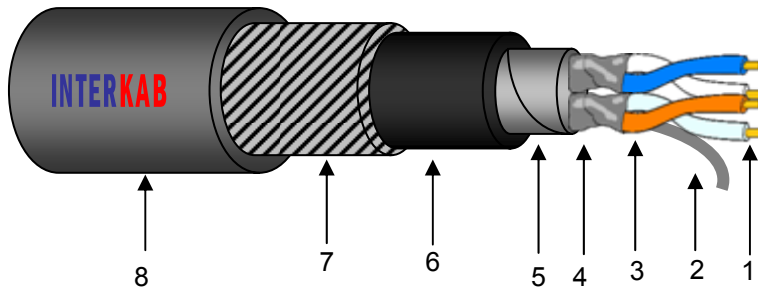


**300 / 500v**  
Flame Retardant

## Onshore Instrumentation Cables to BS5308 Specification

Multi Pair Armoured Cables – Individually Screened – To BS5308 Part 1 Type 2



**Applicable Standards:**

BS 5308

BS 6234

BS 7655

Solid class 1, Stranded class 2 or  
flexible class 5 copper conductors to  
BS6360

IEC 60332 Part 3 (Category A,B & C)

<b>Application:</b>	Ideal for the petrochemical industry, these cables are designed to connect electrical instrument circuits and provide communication services in and around process plants and are also suitable for direct burial applications.
<b>(1) Conductor:</b>	Solid (class 1), Stranded (class 2) or Flexible (class 5) Copper Conductors to BS6360
<b>Fire Protection:</b>	None
<b>(2) Drain Wire:</b>	Tinned Copper drain wire
<b>(3) Insulation:</b>	Polyethylene Insulation type 03 Complying with BS6234
<b>(4) Individual Screen:</b>	Aluminium Mylar Tape Screen
<b>(5) Collective Screen:</b>	Aluminium Mylar Tape Screen
<b>Binder Tape:</b>	PETP Tape 50% Overlap
<b>(6) Bedding:</b>	Polyethylene Bedding Type 2C or 03 to BS6234
<b>(7) Armour:</b>	Mild Galvanised Steel Wires to BS EN 10257-1
<b>(8) Outer Sheath:</b>	PVC outer sheath type TM.1 to BS7655. In addition the outer sheath displays the following Characteristics: -Minimum Oxygen Index: 30% -Maximum HCL Emission at 800C : 15%
<b>Conductor Identification:</b>	See Page 5

The legend will include the manufacturers name, voltage, BS5308, the number of pairs/triples and cross sectional area, cable sheath class (e.g. Polyethylene), and IEC60332 where applicable. The standard sheath colours are Black or Blue, and other colours are available on request.

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## Onshore Instrumentation Cables to BS5308 Specification

Multi Pair Armoured Cables – Individually Screened – To BS5308 Part 1 Type 2

Cable	2x2x0.5	5x2x0.5	10x2x0.5	20x2x0.5	30x2x0.5	50x2x0.5	2x2x0.75	5x2x0.75
Stranding mm	16/0.20	16/0.20	16/0.20	16/0.20	16/0.20	16/0.20	24/0.20	24/0.20
Insulation Thickness mm	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Diameter over Inner Sheath (min/max) mm	11.0/13.0	14.2/16.2	20.1/22.1	26.3/28.3	31.3/33.3	40.7/42.7	11.8/13.8	15.3/17.3
Diameter of Armour/Braid mm	0.90	1.25	1.60	1.60			0.90	1.25
Overall Diameter (min/max) mm	15.8/17.8	19.9/21.9	26.9/28.9	33.3/35.3	39.5/41.5	50.5/52.5	16.6/18.6	21.0/23.0
Gland Size	A	B	C	C2	D	D	A	B
Weight kg/km	460	760	1300	1870	2400	3920	500	920
Bend Radius - xOD	6	6	6	6	6	6	6	6
Conductor Temperature – (min/max) °C	20/65	20/65	20/65	20/65	20/65	20/65	20/65	20/65
Capacitance – pF/m	115	115	115	115	115	115	115	115
DC Resistance @ 20°C –Ω /km	39.7	39.7	39.7	39.7	39.7	39.7	26.5	26.5
Maximum L/R Ratio	25	25	25	25	25	25	25	25
Sheath Colour	Black/Blue	Black/Blue	Black/Blue	Black/Blue	Black/Blue	Black/Blue	Black/Blue	Black/Blue

