

## Technical Data Sheet - Shielded (CY) PVC Control Cable

## MachFlex 375 CY





### Tinned Copper Braid Shield (TCB) - Excellent Noise Immunity

### **Applications**

Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors, multi axis control machines, temperature controllers, control panels, machine cutting tools, auxiliary equipment, motor speed control, production machinery and many more.

#### **General Reference Standards**

- DIN VDE 0295, IEC 60228, BS 6360
- DIN EN 50290-2-22, DIN VDE 0207-363-4-1
- IEC 60227-5, EN 50525-2-51, VDE 0281-13
- DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
- RoHS, REACH & CE Directives

#### **Construction & Performance**

1.	Conductor Material	Stranded bare copper (DIN VDE 0295 Class 5 / IEC 60228 class 5)	
		PVC (polyvinyl chloride), VDE 0293-308 (colour) up to	
		5 cores: colour-coded according to VDE 0293-308,	
2.			
		A) G = with GN-YE protective conductor <u>OR</u>	
		B) X = without protective earth conductor	
3.	Braid Shield Material	Tinned Copper Braid Shield	
4.	Jacket / Sheath Material	PVC (polyvinyl chloride)	
5.	Flame Retardancy	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2	
6.	Voltage Rating (Uo / U)	Up to 1.5 mm <sup>2</sup> : 300 / 500 V	
		From 2.5 mm <sup>2</sup> : 450 / 750 V	
7.	Oil Resistant	DIN EN 50290-2-22 (TM54)	
8.	Temperature Range	-5°C TO +70°C (Occasional movement)	
		-40°C TO +80°C (Fixed installation)	
		20 00 (0 : 1 : 1)	
9.	Bending Radius	20 x OD (Occasional movement)	
		6 x OD (Fixed installation)	
10			
10.	Other Properties	Good UV resistance, chemical resistance & flexibility	





### TABLE A

TABLE A					
Doub Code	Cable	No. Of	Nom. Conductor	Nom. Cable	Nom. Cable Weight
Part Code	Description	Cores	Size (mm²)	Diameter (mm)	(kg/km)
C2X0.5CY	2 X0.5	2	0.5	6.9	66
C3X0.5CY	3 X0.5	3	0.5	7.2	75
C3G0.5CY	3 G0.5	3	0.5	7.2	75
C4X0.5CY	4 X0.5	4	0.5	7.7	88
C4G0.5CY	4 G0.5	4	0.5	7.7	88
C5X0.5CY	5 X0.5	5	0.5	8.3	102
C5G0.5CY	5 G0.5	5	0.5	8.3	102
C7X0.5CY	7 X0.5	7	0.5	8.9	122
C7G0.5CY	7 G0.5	7	0.5	8.9	122
C9X0.5CY	9 X0.5	9	0.5	10.6	156
C9G0.5CY	9 G0.5	9	0.5	10.6	156
C10X0.5CY	10 X0.5	10	0.5	11.0	172
C10G0.5CY	10 G0.5	10	0.5	11.0	172
C12X0.5CY	12 X0.5	12	0.5	11.3	190
C12G0.5CY	12 G0.5	12	0.5	11.3	190
C14X0.5CY	14 X0.5	14	0.5	11.9	211
C14G0.5CY	14 G0.5	14	0.5	11.9	211
C16X0.5CY	16 X0.5	16	0.5	12.5	235
C16G0.5CY	16 G0.5	16	0.5	12.5	235
C18X0.5CY	18 X0.5	18	0.5	13.2	264
C18G0.5CY	18 G0.5	18	0.5	13.2	264
C20X0.5CY	20 X0.5	20	0.5	13.9	289
C20G0.5CY	20 G0.5	20	0.5	13.9	289
C2X0.75CY	2 X0.75	2	0.75	7.4	76
C3X0.75CY	3 X0.75	3	0.75	7.7	89
C3G0.75CY	3 G0.75	3	0.75	7.7	89
C4X0.75CY	4 X0.75	4	0.75	8.3	106
C4G0.75CY	4 G0.75	4	0.75	8.3	106
C5X0.75CY	5 X0.75	5	0.75	9.0	125
C5G0.75CY	5 G0.75	5	0.75	9.0	125
C7X0.75CY	7 X0.75	7	0.75	9.7	151
C7G0.75CY	7 G0.75	7	0.75	9.7	151
C9X0.75CY	9 X0.75	9	0.75	11.6	196
C9G0.75CY	9 G0.75	9	0.75	11.6	196
C10X0.75CY	10 X0.75	10	0.75	12.0	214
C10G0.75CY	10 G0.75	10	0.75	12.0	214
C12X0.75CY	12 X0.75	12	0.75	12.4	239
C12G0.75CY	12 G0.75	12	0.75	12.4	239
C14X0.75CY	14 X0.75	14	0.75	13.1	274
C14G0.75CY	14 G0.75	14	0.75	13.1	274
C16X0.75CY	16 X0.75	16	0.75	13.8	304
C16G0.75CY	16 G0.75	16	0.75	13.8	304
C18X0.75CY	18 X0.75	18	0.75	14.5	337
C18G0.75CY	18 G0.75	18	0.75	14.5	337
C20X0.75CY	20 X0.75	20	0.75	15.2	370
C20G0.75CY	20 G0.75	20	0.75	15.2	370



