

# Instrumentation Cables to BS 5308

## Multipair Instrumentation Cables to BS 5308 Part 1- Polyethylene Insulated

### VDE Ref Code

#### PVC Sheath Version:

RE-2Y(St)Y(Overall Screen)  
 RE-2Y(St)YPiMF(Individual Screen+Overall Screen)  
 RE-2Y(St)Y-SWA (Overall Screen+Steel Wire Armour)  
 RE-2Y(St)YPiMF-SWA (Individual Screen+Overall Screen + Steel Wire Armour)

### Application

These cables are designed for transmission of analog and digital signals, and the interconnection of electrical equipment and instruments, particular for the process control industry.

### Construction

**Conductors:** Annealed solid copper (Class 1),stranded (Class 2), or flexible(Class 5)to BS 6360.

**Insulation:** Polyethylene to BS 6234 Type 03.

#### Pair Identification:

- a) Collectively screened cables: Colour coded in accordance with Colour Code Chart 1 on page 3.
- b) Individually screened pairs: One blue core and one black core in each pair. Pairs identified by numbered screen isolation tape.

#### Pair Screens

Aluminium/p.e.t.p. laminated tape applied with the metallic side down in electrical contact with a 0.5 mm<sup>2</sup> tinned copper drain wire. A 23 micron isolation tape is applied over the screening tape with a minimum 50% overlap.

### Voltage Rating

300 volt core to earth and 500 volt core to core at maximum temperature of 65 °C.

These cables are not for direct connection to the public mains supply.

### Electrical Characteristics

		Unit	Conductor Size				
			0.5mm <sup>2</sup> (1/0.8mm)	0.5mm <sup>2</sup> (16/0.2mm)	0.75mm <sup>2</sup> (24/0.2mm)	1.0mm <sup>2</sup> (1/1.13mm)	1.5mm <sup>2</sup> (7/0.53mm)
Conductor resistance	max.	Ω/km	36.8	39.7	26.5	18.2	12.3
Insulation resistance	min.	GΩ×km	5	5	5	5	5
Mutual capacitance at 1 kHz -One pair and two pair(Quad)cables with collective screen and all cables with individually screened pairs -Cables with only collective screen except one pair and two pair (Quad)	max.	pF/m	115	115	115	115	115
			75	75	75	75	75
Capacitance unbalance at 1 kHz	max.	pF/250m	250	250	250	250	250
Inductance/resistance ratio(L/R)	max.	μH/Ω	25	25	25	25	40
Test voltage (Core:core) (Core:screen)		V	1000	1000	1000	1000	1000
			1000	1000	1000	1000	1000
Rated voltage	max.	V	300/500	300/500	300/500	300/500	300/500

#### LSHF Sheath Version:

RE-2Y(St)H(Overall Screen)  
 RE-2Y(St)HPiMF(Individual Screen+ Overall Screen)  
 RE-2Y(St)H-SWA(Overall Screen+ Steel Wire Armour)  
 RE-2Y(St)HPiMF-SWA(Individual Screen+ Overall Screen+ Steel Wire Armour)

#### Binder Tape:

A 23 micron p.e.t.p.tape applied with a minimum 50% overlap.

#### CollectiveScreen:

Aluminium/p.e.t.p.laminated tape applied with the metallic side down in electrical contact with a 0.5 mm<sup>2</sup> tinned copper drain wire over the p.e.t.p.binder tape.

#### Outer Protection:

- Type 1** Extruded flame retardant PVC sheath.
- Type 2** Extruded polyethylene bedding, galvanised steel wire armour, extruded flame retardant PVC sheath.

#### Minimum Bending Radius:

- Type 1** 8 × overall diameter.
- Type 2** 12 × overall diameter.

### Temperature Rating

During Operation: -40 °C to +70 °C  
 During Installation: 0 °C to +50 °C

Fire retardant PVC and LSHF material can be used as insulation and jacket options.Please refer to Ordering Options.



