

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

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.

CONSTRUCTION

Conductor:	Stranded (Class 2) Annealed Plain Copper Conductor to BS EN 60228
Insulation:	Polyvinyl Chloride (PVC) rated 90°C
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 Polyvinyl Chloride (PVC) in Black colour. Other colors are available upon request.
Printing Text on the Outer Sheath:	INSTRUMENTATION CABLE CU/PVC/AL/HDPE/PA/SWA/PVC 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:	≥ 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)

* Solid (Class-1) / Flexible (Class-5), Tinned / Thermocouple conductor can be provided upon request.

** PVC 70°C & PVC 105°C rated cables 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 60332-1-2, 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	V2(L)2YQ4Z2V	1P X 0.5	7	0.44	12.5	325
2	V2(L)2YQ4Z2V	2P X 0.5	7	0.44	16.5	600
3	V2(L)2YQ4Z2V	5P X 0.5	7	0.44	19	725
4	V2(L)2YQ4Z2V	10P X 0.5	7	0.44	23.5	1200
5	V2(L)2YQ4Z2V	12P X 0.5	7	0.44	25	1300
6	V2(L)2YQ4Z2V	16P X 0.5	7	0.44	27	1450
7	V2(L)2YQ4Z2V	20P X 0.5	7	0.44	29	1675
8	V2(L)2YQ4Z2V	1P X 0.75	7	0.44	13	375
9	V2(L)2YQ4Z2V	2P X 0.75	7	0.44	17	625
10	V2(L)2YQ4Z2V	5P X 0.75	7	0.44	20.5	875
11	V2(L)2YQ4Z2V	10P X 0.75	7	0.44	25	1350
12	V2(L)2YQ4Z2V	12P X 0.75	7	0.44	26.5	1450
13	V2(L)2YQ4Z2V	16P X 0.75	7	0.44	29	1725
14	V2(L)2YQ4Z2V	20P X 0.75	7	0.44	31	1950
15	V2(L)2YQ4Z2V	1P X 1.0	7	0.44	13.5	375
16	V2(L)2YQ4Z2V	2P X 1.0	7	0.44	18	675
17	V2(L)2YQ4Z2V	5P X 1.0	7	0.44	22	1450
18	V2(L)2YQ4Z2V	10P X 1.0	7	0.44	26	1450

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19	V2(L)2YQ4Z2V	12P X 1.0	7	0.44	28	1625
20	V2(L)2YQ4Z2V	16P X 1.0	7	0.44	30	1900
21	V2(L)2YQ4Z2V	20P X 1.0	7	0.44	33	2350
22	V2(L)2YQ4Z2V	1P X 1.5	7	0.44	14	400
23	V2(L)2YQ4Z2V	2P X 1.5	7	0.44	19	725
24	V2(L)2YQ4Z2V	5P X 1.5	7	0.44	23.5	1325
25	V2(L)2YQ4Z2V	10P X 1.5	7	0.44	28	1675
26	V2(L)2YQ4Z2V	12P X 1.5	7	0.44	29.5	1825
27	V2(L)2YQ4Z2V	16P X 1.5	7	0.44	33	2375
28	V2(L)2YQ4Z2V	20P X 1.5	7	0.44	36	2775
29	V2(L)2YQ4Z2V	1P X 2.5	7	0.53	16	600
30	V2(L)2YQ4Z2V	2P X 2.5	7	0.53	22	1050
31	V2(L)2YQ4Z2V	5P X 2.5	7	0.53	26.5	1500
32	V2(L)2YQ4Z2V	10P X 2.5	7	0.53	32	2125
33	V2(L)2YQ4Z2V	12P X 2.5	7	0.53	35	2650
34	V2(L)2YQ4Z2V	16P X 2.5	7	0.53	39	3225
35	V2(L)2YQ4Z2V	20P X 2.5	7	0.53	42.5	3725
36	V2(L)2YQ4Z2V	1T X 0.5	7	0.44	13	350
37	V2(L)2YQ4Z2V	2T X 0.5	7	0.44	17	625
38	V2(L)2YQ4Z2V	5T X 0.5	7	0.44	20	875
39	V2(L)2YQ4Z2V	10T X 0.5	7	0.44	24.5	1325
40	V2(L)2YQ4Z2V	12T X 0.5	7	0.44	26	1450
41	V2(L)2YQ4Z2V	16T X 0.5	7	0.44	28	1700
42	V2(L)2YQ4Z2V	20T X 0.5	7	0.44	30	1900
43	V2(L)2YQ4Z2V	1T X 0.75	7	0.44	13.5	375
44	V2(L)2YQ4Z2V	2T X 0.75	7	0.44	18	675
45	V2(L)2YQ4Z2V	5T X 0.75	7	0.44	22	1100
46	V2(L)2YQ4Z2V	10T X 0.75	7	0.44	26	1500
47	V2(L)2YQ4Z2V	12T X 0.75	7	0.44	28	1700
48	V2(L)2YQ4Z2V	16T X 0.75	7	0.44	30	2000
49	V2(L)2YQ4Z2V	20T X 0.75	7	0.44	33	2475
50	V2(L)2YQ4Z2V	1T X 1.0	7	0.44	13	400
51	V2(L)2YQ4Z2V	2T X 1.0	7	0.44	18.5	725
52	V2(L)2YQ4Z2V	5T X 1.0	7	0.44	23	1225

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53	V2(L)2YQ4Z2V	10T X 1.0	7	0.44	27	1675
54	V2(L)2YQ4Z2V	12T X 1.0	7	0.44	29	1875
55	V2(L)2YQ4Z2V	16T X 1.0	7	0.44	32	2225
56	V2(L)2YQ4Z2V	20T X 1.0	7	0.44	35.5	2825
57	V2(L)2YQ4Z2V	1T X 1.5	7	0.44	14	450
58	V2(L)2YQ4Z2V	2T X 1.5	7	0.44	20	825
59	V2(L)2YQ4Z2V	5T X 1.5	7	0.44	24.5	1375
60	V2(L)2YQ4Z2V	10T X 1.5	7	0.44	29	1950
61	V2(L)2YQ4Z2V	12T X 1.5	7	0.44	31	2150
62	V2(L)2YQ4Z2V	16T X 1.5	7	0.44	35	2825
63	V2(L)2YQ4Z2V	20T X 1.5	7	0.44	38	3350
64	V2(L)2YQ4Z2V	1T X 2.5	7	0.53	17	650
65	V2(L)2YQ4Z2V	2T X 2.5	7	0.53	23.5	1225
66	V2(L)2YQ4Z2V	5T X 2.5	7	0.53	28	1750
67	V2(L)2YQ4Z2V	10T X 2.5	7	0.53	34.5	2800
68	V2(L)2YQ4Z2V	12T X 2.5	7	0.53	37	3175
69	V2(L)2YQ4Z2V	16T X 2.5	7	0.53	41.5	2825
70	V2(L)2YQ4Z2V	20T X 2.5	7	0.53	46	5025