

# Multi-Core Collectively Screened Flexible “LFH” Insulated and Sheathed Cable for Military Vessels

DS 02-526 (NES526) 440V 85°C



## Application

Multi-core collectively screened cables for control circuits in HM surface ships and vessels. Incorporates LFH (Limited Fire Hazard) insulation and sheath for reduced levels of smoke and toxic fumes in the event of a fire. For use in fixed or flexible applications and suitable for use where fuel, lubricating oils, hydraulic fluids and water are present.

## Specifications

- In accordance with DS 02-526.
- **Conductor:** Flexible Class 5 tinned copper conductors to BS EN 60228.
- **Insulation:** Dual layer LFH insulation to DS 02-526.
- **Core Identification:**
  - 2 core - blue, brown.
  - 3 core - green/yellow, blue, brown.
  - 4 core - green/yellow, black, blue, brown.
  - 5 core - green/yellow, black, blue, brown, black.
  - 7 core - cores shall be number printed.
- **Outer Sheath:** Black LFH sheath to DEF61-12 part 31. In addition, the sheath also displays the following characteristics:
  - Minimum oxygen index: 30%.
  - Maximum HCL emission @ 800°C: 0.5%.
- Collective tinned copper wire braid screen (minimum 0.61 filling factor) **Braid is left bare.**
- Flame retardant to BS EN 60332-1-2 for completed cables with individual conductor size less than 4mm<sup>2</sup>. BS EN 50266-2-3 NMV 3.5 (IEC60332-3-23 Category B) as a minimum, for completed cables with individual conductor sizes 4mm<sup>2</sup> and greater.
- **Voltage Rating:** 440V rms (between cores, or between cores and ships structure, or between cores and cable screen).
- **Temperature Rating:** 85°C maximum conductor operating temperature.  
N.B. Cables also retain a degree of flexibility under weatherdeck conditions of -30°C.

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N.S.N. 6145-99-	Anixter Number A10DW-	Nominal Cond Area mm <sup>2</sup>	Nominal Cond Stranding #/mm	Number of Cores	Insulation Thickness mm	Copper Braid Wire Size mm	Nominal O/D mm
521-8371	521-8371-M	0.5	16/0.2	2	0.8	0.2	8.3
521-8373	521-8373-M	1.0	32/0.2	2	0.8	0.2	9.1
521-8374	521-8374-M	1.5	30/0.25	2	0.8	0.2	9.9
521-8375	521-8375-M	2.5	50/0.25	2	0.9	0.2	11.4
521-8376	521-8376-M	0.5	16/0.2	3	0.8	0.2	8.7
521-8378	521-8378-M	1.0	32/0.2	3	0.8	0.2	9.8
521-8379	521-8379-M	1.5	30/0.25	3	0.8	0.2	10.4
521-8381	521-8381-M	0.75	24/0.2	4	0.8	0.2	10.4
521-8382	521-8382-M	0.5	16/0.2	5	0.8	0.2	10.3
521-8383	521-8383-M	0.5	16/0.2	7	0.8	0.2	12.2

N.B. Details of weights of cable to DS 02-526 are available on request.

Cores may be supplied with black insulation printed with the core colour, e.g. BLUE, etc.

# Technical Information

for DS 02-526 (NESS26) Cables

## CURRENT RATINGS

Conductor Size mm <sup>2</sup>	Current Rating *A
1.0	17
1.5	23
2.5	33
4.0	43
6.0	55
10	79
16	100
25	140
35	165
50	200
70	250
95	315
120	380
150	420
185	480
240	560
300	660

\* The ratings quoted are based on 40°C ambient air temperature and assume only one core carrying current. When more than one core carries current the following factors should be applied:

Number of cores loaded	2	3	4	7	14	18	30
Rating factor	0.8	0.7	0.7	0.6	0.5	0.45	0.4
Ambient air temp °C	30	40	45	50	55	60	70
Rating factor	1.05	1.0	0.94	0.88	0.82	0.75	0.67

## MINIMUM BEND RADIUS

	Up to 10mm O/D	10.1 to 25.4mm O/D	Above 25.4mm O/D
Non-armoured cables	3D	4D	6D
Braid screened cables	6D	6D	6D