

**NXT99**

# Single & Multicore Special Performance Cables for Extreme Applications



**DEF STAN 61-12**  
Part 18 // Part 25



**MARINE // MILITARY // RAIL // INDUSTRIAL**



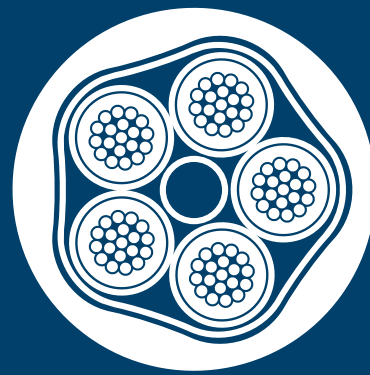
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*Cable for Life.*



// NAVAL & MARINE //

## THE NEXT GENERATION OF EXTREME PERFORMANCE CABLES.



In the world of military and marine operations, failure is not an option. That's why we developed **NXT** cables, a range of new and existing high performance cables engineered for the extreme demands of naval ships, military vehicles, and mission-critical systems.

**NXT** stands for Next, as in the next step forward in cable performance, reliability, and simplicity. Designed by industry experts in compliance with recognised standards and backed by over a century of proven experience, **NXT** cables are made to withstand the harshest environments, from fluid to fire, intense vibration, temperature extremes, and electromagnetic interference.

What sets the **NXT** range apart is its focus on robustness, clarity, and choice. These cables are not only battle-ready but also make life easier for specifiers and engineers, offering straightforward selection without compromise.

We're already trusted by some of the world's leading defence contractors, a reputation we've earned through consistent quality and deep technical expertise. **NXT** builds on that legacy with a future-ready range designed to meet evolving demands, with a focus on accessibility.

“ Critical systems demand robust connections ”





# NXT99

Introducing NXT99, a range of single and multicore cables made to deliver uncompromising performance in the harshest conditions.

Fully compliant with DEF STAN 61-12 Part 18 and Part 25, NXT99 is flame retardant, low smoke and fume, and resistant to oils, fuels, chemicals and hydraulic fluids.

Featuring carbon arc tracking resistance and strong cross-linked molecular bonds, NXT99 delivers exceptional durability, making it ideal for naval platforms, marine environments and armoured land vehicles.

Already deployed by leading defence contractors, the NXT range continues to set the standard in specialist cable solutions for critical applications.

Designed with real-world challenges in mind, NXT99 not only meets defence standards, but thanks to its extreme performance envelope, is equally suited to mass-transit applications and harsh industrial environments where robust, resilient and reliable interconnects are essential.



DEF STAN 61-12  
Compliance



Temperature  
Resistant



Flame  
Retardant



Low Smoke &  
Fume Emission



Chemical &  
Fluid Resistant



Oil and Fuel  
Resistant



// MILITARY & DEFENCE //

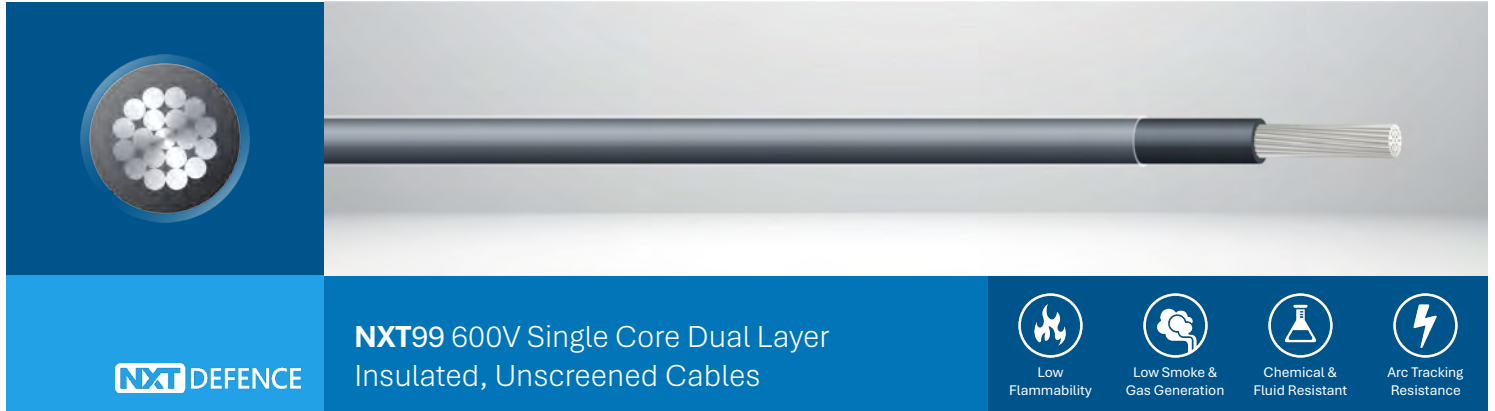
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## NXT99

