TEKAB

INSTRUMENTATION CABLES AS PER BS EN 50288-7 (CU/MICA/XLPE/AL/HDPE/PA/SWA/LSZH)

APPLICATION

Suitable for Industrial & Commercial settings for process controls, operation of critical systems during fire emergencies, outdoor and underground installations, petrochemical and oil & gas industries, refineries, chemical plants, and power stations, providing robust mechanical protection and durability, moisture resistance, maintaining functionality even under extreme conditions. 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:	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 & Multi- Layer Sheath:	An Aluminum (AL) Foil (0.20mm) coated on up side with a protective plastic coating (0.05mm) is applied longitudinally over the core assembly with a minimum overlap of 3 mm. A stranded tinned copper drain wire of 0.5mm2 (class 2) runs longitudinally in contact with the Aluminum side of the Aluminum tape. A black extruded bedding of Flame-Retardant High-Density Polyethylene compound meeting the requirement of ASTM 1248 Type 3 shall be applied over the Aluminum Foil and shall be bonded to the Aluminum Foil. Over the High-Density Polyethylene bedding a protective sheath 0.3 mm of Polyamide shall be extruded.
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/AL/HDPE/PA/ SWA/LSZH NO OF PAIRS / TRIADS X 2 / 3 X…MM2 500 V BS EN 50288-7 IEC 60331 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 1mm²) < 40 (1.5 mm2) < 60 (2.5 mm2)
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: - 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	MX(L)2YQ4Z2Z1	1P X 0.5	7	0.44	16	525
2	MX(L)2YQ4Z2Z1	2P X 0.5	7	0.44	22	925
3	MX(L)2YQ4Z2Z1	5P X 0.5	7	0.44	26	1225
4	MX(L)2YQ4Z2Z1	10P X 0.5	7	0.44	31	1650
5	MX(L)2YQ4Z2Z1	12P X 0.5	7	0.44	34	2000
6	MX(L)2YQ4Z2Z1	16P X 0.5	7	0.44	38	2450
7	MX(L)2YQ4Z2Z1	20P X 0.5	7	0.44	41.5	2800
8	MX(L)2YQ4Z2Z1	1P X 0.75	7	0.44	17	550
9	MX(L)2YQ4Z2Z1	2P X 0.75	7	0.44	23	1000
10	MX(L)2YQ4Z2Z1	5P X 0.75	7	0.44	27	1325
11	MX(L)2YQ4Z2Z1	10P X 0.75	7	0.44	33	2000
12	MX(L)2YQ4Z2Z1	12P X 0.75	7	0.44	36	2275

