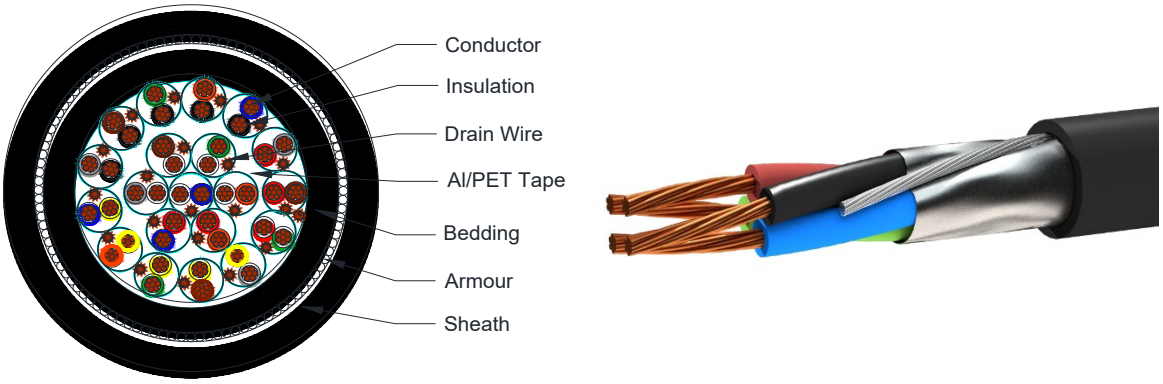
Control and Instrumentation Cables
PAS/BS5308 Part 1, Type 1 & 2
PVC Sheath

C2998 TO C3098 C3277 TO C3284 C3302, C3303, C3430, C3431, C3527, C3528, C3570, C3571, C3734, C3735, C3736

Applications

Process control, equipment interconnection, typically in chemical and petrochemical locations. The unarmoured versions (Type 1) are generally use for indoor installation and suitable for wet and damp areas. The armoured versions (Type 2) are generally used for outdoor applications and can be used in direct burial applications.

Cross Section Drawing



Design

Unit	Properties
Conductor	Plain copper wire
Insulation	PE
Twinning	Pair construction
Individual Screening (where requested)	Aluminum/Polyester tape with Tinned copper drain wire
Collective Screening	Aluminum/Polyester tape with Tinned copper drain wire
Bedding (where requested)	Flame Retardant PVC
Armour (where requested)	Galvanized Steel Wire Armour
Outer Sheath Material	Flame Retardant PVC Standard Colour: Black
Standard Put Up Length	305M or 500m

*Other Colors, Put Up Lengths and structures can be manufactured upon request, please contact your local B3 International sales representative.

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Electrical Characteristics at 20°C

Conductor Size(sqmm)	Conductor Construction	Max. DCR (Ohm/km)	Max. Mutual Capacitance (pF/m) at 1KHz		Max. Mutual Capacitance unbalance (pF/500m) at 1KHz	Test voltage between conductors and between conductors and screen (V r.m.s.)	Max. L/R ratio (µH/Ω)	Min Insulation Resistance of PE (M.Ohm/km)
			Cables with only collective screens (except 1 pair and 2 pair)	1Pair and 2 pair cables collectively screen or individual pair screens				
0.2	7*0.2	84.6	75	115	500	1000	25	5000
0.5	16*0.2	39.7	75	115	500	1000	25	5000
0.75	24*0.2	26.5	75	115	500	1000	25	5000
1.00	1.13	18.4	75	115	500	1000	25	5000
1.50	7*0.53	12.3	85	120	500	1000	40	5000