NXT99 cables offer a high quality, versatile cabling solution for demanding applications requiring DEF-STAN 61-12 Part 18 approved parts and where low smoke and toxicity are critical such as those found in the military, aerospace, marine, and select industrial sectors.

Featuring dual-layer polymer insulation, NXT99 cables provide excellent durability whilst retaining flexibility, minimal diameters, reduced weight and resistance to chemicals, fuels and carbon arc tracking.

Such is the versatility of NXT99 cables, they can be found in both our NXT Defence and NXT Marine collections, with compliant NATO Part Numbers (NSN) also included to help specifiers.



SINGLE CORE



600V RATED



UN-SCREENED



DEF-STAN 61-12 PART 18

## CONSTRUCTION

Conductor	Stranded Tinned Annealed Copper
Insulation	Extruded Dual Layer Polymer

## NOMINAL DIMENSIONS

Conductor Cross Sectional Area	See Table 1	mm <sup>2</sup>
Conductor Gauge	See Table 1	AWG
Diameter over Insulation	See Table 1	mm

## ELECTRICAL PROPERTIES

Voltage Rating	600	V RMS
	800	V DC
Max Conductor Resistance (@20°C)	See Table 1	Ω/km

## PHYSICAL PROPERTIES

Operating Temperature Range	-50 to +120	°C
Minimum Bend Radius (Dynamic)	10	x Ø
Minimum Bend Radius (Static)	4	x Ø

## STANDARDS & APPROVALS

Design Standard	DEF-STAN 61-12 Part 18 (Type 1)
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**Table 1**

Part Codes, Nominal Dimensions, Resistance & Weight

PART CODE		CONDUCTOR				INSULATION		WEIGHT
NXT99 (X = Table 2)	NATO (X = Table 3)	Gauge (AWG)	CSA (#/mm)	Strands (#/mm)	Resistance (Ω/km @20°C)	Minimum Ø (mm)	Maximum Ø (mm)	Nominal (kg/100m)
N/A	6145-99-891-X	30	0.05	1/0.25	383.5	0.55	0.70	0.092
N/A	6145-99-891-X	26	0.12	1/0.40	145.6	0.70	0.85	0.200
N/A	6145-99-891-X	23	0.28	1/0.60	64.0	0.90	1.05	0.395
N/A	6145-99-891-X	19	0.63	1/0.90	28.5	1.20	1.35	0.790
NXT99-0111-30-X	6145-99-891-X	30	0.055	7/0.10	336.0	0.60	0.75	0.110
NXT99-0111-28-X	6145-99-891-X	28	0.079	7/0.12	259.0	0.65	0.80	0.150
NXT99-0111-26-X	6145-99-891-X	26	0.15	19/0.10	141.5	0.80	0.95	0.290
NXT99-0111-24-X	6145-99-891-X	24	0.2	19/0.12	95.6	0.90	1.05	0.345
NXT99-0111-22-X	6145-99-891-X	22	0.35	19/0.15	60.0	1.05	1.20	0.490
NXT99-0111-20-X	6145-99-891-X	20	0.6	19/0.20	33.2	1.30	1.50	0.756
NXT99-0111-18-X	6145-99-891-X	18	1.0	19/0.25	21.1	1.55	1.75	1.04
NXT99-0111-16-X	6145-99-891-X	16	1.5	19/0.30	14.5	1.80	2.00	1.65
NXT99-0111-14-X	6145-99-891-X	14	2.0	37/0.25	10.9	2.15	2.35	2.07
NXT99-0111-12-X	6145-99-891-X	12	2.5	37/0.30	7.6	2.50	2.70	2.71
NXT99-0111-10-X	N/A	10	6	84/0.30	3.39	3.75	4.05	6.20
NXT99-0111-8-X	N/A	8	10	80/0.40	1.95	4.75	5.15	10.1

**Table 2**

NXT99 Part Code Modifiers for Size & Colour



NXT99 colours are specified using the codes in this table along with the conductor size as demonstrated below.