# **Technical Data Sheet – Shielded (CY) PVC Control Cable**

	Cable	No. Of	Nom. Conductor	Nom. Cable	Nom. Cable Weight
Part Code	Description	Cores	Size (mm²)	Diameter (mm)	(kg/km)
C2X1.0CY	2 X1.0	2	1.0	7.8	87
C3X1.0CY	3 X1.0	3	1.0	8.2	104
C3G1.0CY	3 G1.0	3	1.0	8.2	104
C4X1.0CY	4 X1.0	4	1.0	8.8	125
C4G1.0CY	4 G1.0	4	1.0	8.8	125
C5X1.0CY	5 X1.0	5	1.0	9.6	148
C5G1.0CY	5 G1.0	5	1.0	9.6	148
C7X1.0CY	7 X1.0	7	1.0	10.3	180
C7G1.0CY	7 G1.0	7	1.0	10.3	180
C9X1.0CY	9 X1.0	9	1.0	12.3	234
C9G1.0CY	9 G1.0	9	1.0	12.3	234
C10X1.0CY	10 X1.0	10	1.0	12.8	256
C10G1.0CY	10 G1.0	10	1.0	12.8	256
C12X1.0CY	12 X1.0	12	1.0	13.4	293
C12G1.0CY	12 G1.0	12	1.0	13.4	293
C14X1.0CY	14 X1.0	14	1.0	14.0	330
C14G1.0CY	14 G1.0	14	1.0	14.0	330
C16X1.0CY	16 X1.0	16	1.0	14.7	368
C16G1.0CY	16 G1.0	16	1.0	14.7	368
C18X1.0CY	18 X1.0	18	1.0	15.5	408
C18G1.0CY	18 G1.0	18	1.0	15.5	408
C20X1.0CY	20 X1.0	20	1.0	16.3	450
C20G1.0CY	20 G1.0	20	1.0	16.3	450
C2X1.5CY	2 X1.5	2	1.5	8.3	102
C3X1.5CY	3 X1.5	3	1.5	8.8	118
C3G1.5CY	3 G1.5	3	1.5	8.8	118
C4X1.5CY	4 X1.5	4	1.5	9.5	148
C4G1.5CY	4 G1.5	4	1.5	9.5	148
C5X1.5CY	5 X1.5	5	1.5	10.3	176
C5G1.5CY	5 G1.5	5	1.5	10.3	176
C7X1.5CY	7 X1.5	7	1.5	11.1	212
C7G1.5CY	7 G1.5	7	1.5	11.1	212
C9X1.5CY	9 X1.5	9	1.5	13.5	288
C9G1.5CY	9 G1.5	9	1.5	13.5	288
C10X1.5CY	10 X1.5	10	1.5	14.0	316
C10G1.5CY	10 G1.5	10	1.5	14.0	316
C12X1.5CY	12 X1.5	12	1.5	14.5	347
C12G1.5CY	12 G1.5	12	1.5	14.5	347
C14X1.5CY	14 X1.5	14	1.5	15.2	402
C14G1.5CY	14 G1.5	14	1.5	15.2	402
C16X1.5CY	16 X1.5	16	1.5	16.0	448
C16G1.5CY	16 G1.5	16	1.5	16.0	448
C18X1.5CY	18 X1.5	18	1.5	16.8	499
C18G1.5CY	18 G1.5	18	1.5	16.8	499
C20X1.5CY	20 X1.5	20	1.5	17.7	551
C20G1.5CY	20 G1.5	20	1.5	17.7	551
C2X2.5CY	2 X2.5	2	2.5	11.4	179



