



Controlflex Cables

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2 Controlflex® “YY” Type

PVC Insulated Flexible Cable 300/500V 70°C



4 Application

5 These flexible cables are designed for industrial control and instrumentation circuits and interconnections between mobile and fixed equipment. Cables are not recommended for applications where cable is likely to be subjected to repetitive flexing and/or twisting e.g. robotics, reeling drum, cranes etc. Details on dynamic types available on request.

6 Specifications

- 7
- 8 • Generally in accordance with BS6500 and VDE0250.
 - 9 • **Conductors:** Flexible (Class 5) copper conductors to BS EN 60228, Plain.
 - 10 • **Insulation:** PVC insulation TI.2 to BS EN 50363-3, Type YI.2 to DIN VDE 0207 Pt 4.
 - 11 • **Core Identification:** Cores will be number printed, in a contrasting colour, on black PVC insulation. All cables of three core and above will incorporate a green/yellow earth core in the outer layer.
 - 12 • Grey PVC sheath Type TM.2 to BS EN 50363-4-1, Type YM.2 to DIN VDE 0207 Pt 5.
 - 13 • Flame retardant to BS EN 60332-1-2 & IEC 60332-1.
 - 14 • **Voltage Rating:** 300/500V.
 - 15 • **Temperature Rating:** 70°C maximum conductor operating temperature.

16 Add suffix - KL to part number for cables up to 3 core having coloured cores, or - HKL for 4 and 5 core cables as follows: e.g. A4AE-C003-KL or A4AE-C005-HKL

17 2 core-blue, brown

18 3 core-green/yellow, blue, brown

19 4 core-green/yellow, brown, black, grey

20 5 core-green/yellow, brown, black, grey, blue

For further technical information refer to the end of the section.

For Low Smoke Zero Halogen versions, refer to page 3:16.

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Controlflex® “YY” Type

PVC Insulated Flexible Cable 300/500V 70°C

Anixter Number	Number of Cores	Nominal Conductor Size	Nominal Number and Size of Wires	Nominal O/D	Approx Cable Weight
		mm ²	#/mm	mm	kg/km
A4AC-C002	2	0.5	16/0.20	4.7	32
A4AC-C003	3	0.5	16/0.20	5.1	39
A4AC-C004	4	0.5	16/0.20	5.4	46
A4AC-C005	5	0.5	16/0.20	6.2	57
A4AC-C007	7	0.5	16/0.20	6.6	70
A4AC-C010	10	0.5	16/0.20	8.4	97
A4AC-C012	12	0.5	16/0.20	8.6	110
A4AC-C018	18	0.5	16/0.20	10.1	160
A4AC-C020	20	0.5	16/0.20	11.4	188
A4AC-C025	25	0.5	16/0.20	12.5	219
A4AC-C030	30	0.5	16/0.20	13.2	264
A4AD-C002	2	0.75	24/0.20	5.1	39
A4AD-C003	3	0.75	24/0.20	5.4	50
A4AD-C004	4	0.75	24/0.20	5.9	60
A4AD-C005	5	0.75	24/0.20	6.7	72
A4AD-C006	6	0.75	24/0.20	6.9	81
A4AD-C007	7	0.75	24/0.20	7.1	90
A4AD-C008	8	0.75	24/0.20	7.4	100
A4AD-C010	10	0.75	24/0.20	9.1	124
A4AD-C012	12	0.75	24/0.20	9.4	146
A4AD-C018	18	0.75	24/0.20	11.1	211
A4AD-C020	20	0.75	24/0.20	12.4	254
A4AD-C025	25	0.75	24/0.20	13.4	289
A4AD-C032	32	0.75	24/0.20	14.9	380
A4AD-C042	42	0.75	24/0.20	16.0	461
A4AD-C050	50	0.75	24/0.20	18.1	559
A4AE-C002	2	1	32/0.20	5.3	49
A4AE-C003	3	1	32/0.20	5.6	60
A4AE-C004	4	1	32/0.20	6.5	69
A4AE-C005	5	1	32/0.20	6.7	83
A4AE-C007	7	1	32/0.20	7.5	104
A4AE-C010	10	1	32/0.20	9.9	161
A4AE-C012	12	1	32/0.20	9.9	174
A4AE-C018	18	1	32/0.20	11.7	252
A4AE-C020	20	1	32/0.20	13.1	305
A4AE-C025	25	1	32/0.20	14.3	346
A4AE-C034	34	1	32/0.20	16.3	477

Continued overleaf . . .