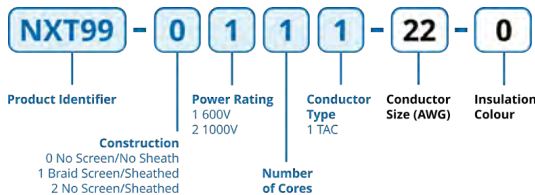


A stripe colour can be specified via a secondary colour code enclosed in brackets. Example: 5(4) = Green with Yellow Stripe.



"SP" is used in place of a colour code where special instructions are specified separately, such as a unique colour code.

COLOUR	CODE	COLOUR	CODE
Black	0	Green	5
Brown	1	Blue	6
Red	2	Violet	7
Pink	2L	Grey	8
Orange	3	White	9
Yellow	4	Special	SP



**Examples**

- NXT99-0111-26-8 26 AWG (19/0.10mm) Grey
- NXT99-0111-16-2L 16 AWG (19/0.30mm) Pink
- NXT99-0111-24-5(4) 24 AWG (19/0.12mm) Green / Yellow Stripe
- NXT99-0111-16-SP 16 AWG (19/0.30mm) Special Colour Instructions

**Table 3**

NATO Part Code Modifiers for Size & Colour

CONDUCTOR		SIZE & COLOUR CODE											
Gauge (AWG)	Strands (#/mm)	 Red	 Blue	 Green	 Yellow	 Black	 White	 Brown	 Violet	 Orange	 Grey	 Pink	 Gn/Yw
30	1/0.25	9431	9432	9433	9434	9435	9436	9437	9438	9439	9440	9441	9442
26	1/0.40	9443	9444	9445	9446	9447	9448	9449	9450	9451	9452	9453	9454
23	1/0.60	9455	9456	9457	9458	9459	9460	9461	9462	9463	9464	9465	9466
19	1/0.90	9467	9468	9469	9470	9471	9472	9473	9474	9475	9476	9477	9478
30	7/0.10	9479	9480	9481	9482	9483	9484	9485	9486	9487	9488	9489	9490
28	7/0.12	9491	9492	9493	9494	9495	9496	9497	9498	9499	9500	9501	9502
26	19/0.10	9503	9504	9505	9506	9507	9508	9509	9510	9511	9512	9513	9514
24	19/0.12	9515	9516	9517	9518	9519	9520	9521	9522	9523	9524	9525	9526
22	19/0.15	9527	9528	9529	9530	9531	9532	9533	9534	9535	9536	9537	9538
20	19/0.20	9539	9540	9541	9542	9543	9544	9545	9546	9547	9548	9549	9550
18	19/0.25	9551	9552	9553	9554	9555	9556	9557	9558	9559	9560	9561	9562
16	19/0.30	9563	9564	9565	9566	9567	9568	9569	9570	9571	9572	9573	9574
14	37/0.25	9575	9576	9577	9578	9579	9580	9581	9582	9583	9584	9585	9586
12	37/0.30	9587	9588	9589	9590	9591	9592	9593	9594	9595	9596	9597	9598



NATO cables to DEF STAN 61-12 Part 18 combine both colour and conductor size into a single code as presented here.



Green and Yellow striped variants are specified with a unique code for each size as presented in the table above.