## Instrumentation Cables to BS 5308

Multipair Instrumentation Cables (Unarmoured)  
to BS 5308 Part 1 Type 1 - Collectively Screened

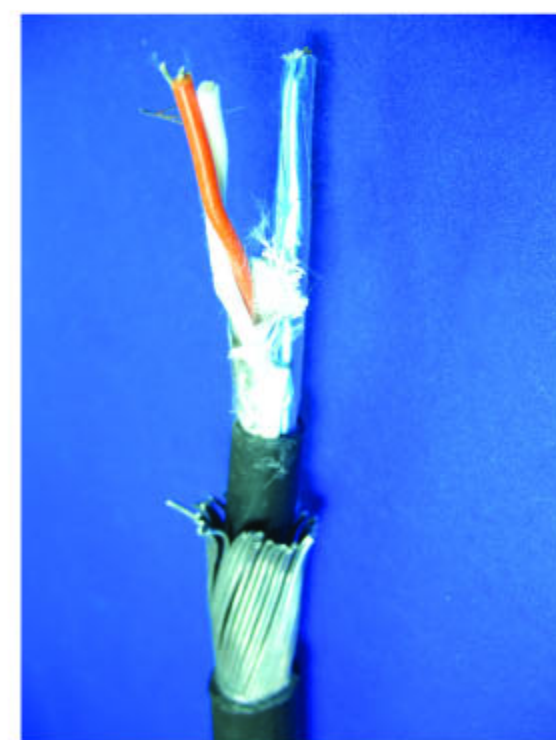
Conductor	Number of Pairs	Nominal Overall Dia. (mm)	Approx. Weight (kg/km)
1/0.8mm (0.5mm <sup>2</sup> )	1	5.7	40
	2(Quad)	6.5	60
	5	11.0	130
	10	14.4	220
	20	18.8	380
	30	22.4	540
16/0.2mm (0.5mm <sup>2</sup> )	1	6.4	60
	2(Quad)	7.3	80
	5	12.5	200
	10	16.6	340
	20	21.7	570
	30	26.3	790
24/0.2mm (0.75mm <sup>2</sup> )	1	6.7	75
	2(Quad)	7.7	100
	5	13.7	250
	10	18.1	450
	20	23.9	800
	30	28.9	1130
1/1.13mm (1.0mm <sup>2</sup> )	1	6.8	85
	2(Quad)	7.8	115
	5	13.7	290
	10	17.8	500
	20	23.8	950
	30	28.4	1330
7/0.53mm (1.5mm <sup>2</sup> )	1	7.7	100
	2(Quad)	9.1	150
	5	15.8	360
	10	21.0	670
	20	27.9	1230
	30	33.7	1720

Multipair Instrumentation Cables (Unarmoured)  
to BS 5308 Part 1 Type 1- Individual Pair and Collectively Screened

Conductor	Number of Pairs	Nominal Overall Dia. (mm)	Approx. Weight (kg/km)
1/0.8mm (0.5mm <sup>2</sup> )	2	9.7	100
	5	12.9	190
	10	17.7	320
	20	22.9	570
	30	27.3	820
16/0.2mm (0.5mm <sup>2</sup> )	2	11.4	160
	5	14.6	250
	10	20.5	480
	20	26.7	780
	30	31.7	1100
24/0.2mm (0.75mm <sup>2</sup> )	2	12.2	190
	5	15.7	270
	10	21.8	550
	20	28.5	960
	30	33.7	1320
1/1.13mm (1.0mm <sup>2</sup> )	2	12.2	190
	5	15.6	270
	10	22.0	480
	20	29.2	910
	30	34.8	1320
7/0.53mm (1.5mm <sup>2</sup> )	2	13.7	250
	5	17.8	400
	10	25.2	800
	20	33.8	1400
	30	40.4	2040

Multipair Instrumentation Cables (Armoured)  
to BS 5308 Part 1 Type 2 - Collectively Screened

