

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

APPLICATION

Suitable for Industrial & Commercial settings for process controls, transmission of analogue / digital signals in instrument & control systems. Ideal for use in conduits, trunking, and in locations protected from physical damage. 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:	Cross linked polyethylene (XLPE)
Insulation Color:	Multi Pair: Black & White 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).
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/XLPE/IS/OS/LSZH NO OF PAIRS / TRIADS X 2 / 3 X...MM2 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 - 250°C
Voltage Rating:	500V
Voltage Withstand:	2000 V a.c. r.m.s. for 1 minutes
Insulation Resistance MΩ/km:	≥ 1000
Mutual Capacitance nf/km:	< 150

Inductance to < 25 (up to 1mm²)
resistance ratio (L/R) < 40 (1.5 mm²)
μH/Ω < 60 (2.5 mm²)

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.

** Flame Retardant Cross linked polyethylene (FR-XLPE) 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	XA8A7Z1	2P X 0.5	7	0.44	10.5	115
2	XA8A7Z1	5P X 0.5	7	0.44	13.0	200
3	XA8A7Z1	10P X 0.5	7	0.44	17.5	375
4	XA8A7Z1	12P X 0.5	7	0.44	18.5	435
5	XA8A7Z1	16P X 0.5	7	0.44	21.0	550
6	XA8A7Z1	20P X 0.5	7	0.44	23.5	675
7	XA8A7Z1	2P X 0.75	7	0.44	11.0	135
8	XA8A7Z1	5P X 0.75	7	0.44	14.5	250
9	XA8A7Z1	10P X 0.75	7	0.44	19.0	450
10	XA8A7Z1	12P X 0.75	7	0.44	20.5	535
11	XA8A7Z1	16P X 0.75	7	0.44	23.5	700
12	XA8A7Z1	20P X 0.75	7	0.44	26.0	850
13	XA8A7Z1	2P X 1.0	7	0.44	12.0	150
14	XA8A7Z1	5P X 1.0	7	0.44	15.5	300
15	XA8A7Z1	10P X 1.0	7	0.44	20.0	525
16	XA8A7Z1	12P X 1.0	7	0.44	22.0	625
17	XA8A7Z1	16P X 1.0	7	0.44	25.0	800
18	XA8A7Z1	20P X 1.0	7	0.44	27.5	1000
19	XA8A7Z1	2P X 1.5	7	0.44	13.0	200
20	XA8A7Z1	5P X 1.5	7	0.44	16.5	375
21	XA8A7Z1	10P X 1.5	7	0.44	22.0	650
22	XA8A7Z1	12P X 1.5	7	0.44	24.0	775

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23	XA8A7Z1	16P X 1.5	7	0.44	27.0	1000
24	XA8A7Z1	20P X 1.5	7	0.44	30.0	1250
25	XA8A7Z1	2P X 2.5	7	0.53	15.5	250
26	XA8A7Z1	5P X 2.5	7	0.53	20.0	525
27	XA8A7Z1	10P X 2.5	7	0.53	26.5	950
28	XA8A7Z1	12P X 2.5	7	0.53	29.0	1125
29	XA8A7Z1	16P X 2.5	7	0.53	33.0	1450
30	XA8A7Z1	20P X 2.5	7	0.53	36.5	1825
31	XA8A7Z1	2T X 0.5	7	0.44	11.0	150
32	XA8A7Z1	5T X 0.5	7	0.44	14.0	275
33	XA8A7Z1	10T X 0.5	7	0.44	18.5	475
34	XA8A7Z1	12T X 0.5	7	0.44	20.0	550
35	XA8A7Z1	16T X 0.5	7	0.44	23.0	725
36	XA8A7Z1	20T X 0.5	7	0.44	25.5	875
37	XA8A7Z1	2T X 0.75	7	0.44	12.0	175
38	XA8A7Z1	5T X 0.75	7	0.44	15.5	350
39	XA8A7Z1	10T X 0.75	7	0.44	20.5	600
40	XA8A7Z1	12T X 0.75	7	0.44	22.0	700
41	XA8A7Z1	16T X 0.75	7	0.44	25.0	925
42	XA8A7Z1	20T X 0.75	7	0.44	28.0	1125
43	XA8A7Z1	2T X 1.0	7	0.44	12.5	200
44	XA8A7Z1	5T X 1.0	7	0.44	16.5	375
45	XA8A7Z1	10T X 1.0	7	0.44	21.5	700
46	XA8A7Z1	12T X 1.0	7	0.44	23.5	825
47	XA8A7Z1	16T X 1.0	7	0.44	26.5	1075
48	XA8A7Z1	20T X 1.0	7	0.44	30.0	1325
49	XA8A7Z1	2T X 1.5	7	0.44	13.5	225
50	XA8A7Z1	5T X 1.5	7	0.44	18.0	475
51	XA8A7Z1	10T X 1.5	7	0.44	23.5	875
52	XA8A7Z1	12T X 1.5	7	0.44	25.5	1050
53	XA8A7Z1	16T X 1.5	7	0.44	29.5	1350
54	XA8A7Z1	20T X 1.5	7	0.44	32.5	1675
55	XA8A7Z1	2T X 2.5	7	0.53	16.5	325
56	XA8A7Z1	5T X 2.5	7	0.53	21.5	675

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57	XA8A7Z1	10T X 2.5	7	0.53	28.5	1275
58	XA8A7Z1	12T X 2.5	7	0.53	31.0	1500
59	XA8A7Z1	16T X 2.5	7	0.53	35.5	2000
60	XA8A7Z1	20T X 2.5	7	0.53	39.5	2450

