

# SY Type Control Cable

## 0.5mm<sup>2</sup> to 120mm<sup>2</sup>

### PVC Sheath

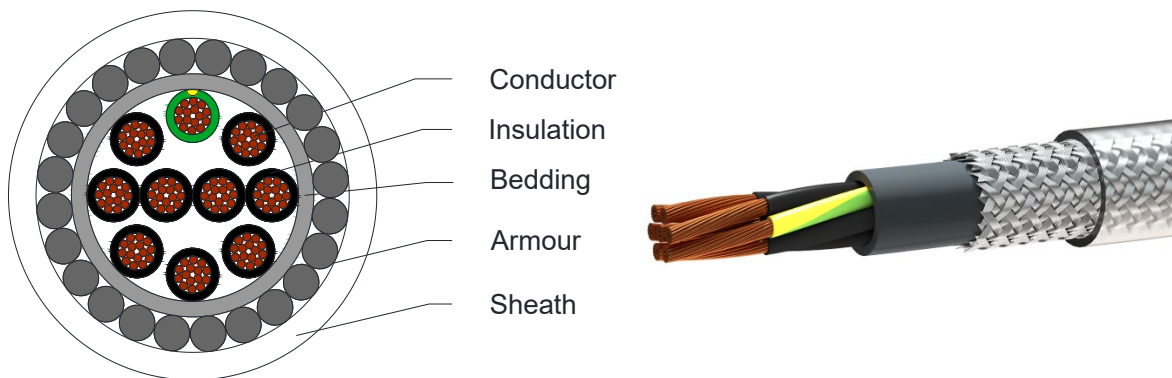


C2100 TO C2190

### Applications

Control cables in tool machinery, plant installation, power stations and data equipment. The braided screen of the galvanized steel wires offers the best possible protection against mechanical damage without reducing flexibility

### Cross Section Drawing



### Design

Unit	Properties
Conductor	Class 5 flexible plain copper wire
Insulation	FR-PVC Green/Yellow core and Black cores with number identified.
Filling	PVC strip (where required)
Bedding	FR-PVC Colour: Grey
Braiding	Galvanised steel wire
Outer Sheath Material	FR-PVC Standard Colour: Transparent
Standard Put Up Length	305m

\*Other Colors, Put Up Lengths and structures can be manufactured upon request, please contact your local B3 International sales representative.

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**Electrical Characteristics at 20°C**

Conductor Gauge (sq mm)	Max DC Resistance (Ohm/km)	Rated Temperature (°C)	Rated Voltage (V)	Min Insulation Resistance (M.Ohm/km)
0.5	< 39	-20 to +80	300	>500
0.75	< 27	-20 to +80	300	>500
1.0	< 20.2	-20 to +80	300	>500
1.5	< 14	-20 to +80	300	>500
2.5	< 8.4	-20 to +80	300	>500
4.0	< 5.0	-20 to +80	300	>500
6.0	< 3.3	-20 to +80	300	>500
10.0	< 1.91	-20 to +80	300	>500
16.0	< 1.21	-20 to +80	300	>500
25.0	< 0.78	-20 to +80	300	>500
35.0	< 0.554	-20 to +80	300	>500
50.0	< 0.386	-20 to +80	300	>500
70.0	< 0.272	-20 to +80	300	>500
95.0	< 0.206	-20 to +80	300	>500
120.0	< 0.161	-20 to +80	300	>500

**Constructional Information**

**0.5mm<sup>2</sup>**

P/N	Cross Sectional Area (mm <sup>2</sup> )	Conductor Construction (mm)	Nom. Thickness of insulation (mm)	Diameter over bedding (mm)	Braiding GSW Wire (mm)	Nom. Thickness of jacket (mm)	Overall Diameter (mm)	Nom. Weight (kg/km)
C2100	2*0.5	15/0.20	0.4	4.60	16/3/0.20	0.80	7.20	68
C2101	3*0.5	15/0.20	0.4	4.90	16/3/0.20	0.80	7.50	77
C2102	4*0.5	15/0.20	0.4	5.30	16/3/0.20	0.80	7.90	87
C2103	5*0.5	15/0.20	0.4	5.80	16/4/0.20	0.80	8.40	100
C2104	7*0.5	15/0.20	0.4	6.30	16/4/0.20	0.80	8.90	117
C2105	10*0.5	15/0.20	0.4	8.20	16/5/0.20	0.80	10.80	161
C2106	12*0.5	15/0.20	0.4	8.50	16/5/0.20	0.80	11.20	177
C2107	18*0.5	15/0.20	0.4	9.90	16/6/0.20	1.00	12.90	245
C2108	21*0.5	15/0.20	0.4	10.40	24/4/0.20	1.00	13.40	268
C2109	25*0.5	15/0.20	0.4	12.10	24/5/0.20	1.00	15.10	322
C2110	34*0.5	15/0.20	0.4	13.50	24/5/0.20	1.20	16.90	417

