

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

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.

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).
Outer Sheath:	Extruded Polyvinyl Chloride (PVC) in Black colour. Other colors are available upon request.
Printing Text on the Outer Sheath:	INSTRUMENTATION CABLE CU/MICA/XLPE/IS/OS/PVC 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)
Fire Resistant:	IEC 60331
Flame Retardant Test:	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	MXA8A7V	2P X 0.5	7	0.44	15	200
2	MXA8A7V	5P X 0.5	7	0.44	19.5	375
3	MXA8A7V	10P X 0.5	7	0.44	25.5	600
4	MXA8A7V	12P X 0.5	7	0.44	27.5	700
5	MXA8A7V	16P X 0.5	7	0.44	31	900
6	MXA8A7V	20P X 0.5	7	0.44	35	1100
7	MXA8A7V	2P X 0.75	7	0.44	16	225
8	MXA8A7V	5P X 0.75	7	0.44	21	400
9	MXA8A7V	10P X 0.75	7	0.44	27	700
10	MXA8A7V	12P X 0.75	7	0.44	29	825
11	MXA8A7V	16P X 0.75	7	0.44	33.5	1075
12	MXA8A7V	20P X 0.75	7	0.44	37	1300
13	MXA8A7V	2P X 1.0	7	0.44	17	250
14	MXA8A7V	5P X 1.0	7	0.44	21.5	450

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15	MXA8A7V	10P X 1.0	7	0.44	28	775
16	MXA8A7V	12P X 1.0	7	0.44	30.5	900
17	MXA8A7V	16P X 1.0	7	0.44	35	1200
18	MXA8A7V	20P X 1.0	7	0.44	39	1475
19	MXA8A7V	2P X 1.5	7	0.44	18	300
20	MXA8A7V	5P X 1.5	7	0.44	23	525
21	MXA8A7V	10P X 1.5	7	0.44	30	900
22	MXA8A7V	12P X 1.5	7	0.44	32	1075
23	MXA8A7V	16P X 1.5	7	0.44	37	1375
24	MXA8A7V	20P X 1.5	7	0.44	41	1725
25	MXA8A7V	2P X 2.5	7	0.53	20	350
26	MXA8A7V	5P X 2.5	7	0.53	26	675
27	MXA8A7V	10P X 2.5	7	0.53	32.5	1200
28	MXA8A7V	12P X 2.5	7	0.53	37	1425
29	MXA8A7V	16P X 2.5	7	0.53	42.5	1875
30	MXA8A7V	20P X 2.5	7	0.53	47	2300
31	MXA8A7V	2T X 0.5	7	0.44	16	250
32	MXA8A7V	5T X 0.5	7	0.44	21	450
33	MXA8A7V	10T X 0.5	7	0.44	27	775
34	MXA8A7V	12T X 0.5	7	0.44	29	900
35	MXA8A7V	16T X 0.5	7	0.44	33.5	1175
36	MXA8A7V	20T X 0.5	7	0.44	37	1400
37	MXA8A7V	2T X 0.75	7	0.44	17	275
38	MXA8A7V	5T X 0.75	7	0.44	22	525
39	MXA8A7V	10T X 0.75	7	0.44	29	900
40	MXA8A7V	12T X 0.75	7	0.44	31	1050
41	MXA8A7V	16T X 0.75	7	0.44	35.5	1375
42	MXA8A7V	20T X 0.75	7	0.44	40	1725
43	MXA8A7V	2T X 1.0	7	0.44	18	300
44	MXA8A7V	5T X 1.0	7	0.44	23	575
45	MXA8A7V	10T X 1.0	7	0.44	30	1000
46	MXA8A7V	12T X 1.0	7	0.44	32.5	1175
47	MXA8A7V	16T X 1.0	7	0.44	37	1550
48	MXA8A7V	20T X 1.0	7	0.44	41.5	1925

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49	MXA8A7V	2T X 1.5	7	0.44	19	350
50	MXA8A7V	5T X 1.5	7	0.44	25	675
51	MXA8A7V	10T X 1.5	7	0.44	32	1200
52	MXA8A7V	12T X 1.5	7	0.44	34.5	1400
53	MXA8A7V	16T X 1.5	7	0.44	40	1875
54	MXA8A7V	20T X 1.5	7	0.44	44	2300
55	MXA8A7V	2T X 2.5	7	0.53	20.5	450
56	MXA8A7V	5T X 2.5	7	0.53	28	900
57	MXA8A7V	10T X 2.5	7	0.53	36	1600
58	MXA8A7V	12T X 2.5	7	0.53	45.5	1950
59	MXA8A7V	16T X 2.5	7	0.53	44	2525
60	MXA8A7V	20T X 2.5	7	0.53	51	3150

