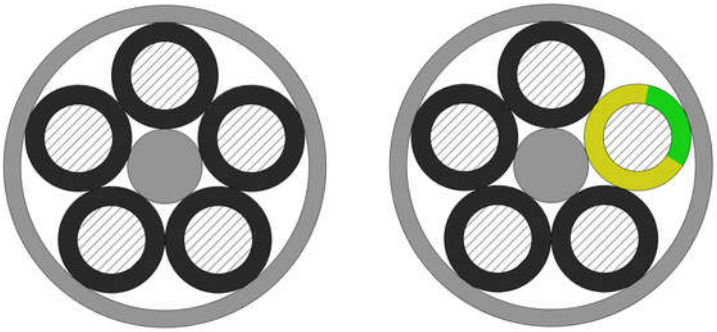
Technical Data Sheet – Unshielded (YY) PVC Control Cable



MachFlex 350 YY

VDE Registered
Flexible PVC Control Cables

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)
2.	**Insulation Material & Colour**	PVC (polyvinyl chloride), DIN VDE 0293-1 (colour) **A)** All black colour with number coding = without protective earth conductor. **OR** **B)** Black colour with number coding and 1 green & yellow colour conductor = with protective earth conductor.
3.	**Jacket / Sheath Material**	PVC (polyvinyl chloride)
4.	**Flame Retardancy**	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
5.	**Voltage Rating (Uo/U)**	300 / 500 V
6.	**Oil Resistant**	DIN EN 50290-2-22 (TM54)
7.	**Temperature Range**	-30°C TO +70°C (Occasional movement)
		-40°C TO +80°C (Fixed installation)
8.	**Bending Radius**	10 x OD (Occasional movement)
		4 x OD (Fixed installation)
9.	**Other Properties**	Good UV resistance, chemical resistance & flexibility

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TABLE A

Part Code	Cable Description	No. Of Cores	Nom. Conductor Size (mm^2)	Nom. Cable Diameter (mm)	Nom. Cable Weight (kg/km)
2X0.5	2 X0.5	2	0.5	4.6	28
3X0.5	3 X0.5	3	0.5	4.9	35
3G0.5	3 G0.5	3	0.5	4.9	35
4X0.5	4 X0.5	4	0.5	5.3	44
4G0.5	4 G0.5	4	0.5	5.3	44
5X0.5	5 X0.5	5	0.5	5.9	53
5G0.5	5 G0.5	5	0.5	5.9	53
7X0.5	7 X0.5	7	0.5	6.4	68
7G0.5	7 G0.5	7	0.5	6.4	68
9X0.5	9 X0.5	9	0.5	7.9	90
9G0.5	9 G0.5	9	0.5	7.9	90
10X0.5	10 X0.5	10	0.5	8.3	100
10G0.5	10 G0.5	10	0.5	8.3	100
12X0.5	12 X0.5	12	0.5	8.6	114
12G0.5	12 G0.5	12	0.5	8.6	114
14X0.5	14 X0.5	14	0.5	9.1	131
14G0.5	14 G0.5	14	0.5	9.1	131
16X0.5	16 X0.5	16	0.5	9.6	148
16G0.5	16 G0.5	16	0.5	9.6	148
18X0.5	18 X0.5	18	0.5	10.2	167
18G0.5	18 G0.5	18	0.5	10.2	167
20X0.5	20 X0.5	20	0.5	10.8	186
20G0.5	20 G0.5	20	0.5	10.8	186
2X0.75	2 X0.75	2	0.75	5.0	36
3X0.75	3 X0.75	3	0.75	5.4	46
3G0.75	3 G0.75	3	0.75	5.4	46
4X0.75	4 X0.75	4	0.75	5.9	58
4G0.75	4 G0.75	4	0.75	5.9	58
5X0.75	5 X0.75	5	0.75	6.5	70
5G0.75	5 G0.75	5	0.75	6.5	70
7X0.75	7 X0.75	7	0.75	7.2	91
7G0.75	7 G0.75	7	0.75	7.2	91
9X0.75	9 X0.75	9	0.75	8.9	120
9G0.75	9 G0.75	9	0.75	8.9	120
10X0.75	10 X0.75	10	0.75	9.3	134
10G0.75	10 G0.75	10	0.75	9.3	134
12X0.75	12 X0.75	12	0.75	9.6	154
12G0.75	12 G0.75	12	0.75	9.6	154
14X0.75	14 X0.75	14	0.75	10.2	176
14G0.75	14 G0.75	14	0.75	10.2	176
16X0.75	16 X0.75	16	0.75	10.8	199
16G0.75	16 G0.75	16	0.75	10.8	199
18X0.75	18 X0.75	18	0.75	11.4	225
18G0.75	18 G0.75	18	0.75	11.4	225
20X0.75	20 X0.75	20	0.75	12.1	251
20G0.75	20 G0.75	20	0.75	12.1	251

