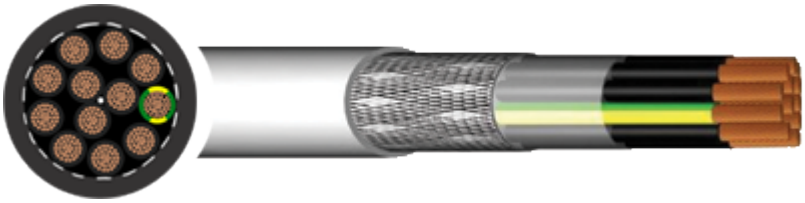
CLEVELAND CABLE COMPANY

CY Control Cable - Flexible - BS EN 50525-2-11 and VDE 0250



CY Control Flexible cable is used in similar areas as YY flexible cable (such as assembly and production lines) where there is a requirement to avoid high frequency interference.

These cables are not UV resistant but can be used outdoors if adequately protected against direct sunlight in trunking etc.

Key Features

Installation Guidelines
Should not be installed at temperatures below -5°C

Voltage Rating
300/500 Volts

Construction

- **Conductor**: Plain Annealed Flexible Copper Conductors
- **Insulation**: Polyvinyl Chloride (PVC)
- **Bedding**: Tinned Copper Wire Braid
- **Screen**: Tinned Copper Wire Braiding
- **Sheath**: PVC (Polyvinyl Chloride)
- **Sheath Colour**: Grey

Standards

- Generally to BS EN 50525-2-11, VDE 0250, CY, SY and YY Cables are thoroughly tested under BSI kitemark KM712695 in our accredited lab prior to delivery, The lab is audited by BSI as an independent 3rd party to verify that the testing procedures and the cable meet the standards and are fit for purpose

Core Colours

2 core - Black **with** White **numbers**

3 core and above - Black **with** White **numbers plus** Green Yellow

Also available with coloured cores as follows:

2 core - Blue Brown

3 core - Blue Brown Green Yellow

4 core - Brown Black Grey Green Yellow

5 core - Blue Brown Black Grey Green Yellow

CY Control Cable - Flexible - BS EN 50525-2-11 and VDE 0250 - Dimensions

Reference	Conductor Size (mm2)	No Of Cores	Stranding(mm)	TYPE	Overall Diameter(mm)	Weight(Kg/Km)	Gland Size(mm) Brass A2
CY2X/5	0.5	2	16/0.20	NONE	5	41	20/16
CY3X/5	0.5	3	16/0.20	NONE	5.2	50	20/16
CY4X/5	0.5	4	16/0.20	NONE	6.2	66	20/16
CY5X/5	0.5	5	16/0.20	NONE	7	79	20/16
CY7X/5	0.5	7	16/0.20	NONE	7.2	102	20/16
CY2X/75	0.75	2	24/0.20	NONE	5.5	43	20/16
CY2X/75CC	0.75	2	24/0.20	CC	5.5	43	20/16
CY3X/75	0.75	3	24/0.20	NONE	5.8	52	20/16
CY3X/75CC	0.75	3	24/0.20	CC	5.8	52	20/16
CY4X/75	0.75	4	24/0.20	NONE	6.5	68	20/16
CY4X/75CC	0.75	4	24/0.20	CC	6.5	68	20/16
CY5X/75	0.75	5	24/0.20	NONE	7.1	80	20/16
CY7X/75	0.75	7	24/0.20	NONE	7.6	103	20/16
CY12X/75	0.75	12	24/0.20	NONE	9.9	161	20S
CY18X/75	0.75	18	24/0.20	NONE	11.7	238	20
CY25X/75	0.75	25	24/0.20	NONE	13.9	316	20
CY2X1	1	2	32/0.20	NONE	6.3	53	20/16
CY2X1CC	1	2	32/0.20	CC	6.3	53	20/16
CY3X1	1	3	32/0.20	NONE	6.4	64	20/16
CY3X1CC	1	3	32/0.20	CC	6.4	64	20/16
CY4X1	1	4	32/0.20	NONE	7.2	84	20/16
CY4X1CC	1	4	32/0.20	CC	7.2	84	20/16
CY5X1	1	5	32/0.20	NONE	7.8	100	20/16
CY7X1	1	7	32/0.20	NONE	8.5	125	20/16
CY12X1	1	12	32/0.20	NONE	11.3	209	20S
CY18X1	1	18	32/0.20	NONE	13.3	308	20
CY25X1	1	25	32/0.20	NONE	16.23	420	25
CY34X1	1	34	32/0.20	NONE	19.5	650	25
CY2X1/5	1.5	2	30/0.25	NONE	6.5	61	20/16
CY2X1/5CC	1.5	2	30/0.25	CC	6.5	61	20/16
CY3X1/5	1.5	3	30/0.25	NONE	6.9	78	20/16
CY3X1/5CC	1.5	3	30/0.25	CC	6.9	78	20/16
CY4X1/5	1.5	4	30/0.25	NONE	7.7	104	20/16
CY4X1/5CC	1.5	4	30/0.25	CC	7.7	104	20/16
CY5X1/5	1.5	5	30/0.25	NONE	8.6	128	20S
CY5X1/5CC	1.5	5	30/0.25	CC	8.6	128	20S
CY7X1/5	1.5	7	30/0.25	NONE	9.2	159	20
CY12X1/5	1.5	12	30/0.25	NONE	12.7	281	25