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**0.75mm<sup>2</sup>**

P/N	Cross Sectional Area (mm <sup>2</sup> )	Conductor Construction (mm)	Nom. Thickness of insulation (mm)	Diameter over bedding (mm)	Braiding GSW Wire (mm)	Nom. Thickness of jacket (mm)	Overall Diameter (mm)	Nom. Weight (kg/km)
C2111	2*0.75	23/0.20	0.4	5.00	16/3/0.20	0.80	7.60	79
C2112	3*0.75	23/0.20	0.4	5.30	16/3/0.20	0.80	7.90	89
C2113	4*0.75	23/0.20	0.4	5.80	16/4/0.20	0.80	8.40	103
C2114	5*0.75	23/0.20	0.4	6.30	16/4/0.20	0.80	8.90	119
C2115	7*0.75	23/0.20	0.4	6.90	16/4/0.20	0.80	9.50	142
C2116	10*0.75	23/0.20	0.4	9.00	16/6/0.20	0.80	11.60	198
C2117	12*0.75	23/0.20	0.4	9.30	16/6/0.20	0.80	11.90	218
C2118	14*0.75	23/0.20	0.4	10.00	24/4/0.20	0.90	12.80	253
C2119	18*0.75	23/0.20	0.4	11.10	24/5/0.20	1.00	14.10	314
C2120	21*0.75	23/0.20	0.4	11.70	24/5/0.20	1.00	14.70	344
C2121	25*0.75	23/0.20	0.4	12.50	24/5/0.20	1.20	15.90	390

**1.0mm<sup>2</sup>**

P/N	Cross Sectional Area (mm <sup>2</sup> )	Conductor Construction (mm)	Nom. Thickness of insulation (mm)	Diameter over bedding (mm)	Braiding GSW Wire (mm)	Nom. Thickness of jacket (mm)	Overall Diameter (mm)	Nom. Weight (kg/km)
C2123	2*1.0	30/0.20	0.4	5.40	16/4/0.20	0.80	8.00	89
C2124	3*1.0	30/0.20	0.4	5.70	16/4/0.20	0.80	8.30	102
C2125	4*1.0	30/0.20	0.4	6.30	16/4/0.20	0.80	8.90	119
C2126	5*1.0	30/0.20	0.4	6.90	16/5/0.20	0.80	9.50	139
C2127	7*1.0	30/0.20	0.4	7.50	16/5/0.20	0.80	10.10	166
C2128	10*1.0	30/0.20	0.4	9.80	16/6/0.20	0.80	12.40	232
C2129	12*1.0	30/0.20	0.4	10.10	16/6/0.20	1.00	13.10	269
C2130	18*1.0	30/0.20	0.4	12.10	24/5/0.20	1.00	15.10	370
C2131	20*1.0	30/0.20	0.4	12.40	24/5/0.20	1.00	15.40	391
C2132	21*1.0	30/0.20	0.4	12.70	24/5/0.20	1.10	15.90	415
C2133	25*1.0	30/0.20	0.4	14.70	32/5/0.20	1.20	18.10	632