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	Cable	No. Of	Nom. Conductor	Nom. Cable	Nom. Cable Weight
Part Code	Description	Cores	Size (mm²)	Diameter (mm)	(kg/km)
C3X2.5CY	3 X2.5	3	2.5	12.0	217
C3G2.5CY	3 G2.5	3	2.5	12.0	217
C4X2.5CY	4 X2.5	4	2.5	13.3	272
C4G2.5CY	4 G2.5	4	2.5	13.3	272
C5X2.5CY	5 X2.5	5	2.5	14.5	328
C5G2.5CY	5 G2.5	5	2.5	14.5	328
C7X2.5CY	7 X2.5	7	2.5	15.8	406
C7G2.5CY	7 G2.5	7	2.5	15.8	406
C9X2.5CY	9 X2.5	9	2.5	19.2	535
C9G2.5CY	9 G2.5	9	2.5	19.2	535
C10X2.5CY	10 X2.5	10	2.5	20.1	591
C10G2.5CY	10 G2.5	10	2.5	20.1	591
C12X2.5CY	12 X2.5	12	2.5	20.8	666
C12G2.5CY	12 G2.5	12	2.5	20.8	666
C14X2.5CY	14 X2.5	14	2.5	21.9	759
C14G2.5CY	14 G2.5	14	2.5	21.9	759
C16X2.5CY	16 X2.5	16	2.5	23.3	864
C16G2.5CY	16 G2.5	16	2.5	23.3	864
C18X2.5CY	18 X2.5	18	2.5	24.6	965
C18G2.5CY	18 G2.5	18	2.5	24.6	965
C20X2.5CY	20 X2.5	20	2.5	26.0	1068
C20G2.5CY	20 G2.5	20	2.5	26.0	1068
C2X4CY	2 X4	2	4	12.8	241
C3X4CY	3 X4	3	4	13.7	303
C3G4CY	3 G4	3	4	13.7	303
C4X4CY	4 X4	4	4	15.1	377
C4G4CY	4 G4	4	4	15.1	377
C5X4CY	5 X4	5	4	16.5	457
C5G4CY	5 G4	5	4	16.5	457
C7X4CY	7 X4	7	4	18.0	574
C7G4CY	7 G4	7	4	18.0	574
C9X4CY	9 X4	9	4	22.0	757
C9G4CY	9 G4	9	4	22.0	757
C10X4CY	10 X4	10	4	23.2	852
C10G4CY	10 G4	10	4	23.2	852
C12X4CY	12 X4	12	4	24.0	966
C12G4CY	12 G4	12	4	24.0	966
C2X6CY	2 X6	2	6	14.4	317
СЗХ6СҮ	3 X6	3	6	15.3	397
C3G6CY	3 G6	3	6	15.3	397
C4X6CY	4 X6	4	6	16.8	497
C4G6CY	4 G6	4	6	16.8	497
C5X6CY	5 X6	5	6	18.4	606
C5G6CY	5 G6	5	6	18.4	606
C7X6CY	7 X6	7	6	20.1	769
C7G6CY	7 G6	7	6	20.1	769
C9X6CY	9 X6	9	6	24.9	1029



