

## SY Control Flexible Cable to BS6500



### 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 TI 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

Part Number	No. of Cores x Nominal Cross Sectional Area # x mm <sup>2</sup>	Nominal Overall Diameter mm	Nominal Weight Kg/Km	FCGXT Gland
SY Control Flexible Cable – 2 Cores				
SY(2C)0.75G	2 x 0.75	7.2	79	16/20
SY(2C)1G	2 x 1.00	7.6	91	16/20
SY(2C)1.5G	2 x 1.50	8.4	112	16/20

SY Control Flexible Cable – 3 Cores				
SY(3C)0.75G	3 x 0.75	7.5	91	16/20
SY(3C)1G	3 x 1.00	7.9	104	16/20
SY(3C)1.5G	3 x 1.50	8.8	130	20S
SY(3C)2.5G	3 x 2.50	10.3	184	20S
SY(3C)4G	3 x 4.00	11.9	253	20
SY(3C)6G	3 x 6.00	13.8	355	20
SY(3C)10G	3 x 10.00	16.8	545	25
SY(3C)16G	3 x 16.00	19.8	849	25
SY(3C)25G	3 x 25.00	24.2	1298	32
SY(3C)35G	3 x 35.00	26.3	1626	32

## Conductors

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

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>

5	0.75
7	0.65
10	0.55
14	0.50
19	0.45
24	0.40
40	0.35
61	0.30

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.

*This is a reprint of the manufacturer's datasheet; please refer to the cable manufacturer for further details. GCA Ltd makes no claims as to the warranty of the information contained in this datasheet.*