

# 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.

**Standards**

Generally to BS6500, VDE0250

**Conductor**

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

**Insulation**

PVC (Polyvinyl Chloride) Type Y12

**Bedding**

PVC (Polyvinyl Chloride) Type YM2

**Braiding**

GSWB (Galvanised Steel Wire Braid)

**Sheath**

PVC (Polyvinyl Chloride) Type YM2

**Sheath Colour**

Transparent

**Voltage Rating**

300/500V

**Temperature Rating**

Fixed: -35 to +70°C

Flexing: -15 to +70°C

**Minimum Bending 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	7.5	73	20S
A5J2010	2 x 1.00	7.7	79	20S
A5J2015	2 x 1.50	8.5	96	20S

**SY Control Flexible Cable - 3 Cores**

A5J30050	3 x 0.50	6.3	85	16/20SS
A5J30075	3 x 0.75	7.8	82	20S
A5J3010	3 x 1.00	8.0	90	20S
A5J3015	3 x 1.50	8.5	117	20S
A5J3025	3 x 2.50	9.7	155	20S
A5J3040	3 x 4.00	11.4	216	20
A5J3060	3 x 6.00	13.1	307	25
A5J310	3 x 10.00	16.3	483	25
A5J316	3 x 16.00	19.6	760	32

**SY Control Flexible Cable - 4 Cores**

A5J40075	4 x 0.75	8.2	89	20S
A5J4010	4 x 1.00	8.5	106	20S
A5J4015	4 x 1.50	9.2	132	20S
A5J4025	4 x 2.50	10.7	191	20S
A5J4040	4 x 4.00	12.3	271	20
A5J4060	4 x 6.00	14.5	379	25
A5J410	4 x 10.00	18.0	608	25
A5J416	4 x 16.00	21.8	945	32
A5J425	4 x 25.00	25.1	1349	32
A5J435	4 x 35.00	29.6	1839	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

**SY Control Flexible Cable - 5 Cores**

A5J50075	5 x 0.75	8.8	101	20S
A5J5010	5 x 1.00	9.1	119	20S
A5J5015	5 x 1.50	9.7	147	20S
A5J5025	5 x 2.50	11.5	224	20
A5J5040	5 x 4.00	13.8	330	25
A5J5060	5 x 6.00	16.4	474	25
A5J510	5 x 10.00	19.5	734	32
A5J516	5 x 16.00	23.4	1123	32
A5J525	5 x 25.00	28.3	1670	40
A5J535	5 x 35.00	32.0	2197	50S

**SY Control Flexible Cable - 7 Cores**

A5J70075	7 x 0.75	9.3	127	20S
A5J7010	7 x 1.00	9.7	145	20S
A5J7015	7 x 1.50	10.6	184	20S
A5J7025	7 x 2.50	12.6	285	20

**SY Control Flexible Cable - 8 Cores**

A5J8015	8 x 1.50	11.7	207	20
---------	----------	------	-----	----

Datasheet Continues »

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 - 12 Cores</b>				
A5J12075	12 x 0.75	11.5	187	20
A5J12010	12 x 1.00	12.1	226	20
A5J1215	12 x 1.50	13.5	293	25
A5J12025	12 x 2.50	16.6	460	25
<b>SY Control Flexible Cable - 18 Cores</b>				
A5J180050	18 x 0.50	11.6	255	20
A5J180075	18 x 0.75	13.3	258	25
A5J18010	18 x 1.00	13.8	311	25
A5J18015	18 x 1.50	16.3	433	25
A5J18025	18 x 2.50	19.3	654	32
<b>SY Control Flexible Cable - 25 Cores</b>				
A5J250075	25 x 0.75	16.3	370	25
A5J25010	25 x 1.00	16.9	438	25
A5J02515	25 x 1.50	19.0	572	25
A5J2525	25 x 2.50	23.2	891	32

## Conductors

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

1 Nominal Cross Sectional Area mm <sup>2</sup>	2 Maximum Diameter of Wires in Conductor mm	3 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 Rating Amps
0.50	7
0.75	12
1.00	15
1.50	18
2.50	26
4.00	34
6.00	44
10.00	61
16.00	82
25.00	108
35.00	135
50.00	168
70.00	207
95.00	250

Datasheet Continues »

### SY Control Flexible Cable [Continued]

**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
61	0.30