

INSTRUMENTATION CABLES AS PER BS EN 50288-7 (CU/XLPE/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:	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 0.5mm ² (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/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 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)
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	X(L)2YQ4Z2Z1	1P X 0.5	7	0.44	12.5	300
2	X(L)2YQ4Z2Z1	2P X 0.5	7	0.44	16.5	550
3	X(L)2YQ4Z2Z1	5P X 0.5	7	0.44	19	675
4	X(L)2YQ4Z2Z1	10P X 0.5	7	0.44	23.5	1100
5	X(L)2YQ4Z2Z1	12P X 0.5	7	0.44	25	1200
6	X(L)2YQ4Z2Z1	16P X 0.5	7	0.44	27	1350
7	X(L)2YQ4Z2Z1	20P X 0.5	7	0.44	29	1550
8	X(L)2YQ4Z2Z1	1P X 0.75	7	0.44	13	350
9	X(L)2YQ4Z2Z1	2P X 0.75	7	0.44	17	575
10	X(L)2YQ4Z2Z1	5P X 0.75	7	0.44	20.5	800
11	X(L)2YQ4Z2Z1	10P X 0.75	7	0.44	25	1250
12	X(L)2YQ4Z2Z1	12P X 0.75	7	0.44	26.5	1350
13	X(L)2YQ4Z2Z1	16P X 0.75	7	0.44	29	1600
14	X(L)2YQ4Z2Z1	20P X 0.75	7	0.44	31	1800

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15	X(L)2YQ4Z2Z1	1P X 1.0	7	0.44	13.5	350
16	X(L)2YQ4Z2Z1	2P X 1.0	7	0.44	18	625
17	X(L)2YQ4Z2Z1	5P X 1.0	7	0.44	22	1350
18	X(L)2YQ4Z2Z1	10P X 1.0	7	0.44	26	1350
19	X(L)2YQ4Z2Z1	12P X 1.0	7	0.44	28	1500
20	X(L)2YQ4Z2Z1	16P X 1.0	7	0.44	30	1750
21	X(L)2YQ4Z2Z1	20P X 1.0	7	0.44	33	2175
22	X(L)2YQ4Z2Z1	1P X 1.5	7	0.44	14	375
23	X(L)2YQ4Z2Z1	2P X 1.5	7	0.44	19	675
24	X(L)2YQ4Z2Z1	5P X 1.5	7	0.44	23.5	1225
25	X(L)2YQ4Z2Z1	10P X 1.5	7	0.44	28	1550
26	X(L)2YQ4Z2Z1	12P X 1.5	7	0.44	29.5	1700
27	X(L)2YQ4Z2Z1	16P X 1.5	7	0.44	33	2200
28	X(L)2YQ4Z2Z1	20P X 1.5	7	0.44	36	2575
29	X(L)2YQ4Z2Z1	1P X 2.5	7	0.53	16	550
30	X(L)2YQ4Z2Z1	2P X 2.5	7	0.53	22	975
31	X(L)2YQ4Z2Z1	5P X 2.5	7	0.53	26.5	1400
32	X(L)2YQ4Z2Z1	10P X 2.5	7	0.53	32	1975
33	X(L)2YQ4Z2Z1	12P X 2.5	7	0.53	35	2450
34	X(L)2YQ4Z2Z1	16P X 2.5	7	0.53	39	2975
35	X(L)2YQ4Z2Z1	20P X 2.5	7	0.53	42.5	3450
36	X(L)2YQ4Z2Z1	1T X 0.5	7	0.44	13	325
37	X(L)2YQ4Z2Z1	2T X 0.5	7	0.44	17	575
38	X(L)2YQ4Z2Z1	5T X 0.5	7	0.44	20	800
39	X(L)2YQ4Z2Z1	10T X 0.5	7	0.44	24.5	1225
40	X(L)2YQ4Z2Z1	12T X 0.5	7	0.44	26	1350
41	X(L)2YQ4Z2Z1	16T X 0.5	7	0.44	28	1575
42	X(L)2YQ4Z2Z1	20T X 0.5	7	0.44	30	1750
43	X(L)2YQ4Z2Z1	1T X 0.75	7	0.44	13.5	350
44	X(L)2YQ4Z2Z1	2T X 0.75	7	0.44	18	625
45	X(L)2YQ4Z2Z1	5T X 0.75	7	0.44	22	1025
46	X(L)2YQ4Z2Z1	10T X 0.75	7	0.44	26	1400
47	X(L)2YQ4Z2Z1	12T X 0.75	7	0.44	28	1575
48	X(L)2YQ4Z2Z1	16T X 0.75	7	0.44	30	1850

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49	X(L)2YQ4Z2Z1	20T X 0.75	7	0.44	33	2300
50	X(L)2YQ4Z2Z1	1T X 1.0	7	0.44	13	375
51	X(L)2YQ4Z2Z1	2T X 1.0	7	0.44	18.5	675
52	X(L)2YQ4Z2Z1	5T X 1.0	7	0.44	23	1125
53	X(L)2YQ4Z2Z1	10T X 1.0	7	0.44	27	1550
54	X(L)2YQ4Z2Z1	12T X 1.0	7	0.44	29	1725
55	X(L)2YQ4Z2Z1	16T X 1.0	7	0.44	32	2050
56	X(L)2YQ4Z2Z1	20T X 1.0	7	0.44	35.5	2625
57	X(L)2YQ4Z2Z1	1T X 1.5	7	0.44	14	425
58	X(L)2YQ4Z2Z1	2T X 1.5	7	0.44	20	775
59	X(L)2YQ4Z2Z1	5T X 1.5	7	0.44	24.5	1275
60	X(L)2YQ4Z2Z1	10T X 1.5	7	0.44	29	1800
61	X(L)2YQ4Z2Z1	12T X 1.5	7	0.44	31	2000
62	X(L)2YQ4Z2Z1	16T X 1.5	7	0.44	35	2625
63	X(L)2YQ4Z2Z1	20T X 1.5	7	0.44	38	3100
64	X(L)2YQ4Z2Z1	1T X 2.5	7	0.53	17	600
65	X(L)2YQ4Z2Z1	2T X 2.5	7	0.53	23.5	1125
66	X(L)2YQ4Z2Z1	5T X 2.5	7	0.53	28	1625
67	X(L)2YQ4Z2Z1	10T X 2.5	7	0.53	34.5	2600
68	X(L)2YQ4Z2Z1	12T X 2.5	7	0.53	37	2950
69	X(L)2YQ4Z2Z1	16T X 2.5	7	0.53	41.5	2625
70	X(L)2YQ4Z2Z1	20T X 2.5	7	0.53	46	4650