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**C2100 TO C2190**

**1.5mm<sup>2</sup>**

P/N	Cross Sectional Area (mm <sup>2</sup> )	Conductor Construction (mm)	Nom. Thickness of insulation (mm)	Diameter over bedding (mm)	Braiding GSW Wire (mm)	Nom. Thickness of jacket (mm)	Overall Diameter (mm)	Nom. Weight (kg/km)
C2137	2*1.5	27/0.25	0.4	5.80	16/4/0.20	0.80	8.40	103
C2138	3*1.5	27/0.25	0.4	6.20	16/4/0.20	0.80	8.80	121
C2139	4*1.5	27/0.25	0.4	6.80	16/5/0.20	0.80	9.40	142
C2140	5*1.5	27/0.25	0.4	7.80	16/5/0.20	0.80	10.40	176
C2141	7*1.5	27/0.25	0.4	8.10	16/5/0.20	0.80	10.70	203
C2142	10*1.5	27/0.25	0.4	10.60	24/4/0.20	1.00	13.60	297
C2143	12*1.5	27/0.25	0.4	11.00	24/4/0.20	1.00	14.00	332
C2144	18*1.5	27/0.25	0.4	13.10	24/5/0.20	1.10	16.30	470
C2145	21*1.5	27/0.25	0.4	14.00	24/5/0.20	1.20	17.40	536
C2147	32*1.5	27/0.25	0.4	17.80	32/6/0.20	1.40	21.60	811
C2148	34*1.5	27/0.25	0.4	18.50	32/6/0.20	1.40	22.30	857
C2149	50*1.5	27/0.25	0.4	22.20	32/6/0.20	1.50	26.20	1212

**2.5mm<sup>2</sup>**

P/N	Cross Sectional Area (mm <sup>2</sup> )	Conductor Construction (mm)	Nom. Thickness of insulation (mm)	Diameter over bedding (mm)	Braiding GSW Wire (mm)	Nom. Thickness of jacket (mm)	Overall Diameter (mm)	Nom. Weight (kg/km)
C2150	2*2.5	45/0.25	0.5	7.20	16/5/0.20	0.80	9.80	146
C2151	3*2.5	45/0.25	0.5	7.70	16/5/0.20	0.80	10.30	173
C2152	4*2.5	45/0.25	0.5	8.40	16/5/0.20	0.80	11.00	206
C2153	5*2.5	45/0.25	0.5	9.50	24/4/0.20	0.80	12.10	252
C2154	7*2.5	45/0.25	0.5	10.40	24/4/0.20	1.00	13.40	321
C2155	10*2.5	45/0.25	0.5	13.80	24/5/0.20	1.10	17.00	469
C2156	12*2.5	45/0.25	0.5	14.30	32/5/0.20	1.20	17.70	533
C2157	18*2.5	45/0.25	0.5	17.20	32/5/0.20	1.30	20.80	762
C2158	21*2.5	45/0.25	0.5	18.30	32/6/0.20	1.40	22.10	867
C2159	25*2.5	45/0.25	0.5	21.10	32/6/0.20	1.50	25.10	1047
C2160	34*2.5	45/0.25	0.5	24.00	32/7/0.20	1.50	28.00	1425

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**C2100 TO C2190**

**4.0mm<sup>2</sup>**

P/N	Cross Sectional Area (mm <sup>2</sup> )	Conductor Construction (mm)	Nom. Thickness of insulation (mm)	Diameter over bedding (mm)	Braiding GSW Wire (mm)	Nom. Thickness of jacket (mm)	Overall Diameter (mm)	Nom. Weight (kg/km)
C2161	2*4.0	53/0.30	0.6	8.80	16/5/0.20	0.80	11.40	206
C2162	3*4.0	53/0.30	0.6	9.40	24/4/0.20	0.80	12.00	247
C2163	4*4.0	53/0.30	0.6	10.50	24/4/0.20	1.00	13.50	315
C2164	5*4.0	53/0.30	0.6	11.60	24/5/0.20	1.00	14.60	377
C2165	7*4.0	53/0.30	0.6	12.90	24/5/0.20	1.10	16.10	482

**6.0mm<sup>2</sup>**

P/N	Cross Sectional Area (mm <sup>2</sup> )	Conductor Construction (mm)	Nom. Thickness of insulation (mm)	Diameter over bedding (mm)	Braiding GSW Wire (mm)	Nom. Thickness of jacket (mm)	Overall Diameter (mm)	Nom. Weight (kg/km)
C2166	2*6.0	80/0.30	0.7	9.40	24/4/0.20	0.80	12.00	265
C2167	3*6.0	80/0.30	0.7	10.00	24/4/0.20	0.90	12.80	330
C2168	4*6.0	80/0.30	0.7	11.30	24/5/0.20	1.00	14.30	418
C2169	5*6.0	80/0.30	0.7	12.60	24/5/0.20	1.00	15.60	509
C2170	7*6.0	80/0.30	0.7	13.80	24/5/0.20	1.10	17.00	647

