TEKAB

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

APPLICATION

Suitable for process control and automation systems, outdoor and underground installations, petrochemical and oil & gas industries, refineries, chemical plants, and power stations, providing robust mechanical protection and durability & moisture resistance. 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:	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 mm2 (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 & 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/XLPE/IS/AL/HDPE/PA/SWA/ LSZH NO OF PAIRS / TRIADS X 2 / 3 X…MM2 500 V BS EN 50288-7 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)

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.

*** Any other drain wire size can be provided upon request.

**** Other special sheath materials are also available with Flame Retardant :- IEC 60332-1-2,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	XA8(L)2YQ4Z2Z1	2P X 0.5	7	0.44	17	600
2	XA8(L)2YQ4Z2Z1	5P X 0.5	7	0.44	20.5	950
3	XA8(L)2YQ4Z2Z1	10P X 0.5	7	0.44	25.5	1300
4	XA8(L)2YQ4Z2Z1	12P X 0.5	7	0.44	27	1450
5	XA8(L)2YQ4Z2Z1	16P X 0.5	7	0.44	29.5	1675
6	XA8(L)2YQ4Z2Z1	20P X 0.5	7	0.44	31.5	2100
7	XA8(L)2YQ4Z2Z1	2P X 0.75	7	0.44	18	650
8	XA8(L)2YQ4Z2Z1	5P X 0.75	7	0.44	23	1100
9	XA8(L)2YQ4Z2Z1	10P X 0.75	7	0.44	27	1475
10	XA8(L)2YQ4Z2Z1	12P X 0.75	7	0.44	29	1625
11	XA8(L)2YQ4Z2Z1	16P X 0.75	7	0.44	31.5	1900
12	XA8(L)2YQ4Z2Z1	20P X 0.75	7	0.44	35	2450
13	XA8(L)2YQ4Z2Z1	2P X 1.0	7	0.44	19	700
14	XA8(L)2YQ4Z2Z1	5P X 1.0	7	0.44	24	1675

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15	XA8(L)2YQ4Z2Z1	10P X 1.0	7	0.44	28	1600
16	XA8(L)2YQ4Z2Z1	12P X 1.0	7	0.44	30	1775
17	XA8(L)2YQ4Z2Z1	16P X 1.0	7	0.44	33.5	2300
18	XA8(L)2YQ4Z2Z1	20P X 1.0	7	0.44	37	2675
19	XA8(L)2YQ4Z2Z1	2P X 1.5	7	0.44	20	800
20	XA8(L)2YQ4Z2Z1	5P X 1.5	7	0.44	25	1275
21	XA8(L)2YQ4Z2Z1	10P X 1.5	7	0.44	30	1800
22	XA8(L)2YQ4Z2Z1	12P X 1.5	7	0.44	32	2175
23	XA8(L)2YQ4Z2Z1	16P X 1.5	7	0.44	36.5	2650
24	XA8(L)2YQ4Z2Z1	20P X 1.5	7	0.44	39.5	3075
25	XA8(L)2YQ4Z2Z1	2P X 2.5	7	0.53	23.5	1100
26	XA8(L)2YQ4Z2Z1	5P X 2.5	7	0.53	28	1575
27	XA8(L)2YQ4Z2Z1	10P X 2.5	7	0.53	35.5	2550
28	XA8(L)2YQ4Z2Z1	12P X 2.5	7	0.53	38	2875
29	XA8(L)2YQ4Z2Z1	16P X 2.5	7	0.53	42.5	3450
30	XA8(L)2YQ4Z2Z1	20P X 2.5	7	0.53	48	4500
31	XA8(L)2YQ4Z2Z1	2T X 0.5	7	0.44	18	650
32	XA8(L)2YQ4Z2Z1	5T X 0.5	7	0.44	22	1075
33	XA8(L)2YQ4Z2Z1	10T X 0.5	7	0.44	26.5	1450
34	XA8(L)2YQ4Z2Z1	12T X 0.5	7	0.44	28	1600
35	XA8(L)2YQ4Z2Z1	16T X 0.5	7	0.44	31	1875
36	XA8(L)2YQ4Z2Z1	20T X 0.5	7	0.44	34	2400
37	XA8(L)2YQ4Z2Z1	2T X 0.75	7	0.44	19	700
38	XA8(L)2YQ4Z2Z1	5T X 0.75	7	0.44	24	1200
39	XA8(L)2YQ4Z2Z1	10T X 0.75	7	0.44	28	1650
40	XA8(L)2YQ4Z2Z1	12T X 0.75	7	0.44	30	1850
41	XA8(L)2YQ4Z2Z1	16T X 0.75	7	0.44	33.5	2400
42	XA8(L)2YQ4Z2Z1	20T X 0.75	7	0.44	37	2850
43	XA8(L)2YQ4Z2Z1	2T X 1.0	7	0.44	20	800
44	XA8(L)2YQ4Z2Z1	5T X 1.0	7	0.44	24.5	1300
45	XA8(L)2YQ4Z2Z1	10T X 1.0	7	0.44	29.5	1800
46	XA8(L)2YQ4Z2Z1	12T X 1.0	7	0.44	31	2000
47	XA8(L)2YQ4Z2Z1	16T X 1.0	7	0.44	36	2700
48	XA8(L)2YQ4Z2Z1	20T X 1.0	7	0.44	39	3100
49	XA8(L)2YQ4Z2Z1	2T X 1.5	7	0.44	21	1000
50	XA8(L)2YQ4Z2Z1	5T X 1.5	7	0.44	26	1425

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51	XA8(L)2YQ4Z2Z1	10T X 1.5	7	0.44	31	2050
52	XA8(L)2YQ4Z2Z1	12T X 1.5	7	0.44	34	2550
53	XA8(L)2YQ4Z2Z1	16T X 1.5	7	0.44	38.5	3100
54	XA8(L)2YQ4Z2Z1	20T X 1.5	7	0.44	42	3625
55	XA8(L)2YQ4Z2Z1	2T X 2.5	7	0.53	24.5	1225
56	XA8(L)2YQ4Z2Z1	5T X 2.5	7	0.53	29.5	1800
57	XA8(L)2YQ4Z2Z1	10T X 2.5	7	0.53	37	3000
58	XA8(L)2YQ4Z2Z1	12T X 2.5	7	0.53	40	3400
59	XA8(L)2YQ4Z2Z1	16T X 2.5	7	0.53	46	4500
60	XA8(L)2YQ4Z2Z1	20T X 2.5	7	0.53	50.5	5400