**Examples**

- 6145-99-891-9443    26 AWG (1/0.40mm) Red
- 6145-99-891-9503    26 AWG (19/0.10mm) Red
- 6145-99-891-9526    24 AWG (19/0.12) Green / Yellow Stripe

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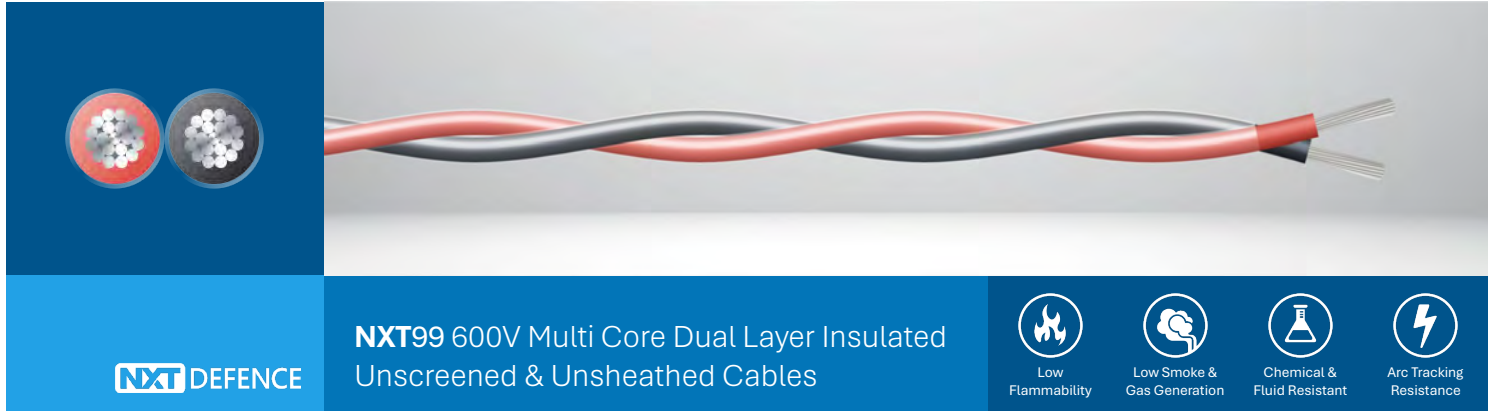


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**NXT** DEFENCE

**NXT99 600V Multi Core Dual Layer Insulated  
Unscreened & Unsheathed Cables**



Low Flammability



Low Smoke & Gas Generation



Chemical & Fluid Resistant



Arc Tracking Resistance

**NXT99**

NXT99 cables offer a high quality interconnect designed for demanding applications requiring a simple unscreened and unsheathed multicore DEF STAN 61-12 Part 18 solution for applications including military, aerospace, marine, and industrial sectors.

Featuring dual-layer polymer insulation NXT99 cables provide excellent durability whilst retaining flexibility, and resistance to chemicals, fuels and carbon arc tracking.

Such is the versatility of NXT99 cables, they can be found in both our NXT Defence and NXT Marine collections, with compliant NATO Part Numbers (NSN) also included to help specifiers.



MULTI CORE



600V RATED



UN-SCREENED



DEF-STAN 61-12 PART 18

**CONSTRUCTION**

Conductor	Stranded Tinned Annealed Copper
Insulation	Extruded Dual Layer Polymer
Lay Up	Multiple Cores Laid Up
Tape	A removable polyester binding tape may be used to contain larger core groupings

**NOMINAL DIMENSIONS**

Conductor Cross Sectional Area	See Table 1	mm <sup>2</sup>
Conductor Gauge	See Table 1	AWG
Diameter over Insulation	See Table 1	mm
Diameter over Layup	See Table 1	mm

**ELECTRICAL PROPERTIES**

Voltage Rating	600	V RMS
	800	V DC
Max Conductor Resistance (@20°C)	See Table 1	Ω/km

**PHYSICAL PROPERTIES**

Operating Temperature Range	-50 to +120	°C
Minimum Bend Radius (Dynamic)	10	x Ø
Minimum Bend Radius (Static)	4	x Ø

**STANDARDS & APPROVALS**

Design Standard	DEF-STAN 61-12 Part 18 (Type 1)
-----------------	---------------------------------

