

# Traffic Signal Cable BS 6346 SWA PVC



Eland Product Group: **A6T**

## APPLICATION

For the interconnection of traffic signal equipment or other applications requiring high core configurations with mechanical robustness.

## CONSTRUCTION

### Conductor

Class 1 annealed copper conductor

### Insulation

PVC (Polyvinyl Chloride) Type T11

### Bedding

Polymeric compound with a tensile strength of not less than 4N/mm<sup>2</sup> and an elongation break of not less than 50%

### Armour

Single layer of galvanized wires laid in a right direction

### Sheath

PVC (Polyvinyl Chloride) Type TM1 according to BS EN 50363

## CABLE STANDARDS

Generally to BS 6346, BS EN/IEC 60228,  
BS EN/IEC 60332-1-2, BS EN 50364



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

## CHARACTERISTICS

**Voltage Rating (U<sub>o</sub>/U)**  
600/1000V

**Temperature Rating**  
Fixed: -15°C to +70°C

**Short Circuit Temperature**  
+160°C

**Minimum Bending Radius**  
6 x overall diameter

### Core Identification

#### 8 cores:

Centre Lay (Right Hand Lay): ● Brown  
Second Layer (Left Hand Lay): ● Yellow ● Green/Blue ● Red  
○ White ● Blue ● Black  
● Orange

#### 12 cores:

Centre Lay (Right Hand Lay): ● Brown ● Yellow ● Green/Blue  
Second Layer (Left Hand Lay): ● Red ○ White ● Blue ● Black  
● Orange ● Red/White ● Grey  
● Red/Blue ● Violet

#### 16 cores:

Centre Lay (Right Hand Lay): ● Brown ● Yellow ● Green/Blue  
● Red ○ White  
Second Layer (Left Hand Lay): ● Blue ● Black ● Orange  
● Grey ● Red/Blue ● Violet  
● Brown/Red ● Yellow/Red  
● Grey/Red ● Black/Red  
● Red/White

#### 20 cores:

Centre Lay (Right Hand Lay): ● Brown ● Yellow ● Green/Blue  
● Red ○ White ● Blue ● Black  
Second Layer (Left Hand Lay): ● Orange ● Red/White ● Grey  
● Red/Blue ● Violet  
● Brown/Red ● Yellow/Red  
● Grey/Red ● Black/Red  
● Violet/Red ● Orange/Red  
● Green/Red ● Blue/White

#### Sheath Colour

● Orange

## DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL THICKNESS OF INSULATION mm	BEDDING THICKNESS mm	DIAMETER OF STEEL WIRE mm	NOMINAL THICKNESS OF SHEATH mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
A6T08010SWA	8	1	0.6	0.8	0.9	1.4	13.2	388
A6T08015SWA	8	1.5	0.6	0.8	0.9	1.4	13.4	451
A6T12010SWA	12	1	0.6	0.8	1.25	1.4	16.2	615
A6T12015SWA	12	1.5	0.6	0.8	1.25	1.5	17.4	729
A6T16010SWA	16	1	0.6	0.8	0.9	1.5	17.6	725
A6T16015SWA	16	1.5	0.6	0.8	1.25	1.6	18.9	864
A6T20010SWA	20	1	0.6	0.8	1.25	1.6	19	841
A6T20015SWA	20	1.5	0.6	0.8	1.25	1.6	20.2	997

## CONDUCTORS

Class 1 Solid Conductors for Single Core and Multi-Core Cables

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C	
	Circular, Annealed Copper Conductors	
	Plain Wires ohms/km	
1	18.1	
1.5	12.1	

The above table is in accordance with BS EN 60228 (previously BS 6360)

## ELECTRICAL CHARACTERISTICS

### Current Carrying Capacity and Resistance Values

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	MAXIMUM CONDUCTOR RESISTANCE AT 20°C ohms/km	CURRENT CARRYING CAPACITY		VOLTAGE DROP mV/A/m
			In Air Amps	Direct Burial Amps	
8	1	18.1	12	10.5	25
12	1	18.1	10	8.7	25
16	1	18.1	9	8	25
20	1	18.1	8	7.1	25
8	1.5	12.1	15	13.5	38
12	1.5	12.1	13	11.7	38
16	1.5	12.1	11	10	38
20	1.5	12.1	10	9.1	38

The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.