

# SY Control Flexible Cable to BS6500

Eland Product Group **A5J**



## Application

Used as interconnecting cable for measuring, controlling or regulation in control equipment for assembly and production lines, conveyors and for computer units. Suitable for fixed installations or for flexible use in conditions of light mechanical stress. Can be used outdoors when protected, and in dry or moist conditions indoors.

The braided screen offers the best possible protection against mechanical damage and offers a level of Electro-magnetic shielding. The galvanised coating helps protect against corrosion.

## Standards

Generally to BS6500, VDE0250

## Technical Data

### Conductor

Class 5 flexible plain copper conductors to BS EN 60228:2005 (previously BS6360), VDE0295, IEC 60228

### Insulation

PVC (Polyvinyl Chloride) Type T1 2 complying with BS EN 50363-3:2005

### Bedding

PVC (Polyvinyl Chloride) TM2 as specified in BS EN 50363-4-1:2005

### Braiding

GSWB (Galvanised Steel Wire Braid)  
Minimum coverage of braiding shall be 50%

### Sheath

PVC (Polyvinyl Chloride) conforming to TM 2 as specified in BS EN 50363-4-1:2005

### Sheath Colour

Transparent

### Voltage Rating

300/500V

### Operating Temperature

-15°C to +70°C

### Short Circuit Temperature

+160°C

### Minimum Installation Radius

10 x overall diameter

### Core Identification

Black with White numbers. (3 Cores and above to include Green/Yellow) Coloured cores available

### Note

SY Cables are not suitable for direct connection to the public mains supply.

## Dimensions

Eland Part Number	No. of Cores x Nominal Cross Sectional Area # x mm <sup>2</sup>	Nominal Overall Diameter mm	Nominal Weight kg/Km	FCGCXT Gland
SY Control Flexible Cable - 2 Cores				
A5J20075	2 x 0.75	7.2	79	20S
A5J2010	2 x 1.00	7.6	91	20S
A5J2015	2 x 1.50	8.4	112	20S

Eland Part Number	No. of Cores x Nominal Cross Sectional Area # x mm <sup>2</sup>	Nominal Overall Diameter mm	Nominal Weight kg/Km	FCGCXT Gland
<b>SY Control Flexible Cable - 3 Cores</b>				
A5J30075	3 x 0.75	7.5	91	20S
A5J3010	3 x 1.00	7.9	104	20S
A5J3015	3 x 1.50	8.8	130	20S
A5J3025	3 x 2.50	10.3	184	20S
A5J3040 †	3 x 4.00	11.9	253	20
A5J3060	3 x 6.00	13.8	355	25
A5J310	3 x 10.00	16.8	545	25
A5J316	3 x 16.00	19.8	849	25/32
A5J325	3 x 25.00	24.2	1298	32
A5J335	3 x 35.00	26.3	1626	40
<b>SY Control Flexible Cable - 4 Cores</b>				
A5J40075	4 x 0.75	8.1	106	20S
A5J4010	4 x 1.00	8.7	127	20S
A5J4015	4 x 1.50	9.4	154	20S
A5J4025	4 x 2.50	11.1	220	20S
A5J4040	4 x 4.00	12.9	308	20
A5J4060	4 x 6.00	15.0	435	25
A5J410	4 x 10.00	18.3	673	25
A5J416	4 x 16.00	21.9	1004	32
A5J425	4 x 25.00	26.4	1607	40
A5J435	4 x 35.00	30.2	2054	40
A5J450	4 x 50.00	34.3	2605	50S
A5J470	4 x 70.00	38.5	3453	50
A5J495	4 x 95.00	43.0	4544	50
<b>SY Control Flexible Cable - 5 Cores</b>				
A5J50075	5 x 0.75	8.9	128	20S
A5J5010	5 x 1.00	9.4	148	20S
A5J5015	5 x 1.50	10.4	186	20S
A5J5025	5 x 2.50	12.2	267	20
A5J5040	5 x 4.00	13.9	366	25
A5J5060	5 x 6.00	16.5	530	25
A5J510	5 x 10.00	20.0	825	32
A5J516	5 x 16.00	23.9	1217	32
A5J525	5 x 25.00	28.8	1941	40
A5J535	5 x 35.00	32.7	2559	50S
<b>SY Control Flexible Cable - 7 Cores</b>				
A5J70075	7 x 0.75	9.5	152	20S
A5J7010	7 x 1.00	10.4	187	20S
A5J7015	7 x 1.50	11.7	242	20
A5J7025	7 x 2.50	13.5	340	20
<b>SY Control Flexible Cable - 8 Cores</b>				
A5J80075	8 x 0.75	10.5	181	20S
A5J8010	8 x 1.00	10.8	203	20S
A5J8015	8 x 1.50	12.4	302	20
<b>SY Control Flexible Cable - 12 Cores</b>				
A5J12075	12 x 0.75	13.0	273	20
A5J12010	12 x 1.00	13.2	303	20
A5J1215	12 x 1.50	15.1	398	25
A5J12025	12 x 2.50	17.6	571	25
<b>SY Control Flexible Cable - 18 Cores</b>				
A5J180075	18 x 0.75	15.0	370	25
A5J18010	18 x 1.00	15.9	437	25
A5J18015	18 x 1.50	17.6	553	25
A5J18025	18 x 2.50	20.6	803	32
<b>SY Control Flexible Cable - 25 Cores</b>				
A5J250075	25 x 0.75	17.6	504	25
A5J25010	25 x 1.00	18.4	586	25
A5J02515	25 x 1.50	20.6	753	32
A5J2525	25 x 2.50	24.2	1101	32

## Conductors

### Class 5 flexible Copper Conductors for Single Core and Multi-Core cables

1	2	3
Nominal Cross Sectional Area mm <sup>2</sup>	Maximum Diameter of Wires in Conductor mm	Maximum Resistance of Conductor at 20°C
		Plain Wires ohms/Km
0.75	0.21	26.0000
1.00	0.21	19.5000
1.50	0.26	13.3000
2.50	0.26	7.9800
4.00	0.31	4.9500
6.00	0.31	3.3000
10.00	0.41	1.9100
16.00	0.41	1.2100
25.00	0.41	0.7800
35.00	0.41	0.5540
50.00	0.41	0.3860
70.00	0.51	0.2720
95.00	0.51	0.2060

Table in accordance with BS EN 60228:2005 (previously BS6360)

## Electrical Characteristics

### Current Carrying Capacity (amperes) at 30°C

Nominal Cross Sectional Area mm <sup>2</sup>	Current Carrying Capacity	
	In Conduit Amps	In Air Amps
0.75	10	16
1.00	12	20
1.50	15	24
2.50	20	32
4.00	25	42
6.00	33	54
10.00	45	73
16.00	61	98
25.00	83	129
35.00	103	158
50.00*	168	-
70.00*	207	-
95.00*	250	-

### De-rating Factors

Multi-Conductor cables with cross sectional area up to 10mm<sup>2</sup>

No. of Cores	De-rating Factor
5	0.75
7	0.65
10	0.55
14	0.50
19	0.45
24	0.40
40	0.35

The information contained within this datasheet is for guidance only. When selecting accessories such as cleats, glands, etc please note that actual cable dimensions may vary due to manufacturing tolerances.