminium rope-lay conductor

### Insulation

High performance polyimide tape,  
Special UV PTFE tape

## IDENTIFICATION

Standard color: Grey

Color of marking: Blue

Marking text: AD \*\* FR F++

\*\* = AWG

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)



++ = Year of production (i.e. 14 = 2014)

## STANDARDS

**International** prEN 3475

**National** ABS 0958; ABS 0949 AD

## ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz





Operating temperature  
-60°C to +180°C

Arc tracking resistant

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

POWER DISTRIBUTION  
ABS 0949 AD AWG 3 to 000

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCE	AWG	CONDUCTOR				FINISHED CABLE			
		Strands (nb x mm)	Max. DC Resistance at 20°C (Ω/km)	Diameter (mm)		Diameter (mm)		Weight (g/m)	
				Min.	Max.	Min.	Max.	Nom.	Max.
ABS 0949 AD 3	3	7 x 19 x 0.51	1.18	6.5	7.1	7.28	7.74	91.26	94.00
ABS 0949 AD 2	2	7 x 24 x 0.51	0.94	7.4	8.0	8.07	8.57	113.1	116.5
ABS 0949 AD 1	1	7 x 30 x 0.51	0.75	8.3	8.9	8.94	9.50	139.17	143.5
ABS 0949 AD 0	0	19 x 14 x 0.51	0.60	9.7	10.3	10.29	10.93	175.81	181.0
ABS 0949 AD 00	00	19 x 18 x 0.51	0.43	11.1	11.7	11.65	12.37	222.96	230.0
ABS 0949 AD 000	000	19 x 22 x 0.51	0.36	12.4	13	12.91	13.71	267.57	276.0





## POWER DISTRIBUTION



Oil resistance  
Very good resistance  
to aircraft fluids

# ABS 1354 ADB, ADC, ADD

**Designed for general purpose aircraft wiring applications.**

Multicores Nickel Copper Clad Aluminium (AWG 24 to 4)  
Multicores Aluminium Alloy (AWG 3 to 000).

### CABLE DESIGN

#### Conductor

2, 3 or 4 cores ABS 0949 ADA

### IDENTIFICATION

2 cores (ADB): Red, Blue

3 cores (ADC): Red, Blue, Yellow

4 cores (ADD): Red, Blue, Yellow, Green

Color of marking: Black

Marking text: ADA \*\* FRF++



\*\* = AWG

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)

++ = Year of production (i.e. 14 = 2014)»

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz

### STANDARDS

**International** prEN 3475

**National** ABS 0958; ABS 1354



Operating temperature  
-65°C to +180°C

Arc tracking resistant

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

POWER DISTRIBUTION  
ABS 1354 ADB, ADC, ADD

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCE	AWG	Nb of cores	FINISHED CABLE					
			Colors of cores	Max. DC Resistance at 20°C (Ω/km)	Diameter (mm)		Weight (g/m)	
					Nom.	Max.	Nom.	Max.
ABS 1354 ADB	24	2		149.4	1.78	1.92	3.47	3.61
ABS 1354 ADB	22	2		92.9	2.04	2.20	4.83	5.15
ABS 1354 ADB	20	2		51.1	2.58	2.68	7.24	7.52
ABS 1354 ADB	18	2		34.2	3.08	3.22	10.49	11.23
ABS 1354 ADB	16	2		23.7	3.70	3.84	15.03	15.97
ABS 1354 ADB	14	2		16	4.30	4.48	20.22	22.54
ABS 1354 ADB	12	2		11.2	5.12	5.40	28.80	31.93
ABS 1354 ADB	10	2		6	6.34	6.66	45.29	49.48
ABS 1354 ADB	8	2	1 red, 1 blue	3.91	8.58	8.80	77.4	80.34
ABS 1354 ADB	6	2		2.37	11.0	11.40	127.54	131.22
ABS 1354 ADB	4	2		1.55	13.42	14.80	190.74	198.38
ABS 1354 ADB	3	2		1.22	15.02	15.48	186.17	193.64
ABS 1354 ADB	2	2		0.97	16.64	17.14	230.72	239.99
ABS 1354 ADB	1	2		0.77	18.44	19.00	283.91	295.61
ABS 1354 ADB	0	2		0.62	21.22	21.86	358.65	372.86
ABS 1354 ADB	00	2		0.44	24.02	24.74	454.84	473.80
ABS 1354 ADB	000	2		0.37	26.62	27.42	545.84	568.56
ABS 1354 ADC	24	3		149.4	1.92	2.06	5.20	5.41
ABS 1354 ADC	22	3		92.9	2.20	2.37	7.25	7.73
ABS 1354 ADC	20	3		51.1	2.78	2.88	10.86	11.28
ABS 1354 ADC	18	3		34.2	3.32	3.46	15.73	16.84
ABS 1354 ADC	16	3		23.7	3.99	4.13	22.55	23.95
ABS 1354 ADC	14	3		16	4.63	4.82	30.32	33.80
ABS 1354 ADC	12	3		11.2	5.52	5.81	43.21	47.90
ABS 1354 ADC	10	3		6	6.83	7.16	67.93	74.22
ABS 1354 ADC	8	3	1 red, 1 blue, 1 yellow	3.91	9.24	9.46	116.10	120.51
ABS 1354 ADC	6	3		2.37	11.85	12.26	191.31	196.83
ABS 1354 ADC	4	3		1.55	14.46	15.91	286.11	297.57
ABS 1354 ADC	3	3		1.22	16.18	16.64	279.26	290.46
ABS 1354 ADC	2	3		0.97	17.93	18.43	346.09	359.99
ABS 1354 ADC	1	3		0.77	19.87	20.43	425.86	443.42
ABS 1354 ADC	0	3		0.62	22.86	23.50	537.98	559.29
ABS 1354 ADC	00	3		0.44	25.88	26.60	682.26	710.70
ABS 1354 ADC	000	3		0.37	28.68	29.48	818.76	852.84
ABS 1354 ADD	24	4		149.4	2.15	2.30	6.94	7.21
ABS 1354 ADD	22	4		92.9	2.46	2.64	9.67	10.30
ABS 1354 ADD	20	4		51.1	3.11	3.22	14.48	15.04
ABS 1354 ADD	18	4		34.2	3.72	3.86	20.97	22.45
ABS 1354 ADD	16	4		23.7	4.47	4.61	30.07	31.93
ABS 1354 ADD	14	4		16	5.19	5.38	40.43	45.07
ABS 1354 ADD	12	4	1 red, 1 blue, 1 yellow, 1 green	11.2	6.18	6.48	57.61	63.86
ABS 1354 ADD	10	4		6	7.65	7.99	90.58	98.96
ABS 1354 ADD	8	4		3.91	10.36	10.56	154.8	160.68
ABS 1354 ADD	6	4		2.37	13.28	13.68	255.08	262.44
ABS 1354 ADD	4	4		1.55	16.20	17.76	381.48	396.76
ABS 1354 ADD	3	4		1.22	18.13	18.58	372.34	387.28
ABS 1354 ADD	2	4		0.97	20.08	20.57	461.45	479.98
ABS 1354 ADD	1	4		0.77	22.26	22.80	567.81	591.22





## POWER DISTRIBUTION

# ASNE 0438 YV – ASNE 0471 QP



Oil resistance  
Very good resistance  
to aircraft fluids

**Designed for general purpose aircraft wiring applications.**

180°C Operating Temperature (up to 200°C Peak)  
Flexible Nickel Plated Aluminium Light Weight  
Wires Single Core Large Sizes

SINGLE CORE (ASNE0438 YV)  
Product designed according to: ASNE0438.

### CABLE DESIGN

**SINGLE CORE (ASNE0438 YV)**  
Product designed according to : ASNE0438

#### Conductor

A Stranded Conductor Made  
of Nickel Plated Aluminium

#### Insulation

Polyimide Tapes

#### External protection



An Aromatic Polyamide Braid Impregnated  
with a Non Flammable Varnish

**MULTICORE (ASNE0471 QP)**  
Product designed according to : ASNE0471

#### Assembly

3 cores ASNE0438 YV twisted

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz

### 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. Black + Pink = 2017

By colored carrier in the external Aromatic  
Polyamide braid: 1 black carrier for wires  
Size AWG 06, 03, 01, 00 and 0000

Additional identification for multicore (QP)

By colored carrier in the external Aromatic  
Polyamide braid: 1 core with red carrier, 1 core  
with blue carrier, 1 core with yellow carrier

### STANDARDS

**International** NSA 3071 10; NSA 935000



Operating temperature  
-55°C to +180°C

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

POWER DISTRIBUTION  
ASNE0 438 YV – ASNE 0471 QP

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCE	AWG	CONDUCTOR				FINISHED CABLE		
		Strands (nb x mm)	Diameter (mm)	Nb of strands missing allowed	Max. DC Resistance at 20°C (Ω/km)	Diameter (mm) Min. Max.	Max. Weight (g/m)	
<b>ASNE0438 YV</b>								
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 (*)	000	19 x 22 x 0.51	12.7 ± 0.30	4	0.36	13.3 14.5	290	
YV 0000 (*)	0000	37 x 15 x 0.51	12.7 ± 0.30	5	0.29	15.1 16.3	370	
<b>ASNE0471 QP</b>								
<b>COMPOSITION</b>								
QP 06	6	3 x YV 06 twisted			2.27	- 13.8	170	
QP 04	4	3 x YV 04 twisted			1.55	- 16.1	238	
QP 03	3	3 x YV 03 twisted			1.22	- 18.1	297	
QP 02	2	3 x YV 02 twisted			0.97	- 19.8	368	
QP 01	1	3 x YV 01 twisted			0.77	- 21.7	460	
QP 0A	0	3 x YV 0A twisted			0.62	- 24.9	575	
QP 00	00	3 x YV 00 twisted			0.44	- 28.4	742	

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

YV

QP





## POWER DISTRIBUTION

# EN 2267-010 A DR



Oil resistance  
Very good resistance  
to aircraft fluids

**Designed for general purpose aircraft wiring applications.**

UV Laser printable Wire  
260°C Operating Temperature Light Weight  
Arc Tracking Resistant

### CABLE DESIGN

#### Core

Stranded Conductor: Nickel Plated High Strength Copper Alloy (AWG 26 & 24) or Nickel Plated Copper (AWG 22 to 2)

#### Insulation

Special Polyimide Tape,  
Special UV PTFE Tape(s)

### IDENTIFICATION

Standard color 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 002B)

Color of marking: green

Marking text: EN DR \*\* FR F ++

DR = Short designation

\*\* = AWG Wire Size

FR = Country of origin (FR = France)



F = Manufacturer (F = Nexans)

++ = Year of production (i.e. 13 = 2013)

### STANDARDS

International EN 2267-010; prEN 3475

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz



Operating temperature  
-55°C to +260°C

Arc tracking resistant

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

POWER DISTRIBUTION  
EN 2267-010A DR

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCE	Code of nominal section	Color code	AWG	CONDUCTOR				FINISHED CABLE			
				Strands (nb x mm)	Diameter (mm)		Max. DC Resistance at 20°C (Ω/km)	Diameter (mm)		Weight (g/m)	
					Min.	Max.		Min.	Max.	Nom.	Max.
EN 2267-010A 001	S 26	S	26	19 x 0.10	0.47	0.49	160.0	0.75	0.84	1.95	2.08
EN 2267-010A 002	S 24	S	24	19 x 0.12	0.555	0.585	114.0	0.85	0.96	2.64	2.72
EN 2267-010A 004	S 22	S	22	19 x 0.15	0.71	0.73	60.0	1.00	1.10	3.89	4.14
EN 2267-010A 006	S 20	S	20	19 x 0.20	0.94	0.97	33.2	1.22	1.34	6.57	6.85
EN 2267-010A 010	S 16	S	16	19 x 0.25	1.19	1.22	21.1	1.46	1.61	10.15	10.43
EN 2267-010A 012	S 18	S	18	19 x 0.30	1.41	1.45	14.5	1.76	1.92	14.05	14.61
EN 2267-010A 020	S 14	S	14	37 x 0.25	1.69	1.73	10.9	2.04	2.24	19.31	19.78
EN 2267-010A 030	S 12	S	12	37 x 0.32	2.13	2.18	6.8	2.50	2.70	29.25	31.33
EN 2267-010A 051	S 10	S	10	61 x 0.32	2.73	2.77	4.1	3.13	3.33	47.37	49.85
EN 2267-010A 090	S 8	S	8	127 x 0.30	3.55	3.85	2.3	4.10	4.40	87.81	90.00
EN 2267-010A 140	S 6	S	6	27 x 7 x 0.30	4.80	5.20	1.58	5.30	5.70	132.41	135.00
EN 2267-010A 220	S 4	S	4	37 x 12 x 0.25	-	6.80	0.97	6.71	7.41	215.15	222.00
EN 2267-010A 340	S 2	S	2	37 x 19 x 0.25	-	8.60	0.61	8.28	9.16	336.10	347.00







## POWER DISTRIBUTION

# ESW 1000-010-XXX



Oil resistance  
Very good resistance  
to aircraft fluids

### Areo engine services.

Large Section High Temperature Cable.

## CABLE DESIGN

### Cores

A Stranded Conductor Made of Nickel Plated Copper

### Insulation

Polyimide Tape,  
PTFE Tapes,  
PTFE Coated Fiberglass tape,  
PTFE Tapes

## IDENTIFICATION

Color of cable: White

Color of marking: Green

Marking text: ESW1000-010-xxx-FX-FF-\*\*


xxx = Size Code,

\*\* = Year of manufacturing

## STANDARDS

National ESW 1000-010

## ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V



Operating temperature  
-65°C to +260°C

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

POWER DISTRIBUTION  
ESW 1000-010-XXX

## DIMENSIONS AND WEIGHTS

REFERENCE	AWG	CONDUCTOR				FINISHED WIRE OR CABLE			
		Strands (m x n x diameter in mm)	Max. Diameter (mm)	Max. Nb of Strands	Max. DC Resistance at 20°C (Ω/km)	Diameter (mm)		Max. Weight (g/m)	
						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





# FX 5400 DG – VG 95218-20 TYPE J



Oil resistance  
Very good resistance  
to aircraft fluids

Designed for general purpose aircraft wiring applications.

Single wire.

### CABLE DESIGN

#### Conductor

Stranded conductor, Made of Nickel Plated Copper

#### Insulation

Polyimide Tape,  
PTFE Tape,  
Glass fiber tape,  
PTFE Tape

### IDENTIFICATION

Color: White



Marking text: VG 95218T020J \*\* £ F 0241 ++ DG

- \*\* = Dash number
- £ = Color (9: white)
- F 0241 = Manufacturer's cage code
- ++ = Year of production (i.e. 14 = 2014)
- DG = Cable code according to TR 6058

### STANDARDS

National VG 95218-2; VG 95218-20

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz



Flame retardant  
FAR/JAR part 25 sec 25.869 (a)(4) Appendix F part1 (3)

Operating temperature  
-55°C to +260°C

Arc tracking resistant

POWER DISTRIBUTION  
FX 5400 DG – VG 95218-20 TYPE J

## DIMENSIONS AND WEIGHTS

VG REFERENCES	NEXANS REFERENCES	Dash number (VG)	Size code	AWG	CONDUCTOR		FINISHED WIRE				
					Strands (nb x mm)	Max.	Max. DC Resistance at 20°C (Ω/km)	Diameter (mm)		Max. Weight (g/m)	
								Min.	Max.		
VG 95218T020J019	FX 5400-050	019	050	10	73 x 0.30	3.3		3.9	4.1	4.5	64.5
VG 95218T020J029	FX 5400-090	029	090	8	127 x 0.30	4.5		2.3	5.2	5.6	108
VG 95218T020J039	FX 5400-140	039	140	6	27 x 7 x 0.30	5.6		1.6	6.3	7.3	160
VG 95218T020J049	FX 5400-220	049	220	4	37 x 12 x 0.25	7.3		0.97	8.1	9.3	245
VG 95218T020J059	FX 5400-340	059	340	2	37 x 19 x 0.25	8.8		0.61	9.7	10.9	396
VG 95218T020J069	FX 5400-420	069	420	1	37 x 23 x 0.25	10.0		0.50	10.6	12.1	470
VG 95218T020J079	FX 5400-530	079	530	0	37 x 29 x 0.25	11.3		0.40	11.8	13.4	600
VG 95218T020J089	FX 5400-680	089	680	00	37 x 37 x 0.25	12.5		0.31	13.6	14.5	750
VG 95218T020J099	FX 5400-850	099	850	000	48 x 36 x 0.25	14.4		0.25	15.6	16.8	950
VG 95218T020J109	FX 5400-107	109	107	0000	61 x 36 x 0.25	15.9		0.20	17.0	18.4	1200





## POWER DISTRIBUTION

# NSA 935 308 YU

150°C Operating Temperature.  
Flexible Aluminium Alloy Conductor.  
Single Core Large Sizes.



Oil resistance  
**Very good resistance  
to aircraft fluids**

### CABLE DESIGN

#### Conductor

Stranded Conductor Made of Aluminium Alloy

#### Insulation

3 polyimide tapes

#### External protection

An Aromatic Polyamide Braid Impregnated  
with a Non Flammable Varnish

### IDENTIFICATION

By colored threads between polyimide  
tapes and external braid:



Manufacturer colour: Black + Grey = Nexans

Manufacturing year: Blue + Brown = 2014

### STANDARDS

**International** NSA 307110;  
NSA 935000; NSA 935308 YU

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz



Operating temperature  
-55°C to +150°C

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

POWER DISTRIBUTION  
NSA 935 308 YU

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCE	AWG	Stranding Number x Diam. of strands (mm)	CONDUCTOR			FINISHED CABLE		
			Diameter (mm)	Nb of strands missing allowed	Max. DC Resistance at 20°C (Ω/km)	Diameter (mm) Min. Max.		Max. Weight (g/m)
YU 12 (*)	12	45 x 0,30	2.4 ± 0.20	0	10	3.2	3.45	16.3
YU 10 (*)	10	27 x 0,51	2.9 ± 0.20	0	5.8	3.6	4.0	26
YU 8 (*)	8	41 x 0,51	3.7 ± 0.20	0	3.8	4.4	4.8	35
YU 6 (*)	6	7 x 10 x 0,51	5.0 ± 0.25	0	2.20	5.7	6.3	55
YU 4	4	7 x 15 x 0,51	6.1 ± 0.30	0	1.50	6.8	7.4	84
YU 3 (*)	3	7 x 19 x 0,51	6.8 ± 0.30	0	1.18	7.7	8.1	96
YU 2 (*)	2	7 x 24 x 0,51	7.7 ± 0.30	2	0.94	8.4	9.0	120
YU 1 (*)	1	7 x 30 x 0,51	8.6 ± 0.30	2	0.75	9.3	9.9	149
YU 0	0	19 x 14 x 0,51	10.0 ± 0.30	3	0.66	10.7	11.5	199
YU 00	00	19 x 18 x 0,51	11.4 ± 0.30	3	0.43	12.1	13.1	256
YU 000	000	19 x 22 x 0,51	12.7 ± 0.30	4	0.36	13.3	14.5	309
YU 0000	0000	37 x 15 x 0,51	14.45 ± 0.35	5	0.29	15.1	16.3	390

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





## POWER DISTRIBUTION

# NSA 935 131 – EN 2854-003 DG



Oil resistance  
Very good resistance  
to aircraft fluids

### Aircraft wire.

260°C Operating High Temperature

### CABLE DESIGN



#### Core

Stranded conductor Nickel Plated Copper

#### Insulation

Polyimide tape,  
PTFE tape(s),  
Glass fiber tape,  
PTFE tape(s)

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz

### IDENTIFICATION

Color: white

Marking text: DG \*\* FR F ++

\*\* = AWG Wire Size

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)

++ = Year of production (i.e. 14 = 2014)

### STANDARDS

International EN 2854-003; NSA 935131





Operating temperature  
-55°C to +260°C

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

POWER DISTRIBUTION  
NSA 935 131 – EN 2854-003 DG

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCE	Nominal section (mm <sup>2</sup> )	AWG	CONDUCTOR		FINISHED CABLE				
			Strands (nb x mm)	Max. Diameter (mm)	Diameter (mm)		Max. Weight (g/m)	Max. DC Resistance at 20°C (Ω/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	





## POWER DISTRIBUTION

# SP 799



Oil resistance  
Very good resistance  
to aircraft fluids

### Areo engine services.

180 °C Operating Temperature, Nickel Plated Aluminium.  
Power Feeder Cables.

## CABLE DESIGN

### Cores

A Stranded conductor,  
Made of Nickel Plated Aluminium

### Insulation

Polyimide Tape,  
PTFE Tapes,  
PTFE Coated Fiberglass tape,  
PTFE Tapes

## IDENTIFICATION

Color of cable: White

Color of marking: Green

Marking text: Et xxxxxx FRF++


xxxxxx = Study number

++ = Year of manufacturing

## STANDARDS

National ESW 1000-010

## ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V



Operating temperature  
-65°C to +180°C

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

POWER DISTRIBUTION  
SP 799

## DIMENSIONS AND WEIGHTS

REFERENCE	AWG	Cross section (mm <sup>2</sup> )	CONDUCTOR			Max. DC Resistance at 20°C (Ω/km)	FINISHED CABLE		Max. Weight (g/m)
			Strand m x n x diameter (mm)	Max. Diameter (mm)	Nb of missing single strands		Diameter (mm) Min. Max.		
Study 133401	3	27.2	133 x 0.51	7.1	0	1.18	8.90 10.60	161	
Study 133010	2	34.3	168 x 0.51	8.0	2	0.94	9.80 11.40	190	
Study 133011	1	42.9	210 x 0.51	8.9	2	0.75	10.60 12.20	210	
Study 133012	0	54.3	266 x 0.51	10.3	3	0.60	11.75 13.35	260	
Study 132877	00	69.9	342 x 0.51	11.7	3	0.43	12.85 14.45	300	
Study 133013	000	85.4	418 x 0.51	13.0	4	0.36	14.70 16.30	380	
Study 132878	0000	110.3	540 x 0.51	14.8	5	0.29	16.50 18.10	470	

## 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	

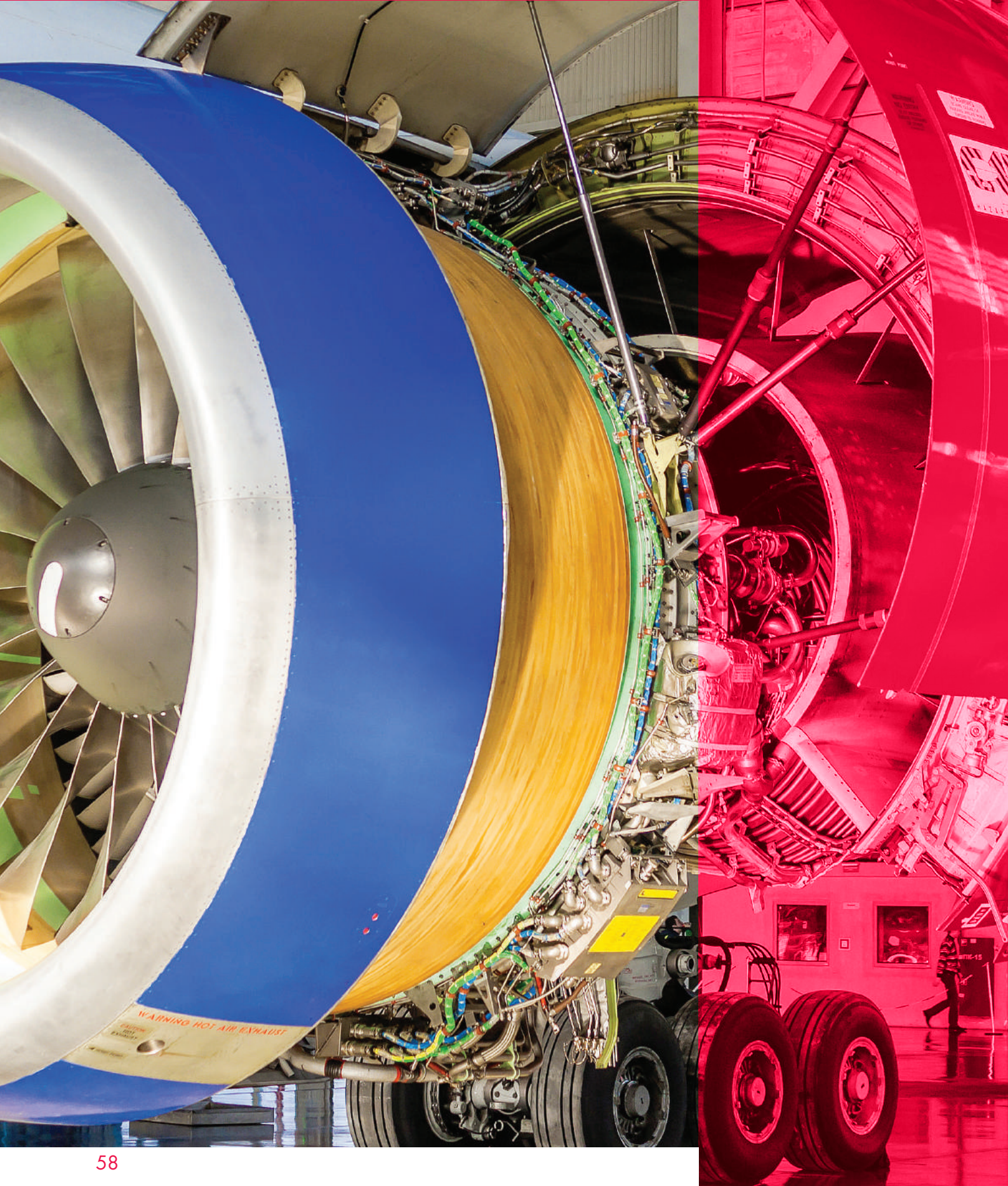
## QUALIFICATION TEST

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	Color fastness to light	3			
018	Climatic cycle	3			
024	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	Size		
			Mandrel Diameter		
			Tension (N)		
			340	22 x max OD	70
			420	22 x max OD	70
530	22 x max OD	120			
680	22 x max OD	120			
850	22 x max OD	150			
107	22 x max OD	150			
066	High temp cyclic endurance	2	T1 = 180 ± 5°C, T2 = 230 ± 5°C		





# HIGH TEMPERATURE & FIRE RESISTANT





## APPLICATION

Engine & fire zones cables are especially designed to be used in the engine area, in harsh environment and everywhere the "fire zones", either for security control or power distribution. Nexans is the unique supplier to offer an arc tracking resistant and fire proof solution for the Aerospace Industry, with the DWV product family.