**Table 1**

Part Codes, Nominal Dimensions, Resistance & Weight

PART CODE NXT99 (X = Table 2)	CONFIGURATION No. of Cores	CONDUCTOR				INSULATION		LAYUP	
		Gauge (AWG)	CSA (#/mm)	Strands (#/mm)	Resistance (Ω/km @20°C)	Minimum Ø (mm)	Maximum Ø (mm)	Minimum Ø (mm)	Maximum Ø (mm)
NXT99-0121-26-X	2	26	0.15	19/0.10	141.5	0.80	0.95	1.60	1.90
NXT99-0131-26-X	3	26	0.15	19/0.10	141.5	0.80	0.95	1.73	2.30
NXT99-0141-26-X	4	26	0.15	19/0.10	141.5	0.80	0.95	1.94	2.30
NXT99-0121-24-X	2	24	0.20	19/0.12	91.1	0.90	1.05	1.80	2.10
NXT99-0131-24-X	3	24	0.20	19/0.12	91.1	0.90	1.05	1.94	2.27
NXT99-0141-24-X	4	24	0.20	19/0.12	91.1	0.90	1.05	2.18	2.54
NXT99-0121-22-X	2	22	0.35	19/0.15	56.0	1.05	1.20	2.10	2.40
NXT99-0131-22-X	3	22	0.35	19/0.15	56.0	1.05	1.20	2.27	2.59
NXT99-0141-22-X	4	22	0.35	19/0.15	56.0	1.05	1.20	2.54	2.90
NXT99-0121-20-X	2	20	0.60	19/0.20	31.6	1.30	1.50	2.60	3.00
NXT99-0131-20-X	3	20	0.60	19/0.20	31.6	1.30	1.50	2.81	3.24
NXT99-0141-20-X	4	20	0.60	19/0.20	31.6	1.30	1.50	3.15	3.63
NXT99-0121-18-X	2	18	1.00	19/0.25	19.74	1.55	1.75	3.10	3.50
NXT99-0131-18-X	3	18	1.00	19/0.25	19.74	1.55	1.75	3.35	3.78
NXT99-0141-18-X	4	18	1.00	19/0.25	19.74	1.55	1.75	3.75	4.24
NXT99-0121-16-X	2	16	1.50	19/0.30	14.4	1.80	2.00	3.60	4.00
NXT99-0131-16-X	3	16	1.50	19/0.30	14.4	1.80	2.00	6.03	4.32
NXT99-0141-16-X	4	16	1.50	19/0.30	14.4	1.80	2.00	4.36	4.84
NXT99-0121-14-X	2	14	2.00	37/0.25	10.5	2.15	2.35	4.30	4.70
NXT99-0131-14-X	3	14	2.00	37/0.25	10.5	2.15	2.35	4.64	5.08
NXT99-0141-14-X	4	14	2.00	37/0.25	10.5	2.15	2.35	5.20	5.69
NXT99-0121-12-X	2	12	2.50	37/0.30	7.01	2.50	2.70	5.00	5.40
NXT99-0131-12-X	3	12	2.50	37/0.30	7.01	2.50	2.70	5.40	5.83
NXT99-0141-12-X	4	12	2.50	37/0.30	7.01	2.50	2.70	6.05	6.53

## Table 2

### NXT99 Part Code Modifiers for Size & Colour



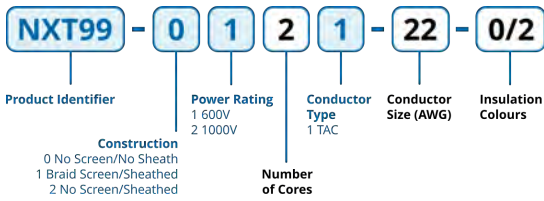
NXT99 colours are specified using the codes in this table along with the conductor size as demonstrated below.



A stripe colour can be specified via a secondary colour code enclosed in brackets. Example: 5(4) = Green with Yellow Stripe.



"SP" is used in place of a colour code where special instructions are specified separately, such as a unique colour code.



#### Examples

NXT99-0121-22-0/2      22 AWG 2 Core with Black and Red Cores  
 NXT99-0131-24-2/6/9      24 AWG 3 Core with Red, Blue and White Cores  
 NXT99-0121-20-SP      20 AWG 2 Core with Special Colour Instructions

COLOUR	CODE	COLOUR	CODE
Black	0	Green	5
Brown	1	Blue	6
Red	2	Violet	7
Pink	2L	Grey	8
Orange	3	White	9
Yellow	4	Special	SP

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**NXT** DEFENCE

**NXT99 600V Multi Core Dual Layer Insulated, Screened & Sheathed Cables**



Low Flammability



Low Smoke & Gas Generation



Chemical & Fluid Resistant



Oil & Fuel Resistant

## NXT99

NXT99 cables offer a high-quality interconnect solution designed for demanding applications which require a screened and sheathed multicore DEF STAN 61-12 Part 18 part where low smoke and toxicity are critical such as those found in the military, aerospace, marine, and industrial sectors.