Reference	Conductor Size (mm2)	No Of Cores	Stranding(mm)	TYPE	Overall Diameter(mm)	Weight(Kg/Km)	Gland Size(mm) Brass A2
CY18X1/5	1.5	18	30/0.25	NONE	14.7	396	25
CY25X1/5	1.5	25	30/0.25	NONE	17.49	534	25
CY34X1/5	1.5	34	30/0.25	NONE	19.89	720	32
CY42X1/5	1.5	42	30/0.25	NONE	23.8	1015	25
CY2X2/5	2.5	2	50/0.25	NONE	8	102	20/16
CY3X2/5	2.5	3	50/0.25	NONE	8.4	117	20/16
CY3X2/5CC	2.5	3	50/0.25	CC	8.4	117	20/16
CY4X2/5	2.5	4	50/0.25	NONE	9.19	168	20S
CY4X2/5CC	2.5	4	50/0.25	CC	9.19	168	20S
CY5X2/5	2.5	5	50/0.25	NONE	10.3	199	20S
CY7X2/5	2.5	7	50/0.25	NONE	11.2	252	20S
CY12X2/5	2.5	12	50/0.25	NONE	16.8	500	25
CY2X4	4	2	56/0.30	NONE	10.5	165	20S
CY3X4	4	3	56/0.30	NONE	10.3	186	20S
CY3X4CC	4	3	56/0.30	CC	10.3	186	20S
CY4X4	4	4	56/0.30	NONE	11.8	239	20S
CY4X4CC	4	4	56/0.30	CC	11.8	239	20S
CY5X4	4	5	56/0.30	NONE	13	301	20S
CY5X4CC	4	5	56/0.30	CC	13	301	20S
CY4X6	6	4	84/0.30	NONE	12.9	327	20S
CY4X6CC	6	4	84/0.30	CC	12.9	327	20S
CY4X10	10	4	80/0.30	NONE	17.2	553	25
CY4X10CC	10	4	80/0.30	CC	17.2	553	25
CY4X16	16	4	126/0.40	NONE	21	846	32
CY4X16CC	16	4	126/0.40	CC	21	846	32

Multi core non-armoured 90 °C and 180°C thermosetting insulated flexible cables with sheath Reproduced from BS7671:2018 Wiring Regulations

TABLE 4F2A

CURRENT-CARRYING CAPACITY (Amps)

Ambient temperature: 30 °C
Conductor operating temperature: 90 °C

Conductor cross sectional area	Single-phase AC or DC	Three-phase AC	Single-phase AC or DC
	1 x 2 core cable, with or without protective conductor	1 x 3 core, 4 core or 5 core cable	2 single-core cables, touching
(mm^2)	(A)	(A)	(A)
4	42	37	-
6	55	49	-
10	76	66	-
16	103	89	-
25	136	119	-
35	-	146	200
50	-	177	250
70	-	225	310
95	-	273	369
120	-	316	432
150	-	414	497
185	-	487	564
240	-	560	673
300	-	394	773
400	-	-	924
500	-	-	1062
630	-	-	1242