## ADVANTAGES

Nexans is committed to improve safety in aerospace by protecting people and fuselage from fire with cables which ensure the integrity of electrical circuits for a certain time after the fire started. With a better insulation resistance to harsh environment, by the mean of robust designs, Nexans meets the need of the market.

## MAIN PROPERTIES

- Very good resistance to onboard fluids.
- Flame retardant.
- Fire resistant (or fireproof) and/or high temperature resistance.
- Enhanced mechanical resistance (abrasion, crush, vibration...).

## MAIN CHARACTERISTICS

- Maximum range of operating temperature: -65°C to +310°C.
- Rating voltage:  
115/230 VAC 400Hz tri-phase,  
230/400 VAC 400Hz tri-phase.

## STANDARDS

The cables are designed to withstand fire tests according to FAR/JAR part 25 sec 25.869 (a)(4) Appendix F part 1 (3) NFC 32070 C1.

They are conform to various customer specification and/or European Standards "EN" product norms.

**HIGH TEMPERATURE  
& FIRE RESISTANT**

DESIGNATION	PAGE
9310-N**CA**BL	60
10310-N**C*	62
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BMS 13-58	66
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ESW 1202-+++XXX / ESW 1203-+++XXX	74
ESW 1250-010-XXX / ESW 1251-010-XXX	76
ESW 1252-+++XXX / ESW 1253-+++XXX	78
ESW 1254-010-002	80
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## HIGH TEMPERATURE & FIRE RESISTANT

# 9310-N\*\*CA\*\*BL



Oil resistance  
Very good resistance  
to aircraft fluids

## Aero engine and high temperature application.

Wire and Jacketed Shielded Cable.

### CABLE DESIGN

#### Conductor

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 tape

#### Screen

Nickel plated copper spiral shield

#### Jacket

Polyimide Tape, PTFE tape

### IDENTIFICATION

Color of cores: White, Red, Blue, Yellow, Green

Color of Jacket: Green for AWG 22  
White for AWG 24

Color of marking: Green

Marking text: 9310-N££CA\*\*## F0241 +++++

££ = Number of Cores

\*\* = AWG



(++++) = Year of manufacturing

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

### STANDARDS

International 448-010-3-10

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz



Operating temperature  
-65°C to +260°C

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

HIGH TEMPERATURE & FIRE RESISTANT  
9310-N\*\*CA\*\*BL

### DIMENSIONS AND WEIGHTS – CORE

AWG	CONDUCTOR			FINISHED WIRE		
	Construction (mm)	Diameter (mm) Nom.	Max. DC Resistance at 20°C (Ω/km)	Diameter (mm)		Max. Weight (g/m)
				Min.	Max.	
24	19 x 0.127	0.61	114	0.96	1.11	3.50
22	19 x 0.16	0.78	60	1.15	1.30	5.40

### DIMENSIONS AND WEIGHTS – FINISHED CABLE

NEXANS REFERENCES	AWG	Nb of cores	Screen strand diameter (mm)	DC Resistance of screen at 20°C (Ω/km)		FINISHED CABLE		
				Nom.	Max.	Diameter (mm)		Max. Weight (g/m)
						Min.	Max.	
9310-N01CA24BL	24	1	0.08	107	114	1.30	1.65	7.1
9310-N01CA22BL	22	1	0.08	100	60	1.50	1.80	9.5
9310-N02CA24BL	24	2	0.08	71	117	2.20	2.55	12.4
9310-N02CA22BL	22	2	0.08	56	62	2.60	2.90	18.0
9310-N03CA24BL	24	3	0.10	44	117	2.40	2.70	17.9
9310-N03CA22BL	22	3	0.10	37	62	2.85	3.15	24.9
9310-N04CA24BL	24	4	0.10	38	117	2.65*	2.95*	22.5
9310-N04CA22BL	22	4	0.10	33	62	3.10*	3.45*	31.6

\*Nexans Proposal







## HIGH TEMPERATURE & FIRE RESISTANT

# 10310-N\*\*C\*



Oil resistance  
Very good resistance  
to aircraft fluids

### Aero engine services applications.

Fire Resistant Cable, Single and Multicores Screened and Jacketed.

### CABLE DESIGN

#### Core

Stranded conductor : Nickel clad copper alloy (AWG 22), Nickel clad copper (AWG 20 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

Nickel plated copper braid

#### Jacket

UV PTFE Tape(s)

### 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

Marking text: 10310N0£C# \*\* BL F0241 +++++



£ = Number of Cores

# = A: Nickel clad copper,

B: Nickel clad copper alloy

+++++ = Year of manufacturing

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz

### STANDARDS

International 448-010-3-10



Fire resistant  
>10 k Ω 15 min

Operating temperature  
-65°C to +260°C

HIGH TEMPERATURE & FIRE RESISTANT  
10310-N\*\*C\*

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	Size code (Nexans)	AWG	Diameter of screen strand (mm)	FINISHED WIRE				
				Nb of cores	Color of cores	Max. Diameter (mm)	Max. Weight (g/m)	Max. DC Resistance of screen at 20°C (Ω/km)
10310-N01CB22BL	004	22	0.10	1		2.75	15.96	80.9
10310-N01CA20BL	006	20	0.10	1	White with red stripe	2.93	19.50	44.3
10310-N01CA18BL	010	18	0.12	1		3.26	25.95	27.9
10310-N01CA16BL	012	16	0.12	1		3.50	31.67	18.8
10310-N02CB22BL	004	22	0.12	2		4.40	29.47	82.5
10310-N02CA20BL	006	20	0.12	2	1 White with red stripe, 1 white with blue stripe	4.80	36.50	45.2
10310-N02CA18BL	010	18	0.12	2		5.30	46.20	28.5
10310-N02CA16BL	012	16	0.12	2		5.80	56.80	19.2
10310-N03CB22BL	004	22	0.12	3		4.70	38.65	82.5
10310-N03CA20BL	006	20	0.12	3	1 White with red stripe, 1 white with blue stripe, 1 White with yellow stripe	5.10	48.80	45.2
10310-N03CA18BL	010	18	0.12	3		5.60	62.70	28.5
10310-N03CA16BL	012	16	0.12	3		6.20	78.00	19.2





## HIGH TEMPERATURE & FIRE RESISTANT

# BMS 13-55 Type 2 Class 1



Oil resistance  
Very good resistance  
to aircraft fluids

**Heavy-duty applications in aero-engines and high temperature areas.**

High Temperature and Fire resistant Aero-Engines Wires.

### CABLE DESIGN

#### Cores

Made up with Nickel Clad high strength copper alloy strands

#### Insulation

Impregnated inorganic fiber, TFE coated glass braid, PTFE tapes (fused)

### IDENTIFICATION

Color of cores: White with Red stripe

Marking text: \*W55/2/1-\*\* F0241



\* = Specification revision letter

\*\* = AWG

### STANDARDS

National BMS 13-55

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz



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

Fire resistant  
BMS 13-55 & M25038

Operating temperature  
-65°C to +260°C

## DIMENSIONS AND WEIGHTS

PART NUMBER	AWG	CONDUCTOR				FINISHED WIRE				
		Strands Nb strands x diam. of strands (mm)	Diameter (mm)		Nominal Area (mm <sup>2</sup> )	Max. DC Resistance at 20°C (Ω/km)	Diameter (mm)		weight (g/m)	
			Nom.	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

HIGH TEMPERATURE & FIRE RESISTANT  
BMS 13-55 Type 2 Class 1





## HIGH TEMPERATURE & FIRE RESISTANT

# BMS 13-58



Oil resistance  
Very good resistance  
to aircraft fluids

## UV Laser printable Wire, High Temperature Aircraft Wire.

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

### CABLE DESIGN

#### Cores

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

#### Product Range


Shielded and Jacketed:

T03, T07, T09 cables are available upon request

Shielded: T02, T06 cables are available upon request

Jacketed: T04, T08 cables are available upon request

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V

### IDENTIFICATION

Color: White

Marking text: BMS13-58T0\*C01G0xx + FO241

\* = Wire Type

xx = AWG

+ = Specification Revision Letter

### STANDARDS

National BMS 13-58



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

Operating temperature  
-65°C to +260°C

Abrasion resistance  
Good

HIGH TEMPERATURE & FIRE RESISTANT  
**BMS 13-58**

## DIMENSIONS AND WEIGHTS

PART NUMBER	AWG	CONDUCTOR			FINISHED WIRE					
		Strands Nb strands x diam. of strands (mm)	Diameter (mm)		Resistance at 20°C (Ω/km)	Diameter (mm)		Weight (g/m)		
			Nom.	Max.		Min.	Max.	Min.	Max.	
<b>BMS 13-58 Type 1</b>										
BMS13-58T1C01	24	19 x 0.127	0.58	0.66	86	1.75	1.91	6.40	7.23	
BMS13-58T1C01	22	19 x 0.16	0.74	0.84	52.5	1.85	2.01	7.89	8.72	
BMS13-58T1C01	20	19 x 0.20	0.94	1.04	32.1	2.03	2.18	9.73	11.55	
BMS13-58T1C01	18	19 x 0.25	1.17	1.30	22	2.31	2.46	13.91	16.07	
BMS13-58T1C01	16	19 x 0.30	1.32	1.47	15.6	2.41	2.62	17.26	19.05	
BMS13-58T1C01	14	19 x 0.36	1.65	1.85	9.84	2.77	2.97	24.10	26.93	
BMS13-58T1C01	12	37 x 0.32	2.13	2.29	6.5	3.25	3.45	34.60	38.69	
BMS13-58T1C01	10	37 x 0.40	2.69	2.90	4.07	3.71	4.01	51.34	57.88	
BMS13-58T1C01	8	19 x 7 x 0.287	4.01	4.39	2.28	5.46	5.77	94.04	106.84	
BMS13-58T1C01	6	19 x 7 x 0.360	5.03	5.51	1.43	6.38	7.14	138.23	161.75	
BMS13-58T1C01	4	19 x 7 x 0.455	6.35	6.96	0.902	7.77	8.64	217.54	254.15	
BMS13-58T1C01	2	19 x 35 x 0.254	8.13	8.64	0.581	9.83	10.49	348.04	401.46	
BMS13-58T1C01	1/0	19 x 55 x 0.254	10.03	10.80	0.371	11.79	12.6	510.23	610.53	
BMS13-58T1C01	2/0	19 x 70 x 0.254	11.18	12.07	0.292	12.88	14.15	566.18	765.58	
BMS13-58T1C01	3/0	37 x 45 x 0.254	12.70	13.72	0.233	14.17	15.44	793.10	941.90	
BMS13-58T1C01	4/0	37 x 57 x 0.254	14.35	15.37	0.184	15.95	17.25	1031.63	1125.23	
<b>BMS 13-58 Type 5</b>										
BMS13-58T5C01	24	19 x 0.127	0.58	0.66	98.8	1.75	1.91	6.4	7.23	
BMS13-58T5C01	22	19 x 0.16	0.74	0.84	61.0	1.85	2.01	7.89	8.72	
BMS13-58T5C01	20	19 x 0.20	0.94	1.04	37.4	2.03	2.18	9.73	11.55	
BMS13-58T5C01	18	19 x 0.25	1.17	1.30	23.6	2.31	2.46	13.91	16.07	
BMS13-58T5C01	16	19 x 0.30	1.32	1.47	18.4	2.41	2.62	17.26	19.05	





## HIGH TEMPERATURE & FIRE RESISTANT

# BMS 13-67



Oil resistance  
Very good resistance  
to aircraft fluids

**Aero engines and very high temperature applications.  
Fire resistant cable.**

Very High Temperatures Fire Resistant, Shielded and Jacketed Cables.  
Operating temperature : 20,000 hours at +313°C  
or 10,000 hours at +321°C.

### CABLE DESIGN

#### Cores

Nickel clad high strength copper alloy

#### Insulation

Very high temperature,  
Fire resistant insulation,  
High temperature PTFE tapes,  
PTFE coated fiber glass braid

#### Braid

Nickel clad copper shield

#### Jacket

High temperature PTFE tapes,  
PTFE coated fiber glass braid



### IDENTIFICATION

None

### STANDARDS

**National** BMS 13-67

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz





Fire resistant



Operating temperature  
Max. +310°C



Minimum bending radius,  
fixed installation  
5 (xD)



HIGH TEMPERATURE & FIRE RESISTANT  
**BMS 13-67**

## DIMENSIONS AND WEIGHTS – CORE

Only for use as BMS 13-67 T02 Core

PART NUMBER	AWG	CONDUCTOR				FINISHED WIRE			
		Strands Nb strands x diam. of strands (mm)	Diameter (mm)		Diameter (mm)		Nom. Weight (g/m)	Max. DC Resistance (Ω/km)	
			Nom.	Max.	Min.	Max.		at 23°C	at 370°C
<b>BMS 13-67 T02 Core</b>									
BMS13-67T0*C01G022	22	37 x 0.115	0.78	0.84	2.49	2.61	11.33	80.8	192.59
BMS13-67T0*C01G020	20	7 x 7 x 0.115	1.04	1.04	2.65	2.78	12.72	50.1	118.37
BMS13-67T0*C01G018	18	7 x 7 x 0.150	1.32	1.32	2.91	3.03	16.70	32.0	74.28
BMS13-67T0*C01G016	16	7 x 7 x 0.175	1.55	1.55	3.10	3.22	20.11	25.1	55.77
BMS13-67T0*C01G014	14	7 x 7 x 0.210	1.88	1.88	3.38	3.52	25.52	16.30	36.09
BMS13-67T0*C01G012	12	7 x 7 x 0.270	2.36	2.36	3.92	4.04	37.21	10.50	23.23
BMS13-67T0*C01G010	10	7 x 7 x 0.360	3.25	3.25	4.78	4.92	59.90	6.34	14.01

\* wire type

## DIMENSIONS AND WEIGHTS – FINISHED CABLE

PART NUMBER	AWG	CONDUCTOR				FINISHED WIRE					
		Nb of cores	Overall Diameter (mm)		Max. DC Resistance at 23°C of cores (Ω/km)	Diameter (mm)			Weight (g/m)		
			Strands	Nom.		Min.	Nom.	Max.	Min.	Nom.	Max.
BMS13-67T02C01G022	22	1	0.13	3.01	80.8	3.53	3.71	3.89	27.83	29.60	31.37
BMS13-67T02C01G020	20	1	0.13	3.17	50.1	3.66	3.87	4.06	30.03	31.95	33.87
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
BMS13-67T02C01G014	14	1	0.13	3.90	16.3	4.47	4.68	4.88	47.62	50.12	52.63
BMS13-67T02C01G012	12	1	0.13	4.44	10.5	5.03	5.19	5.33	61.6	64.85	68.09
BMS13-67T02C01G010	10	1	0.13	5.30	6.34	5.87	6.04	6.22	87.99	92.61	97.26
BMS13-67T02C02G022	22	2	0.13	5.50	82.4	6.02	6.32	6.63	59.64	52.81	55.98
BMS13-67T02C02G020	20	2	0.13	5.82	51.1	6.30	6.62	6.96	53.61	57.04	60.46
BMS13-67T02C02G018	18	2	0.13	6.34	32.7	6.86	7.13	7.42	63.64	67.70	71.77
BMS13-67T02C02G016	16	2	0.13	6.72	25.6	7.21	7.52	7.82	72.12	76.74	81.33
BMS13-67T02C02G014	14	2	0.13	7.28	16.6	7.77	8.10	8.43	86.44	90.99	95.53
BMS13-67T02C03G022	22	3	0.13	5.89	82.4	6.35	6.68	7.01	64.74	68.86	73.00
BMS13-67T02C03G020	20	3	0.13	6.23	51.1	6.65	7.02	7.37	70.58	75.08	79.59
BMS13-67T02C03G018	18	3	0.13	6.79	32.7	7.29	7.60	7.90	85.37	90.81	96.26
BMS13-67T02C03G016	16	3	0.13	7.20	25.6	7.67	8.00	8.33	97.12	103.31	109.52
BMS13-67T02C03G014	14	3	0.13	7.80	16.6	8.28	8.60	8.94	117.08	123.24	129.41
BMS13-67T02C04G022	22	4	0.13	6.53	82.4	6.99	7.34	7.70	80.5	85.63	90.77
BMS13-67T02C04G020	20	4	0.13	6.92	51.1	7.34	7.71	8.10	87.78	93.39	98.98
BMS13-67T02C04G018	18	4	0.13	7.54	32.7	8.00	8.34	8.66	106.51	113.31	120.11
BMS13-67T02C04G016	16	4	0.13	8.00	25.6	8.43	8.80	9.14	122.21	130.01	137.80
BMS13-67T02C04G014	14	4	0.13	8.68	16.6	9.09	9.47	9.86	148.19	156.00	163.80





## HIGH TEMPERATURE & FIRE RESISTANT

# EN 2346-005 DW - DWB - DWC



Oil resistance  
Very good resistance  
to aircraft fluids

Use in the onboard electrical systems of aircraft.

Fireproof Cables, Single and Multicore Assembly Light Weight.

### CABLE DESIGN



#### Core

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)

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz

### IDENTIFICATION

#### Colors of cores

- 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 text: EN DW ++ FR F\*\* for single core  
EN DW A ++ FR F\*\* for multicore

- DW = short designation
- ++ = AWG
- FR = Country of origin (FR = France)
- F = Manufacturer (F = Nexans)
- \*\* = Year of production (ie. 14 = 2014)

### STANDARDS

International EN 2346-005



Fire resistant  
>10k Ω 15 min

Operating temperature  
-65°C to +260°C

## DIMENSIONS AND WEIGHTS

REFERENCE	Nb of cores	Size code (AECMA)	AWG	Max. DC Resistance at 20°C (Ω/km)	FINISHED CABLE		
					Diameter (mm)		Max. Weight (g/m)
					Min.	Max.	
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

HIGH TEMPERATURE & FIRE RESISTANT  
**EN 2346-005 DW - DWB - DWC**

DW

DWB

DWC





## HIGH TEMPERATURE & FIRE RESISTANT

# ESW 1200-010-XXX / ESW 1201-010-XXX



Oil resistance  
Very good resistance  
to aircraft fluids

### Aero engine services applications.

Fire Resistant Cable Single Core.

### CABLE DESIGN

#### Cores

Stranded conductor,  
Nickel clad copper alloy (ESW1200),  
Nickel clad copper (ESW1201)

#### Insulation

Fire resistant insulation,  
Polyimide tape,  
PTFE tape

### IDENTIFICATION

Color of core: White with a helical red stripe

Marking text: ESW 1200-010-xxx-FX-FF-\*\*  
ESW 1201-010-xxx-FX-FF-\*\*


xxx = Size Code,

\*\* = Year of manufacturing (ie. 14 = 2014)

### STANDARDS

National ESW 1201-010; ESW 1200-010

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V



Fire resistant



Operating temperature  
-65°C to +260°C



## DIMENSIONS AND WEIGHTS

REFERENCE	Size code (AECMA)	AWG	Max. DC Resistance at 20°C (Ω/km)	FINISHED CABLE		
				Diameter (mm)		Max. Weight (g/m)
				Min.	Max.	
<b>ESW1200-010</b>						
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
<b>ESW1201-010</b>						
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

HIGH TEMPERATURE & FIRE RESISTANT  
ESW 1200-010-XXX / ESW 1201-010-XXX





## HIGH TEMPERATURE & FIRE RESISTANT

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



Oil resistance  
Very good resistance  
to aircraft fluids

### Aero engine services applications.

Fire Resistant Cable, Single and Multi-cores Screened and Jacketed.

### CABLE DESIGN

#### Cores

Stranded conductor,  
Nickel clad copper alloy (ESW 1202),  
Nickel clad copper (ESW 1203)

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

Nickel plated copper braid

#### Jacket

PTFE tape(s)

### IDENTIFICATION

#### Core identification


Single core: White  
Two cores: Red, Blue  
Three cores: Red, Blue, Yellow  
Four cores: Red, Blue, Yellow, Green

#### Jacket identification

Color: White with narrow red stripe  
Marking text: ESW1202-+++-xxx-FX-FF-\*\*  
ESW1203-+++-xxx-FX-FF-\*\*

+++ = Form code  
xxx = Size code  
\*\* = Year of production (ie. 14 = 2014)

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V

### STANDARDS

National ESW 1203; ESW 1202



Fire resistant

Operating temperature  
-65°C to +260°C

HIGH TEMPERATURE & FIRE RESISTANT  
ESW 1202-+++XXX / ESW 1203-+++XXX

## DIMENSIONS AND WEIGHTS

REFERENCE	AWG	Size code (AECMA)	Nb of cores	Colors of cores	FINISHED CABLE			
					Max. DC Resistance at 20°C (Ω/km)	Diameter (mm)		Max. Weight (g/m)
						Min.	Max.	
<b>ESW 1202-+++XXX</b>								
ESW1202-012-004	22	004	1		95.0	2.40	3.25	22.5
ESW1202-012-006	20	006	1	White	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		96.9	3.89	5.35	43.5
ESW1202-022-006	20	006	2	1 Red, 1 Blue	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		96.9	4.10	5.65	55.7
ESW1202-032-006	20	006	3	1 Red, 1 Blue, 1 Yellow	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		96.9	4.55	5.95	66.5
ESW1202-042-006	20	006	4	1 Red, 1 Blue, 1 Yellow, 1 Green	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
<b>ESW 1203-+++XXX</b>								
ESW1203-012-004	22	004	1		87.9	2.40	3.25	22.5
ESW1203-012-006	20	006	1	White	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		89.66	3.89	5.35	43.5
ESW1203-022-006	20	006	2	1 Red, 1 Blue	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		89.66	4.10	5.65	55.7
ESW1203-032-006	20	006	3	1 Red, 1 Blue, 1 Yellow	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		89.66	4.55	5.95	66.5
ESW1203-042-006	20	006	4	1 Red, 1 Blue, 1 Yellow, 1 Green	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







## HIGH TEMPERATURE & FIRE RESISTANT

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



Oil resistance  
Very good resistance  
to aircraft fluids

### Use in essential services.

Fireproof Cable, Single Core.

### CABLE DESIGN

#### Cores

Stranded conductor,  
Nickel clad copper alloy (ESW1250),  
Nickel clad copper (ESW1251)

#### Insulation

Fire resistant insulation,  
Polyimide tape,  
PTFE tape

### IDENTIFICATION

Core identification: White with a helical red stripe

Marking text: ESW 1250-010-xxx-FX-FF-\*\*  
ESW 1251-010-xxx-FX-FF-\*\*


xxx = Size Code,

\*\* = Year of manufacturing (ie. 14 = 2014)

### STANDARDS

National ESW 1251-010; ESW 1250-010

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V



Operating temperature  
-65°C to +260°C

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

## DIMENSIONS AND WEIGHTS

REFERENCE	Size code (AECMA)	AWG	Max. DC Resistance at 20°C (Ω/km)	FINISHED CABLE		
				Diameter (mm)		Max. Weight (g/m)
				Min.	Max.	
<b>ESW1250-010</b>						
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
<b>ESW1251-010</b>						
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

HIGH TEMPERATURE & FIRE RESISTANT  
ESW 1250-010-XXX / ESW 1251-010-XXX





## HIGH TEMPERATURE & FIRE RESISTANT

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



Oil resistance  
Very good resistance  
to aircraft fluids

### Use in essential services.

Fireproof Cable, Single and Multi-cores Screened and Jacketed.