Conductor	Number of Pairs	Nominal Dia. under Armour (mm)	Nominal Overall Dia. (mm)	Armour Wire Dia. (mm)	Approx. Weight (kg/km)
1/0.8mm (0.5mm <sup>2</sup> )	1	5.3	10.1	0.9	225
	2(Quad)	6.1	10.9	0.9	250
	5	10.6	15.6	0.9	430
	10	14.0	20.1	1.25	730
	20	18.4	25.4	1.6	1200
	30	22.0	29.2	1.6	1500
16/0.2mm (0.5mm <sup>2</sup> )	1	4.5	10.8	0.9	250
	2(Quad)	6.9	11.7	0.9	300
	5	9.9	17.3	0.9	560
	10	16.2	22.3	1.25	970
	20	22.3	28.5	1.6	1640
	30	32.9	33.3	1.6	2110
24/0.2mm (0.75mm <sup>2</sup> )	1	6.3	11.1	0.9	280
	2(Quad)	7.3	12.3	0.9	330
	5	13.3	19.2	1.25	750
	10	17.7	24.7	1.6	1260
	20	23.5	30.7	1.6	1890
	30	28.5	36.9	1.6	2440
1/1.13mm (1.0mm <sup>2</sup> )	1	6.4	11.2	0.9	290
	2(Quad)	7.4	12.4	0.9	345
	5	13.2	19.1	1.25	790
	10	17.4	23.7	1.25	1310
	20	23.3	30.6	1.6	2040
	30	28.0	35.6	1.6	2640
7/0.53mm (1.5mm <sup>2</sup> )	1	7.3	12.3	0.9	330
	2(Quad)	13.3	13.7	0.9	420
	5	21.1	21.5	1.25	940
	10	27.4	27.8	1.6	1050
	20	27.5	35.1	1.6	2400
	30	27.8	41.9	1.6	3120





## Instrumentation Cables to BS 5308

Multipair Instrumentation Cables (Armoured)  
to BS 5308 Part 1 Type 2 - Individual Pair and Collectively Screened

Conductor	Number of Pairs	Nominal Dia. under Armour (mm)	Nominal Overall Dia. (mm)	Armour Wire Dia. (mm)	Approx. Weight (kg/km)
1/0.8mm (0.5mm <sup>2</sup> )	2	10.1	14.3	0.9	411
	5	13.5	18.4	1.25	686
	10	18.3	23.6	1.25	1037
	20	23.5	29.7	1.6	1664
	30	27.9	34.3	1.6	2136
16/0.2mm (0.5mm <sup>2</sup> )	2	12.0	15.8	0.9	460
	5	15.2	20.1	1.25	760
	10	21.1	27.0	1.6	1300
	20	27.3	33.3	1.6	1870
	30	32.3	39.6	2.0	2620
24/0.2mm (0.75mm <sup>2</sup> )	2	12.8	16.8	1.25	500
	5	16.2	21.1	1.25	920
	10	22.6	28.6	1.6	1610
	20	29.8	37.0	2.0	2420
1/1.13mm (1.0mm <sup>2</sup> )	2	12.8	17.0	0.9	515
	5	16.2	21.3	1.25	950
	10	22.6	28.8	1.6	1670
	20	29.8	37.2	2.0	2540
7/0.53mm (1.5mm <sup>2</sup> )	2	14.7	19.5	1.25	730
	5	18.4	24.5	1.6	1180
	10	26.5	32.3	1.6	1820
	20	28.0	41.3	2.0	3030

### COLOUR CODE CHART 1

(For Multipair PE insulated Collective Screened Cables to BS 5308 Part 1.)  
Two-Pair unscreened cables are cabled in quad formation and colour coded in clockwise order of rotation, black, blue, green, brown.

All other cables up to 50 pairs conform to the following coding:

Pair Number	A wire	B wire
1	Black	Blue
2	Black	Green
3	Blue	Green
4	Black	Brown
5	Blue	Brown
6	Green	Brown
7	Black	White
8	Blue	White
9	Green	White
10	Brown	White
11	Black	Red
12	Blue	Red
13	Green	Red
14	Brown	Red
15	White	Red
16	Black	Orange
17	Blue	Orange
18	Green	Orange
19	Brown	Orange
20	White	Orange
21	Red	Orange
22	Black	Yellow
23	Blue	Yellow
24	Green	Yellow
25	Brown	Yellow
26	White	Yellow
27	Red	Yellow
28	Orange	Yellow
29	Black	Grey
30	Blue	Grey
31	Green	Grey
32	Brown	Grey
33	White	Grey
34	Red	Grey
35	Orange	Grey
36	Yellow	Grey
37	Black	Violet
38	Blue	Violet
39	Green	Violet
40	Brown	Violet
41	White	Violet
42	Red	Violet
43	Orange	Violet
44	Yellow	Violet
45	Grey	Violet
46	Black	Turquoise
47	Blue	Turquoise
48	Green	Turquoise
49	Brown	Turquoise
50	White	Turquoise