Controlflex® “YY” Type

PVC Insulated Flexible Cable 300/500V 70°C (continued)

Anixter Number	Number of Cores	Nominal Conductor Size	Nominal Number and Size of Wires	Nominal O/D	Approx Cable Weight
		mm ²	#/mm	mm	kg/km
A4AE-C050	50	1	32/0.20	19.1	682
A4AE-C042	42	1	32/0.20	17.9	578
A4AF-C002	2	1.5	30/0.25	6.2	61
A4AF-C003	3	1.5	30/0.25	6.5	79
A4AF-C004	4	1.5	30/0.25	7.4	92
A4AF-C005	5	1.5	30/0.25	7.9	109
A4AF-C007	7	1.5	30/0.25	9.0	147
A4AF-C008	8	1.5	30/0.25	9.5	169
A4AF-C010	10	1.5	30/0.25	11.3	210
A4AF-C012	12	1.5	30/0.25	11.6	237
A4AF-C014	14	1.5	30/0.25	12.0	271
A4AF-C018	18	1.5	30/0.25	13.7	347
A4AF-C020	20	1.5	30/0.25	14.9	403
A4AF-C025	25	1.5	30/0.25	16.9	490
A4AF-C032	32	1.5	30/0.25	18.1	606
A4AF-C034	34	1.5	30/0.25	18.8	642
A4AF-C042	42	1.5	30/0.25	20.5	798
A4AF-C050	50	1.5	30/0.25	22.2	926
A4AF-C061	61	1.5	30/0.25	23.7	1119
A4AG-C002	2	2.5	50/0.25	7.3	92
A4AG-C003	3	2.5	50/0.25	7.7	119
A4AG-C004	4	2.5	50/0.25	8.5	148
A4AG-C005	5	2.5	50/0.25	9.7	180
A4AG-C007	7	2.5	50/0.25	10.1	232
A4AG-C012	12	2.5	50/0.25	13.9	377
A4AG-C015	15	2.5	50/0.25	16.0	500
A4AG-C018	18	2.5	50/0.25	17.1	575
A4AG-C020	20	2.5	50/0.25	18.3	650
A4AG-C025	25	2.5	50/0.25	20.7	786
A4BC-C003	3	4	56/0.30	9.3	176
A4BC-C004	4	4	56/0.30	10.2	219
A4BC-C005	5	4	56/0.30	11.6	269
A4BC-C007	7	4	56/0.30	12.8	356

Controlflex® “YY” Type

PVC Insulated Flexible Cable 300/500V 70°C (continued)

Anixter Number	Number of Cores	Nominal Conductor Size	Nominal Number and Size of Wires	Nominal O/D	Approx Cable Weight
		mm ²	#/mm	mm	kg/km
A4AGA-C004	4	6	84/0.30	12.3	323
A4AGA-C005	5	6	84/0.30	13.5	391
A4AGA-C007	7	6	84/0.30	14.9	519
A4AGB-C004	4	10	80/0.40	15.0	513
A4AGB-C005	5	10	80/0.40	17.1	650
A4AGC-C004	4	16	126/0.40	19.2	884
A4AGC-C005	5	16	126/0.40	21.3	1012
A4AGD-C004	4	25	196/0.40	23.0	1252
A4AGD-C005	5	25	196/0.40	25.8	1548
A4AGE-C004	4	35	276/0.40	26.7	1658
A4AGE-C005	5	35	276/0.40	29.5	2029
A4AGF-C004	4	50	396/0.40	31.5	2360
A4AGF-C005	5	50	396/0.40	34.7	2920
A4AGG-C004	4	70	360/0.50	35.7	3201
A4AGG-C005	5	70	360/0.50	40.0	4011
A4AGH-C004	4	95	475/0.50	41.1	4259
A4AGH-C005	5	95	475/0.50	45.6	5292

Add suffix - KL to part number for cables up to three core having coloured cores or -HKL for four and five core cables as follows: e.g. A4AD-C003-KL or A4AD-C005-HKL.

2 core - blue, brown.

3 core - green/yellow, blue, brown.

4 core - green/yellow, brown, black, grey.

5 core - green/yellow, brown, black, grey, blue.

For F2 compliant meeting NBN C30-004 (IEC 60332-3-24 Cat. C) add suffix -F2 e.g. A4AF-C002-F2.

For further technical information refer to the end of the section.

For Low Smoke Zero Halogen versions up to and including five core refer to page 3:16.

2 Controlflex® “CY” Type

PVC Insulated, Screened Flexible Cable 300/500V 70°C



6 Application

7 These flexible cables are designed for industrial control and instrumentation circuits and interconnections between mobile and fixed equipment. Incorporates a collective tinned copper wire braid screen for electrical protection. Cables are not recommended for applications where cable is likely to be subjected to repetitive flexing and/or twisting e.g. robotics, reeling drum, cranes etc. Details on dynamic types available on request.