### CABLE DESIGN

#### Cores

Stranded conductor,  
Nickel clad copper alloy (ESW 1252),  
Nickel clad copper (ESW 1253)

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

Nickel plated copper braid

#### Jacket

PTFE tape(s)

### IDENTIFICATION

#### Core identification


Single core: White  
Two cores: Red, Blue  
Three cores: Red, Blue, Yellow  
Four cores: Red, Blue, Yellow, Green

#### Jacket identification

Color: White with narrow red stripe  
Marking text: ESW1252-+++-xxx-FX-FF-\*\*  
ESW1253-+++-xxx-FX-FF-\*\*

+++ = Form code  
xxx = Size code  
\*\* = Year of production (ie. 14 = 2014)

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V

### STANDARDS

National ESW 1253; ESW 1252



Fire resistant

Operating temperature  
-65°C to +260°C

## DIMENSIONS AND WEIGHTS

REFERENCE	AWG	Size code (AECMA)	Nb of cores	Colors of cores	FINISHED CABLE			
					Max. DC Resistance at 20°C (Ω/km)	Diameter (mm)		Max. Weight (g/m)
						Min.	Max.	
<b>ESW 1252-+++XXX</b>								
ESW1252-012-004	22	004	1		95.0	2.40	3.25	22.5
ESW1252-012-006	20	006	1	White	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		96.9	3.89	5.35	40.0
ESW1252-022-006	20	006	2	1 Red, 1 Blue	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		96.9	4.10	5.65	52.0
ESW1252-032-006	20	006	3	1 Red, 1 Blue, 1 Yellow	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		96.9	4.55	5.95	66.5
ESW1252-042-006	20	006	4	1 Red, 1 Blue, 1 Yellow, 1 Green	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
<b>ESW 1253-+++XXX</b>								
ESW1253-012-004	22	004	1		87.9	2.40	3.25	22.5
ESW1253-012-006	20	006	1	White	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		89.66	3.89	5.35	43.5
ESW1253-022-006	20	006	2	1 Red, 1 Blue	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		89.66	4.10	5.65	55.7
ESW1253-032-006	20	006	3	1 Red, 1 Blue, 1 Yellow	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		89.66	4.55	5.95	66.5
ESW1253-042-006	20	006	4	1 Red, 1 Blue, 1 Yellow, 1 Green	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

HIGH TEMPERATURE & FIRE RESISTANT  
ESW 1252-+++XXX / ESW 1253-+++XXX





## HIGH TEMPERATURE & FIRE RESISTANT

# ESW 1254-010-002



Oil resistance  
Very good resistance  
to aircraft fluids

### Use in Aero engine services.

Fireproof Cable, Two or Three-cores  
Twisted Screened and Jacketed.

### CABLE DESIGN

#### Cores

Stranded conductor,  
Nickel clad copper alloy  
002: 19 x 0.12 mm

#### Insulation

Fireproof insulation,,  
Polyimide tape,  
PTFE tape

### IDENTIFICATION

Core identification: White with a helical red stripe

Marking text: ESW1254-010-002-FX-FF-\*\*

FX = *Country of origin*


FF = *Manufacturer's code*

\*\* = *Year of production (ie. 14 = 2014)*

### STANDARDS

National ESW 1254-010-002

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V



Fire resistant



Operating temperature  
-65°C to +260°C



## DIMENSIONS AND WEIGHTS

REFERENCE	AWG	Size code	FINISHED CABLE			
			Max. DC Resistance at 20°C (Ω/km)	Diameter (mm)		Max. Weight (g/m)
				Min.	Max.	
ESW1254-010-002	24	002	131	1.20	1.65	9.50

**HIGH TEMPERATURE & FIRE RESISTANT  
ESW 1254-010-002**





## HIGH TEMPERATURE & FIRE RESISTANT

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



Oil resistance  
Very good resistance  
to aircraft fluids

### Use in Aero engine services.

Fireproof Cable, Two or Three-cores  
Twisted Screened and Jacketed.

### CABLE DESIGN

#### Cores

Stranded conductor,  
Nickel clad copper alloy  
002: 19 x 0.12 mm

#### Insulation

Fire resistant insulation,  
Polyimide tape,  
PTFE tape

#### Screen

Nickel plated copper braid

#### Jacket

PTFE tape(s)

### IDENTIFICATION

#### Core identification

Two cores (022): Red,Blue  
Three cores (032): Red,Blue,Yellow

#### Jacket identification


Color: White with narrow red stripe  
Marking text: ESW1254-022-002-FX-FF-\*\*

FX = Country of origin  
FF = Manufacturer's code  
\*\* = Year of production (ie. 14 = 2014)

### STANDARDS

National ESW 1254-022-002; ESW 1254-032-002

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V





Fire resistant



Operating temperature  
-65°C to +260°C



## DIMENSIONS AND WEIGHTS

REFERENCE	AWG	Size code	Nb of cores	Colors of cores	FINISHED CABLE				
					Max. DC Resistance at 20°C (Ω/km)	Diameter (mm)		Nom. Weight (g/m)	Max. Weight ESW/Spec. (g/m)
						Min.	Max.		
ESW1254-022-002	24	002	2	1 Red, 1 Blue	135	2.95	4.45	25	38
ESW1254-032-002	22	002	3	1 Red, 1 Blue, 1 Yellow	135	3.50	4.75	31	37

HIGH TEMPERATURE & FIRE RESISTANT  
ESW 1254-022-002 / ESW 1254-032-002





## HIGH TEMPERATURE & FIRE RESISTANT

# ESW 1602-022-XXX



Oil resistance  
Very good resistance  
to aircraft fluids

### Aero engine services applications.

Fire Resistant Cable, Thermocouple Nickel Chromium / Aluminium.

### CABLE DESIGN

#### Cores

Stranded conductor,  
Nickel Chromium / Nickel Aluminium

- 006: 19x0.20 mm
- 010: 19x0.25 mm
- 012: 19x0.30 mm
- 050: 61x0.32 mm

#### Insulation

Fire resistant,  
Polyimide tape,  
PTFE tape

#### Screen

Nickel plated copper braid

#### Jacket

PTFE tape(s)

### IDENTIFICATION


#### Core identification

Nickel chromium: White  
Nickel aluminium: Green

#### Jacket identification

Color: Green with red stripe  
Marking text: ESW1602-022-xxx-FX-FF-\*\*  
FX = Country of origin  
FF = Manufacturer's code  
\*\* = Year of production (ie. 14 = 2014)

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V

### STANDARDS

National ESW 1602-022



Fire resistant



Operating temperature  
-65°C to +260°C



## DIMENSIONS AND WEIGHTS

REFERENCE	AWG	Size code	FINISHED CABLE						
			DC Resistance at 20°C (Ω/km)				Diameter (mm)		Max. Weight (g/m)
			Nickel Chromium		Nickel Aluminium		Min.	Max.	
Min.	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	6.00	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

HIGH TEMPERATURE & FIRE RESISTANT  
ESW 1602-022-XXX





## HIGH TEMPERATURE & FIRE RESISTANT

# TYPE FRM-A-US / FRM-US



Oil resistance  
Very good resistance  
to aircraft fluids

**Aero engines, fire zone applications.**

High Temperature Fire Resistant Cables.

### CABLE DESIGN

#### Conductor

FRM-A-US nickel clad high strength copper alloy conductor (for AWG 22, 22H and 20)

FRM-US Nickel clad copper conductor (for other sizes)

#### Insulation

Inorganic barrier,  
Polyimide tape,  
PTFE tape



### IDENTIFICATION

None

### STANDARDS

International MIL W25038/3

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz



Fire resistant  
MIL-W-25038



Operating temperature  
-65°C to +260°C



## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	US AWG	CONDUCTOR			FINISHED WIRE				
		Strands (Nb/AWG)	Diameter (mm)		Max. DC Resistance at 23°C (Ω/km)	Diameter (mm)			Nom. Weight (g/m)
			Nom.	Max.		Min.	Nom.	Max.	
FRM-A-US 22	22	19/34	0.78	0.84	77.8	1.02	1.34	1.37	5.01
FRM-A-US 22H	22H	19/34	0.78	0.84	77.8	1.40	1.52	1.91	5.72
FRM-A-US 20	20	19/32	0.99	1.04	50.1	1.22	1.71	2.11	8.00
FRM-US 18	18	19/30	1.24	1.32	27.9	1.65	1.95	2.46	11.49
FRM-US 16	16	19/29	1.40	1.55	21.8	1.73	2.13	2.62	14.51
FRM-US 14	14	19/27	1.76	1.88	14.2	2.46	2.56	3.12	22.24
FRM-US 12	12	19/25	2.20	2.36	9.12	2.54	3.00	3.61	33.03

HIGH TEMPERATURE & FIRE RESISTANT  
TYPE FRM-A-US / FRM-US





## HIGH TEMPERATURE & FIRE RESISTANT



# TYPE TMF

**Heavy duty applications in aeroengines and high temperature areas.**

Oil resistance  
Very good resistance  
to aircraft fluids

High Temperature and Fire Resistant Aero-Engines Wires.

### CABLE DESIGN



#### Conductor

Stranded of Nickel clad copper conductor

#### Insulation

Special Fire Resistant,  
Composite Insulation,  
PTFE tape(s)

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz

### IDENTIFICATION

None

### STANDARDS

**International** MIL W25038/1

**National** Military QPL approval



Fire resistant  
MIL-W-25038

Operating temperature  
-65°C to +260°C

HIGH TEMPERATURE & FIRE RESISTANT  
TYPE TMF

## DIMENSIONS AND WEIGHTS

PART NUMBER	US AWG	CONDUCTOR			FINISHED WIRE			
		Strands (Nb/AWG)	Diameter (mm)		Max. Resistance at 20°C (Ω/km)	Diameter (mm)		Nom. Weight (kg/km)
			Nom.	Max.		Nom.	Max.	
TMF 0.38 G22	22	19 x 0.160	0.78	0.84	77.8	2.54	2.94	14.9
TMF 0.61 G20	20	19 x 0.203	0.98	1.04	47.9	2.77	3.17	17.9
TMF 0.93 G18	18	19 x 0.254	1.22	1.32	30.0	3.03	3.43	22.3
TMF 1.22 G16	16	19 x 0.287	1.40	1.55	22.5	3.23	3.73	28.3
TMF 1.94 G14	14	19 x 0.361	1.76	1.88	14.8	3.81	4.31	37.2
TMF 3.08 G12	12	19 x 0.455	2.20	2.36	9.12	4.20	4.70	52.1
TMF 5.00 G10	10	7 x 7 x 0.360	3.09	3.25	5.51	5.30	5.84	81.8
TMF 8.60 G8	8	19 x 7 x 0.287	4.05	4.47	3.07	6.50	7.12	127
TMF 13.60 G6	6	19 x 7 x 0.361	5.09	5.54	1.94	8.10	8.69	189
TMF 21.60 G4	4	19 x 7 x 0.455	6.42	6.91	1.23	9.70	10.4	286
TMF 33.70 G2	2	19 x 35 x 0.254	8.01	8.76	0.790	11.7	12.3	433
TMF 41.40 G1	1	19 x 43 x 0.254	8.88	9.75	0.643	12.6	13.6	516
TMF 53.00 G0	0	19 x 55 x 0.254	10.04	10.97	0.502	13.6	14.6	618
TMF 67.40 G00	00	19 x 70 x 0.254	11.33	12.45	0.394	15.1	16.1	774
TMF 84.70 G000	000	37 x 46 x 0.254	12.82	13.92	0.315	16.8	17.8	964
TMF 107.80 G0000	0000	37 x 57 x 0.254	14.27	15.62	0.253	18.5	19.6	1180





## HIGH TEMPERATURE & FIRE RESISTANT

# TYPE TMF-VRA-US-SJ / TMF-VR-US-SJ



Oil resistance  
Very good resistance  
to aircraft fluids

**Aero engines and high temperature applications.**

High Temperature Fire Resistant Shielded and Jacketed Cables.

### CABLE DESIGN

#### Conductor

TMF VRA-US Nickel Clad High Strength Copper Alloy Conductor (for AWG 26 to 20)

TMF VR-US Nickel Clad Copper Conductor (for other size)

#### Screen

Nickel coated copper braided screen

#### Jacket

PTFE tapes



### IDENTIFICATION

None

### STANDARDS

**International** MIL W25038/3; MIL-DTL-27500

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz





Fire resistant  
**MIL-W-25038**

Operating temperature  
**-65°C to +260°C**

## DIMENSIONS AND WEIGHTS

PART NUMBER	US AWG	Nb of cores	SCREEN		FINISHED CABLE				
			Strands (mm)	Nom. Overall Diameter (mm)	Max. Resistance at 20°C of cores (Ω/km)	Diameter (mm)		Weight (kg/km)	
						Nom.	Max.	Nom.	Max.
TMF VRA-US 1 SJ 26	26	1	0.10	1.45	197.18	2.09	2.19	10.02	10.52
TMF VRA-US 1 SJ 24	24	1	0.10	1.60	124.67	2.24	2.35	11.89	12.48
TMF VRA-US 1 SJ 22	22	1	0.10	1.76	77.78	2.40	2.52	14.21	14.92
TMF VRA-US 1 SJ 20	20	1	0.13	2.47	50.1	3.11	3.23	23.74	24.69
TMF VR-US 1 SJ 18	18	1	0.13	2.69	28.00	3.33	3.46	28.53	29.67
TMF VR-US 1 SJ 16	16	1	0.13	2.87	21.9	3.51	3.65	32.69	33.99
TMF VRA-US 2 SJ 26	26	2	0.13	2.62	201.12	3.26	3.42	17.97	18.87
TMF VRA-US 2 SJ 24	24	2	0.13	2.92	127.16	3.56	3.74	21.7	22.79
TMF VRA-US 2 SJ 22	22	2	0.13	3.24	79.40	3.88	4.07	26.34	27.65
TMF VRA-US 2 SJ 20	20	2	0.13	4.42	51.10	5.06	5.26	40.86	42.5
TMF VR-US 2 SJ 18	18	2	0.13	4.86	28.60	5.50	5.72	50.12	52.12
TMF VR-US 2 SJ 16	16	2	0.13	5.22	22.30	5.86	6.09	58.180	60.51
TMF VRA-US 3 SJ 26	26	2	0.13	2.78	201.12	3.42	3.59	22.48	23.61
TMF VRA-US 3 SJ 24	24	3	0.13	3.11	127.16	3.74	3.93	27.64	29.03
TMF VRA-US 3 SJ 22	22	3	0.13	3.45	79.40	4.09	4.29	34.14	35.85
TMF VRA-US 3 SJ 20	20	3	0.13	4.72	51.10	5.36	5.57	54.25	56.42
TMF VR-US 3 SJ 18	18	3	0.13	5.20	28.60	5.83	6.07	67.5	70.2
TMF VR-US 3 SJ 16	16	3	0.13	5.58	22.30	6.22	6.47	79.09	82.25

HIGH TEMPERATURE & FIRE RESISTANT  
**TYPE TMF-VRA-US-SJ / TMF-VR-US-SJ**





## HIGH TEMPERATURE & FIRE RESISTANT

# TYPE TMF VRA-US / TMF VR-US



Oil resistance  
Very good resistance  
to aircraft fluids

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

High Temperature Fire Resistant Cables.

### CABLE DESIGN

#### Conductor

TMF-VRA-US Nickel clad high strength copper alloy conductor (for AWG 22, 22H and 20)

TMF-VR-US Nickel clad copper conductor (for other sizes)

#### Insulation

Special Fire Resistant composite Insulation, PTFE tape(s)

### IDENTIFICATION

Color of cable: White

Marking color: Green

Marking text: M25038/3-\*\*-+ F0241

\*\* = AWG size



+ = Colour code

### STANDARDS

**International** MIL W25038/3

**National** Military QPL approval

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz



Fire resistant  
MIL-W-25038

Operating temperature  
-65°C to +260°C

## DIMENSIONS AND WEIGHTS

PART NUMBER	US AWG	CONDUCTOR			FINISHED WIRE			
		Strands nb x diam. (mm)	Diameter (mm)		Max. Resistance at 20°C (Ω/km)	Diameter (mm)		Max. Weight (kg/km)
			Nom.	Max.		Nom.	Max.	
TMF VRA-US 22	22	19 x 0.160	0.78	0.84	77.8	1.02	1.37	6.18
TMF VRA-US 22H	22	19 x 0.160	0.78	0.84	77.8	1.40	1.91	8.93
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	27.9	1.65	2.46	15.62
TMF VR-US 16	16	19 x 0.287	1.40	1.55	21.9	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	2.20	2.36	9.12	2.54	3.61	41.66

HIGH TEMPERATURE & FIRE RESISTANT  
TYPE TMF VRA-US / TMF VR-US





## HIGH TEMPERATURE & FIRE RESISTANT

# STUDY 124585



Oil resistance  
Very good resistance  
to aircraft fluids

**Aero engines and very high temperature applications.**

Very High Temperature Fire Resistant Wires.

### CABLE DESIGN

#### Core (Study 124521)

19 strands of nickel clad copper conductor,  
Strands diameter = 0.287 mm,

Special fire resistant composite  
insulation, Very high temperature.

#### Screen

Nickel clad copper helicoidal screen,  
Strands diameter = 0.13 mm

#### Jacket

Very high temperature resistant composite



### IDENTIFICATION

None

### STANDARDS

National BMS 13-55; ST 448 006 3 01 A

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	2000 Hz
Temperature rating	20000 hours at 300°C
Operating life (approx.)	30 hours at 370°C 300 hours at 350°C 330 hours at 310°C 2500 hours at 300°C 32840 hours at 260°C



Fire resistant  
BMS 13-55 & M25038



Operating temperature  
-65°C to +300°C



Fluids resistance  
According to BMS 13-55



HIGH TEMPERATURE & FIRE RESISTANT  
STUDY 124585

## DIMENSIONS AND WEIGHTS

REFERENCE	US AWG	Construction (N x mm)	CONDUCTOR				INSULATION		SCREEN		FINISHED CABLE		
			Diameter (mm)		DC Resistance (Ω/km)		Diameter (mm)		Diameter (mm)		Ext. diameter (mm)		Max. Weight (g/m)
			Min.	Max.	Max. at 20°C	Nom. at 370°C	Nom.	Max.	Strand	Nom.	Min.	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





## HIGH TEMPERATURE & FIRE RESISTANT

# TYPE 1050



Oil resistance  
Very good resistance  
to aircraft fluids

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

Operating voltage: 600 volts RMS

Operating temperature: -50°C to +250°C (ambient + rise)

Same characteristics as 2100 cores. Moreover, the overall polyimide and PTFE sheaths provide the following advantages:

Very good electrical insulation of the screen;  
Very efficient protection of the screen against oxydation and corrosion; Easy fitting of the cable; Good mechanical protection of the screen; Safer handling

Screened Cables for High Ambient Temperatures.

### CABLE DESIGN

#### Core

1, 2, or 3 cores, Type 2100.


#### Braid

Made up of nickel plated copper

#### Sheath

Polyimide, Wrapped and sintered PTFE sheath

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V

### IDENTIFICATION

None

### STANDARDS

**International** AIR 4524; MIL-W-22759 D

**National** BMS 13-58



Operating temperature  
-50°C to +250°C

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

HIGH TEMPERATURE & FIRE RESISTANT  
TYPE 1050

## DIMENSIONS AND WEIGHTS

TYPE	Nb of cores	Cross section area	AWG	Construction (n x mm)	2100 CORES		SCREEN AND PROTECTION			
					Overall diameter of the core (mm)	Color of cores	Screen strands diameter (mm)	PTFE outer sheath color (mm)	Max. Overall diameter (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

The currents shown are valid for single wires in air. For current ratings in bundle, see Air 7822 Specification  
N.P.C. = nickel plated copper

## TECHNICAL REQUIREMENTS AND CONTROL CONDITIONS

Cores: See data sheet on type '2100',

Screen: MIL-7078 of August 1971,

Coding: AIR 0107 A Specification of October 1961  
and Note N°348/SIB distributed under N°5927/STT/SIB 1961.





**HIGH TEMPERATURE & FIRE RESISTANT**



Oil resistance  
Very good resistance  
to aircraft fluids

## TYPE 1053

**Designed for general purpose aircraft wiring applications.**

High Temperature Cables.

Screened / Polyimide / PTFE / Sheathed

Same characteristics 2103 basic cores. Moreover the polyimide and PTFE protective sheath give the following advantages:

Very good electrical insulation of the screen,

Very efficient protection of the screen against oxydation and corrosion,

Easy fitting of the cable, Safer handling.

### CABLE DESIGN

#### Core

Type 2103


#### Screen

Nickel plated copper braided screen

#### Jacket

Polyimide,  
Wrapped and sintered,  
PTFE tape

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V

### IDENTIFICATION

None

### STANDARDS

International AIR 4524; MIL-C-7078C





Fire resistant

Operating temperature  
-90°C to +260°C

HIGH TEMPERATURE & FIRE RESISTANT  
TYPE 1053

## DIMENSIONS AND WEIGHTS

PART NUMBER	Nb of cores	AWG	SCREEN		FINISHED CABLE				IDENTIFICATION COLORS	
			Strands size (mm)	Nom. diam. (mm)	Diameter (mm)		Max. Weight (g/m)	Max. Resistance at 20°C of cores (Ω/km)	Cores	Sheath
					Nom.	Max.				
1053 1 x 0.21 G.24	1	24	0.10	2.05	2.40	2.60	15.00	8.40	Light Blue	Light Blue
1053 1 x 0.38 G.22	1	22	0.10	2.20	2.60	2.90	17.63	9.50	White	White
1053 1 x 0.60 G.20	1	20	0.10	2.30	2.70	3.00	20.04	12.50	Light Blue	Blue
1053 1 x 0.93 G.18	1	18	0.12	2.50	2.90	3.20	25.11	17.50	White	White
1053 1 x 1.34 G.16	1	16	0.12	3.10	3.50	4.10	35.90	21.50	Light Blue	Blue
1053 1 x 1.91 G.14	1	14	0.12	3.42	3.80	4.40	45.30	31.50	White	White
1053 2 x 0.21 G.24	2	24	0.12	3.80	4.20	4.50	28.30	8.40	Light Blue, Blue	Blue
1053 2 x 0.38 G.22	2	22	0.12	4.10	4.50	4.90	33.56	9.50	White, Blue	White
1053 2 x 0.60 G.20	2	20	0.12	4.30	4.70	5.20	38.42	12.50	Light Blue, Blue	Blue
1053 2 x 0.93 G.18	2	18	0.12	4.52	4.90	5.50	45.37	17.50	White, Blue	White
1053 2 x 1.34 G.16	2	16	0.12	5.72	6.10	7.10	66.19	21.50	Light Blue, Blue	Blue
1053 2 x 1.91 G.14	2	14	0.12	6.35	6.80	7.80	84.72	31.50	White, Blue	White
1053 3 x 0.21 G.24	3	24	0.12	4.05	4.40	5.00	37.78	8.40	Light Blue, Blue, Yellow	Light Blue
1053 3 x 0.38 G.22	3	22	0.12	4.37	4.75	5.40	45.33	9.50	White, Blue, Yellow	White
1053 3 x 0.60 G.20	3	20	0.12	4.60	5.00	5.60	52.38	12.50	Light Blue, Blue, Yellow	Blue
1053 3 x 0.93 G.18	3	18	0.12	4.82	5.2	5.80	62.56	17.50	White, Blue, Yellow	White
1053 3 x 1.34 G.16	3	16	0.12	6.10	6.50	7.50	92.41	21.50	Light Blue, Blue, Yellow	Blue
1053 3 x 1.91 G.14	3	14	0.12	6.80	7.20	8.40	119.49	31.50	White, Blue, Yellow	White
1053 4 x 0.21 G.24	4	24	0.12	4.48	4.85	5.30	46.51	8.40	Light Blue, Blue, Yellow, Green	Light Blue
1053 4 x 0.38 G.22	4	22	0.12	4.85	5.20	5.60	56.28	9.50	White, Blue, Yellow, Green	Yellow
1053 4 x 0.60 G.20	4	20	0.12	5.08	5.45	6.00	65.48	12.50	Light Blue, Blue, Yellow, Green	Blue
1053 4 x 0.93 G.18	4	18	0.12	5.35	5.70	6.20	78.84	17.50	White, Blue, Yellow, Green	White
1053 4 x 1.34 G.16	4	16	0.12	6.80	7.20	7.70	117.46	21.50	Light Blue, Blue, Yellow, Green	Blue
1053 4 x 1.91 G.14	4	14	0.12	7.57	7.95	8.50	152.93	31.50	White, Blue, Yellow, Green	White

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

## TECHNICAL REQUIREMENTS AND CONTROL CONDITIONS

Cores: See data sheet on type '2103',

Screen: To MIL-C-7078 Specification of August 1971,

Coding: To Air 0107 A Specification of October 1961  
and Note n°5927/STT/SIB of Mai 1961.