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## Onshore Instrumentation Cables to BS5308 Specification

Multi Pair Armoured Cables – Individually Screened – To BS5308 Part 1 Type 2

Cable	10x2x0.75	20x2x0.75	30x2x0.75	50x2x0.75	2x2x1.0	5x2x1.0	10x2x1.0	20x2x1.0
Stranding mm	24/0.20	24/0.20	24/0.2	24/0.2	1/1.13	1/1.13	1/1.13	1/1.13
Insulation Thickness mm	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Diameter over Inner Sheath (min/max) mm	21.7/23.7	28.8/30.8	34.5/36.5	44.0/46.0	11.8/13.8	15.2/17.2	21.6/23.6	28.8/30.8
Diameter of Armour/Braid mm	1.60	2.00			0.90	1.25	1.60	2.00
Overall Diameter (min/max) mm	28.5/30.5	36.8/38.8	42.9/44.9	54.0/56.0	16.6/18.6	20.9/22.9	28.4/30.4	36.8/38.8
Gland Size	C	C2	D	E	A	B	C	C2
Weight kg/km	1610	2420	3100	4900	515	950	1670	2540
Bend Radius - xOD	6	6	6	6	6	6	6	6
Conductor Temperature- (min/max) °C	20/65	20/65	20/65	20/65	20/65	20/65	20/65	20/65
Capacitance – nF/KM	115	115	115	115	115	115	115	115
DC Resistance @ 20°C –Ω /km	26.5	26.5	26.5	26.5	18.4	18.4	18.4	18.4
Maximum L/R Ratio	25	25	25	25	25	25	25	25
Sheath Colour	Black/ Blue	Black/ Blue	Black/ Blue	Black/ Blue	Black/Blue	Black/Blue	Black/Blue	Black/Blue

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## Onshore Instrumentation Cables to BS5308 Specification

Multi Pair Armoured Cables – Individually Screened – To BS5308 Part 1 Type 2

Cable	30x2x1.0	50x2x1.0	2x2x1.5	5x2x1.5	10x2x1.5	20x2x1.5	30x2x1.5	50x2x1.5
Stranding mm	1/1.13	1/1.13	7/0.53	7/0.53	7/0.53	7/0.53	7/0.53	7/0.53
Insulation Thickness mm	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Diameter over Inner Sheath (min/max) mm	34.4/36.4	43.9/45.9	13.7/15.7	17.8/19.8	25.5/27.5	33.4/35.4	40.0/42.0	51.2/53.2
Diameter of Armour/Braid mm			1.25	1.60	1.60	2.00		
Overall Diameter (min/max) mm	42.8/44.8	53.9/55.9	19.4/21.4	24.4/26.4	32.5/34.5	41.6/43.6	49.8/51.8	61.6/63.6
Gland Size	D	E	B	C	C2	D	D	E
Weight kg/km	2900	4800	730	1180	1820	3030	4040	6000
Bend Radius - xOD	6	6	6	6	6	6	6	6
Conductor Temperature - (min/max) °C	20/65	20/65	20/65	20/65	20/65	20/65	20/65	20/65
Capacitance – pF/m	115	115	120	120	120	120	120	120
DC Resistance @ 20°C –Ω /km	18.4	18.4	12.3	12.3	12.3	12.3	12.3	12.3
Maximum L/R Ratio	25	25	40	40	40	40	40	40
Sheath Colour	Black/Blue	Black/Blue	Black/Blue	Black/Blue	Black/Blue	Black/Blue	Black/Blue	Black/Blue

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## Onshore Instrumentation Cables to BS5308 Specification

### BS5308 Type 2 (Armoured) Core Identification

Pair Number	Element A	Element B	Pair Number	Element A	Element B
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	White
5	White	Grey	30	Red/Blue	Brown
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