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Part Code	Cable Description	No. Of Cores	Nom. Conductor Size (mm^2)	Nom. Cable Diameter (mm)	Nom. Cable Weight (kg/km)
2X1.0	2 X1.0	2	1.0	5.4	44
3X1.0	3 X1.0	3	1.0	5.8	57
3G1.0	3 G1.0	3	1.0	5.8	57
4X1.0	4 X1.0	4	1.0	6.4	72
4G1.0	4 G1.0	4	1.0	6.4	72
5X1.0	5 X1.0	5	1.0	7.1	89
5G1.0	5 G1.0	5	1.0	7.1	89
7X1.0	7 X1.0	7	1.0	7.8	115
7G1.0	7 G1.0	7	1.0	7.8	115
9X1.0	9 X1.0	9	1.0	9.6	151
9G1.0	9 G1.0	9	1.0	9.6	151
10X1.0	10 X1.0	10	1.0	10.1	169
10G1.0	10 G1.0	10	1.0	10.1	169
12X1.0	12 X1.0	12	1.0	10.5	195
12G1.0	12 G1.0	12	1.0	10.5	195
14X1.0	14 X1.0	14	1.0	11.0	224
14G1.0	14 G1.0	14	1.0	11.0	224
16X1.0	16 X1.0	16	1.0	11.7	255
16G1.0	16 G1.0	16	1.0	11.7	255
18X1.0	18 X1.0	18	1.0	12.4	287
18G1.0	18 G1.0	18	1.0	12.4	287
20X1.0	20 X1.0	20	1.0	13.2	319
20G1.0	20 G1.0	20	1.0	13.2	319
2X1.5	2 X1.5	2	1.5	6.0	55
3X1.5	3 X1.5	3	1.5	6.4	71
3G1.5	3 G1.5	3	1.5	6.4	71
4X1.5	4 X1.5	4	1.5	7.0	91
4G1.5	4 G1.5	4	1.5	7.0	91
5X1.5	5 X1.5	5	1.5	7.8	112
5G1.5	5 G1.5	5	1.5	7.8	112
7X1.5	7 X1.5	7	1.5	8.5	145
7G1.5	7 G1.5	7	1.5	8.5	145
9X1.5	9 X1.5	9	1.5	10.6	191
9G1.5	9 G1.5	9	1.5	10.6	191
10X1.5	10 X1.5	10	1.5	11.1	213
10G1.5	10 G1.5	10	1.5	11.1	213
12X1.5	12 X1.5	12	1.5	11.5	247
12G1.5	12 G1.5	12	1.5	11.5	247
14X1.5	14 X1.5	14	1.5	12.2	284
14G1.5	14 G1.5	14	1.5	12.2	284
16X1.5	16 X1.5	16	1.5	12.9	323
16G1.5	16 G1.5	16	1.5	12.9	323
18X1.5	18 X1.5	18	1.5	13.7	364
18G1.5	18 G1.5	18	1.5	13.7	364
20X1.5	20 X1.5	20	1.5	14.5	405
20G1.5	20 G1.5	20	1.5	14.5	405
2X2.5	2 X2.5	2	2.5	7.7	91

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3X2.5	3 X2.5	3	2.5	8.3	118
3G2.5	3 G2.5	3	2.5	8.3	118
4X2.5	4 X2.5	4	2.5	9.2	152
4G2.5	4 G2.5	4	2.5	9.2	152
5X2.5	5 X2.5	5	2.5	10.1	188
5G2.5	5 G2.5	5	2.5	10.1	188
7X2.5	7 X2.5	7	2.5	11.2	244
7G2.5	7 G2.5	7	2.5	11.2	244
9X2.5	9 X2.5	9	2.5	13.9	322
9G2.5	9 G2.5	9	2.5	13.9	322
10X2.5	10 X2.5	10	2.5	14.6	360
10G2.5	10 G2.5	10	2.5	14.6	360
12X2.5	12 X2.5	12	2.5	15.2	417
12G2.5	12 G2.5	12	2.5	15.2	417
14X2.5	14 X2.5	14	2.5	16.0	481
14G2.5	14 G2.5	14	2.5	16.0	481
16X2.5	16 X2.5	16	2.5	17.0	548
16G2.5	16 G2.5	16	2.5	17.0	548
18X2.5	18 X2.5	18	2.5	18.1	618
18G2.5	18 G2.5	18	2.5	18.1	618
20X2.5	20 X2.5	20	2.5	19.2	688
20G2.5	20 G2.5	20	2.5	19.2	688
2X4	2 X4	2	4	9.1	137
3X4	3 X4	3	4	9.8	182
3G4	3 G4	3	4	9.8	182
4X4	4 X4	4	4	10.9	235
4G4	4 G4	4	4	10.9	235
5X4	5 X4	5	4	12.0	292
5G4	5 G4	5	4	12.0	292
7X4	7 X4	7	4	13.3	383
7G4	7 G4	7	4	13.3	383
9X4	9 X4	9	4	16.6	504
9G4	9 G4	9	4	16.6	504
10X4	10 X4	10	4	17.5	564
10G4	10 G4	10	4	17.5	564
12X4	12 X4	12	4	18.1	655
12G4	12 G4	12	4	18.1	655
2X6	2 X6	2	6	11.0	202
3X6	3 X6	3	6	11.8	269
3G6	3 G6	3	6	11.8	269
4X6	4 X6	4	6	13.1	349
4G6	4 G6	4	6	13.1	349
5X6	5 X6	5	6	14.5	434
5G6	5 G6	5	6	14.5	434
7X6	7 X6	7	6	16.0	570
7G6	7 G6	7	6	16.0	570
9X6	9 X6	9	6	20.1	751