## HIGH TEMPERATURE & FIRE RESISTANT

# TYPE 2100



Oil resistance  
Very good resistance  
to aircraft fluids

**These Flexible Cables are designed for use at high ambient temperatures up to 289°C at peak, Excellent flame resistance, non-flammable.**

They withstand most solvent To AIR 4524, B.N.Aé, MIL-W-22759 D & B.M.S. 13-58

These cables are approved by the Air Ministry under letters: N°42707 STA/EQ/E2 (03-12-68)  
Registered at the B.N.Aé: N°6418 401

### CABLE DESIGN

#### Conductor

Stranded nickel plated copper,  
Thin wrapped PTFE layer

#### Insulation

Polyimide

#### 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


### IDENTIFICATION

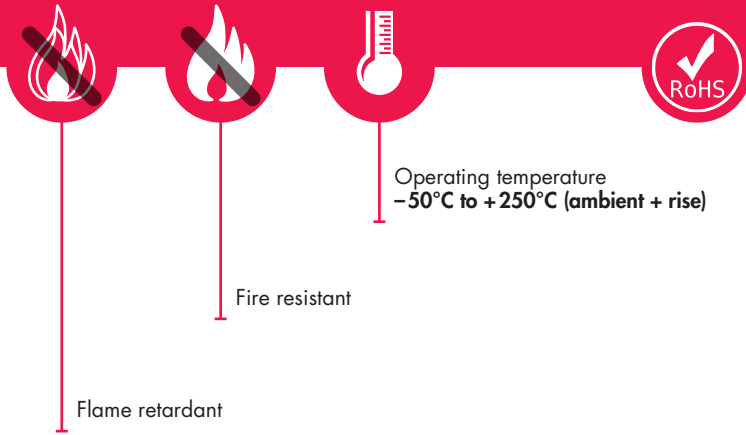
Color coding: According to AIR 0107 (10/1961).

### STANDARDS

**International** AIR 4524; MIL-W-22759 B

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V



HIGH TEMPERATURE & FIRE RESISTANT  
TYPE 2100

## DIMENSIONS AND WEIGHTS

TYPE	Nb of cores	Cross section	CONDUCTOR		CORE		ELECTRICAL VALUES		
			Construction (n x mm)	Diameter (mm)		Weight (g/m)		Max. DC Resistance at 20°C (Ω/km)	Current rating (A)
				Max.	Overall	Nom.	Max.		
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	3.90	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
2100	84.80	000	48 x 36 x 0.25	13.80	15.75 ± 1.15	965	980	0.25	328
2100	107.80	0000	61 x 36 x 0.25	15.80	17.50 ± 1.20	1150	1220	0.19	380

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

## TECHNICAL REQUIREMENTS AND CONTROL CONDITIONS

Air 4524 Specification of Septembre 1965 - Category 250/280°C  
NF.L 52-125A French Draft Specification - Category C, July 1978 - Standard cables.

### Interchangeability

MIL-W-22759 D Specification  
Index 8 A of June 1973 and MS 18001 (up to 12 AWG)





**HIGH TEMPERATURE & FIRE RESISTANT**



Oil resistance  
Very good resistance  
to aircraft fluids

## TYPE 2103

### Flexible Cables for High Ambient Temperatures.

Designed for general purpose aircraft wiring applications.  
AIR 4524 Specification – Category 250/280°C NF.L 52-125B – High temperature cable. These cables are approved by the Air Ministry under letters  
– N°34672 STA/EQ/E3 dated 25 May 1977.  
– N°34672 STA/EQ/E3 dated 22 December 1977.  
Registered at the B.N.Aé : N°6418 404 A.

#### CABLE DESIGN

##### Conductor

Stranded Nickel plated copper or Nickel plated copper alloy for 0.21 mm<sup>2</sup> cross section size (alloy providing a high mechanical resistance)

##### Laver

Thin PTFE

##### Insulation

Polyimide

##### Protective Insulation

Glass fiber tape coated with PTFE,  
Wrapped PTFE finish sheath



#### IDENTIFICATION

Color coding: According to AIR 0107 (10/1961).  
Other color codings on request  
(stripes or printed identification).

#### STANDARDS

International AIR 4524; MIL-W-22759 B

#### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz



Operating temperature  
-90°C to +260°C

Abrasion resistance  
**Good**

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

**HIGH TEMPERATURE & FIRE RESISTANT  
TYPE 2103**

## DIMENSIONS AND WEIGHTS

TYPE	Cross section	AWG	CONDUCTOR			CORE		ELECTRICAL VALUES		
			Construction (n x mm)	Max. Diameter (mm)	Tensile strength (daN)	Max. Overall diameter (mm)	Max. Weight (g/m)	Max. DC Resistance at 20°C (Ω/km)	Current rating (A)	
2103	0.21	24	19 x 0.12 N.P.All	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	

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





## HIGH TEMPERATURE & FIRE RESISTANT

# EN 4608-004 GPA, GPB, GPC



Oil resistance  
Very good resistance  
to aircraft fluids

### Use in the onboard electrical systems of aircraft.

Fireproof Cables, Single and Multicores Screened and Jacketed.

## CABLE DESIGN

### Cores

Stranded conductor, Nickel clad copper alloy for AWG 22, Nickel clad copper for other AWG

### Insulation

Fire resistant insulation, Polyimide tape, PTFE tape


### Screen

Nickel plated copper braid

### Jacket

UV PTFE tape(s)

## ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V

## IDENTIFICATION

### Core Identification

Color

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 text: EN DW A ++ FRF\*\*

### Jacket identification

Color: White with narrow red stripe

Marking text: EN ### ++ FRF\*\*

### = (single core: GPA, two cores: GPB, three cores: GPC)

++ = AWG size

FR = Country of origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of production (ie. 14 = 2014)

## STANDARDS

International EN 4608-004



Fire resistant  
>10k Ω 15 min

Operating temperature  
-65°C to +260°C

HIGH TEMPERATURE & FIRE RESISTANT  
**EN 4608-004 GPA, GPB, GPC**

## DIMENSIONS AND WEIGHTS

REFERENCE	Size code (AECMA)	AWG	Max. transfer impedance from 0 to 1 MHz (mΩ/m)	FINISHED WIRE				
				Nb of cores	Nom. Diameter of shield strands (mm)	Max. DC Resistance at 20°C (Ω/km)	Max. Diameter (mm)	Max. Weight (g/m)
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_0005B			
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	

GPA

GPB

GPC





## HIGH TEMPERATURE & FIRE RESISTANT

# ABS 0053 PL 22



Oil resistance  
Very good resistance  
to aircraft fluids

**Heavy duty applications in aeroengines and high temperature areas with good mechanical and electrical performances.**

Very High Temperature Fire Resistant Cables.  
Product designed according to: ABS0053.

### CABLE DESIGN

#### Cores

ASNE 0437 DL 22, Diameter :  $2.02 \pm 0.09$  mm

#### Assembly

2 cores twisted, Diameter:  $4.04 \pm 0.18$  mm,  
Max. weight : 20 g/m

### IDENTIFICATION

Color of cores: 1 core white with red stripe and  
1 core white with blue stripe

Color of marking: Green

Marking text: DL ++ FR F\*\*

++ = AWG

FR = Country of Origin (FR = France)

F = Manufacturer (F = Nexans)



\*\* = Year of manufacturing (ie. 14 = 2014)

### STANDARDS

**International** MIL-W-25038

**National** ASNE 0437 DL

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V RMS
	
Maximal operating frequency	0.002 MHz
Max. DC resistance of the conductor at 20°C	83.5 $\Omega$ /km





Fire resistant  
**MIL-W-25038**



Operating temperature  
**-55°C to +260°C**



**HIGH TEMPERATURE & FIRE RESISTANT  
ABS 0053 PL 22**



# AVIONICS & COAXIAL CABLES



## APPLICATION

This range of products' aim is to address the current need of the market interms of variety of solutions. The wide range of proposed impedances allow to find a product fitting in the various aboard systems. Nexans develops an increasing offer of IFE and optical cables to complete the "data cables" family. Some of our products are adapted for a bandwidth up to 8 GHz.

## ADVANTAGES

Lower diameter and a better bendability, together with bandwidth and data rate enhancement : our cables are designed to meet the stringest requirements of our consumers.

## MAIN PROPERTIES

- Flame retardant, low smoke and toxicity.
- Very good resistance to aircraft fluids.
- Moisture resistant.
- RoHS compliant.

## MAIN CHARACTERISTICS

- Maximum range of operating temperature: -65°C to +260°C.
- Impedance, capacitance, transmission characteristics.
- Transfer impedance.

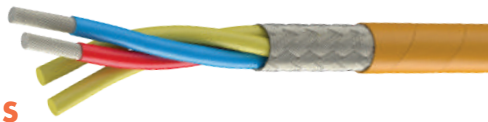
## STANDARDS

The cables are designed to withstand fire tests according to FAR/JAR part 25 sec 25.869 (a) (4) Appendix F part 1 (3) NFC 32070 C1.

They are conform to various customer specification and/or European Standards "EN" product norms.

# AVIONICS & COAXIAL CABLES

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# ABS 0386 WF

## Data bus cable application.

100 Ohms, AWG 24 Shielded Pair.

Oil resistance  
**Very good resistance to aircraft fluids**

### CABLE DESIGN

#### Conductor

Nickel plated copper alloy, PTFE insulation

#### Assembly

2 cores twisted with 2 fiber glass fillers

#### Braid

Nickel plated copper shield

#### Jacket

Polyimide tapes

### IDENTIFICATION

Color of cores: Light Blue, Red

Color of jacket: Amber



Marking tape under jacket: WF 24 FR F

\*\* = Year of manufacturing (ie. 14 = 2014)

### STANDARDS

Customer specification

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Voltage rating	600 VRMS
	
Characteristic impedance	100 ± 10 Ω at 5 MHz
Maximum capacitance	60 pF/m
Attenuation	0.03 dB/m at 1 MHz 0.06 dB/m at 5 MHz 0.12 dB/m at 10 MHz



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

Temperature  
 Operating  
 -55°C to +200°C

Bend radius installed  
 min. 25 mm

**AVIONICS AND COAXIAL CABLES**  
**ABS 0386 WF**

### DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	AWG	Composition N x d (mm)	CONDUCTOR			INSULATION		BRAID		FINISHED CABLE		Weight Max. (g/m)
			Diameter (mm)	Max. Ohmic resistance at 20°C (Ω/km)	Diameter (mm)	Diameter (mm)	Overall diameter (mm)					
							Nom.	Max.	Nom.	Max.		
STUDY 96897	24	19 x 0.12	0.59	0.62	117.5	1.4	1.5	0.08	3.12	3.30	3.50	23.4







## AVIONICS AND COAXIAL CABLES

# ABS 0963-003 LF

### Optical fibres and hybrids (optical + electrical) in harsh environment.

With these high mechanical, chemical and optical properties, this cable has been designed for harsh environments such as: aeronautics, geophysics, space, missile, chemical industry.

#### CABLE DESIGN

##### Optical fiber

Core, cladding, coating

Silica/Silica/Silicone type 62.5/125/400  $\mu\text{m}$

##### Primary jacket

Copolymer zero halogen

high temperature =  $0.90 \pm 0.05$  mm

##### Mechanical strength

Polymer aromatic fiber braid

##### Outer jacket

Copolymer zero halogen high temperature

= 1.50 mm (for info.)

+ ETFE =  $1.80 \pm 0.1$  mm

#### IDENTIFICATION

None

#### STANDARDS

International EN 4641-100

National ABS 0963-003 LF

#### CONNECTION

Stripping of primary jacket, buffer and coating.

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.



## KEY FEATURES

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
Minimum bend radius	Storage > 40 mm Long term > 20 mm Short term (installation) > 12 mm
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	4 dB/km at 850 nm 2 dB/km at 1310 nm
Effective index of refraction	1.4970 at 850 nm 1.4919 at 1310 nm
Numerical aperture	0.275 ± 0.015
Cable Bandwidth (MHz. km)	> 400 at 850 nm > 1000 at 1310 nm
Operating temperature	Long term: -55 to +125°C Peak: -65 to 150°C

**AVIONICS AND COAXIAL CABLES**  
**ABS 0963-003 LF**





# ABS 1503 KD 24

High speed data transmission – Ethernet networks – 100 Mbit/s and in-flight entertainment application.

Oil resistance  
Very good resistance to aircraft fluids

100 Ohms, AWG 24 Shielded Quad.

## CABLE DESIGN

### Conductor

Silver copper stranded, FEP insulated

### Assembly

4 cores + 1 FEP filler with wrapping tape

### Braid

Silver Copper shield

### Jacket

Clear Blue FEP for UV laser marking

## IDENTIFICATION

Color of cores: Blue, Red, Yellow, Green

Inkjet marking pitch length:  $\approx 300$  mm

Pitch length between the two next marking:  $\approx 150$  mm

Marking tape under jacket: AB KD 24 FR F\*\*

\*\* = Year of manufacturing (ie. 14 = 2014)

## STANDARDS

Customer specification

## ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

Loop resistance at 20°C	max. 19.2 $\Omega$ /100 m
Insulation resistance at 20°C	1500 M $\Omega$ .km
Impedance	100 $\Omega$ $\pm$ 15 $\Omega$ from 1 to 100MHz
Velocity of propagation	$\geq 70\%$
N.E.X.T.	> 68 15 x log (F) dB from 1 to 100MHz
Attenuation	2.1 dB/100m at 1 MHz 4.1 dB/100m at 4 MHz 6.5 dB/100m at 10 MHz 8.2 dB/100m at 16 MHz 9.3 dB/100m at 20 MHz 11.7 dB/100m at 31.25 MHz 17 dB/100m at 62.5 MHz 22 dB/100m at 100 MHz





Temperature  
 Operating: **-55°C to +125°C**  
 Storage: **-55°C to +200°C**

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

**AVIONICS AND COAXIAL CABLES**  
**ABS 1503 KD 24**

### DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	AWG	CONDUCTOR		INSULATION		BRAID		FINISHED CABLE		Nom. Weight (g/m)
		Composition N x d (mm)	Max. Ohmic resistance at 20°C (Ω/km)	Diameter (mm)		Diameter Strand (mm)	Diameter (mm)	Overall diameter (mm)		
				Min.	Max.			Min.	Max.	
ABS 1503 KD 24	24	19 x 0.13	192	1.35	1.45	0.10	3.90	4.20	4.60	40.28





## AVIONICS AND COAXIAL CABLES



# ASNE 0259 HE 24

**Data bus for aeronautic applications.**

125 Ohms, AWG 24 Single braid Polyimide jacket.

Oil resistance  
**Good**

### CABLE DESIGN

#### Conductor

Silver plated, high strength copper alloy,  
Extruded PTFE insulation

#### Assembly

2 cores

#### Braid

Nickel plated copper shield

#### Jacket

Polyimide tape(s)

### IDENTIFICATION

Color of cores: White, Brown

Color of jacket: Natural

### STANDARDS

Customer specification

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

Voltage withstanding	1500 V between conductors 1500 V between conductor and shield
Characteristic impedance	125Ω ± 15%
Mutual capacitance	40 pF/m
Attenuation	2.5 dB/100m at 500 kHz 3.1 dB/100m at 1 MHz



Temperature  
Operating: -55°C to +150°C

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

**AVIONICS AND COAXIAL CABLES**  
**ASNE 0259 HE 24**

### DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	AWG	CONDUCTOR		INSULATION		BRAID	FINISHED CABLE	
		Composition N x d (mm)	Max. Ohmic resistance at 20°C (Ω/km)	Diameter (mm)		Diameter Strand (mm)	Overall	Nom. Weight (g/m)
				Min.	Max.			
ASNE0259 HE 24	24	19 x 0.12	97.2	1.94	2.00	0.10	4.50	27





## AVIONICS AND COAXIAL CABLES



# ASNE 0293 XF

### Avionic interconnexion applications.

50 Ohms, Coaxial Cable.

Oil resistance  
Very good resistance  
to aircraft fluids

### CABLE DESIGN

#### Conductor

Silver plated copper

#### Insulation

Extruded PTFE

#### Braid

Dual Silver plated copper shield

#### Jacket

FEP

### IDENTIFICATION

Color of jacket: Brown

External sheath: Green marking

Marking tape under jacket: XF FR F\*\*

FR = Country of Origin (FR = France)

F = Manufacturer (F = Filotex®)



\*\* = Year of manufacturing (ie. 14 = 2014)

### STANDARDS

Customer specification,

US Military Specification

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Voltage rating	600 VRMS
Operating frequency	up to 10 GHz
Maximum ohmic resistance of conductor	29.6 $\Omega$ /km
	
Characteristic impedance	50 $\pm$ 2 $\Omega$
Nominal linear capacitance	95 pF/m at 1KHz
Nominal velocity of propagation	208 500 km/s (69.5%)

### ATTENUATION AND POWER HANDLING

Frequency (MHz)	Max. Rated Power at 40°C (W)	Mean Attenuation at 20°C (dB/100m)
10	3300	4.3
200	660	19
400	450	28
3000	150	95
10000	80	210



Temperature  
Operating: **-65°C to +200°C**

Bend radius installed  
**min. 50 mm**

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

**AVIONICS AND COAXIAL CABLES  
ASNE 0293 XF**

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	CONDUCTOR Composition N x d (mm)	INSULATION		BRAID		FINISHED CABLE	
		Diameter (mm)		Diameter (mm)		Diameter Max. (mm)	Nom. Weight (g/m)
		Nom.	Max.	Strand	Overall		
ASNE0293 XF	19 x 0.20	2.95	1.45	0.13	4.06	5.08	67





# SP 69899 – ASNE 0811 WY

## Bus lines for multiplexed transmission.

Oil resistance  
**Good**

Use for bus system MIL STD 1553.  
77 Ohms, AWG 26 Shielded Pair.

### CABLE DESIGN

#### Conductor

Silver plated copper alloy (EN2083)

#### Insulation

Extruded PTFE

#### Assembly

2 cores + 2 PTFE fillers

#### Shield

Silver plated copper 10/100

#### Jacket

FEP

### IDENTIFICATION

Color of cores: White, Blue

Color of jacket: White

Marking tape  
under jacket: FILOTEX FRANCE ET 69899\*\*

\*\* = Year of manufacturing (ie. 14 = 2014)




Red marking for the main line:  
(Nexans reference = ETUDE 6989901)

Blue marking for the branch line:  
(Nexans reference = ETUDE 6989902)

### STANDARDS

National ASNE 0811 WY

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Voltage rating	250 V
	
Voltage withstanding	1000 V between conductors 1000 V between conductors and shield
Jacket sperk test	5000 V
Insulation resistance	≥ 1500 MΩ.km
	
Characteristic impedance	77 ± 7Ω at 1 MHz
Nominal mutual capacitance	65 pF/m
Nominal capacitance	110 pF/m between 1 core and shield 180 pF/m between cores and shield
Nominal attenuation	3.5 dB/100 m at 1 MHz
Maximum transfer impedance	50 mΩ/m DC current 50 mΩ/m at 1 MHz 50 mΩ/m at 10 MHz 100 mΩ/m at 30 MHz



Temperature  
Operating:  
-65°C to  
+200°C

Static operating bending  
radius **min. 15 mm**

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

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	AWG	CONDUCTOR		INSULATION		BRAID	
		Composition N x d (mm)	Ohmic resistance at 20°C Max. (Ω/km)	Diameter Min. (mm)	Diameter Max. (mm)	Diameter strand (mm)	Diameter Max. (mm)
SP 69899	26	19 x 0.10	146	0.75	0.85	0.10	2

FINISHED CABLE		
Overall Diameter Min. (mm)	Overall Diameter Max. (mm)	Weight Max. (g/m)
2.40	2.60	19

AVIONICS AND COAXIAL CABLES  
**SP 69899 – ASNE 0811 WY**





# ECS 0745 KC



Oil resistance  
Very good resistance  
to aircraft fluids

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

75 Ohms, Triaxial Cable.

## CABLE DESIGN

### Conductor

Strands of high strength, Silver plated copper alloy

### Insulation

Fluorocarbon

### Braid

Silver plated copper double shield

### Inner jacket

Fluorocarbon

### Shield

Silver plated copper

### Outer jacket

Fluorocarbon

## IDENTIFICATION

Inner Jacket color: Blue

Outer Jacket color: Blue



Marking text: KC FR F\*\*

\*\* = Year of manufacturing

## STANDARDS

Customer specification

## ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

Dry test voltage between core and shield	2000 VAC
Inner and outer jacket dry impulse test	5000 V
 Maximum operating voltage	500 VRMS
Operating frequency	up to 3 GHz
Maximum ohmic resistance of conductor	384 Ω/km
Insulation resistance	≥ 5000 MOhms.km between conductor and shield ≥ 1500 MOhms.km between shields
 Characteristic impedance	75 ± 5 Ω
Maximum linear capacitance	60 pF/m at 1KHz
Transfer impedance	≤ 15 mOhms/m up to 100 MHz
Velocity of propagation	≥ 222 000 km/s (74% relative)



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

Temperature Operating:  
-65°C to +200°C

Dynamic operating bending radius **min. 35 mm**

Static operating bending radius **min. 17 mm**

RoHS

**AVIONICS AND COAXIAL CABLES**  
**ECS 0745 KC**

### DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	CONDUCTOR		INSULATION	BRAID		INNER JACKET	SHIELD	FINISHED CABLE	
	Composition N x d (mm)	Diameter (mm)	Max. Diameter (mm)	Diameter (mm)		Max. Diameter (mm)	Strands Diameter (mm)	Diameter (mm)	Max. Weight (g/m)
				Strand	Max.				
ECS 0745 KC	7 x 0.10	0.30 ±0.025	1.30	0.08	1.95	2.37	0.10	3.40 ±0.10	27

### ATTENUATION AND POWER HANDLING

Frequency (MHz)	Max. Rated Power at 40°C (W)	Mean 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





## AVIONICS AND COAXIAL CABLES

# ECS 0757 KE



Oil resistance  
**Good**

### Miniature Triaxial Cable.

#### CABLE DESIGN

##### Conductor

Silver plated copper alloy

##### Insulation

PTFE

##### Shield

Silver plated copper 10/100

##### Inner jacket

FEP

##### Shield

Silver plated copper 10/100

##### Outer jacket

FEP

##### Strippability

Mechanical device or automatic stripper

#### IDENTIFICATION

Inner and outer jacket color: transparent green with a marker tape placed beneath the outer jacket



Marking text: KE FR F\*\*

\*\* = Year of manufacturing

#### STANDARDS

Customer specification

#### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

Dry test voltage between core and shield	2000 VAC
Inner and outer jacket dry impulse test	5000 V
 Maximum operating voltage	900 VRMS
Operating frequency	up to 1.5 GHz
Maximum ohmic resistance of conductor	124 Ω/km
Insulation resistance	≥ 5000 MOhms.km between conductor and shield ≥ 1500 MOhms.km between shields
 Characteristic impedance	50 ± 2 Ω
Maximum linear capacitance	105 pF/m at 1KHz
Nominal velocity of propagation	208 500 km/s (69.5%)

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

Temperature Operating:  
-65°C to +200°C

Dynamic operating bending radius **min. 35 mm**

Static operating bending radius **min. 18 mm**

RoHS

### DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	CONDUCTOR		INSULATION	SHIELD	
	Composition N x d (mm)	Diameter Nom. (mm)	Diameter (mm)	Diameter Nom. (mm)	Coverage (%)
ECS 0757 KE	7 x 0.175	0.53	1.52 ± 0.08	1.98	≥ 65

### ATTENUATION AND POWER HANDLING

Frequency (MHz)	Max. Rated Power at 40°C (W)	Mean Attenuation at 20°C (dB/100m)
10	1400	9.5
100	430	35
200	300	49
500	190	77
1000	130	108
1500	110	133





# EN 3375-005C WV



Oil resistance  
Very good resistance  
to aircraft fluids

**Data bus cable for multiplexed transmission.**

77 Ohms, AWG 24 Pair Double Shielded High temperature.

## CABLE DESIGN

### Conductor

Silver plated high strength copper alloy  
Fluoropolymer insulation

### Assembly

2 cores twisted with 2 fillers

### Braid

Silver plated copper shield

### Jacket

Fluoropolymer UV laser markable

## IDENTIFICATION

Color of cores: Blue, White

Color of Jacket: White

### JACKET CODE "NONE"

Color of marking: Green

Marking text: EN WV 24 FRF\*\*

### JACKET CODE "C01"

Color of marking: Red for the main line

Marking text: EN WV R24 FRF\*\*

### JACKET CODE "C02"

Color of marking: Blue for the branch line



Marking text: EN WV B24 FRF\*\*

\*\* = Year of manufacturing (i.e 14 = 2014)

## STANDARDS

International EN 3375-005

## ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Voltage rating	600 VAC
	
Characteristic impedance	77 ± 7Ω at 1 MHz
Maximum capacitance	78 pF/m
Maximum attenuation	3.6 dB/100m at 1 MHz
Maximum transfert impedance	15 mΩ/m DC 0.025 mΩ/m at 1 MHz 0.025 mΩ/m at 10 MHz 0.1 mΩ/m at 30 MHz