### ORDERING CODE CCA – BC-DEFGH-IJ-K-LM

- A - Cable Series**  
FSN = FIRESCREEN
- B - Screen Type**  
US = Unscreened; OS = Overall Screened;  
IS = Individual Pair Screened;  
IOS = Individual Pair and Overall Screened;  
FRUS = Fire Resistant Unscreened;  
FROS = Fire Resistant Overall Screened;  
FRIS = Fire Resistant Individual Pair Screened;  
FRIOS = Fire Resistant Individual Pair and Overall Screened
- C - Voltage Rating**  
115 = 115/300V; 300 = 300/500V; 450 = 450/750V; 600 = 600/1000V
- D - Insulation**  
2X = XLPE; Y = PVC; 2Y = PE; H = LSHF; O2Y = FOAM PE
- E - Screening**  
ST = Aluminium/Polyester Tape;  
PIMF = Pair Shielded with Aluminium/Polyester Tape;  
PIC = Pair Shielded with Copper Braid
- F - Bedding**  
Y = PVC; 2Y = PE; H = LSHF
- G - Armouring**  
SWA = Steel Wire Armouring; STA = Steel Tape Armouring;  
SWB = Steel Wire Braiding; DSTA = Double Steel Tape Armouring
- H - Sheathing**  
Y = PVC; Yu = Flame Retardant PVC; Yv = PVC with Reinforced Sheath;  
2Y = PE; H = LSHF
- I - Number of Cores/Pairs/Triads/Quad**  
2C = 2 Cores; 3C = 3 Cores; 4C = 4 Cores etc.
- J - Cross Section Area or Wire Gauge**  
1.5S = 1.5mm<sup>2</sup>; 2.5 = 2.5mm<sup>2</sup>  
1.91S(39/0.21) = 1.91mm<sup>2</sup> ( 39/0.21mm )  
24A(7) = 24AWG ( 7 strands )  
20A(16/0.2) = 24AWG ( 16/0.2mm )
- K - Standard ( Option )**  
530811 = BS 5308 Part 1 Type 1; 530812 = BS 5308 Part 1 Type 2;  
530821 = BS 5308 Part 2 Type 1; 530822 = BS 5308 Part 2 Type 2;  
E965 = ESI 09-6 Issue 5; E966 = ESI 09-6 Issue 6;  
B8774 = Belden Equivalent 8774 etc.
- L - Fire Propagation Level ( Option )**  
1 = IEC 60332-1; 3C = IEC 60332-3C; 3A = IEC 60332-3A
- M - Fire Resistant Level ( Option )**  
331 = IEC 60331; 6387CWZ = BS 6387 CWZ

### ORDERING OPTIONS:

- 1) Conductor: Bare or Tinned Conductor
- 2) Conductor Size: Solid or Stranded (to IEC 228 Class 2 or 5 or 6)

Size	Class 1	Class 2	Class 5	Class 6
0.5mm <sup>2</sup>	1/0.8mm	7/0.3mm	16/0.2mm	28/0.15mm
0.75mm <sup>2</sup>		7/0.43mm	24/0.2mm	42/0.15mm
1.0mm <sup>2</sup>	1/1.13mm	7/0.44mm	32/0.2mm	56/0.15mm
1.5mm <sup>2</sup>		7/0.53mm	30/0.25mm	84/0.15mm
2.5mm <sup>2</sup>		7/0.67mm	50/0.25mm	140/0.15mm

- 3) Insulation: PE/XLPE/LSF/LSHF
- 4) Screening: Aluminium Tape/Copper Braiding
- 5) Cabling: Multicore/Multipair/Multitrip
- 6) Bedding & Sheathing Material: PE/PVC/LSF/LSHF
- 7) Armouring: Steel Tape Armouring/Steel Wire Armouring
- 8) Fire Performance:
  - IEC 332-1 (For Flame Retardant PVC sheath)
  - IEC 332-3C (For Flame Retardant PVC or LSHF sheath)
  - IEC 1034 Part 1 & 2 (For LSHF sheath)
  - IEC 754 Part 1 & 2 (5%-15% for LSF sheath & 0.5% for LSHF sheath)
  - Oxygen Index (32%-40% depending on different LSHF compound)
  - Temperature Index (250 °C to 300 °C, depending on different LSHF compound)
  - IEC 331 (For Flame Retardant PVC or LSHF sheath)



## Instrumentation Cables to BS 5308

### Multicore & Multipair Instrumentation Cables to BS 5308 Part 2 - PVC Insulated

#### VDE Ref Code

##### PVC Sheath Version:

RE-Y(St)Y(Overall Screen)  
 RE-Y(St)YPiMF(Individual Screen+Overall Screen)  
 RE-Y(St)Y-SWA(Overall Screen+Steel Wire Armour)  
 RE-Y(St)YPiMF-SWA(Individual Screen+Overall Screen+Steel Wire Armour)

#### Application

These cables are designed for transmission of analog and digital signals, and the interconnection of electrical equipment and instruments, particular for the process control industry.