Featuring dual-layer polymer insulation and electron beam crosslinked sheathing in accordance with DEF STAN 61-12 Part 31, NXT99 cables provide excellent durability whilst retaining flexibility, EMC protection and resistance to chemicals, fuels and carbon arc tracking.



MULTI CORE



600V RATED



SCREENED



DEF-STAN 61-12 PART 18

## CONSTRUCTION

Conductor	Stranded Tinned Annealed Copper
Insulation	Extruded Dual Layer Polymer
Lay Up	Multiple Cores Laid Up with Non-Hydroscopic LSZH (Low Smoke Zero Halogen) Fillers where Required
Tape	Polyester Binding & Separation Tape
Braid	Tinned Annealed Copper Wire Braid Screen (≥80% Optical Coverage)
Tape	Polyester Binding & Separation Tape
Sheath	Extruded IRL-LSZH (Irradiation Crosslinked Low Smoke Zero Halogen)

## NOMINAL DIMENSIONS

Conductor Cross Sectional Area	See Table 1
Conductor Gauge	See Table 1
Diameter over Insulation	See Table 1
Outer Sheath Diameter	See Table 1

## ELECTRICAL PROPERTIES

Voltage Rating	600	V RMS
	800	V DC
Max Conductor Resistance (@20°C)	See Table 1	Ω/km

## PHYSICAL PROPERTIES

Operating Temperature Range	-40 to +105	°C
Service Life >40,000 Hrs Continuous	+85	°C
Minimum Bend Radius (Dynamic)	10	x Ø
Minimum Bend Radius (Static)	4	x Ø

## STANDARDS & APPROVALS

Cores	DEF-STAN 61-12 Part 18
Sheath	DEF-STAN 61-12 Part 31

**Table 1**

Part Codes, Nominal Dimensions & Resistance

PART CODES NXT99 (X = Table 2)	CONFIGURATION No. of Cores	CONDUCTOR				INSULATION		OUTER SHEATH Nominal Ø (mm)
		Gauge (AWG)	CSA (#/mm)	Strands (#/mm)	Resistance (Ω/km @20°C)	Minimum Ø (mm)	Maximum Ø (mm)	
NXT99-1121-26-X-X	2	26	0.15	19/0.10	141.5	0.80	0.95	3.09
NXT99-1131-26-X-X	3	26	0.15	19/0.10	141.5	0.80	0.95	3.23
NXT99-1141-26-X-X	4	26	0.15	19/0.10	141.5	0.80	0.95	3.46
NXT99-1121-24-X-X	2	24	0.20	19/0.12	95.6	0.90	1.05	3.29
NXT99-1131-24-X-X	3	24	0.20	19/0.12	95.6	0.90	1.05	3.45
NXT99-1141-24-X-X	4	24	0.20	19/0.12	95.6	0.90	1.05	3.70
NXT99-1121-22-X-X	2	22	0.35	19/0.15	60.0	1.05	1.20	3.59
NXT99-1131-22-X-X	3	22	0.35	19/0.15	60.0	1.05	1.20	3.77
NXT99-1141-22-X-X	4	22	0.35	19/0.15	60.0	1.05	1.20	4.06
NXT99-1121-20-X-X	2	20	0.60	19/0.20	33.2	1.30	1.50	4.14
NXT99-1131-20-X-X	3	20	0.60	19/0.20	33.2	1.30	1.50	4.36
NXT99-1141-20-X-X	4	20	0.60	19/0.20	33.2	1.30	1.50	4.73
NXT99-1121-18-X-X	2	18	1.00	19/0.25	21.1	1.55	1.75	4.64
NXT99-1131-18-X-X	3	18	1.00	19/0.25	21.1	1.55	1.75	4.90
NXT99-1141-18-X-X	4	18	1.00	19/0.25	21.1	1.55	1.75	5.33
NXT99-1121-16-X-X	2	16	1.50	19/0.30	14.5	1.80	2.00	5.14
NXT99-1131-16-X-X	3	16	1.50	19/0.30	14.5	1.80	2.00	5.44
NXT99-1141-16-X-X	4	16	1.50	19/0.30	14.5	1.80	2.00	5.94
NXT99-1121-14-X-X	2	14	2.00	37/0.25	10.9	2.15	2.35	5.84
NXT99-1131-14-X-X	3	14	2.00	37/0.25	10.9	2.15	2.35	6.20
NXT99-1141-14-X-X	4	14	2.00	37/0.25	10.9	2.15	2.35	6.79
NXT99-1121-12-X-X	2	12	2.50	37/0.30	7.6	2.50	2.70	6.54
NXT99-1131-12-X-X	3	12	2.50	37/0.30	7.6	2.50	2.70	6.96
NXT99-1141-12-X-X	4	12	2.50	37/0.30	7.6	2.50	2.70	7.63

