

INSTRUMENTATION CABLES AS PER BS EN 50288-7 (CU/MICA/LSZH/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 + 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).
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/MICA/LSZH/OS/LSZH/SWA/ LSZH NO OF PAIRS / TRIADS X 2 / 3 X...MM ² 500 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) 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.

*** Screening: - Copper Tape / CU-PET tape / Braiding & any other drain wire size 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	MZ1A7Z1Z2Z1	1P X 0.5	7	0.44	13	350
2	MZ1A7Z1Z2Z1	2P X 0.5	7	0.44	18.5	650
3	MZ1A7Z1Z2Z1	5P X 0.5	7	0.44	24	1,050
4	MZ1A7Z1Z2Z1	10P X 0.5	7	0.44	29	1,450
5	MZ1A7Z1Z2Z1	12P X 0.5	7	0.44	31	1,600
6	MZ1A7Z1Z2Z1	16P X 0.5	7	0.44	35.5	2,100
7	MZ1A7Z1Z2Z1	20P X 0.5	7	0.44	38	2,450
8	MZ1A7Z1Z2Z1	1P X 0.75	7	0.44	13.5	350
9	MZ1A7Z1Z2Z1	2P X 0.75	7	0.44	20	725
10	MZ1A7Z1Z2Z1	5P X 0.75	7	0.44	25	1,350
11	MZ1A7Z1Z2Z1	10P X 0.75	7	0.44	30	1,600
12	MZ1A7Z1Z2Z1	12P X 0.75	7	0.44	33	1,975
13	MZ1A7Z1Z2Z1	16P X 0.75	7	0.44	37	2,400
14	MZ1A7Z1Z2Z1	20P X 0.75	7	0.44	41	2,775

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)
15	MZ1A7Z1Z2Z1	1P X 1.0	7	0.44	14	375
16	MZ1A7Z1Z2Z1	2P X 1.0	7	0.44	21	750
17	MZ1A7Z1Z2Z1	5P X 1.0	7	0.44	25.5	1,200
18	MZ1A7Z1Z2Z1	10P X 1.0	7	0.44	31	1,700
19	MZ1A7Z1Z2Z1	12P X 1.0	7	0.44	34.5	2,150
20	MZ1A7Z1Z2Z1	16P X 1.0	7	0.44	38.4	2,575
21	MZ1A7Z1Z2Z1	20P X 1.0	7	0.44	42	3,000
22	MZ1A7Z1Z2Z1	1P X 1.5	7	0.44	14.5	400
23	MZ1A7Z1Z2Z1	2P X 1.5	7	0.44	22	950
24	MZ1A7Z1Z2Z1	5P X 1.5	7	0.44	27	1,325
25	MZ1A7Z1Z2Z1	10P X 1.5	7	0.44	33.5	2,091
26	MZ1A7Z1Z2Z1	12P X 1.5	7	0.44	27	2,400
27	MZ1A7Z1Z2Z1	16P X 1.5	7	0.44	41	2,900
28	MZ1A7Z1Z2Z1	20P X 1.5	7	0.44	46	3,775
29	MZ1A7Z1Z2Z1	1P X 2.5	7	0.53	17	575
30	MZ1A7Z1Z2Z1	2P X 2.5	7	0.53	24	1,100
31	MZ1A7Z1Z2Z1	5P X 2.5	7	0.53	30	1,600
32	MZ1A7Z1Z2Z1	10P X 2.5	7	0.53	32	2,650
33	MZ1A7Z1Z2Z1	12P X 2.5	7	0.53	41	3000
34	MZ1A7Z1Z2Z1	16P X 2.5	7	0.53	47	4,050
35	MZ1A7Z1Z2Z1	20P X 2.5	7	0.53	52	4,800
36	MZ1A7Z1Z2Z1	1T X 0.5	7	0.44	13.5	375
37	MZ1A7Z1Z2Z1	2T X 0.5	7	0.44	20	750
38	MZ1A7Z1Z2Z1	5T X 0.5	7	0.44	25	1,175
39	MZ1A7Z1Z2Z1	10T X 0.5	7	0.44	30.5	1,650
40	MZ1A7Z1Z2Z1	12T X 0.5	7	0.44	33	2,050
41	MZ1A7Z1Z2Z1	16T X 0.5	7	0.44	37.5	2,500
42	MZ1A7Z1Z2Z1	20T X 0.5	7	0.44	41	2,900
43	MZ1A7Z1Z2Z1	1T X 0.75	7	0.44	14	400
44	MZ1A7Z1Z2Z1	2T X 0.75	7	0.44	22	925
45	MZ1A7Z1Z2Z1	5T X 0.75	7	0.44	20	1,300
46	MZ1A7Z1Z2Z1	10T X 0.75	7	0.44	33	2,050
47	MZ1A7Z1Z2Z1	12T X 0.75	7	0.44	35.5	2,375
48	MZ1A7Z1Z2Z1	16T X 0.75	7	0.44	39.5	2,800
49	MZ1A7Z1Z2Z1	20T X 0.75	7	0.44	43	3,275
50	MZ1A7Z1Z2Z1	1T X 1.0	7	0.44	14.5	425

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)
51	MZ1A7Z1Z2Z1	2T X 1.0	7	0.44	22.5	975
52	MZ1A7Z1Z2Z1	5T X 1.0	7	0.44	27	1,375
53	MZ1A7Z1Z2Z1	10T X 1.0	7	0.44	34	2,200
54	MZ1A7Z1Z2Z1	12T X 1.0	7	0.44	37	2,550
55	MZ1A7Z1Z2Z1	16T X 1.0	7	0.44	41	3,075
56	MZ1A7Z1Z2Z1	20T X 1.0	7	0.44	46	4,000
57	MZ1A7Z1Z2Z1	1T X 1.5	7	0.44	16	550
58	MZ1A7Z1Z2Z1	2T X 1.5	7	0.44	23	1,050
59	MZ1A7Z1Z2Z1	5T X 1.5	7	0.44	28	1,550
60	MZ1A7Z1Z2Z1	10T X 1.5	7	0.44	36	2,550
61	MZ1A7Z1Z2Z1	12T X 1.5	7	0.44	38.5	2,850
62	MZ1A7Z1Z2Z1	16T X 1.5	7	0.44	43	3,475
63	MZ1A7Z1Z2Z1	20T X 1.5	7	0.44	49	4,550
64	MZ1A7Z1Z2Z1	1T X 2.5	7	0.53	17.5	650
65	MZ1A7Z1Z2Z1	2T X 2.5	7	0.53	25.5	1,250
66	MZ1A7Z1Z2Z1	5T X 2.5	7	0.53	31	1,875
67	MZ1A7Z1Z2Z1	10T X 2.5	7	0.53	41	3,200
68	MZ1A7Z1Z2Z1	12T X 2.5	7	0.53	45	4,030
69	MZ1A7Z1Z2Z1	16T X 2.5	7	0.53	50	4,900
70	MZ1A7Z1Z2Z1	20T X 2.5	7	0.53	55	5,775