#### Construction

**Conductors:** Annealed solid copper (Class 1), stranded (Class 2), or flexible (Class 5) to BS 6360.

##### Core/Pair Identification:

- a) Multicore cables:  
 Up to 40 cores-yellow cores with black numbers;  
 41-80 cores-black cores with yellow numbers.
- b) Multipair cables:  
 Colour coded in accordance with Colour Code Chart 2 on page 6

##### Pair Screens:

Aluminium/p.e.t.p laminated tape applied with the metallic side down in electrical contact with a 0.5mm<sup>2</sup> tinned copper drain wire. A 23 micron isolation tape is applied over the screening tape with a minimum 50% overlap.

#### Voltage Rating

300 volt core to earth and 500 volt core to core at maximum temperature of 65°C.

These cables are not for direct connection to the public mains supply.

#### Electrical Characteristics

			Unit	Conductor Size		
				0.5mm <sup>2</sup> (16/0.2mm)	0.75mm <sup>2</sup> (24/0.2mm)	1.5mm <sup>2</sup> (7/0.53mm)
Conductor resistance	Multicore	max.	Ω/km	39	26	12.1
	Multipair			39.7	26.5	12.3
Insulation resistance		min.	MΩ×km	25	25	25
Mutual capacitance at 1 kHz		max.	pF/m	250	250	250
Mutual capacitance of the pairs or adjacent cores						
Capacitance between any core or screen.		max.	pF/m	450	450	450
Inductance/resistance ratio(L/R)		max.	μH/Ω	25	25	40
Test voltage	(Core:core)		V	1000	1000	1000
	(Core:screen)		V	1000	1000	1000
Rated voltage		max.	V	300/500	300/500	300/500

Fire retardant PVC and LSHF material can be used as insulation and jacket options. Please refer to Ordering Options.

##### LSHF Sheath Version:

RE-H(St)H(Overall Screen)  
 RE-H(St)HPiMF(Individual Screen+Overall Screen)  
 RE-H(St)H-SWA(Overall Screen+Steel Wire Armour)  
 RE-H(St)HPiMF-SWA(Individual Screen+Overall Screen+Steel Wire Armour)

##### Binder Tape:

A 23 micron p.e.t.p. applied with the metallic side down in electrical contact with a 0.5mm<sup>2</sup> tinned copper drain wire over the p.e.t.p.binder tape.

##### Collective Screen:

Aluminium/p.e.t.p.laminated tape applied with the metallic side down in electrical contact with a 0.5mm<sup>2</sup> tinned copper drain wire over the p.e.t.p.binder tape.

##### Outer Protection:

**Type 1** Extruded flame retardant PVC sheath.  
**Type 2** Extruded PVC Type TM1, galvanised steel wire armour, extruded flame retardant PVC sheath.

##### Minimum Bending Radius:

**Type 1** 8 × overall diameter.  
**Type 2** 12 × overall diameter.

#### Temperature Rating:

During Operation: -40°C to +70°C  
 During Installation: 0°C to +50°C



# Instrumentation Cables to BS 5308

**Multicore Instrumentation Cables (Unarmoured)  
to BS 5308 Part 2 Type 1 - Collectively Screened**

Conductor	Number of Cores	Nominal Overall Dia. (mm)	Approx. Weight (kg/km)
16/0.2mm (0.5mm <sup>2</sup> )	2	6.4	60
	3	6.7	72
	4	7.3	80
	6	8.7	110
	10	11.3	176
	20	14.3	310
24/0.2mm (0.75mm <sup>2</sup> )	40	19.5	568
	2	6.7	75
	3	7.1	90
	4	7.7	100
	6	9.3	138
	10	12.1	220
7/0.53mm (1.5mm <sup>2</sup> )	20	15.4	388
	40	21.1	710
	2	7.7	103
	3	8.3	135
	4	9.1	150
	6	11.1	205
	10	14.1	330
	20	18.1	580
	40	24.0	1065