## Table 2

### NXT99 Part Code Modifiers for Size, Cores & Colour



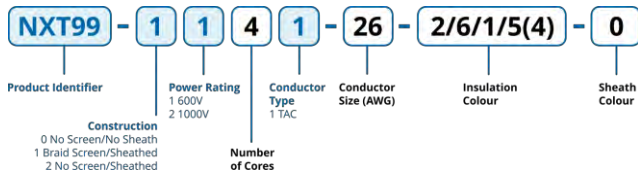
NXT99 colours are specified using the codes in this table along with the conductor size as demonstrated below.



A stripe colour can be specified via a secondary colour code enclosed in brackets. Example: 5(4) = Green with Yellow Stripe.



“SP” is used in place of a colour code where special instructions are specified separately, such as a unique colours.



### Examples

NXT99-1131-20-2/6/9-0  
20 AWG 3 Core  
Red, Blue, White Cores with Black Sheath

NXT99-1151-26-2/6/1/5(4)-0  
26 AWG 5 Core  
Red, Blue, Brown, Green/Yellow Cores with Black Sheath

NXT99-1181-24-SP-9  
24 AWG 8 Core  
Special Instruction Core Colour Configuration with White Sheath

COLOUR	CODE	COLOUR	CODE
Black	0	Green	5
Brown	1	Blue	6
Red	2	Violet	7
Pink	2L	Grey	8
Orange	3	White	9
Yellow	4	Special	SP

You're in  
great hands.



An important arm of the Amokabel Group, the Amokabel Brand-Rex facility in the UK is highly regarded as a centre of excellence for specialist cable development. Building on 125 years of expertise and the legacy of BICC, the facility in Leigh continues to serve as a hub for extreme performance cable innovation, serving major defence, aerospace, and naval marine contracts to this day.



## Locations



Headquartered in Sweden with locations in Europe and Australia, the Amokabel Group unites an exceptional knowledge pool with unprecedented capacity, producing standard and custom cables for today's most demanding applications worldwide.

### Sweden

**Alstermo**  
HQ & Production

### UK

**Manchester**  
Production  
**Mansfield**  
Production

### Germany

**Wiefelstede**  
Sales

### Australia

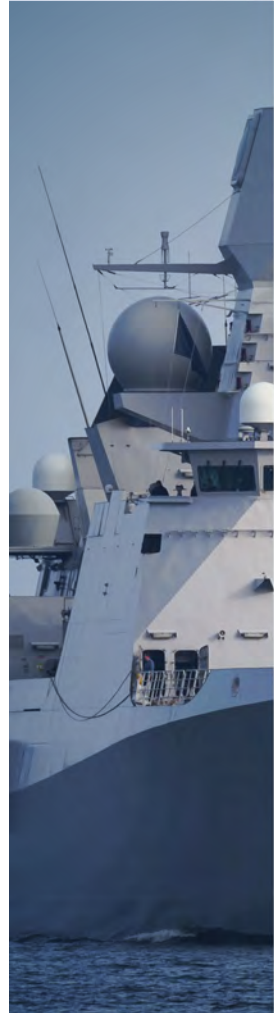
**Sydney**  
Production  
**Canberra**  
Sales

### Spain

**Vallbona**  
Production  
**Calanda**  
Production

### Norway

**Ålesund**  
Sales



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