TEKAB

INSTRUMENTATION CABLES AS PER BS EN 50288-7 (CU/PVC/OS/PVC/LC/PVC/SWA/PVC)

APPLICATION

Lead sheath instrumentation cables provide robust mechanical protection and durability, ideal for industrial and commercial applications. These cables ensure reliable transmission of analogue signals in harsh environments, including chemical, petrochemical, oil & gas, power plants, and marine settings. They offer enhanced protection against chemical exposure, vibration, moisture, and extreme temperatures, making them suitable for process control, automated systems, and hazardous areas. The lead sheath also shields against electromagnetic interference, ensuring consistent performance and signal integrity.

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 & 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 mm2 (class 2).
Inner Sheath:	Extruded Polyvinyl Chloride (PVC) in Black colour. Other colors are available upon request.
Lead Covering:	Extruded Lead Alloy Sheath as per BS EN 50307,
Bedding:	Extruded Polyvinyl Chloride (PVC) in Black colour. Other colors are available upon request.
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/OS/PVC/LC/PVC/ 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 - 160°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 1mm²)
< 40 (1.5 mm2)
< 60 (2.5 mm2)

* 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: - 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 60332-1-2, IEC 60332-3-22 (CAT A), IEC 60332-3-24 (CAT C), Low Smoke, UV / Sunlight Resistant, Oil Resistant, Anti-Termite, And 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	V2A7VLVZ2V	1P X 0.5	7	0.44	14.5	775
2	V2A7VLVZ2V	2P X 0.5	7	0.44	18.5	1200
3	V2A7VLVZ2V	5P X 0.5	7	0.44	22	1650
4	V2A7VLVZ2V	10P X 0.5	7	0.44	25.5	2150
5	V2A7VLVZ2V	12P X 0.5	7	0.44	27	2325
6	V2A7VLVZ2V	16P X 0.5	7	0.44	29	2625
7	V2A7VLVZ2V	20P X 0.5	7	0.44	31	2925
8	V2A7VLVZ2V	1P X 0.75	7	0.44	16	950
9	V2A7VLVZ2V	2P X 0.75	7	0.44	19	1300
10	V2A7VLVZ2V	5P X 0.75	7	0.44	23	1825
11	V2A7VLVZ2V	10P X 0.75	7	0.44	27	2375
12	V2A7VLVZ2V	12P X 0.75	7	0.44	28.5	2600
13	V2A7VLVZ2V	16P X 0.75	7	0.44	31	2975
14	V2A7VLVZ2V	20P X 0.75	7	0.44	34	3575
15	V2A7VLVZ2V	1P X 1.0	7	0.44	16.5	975
16	V2A7VLVZ2V	2P X 1.0	7	0.44	20.5	1400

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17	V2A7VLVZ2V	5P X 1.0	7	0.44	24	1950
18	V2A7VLVZ2V	10P X 1.0	7	0.44	28	2600
19	V2A7VLVZ2V	12P X 1.0	7	0.44	30	2800
20	V2A7VLVZ2V	16P X 1.0	7	0.44	33	3425
21	V2A7VLVZ2V	20P X 1.0	7	0.44	36	4000
22	V2A7VLVZ2V	1P X 1.5	7	0.44	17	1050
23	V2A7VLVZ2V	2P X 1.5	7	0.44	22	1650
24	V2A7VLVZ2V	5P X 1.5	7	0.44	25.5	2150
25	V2A7VLVZ2V	10P X 1.5	7	0.44	30	2850
26	V2A7VLVZ2V	12P X 1.5	7	0.44	31.5	3100
27	V2A7VLVZ2V	16P X 1.5	7	0.44	36	4000
28	V2A7VLVZ2V	20P X 1.5	7	0.44	38.5	4600
29	V2A7VLVZ2V	1P X 2.5	7	0.53	18	1200
30	V2A7VLVZ2V	2P X 2.5	7	0.53	24	1950
31	V2A7VLVZ2V	5P X 2.5	7	0.53	28.5	2650
32	V2A7VLVZ2V	10P X 2.5	7	0.53	35.5	3950
33	V2A7VLVZ2V	12P X 2.5	7	0.53	37.5	4400
34	V2A7VLVZ2V	16P X 2.5	7	0.53	42	5400
35	V2A7VLVZ2V	20P X 2.5	7	0.53	46.5	6700
36	V2A7VLVZ2V	1T X 0.5	7	0.44	16	925
37	V2A7VLVZ2V	2T X 0.5	7	0.44	19	1300
38	V2A7VLVZ2V	5T X 0.5	7	0.44	23	1775
39	V2A7VLVZ2V	10T X 0.5	7	0.44	25.5	2375
40	V2A7VLVZ2V	12T X 0.5	7	0.44	28	2550
41	V2A7VLVZ2V	16T X 0.5	7	0.44	30	2900
42	V2A7VLVZ2V	20T X 0.5	7	0.44	33	3450
43	V2A7VLVZ2V	1T X 0.75	7	0.44	16.5	1000
44	V2A7VLVZ2V	2T X 0.75	7	0.44	20.5	1425
45	V2A7VLVZ2V	5T X 0.75	7	0.44	24	1975
46	V2A7VLVZ2V	10T X 0.75	7	0.44	29	2650
47	V2A7VLVZ2V	12T X 0.75	7	0.44	30	2900
48	V2A7VLVZ2V	16T X 0.75	7	0.44	33	3525
49	V2A7VLVZ2V	20T X 0.75	7	0.44	36	4150
50	V2A7VLVZ2V	1T X 1.0	7	0.44	17	1050
51	V2A7VLVZ2V	2T X 1.0	7	0.44	22	1625
52	V2A7VLVZ2V	5T X 1.0	7	0.44	25	2150

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53	V2A7VLVZ2V	10T X 1.0	7	0.44	29.5	2850
54	V2A7VLVZ2V	12T X 1.0	7	0.44	31	3125
55	V2A7VLVZ2V	16T X 1.0	7	0.44	34	3950
56	V2A7VLVZ2V	20T X 1.0	7	0.44	38	4600
57	V2A7VLVZ2V	1T X 1.5	7	0.44	17	1100
58	V2A7VLVZ2V	2T X 1.5	7	0.44	22.5	1775
59	V2A7VLVZ2V	5T X 1.5	7	0.44	26.5	2375
60	V2A7VLVZ2V	10T X 1.5	7	0.44	31	3225
61	V2A7VLVZ2V	12T X 1.5	7	0.44	33.5	3775
62	V2A7VLVZ2V	16T X 1.5	7	0.44	38	4625
63	V2A7VLVZ2V	20T X 1.5	7	0.44	41	5450
64	V2A7VLVZ2V	1T X 2.5	7	0.53	19	1300
65	V2A7VLVZ2V	2T X 2.5	7	0.53	25.5	2150
66	V2A7VLVZ2V	5T X 2.5	7	0.53	30	2950
67	V2A7VLVZ2V	10T X 2.5	7	0.53	37	4525
68	V2A7VLVZ2V	12T X 2.5	7	0.53	39	5075
69	V2A7VLVZ2V	16T X 2.5	7	0.53	45.5	6750
70	V2A7VLVZ2V	20T X 2.5	7	0.53	49	7875