



Indian Electrical & Electronics Manufacturer's Association
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Cir. No. 05/DIV/CAB/05

31 January 2023

All Members of Cable Division & All SEBs, Utilities & Listed Purchasing organisations

Sub: Revision in Price Variation Formulae for Instrumentation cable

In current applicable PV formulae of IEEMA for Instrumentation Cable effective from July 2014 there is no variation available on polymers which is having significant portion of cost of the cable.

IEEMA Cable technical committee discussed the subject and felt that there is need of revision in the PV clause by inclusion of Polymer factors and pairs up to 61. IEEMA collected the weight factors for Copper, Steel and Polymer for pair and triad instrumentation as per BSEN standard 502887 and prepared draft formulae and circulated to all stakeholders vide Cir. No. 32/DIV/CAB/05 dated 10th November 2022.

Since there are no adverse comments received; we are making these operational from 1st January 2023.

Although, these PV clauses are made effective from 1st January 2023, practically they can be incorporated in all the current new tenders/contracts starting from 1st February 2023.

We request and recommend all the users & stakeholders including Utilities, PSUs etc. to incorporate these new PV formulae in all the new tenders/contracts henceforth.

For pending contracts, for the date of delivery on or after 1st February 2023, to arrive at the final price variation, we recommend using the following two stage method, which is a standard institutionalized methodology adopted by IEEMA for change over in all IEEMA PV clauses.

1. Calculate price variation 'P' from applicable prices/indices as per your base date / date of tendering up to January 2023 i.e. considering all prices/indices published in PV circular of January 2023; using applicable IEEMA PV clause of Instrumentation cable which is effective from July 2014.
2. Treat the above calculated 'P' as 'P₀' and calculate final price variation considering all prices / indices published in PV circular of January 2023 applicable for revised PV clause of Instrumentation cables effective from 1st January 2023 as base prices/indices up to the applicable prices/indices as per the date of delivery; applicable as per revised relevant PV clause of Instrumentation Cables effective from 1st January 2023.

Director

Encl.: as above

IEEMA (PVC)/Instrumentation Cable/2022**Effective from: 01st January 2023****Material Price Variation Clause for Instrumentation Cables**

The Price quoted/confirmed is based on the input cost of raw materials/components as on the date of quotation, and the same is deemed to be related to the prices of raw materials as specified in the price variation clause given below. In case of any variation in these prices, the price payable shall be subject to adjustment up or down in accordance with the formulae provided in this document.

Terms used in price variation formulae:

- P Price payable as adjusted in accordance with above appropriate formula (**in Rs/Km**)
P₀ Price quoted/confirmed (**in Rs/Km**)

COPPER

CuF Variation factor for copper

Cu Price of CC copper rods. This price is as applicable for the month, **ONE** month prior to the date of delivery.

Cu₀ Price of CC copper rods. This price is as applicable for the month, **ONE** month prior to the date of tendering.

STEEL

FeF Variation factor for steel

Fe Price of Steel Strips/steel wire. This price is as applicable for the month, **ONE** month prior to the date of delivery.

Fe₀ Price of Steel Strips/steel wire. This price is as applicable for the month, **ONE** month prior to the date of tendering.

POLYMER

POCF Variation factor for polymer

POC Price of PVC/polymer. This price is as applicable for the month, **ONE** month prior to the date of delivery.

POC₀ Price of PVC/polymer. This price is as applicable for the month, **ONE** month prior to the date of tendering.

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Effective from: 01st January 2023

The above prices and indices are as published by IEEMA vide Circular reference IEEMA(PVC)/CABLE/--/-- for the month i.e. **ONE** month prior to the date of tendering.

The date of delivery is the date on which the instrumentation cable is notified as being ready for inspection/dispatch (in the absence of such notification, the date of manufacturer's dispatch note is to be considered as the date of delivery) or the contracted delivery date (including any agreed extension thereto), whichever is earlier.

Notes:

- (a) All prices are exclusive of GST amount and exclusive of any other central, state or local taxes etc.
- (a) All Prices are applicable for the month.
- (b) The details of prices are as under:
 1. Price of CC copper rods (in Rs/MT) is ex-works price as quoted by the primary producer.
 2. Price of galvanized steel strip / steel wire (in Rs/MT) is ex-works price as quoted by the manufacturer for Round steel Wire and Flat steel strip (the relevant price of steel strip or steel wire is to be selected depending upon the type of armouring of the cable).
 3. Price of Polymer Compound (in Rs/MT) is the ex-work price, as quoted by the manufacturer/s
 4. Price of PVC (in Rs/MT) is the ex-work price, as quoted by the manufacturer/s

Price variation formula for Instrumentation Cables

$$P = P_0 + CuF (Cu - Cu_0) + FeF (Fe - Fe_0) + POCF (POC - POC_0)$$

Tables References for CuF, FeF and POCF:

For Pair Instrumentation - Over all Screen Cables

Cu POS Copper factor
 Fe POS Steel factor
 POC POS Polymer factor

For Pair Instrumentation - Individual and Over all Screen Cables

Cu PIS Copper factor
 Fe PIS Steel factor
 POC PIS Polymer factor

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For Triad Instrumentation - Over all Screen Cables

