

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

APPLICATION

Suitable for Industrial & Commercial settings for process controls, operation of critical systems during fire emergencies, transmission of analogue / digital signals in instrument & control systems, maintaining functionality even under extreme conditions. 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:	MICA + Cross linked polyethylene (XLPE)
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).
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/MICA/XLPE/IS/OS/LSZH/ SWA/LSZH NO OF PAIRS / TRIADS X 2 / 3 X...MM2 500 V BS EN 50288-7 IEC 60331 IEC 60332-1-2 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 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)
Fire Resistant:	IEC 60331
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), IEC 60332-3-24 (CAT C), Low Smoke, 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	MXA8A7Z1Z2Z1	2P X 0.5	7	0.44	21	750
2	MXA8A7Z1Z2Z1	5P X 0.5	7	0.44	25.5	1200
3	MXA8A7Z1Z2Z1	10P X 0.5	7	0.44	31.5	1700
4	MXA8A7Z1Z2Z1	12P X 0.5	7	0.44	34.5	2125
5	MXA8A7Z1Z2Z1	16P X 0.5	7	0.44	39	2550
6	MXA8A7Z1Z2Z1	20P X 0.5	7	0.44	42	2975
7	MXA8A7Z1Z2Z1	2P X 0.75	7	0.44	22	950
8	MXA8A7Z1Z2Z1	5P X 0.75	7	0.44	27	1300
9	MXA8A7Z1Z2Z1	10P X 0.75	7	0.44	34	2075
10	MXA8A7Z1Z2Z1	12P X 0.75	7	0.44	37	2400
11	MXA8A7Z1Z2Z1	16P X 0.75	7	0.44	41	2850
12	MXA8A7Z1Z2Z1	20P X 0.75	7	0.44	46	3725

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13	MXA8A7Z1Z2Z1	2P X 1.0	7	0.44	23	975
14	MXA8A7Z1Z2Z1	5P X 1.0	7	0.44	28	1400
15	MXA8A7Z1Z2Z1	10P X 1.0	7	0.44	35.5	2275
16	MXA8A7Z1Z2Z1	12P X 1.0	7	0.44	38	2525
17	MXA8A7Z1Z2Z1	16P X 1.0	7	0.44	42.5	3050
18	MXA8A7Z1Z2Z1	20P X 1.0	7	0.44	48	4025
19	MXA8A7Z1Z2Z1	2P X 1.5	7	0.44	24	1050
20	MXA8A7Z1Z2Z1	5P X 1.5	7	0.44	29	1500
21	MXA8A7Z1Z2Z1	10P X 1.5	7	0.44	37	2500
22	MXA8A7Z1Z2Z1	12P X 1.5	7	0.44	40	2775
23	MXA8A7Z1Z2Z1	16P X 1.5	7	0.44	46	3800
24	MXA8A7Z1Z2Z1	20P X 1.5	7	0.44	50	4425
25	MXA8A7Z1Z2Z1	2P X 2.5	7	0.53	26	1200
26	MXA8A7Z1Z2Z1	5P X 2.5	7	0.53	33	2000
27	MXA8A7Z1Z2Z1	10P X 2.5	7	0.53	42	3025
28	MXA8A7Z1Z2Z1	12P X 2.5	7	0.53	46	3850
29	MXA8A7Z1Z2Z1	16P X 2.5	7	0.53	52	4732
30	MXA8A7Z1Z2Z1	20P X 2.5	7	0.53	56.5	5450
31	MXA8A7Z1Z2Z1	2T X 0.5	7	0.44	22	1300
32	MXA8A7Z1Z2Z1	5T X 0.5	7	0.44	27	2200
33	MXA8A7Z1Z2Z1	10T X 0.5	7	0.44	34	2125
34	MXA8A7Z1Z2Z1	12T X 0.5	7	0.44	37	2450
35	MXA8A7Z1Z2Z1	16T X 0.5	7	0.44	41	2950
36	MXA8A7Z1Z2Z1	20T X 0.5	7	0.44	46	3825
37	MXA8A7Z1Z2Z1	2T X 0.75	7	0.44	23	1025
38	MXA8A7Z1Z2Z1	5T X 0.75	7	0.44	28	1475
39	MXA8A7Z1Z2Z1	10T X 0.75	7	0.44	36	2425
40	MXA8A7Z1Z2Z1	12T X 0.75	7	0.44	38.5	2700
41	MXA8A7Z1Z2Z1	16T X 0.75	7	0.44	43	3275
42	MXA8A7Z1Z2Z1	20T X 0.75	7	0.44	49	4325
43	MXA8A7Z1Z2Z1	2T X 1.0	7	0.44	24	1075
44	MXA8A7Z1Z2Z1	5T X 1.0	7	0.44	29	1575
45	MXA8A7Z1Z2Z1	10T X 1.0	7	0.44	37.5	2600
46	MXA8A7Z1Z2Z1	12T X 1.0	7	0.44	40	2900

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47	MXA8A7Z1Z2Z1	16T X 1.0	7	0.44	46	3975
48	MXA8A7Z1Z2Z1	20T X 1.0	7	0.44	50.5	4625
49	MXA8A7Z1Z2Z1	2T X 1.5	7	0.44	25	1550
50	MXA8A7Z1Z2Z1	5T X 1.5	7	0.44	31	1725
51	MXA8A7Z1Z2Z1	10T X 1.5	7	0.44	40	2875
52	MXA8A7Z1Z2Z1	12T X 1.5	7	0.44	42	3250
53	MXA8A7Z1Z2Z1	16T X 1.5	7	0.44	49	4475
54	MXA8A7Z1Z2Z1	20T X 1.5	7	0.44	54	5225
55	MXA8A7Z1Z2Z1	2T X 2.5	7	0.53	27	1350
56	MXA8A7Z1Z2Z1	5T X 2.5	7	0.53	35	2325
57	MXA8A7Z1Z2Z1	10T X 2.5	7	0.53	45.5	4000
58	MXA8A7Z1Z2Z1	12T X 2.5	7	0.53	49	4550
59	MXA8A7Z1Z2Z1	16T X 2.5	7	0.53	55	5575
60	MXA8A7Z1Z2Z1	20T X 2.5	7	0.53	60	6525

