SY Cable Overview

A type of steel wire braided flexible connecting cable primarily used for instrumentation and control equipment, tooling machinery, production lines and in flexible applications for free movement without tensile load.
The galvanised steel wire braid services as protection against mechanical traverse loads and acts as a magnetic screen against interference. These cables are not suitable for outdoor or underground installations.

SY Cable Specifications

- **Voltage Rating:** 300/500V
- **Temperature Rating:**
  Fixed: -40°C to +80°C
  Flexed: -5°C to +70°C
- **Minimum Bending Radius:**
  Fixed: 4 x overall diameter
  Flexed: 12.5 x overall diameter
- **Conductor:** Class 5 Flexible Plain Copper
- **Insulation:** PVC (Polyvinyl Chloride)
- **Inner Sheath:** PVC (Polyvinyl Chloride)
- **Armour:** Galvnised Steel Wire Braid
- **Sheath:** PVC (Polyvinyl Chloride)
- **Core Identification:** Black with White Numbers
  3 Core & Above: Black with White Numbers + Green/Yellow
  (Coloured Cores Available Upon Request)
- **Sheath Colour:** Transparent
- **British Standards:** VDE 0207-363-3, VDE 0482-332-1-2, VDE 819-102 (TM54)
  Flame Retardant according to IEC/EN 60332-1-2

SY Cable Dimensions

Number of Cores	Cross-sectional Area of Cores (mm^2)	Nominal Thickness of Insulation (mm)	Nominal Outer Sheath Thickness (mm)	Overall Diameter of Cable (mm)	Weight of Cable (Per km)
2	0.75	0.40	0.8	7.2	79.3
2	1	0.40	0.8	7.6	91
2	1.5	0.40	0.8	8.2	110
2	2.5	0.50	0.8	9.4	147
3	0.75	0.40	0.8	7.5	91.3
3	1	0.40	0.8	7.9	104
3	1.5	0.40	0.8	8.6	129
3	2.5	0.50	0.9	10.1	185
3	4	0.60	1	12	269
3	6	0.65	1.1	13.5	354
3	10	0.75	1.3	16.9	579
3	16	0.75	1.5	19	785
3	25	0.90	1.8	23.5	1211
3	35	0.95	2	26.7	1642
4	0.75	0.40	0.8	8	107
4	1	0.40	0.8	8.5	124
4	1.5	0.40	0.8	9.2	151
4	2.5	0.50	0.9	11.1	230
4	4	0.60	1.1	13.2	332
4	6	0.65	1.2	14.8	442
4	10	0.75	1.5	18.8	735
4	16	0.75	1.6	20.9	988
4	25	0.90	2	26	1536
4	35	0.95	2.2	30	2098
4	50	1.25	2.6	35.3	2968
4	70	1.25	3	40.5	3822
4	95	1.60	3.6	49.4	5369
5	0.75	0.40	0.8	8.5	120
5	1	0.40	0.8	9.1	140

5	**1.5**	**0.40**	**0.9**	**10.1**	**182**
5	**2.5**	**0.50**	**1**	**12.1**	**266**
5	**4**	**0.60**	**1.1**	**14.2**	**382**
5	**6**	**0.65**	**1.3**	**16.5**	**525**
5	**10**	**0.75**	**1.6**	**20.6**	**873**
5	**16**	**0.75**	**1.8**	**23.4**	**1207**
5	**25**	**0.90**	**2.2**	**29**	**1875**
5	**35**	**0.95**	**2.4**	**32.9**	**2577**
7	**0.75**	**0.40**	**0.8**	**9.1**	**147**
7	**1**	**0.40**	**0.9**	**9.9**	**181**
7	**1.5**	**0.40**	**0.9**	**11**	**226**
7	**2.5**	**0.50**	**1.1**	**13.2**	**338**
12	**0.75**	**0.40**	**1**	**10.9**	**237**
12	**1**	**0.40**	**1**	**12.7**	**280**
12	**1.5**	**0.40**	**1.10**	**14.2**	**365**
12	**2.5**	**0.40**	**1.20**	**17.5**	**572**

Current Ratings

Nominal Cross Sectional Area (mm^2)	Current Carrying Capacities 30°C Continuous Loading	Maximum Resistance of Conductor at 20°C
0.75	12	26
1	15	19.5
1.5	18	13.3
2.5	26	7.98
4	34	4.95
6	44	3.3
10	61	1.91
16	82	1.21
25	108	0.78
35	135	0.554
50	168	0.386
70	207	0.272
95	223	0.206