Doncaster Cables

CY CONTROL FLEXIBLE

PVC INSULATED / TINNED COPPER WIRE BRAID (TCWB) / PVC SHEATHED

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Manufactured generally to BS EN 50525-2-11

Plain Annealed Flexible Copper Conductors / PVC Insulated / Tinned Copper Wire Braid (TCWB) / PVC Sheathed. 300/500V

Conductor :	Plain Annealed Copper Class 5 to BS EN 60228
Insulation:	PVC Type TI2 to BS EN 50363-3
Braiding:	Tinned Copper Wire Braid (TCWB)
Sheath:	PVC Type TM2 to B EN 50363-4-1
Current Ratings:	For current ratings refer to table 4F1 and 4F3 of BS7671 IEE Wiring Regulations Seventeenth Edition.

The cable is designed to be used as an interconnecting cable for measuring, controlling or regulation in control equipment for assembly and production lines, conveyors and for computer units.

The shielding on CY cable helps to reduce electromagnetic interference; therefore CY cable is commonly used in situations where reduced interference signal and data transmission is required.

If protected correctly electricians have found that CY can be useful in outdoor projects - however it is recommended and most commonly used for indoor projects in dry or moist conditions.

STANDARD CORE COLOURS	MINIMUM OPERATING TEMPERATURE	MAXIMUM OPERATING TEMPERATURE	MINIMUM BENDING RADIUS
2 CORE 1 2 3 CORE + BLACK NUMBERED (some sizes are available colour coded)	-15°C	70°C	6 x Ø

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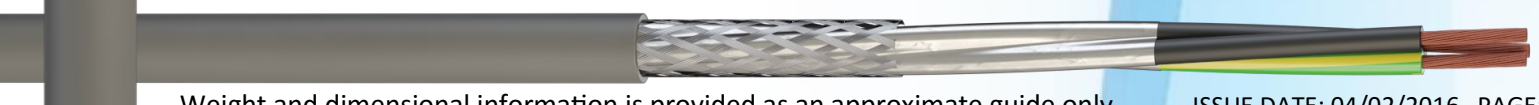
Reference Number	Nominal Cross Sectional Area of Conductor (mm^2)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Nominal Radial Thickness of sheath (mm)	Approximate Overall Diameter Lower Limit (mm)	Approximate Overall Diameter Upper Limit (mm)	Approximate Weight (kg/km)
CY0.52C	0.5	16/0.2	0.5	0.6	4.7	6.7	45
CY0.752C	0.75	24/0.2	0.5	0.6	5.3	7.3	54
CY1.02C	1.0	32/0.2	0.5	0.6	5.5	7.5	60
CY1.52C	1.5	30/0.25	0.5	0.6	6.1	8.1	70
CY2.52C	2.5	50/0.25	0.5	0.6	7.3	9.3	104
CY0.53C	0.5	16/0.2	0.5	0.6	5.1	7.1	53
CY0.753C	0.75	24/0.2	0.5	0.6	5.6	7.6	65
CY1.03C	1.0	32/0.2	0.5	0.6	5.8	7.8	73
CY1.53C	1.5	30/0.25	0.5	0.6	6.5	8.5	90
CY2.53C	2.5	50/0.25	0.5	0.6	7.9	9.9	140
CY0.54C	0.5	16/0.2	0.5	0.6	5.6	7.6	63
CY0.754C	0.75	24/0.2	0.5	0.6	6.1	8.1	77
CY1.04C	1.0	32/0.2	0.5	0.6	6.3	8.3	89
CY1.54C	1.5	30/0.25	0.5	0.6	7.1	9.1	108
CY2.54C	2.5	50/0.25	0.5	0.6	8.7	10.7	173
CY4.04C	4.0	56/0.3	0.5	0.6	10.4	12.4	236
CY6.04C	6.0	84/0.3	0.5	0.8	12.1	14.1	339



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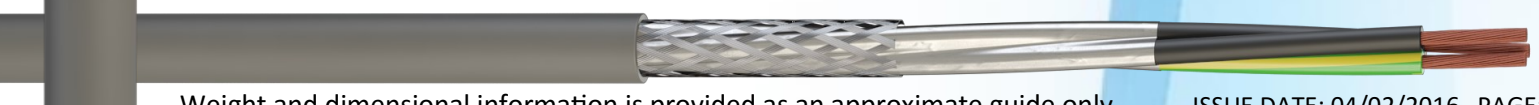
Reference Number	Nominal Cross Sectional Area of Conductor (mm^2)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Nominal Radial Thickness of sheath (mm)	Approximate Overall Diameter Lower Limit (mm)	Approximate Overall Diameter Upper Limit (mm)	Approximate Weight (kg/km)
CY0.55C	0.5	16/0.2	0.5	0.6	6.0	8.0	76
CY0.755C	0.75	24/0.2	0.5	0.6	6.6	8.6	91
CY1.05C	1.0	32/0.2	0.5	0.6	6.9	8.9	105
CY1.55C	1.5	30/0.25	0.5	0.6	7.7	9.7	125
CY2.55C	2.5	50/0.25	0.5	0.6	9.3	11.3	206
CY0.757C	0.75	24/0.2	0.5	0.6	7.1	9.1	115
CY1.07C	1.0	32/0.2	0.5	0.6	7.7	9.7	139
CY1.57C	1.5	30/0.25	0.5	0.6	8.6	10.6	160
CY2.57C	2.5	50/0.25	0.5	0.6	10.1	12.1	267
CY0.512C	0.5	16/0.2	0.5	0.6	8.5	10.5	140
CY0.7512C	0.75	24/0.2	0.5	0.6	9.4	11.4	177
CY1.012C	1.0	32/0.2	0.5	0.6	9.7	11.7	207
CY1.512C	1.5	30/0.25	0.5	0.6	11.1	13.1	279
CY0.7518C	0.75	24/0.2	0.5	0.6	10.9	12.9	250
CY1.018C	1.0	32/0.2	0.5	0.6	11.7	13.7	295



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Multicore Loading

In practice, the majority of cores in a multicore control cable of 7 cores and above carry only small or intermittent current and a current rating based on the assumption that all cores are equally loaded is quite unrealistic. In most cases only two cores, the line and neutral feed cores are likely to approach the maximum permitted loading. The current rating for twin core cable can therefore be used in these cables.

Where more than two cores are known to carry an appreciable current, the multiplying factors applicable to the two core ratings are given below.

The normal current rating for twin cable may also be used in cases where the number of cores carrying appreciable current does not exceed the square root of the total number of cores in the cable.

Number of loaded cores	3	4	5	6	7	10	12	14
Multiplying factor	0.87	0.78	0.72	0.67	0.63	0.56	0.53	0.51

Number of loaded cores	19	24	27	30	37	44	46	48
Multiplying factor	0.45	0.42	0.40	0.39	0.36	0.34	0.33	0.33