Temperature  
Operating:  
-65°C to  
+200°C

Static operating bending  
radius **min. 40 mm**

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

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	AWG	CONDUCTOR				INSULATION		SHIELD	
		Composition N x d (mm)	Diameter (mm)		Ohmic resistance at 20°C (Ω/km) Max.	Diameter (mm)		Diameter (mm)	
			Nom.	Max.		Nom.	Max.	Strand	Max.
133189	24	19 x 0.12	0.59	0.62	109	1.05	1.30	0.10	3.75

FINISHED CABLE		
Overall diameter Nom. (mm)	Overall diameter Max. (mm)	Weight Max. (g/m)
3.85	4.10	43.3

**AVIONICS AND COAXIAL CABLES**  
**EN 3375-005C WV**





## AVIONICS AND COAXIAL CABLES

# EN 3375-006D XM



Oil resistance  
Very good resistance  
to aircraft fluids

**Data bus cable for aeronautic applications. Compatible RS 422.**

78 Ohms, AWG 24 Shielded Pair High temperature.

### CABLE DESIGN

#### Conductor

Silver plated high strength copper alloy  
Fluoropolymer insulation

#### Assembly

2 cores twisted

#### Braid

Nickel plated copper shield

#### Jacket

Polyimide Tapes

### IDENTIFICATION

Color of cores: Light Blue, Red

Color of Jacket: Natural

Color of marking: Black

Marking tape under jacket: XM 24 FRF\*\*

FR = Country of Origin (FR = France)



F = Manufacturer (F = Filotex®)

\*\* = Year of manufacturing (ie. 14 = 2014)

### STANDARDS

International EN 3375-006

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Voltage rating	600 VRMS
	
Impedance	78 ±7Ω from 1 to 200 MHz
Mutual capacitance	64 pF/m ± 10%
Maximum attenuation	0.035 dB/m at 1 MHz 0.15 dB/m at 10 MHz



Temperature  
Operating:  
-55°C to  
+200°C

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

AVIONICS AND COAXIAL CABLES  
**EN 3375-006D XM**

### DIMENSIONS AND WEIGHTS

NEXANS	AWG	Composition N x d (mm)	CONDUCTOR			INSULATION		SHIELD	FINISHED CABLE	
			Diameter (mm)		Max. Ohmic resistance at 20°C (Ω/km)	Diameter (mm)		Strand diameter (mm)	Overall	Weight Max. (g/m)
			Min.	Max.		Nom.	Max.			
133217	24	19 x 0.12	0.55	0.62	100	1.13	1.33	0.08	3.1	15





# EN 3375-007C WW – ECS 0700 WW

Oil resistance  
Very good resistance  
to aircraft fluids

**Data bus cable of multiplexed transmission.**

77 Ohms, AWG 26 Pair Double Shielded High temperature.

## CABLE DESIGN

### Conductor

Silver plated high strength copper alloy  
Fluoropolymer insulation

### Assembly

2 cores twisted with 2 fillers

### Braid

2 silver plated copper shields

### Jacket

Fluoropolymer UV laser markable

## IDENTIFICATION

Color of cores: Blue, White

Color of Jacket: White

### for ECS0700 & STUDY 132041

Color of marking: Black

Marking text: ECS0700 WW FR F\*\*

### for EN 3375-007

#### JACKET CODE "NONE"

Color of marking: Green

Marking text: EN WW 26 FRF\*\*

#### JACKET CODE "C01"

Color of marking: Red for the main line

Marking text: EN WW R 26 FRF\*\*



#### JACKET CODE "C02"

Color of marking: Blue for the branch line

Marking text: EN WW B 26 FRF\*\*

\*\* = Year of manufacturing (i.e 14 = 2014)

## ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Voltage rating	250 VAC
	
Characteristic impedance	77 ± 7Ω at 1 MHz
Maximum capacitance	75 pF/m
Maximum attenuation	4.1 dB/100m at 1 MHz
Maximum transfert impedance	30 mΩ/m DC 15 mΩ/m at 1 MHz 15 mΩ/m at 10 MHz 15 mΩ/m at 30 MHz

## STANDARDS

International EN 3375-007





Temperature  
Operating:  
-65°C to  
+200°C

Static operating bending  
radius **min. 20 mm**

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

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	AWG	CONDUCTOR				INSULATION		SHIELD	
		Composition N x d (mm)	Diameter (mm)		Ohmic resistance at 20°C (Ω/km) Max.	Diameter (mm)		Diameter (mm)	
			Nom.	Max.		Nom.	Max.	Strand	Max.
132041	26	19 x 0.11	0.49	0.53	153	0.80	0.85	0.08	2.40

FINISHED CABLE		
Overall diameter Nom. (mm)	Overall diameter Max. (mm)	Weight Max. (g/m)
2.90	3.10	21

**AVIONICS AND COAXIAL CABLES**  
**EN 3375-007C WW - ECS 0700 WW**





## AVIONICS AND COAXIAL CABLES

# EN 3375-009C WX – ET 133199



Oil resistance  
VDE 0472 part 803/B;  
UL1581; CEI EN 60811

**Data bus cable for aeronautic applications.**

120 Ohms, AWG 26 Shielded Pair High temperature.

### CABLE DESIGN

#### Conductor

Silver plated high strength copper alloy  
Aerated fluoropolymer insulation

#### Assembly

2 cores twisted with 2 aerated fillers

#### Braid

Silver plated copper shield

#### Jacket

Fluoropolymer

### IDENTIFICATION

Color of cores: Blue, Red



Color of Jacket: White

Color of marking: Black

Marking text: EN WX 26 FRF\*\*

\*\* = Year of manufacturing

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Voltage rating	600 VRMS
Maximum capacitance	45 pF/m
Nominal velocity of propagation	80%
	
Characteristic impedance	108 <math>Z_c</math> <math>< 132</math> at 1 MHz 100 <math>Z_c</math> <math>< 120</math> at 20 MHz
Maximum attenuation	3 dB/100 m at 1 MHz 8 dB/100 m at 5 MHz
Nominal transfert impedance	50 m $\Omega$ /m DC 50 m $\Omega$ /m at 1 MHz 50 m $\Omega$ /m at 10 MHz 100 m $\Omega$ /m at 30 MHz

### STANDARDS

International EN 3375-009

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

Temperature Operating:  
-55°C to +200°C

Dynamic operating bending radius **min. 30 mm**

Static operating bending radius **min. 20 mm**

RoHS

### DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	AWG	CONDUCTOR			INSULATION			BRAID	
		Composition N x d (mm)	Diameter (mm)		Ohmic resistance at 20°C (Ω/km) Max.	Diameter (mm)		Diameter (mm)	
			Nom.	Max.		Nom.	Max.	Nom.	Max.
133199	26	7 x 0.16	0.47	0.48	145	1.05	1.12	0.08	2.60

FINISHED CABLE		
Overall diameter Nom. (mm)	Overall diameter Max. (mm)	Weight Max. (g/m)
2.80	2.90	18

AVIONICS AND COAXIAL CABLES  
**EN 3375-009C WX - ET 133199**





## AVIONICS AND COAXIAL CABLES

# EN 4604-003 WZ



Oil resistance  
Very good resistance  
to aircraft fluids

**Designed for signal transmission application in aeronautic environment.**

50 Ohms Light Weight Coaxial Cable

Product designed according to: prEN 4604-001, -002 and -003.

Tested according to prEN 3475 and prEN 3838.

### CABLE DESIGN

#### Conductor

Solid silver plated copper

#### Insulation

Aerated fluoropolymer

#### Braid

Metallized foil, Silver plated copper shield

#### Jacket

Fluoropolymer UV laser marquable

### IDENTIFICATION

Color of jacket: White

Color of marking: Black

Marking text: EN WZ FRF\*\*

FR = Country of Origin (FR = France)


F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 14 = 2014)

### STANDARDS

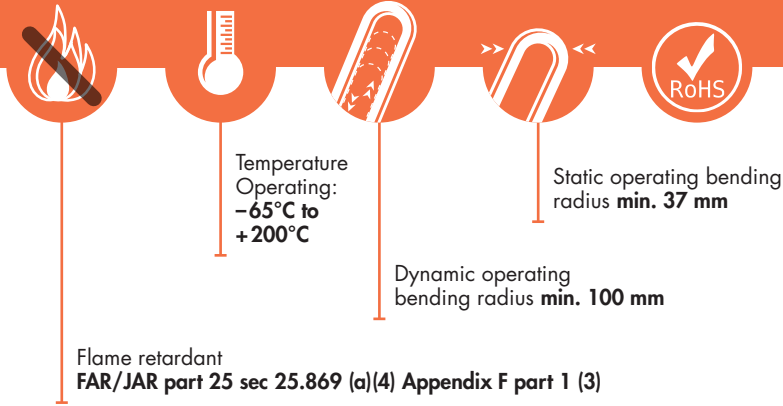
International EN 4604-003

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

Operating frequency	up to 3 GHz
Dielectric strength	4000 VAC
Insulation resistance	$\geq 1000 \text{ M}\Omega \cdot \text{km}$
 Characteristic impedance	$50 \pm 2 \Omega$
Maximum linear capacitance	88 pF/m
Minimum relative velocity of propagation	75%
Maximum transfer impedance	30 m $\Omega$ /m up to 3 GHz

### ATTENUATION AND POWER HANDLING

Frequency (MHz)	Max. Rated Power (W)	Max Attenuation at 20°C (dB/100m)
50	110	11
200	660	19
400	450	28
1000	250	47
3000	150	90



### DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	CONDUCTOR	INSULATION	BRAID	FINISHED CABLE	
	Diameter (mm)	Diameter (mm)	Diameter (mm)	Diameter (mm)	Max. Weight (g/m)
EN 4604-003 WZ	0.905 +/-0.025	2.35 ±0.15	3.05 ±0.15	3.55 ±0.15	30

**AVIONICS AND COAXIAL CABLES**  
**EN 4604-003 WZ**





## AVIONICS AND COAXIAL CABLES

# EN 4604-004 WS



Oil resistance  
Very good resistance  
to aircraft fluids

Designed for high frequency signal transmission in aircraft radio communication systems.  
Especially designed for high EMC performances.

50 Ohms, Coaxial Cable. Product designed according to :  
prEN 4604-001, -002, -004. Tested according to prEN 3475.

### CABLE DESIGN

#### Conductor

Silver plated copper

#### Insulation

Fluorocarbon

#### Shield

- 1st layer: Silver plated copper braid
- 2nd layer: High permeability tape
- 3rd layer: Silver plated copper braid

#### Jacket

2 polyimide tapes

### IDENTIFICATION

Color of jacket: Amber

Color of marking: Black

Marking text: EN WS FRF\*\*

FR = Country of Origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 14 = 2014)

### STANDARDS

International EN 4604-004

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

Operating frequency	up to 3 GHz
Dielectric strength	1500 VAC
Operating voltage	1300 VAC
Insulation resistance	$\geq 5000 \text{ M}\Omega \cdot \text{km}$
Characteristic impedance	$50 \pm 5 \Omega$
Linear capacitance	$95 \pm 10 \text{ pF/m}$
Nominal velocity of propagation	207 000 km/s (69% relative)
Transfer impedance	$\leq 45 \text{ m}\Omega/\text{m}$ up to 100 MHz

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

Temperature Operating:  
-55°C to +200°C

Dynamic operating bending radius **min. 28 mm**

Static operating bending radius **min. 15 mm**

RoHS

**AVIONICS AND COAXIAL CABLES**  
**EN 4604-004 WS**

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	CONDUCTOR		INSULATION	SHIELD		FINISHED CABLE		
	Composition N x d (mm)	Diameter (mm)	Diameter (mm)	Diameter strand (mm)		Diameter (mm)	Diameter (mm)	Max. Weight (g/m)
				1ST LAYER	3RD LAYER			
EN 4604-004 WS	7 x 0.16	0.48	1.50	0.085	0.085	2.20 ± 0.14	2.40 ± 0.16	20

## ATTENUATION AND POWER HANDLING

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





## AVIONICS AND COAXIAL CABLES

# EN 4604-005 WL



Oil resistance  
Very good resistance  
to aircraft fluids

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

75 Ohms, Coaxial Cable.

### CABLE DESIGN

#### Conductor

High strength silver plated copper alloy

#### Insulation

Fluorocarbon

#### Shield

Silver plated copper double shield

#### Jacket

Fluorocarbon

### IDENTIFICATION

Color of jacket: Blue

Color of marking: Black

Marking text: WL FRF\*\*

FR = Country of Origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 14 = 2014)

### STANDARDS

International EN 4604-005

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

Operating frequency	up to 3 GHz
Dielectric strength	2000 VAC
Maximum operating voltage	500 VRMS
Maximum ohmic resistance	384 Ω/km
Insulation resistance	≥ 5000 MΩ.km
Characteristic impedance	75 ± 5 Ω
Maximum linear capacitance	60 pF/m
Velocity of propagation	≥ 222 000 km/s (74% relative)
Maximum transfer impedance	30 mΩ/m up to 1 MHz 5 mΩ/m up to 20 MHz 30 mΩ/m up to 100 MHz



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

Temperature Operating:  
-55°C to +200°C

Dynamic operating bending radius **min. 25 mm**

Static operating bending radius **min. 15 mm**

RoHS

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	CONDUCTOR		INSULATION	BRAID	
	Composition N x d (mm)	Diameter (mm)	Diameter (mm)	Diameter (mm)	Diameter strand (mm)
EN 4604-005 WL	7 x 0.10	0.30 ± 0.025	1.30	1.85 ± 0.10	0.08

FINISHED CABLE	
Diameter Max. (mm)	Weight Max. (g/m)
2.35	12.5

## ATTENUATION AND POWER HANDLING

Frequency (MHz)	Max. Rated Power (W)	Max 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





## AVIONICS AND COAXIAL CABLES

# EN 4604-006 WM



Oil resistance  
Very good resistance  
to aircraft fluids

Designed for high frequency signal transmission  
in aircraft electrical systems.

50 Ohms, Coaxial Cable.

### CABLE DESIGN

#### Conductor

Solid silver plated copper

#### Insulation

Expanded PTFE

#### Shield

1st layer: Silver plated copper tape

2nd layer: Silver plated copper braid

#### Jacket

Violet FEP

### IDENTIFICATION

Color of jacket: Black

Marking text: EN WM FRF\*\*

FR = Country of Origin (FR = France)



F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 14 = 2014)

### STANDARDS

International EN 4604-006

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

Operating frequency	up to 5 GHz
Dielectric strength	2500 VAC
 Operating voltage	750 VAC
 Characteristic impedance	50 ± 3 Ω
Maximum linear capacitance	82 pF/m
Nominal velocity of propagation	243 000 km/s (81%)

### ATTENUATION AND POWER HANDLING

Frequency (MHz)	Max. Rated Power (W)	Max Attenuation at 20°C (dB/100m)
50	2800	8
100	2000	11.5
400	110	20.5
1000	600	40
5000	300	85

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

Temperature Operating:  
-55°C to +200°C

Dynamic operating bending radius **min. 70 mm**

Static operating bending radius **min. 25 mm**

RoHS

**AVIONICS AND COAXIAL CABLES**  
**EN 4604-006 WM**

### DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	INSULATION		SHIELD		FINISHED CABLE	
	Diameter (mm)	Diameter (mm)	Diameter (mm)	Diameter strand (mm)	Overall Diameter (mm)	Weight Max. (g/m)
EN 4604-006 WM	1.02 ± 0.03	2.84 ± 0.10	3.50 ± 0.20	0.10	3.85 ± 0.15	35





# EN 4604-007 WN



Oil resistance  
Very good resistance  
to aircraft fluids

Designed for high frequency signal transmission in aircraft electrical systems.

50 Ohms, Coaxial Cable.

## CABLE DESIGN

### Conductor

Solid silver plated copper

### Insulation

Expanded PTFE

### Shield

1st layer: Silver plated copper tape  
2nd layer: Silver plated copper braid

### Jacket

Violet FEP

## IDENTIFICATION

Color of jacket: Black

Marking text: EN WN FRF\*\*

FR = Country of Origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 14 = 2014)

## STANDARDS


International EN 4604-007

## ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

Operating frequency	up to 6 GHz
Dielectric strength	3000 VAC
Operating voltage	1000 VAC
Insulation resistance	≥ 5000 MΩ.km
Characteristic impedance	50 ± 3 Ω
Maximum linear capacitance	82 pF/m
Nominal velocity of propagation	243 000 km/s (81%)

## ATTENUATION AND POWER HANDLING

Frequency (MHz)	Max. Rated Power (W)	Max 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



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

Temperature Operating:  
-55°C to +200°C

Dynamic operating bending radius **min. 120 mm**

Static operating bending radius **min. 80 mm**

RoHS

**AVIONICS AND COAXIAL CABLES**  
**EN 4604-006 WN**

### DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	INSULATION			SHIELD		FINISHED CABLE	
	Diameter (mm)	Diameter (mm)	Diameter Max. (mm)	Diameter strand (mm)	Diameter Max. (mm)	Diameter (mm)	Max. Weight (g/m)
EN 4604-007 WN	2.30 ± 0.03	6.20 ± 0.10	1.30	0.20	7.50 ± 0.20	8.00 ± 0.20	145





# EN 4604-008 WD



Oil resistance  
Very good resistance  
to aircraft fluids

Designed for high frequency radio communications applications in aeronautic environment.

50 Ohms, Coaxial Cable. Product designed according to : prEN 4604-001,-002 and 008. Tested according to prEN 3475.

## CABLE DESIGN

### Conductor

Strand, Silver plated copper

### Insulation

Fluorocarbon

### 2 braids

Silver plated copper

### Jacket

Fluoropolymer

## IDENTIFICATION

Color of jacket: White

Color of marking: Black



Marking text: EN WD FRF\*\*

FR = Country of Origin (FR = France)

F = Manufacturer (F = Nexans)

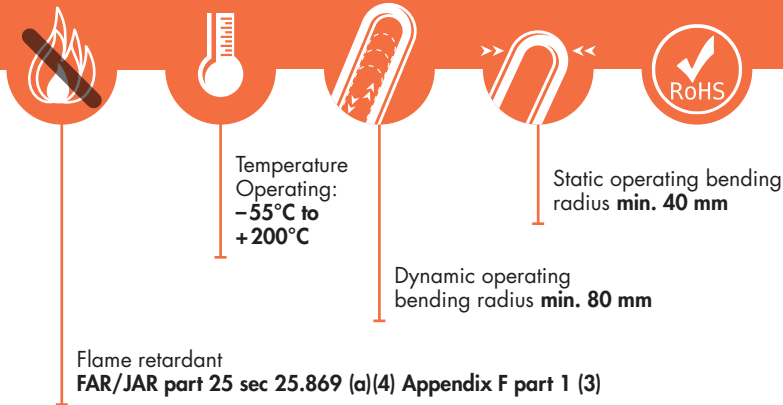
\*\* = Year of manufacturing (ie. 14 = 2014)

## ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

Operating frequency	up to 8 GHz
Dielectric strength	2500 VAC
 Corona extinction voltage	1500 VAC
Insulation resistance	≥ 5000 MΩ.km
 Characteristic impedance	50 ± 2 Ω at 200 MHz
Maximum linear capacitance	85 pF/m
Nominal velocity of propagation	240 000 km/s

## STANDARDS

International EN 4604-008



**AVIONICS AND COAXIAL CABLES**  
**EN 4604-008 WD**

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	CONDUCTOR		Diameter (mm)	BRAID Diameter (mm)	FINISHED CABLE Diameter (mm)	Weight (g/m)	
	Composition N x d (mm)	Diameter (mm)				Nom.	Max.
	EN 4604-008 WD	37 x 0.34	2.33 ± 0.05	6.0 ± 0.10	7.10 ± 0.10	7.70 ± 0.20	130

## ATTENUATION AND POWER HANDLING

Frequency (MHz)	Nom. Rated Power (W)	Max Attenuation at 20°C (dB/100m)	Max Return Loss
50	5700	5.0	1.1
100	4000	7.2	1.1
150	3100	9.1	1.1
200	2700	10.7	1.15
400	1800	16.1	1.15
1000	1000	28.6	1.15
1600	730	39.6	1.2
2500	530	55.0	1.2
3000	480	61.0	1.2
8000	250	110.0	1.35

## TRANSFERT IMPEDANCE

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





## AVIONICS AND COAXIAL CABLES



# EN 4604-009 KW

Designed for high frequency signal transmission in aircraft electrical systems.

Oil resistance  
Very good resistance  
to aircraft fluids

50 Ohms, Low Loss Weight Coaxial Cable.  
According to prEN 4604-009 P4.

### CABLE DESIGN

#### Conductor

Solid silver plated copper clad aluminum

#### Insulation

Expanded fluoropolymer

#### Shield

1st layer: Silver plated copper tape

2nd layer: Braid based on mix of silver plated copper clad aluminum wire and silver plated copper wire

#### Jacket

Fluoropolymer

### IDENTIFICATION

Color of jacket: Turquoise

Color of marking: Black

Marking text: EN KW FRF\*\*

FR = Country of Origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 14 = 2014)

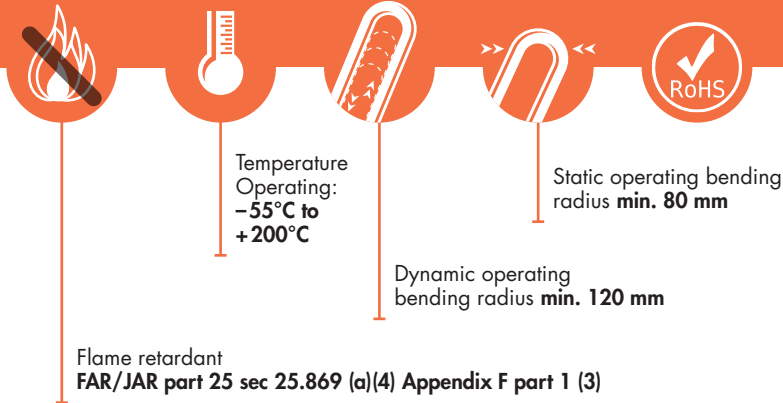
### STANDARDS

International EN 4604-009

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

Operating frequency	up to 6 GHz
Dielectric strength	3000 VAC
Operating voltage	1000 VAC
Minimum insulation resistance	5000 MΩ.km
Characteristic impedance	50 ± 3 Ω at 200 MHz
Maximum linear capacitance	88 pF/m
Minimum velocity of propagation	81%
Maximum conductor ohmic resistance	7.15 Ω/km





**AVIONICS AND COAXIAL CABLES**  
**EN 4604-009 KW**

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	CONDUCTOR	INSULATION	SHIELD		FINISHED CABLE		
	Diameter (mm)	Diameter (mm)	Diameter (mm)	Diameter strand (mm)	Diameter (mm)	Weight Nom. (g/m)	Weight Max. (g/m)
EN 4604-009 KW	2.30 ± 0.02	6.0 ± 0.10	6.87 ± 0.20	0.13	7.65 ± 0.15	85	95

Maximum transfer impedance | 20 MΩ/m up to 400 MHz

## ATTENUATION AND POWER HANDLING

Frequency (MHz)	Max Attenuation at 20°C (dB/100m)	Max 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 4604-010 KX

**Designed for high frequency signal transmission in aircraft electrical systems.**

Oil resistance  
Very good resistance to aircraft fluids

50 Ohms, Low Loss Light Weight Coaxial Cable.  
Product designed according to : EN 4604-001,-002 and -010.  
Tested according to EN 3475.

## CABLE DESIGN

### Conductor

Solid silver plated copper

### Insulation

Fluoropolymer

### Shield

1st layer: Silver plated copper tape  
2nd layer: Silver plated copper braid

### Jacket

Fluoropolymer

## IDENTIFICATION

Color of jacket: Light Green

Color of marking: Black

Marking text: EN KX FRF\*\*

FR = Country of Origin (FR = France)



F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 14 = 2014)

## STANDARDS

International EN 4604-010

## ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

Operating frequency	up to 6 GHz
Dielectric strength	2500 VAC
 Operating voltage	1000 VRMS max.
Minimum insulation resistance	5000 MΩ.km
 Characteristic impedance	50 ± 2 Ω at 200 MHz
Maximum linear capacitance	88 pF/m
Maximum relative velocity of propagation	75%
Maximum conductor ohmic resistance	11.53 Ω/km

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

Temperature Operating:  
-55°C to +200°C

Dynamic operating bending radius **min. 50 mm**

Static operating bending radius **min. 30 mm**

RoHS

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	CONDUCTOR	INSULATION	SHIELD		FINISHED CABLE		
	Diameter (mm)	Diameter (mm)	Diameter (mm)	Diameter strand (mm)	Diameter (mm)	Weight Nom. (g/m)	Weight Max. (g/m)
EN 4604-010 KX	1.40 ± 0.02	4.20 +0.10/0.15	4.80 ± 0.20	0.13	5.40 ± 0.15	74	80

## ATTENUATION AND POWER HANDLING

Frequency (MHz)	Max Attenuation at 20°C (dB/100m)	Max Return Loss
50	5.5	1.10
100	7.8	1.10
150	9.7	1.10
200	11	1.15
400	15.5	1.15
1000	24.5	1.15
1600	31.5	1.20
2500	38.9	1.20
3000	43.8	1.20
6000	63.5	1.35

## TRANSFERT IMPEDANCE

Maximum Values (mΩ/m)	9.0 from 0 to 0.01 MHz
	9.0 at 0.1 MHz
	5.0 at 1 MHz
	1.8 at 5 MHz
	1.0 at 10 MHz
	0.5 at 30 MHz
	0.5 at 100 MHz





# EN 4608-005B – GPB 24

Use in the onboard electrical systems of aircraft.