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9G6	9 G6	9	6	20.1	751
2X10	2 X10	2	10	13.8	320
3X10	3 X10	3	10	14.8	427
3G10	3 G10	3	10	14.8	427
4X10	4 X10	4	10	16.5	555
4G10	4 G10	4	10	16.5	555
5X10	5 X10	5	10	18.3	692
5G10	5 G10	5	10	18.3	692
7X10	7 X10	7	10	20.3	910
7G10	7 G10	7	10	20.3	910
9X10	9 X10	9	10	25.5	1198
9G10	9 G10	9	10	25.5	1198
2X16	2 X16	2	16	16.8	497
3X16	3 X16	3	16	18.1	668
3G16	3 G16	3	16	18.1	668
4X16	4 X16	4	16	20.2	870
4G16	4 G16	4	16	20.2	870
5X16	5 X16	5	16	22.4	1086
5G16	5 G16	5	16	22.4	1086
7X16	7 X16	7	16	24.8	1433
7G16	7 G16	7	16	24.8	1433
2X25	2 X25	2	25	20.8	770
3X25	3 X25	3	25	22.3	1038
3G25	3 G25	3	25	22.3	1038
4X25	4 X25	4	25	24.9	1354
4G25	4 G25	4	25	24.9	1354
5X25	5 X25	5	25	27.7	1693
5G25	5 G25	5	25	27.7	1693
7X25	7 X25	7	25	30.6	2229
7G25	7 G25	7	25	30.6	2229
2X35	2 X35	2	35	24.0	1013
3X35	3 X35	3	35	25.9	1365
3G35	3 G35	3	35	25.9	1365
4X35	4 X35	4	35	28.9	1780
4G35	4 G35	4	35	28.9	1780

Sheath / Jacket Colour

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

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Packaging

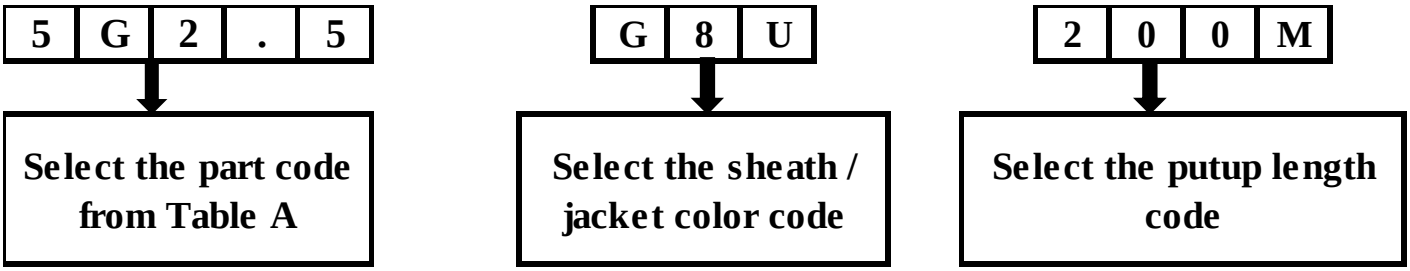
*Belden can offer these cables with various packing options like coiled, plastic or wooden reels. This will be decided at the discretion of Belden based on the cable design and structure.

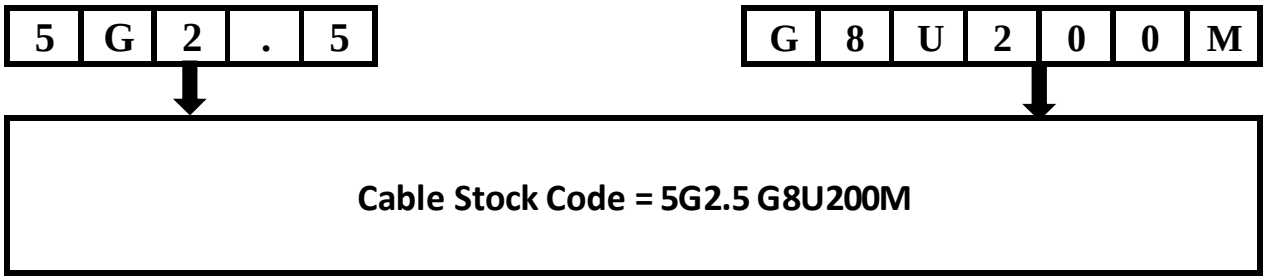
Put-up Length

Putup Length	Putup Length Code
1) 100 Meters*	100M
2) 200 Meters*	200M
3) 300 Meters	300M

*Applicable only for certain part codes, please check with Belden for more information.

Stock Code Selection Procedure:







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