

INSTRUMENTATION CABLES AS PER BS EN 50288-7 (CU/MICA/LSZH/OS/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 + Halogen free flame retardant compound (HFFR=LSZH)
Insulation Color:	Single Pair: Black & White Single Triad: Black, White & Red 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.
Assembly:	The required number of unscreened 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/MICA/LSZH/OS/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:	≥ 10

Mutual Capacitance nf/km:	< 250
Inductance to resistance ratio (L/R) $\mu\text{H}/\Omega$	< 25 (up to 1mm ²) < 40 (1.5 mm ²) < 60 (2.5 mm ²)
Fire Resistant:	IEC 60331
Flame Retardant Test:	IEC 60332-3-24 (CAT C), IEC 60332-1-2
Halogen Acid Gas Emission:	0.5% (BS EN 60754-1)
Smoke Emission:	60% (BS EN 61034-2)

* 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	MZ1A7Z1	1P X 0.5	7	0.44	8.5	100
2	MZ1A7Z1	2P X 0.5	7	0.44	14	150
3	MZ1A7Z1	5P X 0.5	7	0.44	18	275
4	MZ1A7Z1	10P X 0.5	7	0.44	22.5	450
5	MZ1A7Z1	12P X 0.5	7	0.44	24.5	525
6	MZ1A7Z1	16P X 0.5	7	0.44	28	675
7	MZ1A7Z1	20P X 0.5	7	0.44	31	800
8	MZ1A7Z1	1P X 0.75	7	0.44	9	100
9	MZ1A7Z1	2P X 0.75	7	0.44	14.5	200
10	MZ1A7Z1	5P X 0.75	7	0.44	19	325
11	MZ1A7Z1	10P X 0.75	7	0.44	24	550
12	MZ1A7Z1	12P X 0.75	7	0.44	26	650
13	MZ1A7Z1	16P X 0.75	7	0.44	30	800
14	MZ1A7Z1	20P X 0.75	7	0.44	33	1000
15	MZ1A7Z1	1P X 1.0	7	0.44	9	100
16	MZ1A7Z1	2P X 1.0	7	0.44	15	200
17	MZ1A7Z1	5P X 1.0	7	0.44	19.5	375
18	MZ1A7Z1	10P X 1.0	7	0.44	25	625
19	MZ1A7Z1	12P X 1.0	7	0.44	27	725
20	MZ1A7Z1	16P X 1.0	7	0.44	31	925

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21	MZ1A7Z1	20P X 1.0	7	0.44	34.5	1,350
22	MZ1A7Z1	1P X 1.5	7	0.44	10.5	125
23	MZ1A7Z1	2P X 1.5	7	0.44	16	250
24	MZ1A7Z1	5P X 1.5	7	0.44	21	425
25	MZ1A7Z1	10P X 1.5	7	0.44	27	750
26	MZ1A7Z1	12P X 1.5	7	0.44	29	875
27	MZ1A7Z1	16P X 1.5	7	0.44	33	1,125
28	MZ1A7Z1	20P X 1.5	7	0.44	37	1,375
29	MZ1A7Z1	1P X 2.5	7	0.53	12	175
30	MZ1A7Z1	2P X 2.5	7	0.53	18	300
31	MZ1A7Z1	5P X 2.5	7	0.53	23.5	575
32	MZ1A7Z1	10P X 2.5	7	0.53	30.5	1000
33	MZ1A7Z1	12P X 2.5	7	0.53	33.5	1200
34	MZ1A7Z1	16P X 2.5	7	0.53	38	1550
35	MZ1A7Z1	20P X 2.5	7	0.53	42.5	1925
36	MZ1A7Z1	1T X 0.5	7	0.44	9	100
37	MZ1A7Z1	2T X 0.5	7	0.44	14	200
38	MZ1A7Z1	5T X 0.5	7	0.44	18	350
39	MZ1A7Z1	10T X 0.5	7	0.44	24	600
40	MZ1A7Z1	12T X 0.5	7	0.44	26	725
41	MZ1A7Z1	16T X 0.5	7	0.44	29	900
42	MZ1A7Z1	20T X 0.5	7	0.44	32.5	1125
43	MZ1A7Z1	1T X 0.75	7	0.44	9.5	125
44	MZ1A7Z1	2T X 0.75	7	0.44	15	225
45	MZ1A7Z1	5T X 0.75	7	0.44	19.5	425
46	MZ1A7Z1	10T X 0.75	7	0.44	25.5	750
47	MZ1A7Z1	12T X 0.75	7	0.44	27.5	875
48	MZ1A7Z1	16T X 0.75	7	0.44	31.5	1100
49	MZ1A7Z1	20T X 0.75	7	0.44	35	1375
50	MZ1A7Z1	1T X 1.0	7	0.44	10	150
51	MZ1A7Z1	2T X 1.0	7	0.44	16	250
52	MZ1A7Z1	5T X 1.0	7	0.44	20.5	475
53	MZ1A7Z1	10T X 1.0	7	0.44	26.5	850
54	MZ1A7Z1	12T X 1.0	7	0.44	29	1000

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55	MZ1A7Z1	16T X 1.0	7	0.44	33	1300
56	MZ1A7Z1	20T X 1.0	7	0.44	36.5	1575
57	MZ1A7Z1	1T X 1.5	7	0.44	11	150
58	MZ1A7Z1	2T X 1.5	7	0.44	17	300
59	MZ1A7Z1	5T X 1.5	7	0.44	22	575
60	MZ1A7Z1	10T X 1.5	7	0.44	28	1025
61	MZ1A7Z1	12T X 1.5	7	0.44	31	1200
62	MZ1A7Z1	16T X 1.5	7	0.44	35	1550
63	MZ1A7Z1	20T X 1.5	7	0.44	39	1950
64	MZ1A7Z1	1T X 2.5	7	0.53	13	200
65	MZ1A7Z1	2T X 2.5	7	0.53	19.5	400
66	MZ1A7Z1	5T X 2.5	7	0.53	35.5	800
67	MZ1A7Z1	10T X 2.5	7	0.53	33	1400
68	MZ1A7Z1	12T X 2.5	7	0.53	36	1675
69	MZ1A7Z1	16T X 2.5	7	0.53	41	2200
70	MZ1A7Z1	20T X 2.5	7	0.53	46	2725