Oil resistance  
Very good resistance  
to aircraft fluids

120 Ohms, AWG 24 Fireproof Cable for Data Transmission.  
Two cores twisted screened and jacketed.

## CABLE DESIGN

### Conductor

AWG 24, Nickel clad copper alloy

### Insulation

Fire resistant insulation, Polyimide tape, PTFE tape

### Assembly

2 cores twisted

### Braid

0.12 mm, Nickel plated copper shield

### Jacket

UV PTFE tape(s)

## IDENTIFICATION

Color of cores: White with a helical red stripe  
White with a helical blue stripe

Color of Jacket: White with a narrow red stripe

Marking text: EN GPB 24 FRF\*\*

FR = Country of Origin (FR = France)


F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 14 = 2014)

## STANDARDS

International EN 4608-005

## ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Voltage rating	600 VRMS
Operating frequency	up to 125 KHz
Capacitance	85 pF/m at 100 KHz
Impedance	120 ± 20% Ω at 100 KHz
Transfert impedance	< 30 mΩ at 100 KHz
Attenuation	< 1.6 dB/100m at 100 KHz



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

Fire resistant  
**>10k Ω 15 min**

Temperature  
 Operating:  
**-65°C to  
 +260°C**

### DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	SIZE CODE	AWG	CONDUCTOR		INSULATION	FINISHED CABLE		
			Composition N x d (mm)	Ohmic resistance at 20°C Max. (Ω/km)	Diameter Nom. (mm)	Number of cores	Diameter Max. (mm)	Weight Max. (g/m)
EN 4608-005B 002	002	24	19 x 0.12	135	1.60	2	4	27.5

**AVIONICS AND COAXIAL CABLES**  
**EN 4608-005B - GPB 24**





## AVIONICS AND COAXIAL CABLES

# NSA 935 355 XS



Oil resistance  
Very good resistance  
to aircraft fluids

Designed for high frequency interconnections.

Product designed according to: NSA935355.

### CABLE DESIGN

#### Conductor

Silver plated copper covered steel

#### Insulation

Extruded PTFE

#### Shield

Double braid of silver plated copper

#### Jacket

PTFE tape(s), Glass fiber

### IDENTIFICATION

Color of jacket: Brown

Color of marking: White

Marking text: XS FR F\*\*

FR = Country of Origin (FR = France)

F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 17 = 2017)

### STANDARDS

Customer specification

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

Operating frequency	up to 10 GHz
Dielectric strength	10000 V
Operating voltage	3700 VRMS max.
Minimum insulation resistance	5000 MΩ.km
Characteristic impedance	50 ± 2 Ω at 200 MHz
Maximum linear capacitance	105 pF/m
Nominal relative velocity of propagation	69%
Maximum conductor ohmic resistance	5.68 Ω/km

### ATTENUATION AND POWER HANDLING

Frequency (MHz)	Mean Attenuation at 20°C (dB/100m)
10	2
200	9.5
400	15
3000	52



Temperature  
Operating:  
-90°C to  
+250°C

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

**AVIONICS AND COAXIAL CABLES**  
**NSA 935 355 XS**

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	CONDUCTOR		INSULATION	SHIELD	JACKET	
	Composition N x d (mm)	Diameter (mm)	Diameter (mm)	Diameter strand (mm)	Diameter (mm)	Weight Max. (g/m)
NSA 935 355 XS	7 x 0.81	2.40	7.25 ± 0.13	0.16	10.90 ± 0.25	270





## AVIONICS AND COAXIAL CABLES

# NSA 935 344 XE



Oil resistance  
Very good resistance  
to aircraft fluids

Designed for high frequency interconnections.

### CABLE DESIGN

#### Conductor

Silver plated copper covered steel

#### Insulation

Extruded PTFE

#### Braid

Silver plated copper shield

#### Jacket

White PTFE tapes

### IDENTIFICATION

Color of jacket: White

Marking text: XE FR F \*\*

FR = Country of Origin (FR = France)



F = Manufacturer (F = Nexans)

\*\* = Year of manufacturing (ie. 14 = 2014)

### STANDARDS

International NSA 935344 XE

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

Maximum operating frequency	1.8 GHz
 Voltage rating	900 VRMS
Nominal capacitance	95 pF/m
 Impedance	50 ± 2 Ω at 200 MHz
Nominal attenuation	0.8 dB/100 m at 900 MHz





Temperature  
Operating:  
**max +250°C**

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

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	CONDUCTOR		INSULATION	SHIELD	JACKET	
	Composition <b>N x d</b> (mm)	Diameter (mm)	Diameter (mm)	Diameter strand (mm)	Diameter (mm)	Weight Max. (g/m)
NSA 935 344 XE	7 x 0.17	0.51	1.52 ± 0.07	0.10	2.70 ± 0.10	18

**AVIONICS AND COAXIAL CABLES**  
**NSA 935 344 XE**





## AVIONICS AND COAXIAL CABLES

# PAN 6422



Oil resistance  
Very good resistance  
to aircraft fluids

### PTFE Coaxial Laser Markable Cables.

For general purpose coaxial cables.

#### CABLE DESIGN

##### Conductor

Stranded conductors: see table on this data sheet

##### Insulation

Extruded PTFE

##### Shield

Silver plated copper single or double braid

##### Jacket

Polyimide tape, UV Laser PTFE Tape(s),  
(Munsell colour limits 5YR 6/4 to 5YR 7/4)

#### IDENTIFICATION

None

#### STANDARDS

International MIL C17, National PAN 6422

#### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

NEXANS REFERENCE	MIL-C-17 PART NUMBER	NOMINAL IMPEDANCE $\Omega$	ATTENUATION				VOLT Max. (RMS)	OPERATING FREQUENCY Max. (MHz)
			(dB/100 m at 10 MHz)	(dB/100 m at 100 MHz)	(dB/100 m at 400 MHz)	(dB/100 m at 1000 MHz)		
PAN 6422 XQ	M17/172-00001 (RG316/U)	50	10.7	37.4	65.6	101.5	900	1000
PAN 6422 XR	M17/175-00001 (RG400/U)	50	3.96	14.4	31.6	53.	1400	
PAN 6422 XT	M17/169-00001 (RG178/U)	50	18.45	46.0	92.0	151.0	750	
PAN 6422 XU	URM 107	50	1.7	6.3	13.6	23.4	3500	
PAN 6422 XY	M17/94-RG179 (RG179/U)	50	17.45	32.9	52.5	79.0	900	
PAN 6422 XZ	M17/95RG180 (RG180/U)	50	3.96	14.4	31.6	53.2	1100	



Temperature  
Operating:  
**max +200°C**



Bending radius, fixed  
installation **min. 6 mm (xD)**



## DIMENSIONS AND WEIGHTS

NEXANS REFERENCE	MIL-C-17 PART NUMBER	CONDUCTOR		INSULATION	
		Composition strand N x d (mm)	Nature	Nom. Diameter (mm)	Diameter Nom. (mm)
PAN 6422 XQ	M17/172-00001 (RG316/U)	7 x 0.175	SPCCS	0.51	1.52
PAN 6422 XR	M17/175-00001 (RG400/U)	19 x 0.195	SPC	0.96	2.95
PAN 6422 XT	M17/169-00001 (RG178/U)	7 x 0.1016	SPCCS	0.30	0.82
PAN 6422 XU	URM 107	7 x 0.82	SPC	2.46	7.25
PAN 6422 XY	M17/94-RG179 (RG179/U)	7 x 0.1016	SPCCS	0.30	1.60
PAN 6422 XZ	M17/95RG180 (RG180/U)	7 x 0.1016	SPCCS	0.30	2.59

NEXANS REFERENCE	MIL-C-17 PART NUMBER	SHIELD		FINISHED CABLE	
		Number	Nature	Diameter Nom. (mm)	Nom. Weight (kg/m)
PAN 6422 XQ	M17/172-00001 (RG316/U)	1	SPC	2.22	14
PAN 6422 XR	M17/175-00001 (RG400/U)	2	SPC	4.28	58
PAN 6422 XT	M17/169-00001 (RG178/U)	1	SPC	1.54	7.2
PAN 6422 XU	URM 107	1	SPC	8.66	180
PAN 6422 XY	M17/94-RG179 (RG179/U)	1	SPC	2.30	14
PAN 6422 XZ	M17/95RG180 (RG180/U)	1	SPC	3.29	26





# STUDY 65529 – PAN 6421 ZA 002



Oil resistance  
**Good**

## Cable, Special Electric, MIL-STD-1553B DATA BUS.

77 Ohms, AWG 24 Shielded Pair.

### CABLE DESIGN

#### Conductor

Silver plated copper alloy

#### Insulation

Polyimide/FEP, Tape plus dispersion

#### Assembly

2 cores + 2 PTFE fillers

#### Inner screen

0.08 mm silver plated copper braid

#### Outer screen

0.08 mm silver plated copper braid

#### Jacket

Extruded FEP, 0.20 mm minimum wall thickness

### IDENTIFICATION

Color of cores: Red, Blue

Color of jacket: Blue



Marking text: PAN 6421 ZA 002 FR F\*\*

\*\* = Year of manufacturing

### STANDARDS

National PAN 6421 ZA; SP-P99301-00-P

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Voltage rating	600 VRMS
	
Characteristic impedance	77 ± 3 Ω
Mutual capacitance	98.4 pF/m
Maximum attenuation	4.92 dB/100 m



Temperature  
Operating:  
-65°C to  
+150°C

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

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	AWG	CONDUCTOR		INSULATION		BRAID
		Composition N x d (mm)	Ohmic resistance at 20°C Max. (Ω/km)	Diameter Nom. (mm)	Diameter Max. (mm)	Diameter strand (mm)
STUDY 65529	24	19 x 0.118	112	1.22	1.26	0.08

FINISHED CABLE		
Overall Diameter Min. (mm)	Overall Diameter Max. (mm)	Weight Max. (g/m)
3.15	3.80	29

AVIONICS AND COAXIAL CABLES  
**STUDY 65529 – PAN 6421 ZA 002**





## AVIONICS AND COAXIAL CABLES

# STUDY 124843 – ASNE 0849 HJ 26



Oil resistance  
**Good**

### General Electronic Wiring.

75 Ohms, AWG 26 - Twinaxial cable high immunity.

#### CABLE DESIGN

##### Conductor

Stranded conductors  
Nickel plated high strength copper alloy

##### Insulation

Polyimide tape(s), PTFE Topcoat

##### Assembly

2 cores twisted

##### 1st Shield

Nickel Plated Copper Braid, High immunity tapes

##### 2nd Shield

Nickel plated copper braid, High immunity tapes

##### Jacket

FEP

#### IDENTIFICATION

Color of cores: Light Blue, Red

Color of jacket: White

Black marking of the external sheath: HJ 26 FR F\*\*

FR = Country of Origin (FR = France)


F = Manufacturer (F = Filotex)

\*\* = Year of Manufacturing (ie. 14 = 2014)

#### STANDARDS

National ASNE 0849 HJ

#### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Voltage rating	600 VRMS
Max impedance	75 Ohms
Transfer impedance	28 mOhms/m DC current 8.70 mOhms/m at 10 kHz 0.85 mOhms/m at 100 kHz 0.008 mOhms/m at 2 MHz



Temperature  
Operating:  
-65°C to  
+200°C

Static operating bending  
radius **min. 30 mm**

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

### DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	AWG	CONDUCTOR		INSULATION	1ST BRAID	2ND BRAID
		Composition N x d (mm)	Ohmic resistance at 20°C Max. (Ω/km)	Diameter Max. (mm)	Diameter strand (mm)	Diameter strand (mm)
STUDY 124843	26	19 x 0.10	165	0.85	0.08	0.10
FINISHED CABLE						
Overall Diameter Max. (mm)		Weight Max. (g/m)				
3		22				

AVIONICS AND COAXIAL CABLES  
**STUDY 124843 – ASNE 0849 HJ 26**





# STUDY 61333 – SP 554

## Bus lines for multiplexed transmission.

Oil resistance  
**Good**

Approved by the Defense Ministry under letters N°8981/STTE/CTG (10/09/1986).  
Registered at B.N.Aé N°6415 401.  
75 Ohms, AWG 22 Pair Double Shielded.

### CABLE DESIGN

#### Conductor

AWG 22, Silver plated copper

#### Insulation

Extruded PTFE

#### Assembly

2 cores + 2 PTFE fillers

#### 1st Braid

Silver plated copper 12/100

#### Tape

High permeability alloy

#### 2nd Braid

Silver plated copper 12/100

#### Jacket

Polyimide PTFE

### IDENTIFICATION




Color of cores: White, Blue

Color of jacket: White

Marking tape  
under jacket: \*\*

\*\* = Year of manufacturing (ie. 14 = 2014)

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Voltage rating	600 V
	
Voltage withstanding	2000 VRMS between conductors 2000 VRMS between conductors and shield
Jacket spark test	5000 V
Insulation resistance	> 5000 MΩ.km under 500 V
	
Characteristic impedance	75 ± 5 Ω
Nominal mutual capacitance	65 ± 5 pF/m
Capacitance unbalance	≤ 5%
Nominal attenuation	2.6 dB/100 m at 1 MHz 10 dB/100 m at 10 MHz
Transfer impedance	2.5 x 10 <sup>-5</sup> Ω/m





Temperature  
Operating:  
-65°C to  
+200°C

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

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	AWG	CONDUCTOR		INSULATION		ASSEMBLY	BRAID	
		Composition N x d (mm)	Ohmic resistance at 20°C Max. (Ω/km)	Diameter Min. (mm)	Diameter Max. (mm)	Diameter Nom. (mm)	Diameter strand (mm)	Diameter Nom. (mm)
STUDY 61333	22	19 x 0.16	50.2	1.47	1.53	3	0.12	4.06

FINISHED CABLE		
Overall Diameter Min. (mm)	Overall Diameter Max. (mm)	Weight Max. (g/m)
4.30	4.80	55.4

**AVIONICS AND COAXIAL CABLES**  
**STUDY 61333 - SP 554**





# STUDY 124960

## Bus lines for multiplexed transmission.

77 Ohms, AWG 26 Shielded Pair.

Oil resistance  
**Good**

### CABLE DESIGN

#### Conductor

Silver plated copper alloy (EN2083)

#### Insulation

Extruded PTFE

#### Assembly

2 cores + 2 PTFE fillers

#### Shield

Silver plated copper 10/100

#### Jacket

UV laser markable ETFE

### IDENTIFICATION

Color of cores: White, Blue

Color of jacket: White

Marking text: FILOTEX FRANCE ET 124960\*\*

\*\* = Year of Manufacturing (ie. 14 = 2014)

Red marking for the main line  
(Nexans reference : ETUDE 12496001)

Blue marking for the branch line  
(Nexans reference : ETUDE 12496002)

### STANDARDS

International EN 3375

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Voltage rating	250 V
	
Voltage withstanding	1000 V between conductors 1000 V between conductors and shield
Jacket sperk test	1000 V
Insulation resistance	≥ 1500 MΩ.km
	
Characteristic impedance	77 ± 7 Ω at 1 MHz
Nominal mutual capacitance	65 pF/m
Nominal capacitance	110 pF/m between 1 core and shield 180 pF/m between cores and shield
Nominal attenuation	3.5 dB/100 m at 1 MHz
Maximum transfer impedance	50 mΩ/m DC current 50 mΩ/m at 1 MHz 50 mΩ/m at 10 MHz 100 mΩ/m at 30 MHz



Temperature  
Operating:  
-65°C to  
+150°C

Static operating bending  
radius **min. 15 mm**

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

AVIONICS AND COAXIAL CABLES  
**STUDY 124960**

### DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	AWG	CONDUCTOR		INSULATION		BRAID	
		Composition N x d (mm)	Ohmic resistance at 20°C Max. (Ω/km)	Diameter Nom. (mm)	Diameter Max. (mm)	Diameter strand (mm)	Diameter Max. (mm)
STUDY 124960	26	19 x 0.10	146	0.75	0.85	0.10	2

FINISHED CABLE		
Overall Diameter Min. (mm)	Overall Diameter Max. (mm)	Weight Max. (g/m)
2.40	2.60	19





## AVIONICS AND COAXIAL CABLES

# STUDY 96770 – ASNE 0479 WJ EN 3375-004B



Oil resistance  
**Good**

**Bus lines for multiplexed transmission.**

77 Ohms, AWG 24 Pair Double Shielded.

### CABLE DESIGN

#### Conductor

AWG 24  
Silver plated copper alloy (EN 2083)

#### Insulation

Extruded PTFE

#### Assembly

2 cores twisted + 2 PTFE fillers

#### 1st Shield

Tin plated copper 10/100

#### 2nd Shield

Tin plated copper 10/100

#### Jacket

FEP jacket

### IDENTIFICATION

Color of cores:

Color of jacket:

Marking text: FILOTEX FRANCE ET 96770\*\*

\*\* = Year of manufacturing




Red marking for the main line  
(EN 3375-004 B01 Nexans reference: ETUDE 9677001)

Blue marking for the branch line  
(EN 3375-004 B02, Nexans reference: ETUDE 9677002)

### STANDARDS

International EN 3375

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

 Voltage rating	250 V
 Voltage withstanding	1000 V between conductors 1000 V between conductors and shield
Jacket sperk test	1000 V
Insulation resistance	$\geq 1500 \text{ M}\Omega \cdot \text{km}$
 Characteristic impedance	$77 \pm 7 \Omega$ at 1 MHz
Nominal mutual capacitance	65 pF/m
Nominal capacitance	110 pF/m between 1 core and shield 180 pF/m between cores and shield
Nominal attenuation	2.7 dB/100 m at 1 MHz
Maximum transfer impedance	15 m $\Omega$ /m DC current 5 m $\Omega$ /m at 1 MHz 5 m $\Omega$ /m at 10 MHz 10 m $\Omega$ /m at 30 MHz



Temperature  
Operating:  
-65°C to  
+150°C

Static operating bending  
radius **min. 20 mm**

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

## DIMENSIONS AND WEIGHTS

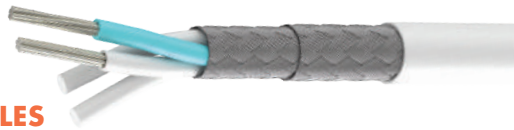
NEXANS REFERENCES	AWG	CONDUCTOR		INSULATION		ASSEMBLY
		Composition N x d (mm)	Ohmic resistance at 20°C Max. (Ω/km)	Diameter Min. (mm)	Diameter Max. (mm)	Diameter Nom. (mm)
STUDY 96770	24	19 x 0.12	109	0.95	1.15	2.10

BRAID		FINISHED CABLE		
Diameter strand (mm)	Diameter Max. (mm)	Overall Diameter Min. (mm)	Overall Diameter Max. (mm)	Weight Max. (g/m)
0.10	3.50	3.40	3.90	37

**AVIONICS AND COAXIAL CABLES**  
**STUDY 96770 – ASNE 0479 WJ – EN 3375-004B**





# STUDY 69794 – EN 3375-004C WJ

**Data bus cable for multiplexed transmission.**

Oil resistance  
**Good**

77 Ohms, AWG 24 Pair Double Shielded High Temperature.

## CABLE DESIGN

### Conductor

Silver plated high strength copper alloy

### Insulation

Fluoropolymer

### Assembly

2 cores twisted with 2 fillers

### Braid

2 silver plated copper shields

### Jacket

Fluoropolymer

## IDENTIFICATION

Color of cores: Blue, White

Color of jacket: White

**JACKET CODE "NONE"**

Colour of marking: Green

**JACKET CODE "01"**

Colour of marking: Red for the main line

**JACKET CODE "02"**

Colour of marking: Blue for the branch line



Marking text: FILOTEX FRANCE ET 69794\*\*

\*\* = Year of manufacturing

## STANDARDS

International EN 3375-004

## ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Voltage rating	600 VAC
	
Characteristic impedance	77 ± 7 Ω
Maximum capacitance	78 pF/m
Maximum attenuation	3.6 dB/100m at 1 MHz
Maximum transfer impedance	15 mΩ/m DC 5 mΩ/m at 1 MHz 5 mΩ/m at 10 MHz 10 mΩ/m at 30 MHz



Temperature  
Operating:  
-65°C to  
+200°C

Static operating bending  
radius **min. 26 mm**

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

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	AWG	CONDUCTOR				INSULATION	
		Composition N x d (mm)	Diameter Nom. (mm)	Diameter Max. (mm)	Ohmic resistance at 20°C Max. (Ω/km)	Diameter Nom. (mm)	Diameter Max. (mm)
STUDY 69794	24	19 x 0.12	0.59	0.62	109	1.05	1.30

BRAID		FINISHED CABLE		
Diameter strand (mm)	Diameter Max. (mm)	Overall Diameter Nom. (mm)	Overall Diameter Max. (mm)	Weight Max. (g/m)
0.10	3.50	3.65	3.90	37

**AVIONICS AND COAXIAL CABLES**  
**STUDY 69794 – EN 3375-004C WJ**





## AVIONICS AND COAXIAL CABLES

# STUDY 132873

### Data bus cable for aeronautic applications.

100 Ohms, AWG 24 Shielded Pair Fireproof Cable.

#### CABLE DESIGN

##### Conductor

Nickel clad copper alloy

##### Insulation

Fire resistant

Polyimide Tape

PTFE Tape

##### Assembly

2 cores twisted

##### Braid

Nickel Plated Copper shield

##### Jacket

PTFE Tape(s)

#### IDENTIFICATION

Color of cores: Blue, Red

Color of jacket: Light Blue with narrow red



Marking text: ET 132873 FRF\*\*

\*\* = Year of Manufacturing (ie. 14 = 2014)

#### STANDARDS

National ESW 1254-010

#### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

Operating frequency	125 kHz
 Voltage rating	600 VRMS
Maximum capacitance	85 pF/m
 Characteristic impedance	100 $\Omega$ at 1MHz
Maximum attenuation	1.6 dB/100m at 0.1 MHz
Maximum transfer impedance	30 m $\Omega$ /m at 0.1 MHz





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

Fire resistant  
**>10k  $\Omega$  15 min**

Temperature  
 Operating:  
**-65°C to  
 +260°C**

RoHS

**AVIONICS AND COAXIAL CABLES  
 STUDY 132873**

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	AWG	CONDUCTOR				INSULATION	
		Composition N x d (mm)	Ohmic resistance at 20°C Max. ( $\Omega$ /km)	Diameter Nom. (mm)	Diameter (mm)	Diameter Nom. (mm)	Diameter Max. (mm)
STUDY 132873	24	19 x 0.12	135	0.58	0.62	1.58	1.65

BRAID		FINISHED CABLE		
Diameter strand (mm)	Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Overall Diameter Max. (mm)	Weight Max. (g/m)
0.12	3.64	4.12	4.45	38





# STUDY 124961

**Bus lines for multiplexed transmission.**

77 Ohms, AWG 24 Shielded Pair.

Oil resistance  
**Good**

## CABLE DESIGN

### Conductor

Silver plated copper alloy (EN2083)

### Insulation

Extruded PTFE

### Assembly

2 cores + 2 PTFE fillers

### Shield

Silver plated copper 10/100

### Jacket

UV laser markable ETFE

## IDENTIFICATION

Color of cores: White, Blue

Color of jacket: White

Marking text: FILOTEX FRANCE ET 124961 \*\*

\*\* = Year of Manufacturing (ie. 14 = 2014)




Red marking for the main line  
(EN 3375004C01, Nexans reference:  
ETUDE 12496101)

(EN 3375004C02, Nexans reference:  
ETUDE 12496102)

## STANDARDS

International EN 3375

## ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Voltage rating	250 V
	
Voltage withstanding	1000 V between conductors 1000 V between conductors and shield
Jacket sperk test	1000 V
Insulation resistance	≥ 1500 MΩ.km
	
Characteristic impedance	77 ± 7 Ω at 1 MHz
Nominal mutual capacitance	65 pF/m
Nominal capacitance	110 pF/m between 1 core and shield 180 pF/m between cores and shield
Nominal attenuation	2.7 dB/100 m at 1 MHz
Maximum transfer impedance	15 mΩ/m DC current 5 mΩ/m at 1 MHz 5 mΩ/m at 10 MHz 10 mΩ/m at 30 MHz



Temperature  
Operating:  
-65°C to  
+150°C

Static operating bending  
radius **min. 20 mm**

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

AVIONICS AND COAXIAL CABLES  
**STUDY 124961**

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	AWG	CONDUCTOR		INSULATION		ASSEMBLY	BRAID	
		Composition N x d (mm)	Ohmic resistance at 20°C Max. (Ω/km)	Diameter Nom. (mm)	Diameter Max. (mm)	Diameter Nom. (mm)	Diameter strand (mm)	Diameter Max. (mm)
STUDY 124961	24	19 x 0.12	109	0.95	1.15	2.10	0.10	3.50

FINISHED CABLE		
Overall Diameter Min. (mm)	Overall Diameter Max. (mm)	Weight Max. (g/m)
3.40	3.90	37





## AVIONICS AND COAXIAL CABLES

# STUDY 124962



Oil resistance  
Very good resistance  
to aircraft fluids

**Recommended for Aeronautics uses and miniature systems.**

Laser UV miniature Coaxial Cable 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 marquability.

