

Miniature Multi-Core Silicone Insulated, “LFH” Sheathed Cable for Military Vessels

Un-screened, or Individually Screened, or Collectively Screened **DS 02-527 (NES527)** 440V 105°C



Application

Fire resistant cable for control, instrumentation, communication use, etc., in military vessels where the cable is required to retain circuit integrity in the event of a fire, for emergency lighting, alarms, shutdown systems etc. Incorporates LFH (Limited Fire Hazard) sheath for reduced levels of smoke and toxic fumes in the event of a fire.

Specifications

- In accordance with DS 02-527.
- **Conductor:** Stranded Class 2 tinned copper conductors to BS EN 60228.
- **Insulation:** Silicone rubber insulation to BS7655 + fibre glass braid and lacquer.
- **OPTIONAL:** 0.15mm tinned copper wire braid applied over each core (minimum 0.61 filling factor).
- **Screen Isolation Tape:** p.e.t.p. tape 50% overlap (on individually screened types only).
- **Core Identification:** Cores shall be colour coded as follows:
 - 2 core - red, blue.
 - 3 core - red, blue, natural.
 - Multi-core cables - red, blue marker cores adjacent in each layer with remaining cores natural.
- **OPTIONAL:** Collective tinned copper wire braid screen (minimum 0.61 filling factor).
- **Outer Sheath:** Black LFH (Limited Fire Hazard) outer sheath to DEF61-12 part 31. In addition, the outer sheath also displays the following characteristics:
 - Minimum oxygen index: 30%.
 - Maximum HCL emission @ 800°C: 0.5%.
- Flame retardant to BS EN 50266-2-3 NMV 3.5 (IEC60332-3-23 Category B) as a minimum.
- Meets 3 hour 750°C fire test (identical to IEC60331).
- **Voltage Rating:** 440V.
- **Temperature Rating:** 105°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. Number 6145-99-521	Anixter Number A10DW-521	Nominal Cond Area mm ²	Nominal Cond Stranding #/mm	Number of Cores	Insulation Thickness mm	Nominal O/D mm	Current Rating A†
* -6970	-6970-M	0.35	19/0.15	2	0.35	6.20	6
*** -6971	-6971-M	0.35	19/0.15	2	0.35	7.00	6
*** -6972	-6972-M	0.35	19/0.15	2	0.35	7.40	6
* -6973	-6973-M	0.35	19/0.15	3	0.35	6.50	6
** -6974	-6974-M	0.35	19/0.15	3	0.35	7.30	6
*** -6975	-6975-M	0.35	19/0.15	3	0.35	7.80	6
* -6976	-6976-M	0.35	19/0.15	4	0.35	7.00	6
** -6977	-6977-M	0.35	19/0.15	4	0.35	7.80	6
*** -6978	-6978-M	0.35	19/0.15	4	0.35	8.40	6
* -6979	-6979-M	0.35	19/0.15	6	0.35	8.10	6
** -6980	-6980-M	0.35	19/0.15	6	0.35	9.00	6
*** -6981	-6981-M	0.35	19/0.15	6	0.35	10.10	6
* -6982	-6982-M	0.35	19/0.15	12	0.35	10.40	6
** -6983	-6983-M	0.35	19/0.15	12	0.35	11.30	6
*** -6984	-6984-M	0.35	19/0.15	12	0.35	13.20	6
* -6985	-6985-M	0.35	19/0.15	18	0.35	12.30	6
** -6986	-6986-M	0.35	19/0.15	18	0.35	13.30	6
*** -6987	-6987-M	0.35	19/0.15	18	0.35	15.50	6
* -6988	-6988-M	0.35	19/0.15	25	0.35	14.10	6
** -6989	-6989-M	0.35	19/0.15	25	0.35	15.30	6
*** -6990	-6990-M	0.35	19/0.15	25	0.35	18.20	6
** -6991	-6991-M	0.35	19/0.15	36	0.35	17.50	6
* -6992	-6992-M	0.35	19/0.15	60	0.35	20.40	6
** -6993	-6993-M	0.35	19/0.15	60	0.35	21.60	6

* Un-screened ** Collectively screened only *** Individually screened only.

† The current ratings are for **one core** only carrying current. When more than one core carries current the following rating 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

N.B. All current ratings shown are based on an ambient air temperature of 50°C. For ambient air temperatures other than 50°C the following rating factors should be applied.

Ambient air temp °C	45	50	55	60	65	70	75	80	85	90	95	100
Rating factor	1.04	1.0	0.95	0.90	0.85	0.80	0.74	0.67	0.60	0.52	0.43	0.30

N.B. Details of weights of cable to DS 02-527 are available on request.