9 Specifications

- 10
- Generally in accordance with BS6500 and VDE0250.
 - **Conductors:** Flexible (Class 5) copper conductors to BS EN 60228, plain.
 - **Insulation:** PVC insulation TI.2 to BS EN 50363-3, Type YI.2 to DIN VDE 0207 Pt 4.
 - **Core Identification:** Cores will be number printed, in a contrasting colour, on black PVC insulation. All cables of three core and above will incorporate a green/yellow earth core in the outer layer.
 - **Binder Tape:** p.e.t.p. tape.
 - Tinned copper wire braid. Minimum coverage 70%.
 - Grey PVC sheath Type TM.2 to BS EN 50363-4-1, Type YM.2 to DIN VDE 0207 Pt 5.RAL 7000.
 - Flame retardant to BS EN 60332-1-2 & IEC 60332-1
 - **Voltage Rating:** 300/500V.
 - **Temperature Rating:** 70°C maximum conductor operating temperature.

14 Add suffix - KL to part number for cables up to 3 core having coloured cores, or - HKL for 4 and 5 core cables as follows: e.g. A4AN-C003-KL or A4AN-C005-HKL

15 2 core - blue, brown

16 3 core - green/yellow, blue, brown

17 4 core - green/yellow, brown, black, grey

18 5 core - green/yellow, brown, black, grey, blue

19 For further technical information refer to the end of the section.

For Low Smoke Halogen versions refer to page 3:18.

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Controlflex® “CY” Type

PVC Insulated, Screened Flexible Cable 300/500V 70°C

Anixter Number	Number of Cores	Nominal Conductor Size	Nominal Number and Size of Wires	Nominal O/D	Approx Cable Weight
		mm ²	#/mm	mm	kg/km
A4AK-C002	2	0.5	16/0.20	5.4	45
A4AK-C003	3	0.5	16/0.20	5.8	53
A4AK-C004	4	0.5	16/0.20	6.3	63
A4AK-C005	5	0.5	16/0.20	6.7	76
A4AK-C007	7	0.5	16/0.20	7.3	107
A4AK-C010	10	0.5	16/0.20	8.5	120
A4AK-C012	12	0.5	16/0.20	9.2	140
A4AK-C018	18	0.5	16/0.20	10.2	179
A4AK-C020	20	0.5	16/0.20	11.2	200
A4AK-C025	25	0.5	16/0.20	13.3	256
A4AL-C002	2	0.75	24/0.20	6.0	54
A4AL-C003	3	0.75	24/0.20	6.3	65
A4AL-C004	4	0.75	24/0.20	6.8	77
A4AL-C005	5	0.75	24/0.20	7.3	91
A4AL-C006	6	0.75	24/0.20	7.8	102
A4AL-C007	7	0.75	24/0.20	7.8	115
A4AL-C010	10	0.75	24/0.20	9.6	150
A4AL-C012	12	0.75	24/0.20	10.1	177
A4AL-C018	18	0.75	24/0.20	11.6	250
A4AL-C020	20	0.75	24/0.20	14.1	294
A4AL-C025	25	0.75	24/0.20	13.9	326
A4AL-C032	32	0.75	24/0.20	15.6	406
A4AL-C040	40	0.75	24/0.20	17.0	540
A4AM-C002	2	1	32/0.20	6.2	60
A4AM-C003	3	1	32/0.20	6.5	73
A4AM-C004	4	1	32/0.20	7.0	89
A4AM-C005	5	1	32/0.20	7.6	105
A4AM-C007	7	1	32/0.20	8.4	139
A4AM-C010	10	1	32/0.20	9.7	165
A4AM-C012	12	1	32/0.20	10.4	207
A4AM-C015	15	1	32/0.20	11.4	250
A4AM-C018	18	1	32/0.20	12.4	295
A4AM-C025	25	1	32/0.20	14.9	384
A4AM-C030	30	1	32/0.20	16.0	480
A4AM-C032	32	1	32/0.20	16.6	510

Continued overleaf . . .

Controlflex® “CY” Type

PVC Insulated, Screened Flexible Cable 300/500V 70°C (continued)