**Multipair Instrumentation Cables (Unarmoured)  
to BS 5308 Part 2 Type 1 - Collectively Screened**

Conductor	Number of Pairs	Nominal Overall Dia. (mm)	Approx. Weight (kg/km)
16/0.2mm (0.5mm <sup>2</sup> )	1	6.4	60
	2(Quad)	7.3	80
	5	12.5	200
	10	16.6	340
	20	21.7	570
	30	26.3	790
24/0.2mm (0.75mm <sup>2</sup> )	1	6.7	75
	2(Quad)	7.7	100
	5	13.7	250
	10	18.1	450
	20	23.9	800
	30	28.9	1130
7/0.53mm (1.5mm <sup>2</sup> )	1	7.7	100
	2(Quad)	9.1	150
	5	15.8	360
	10	21.0	670
	20	27.9	1230
	30	33.7	1720

*Also available with Individual Pair and Collective Screens*

**Multicore Instrumentation Cables (Armoured)  
to BS 5308 Part 2 Type 2 - Collectively Screened**

Conductor	Number of Cores	Nominal Dia. under Armour (mm)	Nominal Overall Dia. (mm)	Armour Wire Dia. (mm)	Approx. Weight (kg/km)
16/0.2mm (0.5mm <sup>2</sup> )	2	6.0	10.8	0.9	255
	3	6.3	11.1	0.9	280
	4	6.9	11.7	0.9	305
	6	8.3	13.3	0.9	360
	10	10.9	16.1	0.9	510
	20	13.9	20.0	1.25	860
24/0.2mm (0.75mm <sup>2</sup> )	40	19.1	26.1	1.6	1440
	2	6.3	11.1	0.9	280
	3	6.7	11.5	0.9	305
	4	7.3	12.3	0.9	335
	6	8.9	13.9	0.9	400
	10	11.7	16.9	0.9	565
7/0.53mm (1.5mm <sup>2</sup> )	20	15.0	21.1	1.25	950
	40	20.7	27.9	1.6	1590
	2	7.3	12.3	0.9	330
	3	7.9	12.9	0.9	380
	4	8.7	13.7	0.9	420
	6	10.7	15.7	0.9	540
	10	13.7	19.8	1.25	750
	20	17.7	24.7	1.6	1260
	40	23.6	31.0	1.6	2140





## Instrumentation Cables to BS 5308

Multipair Instrumentation Cables (Armoured)  
to BS 5308 Part 2 Type 2 - Collectively Screened

Conductor	Number of Pairs	Nominal Dia. under Armour (mm)	Nominal Overall Dia. (mm)	Armour Wire Dia. (mm)	Approx. Weight (kg/km)
16/0.2mm (0.5mm <sup>2</sup> )	1	6.0	10.8	0.9	255
	2(Quad)	7.85	11.7	0.9	305
	5	12.1	17.3	0.9	610
	10	16.2	22.3	1.25	1060
	20	22.6	28.5	1.6	1800
	30	26.4	33.3	2.0	2320
24/0.2mm (0.75mm <sup>2</sup> )	1	6.5	11.1	0.9	305
	2(Quad)	7.4	12.3	0.9	360
	5	17.3	19.2	1.25	820
	10	17.7	24.7	1.6	1380
	20	23.0	30.7	1.6	2080
	30	29.7	36.9	2.0	2660
7/0.53mm (1.5mm <sup>2</sup> )	1	7.5	12.3	0.9	360
	2(Quad)	8.7	13.7	0.9	460
	5	16.7	21.5	1.25	1040
	10	21.1	27.8	1.6	1160
	20	28.0	35.1	2.0	2630

Also available with Individual Pair and Collective Screens

### COLOUR CODE CHART 2

(For Multipair PVC insulated Collective Screened Cables to BS 5308 Part 2)

Two-Pair unscreened cables are cabled in quad formation and colour coded in clockwise order of rotation, blue, green, orange, brown.

All other cables up to 50 pairs conform to the following coding:

Pair Number	A wire	B wire	Pair Number	A wire	B wire
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:** Except in cases of bi-colour extrusion, the colour indicated by capital letters is the base colour, and is:

- the extruded colour
- the colour with the greatest area of exposure on the finished wire.