Color Scheme

Pair No.	Color		Pair No.	Color	
1	White	Blue	26	RED-Blue	Blue
2	White	Orange	27	RED-Blue	Orange
3	White	Green	28	RED-Blue	Green
4	White	Brown	29	RED-Blue	Brown
5	White	Grey	30	RED-Blue	Grey
6	Red	Blue	31	BLUE-Black	Blue
7	Red	Orange	32	BLUE-Black	Orange
8	Red	Green	33	BLUE-Black	Green
9	Red	Brown	34	BLUE-Black	Brown
10	Red	Grey	35	BLUE-Black	Grey
11	Black	Blue	36	YELLOW-Blue	Blue
12	Black	Orange	37	YELLOW-Blue	Orange
13	Black	Green	38	YELLOW-Blue	Green
14	Black	Brown	39	YELLOW-Blue	Brown
15	Black	Grey	40	YELLOW-Blue	Grey
16	Yellow	Blue	41	WHITE-Orange	Blue
17	Yellow	Orange	42	WHITE-Orange	Orange
18	Yellow	Green	43	WHITE-Orange	Green
19	Yellow	Brown	44	WHITE-Orange	Brown
20	Yellow	Grey	45	WHITE-Orange	Grey
21	WHITE-Blue	Blue	46	ORANGE-Red	Blue
22	WHITE-Blue	Orange	47	ORANGE-Red	Orange
23	WHITE-Blue	Green	48	ORANGE-Red	Green
24	WHITE-Blue	Brown	49	ORANGE-Red	Brown
25	WHITE-Blue	Grey	50	ORANGE-Red	Grey

Note: 2 Pair unscreened cables are in quad formation, colour code (clockwise): Black, Blue, Green, and Brown

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Constructional Information

Part 1: Type1: Collectively Screened Unarmoured

P/N	Number of Pairs	Conductor Construction (sq mm)	Nom. Radial Thickness of Insulation (mm)	Drain wire cross section (sq mm)	Nom. Thickness of Jacket (mm)	Overall Diameter (mm)	Nom. Weight (kg/km)
C2998	2	0.2 (7*0.2)	0.6	0.5	0.6	5.40	42.5
C2999	4	0.2 (7*0.2)	0.6	0.5	0.6	8.90	70.9
C3000	1	0.5 (16*0.2)	0.6	0.5	0.8	6.00	40.6
C3001	2	0.5 (16*0.2)	0.6	0.5	0.8	9.00	58.7
C3002	3	0.5 (16*0.2)	0.6	0.5	0.9	10.00	69.2
C3003	5	0.5 (16*0.2)	0.6	0.5	1.10	12.10	142.6
C3004	10	0.5 (16*0.2)	0.6	0.5	1.30	16.20	267.8
C3005	15	0.5 (16*0.2)	0.6	0.5	1.50	18.20	347.2
C3006	20	0.5 (16*0.2)	0.6	0.5	1.60	21.30	442.8
C3007	30	0.5 (16*0.2)	0.6	0.5	1.80	25.90	645.8
C3008	50	0.5 (16*0.2)	0.6	0.5	2.10	32.90	1022.8
C3009	1 TRIPE	0.5 (16*0.2)	0.6	0.5	0.80	6.30	48.6
C3010	1	0.75 (24*0.2)	0.6	0.5	0.80	6.40	47.3
C3011	2	0.75 (24*0.2)	0.6	0.5	0.80	7.40	71.0
C3013	5	0.75 (24*0.2)	0.6	0.5	1.20	13.30	181.3
C3014	10	0.75 (24*0.2)	0.6	0.5	1.60	16.20	329.0
C3015	15	0.75 (24*0.2)	0.6	0.5	1.60	20.50	451.6
C3016	20	0.75 (24*0.2)	0.6	0.5	1.80	21.30	573.8
C3017	30	0.75 (24*0.2)	0.6	0.5	2.05	28.50	853.8
C3018	50	0.75 (24*0.2)	0.6	0.5	2.50	36.40	1378.6
C3019	1 TRIPE	0.75 (24*0.2)	0.6	0.5	0.80	6.80	59.3
C3570	1	1.00 (7x0.43)	0.6	0.5	0.80	6.80	53.0
C3571	2	1.00 (7x0.43)	0.6	0.5	0.90	8.00	102.7
C3731	1 TRIPE	1.00 (7x0.43)	0.6	0.5	0.80	7.10	66.7
C3732	3 TRIPE	1.00 (7x0.43)	0.6	0.5	1.20	13.5	185.7
C3733	10 TRIPE	1.00 (7x0.43)	0.6	0.5	1.60	20.1	520.9
C3020	1	1.50 (7*0.53)	0.6	0.5	0.80	7.30	67.6
C3021	2	1.50 (7*0.53)	0.6	0.5	0.90	8.70	112.2
C3022	3	1.50 (7*0.53)	0.6	0.5	0.90	9.20	168.3
C3023	5	1.50 (7*0.53)	0.6	0.5	1.10	15.40	271.8
C3024	10	1.50 (7*0.53)	0.6	0.5	1.70	20.60	527.4
C3025	15	1.50 (7*0.53)	0.6	0.5	1.70	24.20	741.1
C3026	20	1.50 (7*0.53)	0.6	0.5	1.80	27.50	947.1
C3027	30	1.50 (7*0.53)	0.6	0.5	2.10	33.30	1388.8
C3028	50	1.50 (7*0.53)	0.6	0.5	2.50	42.60	2255.1
C3029	1 TRIPE	1.50 (7*0.53)	0.6	0.5	0.80	7.80	88.0