Anixter Number	Number of Cores	Nominal Conductor Size	Nominal Number and Size of Wires	Nominal O/D	Approx Cable Weight
		mm ²	#/mm	mm	kg/km
A4AN-C002	2	1.5	30/0.25	6.8	70
A4AN-C003	3	1.5	30/0.25	7.2	90
A4AN-C004	4	1.5	30/0.25	7.8	108
A4AN-C005	5	1.5	30/0.25	8.4	125
A4AN-C007	7	1.5	30/0.25	9.3	160
A4AN-C010	10	1.5	30/0.25	10.5	220
A4AN-C012	12	1.5	30/0.25	11.8	279
A4AN-C018	18	1.5	30/0.25	14.0	350
A4AN-C020	20	1.5	30/0.25	15.0	395
A4AN-C025	25	1.5	30/0.25	16.9	530
A4AN-C030	30	1.5	30/0.25	18.0	680
A4AN-C032	32	1.5	30/0.25	18.9	720
A4AO-C002	2	2.5	50/0.25	8.0	104
A4AO-C003	3	2.5	50/0.25	8.6	140
A4AO-C004	4	2.5	50/0.25	9.4	173
A4AO-C005	5	2.5	50/0.25	10.0	206
A4AO-C007	7	2.5	50/0.25	10.8	267
A4AO-C012	12	2.5	50/0.25	14.6	432
A4AOA-C004	4	4	56/0.30	11.1	236
A4AOA-C005	5	4	56/0.30	12.1	288
A4AOB-C004	4	6	84/0.30	12.8	339
A4AOB-C005	5	6	84/0.30	14.2	416
A4AOC-C004	4	10	80/0.40	16.1	502
A4AOC-C005	5	10	80/0.40	17.6	625

Controlflex® “CY” Type

PVC Insulated, Screened Flexible Cable 300/500V 70°C

Anixter Number	Number of Cores	Nominal Conductor Size	Nominal Number and Size of Wires	Nominal O/D	Approx Cable Weight
		mm ²	#/mm	mm	kg/km
A4A0D-C004	4	16	126/0.40	19.2	771
A4A0D-C005	5	16	126/0.40	21.2	980
A4A0E-C004	4	25	196/0.40	20.2	1420
A4A0E-C005	5	25	196/0.40	35.7	3490
A4A0F-C004	4	35	276/0.40	39.1	4100
A4A0F-C005	5	35	276/0.40	42.7	4950

Add suffix - KL to part number for cables up to three core having coloured cores or -HKL for four and five core cables as follows: e.g. A4AN-C003-KL or A4AN-C005-HKL.

2 core - blue, brown

3 core - green/yellow, blue, brown

4 core - green/yellow, brown, black, grey

5 core - green/yellow, brown, black, grey, blue

For F2 compliant meeting NBN C30-004 (IEC60332-3-24 Cat. C) add suffix -F2 e.g. A4AN-C002-F2

For further technical information, refer to end of section.

For Low Smoke Zero Halogen versions up to and including five core refer to page 3.18

2 Controlflex® “YCY-JZ” Transparent PVC Sheath

PVC Insulated, PVC inner bedding, tinned copper wire screened, PVC transparent sheath 300/500V 80°C



6 Application

7 These flexible cables are designed for industrial control and instrumentation circuits and interconnections between mobile and fixed equipment. Incorporates a collective tinned copper wire braid screen for electrical protection and inner PVC bedding for better mechanical protection. Cables are not recommended for applications where cable is likely to be subjected to repetitive flexing and/or twisting e.g. robotics, reeling drum, cranes etc. Details on dynamic types available on request

8

9 Specifications

- 10
- Generally in accordance with BS6500 and VDE0250.
 - **Conductors:** Flexible (Class 5) copper conductors to BS EN 60228.
 - **Insulation:** PVC insulation TI.2 to BS EN 50363-3, Type YI.2 to DIN VDE 0207 Pt 4.
 - **Core Identification:** cores will be number printed, in a contrasting colour, on black PVC insulation. All cables of three core and above will incorporate a green/yellow earth core in the outer layer.
 - PVC inner bedding in grey.
 - Tinned copper wire braid screen 70% coverage.
 - Transparent PVC sheath Type TM.2 to BS EN 50363-4-1, Type YM.2 to DIN VDE 0207 Pt 5.
 - Flame retardant to BS EN 60332-1-2 & IEC 60332-1.
 - **Voltage Rating:** 300/500V.
 - **Temperature Rating:** flexible -5°C to +80°C, static -30°C to +80°C.
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Controlflex® “YCY-JZ” Transparent PVC Sheath

PVC Insulated, PVC inner bedding, tinned copper wire screened, PVC transparent sheath 300/500V 80°C

