

INSTRUMENTATION CABLES AS PER BS EN 50288-7 (CU/LSZH/IS/OS/LSZH/SWA/LSZH)

APPLICATION

Suitable for Industrial & Commercial settings for process controls, transmission of analogue / digital signals in instrument & control systems, providing robust mechanical protection and durability. For installation where fire, smoke emission and toxic fumes create a potential threat to life and equipment.

CONSTRUCTION

Conductor:	Stranded (Class 2) Annealed Plain Copper Conductor to BS EN 60228
Insulation:	Halogen free flame retardant compound (HFFR=LSZH)
Insulation Color:	Multi Pair: Black & White with number printed on each cores. Multi Triad: Black, White & Red with number printed on each cores. Other colors are available upon request or as per BS EN 50288-7.
Pair / Triad:	Uniformly twisted insulated conductors with suitable twists per meter.
Individual Screen & Drain Wire:	Aluminum backed Mylar tape (25µm) (AL-PET Foil) is applied over each pair / triad with 100% coverage and an overlap of 25% with metal side, in contact with a stranded tinned copper drain wire of size 0.5 mm ² (Class 2). All pair shields are electrically isolated from each other.
Assembly:	The required number of screened pairs / triads are assembled together with non-hygroscopic fillers (if required) and wrapped with a binder tape.
Overall Screen & Drain Wire:	Aluminum backed Mylar tape (25µm) (AL-PET-Foil) is applied over assembly with 100% coverage and an overlap of 25% with metal side in contact with a stranded tinned copper drain wire of size 0.5 mm ² (class 2).
Inner Sheath:	Extruded Low Smoke Zero Halogen (LSZH) in Black colour. Other colors are available upon request
Armoring:	A serving of single layer of round galvanized steel wires is applied as per BS EN 10257-1.
Outer Sheath:	Extruded Low Smoke Zero Halogen (LSZH) in Black colour. Other colors are available upon request.
Printing Text on the Outer Sheath:	INSTRUMENTATION CABLE CU/LSZH/IS/OS/LSZH/SWA/LSZH NO OF PAIRS / TRIADS X 2 / 3 X...MM ² 500 V BS EN 50288-7 TEKAB YEAR MADE IN UAE LENGTH METER MARKING



TECHNICAL DATA

Operating Temperature:	During Normal Operation - 90°C During Short Circuit Condition - 160°C
Voltage Rating:	500V
Voltage Withstand:	2000 V a.c. r.m.s. for 1 minutes
Insulation Resistance MΩ/km:	≥ 10
Mutual Capacitance nf/km:	< 150
Inductance to resistance ratio (L/R) μH/Ω	< 25 (up to 1mm ²) < 40 (1.5 mm ²) < 60 (2.5 mm ²)
Halogen Acid Gas Emission:	0.5% (BS EN 60754-1)
Smoke Emission:	60% (BS EN 61034-2)
Flame Retardant Test	IEC 60332-3-24 (CAT C), IEC 60332-1-2

* Solid (Class-1) / Flexible (Class-5), Tinned / Thermocouple conductor can be provided upon request.

*** Screening: - Copper Tape / CU-PET tape / Braiding & any other drain wire size can be provided upon request.

**** Other special sheath materials are also available with Flame Retardant: - IEC 60332-3-22 (CAT A), UV / Sunlight Resistant, Oil Resistant, Anti-Termite, Anti-Rodent.

- Construction in core formation also can be provided upon request.
- 300V or any customized voltage grade rated cables up to 600/1000V can be provided upon request.

SERIAL NO.	TEKAB CODE	NO. OF PAIRS (P) / TRIADS (T) X CONDUCTOR SIZE (No. x sq.mm.)	NO. OF STRANDS	MINIMUM INSULATION THICKNESS (mm)	APPROX. OVERALL DIAMETER (mm)	APPROX. WEIGHT (kg/km)
1	Z1A8A7Z1Z2Z1	2P X 0.5	7	0.44	14.5	400
2	Z1A8A7Z1Z2Z1	5P X 0.5	7	0.44	18.5	675
3	Z1A8A7Z1Z2Z1	10P X 0.5	7	0.44	24.5	1125
4	Z1A8A7Z1Z2Z1	12P X 0.5	7	0.44	25	1250
5	Z1A8A7Z1Z2Z1	16P X 0.5	7	0.44	27	1475
6	Z1A8A7Z1Z2Z1	20P X 0.5	7	0.44	29.5	1700
7	Z1A8A7Z1Z2Z1	2P X 0.75	7	0.44	16.5	550
8	Z1A8A7Z1Z2Z1	5P X 0.75	7	0.44	20	800
9	Z1A8A7Z1Z2Z1	10P X 0.75	7	0.44	25	1275
10	Z1A8A7Z1Z2Z1	12P X 0.75	7	0.44	26.5	1425
11	Z1A8A7Z1Z2Z1	16P X 0.75	7	0.44	29.5	1700
12	Z1A8A7Z1Z2Z1	20P X 0.75	7	0.44	32	1950
13	Z1A8A7Z1Z2Z1	2P X 1.0	7	0.44	17	580