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13	MX(L)2YQ4Z2Z1	16P X 0.75	7	0.44	40.5	2750
14	MX(L)2YQ4Z2Z1	20P X 0.75	7	0.44	45	3525
15	MX(L)2YQ4Z2Z1	1P X 1.0	7	0.44	17	575
16	MX(L)2YQ4Z2Z1	2P X 1.0	7	0.44	24	1050
17	MX(L)2YQ4Z2Z1	5P X 1.0	7	0.44	28	1400
18	MX(L)2YQ4Z2Z1	10P X 1.0	7	0.44	35	2175
19	MX(L)2YQ4Z2Z1	12P X 1.0	7	0.44	37	2425
20	MX(L)2YQ4Z2Z1	16P X 1.0	7	0.44	42	2925
21	MX(L)2YQ4Z2Z1	20P X 1.0	7	0.44	46	3750
22	MX(L)2YQ4Z2Z1	1P X 1.5	7	0.44	17.5	600
23	MX(L)2YQ4Z2Z1	2P X 1.5	7	0.44	25	1125
24	MX(L)2YQ4Z2Z1	5P X 1.5	7	0.44	29	1525
25	MX(L)2YQ4Z2Z1	10P X 1.5	7	0.44	37	2425
26	MX(L)2YQ4Z2Z1	12P X 1.5	7	0.44	39	2700
27	MX(L)2YQ4Z2Z1	16P X 1.5	7	0.44	45	3650
28	MX(L)2YQ4Z2Z1	20P X 1.5	7	0.44	49	4200
29	MX(L)2YQ4Z2Z1	1P X 2.5	7	0.53	19	700
30	MX(L)2YQ4Z2Z1	2P X 2.5	7	0.53	27	1275
31	MX(L)2YQ4Z2Z1	5P X 2.5	7	0.53	33	2000
32	MX(L)2YQ4Z2Z1	10P X 2.5	7	0.53	41	3000
33	MX(L)2YQ4Z2Z1	12P X 2.5	7	0.53	45.5	3750
34	MX(L)2YQ4Z2Z1	16P X 2.5	7	0.53	51	4600
35	MX(L)2YQ4Z2Z1	1T X 0.5	7	0.44	17	575
36	MX(L)2YQ4Z2Z1	2T X 0.5	7	0.44	23	1025
37	MX(L)2YQ4Z2Z1	5T X 0.5	7	0.44	27	1350
38	MX(L)2YQ4Z2Z1	10T X 0.5	7	0.44	33	2075
39	MX(L)2YQ4Z2Z1	12T X 0.5	7	0.44	36	2350
40	MX(L)2YQ4Z2Z1	16T X 0.5	7	0.44	40.5	2825
41	MX(L)2YQ4Z2Z1	20T X 0.5	7	0.44	45	3650
42	MX(L)2YQ4Z2Z1	1T X 0.75	7	0.44	17	600
43	MX(L)2YQ4Z2Z1	2T X 0.75	7	0.44	24	1100
44	MX(L)2YQ4Z2Z1	5T X 0.75	7	0.44	29	1500
45	MX(L)2YQ4Z2Z1	10T X 0.75	7	0.44	36	2375
46	MX(L)2YQ4Z2Z1	12T X 0.75	7	0.44	38	2650

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47	MX(L)2YQ4Z2Z1	16T X 0.75	7	0.44	42.5	3150
48	MX(L)2YQ4Z2Z1	20T X 0.75	7	0.44	48	4100
49	MX(L)2YQ4Z2Z1	1T X 1.0	7	0.44	18	625
50	MX(L)2YQ4Z2Z1	2T X 1.0	7	0.44	25	1150
51	MX(L)2YQ4Z2Z1	5T X 1.0	7	0.44	29.5	1600
52	MX(L)2YQ4Z2Z1	10T X 1.0	7	0.44	37	2525
53	MX(L)2YQ4Z2Z1	12T X 1.0	7	0.44	39.5	2850
54	MX(L)2YQ4Z2Z1	16T X 1.0	7	0.44	45	3850
55	MX(L)2YQ4Z2Z1	20T X 1.0	7	0.44	49	4400
56	MX(L)2YQ4Z2Z1	1T X 1.5	7	0.44	18	675
57	MX(L)2YQ4Z2Z1	2T X 1.5	7	0.44	26	1225
58	MX(L)2YQ4Z2Z1	5T X 1.5	7	0.44	31	1750
59	MX(L)2YQ4Z2Z1	10T X 1.5	7	0.44	39	2850
60	MX(L)2YQ4Z2Z1	12T X 1.5	7	0.44	42	3200
61	MX(L)2YQ4Z2Z1	16T X 1.5	7	0.44	48	4300
62	MX(L)2YQ4Z2Z1	20T X 1.5	7	0.44	53	5050
63	MX(L)2YQ4Z2Z1	1T X 2.5	7	0.53	20	800
64	MX(L)2YQ4Z2Z1	2T X 2.5	7	0.53	28	1450
65	MX(L)2YQ4Z2Z1	5T X 2.5	7	0.53	35	2350
66	MX(L)2YQ4Z2Z1	10T X 2.5	7	0.53	45	3950
67	MX(L)2YQ4Z2Z1	12T X 2.5	7	0.53	48	4450