### CABLE DESIGN

#### Conductor

Silvered alloy

#### Insulation

Expanded PTFE

#### Shield

Silver plated copper double braid

#### Jacket

Laser UV ETFE markable

#### Strippability

Mechanical device or automatic stripper

### IDENTIFICATION




Color of jacket: Green

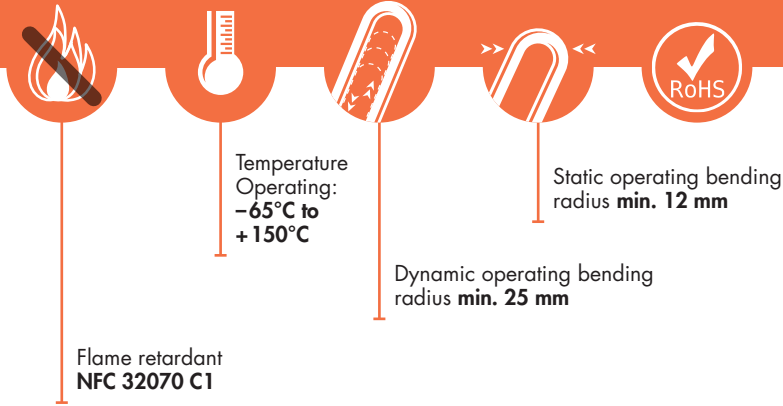
### STANDARDS

International MIL C17

National NF C 93550

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Voltage rating	250 V Eff 50 Hz
	
Voltage withstanding	3000 V Eff 50 Hz between dielectric and shield
Jacket spark test	5000 V impulse
DC resistance at 20°C	≤ 144 Ω/km
Insulation resistance	≥ 1500 MΩ.km between dielectric and shield ≥ 1500 MΩ.km jacket
Linear capacitance	90 pF/m nominal at 1 kHz 100 pF/m maximal at 1 kHz
	
Characteristic impedance	50 ± 5 Ω
Nominal velocity of propagation	228 000 km/s (76%)



## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	CONDUCTOR		BRAID			
	Composition <b>N x d</b> (mm)	Diameter <b>Nom.</b> (mm)	Diameter <b>Nom.</b> (mm)	Diameter <b>strand</b> (mm)	Coverage (%)	Diameter <b>Nom.</b> (mm)
STUDY 124962	19 x 0.098	0.48	1.35	0.07	≥ 85	2

FINISHED CABLE		
Diameter (mm)	Weight <b>Nom.</b> (g/m)	Weight <b>Max.</b> (g/m)
2.35 ± 0.05	13	14

## ATTENUATION AND POWER HANDLING

Frequency (MHz)	Mean Attenuation at 20°C (dB/100m)
10	9
100	26
200	37
500	65
1000	106
1500	133





## AVIONICS AND COAXIAL CABLES

# STUDY 124964



Oil resistance  
Very good resistance  
to aircraft fluids

**Recommended for Aeronautics uses and miniature systems.**

Laser UV miniature Triaxial Cable 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. Basic core: STUDY 124962.

### CABLE DESIGN

#### Conductor

Silver copper alloy

#### Insulation

Expanded PTFE

#### Shield

Silver plated copper 7/100

Silver plated copper 10/100

#### Inner Jacket

FEP

#### Outer jacket

Laser UV ETFE markable

### IDENTIFICATION




Color of jacket: Green

### STANDARDS

International MIL C17

National NF C 93-550

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Voltage rating	250 V Eff 50 Hz
	
Voltage withstanding	3000 V Eff 50 Hz between dielectric and shield
Jacket spark test	5000 V impulse
DC resistance at 20°C	≤ 144 Ω/km
Insulation resistance	≥ 1500 MΩ.km between dielectric and shield ≥ 1500 MΩ.km jacket
Linear capacitance	90 pF/m nominal at 1 kHz 100 pF/m maximal at 1 kHz
	
Characteristic impedance	50 ± 5 Ω
Nominal relative of propagation	228 000 km/s (76%)

Fire resistant  
NFC 32070 C1

Temperature  
Operating:  
-65°C to  
+150°C

Dynamic operating bending  
radius **min. 35 mm**

Static operating bending  
radius **min. 17 mm**

RoHS

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	CONDUCTOR		1ST SHIELD			INNER JACKET	
	Diameter Nom. (mm)	Diameter Nom. (mm)	Diameter strand (mm)	Coverage (%)	Diameter Nom. (mm)	Diameter (mm)	
STUDY 124964	19 x 0.098	0.48	1.35	2	≥ 62	2.80	2.35 ± 0.05

FINISHED CABLE		
Overall Diameter (mm)	Weight Nom. (g/m)	Weight Max. (g/m)
3.45 ± 0.10	27	30

## ATTENUATION AND POWER HANDLING

Frequency (MHz)	Mean Attenuation at 20°C (dB/100m)
10	9
100	26
200	37
500	65
1000	106
1500	133



## STUDY 132574

### Multimode Fibre Optic Cable 62.5/125.

Applications: harsh environments such as: aeronautics, geophysics, space, missile, chemical industry.

#### CABLE DESIGN

##### Optical fiber

Core, cladding, coating

Silica/Silica/Silicone type 62.5/125/400  $\mu\text{m}$

##### Outer jacket

Copolymer zero halogen high temperature

Diameter: 0.90 mm  $\pm$  0.05 mm

##### Sheath color

Black

#### IDENTIFICATION

None

#### STANDARDS

International EN 4641-101

#### CONNECTION

Stripping of primary jacket , buffer and coating. 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.





## KEY FEATURES

Mechanical properties	<ul style="list-style-type: none"> <li>Small diameter</li> <li>Low weight</li> <li>High temperature</li> <li>High flexibility</li> <li>Low bending radius</li> <li>Easy strippability</li> </ul>
Optical properties	<ul style="list-style-type: none"> <li>High bandwidth</li> <li>Low cost ferrules (Telecom components)</li> </ul>
Chemical properties	<ul style="list-style-type: none"> <li>High chemical resistance to on board fluids</li> <li>Very low smoke and toxicity</li> <li>No flame propagation</li> </ul>
Minimum bend radius	<ul style="list-style-type: none"> <li>Long term &gt; 10 mm</li> <li>Short term (installation) &gt; 6 mm</li> </ul>
Maximum pulling force	10 N/s
Maximum attenuation at 20°C	<ul style="list-style-type: none"> <li>4 dB/km at 850 nm</li> <li>2 dB/km at 1310 nm</li> </ul>
Effective index of refraction	<ul style="list-style-type: none"> <li>1.4970 at 850 nm</li> <li>1.4919 at 1310 nm</li> </ul>
Numerical aperture	0.275 ± 0.015
Cable Bandwidth (MHz. km)	<ul style="list-style-type: none"> <li>&gt; 400 at 850 nm</li> <li>&gt; 1000 at 1310 nm</li> </ul>
Operating temperature	<ul style="list-style-type: none"> <li>Long term: -55 to +125°C</li> <li>Peak: -65 to 150°C</li> </ul>





## AVIONICS AND COAXIAL CABLES



# STUDY 132868

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

Oil resistance  
Very good resistance to aircraft fluids

CAC 875 75  
Ohms Coaxial Cable, UV Laser Marquable.

### CABLE DESIGN

#### Conductor

High strength silver plated copper alloy

#### Insulation

Fluorocarbon dielectric with low epsilon

#### Braid

Silver plated copper double shield

#### Inner Jacket

ETFE

#### Shield

Silver plated copper

#### Outer jacket

Laser UV ETFE  
Max. diameter = 2.37 mm  
Max. weight = 12.5 g/m

### IDENTIFICATION

Color of inner jacket: Light blue

Color of outer jacket: Light blue

Marking text:




\*\* = Year of Manufacturing (ie. 14 = 2014)

### STANDARDS

International prEN 3475

prEN 4604-001, -002 and SP132869

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

Operating frequency	up to 3 GHz
 Maximum operating voltage	900 VRMS
 Dry test voltage	2000 VAC between core and shield
Jacket dry impulse test	5000 V
Maximum ohmic resistance of conductor	384 $\Omega$ /km
Insulation resistance	$\geq 5000$ M $\Omega$ .km
 Characteristic impedance	75 $\pm$ 5 $\Omega$
Maximum linear capacitance	60 pF/m
Velocity of propagation	$\geq 222\,000$ km/s (74% relative)

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

Temperature Operating:  
-65°C to +150°C

Dynamic operating bending radius **min. 35 mm**

Static operating bending radius **min. 17 mm**

RoHS

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	CONDUCTOR		Diameter Nom. (mm)	BRAID		FINISHED CABLE	
	Composition N x d (mm)	Diameter (mm)		Diameter Min. (mm)	Diameter Max. (mm)	Diameter Max. (mm)	Weight Max. (g/m)
STUDY 132868	7 x 0.10	0.30 ± 0.025	1.30	0.08	1.95	2.37	12.5

## ATTENUATION AND POWER HANDLING

Frequency (MHz)	Max. Rated Power (W)	Max Attenuation at 20°C (dB/100m)
50	1250	23
100	900	30
200	600	43
300	450	53
400	400	63





# STUDY 132869

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

Oil resistance  
Very good resistance to aircraft fluids

CAC 876 75  
Ohms Triaxial Cable, UV Laser Markable.

## CABLE DESIGN

### Conductor

High strength silver plated copper alloy

### Insulation

Fluorocarbon dielectric with low epsilon

### Braid

Silver plated copper double shield

### Inner Jacket

ETFE

### Shield

Silver plated copper

### Outer Jacket

Laser UV ETFE

Max. diameter = 2.37 mm

Max. weight = 12.5 g

## IDENTIFICATION




Color of inner jacket: Light blue

Color of outer jacket: Light blue

## STANDARDS

International prEN 3475,  
prEN 4604-001, -002 and SP132869

## ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

Operating frequency	up to 3 GHz
 Maximum voltage rating	900 VRMS
 Dry test voltage	2000 VAC between core and shield
Jacket dry impulse test	5000 V
Maximum ohmic resistance of conductor	384 Ω/km
Insulation resistance	≥ 5000 MΩ.km
 Characteristic impedance	75 ± 5 Ω
Maximum linear capacitance	60 pF/m
Velocity of propagation	≥ 222 000 km/s (74% relative)



Temperature Operating:  
-65°C to +150°C

Static operating bending radius **min. 17 mm**

Dynamic operating bending radius **min. 35 mm**

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

AVIONICS AND COAXIAL CABLES  
**STUDY 132869**

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	CONDUCTOR		Diameter Nom. (mm)	BRAID			INNER JACKET
	Composition N x d (mm)	Diameter (mm)		Diameter strand (mm)	Diameter Min. (mm)	Diameter Max. (mm)	Diameter (mm)
STUDY 132869	7 x 0.10	0.30 ± 0.025	1.30	0.08	1.75	1.95	2.32 ± 0.05

SHIELD	FINISHED CABLE	
Diameter strand (mm)	Diameter Max. (mm)	Weight Max. (g/m)
0.10	3.47	25.5

## ATTENUATION AND POWER HANDLING

Frequency (MHz)	Max. Rated Power (W)	Max Attenuation at 20°C (dB/100m)
50	1250	23
100	900	30
200	600	43
300	450	53
400	400	63





## AVIONICS AND COAXIAL CABLES

# M17/94-RG 179



Flexible

Oil resistance  
Good resistance to  
aircraft fluids

### KX & RG Standard electronic coaxial cables.

RG179BU - Coaxial cable 75 ohms according to M17/94-RG179.  
High frequency connections operating at high temperature.

#### CABLE DESIGN

##### Conductor

Silvered copper-clad steel

##### Type of conductor

Circular, stranded

##### Insulation

PTFE

##### Shield

Silver plated copper braid

##### Jacket

FEP

#### IDENTIFICATION

Packaging: Reel

Color of jacket: Brown

Color of marking on the jacket: Black

Marking text: M17/94-RG179  
FILOTEX FRANE D

#### STANDARDS

International IEC 60332-1

US Military Specification MIL-DTL-17



National NF C 32-070

**Nexans ref.:** 10035685

**Country ref.:** 081997XAH1

**EAN 13:** 3427570023593

#### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Impedance	75 $\Omega$ at 200 MHz
	
Operating voltage	900 V
Nominal capacitance core to core	75.5 pF/m
Relative propagation velocity	69.5%
Maximal operating frequency	3 GHz
Attenuation	11 dB/100 m at 10 MHz 40 dB/100 m at 200 MHz 56 dB/100 m at 400 MHz 160 dB/100 m at 3000 MHz
Dielectric withstanding	2 kV at 50 Hz
Operating frequency	up to 3 GHz
Minimum insulation resistance	5000 M $\Omega$ .km



Temperature  
Operating:  
-90°C to  
+200°C  
(FEP JACKET)

Flame retardant  
Good resistance to flame NFC 32070/C1 & C2 (CEI 332 -1)

AVIONICS AND COAXIAL CABLES  
**M17/94-RG 179**

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	CONDUCTOR		OVER DIELECTRIC	BRAIDS	STRANDS	NOMINAL OUTER	WEIGHT
	Composition N x d (mm)	Diameter (mm)	Diameter (mm)	Number of screen	Diameter (mm)	Diameter (mm)	Max. (g/m)
M17/94-RG 179	7 x 0.10	0.30	1.6	1	0.10	2.54	16.9





## AVIONICS AND COAXIAL CABLES

# M17/172-00001 (RG 316U)



Flexible

Oil resistance  
Good resistance to  
aircraft fluids

### KX & RG Standard electronic coaxial cables.

RG316U - Coaxial cable 50 ohms according to M17/172-00001.  
High frequency connections operating at high temperature.

### CABLE DESIGN

#### Conductor

Silvered copper-clad steel

#### Type of conductor

Circular, stranded

#### Insulation

PTFE

#### Shield

Silver plated copper braid

#### Jacket

FEP

### IDENTIFICATION

Packaging: Reel

Color of jacket: Brown

Color of marking on the jacket: Black

Marking text: M17/172-00001  
FILOTEX FRANCE D 316 U

### STANDARDS

International IEC 60332-1

US Military Specification MIL-DTL-17



National NF C 32-070

**Nexans ref.:** 10035768

**Country ref.:** 085790

**EAN 13:** 3427570022763

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Impedance	50 Ω at 200 MHz
	
Operating voltage	900 V
Nominal capacitance core to core	105 pF/m
Relative propagation velocity	69.5%
Maximal operating frequency	3 GHz
Attenuation	55 dB/100 m at 400 MHz
Dielectric withstanding	2 kV at 50 Hz
Operating frequency	up to 0.4 GHz
Minimum insulation resistance	5000 MΩ.km





Temperature  
Operating:  
-90°C to  
+200°C  
(FEP JACKET)

Flame retardant  
Good resistance to flame NFC 32070/C1 & C2 (CEI 332 -1)

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	CONDUCTOR		OVER DIELECTRIC	BRAIDS	STRANDS	NOMINAL OUTER	WEIGHT
	Composition N x d (mm)	Diameter (mm)	Diameter (mm)	Number of screen	Diameter (mm)	Diameter (mm)	Max. (g/m)
M17/172-00001 (RG 316U)	7 x 0.175	0.5	1.52	1	0.17	2.49	17.1

AVIONICS AND COAXIAL CABLES  
**M17/172-00001 (RG 316U)**





# M17/175-00001 (RG 400U)



Flexible

Oil resistance  
Good resistance to  
aircraft fluids

## KX & RG Standard electronic coaxial cables.

RG400U - Coaxial cable 50 ohms according to M17/175-00001. High frequency connections operating at high temperature. Or on equipment expected to work under severe conditions without failure.

### CABLE DESIGN

#### Conductor

Silvered copper

#### Type of conductor

Circular, stranded

#### Insulation

PTFE

#### Shield

Double silvered copper braid

#### Jacket

FEP

### IDENTIFICATION

Packaging: Reel

Color of jacket: Brown

Color of marking on the jacket: Black

Marking text: M17/175-00001  
FILOTEX FRANCE D R 400 U

### STANDARDS

International IEC 60332-1

US Military Specification MIL-DTL-17



National NF C 32-070

**Nexans ref.:** 10035811

**Country ref.:** 087125

**EAN 13:** 3427570022336

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Impedance	50 Ω at 200 MHz
	
Operating voltage	1400 V
Nominal capacitance core to core	105 pF/m
Relative propagation velocity	69.5%
Maximal operating frequency	3 GHz
Attenuation	29 dB/100 m at 400 MHz
Dielectric withstanding	5 kV at 50 Hz
Operating frequency	up to 0.4 GHz
Minimum insulation resistance	5000 MΩ.km



Temperature  
Operating:  
-90°C to  
+200°C  
(FEP JACKET)

Flame retardant  
Good resistance to flame NFC 32070/C1 & C2 (CEI 332 -1)

**AVIONICS AND COAXIAL CABLES**  
**M17/175-00001 (RG 400U)**

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	CONDUCTOR		OVER DIELECTRIC	BRAIDS	STRANDS	NOMINAL OUTER	WEIGHT
	Composition N x d (mm)	Diameter (mm)	Diameter (mm)	Number of screen	Diameter (mm)	Diameter (mm)	Max. (g/m)
M17/175-00001 (RG 400U)	19 x 0.200	1	2.95	2	0.2	4.95	74.4





# M17/95-RG 180



Flexible

Oil resistance  
Good resistance to aircraft fluids

## KX & RG Standard electronic coaxial cables.

RG180BU – Coaxial cable 95 ohms according to M17/95-RG 180. High frequency connections operating at high temperature.

### CABLE DESIGN

#### Conductor

Silvered copper-clad steel

#### Type of conductor

Circular, stranded

#### Insulation

PTFE

#### Shield

Silver plated copper braid

#### Jacket

FEP

### IDENTIFICATION

Packaging: Reel

Color of jacket: Brown

Color of marking on the jacket: Black

Marking text: M17/95-RG180  
FILOTEX FRANE D

### STANDARDS

International IEC 60332-1

US Military Specification MIL-DTL-17



National NF C 32-070

**Nexans ref.:** 10036144

**Country ref.:** 087241

**EAN 13:** 3427570019015

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Impedance	95 Ω at 200 MHz
	
Operating voltage	900 V
Nominal capacitance core to core	50.5 pF/m
Relative propagation velocity	69.5%
Maximal operating frequency	3 GHz
Attenuation	7 dB/100 m at 10 MHz 30 dB/100 m at 200 MHz 43 dB/100 m at 400 MHz 150 dB/100m at 3000 MHz
Dielectric withstanding	2 kV at 50 Hz
Operating frequency	up to 3 GHz
Minimum insulation resistance	5000 MΩ.km



Temperature  
Operating:  
-90°C to  
+200°C  
(FEP JACKET)

Flame retardant  
Good resistance to flame NFC 32070/C1 & C2 (CEI 332 -1)

AVIONICS AND COAXIAL CABLES  
**M17/95-RG 180**

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	CONDUCTOR		OVER DIELECTRIC	BRAIDS	STRANDS	NOMINAL OUTER	WEIGHT
	Composition N x d (mm)	Diameter (mm)	Diameter (mm)	Number of screen	Diameter (mm)	Diameter (mm)	Max. (g/m)
M17/95-RG 180	7 x 0.10	0.30	2.59	1	0.10	3.58	29.5





# M17/86-00001 (RG 225U)



Flexible

Oil resistance  
Very good resistance  
to aircraft fluids

## KX & RG Standard electronic coaxial cables.

Designed for high frequency interconnections.  
Product designed according to : MIL-DTL-17/86.

### CABLE DESIGN

#### Conductor

Silver plated copper covered steel

#### Type of conductor

Circular, stranded

#### Insulation

Extruded PTFE

#### Shield

Double braid of silver plated copper

#### Jacket

PTFE tape(s), Glass fiber

### IDENTIFICATION

Packaging: Reel

Color of jacket: Brown

Color of marking on the jacket: White

Marking text: M17/86-00001  
FILOTEX FRANCE D RG 225 U

### STANDARDS

International IEC 60332-1

US Military Specification MIL-DTL-17



National NF C 32-070

Nexans ref.: –

Country ref.: –

EAN 13: –

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Impedance	50 ± 2 Ω at 200 MHz
	
Operating voltage	3700 VRMS max
Nominal relative velocity of propagation	69%
Attenuation	16.4 dB/100 m at 400 MHz
Dielectric withstanding	10 kV at 50 Hz
Operating frequency	up to 0.4 GHz
Minimum insulation resistance	5000 MΩ.km
Maximum linear capacitance	105 pF/m
Maximum conductor ohmic resistance	5.68 Ω/km



Temperature  
Operating:  
-90°C to  
+200°C  
(FEP JACKET)

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

## DIMENSIONS AND WEIGHTS

### NEXANS REFERENCES

	CONDUCTOR		OVER DIELECTRIC	BRAIDS	STRANDS	NOMINAL OUTER	WEIGHT
	Composition N x d (mm)	Diameter (mm)	Diameter (mm)	Number of screen	Diameter (mm)	Diameter (mm)	Max. (g/m)
M17/86-00001 (RG-225/U)	7 x 0.84	2.40	7.25 ± 0.13	2	0.16	10.90 ± 0.25	290

**AVIONICS AND COAXIAL CABLES**  
**M17/86-00001 (RG-225/U)**





# M17/93-RG 178



Flexible

Oil resistance  
Very good resistance  
to aircraft fluids

## KX & RG Standard electronic coaxial cables.

Designed for high frequency interconnections.  
Product designed according to : MIL-DTL-17/93.

### CABLE DESIGN

#### Conductor

Silver plated copper covered steel

#### Type of conductor

Circular, stranded

#### Insulation

Extruded PTFE

#### Shield

Single braid of silver plated copper

#### Jacket

FEP

### IDENTIFICATION

Packaging: Reel

Color of jacket: Brown

Color of marking on the jacket: Black

Marking text: M17/93-RG 178 FILOTEX FRANCE D

### STANDARDS

International IEC 60332-1

US Military Specification MIL-DTL-17



National NF C 32-070

**Nexans ref.:** –

**Country ref.:** –

**EAN 13:** –

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Impedance	50 ± 2 Ω at 200 MHz
	
Operating voltage	750 VRMS max
Nominal relative velocity of propagation	69%
Attenuation	28 dB/100 m at 50 MHz 52.5 dB/100 m at 100 MHz 108 dB/100 m at 400 MHz 170 dB/100 m at 1000 MHz 308 dB/100m at 3000 MHz
Dielectric withstanding	2 kV at 50 Hz
Operating frequency	up to 3 GHz
Minimum insulation resistance	5000 MΩ.km
Maximum linear capacitance	105 pF/m
Maximum conductor ohmic resistance	802 Ω/km
Min. Structural Return Loss	26 dB at 50 MHz 25 dB at 100 MHz 22 dB at 400 MHz 19 dB at 1000 MHz





Temperature  
Operating:  
-55°C to  
+200°C  
(FEP JACKET)

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

AVIONICS AND COAXIAL CABLES  
**M17/93-RG178**

## DIMENSIONS AND WEIGHTS

### NEXANS REFERENCES

	CONDUCTOR		OVER DIELECTRIC	BRAIDS	STRANDS	NOMINAL OUTER	WEIGHT
	Composition N x d (mm)	Diameter (mm)	Diameter (mm)	Number of screen	Diameter (mm)	Diameter (mm)	Max. (g/m)
M17/93-RG178	7 x 0.10	0.30	0.84 ± 0.05	1	0.10	1.80 ± 0.10	9.30





# M17/137-00001



Flexible

Oil resistance  
Very good resistance  
to aircraft fluids

## KX & RG Standard electronic coaxial cables.

Designed for high frequency interconnections.  
Product designed according to: MIL-DTL-17/137.