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Part 1: Type1: Individually & Collectively Screened Unarmoured

P/N	Number of Pairs	Conductor Construction (sq mm)	Nom. Radial Thickness of Insulation (mm)	Drain wire cross section (sq mm)	Nom. Thickness of Jacket (mm)	Overall Diameter (mm)	Nom. Weight (kg/km)
C3030	2	0.5 (16*0.2)	0.60	0.50	1.10	11.00	110.3
C3031	5	0.5 (16*0.2)	0.60	0.50	1.20	14.20	200.3
C3032	10	0.5 (16*0.2)	0.60	0.50	1.30	20.10	350.1
C3033	15	0.5 (16*0.2)	0.60	0.50	1.50	23.50	514.0
C3034	20	0.5 (16*0.2)	0.60	0.50	1.50	26.30	636.7
C3035	30	0.5 (16*0.2)	0.60	0.50	1.70	31.30	916.0
C3036	50	0.5 (16*0.2)	0.60	0.50	2.20	40.70	1511.6
C3037	2	0.75 (24*0.2)	0.60	0.50	1.10	11.80	135.3
C3038	5	0.75 (24*0.2)	0.60	0.50	1.20	15.20	237.2
C3039	10	0.75 (24*0.2)	0.60	0.50	1.30	21.60	425.3
C3040	15	0.75 (24*0.2)	0.60	0.50	1.50	25.20	616.6
C3041	20	0.75 (24*0.2)	0.60	0.50	1.70	28.80	797.8
C3042	30	0.75 (24*0.2)	0.60	0.50	2.00	34.40	1163.0
C3043	50	0.75 (24*0.2)	0.60	0.50	2.20	43.90	1845.5
C3044	2	1.50 (7*0.53)	0.60	0.50	1.20	13.70	191.5
C3277	4	1.50 (7*0.53)	0.60	0.50	1.20	16.20	262.5
C3045	5	1.50 (7*0.53)	0.60	0.50	1.30	17.80	349.9
C3278	6	1.50 (7*0.53)	0.60	0.50	1.30	19.70	386.4
C3279	8	1.50 (7*0.53)	0.60	0.50	1.40	21.70	497.7
C3046	10	1.50 (7*0.53)	0.60	0.50	1.50	25.50	644.1
C3280	12	1.50 (7*0.53)	0.60	0.50	1.50	26.70	703.1
C3281	14	1.50 (7*0.53)	0.60	0.50	1.60	28.40	813.7
C3047	15	1.50 (7*0.53)	0.60	0.50	1.70	29.80	934.3
C3048	20	1.50 (7*0.53)	0.60	0.50	1.70	33.40	1177.5
C3049	30	1.50 (7*0.53)	0.60	0.50	2.00	40.00	1730.0
C3050	50	1.50 (7*0.53)	0.60	0.50	2.20	51.20	2778.6

