

## MULTICORE CABLE

These standard, miniature sub-miniature cables are manufactured to Ministry of Defence, Defence standard 61-12 Part 4 (for miniature and sub-miniature sizes), and Part 5 (for standard sizes).

The cores have tinned conductors of high conductivity annealed copper insulated with PVC compound to BS6746 type 2. Collectively screened types C and R, and individually screened types D have a screen of braid construction conductivity tinned annealed copper wire. The fill factor of density of braid as defined in Def 61-12 parts 4 and 5 is not less than 0.70 for C and R types and 0.45 for D types. All types are overall sheathed with Black or Grey PVC to BS6746 type 6.

These multicore flexible cables are designed for high density wiring between components and within instruments and electronic equipment. They are extensively used in aircraft, avionic control systems, computers, data processors, process control systems, military vehicles and ancillary military equipment. Because of the mechanical design of these cables they should not be used for direct connection of equipment's to mains power supplies. Cables suitable for such purposes are listed in our cable section titled "Flexible Mains Cord" which are manufactured to BS6500.

16-2-8C, 16-2-50C, 16-2-36A, 16-2-8A, 7-2-8A, 7-2-20A, 7-2-8C, 7-2-10C, 7-2-15C, 7-2-20C, 7-1-9C, 7-1-15C, 7-1-9A, 7-1-15A and grey sheathed types, are core number and sheath colours not specifically listed in Defence Standard 61-12 Parts 4 or 5. Because of their suitability for applications in the electronics industry, We are manufacturing these configurations in conformance with specifications for similar cables included in the defence standard.

### Colour Rotation of Cores

The sequence of colours used for core identifications as follows:

Red: Blue: Green: Yellow: White: Black: Brown: Violet: Orange: Pink: Turquoise: Grey: Red/Blue: Green/Red: Yellow/Red: White/Red: Red/Black: Red/Brown: Yellow/Blue: White/Blue: Blue/Black: Orange/Blue: Green/Blue: Grey/Blue: Yellow/Green: White/Green: Green/Black: Orange/Green: Grey/Green: Yellow/Brown: White/Brown: Brown/Black: Grey/Brown: Yellow/Violet: Violet/Black: White/Violet.

For bicolours; first colour ground, second colour tracer.

Core colours for 25 core cable are as above, excluding Green/Blue, Grey/Blue and Green/Black.

Core colours for 16-2-10C are as follows: White cores each paired with Blue, Orange, Green, Brown and Grey.

Core colours for 50 core cables are as follows: Centre cores Red, Blue and White, first layer Red, Blue and 7 seven white cores, second layer Red, Blue and White cores, third layer Red, Blue and 20 White cores.

Core colours for 16-2-60C are as follows: Centre core dummy first layer Red, Blue and 4 White cores. Second layer Red, Blue and 10 White cores. Third layer Red, Blue and 16 White cores.

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Type No Explanation

7	2	4	C
NO OF WIRES PER CONDUCTOR	NOMINAL DIAMETER OF EACH WIRE 1 = 0.10MM 2 = 0.20MM 3 = 0.315MM	NO OF CORES	TYPE OF CONSTRUCTION A - TINNED CONDUCTORS INSULATED WITH PVC TO BS6746 TYPE 2, OVERALL SHEATHED WITH PVC TO BS6746 TYPE 6. R&C - TINNED CONDUCTORS INSULATED WITH PVC TO BS6746 TYPE 2, COLLECTIVELY SCREENED BRAID CONSTRUCTION USING TINNED, ANNEALED COPPER WIRE. FILL FACTOR OF DENSITY OF BRAID NOT TO BE LESS THAN 0.70. OVERALL SHEATHED WITH PVC TO BS6746 TYPE 6. D - TINNED CONDUCTORS INSULATED WITH PVC BS6746 TYPE 2, INDIVIDUALLY SCREENED BRAID CONSTRUCTION USING TINNED ANNEALED COPPER WIRE. FILL FACTOR OF DENSITY OF BRAID NOT TO BE LESS THAN 0.45. OVERALL SHEATHED WITH PVC TO BS6746 TYPE 6.

TYPE No	CORES	MIN	MAX	TYPE No	CORES	MIN	MAX	TYPE No	CORES	MIN	MAX
7-2-2A	2	3.1	3.6*	7-2-8A	8	5.3	5.8	7-2-25A	25	8.4	9.0
7-2-3A	3	3.3	3.8	7-2-12A	12	5.8	6.4	7-2-36A	36	9.5	10.1
7-2-4A	4	3.6	4.1	7-2-18A	18	7.1	7.7	7-2-50A	50	11.2	12.0
7-2-6A	6	4.3	4.8	7-2-20A	20	7.4	8.1				
7/0.2MM PVC INSULATED OVERALL PVC SHEATHED		DIAMETER OF WIRES IN EACH CORE		RATED		DEF 61-12 CURRENT RATING PER CORE		EQUIVALENT IMPERIAL CONDUCTOR SIZES		7 WIRES PER CORE	
FILL FACTOR OF BRAID SCREEN 0.7.		0.2 MM		440 VOLTS ac r.m.s. at 1600hz		1 AMP		7/0.0076			
NOMINAL CONDUCTOR AREA (PER CORE)		MAX OPERATING TEMPERATURE		NOMINAL INSULATION RADIAL THICKNESS ON CORE		NOMINAL CONDUCTOR DIAMETER PER CORE		NOMINAL CORE RESISTANCE		NOMINAL OVERALL DIAMETER PER CORE	
0.085 MM <sup>2</sup>		70 ° C		0.2MM		0.6 MM		20 ° C 92 Ω/KM		0.7 MM	

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Grey/Green: Yellow/Brown: White/Brown: Brown/Black: Grey/Brown: Yellow/Violet: Violet/Black: White/Violet.

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