### ORDERING CODE

CCA – BC-DEFGH-IJ-K-LM

#### A - Cable Series

FSN = FIRESCREEN

#### B - Screen Type

US = Unscreened; OS = Overall Screened;  
IS = Individual Pair Screened;  
IOS = Individual Pair and Overall Screened;  
FRUS = Fire Resistant Unscreened;  
FROS = Fire Resistant Overall Screened;  
FRIS = Fire Resistant Individual Pair Screened;  
FRIOS = Fire Resistant Individual Pair and Overall Screened

#### C - Voltage Rating

115 = 115/300V; 300 = 300/500V; 450 = 450/750V; 600 = 600/1000V

#### D - Insulation

2X = XLPE; Y = PVC; 2Y = PE; H = LSHF; O2Y = FOAM PE

#### E - Screening

ST = Aluminium/Polyester Tape;  
PIMF = Pair Shielded with Aluminium/Polyester Tape;  
PIC = Pair Shielded with Copper Braid

#### F - Bedding

Y = PVC; 2Y = PE; H = LSHF

#### G - Armouring

SWA = Steel Wire Armouring; STA = Steel Tape Armouring;  
SWB = Steel Wire Braiding; DSTA = Double Steel Tape Armouring

#### H - Sheathing

Y = PVC; Yu = Flame Retardant PVC; Yv = PVC with Reinforced Sheath;  
2Y = PE; H = LSHF

#### I - Number of Cores/Pairs/Triads/Quad

2C = 2 Cores; 3C = 3 Cores; 4C = 4 Cores etc.

#### J - Cross Section Area or Wire Gauge

1.5S = 1.5mm<sup>2</sup>; 2.5 = 2.5mm<sup>2</sup>;  
1.91S(39/0.21) = 1.91mm<sup>2</sup> ( 39/0.21mm );  
24A(7) = 24AWG ( 7 strands );  
20A(16/0.2) = 24AWG ( 16/0.2mm )

#### K - Standard ( Option )

530811 = BS 5308 Part 1 Type 1; 530812 = BS 5308 Part 1 Type 2;  
530821 = BS 5308 Part 2 Type 1; 530822 = BS 5308 Part 2 Type 2;  
E965 = ESI 09-6 Issue 5; E966 = ESI 09-6 Issue 6;  
B8774 = Belden Equivalent 8774 etc.

#### L - Fire Propagation Level ( Option )

1 = IEC 60332-1; 3C = IEC 60332-3C; 3A = IEC 60332-3A

#### M - Fire Resistant Level ( Option )

331 = IEC 60331; 6387CWZ = BS 6387 CWZ

### ORDERING OPTIONS:

1) **Conductor:** Bare or Tinned Conductor

2) **Conductor Size:** Solid or Stranded (to IEC 228 Class 2 or 5 or 6)

Size	Class 1	Class 2	Class 5	Class 6
0.5mm <sup>2</sup>	1/0.8mm	7/0.3mm	16/0.2mm	28/0.15mm
0.75mm <sup>2</sup>		7/0.43mm	24.0.2mm	42/0.15mm
1.0mm <sup>2</sup>	1/1.13mm	7/0.44mm	32/0.2mm	56/0.15mm
1.5mm <sup>2</sup>		7/0.53mm	30/0.25mm	84/0.15mm
2.5mm <sup>2</sup>		7/0.67mm	50/0.25mm	140/0.15mm

3) **Insulation:** PVC/XLPE/LSF/LSHF

4) **Screening:** Aluminium Tape/Copper Braiding

5) **Cabling:** Multicore/Multipair/Multitrip

6) **Bedding & Sheathing Material:** PVC/LSF/LSHF

7) **Armouring:** Steel Tape Armouring/Steel Wire Armouring

8) **Fire Performance:**

IEC 332-1 (For Flame Retardant PVC sheath)

IEC 332-3C (For Flame Retardant PVC or LSHF sheath)

IEC 1034 Part 1 & 2 (For LSHF sheath)

IEC 754 Part 1 & 2 (5%-15% for LSF sheath & 0.5% for LSHF sheath)

Oxygen Index (32%-40% depending on different LSHF compound)

Temperature Index (250°C to 300°C, depending on different LSHF compound)

IEC 331 (For Flame Retardant PVC or LSHF sheath)