## **Technical Data Sheet – Shielded (CY) PVC Control Cable**

Part Code	Cable Description	No. Of Cores	Nom. Conductor Size (mm²)	Nom. Cable Diameter (mm)	Nom. Cable Weight (kg/km)
C9G6CY	9 <b>G</b> 6	9	6	24.9	1029
C2X10CY	2 X10	2	10	16.8	449
C3X10CY	3 X10	3	10	17.9	571
C3G10CY	3 G10	3	10	17.9	571
C4X10CY	4 X10	4	10	19.8	720
C4G10CY	4 G10	4	10	19.8	720
C5X10CY	5 X10	5	10	21.7	882
C5G10CY	5 G10	5	10	21.7	882
C7X10CY	7 X10	7	10	24.0	1144
C7G10CY	7 G10	7	10	24.0	1144
C9X10CY	9 X10	9	10	29.6	1509
C9G10CY	9 G10	9	10	29.6	1509
C2X16CY	2 X16	2	16	20.9	698
C3X16CY	3 X16	3	16	22.5	909
C3G16CY	3 G16	3	16	22.5	909
C4X16CY	4 X16	4	16	24.9	1153
C4G16CY	4 G16	4	16	24.9	1153
C5X16CY	5 X16	5	16	27.4	1418
C5G16CY	5 G16	5	16	27.4	1418
C7X16CY	7 X16	7	16	30.1	1820
C7G16CY	7 G16	7	16	30.1	1820
C2X25CY	2 X25	2	25	23.7	968
C3X25CY	3 X25	3	25	25.4	1257
C3G25CY	3 G25	3	25	25.4	1257
C4X25CY	4 X25	4	25	28.1	1606
C4G25CY	4 G25	4	25	28.1	1606
C5X25CY	5 X25	5	25	30.8	1971
C5G25CY	5 G25	5	25	30.8	1971
C2X35CY	2 X35	2	35	27.1	1251
C3X35CY	3 X35	3	35	29.0	1629
C3G35CY	3 G35	3	35	29.0	1629

### **Sheath / Jacket Colour**

	Colour	Colour Code
1)	Grey (RAL 7001)	G8U
2)	Black	010
3)	Blue	006
4)	Orange	003
5)	Violet	007

### **Packaging**

<sup>\*</sup>Belden can offer these cables with various packing options like coiled, plastic or wooden reels. This will be decided at the discretion of Belden based on the cable design and structure.



## Technical Data Sheet - Shielded (CY) PVC Control Cable

### **Put-up Length**

### **Putup Length**

- 1) 100 Meters
- 2) 200 Meters\*
- 3) 300 Meters\*

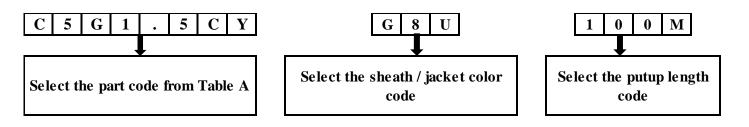
### **Putup Length Code**

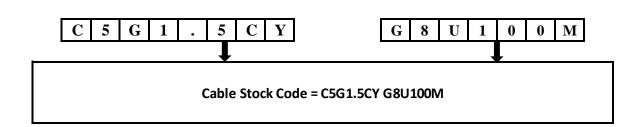
100M

200M

300M

#### **Stock Code Selection Procedure:**







<sup>\*</sup>Applicable only for certain part codes, please check with Belden for more information.