Anixter Number	Number of Cores	Nominal Conductor Size	Nominal Number and Size of Wires	Nominal O/D	Approx Cable Weight
		mm ²	#/mm	mm	kg/km
A4AM-C003-13	3	1.0	32/0.20	7.6	90
A4AM-C004-13	4	1.0	32/0.20	8.1	106
A4AM-C005-13	5	1.0	32/0.20	8.7	121
A4AM-C007-13	7	1.0	32/0.20	9.3	144
A4AM-C012-13	12	1.0	32/0.20	11.7	225
A4AM-C025-13	25	1.0	32/0.20	16.6	455
A4AN-C003-13	3	1.5	30/0.25	8.3	112
A4AN-C004-13	4	1.5	30/0.25	9.1	133
A4AN-C005-13	5	1.5	30/0.25	9.7	148
A4AN-C007-13	7	1.5	30/0.25	10.2	183
A4AN-C012-13	12	1.5	30/0.25	13.3	295
A4AN-C025-13	25	1.5	30/0.25	18.6	599
A4AO-C003-13	3	2.5	50/0.25	9.5	158
A4AO-C004-13	4	2.5	50/0.25	10.3	191
A4AO-C005-13	5	2.5	50/0.25	11.5	213
A4AO-C007-13	7	2.5	50/0.25	12.3	274
A4AO-C012-13	12	2.5	50/0.25	13.3	530
A4AOA-C003-13	3	4.0	56/0.30	10.7	218
A4AOA-C004-13	4	4.0	56/0.30	12.2	274
A4AOA-C005-13	5	4.0	56/0.30	12.7	317
A4AOB-C004-13	4	6.0	84/0.30	14.0	378
A4AOB-C005-13	5	6.0	84/0.30	16.4	493

1 Controlflex Cables

2 Controlflex® “SY” Type

PVC Insulated, GSWB, Flexible Cable 300/500V 80°C



6 Application

7 These flexible cables are designed for industrial control and instrumentation circuits and interconnections between mobile and fixed equipment. Incorporates steel wire braid screen for additional mechanical protection. Cables are not recommended for applications where cable is likely to be subjected to *repetitive* flexing and/or twisting e.g. robotics, reeling drum, cranes etc. Details on dynamic types available on request.

9 Specifications

- 10
- Generally in accordance with BS6500 and VDE0250.
 - **Conductors:** Flexible (Class 5) copper conductors to BS EN 60228, plain.
 - **Insulation:** PVC insulation TI.2 to BS EN 50363-3, Type YI.2 to DIN VDE 0207 Pt 4.
 - **Core Identification:** Cores will be number printed, in a contrasting colour, on black PVC insulation. All cables of three core and above will incorporate a green/yellow earth core in the outer layer.
 - **Inner Sheath:** PVC inner sheath Type TM.2 to BS EN 50363-4-1, Type YM.2 to DIN VDE 0207 Pt 5.
 - Galvanised steel wire braid (minimum coverage 60%).
 - **Outer Sheath:** Transparent PVC outer sheath.
 - Flame retardant to BS EN 60332-1-2 & IEC60332-1.
 - **Voltage Rating:** 300/500V.
 - **Temperature Rating:** 80°C maximum conductor operating temperature.

14 Add suffix - KL to part number for cables up to 3 core having coloured cores, or - HKL for 4 and 5 core cables as follows: e.g. A4AT-C003-KL or A4AT-C005-HKL

15 2 core - blue, brown

16 3 core - green/yellow, blue, brown

4 core - green/yellow, brown, black, grey

5 core - green/yellow, brown, black, grey, blue

17 For further technical information refer to the end of the section.

18 The number and size of wires #/mm are nominal and may be changed dependent on supply.

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Controlflex® “SY” Type

PVC Insulated, GSWB, Flexible Cable 300/500V 80°C

CONTROLFLEX “SY” TYPE

Anixter Number	Number of Cores	Nominal Conductor Size	Nominal Number and Size of Wires	Nominal O/D	Approx Cable Weight
		mm ²	#/mm	mm	kg/km
A4AQ-C002	2	0.5	16/0.20	5.3	84
A4AQ-C003	3	0.5	16/0.20	6.3	85
A4AQ-C004	4	0.5	16/0.20	7.3	82
A4AQ-C005	5	0.5	16/0.20	8.3	90
A4AQ-C007	7	0.5	16/0.20	9.3	117
A4AQ-C012	12	0.5	16/0.20	10.6	153
A4AQ-C018	18	0.5	16/0.20	11.6	255
A4AR-C002	2	0.75	24/0.20	7.5	73
A4AR-C003	3	0.75	24/0.20	7.8	82
A4AR-C004	4	0.75	24/0.20	8.2	89
A4AR-C005	5	0.75	24/0.20	8.8	101
A4AR-C007	7	0.75	24/0.20	9.1	127
A4AR-C012	12	0.75	24/0.20	11.5	187
A4AR-C014	14	0.75	24/0.20	12.1	210
A4AR-C018	18	0.75	24/0.20	13.3	258
A4AR-C025	25	0.75	24/0.20	16.3	370
A4AS-C002	2	1	32/0.20	7.7	79
A4AS-C003	3	1	32/0.20	8.0	90
A4AS-C004	4	1	32/0.20	8.5	106
A4AS-C005	5	1	32/0.20	9.1	119
A4AS-C007	7	1	32/0.20	9.7	145
A4AS-C010	10	1	32/0.20	11.0	195
A4AS-C012	12	1	32/0.20	12.1	226
A4AS-C018	18	1	32/0.20	13.8	311
A4AS-C020	20	1	32/0.20	14.5	375

Continued overleaf . . .