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14	Z1A8A7Z1Z2Z1	5P X 1.0	7	0.44	22	1000
15	Z1A8A7Z1Z2Z1	10P X 1.0	7	0.44	26	1400
16	Z1A8A7Z1Z2Z1	12P X 1.0	7	0.44	28	1575
17	Z1A8A7Z1Z2Z1	16P X 1.0	7	0.44	31	1850
18	Z1A8A7Z1Z2Z1	20P X 1.0	7	0.44	34	2400
19	Z1A8A7Z1Z2Z1	2P X 1.5	7	0.44	18	650
20	Z1A8A7Z1Z2Z1	5P X 1.5	7	0.44	23	1100
21	Z1A8A7Z1Z2Z1	10P X 1.5	7	0.44	28	1600
22	Z1A8A7Z1Z2Z1	12P X 1.5	7	0.44	30	1775
23	Z1A8A7Z1Z2Z1	16P X 1.5	7	0.44	33.5	2325
24	Z1A8A7Z1Z2Z1	20P X 1.5	7	0.44	37	2775
25	Z1A8A7Z1Z2Z1	2P X 2.5	7	0.53	21	825
26	Z1A8A7Z1Z2Z1	5P X 2.5	7	0.53	26	1375
27	Z1A8A7Z1Z2Z1	10P X 2.5	7	0.53	33	2225
28	Z1A8A7Z1Z2Z1	12P X 2.5	7	0.53	36	2575
29	Z1A8A7Z1Z2Z1	16P X 2.5	7	0.53	39.5	3100
30	Z1A8A7Z1Z2Z1	20P X 2.5	7	0.53	45	4075
31	Z1A8A7Z1Z2Z1	2T X 0.5	7	0.44	16	525
32	Z1A8A7Z1Z2Z1	5T X 0.5	7	0.44	19	750
33	Z1A8A7Z1Z2Z1	10T X 0.5	7	0.44	24.5	1250
34	Z1A8A7Z1Z2Z1	12T X 0.5	7	0.44	26	1398
35	Z1A8A7Z1Z2Z1	16T X 0.5	7	0.44	29	1675
36	Z1A8A7Z1Z2Z1	20T X 0.5	7	0.44	31	1925
37	Z1A8A7Z1Z2Z1	2T X 0.75	7	0.44	17	600
38	Z1A8A7Z1Z2Z1	5T X 0.75	7	0.44	22	1025
39	Z1A8A7Z1Z2Z1	10T X 0.75	7	0.44	26	1450
40	Z1A8A7Z1Z2Z1	12T X 0.75	7	0.44	28	1625
41	Z1A8A7Z1Z2Z1	16T X 0.75	7	0.44	31	1950
42	Z1A8A7Z1Z2Z1	20T X 0.75	7	0.44	34.5	2500
43	Z1A8A7Z1Z2Z1	2T X 1.0	7	0.44	18	625
44	Z1A8A7Z1Z2Z1	5T X 1.0	7	0.44	22.5	1100
45	Z1A8A7Z1Z2Z1	10T X 1.0	7	0.44	27	1600
46	Z1A8A7Z1Z2Z1	12T X 1.0	7	0.44	29	1800
47	Z1A8A7Z1Z2Z1	16T X 1.0	7	0.44	33	2375
48	Z1A8A7Z1Z2Z1	20T X 1.0	7	0.44	36.5	2825

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49	Z1A8A7Z1Z2Z1	2T X 1.5	7	0.44	19	700
50	Z1A8A7Z1Z2Z1	5T X 1.5	7	0.44	24	1250
51	Z1A8A7Z1Z2Z1	10T X 1.5	7	0.44	29	1850
52	Z1A8A7Z1Z2Z1	12T X 1.5	7	0.44	31	2075
53	Z1A8A7Z1Z2Z1	16T X 1.5	7	0.44	36	2825
54	Z1A8A7Z1Z2Z1	20T X 1.5	7	0.44	39	3275
55	Z1A8A7Z1Z2Z1	2T X 2.5	7	0.53	22.5	1050
56	Z1A8A7Z1Z2Z1	5T X 2.5	7	0.53	27	1575
57	Z1A8A7Z1Z2Z1	10T X 2.5	7	0.53	35	2650
58	Z1A8A7Z1Z2Z1	12T X 2.5	7	0.53	37.5	3050
59	Z1A8A7Z1Z2Z1	16T X 2.5	7	0.53	42	3750
60	Z1A8A7Z1Z2Z1	20T X 2.5	7	0.53	48	4900