NOTES:

1 The current ratings tabulated are for cables in free air but may also be used for cables resting on a surface. If the cable is to be wound on a drum on load the ratings should be reduced in accordance with ***NOTE 2*** below and for cables which may be covered, ***NOTE 3 below.***

2 **Flexible cables wound on reeling drums**
The current ratings of cables used on reeling drums are to be reduced by the following factors:

a) Radial type drum
ventilated: 85 %
unventilated: 75 %

b) Ventilated cylindrical type drum
I layer of cable: 85 %
2 layers of cable: 65 %
3 layers of cable: 45 %
4 layers of cable: 35 %

A radial type drum is one where spiral layers of cable are accommodated between closely spaced flanges; if fitted with solid flanges the ratings given above should be reduced and the drum is described as non-ventilated. If the flanges have suitable apertures the drum is described as ventilated.

A ventilated cylindrical cable drum is one where layers of cable are accommodated between widely spaced flanges and the drum and end flanges have suitable ventilating apertures.

3 Where cable may be covered over or coiled up whilst on load, or the air movement over the cable restricted, the current rating should be reduced.

It is not possible to specify the amount of reduction but the table of rating factors for reeling drums can be used as a guide.

4 For 180 °C cables, the rating factors for ambient temperature allow a conductor operating temperature up to 150 °C.
Consult the cable manufacturer for further information.

5 Where it is intended to connect the cables in this table to equipment or accessories designed to operate at a temperature lower than the maximum operating temperature of the cable, the cables should be rated at the maximum operating temperature of the equipment or accessory (see Regulation 512.1.5).

6 Where it is intended to group a cable in this table with other cables, the cable should be rated at the lowest of the maximum operating temperatures of any of the cables in the group (see Regulation 512.1.5).

Multi core non-armoured 90 °C and 180°C thermosetting insulated flexible cables with sheath Reproduced from BS7671:2018 Wiring Regulations

TABLE 4F2B

VOLTAGE DROP (per ampere per metre):

Conductor operating temperature: 90 °C

Conductor cross-sectional area	Two-core cable or 2 x Single core cables DC	2 core cable, single-phase AC			1 x 3 core, 4 core or 5 core cable, three-phase AC			2 single-core cables, touching Single-phase AC*		
(mm^2)	(mV/Nm)	(mV/Nm)			(mV/Nm)			(mV/Nm)		
4	13.20	13.20			11.10			-		
6	8.50	8.50			7.40			-		
10	5.10	5.10			4.40			-		
16	3.20	3.20			2.70			-		
		r	x	z	r	x	z	r	x	z
25	2.03	2.03	0.175	2.04	1.73	0.150	1.73	-	-	-
35	1.420	-	-	-	1.22	0.150	1.23	1.44	0.21	1.46
50	1.000	-	-	-	0.91	0.145	0.93	1.00	0.21	1.02
70	0.710	-	-	-	0.62	0.140	0.64	0.71	0.20	0.73
95	0.540	-	-	-	0.47	0.135	0.49	0.54	0.195	0.57
120	0.420	-	-	-	0.37	0.135	0.39	0.42	0.190	0.46
150	0.340	-	-	-	0.29	0.130	0.32	0.34	0.190	0.39
185	0.270	-	-	-	0.24	0.130	0.27	0.27	0.190	0.33
240	0.210	-	-	-	0.188	0.130	0.23	0.210	0.185	0.28
300	0.167	-	-	-	0.147	0.125	0.195	0.173	0.180	0.25
400	0.127	-	-	-	-	-	-	0.132	0.175	0.22
500	0.100	-	-	-	-	-	-	0.107	0.170	0.20
630	0.074	-	-	-	-	-	-	0.085	0.170	0.190

NOTES:

1 The voltage drop figures given above are based on a conductor operating temperature of 90 °C and are therefore not accurate when the operating temperature is in excess of 90 C. In the case of the 180 °C cables with a conductor temperature of 150 °C the above resistive values should be increased by a factor of 1.2.

2 *A larger voltage drop will result if the cables are spaced.