Controlflex® “SY” Type

PVC Insulated, GSWB, Flexible Cable 300/500V 80°C (continued)

Anixter Number	Number of Cores	Nominal Conductor Size	Nominal Number and Size of Wires	Nominal O/D	Approx Cable Weight
		mm ²	#/mm	mm	kg/km
A4AS-C025	25	1	32/0.20	16.9	438
A4AS-C032	32	1	32/0.20	18.5	561
A4AT-C002	2	1.5	30/0.25	8.5	96
A4AT-C003	3	1.5	30/0.25	8.5	117
A4AT-C004	4	1.5	30/0.25	9.2	132
A4AT-C005	5	1.5	30/0.25	9.7	147
A4AT-C007	7	1.5	30/0.25	10.6	184
A4AT-C012	12	1.5	30/0.25	13.5	293
A4AT-C018	18	1.5	30/0.25	16.3	433
A4AT-C025	25	1.5	30/0.25	19.0	572
A4AT-C032	32	1.5	30/0.25	21.2	739
A4AU-C002	2	2.5	50/0.25	9.2	130
A4AU-C003	3	2.5	50/0.25	9.7	155
A4AU-C004	4	2.5	50/0.25	10.7	191
A4AU-C005	5	2.5	50/0.25	11.5	224
A4AU-C007	7	2.5	50/0.25	12.6	285
A4AU-C012	12	2.5	50/0.25	16.6	460
A4AU-C018	18	2.5	50/0.25	19.3	654
A4AU-C025	25	2.5	50/0.25	23.2	891
A4AV-C003	3	4	56/0.30	11.4	216
A4AV-C004	4	4	56/0.30	12.3	271
A4AV-C005	5	4	56/0.30	13.8	330
A4AV-C007	7	4	56/0.30	15.4	442

Continued overleaf . . .

Controlflex® “SY” Type

PVC Insulated, GSWB, Flexible Cable 300/500V 80°C (continued)

Anixter Number	Number of Cores	Nominal Conductor Size	Nominal Number and Size of Wires	Nominal O/D	Approx Cable Weight
		mm ²	#/mm	mm	kg/km
A4AW-C004	4	6	84/0.30	14.5	379
A4AW-C005	5	6	84/0.30	16.4	474
A4AX-C003	3	10	80/0.40	16.3	483
A4AX-C004	4	10	80/0.40	18.0	608
A4AX-C005	5	10	80/0.40	19.5	734
A4AY-C003	3	16	126/0.40	20.0	800
A4AY-C004	4	16	126/0.40	21.8	945
A4AY-C005	5	16	126/0.40	23.4	1123
A4AZ-C003	3	25	196/0.40	23.5	1200
A4AZ-C004	4	25	196/0.40	25.1	1349
A4AZ-C005	5	25	196/0.40	28.3	1670
A4EA-C004	4	35	276/0.40	29.6	1839
A4EA-C005	5	35	276/0.40	32.0	2197

Add suffix - KL to part number for cables up to three core having coloured cores or -HKL for four and five core cables as follows: e.g. A4AT-C003-KL or A4AT-C005-HKL.

2 core - blue, brown

3 core - green/yellow, blue, brown

4 core - green/yellow, brown, black, grey

5 core - green/yellow, brown, black, grey, blue

For F2 compliant meeting NBN C30-004 (IEC60332-3-24 Cat. C) add suffix -F2 e.g. A4AN-C002-F2

For further technical information, refer to the end of the section.

2 Controlflex® “YY-LSF” Type

3 Low Smoke Zero Halogen Flexible Cable 300/500V 80°C



4 Application

5 These flexible cables are designed for industrial control and instrumentation circuits and interconnections between mobile and fixed equipment. Cables are not recommended for applications where cable is likely to be subjected to repetitive flexing and/or twisting e.g. robotics, reeling drum, cranes etc. Especially for use in areas where fire would create dense smoke and toxic fumes causing a major threat to life and equipment.

6 Specifications

- 7 • Generally in accordance with BS6500 and VDE0250.
- 8 • **Conductors:** Flexible (Class 5) copper conductors to BS EN 60228.
- 9 • **Insulation:** Zero halogen insulation.
- 10 • **Core Identification:** Cores will be number printed, in a contrasting colour, on black low smoke zero halogen insulation. All cables of three core and above will incorporate a green/yellow earthcore in the outer layer.
- 11 • Grey LSF outer sheath Type LTS3 to BS7655 Section 6.1. RAL 7000.
- 12 • Flame retardant to BS EN 60332-1-2.
- 13 • Meets IEC 61034 3m cube smoke emission test.
- 14 • **Voltage Rating:** 300/500V.
- 15 • **Temperature Rating:** 80°C maximum conductor operating temperature.