C2998 TO C3098 C3277 TO C3284 C3302, C3303, C3430, C3431, C3527, C3528, C3570, C3571, C3734, C3735, C3736

Part 1: Type2: Collectively Screened Armoured

P/N	Number of Pairs	Conductor Construction (sq mm)	Nom. Radial Thickness of Insulation (mm)	Drain wire cross section (sq mm)	Diameter of Bedding (mm)	Diameter of Armour (mm)	Nom. Thickness of Jacket (mm)	Nom. Diameter of cable (mm)	Nom. Weight (kg/km)
C3734	2	0.2 (7*0.2)	0.60	0.50	5.70	7.50	1.20	9.90	186.2
C3735	4	0.2 (7*0.2)	0.60	0.50	8.90	10.70	1.20	13.10	230.9
C3051	1	0.5 (16*0.2)	0.60	0.50	6.00	7.80	1.30	10.40	194.1
C3052	2	0.5 (16*0.2)	0.60	0.50	6.90	8.70	1.30	11.30	231.6
C3053	5	0.5 (16*0.2)	0.60	0.50	12.1	13.90	1.50	16.90	441.0
C3054	10	0.5 (16*0.2)	0.60	0.50	16.20	18.70	1.60	21.90	815.5
C3055	15	0.5 (16*0.2)	0.60	0.50	18.80	22.00	1.70	25.40	1075.7
C3056	20	0.5 (16*0.2)	0.60	0.50	21.30	24.50	1.80	28.10	1359.5
C3057	30	0.5 (16*0.2)	0.60	0.50	25.90	29.10	1.90	32.90	1640.4
C3058	50	0.5 (16*0.2)	0.60	0.50	32.90	36.90	2.10	41.10	2557.6
C3059	1 TRIPE	0.5 (16*0.2)	0.60	0.50	6.40	8.20	1.30	10.80	244.8
C3060	1	0.75 (24*0.2)	0.60	0.50	6.40	8.20	1.30	10.80	243.2
C3061	2	0.75 (24*0.2)	0.60	0.50	7.40	9.20	1.40	12.00	261.7
C3062	5	0.75 (24*0.2)	0.60	0.50	13.20	15.70	1.50	18.70	597.4
C3063	10	0.75 (24*0.2)	0.60	0.50	17.40	19.90	1.70	23.30	865.1
C3064	15	0.75 (24*0.2)	0.60	0.50	20.30	23.50	1.80	27.10	1234.1
C3065	20	0.75 (24*0.2)	0.60	0.50	23.40	26.60	1.80	30.20	1479.7
C3066	30	0.75 (24*0.2)	0.60	0.50	28.00	31.20	2.00	35.20	1906.5
C3067	50	0.75 (24*0.2)	0.60	0.50	36.30	40.30	2.20	44.70	3045.7
C3068	1 TRIPE	0.75 (24*0.2)	0.60	0.50	6.80	8.60	1.40	11.40	221.6
C3430	2	1.00 (1.13)	0.60	0.50	10.80	12.60	1.40	15.40	450.1
C3736	9	1.00 (1.13)	0.60	0.50	16.00	17.80	1.00	19.80	725.3
C3582	1 TRIPE	1.00 (7x0.43)	0.60	0.50	7.10	8.90	1.40	11.70	350.9
C3583	3 TRIPE	1.00 (7x0.43)	0.60	0.50	13.50	16.00	1.50	19.00	802.3
C3584	10 TRIPE	1.00 (7x0.43)	0.60	0.50	20.10	25.10	1.90	28.90	2200.0
C3069	1	1.50 (7*0.53)	0.60	0.50	7.30	9.10	1.40	11.90	296.8
C3070	2	1.50 (7*0.53)	0.60	0.50	8.70	10.50	1.40	13.30	328.7
C3071	5	1.50 (7*0.53)	0.60	0.50	15.40	17.90	1.60	21.10	773.3
C3072	10	1.50 (7*0.53)	0.60	0.50	20.60	23.80	1.80	27.40	1313.1
C3073	15	1.50 (7*0.53)	0.60	0.50	24.20	27.40	1.90	31.20	1688.9
C3074	20	1.50 (7*0.53)	0.60	0.50	27.50	31.50	2.00	35.50	2231.5
C3075	30	1.50 (7*0.53)	0.60	0.50	33.30	37.30	2.10	41.50	2925.6
C3076	50	1.50 (7*0.53)	0.60	0.50	42.60	47.60	2.40	52.40	4693.8
C3077	1 TRIPE	1.50 (7*0.53)	0.60	0.50	7.60	9.40	1.40	12.20	284.1
C3436	3 TRIPE	1.50 (7*0.53)	0.60	0.50	17.00	20.20	1.70	23.60	1121.4
C3437	5 TRIPE	1.50 (7*0.53)	0.60	0.50	19.60	22.80	1.70	26.20	1385.6
C3303	8 TRIPE	1.50 (7*0.53)	0.60	0.50	21.50	24.70	1.80	28.30	1747.4

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Part 1: Type2: Individually & Collectively Screened Armoured