### CABLE DESIGN

#### Conductor

Silver plated copper covered steel

#### Type of conductor

Circular, stranded

#### Insulation

Extruded PTFE

#### Shield

Single braid of silver plated copper

#### Jacket

PFA

### IDENTIFICATION

Packaging: Reel

Color of jacket: White

Color of marking on the jacket: Black

Marking text: M17/137-00001  
FILOTEX FRANCE D

### STANDARDS

International IEC 60332-1

US Military Specification MIL-DTL-17


National NF C 32-071

**Nexans ref.:** –

**Country ref.:** –

**EAN 13:** –

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Impedance	95 ± 5 Ω at 200 MHz
Attenuation	55.8 dB/100 m at 400 MHz
Dielectric withstanding	2 kV at 50 Hz
Operating frequency	up to 0.4 GHz
Minimum insulation resistance	5000 MΩ.km
Maximum linear capacitance	50.5 pF/m
Maximum conductor ohmic resistance	802 Ω/km



Temperature  
Operating:  
-55°C to  
+250°C  
(FEP JACKET)

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

AVIONICS AND COAXIAL CABLES  
**M17/137-00001**

## DIMENSIONS AND WEIGHTS

NEXANS REFERENCES	CONDUCTOR		OVER DIELECTRIC	STRANDS	NOMINAL OUTER	WEIGHT
	Composition N x d (mm)	Diameter (mm)	Diameter (mm)	Diameter (mm)	Diameter (mm)	Max. (g/m)
M17/95-RG 180	7 x 0.10	3.58 ± 0.10	2.59	0.10	3.58 ± 0.10	29.8



# SPECIAL CABLES



DESIGNATION	PAGE
STUDY 86891 – NSA 935 306 YK	200
CAS 250-20 P & CAS 250-22	202
STUDY 124401	204
STUDY 124762 – ESW 1404-022-006	206
STUDY 132057 – ESW 1405-024-006	208
ECS 0828 MQB & ECS 0829 MQD	210
MBBN 3320 YH +++ STUDY 96532 / STUDY 96533	212
HH, HL, HX, HY	214
ASNE0413 HK	216

## APPLICATION

Nexans produces a complete range of customized cables. Thermocouples, Hook-up wires, Low noise cables. Our products are designed to conform to the highest aerospace standards.

## ADVANTAGES

Nexans R&D laboratories have developed a range of sensor cables with an improved measuring accuracy.

## MAIN PROPERTIES

- Flame retardant, low smoke and toxicity
- Very good resistance to aircraft fluids
- Moisture resistant
- RoHS compliant

## MAIN CHARACTERISTICS

- Maximum range of operating temperature:  $-65^{\circ}\text{C}$  to  $+260^{\circ}\text{C}$ .

## STANDARDS

The cables are designed to withstand fire tests according to FAR/JAR part 25 sec 25.869 (a)(4) Appendix F part 1 (3) NFC 32070 C1.

They are conform to various customer specification and/or European Standards "EN" product norms.



**SPECIAL CABLES LOW NOISE CABLES**

**STUDY 86891 – NSA 935 306 YK**



Oil resistance  
**Very good resistance  
 to aircraft fluids**

Low Noise Transmission Cable 260°C.

**CABLE DESIGN**

**2 cores**

19 x 0.17 mm, Silver plated copper clad steel

**Insulation**

Extrusion PTFE 1.40 ±0.05 mm

**Semi-conductor tape nom.**

1.58 mm

**Glass Fiber fillers**

**Semi-conductor tape**

**Shield**

Nickel plated copper, Kr>70% = 0.12 mm

**Jacket**

Polyimide tape(s), PTFE tape(s), Max. = 4.35 mm

**IDENTIFICATION**


Color of core: Red, Blue

Color of Jacket: White

**STANDARDS**

**International** NSA 935306 YK

**ELECTRICAL AND HIGH FREQUENCY PERFORMANCES**

	
Operating voltage	600 V
Insulation resistance	min. 1000 MΩ.km
Nominal capacitance between...	... cores: 100 pF/m ... cores and shield: 200 pF/m
Triboelectrical noise...	... at 2 Hz: Displacement 40mm pk-pk ≤10pC ... from 5 to 50 Hz: Displacement 5mm pk-pk ≤1 pC ... from 10 to 70 Hz: Displacement 2mm pk-pk ≤0.15pC
Capacitance between...	... cores: 100 pF/m ... cores and screen: 200 pF/m
Voltage withstanding between...	... cores: 1500 Volts AC ... cores and screen: 1500VoltsAC



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



Operating temperature  
-55°C to +260°C



Electro magnetic  
interference resistance

SPECIAL CABLES LOW NOISE CABLES  
STUDY 86891 – NSA 935 306 YK





## SPECIAL CABLES LOW NOISE CABLES

# CAS 250-20 P & CAS 250-22



Flexible  
stranded

Flexible Low Noise PTFE Coaxial Cables.

### CABLE DESIGN

#### Conductor

0.30 mm Solid Silver plated Copper Clad Steel  
(CAS 250-20 P)

0.30 mm Silver plated Copper Clad Steel  
Diameter = 0.30 mm (CAS 250-22)

#### Insulation

Extruded PTFE

Diameter = 1.05 +/-0.05 mm (CAS 250-20 P)

#### Semi Conductive PTFE Tape

Diameter = 1.29 mm (CAS 250-22)

#### Shield

Silver plated Copper 7/100 (CAS 250-20 P)

Silver plated Copper 10/100 (CAS 250-22)

#### Antimicrophonic noise coating

Diameter = 1.11 +/-0.05 mm (CAS 250-20 P)

#### Jacket

PTFE tape(s)

Diameter = 1.90 +/-0.10 mm (CAS 250-20 P)

Diameter = 2.18 +/-0.05 mm (CAS 250-22)


### IDENTIFICATION

None

### STANDARDS

**International** Nexans specification

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	CAS 250-20 P	CAS 250-22
		
Operating voltage	600 V	250 V
Nominal capacitance	90.0 pF/m	90.0 pF/m
Nominal velocity propagation	76%	76%
Dielectric	PTFE	PTFE
Average weight	8.8 kg/km	11.6 kg/km
Triboelectric low noise level	< 200 µvolts	< 200 µvolts





Operating temperature  
-90°C to +200°C



Electro magnetic  
interference resistance

SPECIAL CABLES LOW NOISE CABLES  
**CAS 250-20 P & CAS 250-22**

## DIMENSIONS AND WEIGHTS

DESIGNATION	NEXANS REFERENCE	CONDUCTOR				BRAIDS		SHEATH	
		Composition n x diameter (mm)	Nature	Diameter (mm)	Dielectric diameter (mm)	Nb	Nature	Nature	Dielectric diameter (mm)
CAS 250-20 P	87208	1 X 0.30	SPCCS	0.30	1.05 ± 0.05	1	SPC	PTFE	1.90 ± 0.10
CAS 250-22	87068	1 X 0.30	SPCCS	0.30	0.98 ± 0.05	1	SPC	PTFE	2.15 ± 0.05

SPC = Silver Plated Copper





Oil resistance  
Very good resistance  
to aircraft fluids

# STUDY 124401

## General electronic wiring.

Low Noise Transmission Cable 260°C.

### CABLE DESIGN

#### 2 cores

Stranded conductor, 19 x 0.203  
Nickel plated copper alloy

#### Insulation

Extruded PTFE Semi-conductive tape = 1.78 mm

#### Semi-conductor tape nom.

3.74 mm

#### Glass Fiber fillers

#### Shield

0.12 mm Nickel plated copper braid,  
91% (US) min. coverage = 4.22 mm

0.12 mm Nickel plated copper braid,  
91% (US) min. coverage = 4.83 mm

#### Inner Jacket

Polyimide tape(s), 51% minimum overlap

#### Outer jacket

Polyimide tape(s), PTFE tape(s),  
51% minimum overlap, = 5.20 ± 0.20 mm



### IDENTIFICATION

Color of core: Red, Blue

Color of Jacket: Black

No marking text

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Voltage rating	600 Volts RMS
Insulation resistance	> 10 <sup>12</sup> Ω.m
Triboelectrical noise...	... at 2 Hz: Displacement 40mm pk-pk ≤ 10pC ... from 20 to 50 Hz: Displacement 5mm pk-pk ≤ 1pC ... from 30 to 90 Hz: Displacement 2mm pk-pk ≤ 0.15pC
Capacitance between...	... cores: 100 pF/m ... cores and screen: 200 pF/m
Voltage withstanding	... Insulation: 2000 Volts RMS ... Jacket: 5000 Volts Impulse

### STANDARDS

International Nexans specification



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

Operating temperature  
-54°C to +260°C

## DIMENSIONS AND WEIGHTS

Approximate weight: 68.9 g/m

SPECIAL CABLES LOW NOISE CABLES  
STUDY 124401





## SPECIAL CABLES LOW NOISE CABLES

# STUDY 124762 – ESW 1404-022-006



Oil resistance  
**Very good resistance  
 to aircraft fluids**

Low Noise Transmission Cable 260°C.

### CABLE DESIGN

#### 2 cores

19x0.20 mm Nickel plated copper Clad Steel

#### Insulation

PTFE tape(s) = 1.80 ± 0.10 mm

#### Semi-conductor tape

PTFE tape(s) insulation = 1.80 ± 0.10 mm

#### Glass Fiber fillers

#### Shield

Nickel plated copper 12/100,  
 Coverage factor > 85%

#### Jacket

Polyimide tape(s), PTFE tape(s),  
 Min. = 4.50 mm, Max. = 4.80 mm

### IDENTIFICATION

Color of core: White, Blue

Color of Jacket: White

Marking text:


ESW1404-022-006-FX-FF-\*\*957.37.20.6999

\*\* = Year of manufacturing (ie. 14 = 2014)

### STANDARDS

International ESW 1404-022

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
Nominal capacitance between cores and shield	310 pF/m
Capacitance unbalance	max. 15.0 pF
Insulation resistance	min. 1000 MΩ.km
Triboelectrical noise...	... at 3 Hz: Displacement 10mm pk-pk ≤ 0.3pC ... from 5 to 50 Hz: Displacement 5mm pk-pk ≤ 0.3pC ... from 50 to 120 Hz: Displacement 2.5mm pk-pk ≤ 0.3pC
Voltage withstanding between...	... cores: 1500Volts AC ... cores and screen: 1500Volts AC
Electrical resistance of conductor	≤ 75.1 Ω/Km at 20°C



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



Operating temperature  
-65°C to +260°C



Electro magnetic  
interference resistance

## DIMENSIONS AND WEIGHTS

Maximum weight: 53 g/m

SPECIAL CABLES LOW NOISE CABLES  
STUDY 124762 – ESW 1404-022-006





**SPECIAL CABLES LOW NOISE CABLES**

**STUDY 132057 – ESW 1405-024-006**



Oil resistance  
**Very good resistance  
 to aircraft fluids**

Over shielded and jacketed low noise transmission cable 260°C.

**CABLE DESIGN**

**2 cores**

19x0.20mm nickel plated copper clad steel,  
 Diameter = 0.99 ± 0.05 mm, Semi-conductor tape

**Insulation**

PTFE tape(s) = 1.80 ± 0.10 mm

**Semi-conductor tape**

Nominal Diameter = 1.95 mm

**Glass Fiber fillers**

**Shields**

1st Shield: Nickel plated copper 12/100  
 2nd Shield: Nickel plated copper 12/100

**Inner Jacket**

Nickel plated copper 12/100  
 Polyimide tape(s)

**Outer Jacket**

Polyimide tape(s), PTFE tape(s),  
 Minimum Diameter = 5.30 mm


**IDENTIFICATION**

Color of core: White, Blue

Marking text:  
 ESW1405-024-006-FX-FF-\*\*957.37.20.6899

\*\* = Year of manufacturing (ie. 14 = 2014)

**ELECTRICAL AND HIGH FREQUENCY PERFORMANCES**

	
Operating voltage	600 V
Nominal capacitance between cores and shield	310 pF/m
Insulation resistance	min. 1000 MΩ.km
Triboelectrical noise...	... at 3 Hz: Displacement 10mm pk-pk ≤ 0.1 pC ... from 5 to 50 Hz: Displacement 5mm pk-pk ≤ 0.1 pC ... from 50 to 120 Hz: Displacement 2.5mm pk-pk ≤ 0.1 pC
Voltage withstanding between...	... conductors: 1500 Volts AC ... conductors and shield: 1500 Volts AC ... shields: 500 Volts AC
Electrical resistance	≤ 75.1 Ω/Km at 20°C

**STANDARDS**

**International** ESW 1404-022



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



Operating temperature  
-65°C to +260°C



Electro magnetic  
interference resistance

## DIMENSIONS AND WEIGHTS

Maximum weight: 77 g/m

SPECIAL CABLES LOW NOISE CABLES  
STUDY 132057 – ESW 1405-024-006





## SPECIAL CABLES HOOK-UP WIRES

# ECS 0828 MQB & ECS 0829 MQD



Oil resistance  
Very good resistance  
to aircraft fluids

**Designed for general Purpose Aircraft Wiring Applications, in replacement of AWG.**

Multi-cores Shielded and FEP Jacketed cable.  
24 ASN-E0642 HU and ASN-E0643 HV.

### CABLE DESIGN

#### Core

Assembly 2 cores of EN 2267-009A  
Screen: 0.08 mm Nickel plated copper spiral screen  
Jacket: Polyimide Tape, Polyimide Tape

#### Assembly

Two or Four cores, Polyimide Tape

#### Screen

Nickel plated copper braid

#### Jacket

FEP

### IDENTIFICATION

#### Basic Core identification Colors



Two cores: Red, Blue  
Four cores: 1 red, 1 blue, 1 Yellow, 1 Green  
Color of sheath: White  
Marking: EN DR A ++ FRF\*\*  
Color: White for Red and Green for Blue core.

#### Finished Cable identification Color

Outer jacket: White  
Marking: ### ++ FRF\*\*  
Color: Green

### = MQB Pair of pairs, MQD Quad of pairs  
++ = AWG  
FR = Country of Origin (FR = France)  
F = Manufacturer (F = Nexans)  
\*\* = Year of manufacturing (ie. 14 = 2014)

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
	
Maximal operating frequency	0.002 MHz

### STANDARDS

**International** EN 2267-009;EN 2714-013  
**National** ECS 0828 / ECS 0829





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

Operating temperature  
**-55°C to +200°C**

Mould and Fungus  
 Resistant

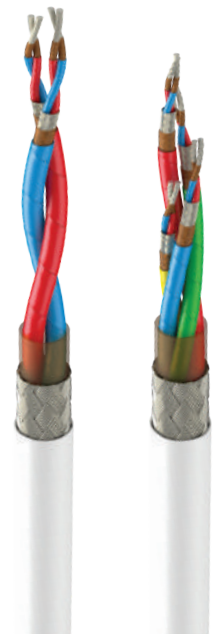
**SPECIAL CABLES HOOK-UP WIRES  
 ECS 0828 MQB & ECS 0829 MQD**

### DIMENSIONS AND WEIGHTS

NEXANS REFERENCE	US AWG	Nb of cores	Screen Strands nominal diameter (mm)	COLOR		FINISHED CABLE				
				Cores	Sheath	Diameter (mm)		Weight (g/m)		Max. DC Resistance at 20°C (Ω/km)
						Nom.	Max.	Nom.	Max.	
ECS0828 MQB	24	2	0.12	1 red, 1 blue	White	5.16	5.9	44.15	47	117
ECS0829 MQD	24	4	0.12	1 red, 1 blue, 1 yellow, 1 green	White	6.29	6.8	70.18	77	117

MQB

MQD





## SPECIAL CABLES THERMOCOUPLE CABLES

# MBBN 3320 YH +++ Study 96532 / Study 96533



Oil resistance  
**Very good resistance  
to aircraft fluids**

Cable electric, Nickel chromium /  
Nickel aluminium Jacketed, Shielded Twisted pair.

### CABLE DESIGN

#### Conductor

Conductor 1  
Stranded conductor Nickel Chromium,  
PTFE/Polyimide/PTFE tapes

Conductor 2  
Stranded conductor Nickel Chromium,  
PTFE/Polyimide/PTFE tapes

#### Screen

Nickel plated copper braid

#### Jacket

Polyimide tape, PTFE tape

### IDENTIFICATION

#### Conductor color

Nickel chromium conductor: White

Nickel aluminium conductor: Green

#### Jacket color

Green (size 006)

Green with narrow white stripe (size 004)

Marking tex: MBBN 3320 YH +++ FR F \*\*


+++ = Code for nominal section

FR = Country of origin (FR = France)

F = Manufacturer (F= Nexans)

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

### ELECTRICAL AND HIGH FREQUENCY PERFORMANCES

	
Operating voltage	600 V
Electromagnetic field	10.56 ± 0.12 mV at +260°C

### STANDARDS

**International** ISO 8056; prEN 4049004

**National** MBBN 3320 YH



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



Operating temperature  
-55°C to +260°C



Resistant to fungus



## DIMENSIONS AND WEIGHTS

Code for nominal section	US AWG	CONDUCTORS		CORES		SCREEN	OHMIC RESISTANCE AT 20°C				FINISHED CABLE	
		Construction (n x mm)	Nom. Diam. (mm)	Max. Diam. (mm)	Strands diam. (mm)	Nickel Chromium (Ω/km)	Nickel Aluminium (Ω/km)		Max. diam. (mm)	Max. 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	

SPECIAL CABLES THERMOCOUPLE CABLES  
MBBN 3320 YH +++ - Study 96532 / Study 96533





## HH, HL, HX, HY

### HH

#### Design

FEP sheathed coil cord  
3 DR 16 + 3 DR 22 basic wires + 7 PTFE fillers  
Sheath: fluoropolymer

#### Standard

ASN E0385

### HX

#### Design

Extensible cables for sliding windows  
DR multicores  
Sheath: fluoropolymer

#### Standard

ASN 1527

### HL

#### Design

FEP sheathed coil cord  
6 DR 24 + 2 DR 20 + 1 DR 16 basic wire  
Sheath: fluoropolymer

#### Standard

ASN E0488

### HY

#### Design

Extensible cables for tablet  
DR multicores  
Sheath: polyimide

#### Standard

ASN 1529



**SPECIAL CABLES COIL CORDS**  
**HH, HL, HX, HY**





## SPECIAL CABLES THERMOCOUPLE CABLES



Oil resistance  
**Very good resistance  
to aircraft fluids**

# ASNE0413 HK

Thermocouple Cable, Nickel chromium /  
Nickel aluminium Jacketed, Shielded.

### CABLE DESIGN

#### Cores

Core 1  
Solid conductor: Nickel Chromium,  
Insulation: PTFE tapes

Core 2  
Solid conductor: Nickel Aluminium,  
Insulation: PTFE tapes

#### Assembly

2 cores in parallel

#### Screen

Nickel plated Copper Braid

#### Jacket

Polyimide tape, PTFE tape

### SPECIFICATION

ASNE0413

### IDENTIFICATION

#### Colored threads under the screen

2 threads for manufacturer: i.e.  
Black + Grey = Nexans

2 threads for year of manufacturing:  
i.e. Black + Pink = 2017

#### Core color

Nickel aluminium conductor: Black

Nickel chromium conductor: Red

#### Jacket color

Green



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



Operating temperature  
**-55°C to +260°C**



Electromagnetic field  
**4.10 ± 0.12 mV at +100°C**

**SPECIAL CABLES THERMOCOUPLE CABLES  
 ASNE0413 HK**

### DIMENSIONS AND WEIGHTS

NEXANS REFERENCE	CONDUCTORS	CORES	SCREEN	OHMICAL RESISTANCE	FINISHED CABLE	
	Nom. diameter (mm)	Diameter (mm)	Strands diam. (mm)	Loop resistance at 20°C (Ω/km)	Max. diameter (mm)	Max. weight (g/m)
STUDY 90951	0.5	1.00 ± 0.10	0.1	4860 ± 486	2.84 x 1.84	15.00





# BRAIDS





DESIGNATION	PAGE
SERIE : GAINÉ 553**/1	220
SERIE : GAINÉ 667**/1	222

## APPLICATION

Braids provide a complementary protection to cables against the external environment in an aircraft.

## ADVANTAGES

Our braids assure a lengthening of the life time of cables. These braids are designed for use as faradization screen on cable bundles. Their diameter may vary thanks to their very high flexibility, thus facilitating the bundle introduction.

## MAIN PROPERTIES

- Flexible
- Electromagnetic protection



## BRAIDS

### Serie: GAINÉ 553\*\*/1

#### **Tubular braids.**

Tin plated Copper with Filler.

#### **APPLICATIONS**

The diameter of these braids to be chosen is the one which is upper at once to the diameter of the bundle to be covered.

The braids are allowed to be used in lengths smaller or equal to 2 meters.

#### **CONSTRUCTION**

- 1 – PE tubular filler
- 2 – Tubular braid made up of tin plated copper strands

#### **STANDARDS**

**International** Nexans specification

## DIMENSIONS AND WEIGHTS

NEXANS REF.	FILLER		BRAID						FINISHED CABLE		
	Ø PE (mm)	Weight (g/m)	Nb of carriers	Nb of strands	Nom. Diameter of strands (mm)	Angle (°)	Coverage factor (%)	Nom. Diameter (mm)	Nom. Weight (g/m)	Nominal DC resistance of braid at 20°C (mΩ/m)	Weight (g/m)
55304/1	4 ±0.15	8.77	16	11	0.10	34	80	4.50	14.7	17.7	23.5
55306/1	6 ±0.20	14.61	24	11	0.10	33	80	6.50	21.7	11.7	36.3
55308/1	8 ±0.25	23.84	24	14	0.10	36	80	8.50	29.1	9.5	52.9
55310/1	10 ±0.30	35.18	24	18	0.10	36	80	10.50	37.1	7.3	72.3
55312/1	12 ±0.40	46.02	40	12	0.10	38	80	12.50	43.9	6.2	89.9
55315/1	15 ±0.45	59.16	40	17	0.10	30	80	15.50	54.7	4.4	113.9
55955/1	18 ±0.55	85.20	40	16	0.12	34	80	18.60	77.8	3.2	163.0
55320/1	20 ±0.60	114.41	40	14	0.15	35	80	20.75	108.2	2.3	222.6
59956/1	22 ±0.70	127.27	40	16	0.15	33	80	22.75	118.9	2.1	246.2
59957/1	25 ±0.75	152.54	40	14	0.20	29	80	26.00	185	1.4	337.5



## BRAIDS



# Serie: GAINE 667\*\*/1

### Tubular braids.

Nickel plated Copper with Filler.

### APPLICATIONS

The diameter of these braids to be chosen is the one which is upper at once to the diameter of the bundle to be covered.

The braids are allowed to be used in lengths smaller or equal to 2 meters.

### CONSTRUCTION

- 1 – PE tubular filler
- 2 – Tubular braid made up of tin plated copper strands

### STANDARDS

**International** Nexans specification

## DIMENSIONS AND WEIGHTS

NEXANS REF.	FILLER		BRAID						FINISHED CABLE		
	Ø PE (mm)	Weight (g/m)	Nb of carriers	Nb of strands	Nom. Diameter of strands (mm)	Angle (°)	Coverage factor (%)	Nom. Diameter (mm)	Nom. Weight (g/m)	Nominal DC resistance of braid at 20°C (mΩ/m)	Weight (g/m)
66704/1	4 ±0.15	8.77	16	11	0.10	34	80	4.50	14.7	17.7	24
66706/1	6 ±0.20	14.61	24	11	0.10	33	80	6.50	21.7	11.7	36
66708/1	8 ±0.25	23.84	24	14	0.10	36	80	8.50	29.1	9.5	53
66710/1	10 ±0.30	35.18	24	18	0.10	36	80	10.50	37.1	7.3	72
66712/1	12 ±0.40	46.02	40	12	0.10	38	80	12.50	43.9	6.2	90
66714/1	14 ±0.45	51.54	40	15	0.10	35	80	14.50	51.1	5.3	102
66715/1	15 ±0.45	59.16	40	17	0.10	30	80	15.50	54.7	4.4	114
66716/1	16 ±0.45	74.68	40	14	0.12	37	80	16.60	70.1	3.8	145
66718/1	18 ±0.55	85.20	40	16	0.12	34	80	18.60	77.8	3.2	163
66720/1	20 ±0.60	114.41	40	14	0.15	35	80	20.75	108.2	2.3	223
66722/1	22 ±0.70	127.27	40	16	0.15	33	80	22.75	118.9	2.1	246
66725/1	25 ±0.75	152.54	40	14	0.20	29	80	26.00	185	1.4	337.5



# Symbols



**FLEXIBILITY**



**OIL RESISTANCE**



**FLAME RETARDANT**



**FIRE RESISTANT**



**OPERATING TEMPERATURE**



**ABRASION RESISTANCE**

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**MINIMUM  
BENDING RADIUS**



**ARC TRACKING RESISTANT**



**FLUIDS RESISTANCE**



**MOULD AND FUNGUS RESISTANT**



**ROHS COMPLIANT**



**ELECTRO MAGNETIC INTERFERENCE**



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# Notes

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# Notes

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Nexans, acting for the energy transition, has an industrial presence in 40 countries, commercial activities worldwide, is employing close to 26,000 people and generating sales in 2016 of 5.8 billion euros. Nexans is listed on Euronext Paris, compartment A.

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