16 Add suffix - KL to part number for cables up to 3 core having coloured cores, or - HKL for 4 and 5 core cables as follows: e.g. A4LE-C003-KL or A4LE-C005-HKL

17 2 core - blue, brown

18 3 core - green/yellow, blue, brown

19 4 core - green/yellow, brown, black, grey

20 5 core - green/yellow, brown, black, grey, blue

21 For further technical information refer to the end of the section.

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Controlflex® “YY-LSF” Type

Low Smoke Zero Halogen Flexible Cable 300/500V 80°C

Anixter Number	Number of Cores	Nominal Conductor Size	Nominal Number and Size of Wires	Nominal O/D	Approx Cable Weight
		mm ²	#/mm	mm	kg/km
A4LC-C002	2	0.5	16/0.20	4.7	32
A4LC-C003	3	0.5	16/0.20	5.2	40
A4LC-C004	4	0.5	16/0.20	5.7	44
A4LC-C005	5	0.5	16/0.20	6.2	53
A4LD-C002	2	0.75	24/0.20	5.0	40
A4LD-C003	3	0.75	24/0.20	5.3	41
A4LD-C004	4	0.75	24/0.20	5.7	50
A4LD-C005	5	0.75	24/0.20	6.2	76
A4LE-C002	2	1.0	32/0.20	5.2	41
A4LE-C003	3	1.0	32/0.20	5.5	50
A4LE-C004	4	1.0	32/0.20	6.0	63
A4LE-C005	5	1.0	32/0.20	6.5	73
A4LF-C002	2	1.5	30/0.25	5.8	54
A4LF-C003	3	1.5	30/0.25	6.1	80
A4LF-C004	4	1.5	30/0.25	7.1	89
A4LF-C005	5	1.5	30/0.25	7.3	98
A4LG-C002	2	2.5	50/0.25	7.2	89
A4LG-C003	3	2.5	50/0.25	7.3	101
A4LG-C004	4	2.5	50/0.25	7.9	125
A4LG-C005	5	2.5	50/0.25	8.6	152

Larger core counts and cables having coloured cores also available.

2 Controlflex® "CY-LSF" Type

3 Low Smoke Zero Halogen Screened Flexible Cable 300/500V 80°C



4 Application

5 These flexible cables are designed for industrial control and instrumentation circuits and interconnections between mobile and fixed equipment. Incorporates a collective tinned copper wire braid screen for electrical protection. Cables are not recommended for applications where cable is likely to be subjected to repetitive flexing and/or twisting e.g. robotics, reeling drum, cranes etc. Especially for use in areas where fire would create dense smoke and toxic fumes causing a major threat to life and equipment.

6 Specifications

- 7
- 8 • Generally in accordance with BS6500 and VDE0250.
 - 9 • **Conductors:** Flexible (Class 5) plain copper conductors to BS EN 60228.
 - 10 • **Insulation:** Zero halogen insulation.
 - 11 • **Core Identification:** Cores will be number printed, in a contrasting colour, on black low smoke zero halogen insulation. All cables of three core and above will incorporate a green/yellow earthcore in the outer layer.
 - 12 • **Binder Tape:** p.e.t.p. tape.
 - 13 • Tinned copper wire braid (minimum 70% coverage).
 - 14 • Grey LSF outer sheath Type LTS3 to BS7655 section 6.1. RAL 7000.
 - 15 • Flame retardant to BS EN 60332-1-2.
 - 16 • Meets IEC61034 3m cube smoke emission test.
 - 17 • **Voltage Rating:** 300/500V.
 - 18 • **Temperature Rating:** 80°C maximum conductor operating temperature.

19 Add suffix -KL to part number for cables up to 3 core having coloured cores, or -HKL for 4 and 5 core cables as follows:
e.g. A4LN-C003-KL or A4LN-C005-HKL.

20 2 core - blue, brown.

21 3 core - green/yellow, blue, brown.

22 4 core - green/yellow, brown, black, grey.

23 5 core - green/yellow, brown, black, grey, blue.