P/N	Number of Pairs	Conductor Construction (sq mm)	Nom. Radial Thickness of Insulation (mm)	Drain wire cross section (sq mm)	Diameter of Bedding (mm)	Diameter of Armour (mm)	Nom. Thickness of Jacket (mm)	Nom. Diameter of cable (mm)	Nom. Weight (kg/km)
C3078	2	0.5 (16*0.2)	0.60	0.50	11.00	12.80	1.50	15.80	421.9
C3079	5	0.5 (16*0.2)	0.60	0.50	14.20	16.70	1.60	19.90	660.2
C3080	10	0.5 (16*0.2)	0.60	0.50	20.10	23.30	1.80	26.90	1156.6
C3081	15	0.5 (16*0.2)	0.60	0.50	23.50	26.70	1.80	30.30	1430.7
C3082	20	0.5 (16*0.2)	0.60	0.50	26.30	29.50	1.90	33.30	1680.7
C3083	30	0.5 (16*0.2)	0.60	0.50	31.30	35.30	2.10	39.50	2417.9
C3084	50	0.5 (16*0.2)	0.60	0.50	40.70	45.70	2.40	50.50	3893.5
C3085	2	0.75 (24*0.2)	0.60	0.50	11.80	13.60	1.50	16.60	427.1
C3086	5	0.75 (24*0.2)	0.60	0.50	15.20	17.70	1.60	20.90	721.9
C3087	10	0.75 (24*0.2)	0.60	0.50	21.60	24.80	1.80	28.40	1272.9
C3088	15	0.75 (24*0.2)	0.60	0.50	25.20	28.40	1.90	32.20	1621.8
C3089	20	0.75 (24*0.2)	0.60	0.50	28.80	32.80	2.00	36.80	2165.8
C3090	30	0.75 (24*0.2)	0.60	0.50	34.40	38.40	2.20	42.80	2815.8
C3091	50	0.75 (24*0.2)	0.60	0.50	43.90	48.90	2.50	53.90	4431.8
C3431	2	1.00 (1.13)	0.60	0.50	11.00	12.80	1.50	15.80	463.4
C3567	5	1.00 (1.13)	0.60	0.50	14.20	16.00	1.70	19.40	723.7
C3568	10	1.00 (1.13)	0.60	0.50	21.7	24.2	1.80	27.80	1370.0
C3527	1	1.50 (7*0.53)	0.60	0.50	7.30	9.10	1.50	12.10	358.8
C3092	2	1.50 (7*0.53)	0.60	0.50	13.70	16.20	1.60	19.40	727.2
C3438	3	1.50 (7*0.53)	0.60	0.50	15.20	18.40	1.70	21.80	993.3
C3528	4	1.50 (7*0.53)	0.60	0.50	16.60	19.80	1.70	23.20	1118.8
C3093	5	1.50 (7*0.53)	0.60	0.50	17.80	21.00	1.70	24.40	1244.2
C3282	6	1.50 (7*0.53)	0.60	0.50	19.50	22.70	1.70	26.10	1261.2
C3283	8	1.50 (7*0.53)	0.60	0.50	21.30	24.50	1.80	28.10	1471.4
C3094	10	1.50 (7*0.53)	0.60	0.50	25.50	28.70	1.90	32.50	1651.1
C3302	12	1.50 (7*0.53)	0.60	0.50	26.70	29.90	1.90	33.7	2154.2
C3532	14	1.50 (7*0.53)	0.60	0.50	28.00	31.20	2.00	35.20	2201.5
C3095	15	1.50 (7*0.53)	0.60	0.50	29.80	33.80	2.00	37.80	2358.7
C3096	20	1.50 (7*0.53)	0.60	0.50	33.40	37.40	2.10	41.60	2793.7
C3097	30	1.50 (7*0.53)	0.60	0.50	40.00	45.00	2.50	50.00	4101.9
C3284	40	1.50 (7*0.53)	0.60	0.50	44.60	49.60	2.60	54.80	4965.4
C3098	50	1.50 (7*0.53)	0.60	0.50	51.20	56.20	2.70	61.60	5829.8

C2998 TO C3098 C3277 TO C3284 C3302, C3303, C3430, C3431, C3527, C3528, C3570, C3571, C3734, C3735, C3736

Reference Standards

BS5308 Part 1	EN 50290-2
BS EN 60228	RoHS directives
BS 7655	IEC60332-1