**10.0mm<sup>2</sup>**

P/N	Cross Sectional Area (mm <sup>2</sup> )	Conductor Construction (mm)	Nom. Thickness of insulation (mm)	Diameter over bedding (mm)	Braiding GSW Wire (mm)	Nom. Thickness of jacket (mm)	Overall Diameter (mm)	Nom. Weight (kg/km)
C2171	2*10.0	81/0.39	0.8	13.00	24/5/0.20	1.10	16.20	444
C2172	3*10.0	81/0.39	0.8	13.90	24/5/0.20	1.10	17.10	545
C2173	4*10.0	81/0.39	0.8	15.50	32/5/0.20	1.20	18.90	686
C2174	5*10.0	81/0.39	0.8	17.30	32/5/0.20	1.30	20.90	846
C2175	7*10.0	81/0.39	0.8	19.20	32/6/0.20	1.40	23.00	1085

# SY Type Control Cable

## 0.5mm<sup>2</sup> to 120mm<sup>2</sup>

### PVC Sheath



#### C2100 TO C2190

##### 16.0mm<sup>2</sup>

P/N	Cross Sectional Area (mm <sup>2</sup> )	Conductor Construction (mm)	Nom. Thickness of insulation (mm)	Diameter over bedding (mm)	Braiding Wire (mm)	Nom. Thickness of jacket (mm)	Overall Diameter (mm)	Nom. Weight (kg/km)
C2176	2*16.0	127/0.39	0.9	15.80	24/5/0.20	1.30	19.40	648
C2177	3*16.0	127/0.39	0.9	16.90	32/5/0.20	1.30	20.50	808
C2178	4*16.0	127/0.39	0.9	18.80	32/6/0.20	1.40	22.60	1011
C2179	5*16.0	127/0.39	0.9	21.00	32/6/0.20	1.40	24.80	1240
C2180	7*16.0	127/0.39	0.9	23.40	32/6/0.20	1.50	27.40	1609

##### 25.0 mm<sup>2</sup>

P/N	Cross Sectional Area (mm <sup>2</sup> )	Conductor Construction (mm)	Nom. Thickness of insulation (mm)	Diameter over bedding (mm)	Braiding Wire (mm)	Nom. Thickness of jacket (mm)	Overall Diameter (mm)	Nom. Weight (kg/km)
C2181	3*25.0	197/0.39	1.0	18.7	32/6/0.20	1.40	25.30	1213
C2182	4*25.0	197/0.39	1.0	21.0	32/5/0.30	1.50	28.00	1517
C2183	5*25.0	197/0.39	1.0	23.5	32/5/0.30	1.50	31.20	1917

##### 35.0 mm<sup>2</sup>

P/N	Cross Sectional Area (mm <sup>2</sup> )	Conductor Construction (mm)	Nom. Thickness of insulation (mm)	Diameter over bedding (mm)	Braiding Wire (mm)	Nom. Thickness of jacket (mm)	Overall Diameter (mm)	Nom. Weight (kg/km)
C2184	3*35.0	278/0.39	1.2	24.10	32/5/0.30	1.50	28.60	1656
C2185	4*35.0	278/0.39	1.2	27.00	32/5/0.30	1.50	31.50	2067
C2186	5*35.0	278/0.39	1.2	30.00	32/5/0.30	1.50	34.50	2541

##### 50.0~120.0 mm<sup>2</sup>

P/N	Cross Sectional Area (mm <sup>2</sup> )	Conductor Construction (mm)	Nom. Thickness of insulation (mm)	Diameter over bedding (mm)	Braiding Wire (mm)	Nom. Thickness of jacket (mm)	Overall Diameter (mm)	Nom. Weight (kg/km)
C2187	4*50.0	399/0.39	1.5	32.00	32/5/0.30	1.60	36.70	2872
C2188	4*70.0	334/0.50	1.5	35.80	32/5/0.30	1.60	40.50	3763
C2189	4*95.0	440/0.50	1.7	40.80	32/6/0.30	1.60	45.50	4858
C2190	4*120.0	563/0.50	1.9	46.00	32/6/0.30	1.80	51.10	6168

#### Reference Standards

VDE 2050	IEC 60228
BS 6500	EN 50290-2
RoHS directives	IEC 60332-1