24 For further technical information refer to the end of the section.

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Controlflex® “CY-LSF” Type

Low Smoke Zero Halogen Screened Flexible Cable 300/500V 80°C

Anixter Number	Number of Cores	Nominal Conductor Size	Nominal Number and Size of Wires	Nominal O/D	Approx Cable Weight
		mm ²	#/mm	mm	kg/km
A4LK-C002	2	0.5	16/0.20	5.4	45
A4LK-C003	3	0.5	16/0.20	5.8	53
A4LK-C004	4	0.5	16/0.20	6.3	63
A4LK-C005	5	0.5	16/0.20	6.7	76
A4LL-C002	2	0.75	24/0.20	5.9	56
A4LL-C003	3	0.75	24/0.20	6.1	65
A4LL-C004	4	0.75	24/0.20	6.6	61
A4LL-C005	5	0.75	24/0.20	7.0	72
A4LM-C002	2	1.0	32/0.2	6.1	50
A4LM-C003	3	1.0	32/0.20	6.3	59
A4LM-C004	4	1.0	32/0.20	6.8	71
A4LM-C005	5	1.0	32/0.20	7.3	83
A4LN-C002	2	1.5	30/0.25	6.6	58
A4LN-C003	3	1.5	30/0.25	6.9	74
A4LN-C004	4	1.5	30/0.25	7.5	91
A4LN-C005	5	1.5	30/0.25	8.1	109
A4LO-C002	2	2.5	50/0.25	7.7	95
A4LO-C003	3	2.5	50/0.25	8.1	121
A4LO-C004	4	2.5	50/0.25	8.8	134
A4LO-C005	5	2.5	50/0.25	9.4	163
A4LOA-C004	4	4	56/0.30	10.4	196
A4LOA-C005	5	4	56/0.30	11.4	238

Continued overleaf. . .

Controlflex® “CY-LSF” Type

Low Smoke Zero Halogen Screened Flexible Cable 300/500V 80°C (continued)

Anixter Number	Number of Cores	Nominal Conductor Size	Nominal Number and Size of Wires	Nominal O/D	Approx Cable Weight
		mm ²	#/mm		mm
A4LOB-C004	4	6	84/0.30	11.8	273
A4LOB-C005	5	6	84/0.30	17.0	545
A4LOC-C004	4	10	80/0.40	14.2	429
A4LOC-C005	5	10	80/0.40	21.0	850
A4LOD-C004	4	16	126/0.40	17.7	690
A4LOD-C005	5	16	126/0.40	25.0	1270

Larger core counts and cables having coloured cores also available.

Technical Information for Controlflex®

CURRENT RATINGS

30°C ambient air temperature

Nominal Conductor Area	Current Ratings	
	Single Phase a.c. or d.c.	Three Phase a.c.
mm ²	A	A
0.5	3	3
0.75	6	6
1.0	10	10
1.5	16	16
2.5	25	20
4.0	32	25
6.0	51	43
10	70	60
16	94	80
25	119	101
35	148	126
50	180	153
70	232	196
95	282	238

The above ratings are based on cable in FREE air, in an ambient air temperature of 30°C. For ambient air temperatures other than 30°C the following rating factors should be applied:

Ratings for cables up to and including 4mm² are based on 60°C conductor operating temperature with 6mm² and above based on 70°C operating temperature.

Cables up to and including 4mm² (Assuming 60°C conductor temperature)

Ambient air temp °C	35	40	45	50	55
Rating factor	0.91	0.82	0.71	0.58	0.41

Cables 6mm² and above (Assuming 70°C conductor temperature)

Ambient air temp °C	35	40	45	50	55	60
Rating factor	0.94	0.87	0.79	0.71	0.61	0.50

Technical Information for Controlflex®

VOLTAGE DROP

60°C* conductor operating temperature

Nominal Conductor Area	Voltage Drop					
	Single Phase a.c. or d.c.			Three Phase a.c.		
mm ²	mV/A/m			mV/A/m		
0.5	93			80		
0.75	62			54		
1.0	46			40		
1.5	32			27		
2.5	19			16		
4.0	12			10		
6.0	7.3			6.4		
10	4.4			3.8		
16	2.8			2.4		
	r	x	z	r	x	z
25	1.75	0.170	1.75	1.50	0.145	1.50
35	1.25	0.165	1.25	1.10	0.145	1.10
50	0.93	0.165	0.94	0.80	0.140	0.81
70	0.63	0.160	0.65	0.55	0.140	0.57
95	0.47	0.155	0.50	0.41	0.135	0.43

Since cables may be used at conductor operating temperatures up to 80°C, the current ratings may be increased by the following factors:

Cable up to and including 4mm² x 1.25 cables above 6mm² x 1.10.

Ambient temperature correction factors for cables operating at 80°C conductor temperatures should be applied as follows.

Ambient air temp °C	35	40	45	50	55	60
Rating factor	0.95	0.89	0.84	0.77	0.71	0.63

For cables where four or more cores are loaded, the following rating factors should be applied:

No. of cores loaded	4	5	6	7	10	12	14	19	24	27	30	37
Rating factor	0.78	0.72	0.67	0.63	0.56	0.53	0.51	0.45	0.42	0.40	0.39	0.36

These factors need not be applied if the number of cores loaded does not exceed the square root of the total number of cores in the cable.