Cu TOS Copper factor
Fe TOS Steel factor
POC TOS Polymer factor

For Triad Instrumentation - Individual and Over all Screen Cables

Cu TIS Copper factor
Fe TIS Steel factor
POC TIS Polymer factor

Authorised Signatory

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IEEMA (PVC)/Instrumentation Cable/2022**Effective from: 01st January 2023**

Copper Factors for Instrumentation Cables - Cu POS					
Pair Instrumentation Over all Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
1	0.0142	0.0191	0.0237	0.0330	0.0513
2	0.0236	0.0336	0.0430	0.0615	0.0986
3	0.0330	0.0481	0.0619	0.0897	0.1452
4	0.0424	0.0626	0.0810	0.1182	0.1921
5	0.0518	0.0769	0.0999	0.1464	0.2390
6	0.0614	0.0914	0.1191	0.1748	0.2859
7	0.0708	0.1062	0.1383	0.2035	0.3335
8	0.0805	0.1207	0.1576	0.2320	0.3806
9	0.0899	0.1353	0.1765	0.2605	0.4275
10	0.0992	0.1498	0.1957	0.2890	0.4744
11	0.1089	0.1643	0.2149	0.3174	0.5215
12	0.1183	0.1786	0.2339	0.3456	0.5684
13	0.1277	0.1931	0.2532	0.3741	0.6153
14	0.1371	0.2076	0.2721	0.4026	0.6624
15	0.1462	0.2216	0.2906	0.4300	0.7075
16	0.1559	0.2361	0.3095	0.4583	0.7544
17	0.1653	0.2507	0.3288	0.4867	0.8013
18	0.1746	0.2652	0.3477	0.5152	0.8482
19	0.1845	0.2802	0.3677	0.5446	0.8973
20	0.1939	0.2947	0.3869	0.5731	0.9442
21	0.2033	0.3093	0.4059	0.6016	0.9911
22	0.2130	0.3238	0.4251	0.6300	1.0382
23	0.2224	0.3383	0.4440	0.6585	1.0851
24	0.2318	0.3526	0.4633	0.6867	1.1322
25	0.2412	0.3671	0.4822	0.7152	1.1791
26	0.2508	0.3816	0.5015	0.7437	1.2260
27	0.2597	0.3954	0.5194	0.7704	1.2699
28	0.2691	0.4097	0.5384	0.7986	1.3168
29	0.2785	0.4242	0.5573	0.8271	1.3636
30	0.2879	0.4387	0.5766	0.8553	1.4105

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Effective from: 01st January 2023

Copper Factors for Instrumentation Cables - Cu POS					
Pair Instrumentation Over all Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
31	0.2980	0.4542	0.5970	0.8858	1.4609
32	0.3074	0.4687	0.6160	0.9142	1.5080
33	0.3171	0.4832	0.6352	0.9427	1.5549
34	0.3265	0.4978	0.6542	0.9711	1.6018
35	0.3358	0.5120	0.6734	0.9993	1.6489
36	0.3453	0.5266	0.6924	1.0278	1.6958
37	0.3549	0.5411	0.7116	1.0563	1.7427
38	0.3643	0.5556	0.7305	1.0847	1.7898
39	0.3729	0.5689	0.7480	1.1105	1.8325
40	0.3823	0.5834	0.7670	1.1389	1.8791
41	0.3917	0.5977	0.7862	1.1671	1.9260
42	0.4011	0.6122	0.8052	1.1956	1.9729
43	0.4115	0.6282	0.8262	1.2268	2.0247
44	0.4211	0.6427	0.8454	1.2553	2.0716
45	0.4305	0.6572	0.8643	1.2837	2.1185
46	0.4399	0.6718	0.8835	1.3119	2.1656
47	0.4493	0.6861	0.9025	1.3404	2.2125
48	0.4590	0.7006	0.9217	1.3689	2.2594
49	0.4684	0.7151	0.9407	1.3973	2.3065
50	0.4778	0.7296	0.9599	1.4258	2.3534
51	0.4874	0.7441	0.9791	1.4543	2.4005
52	0.4968	0.7587	0.9981	1.4825	2.4474
53	0.5062	0.7732	1.0173	1.5110	2.4943
54	0.5156	0.7877	1.0363	1.5394	2.5414
55	0.5240	0.8003	1.0530	1.5642	2.5821
56	0.5334	0.8147	1.0720	1.5926	2.6289
57	0.5428	0.8293	1.0912	1.6208	2.6758
58	0.5522	0.8438	1.1102	1.6493	2.7227
59	0.5630	0.8601	1.1319	1.6815	2.7763
60	0.5724	0.8746	1.1511	1.7100	2.8232
61	0.5819	0.8891	1.1700	1.7384	2.8701

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Effective from: 01st January 2023

Steel Factors for Instrumentation Cables - Fe POS					
Pair Instrumentation Over all Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
1	0.1233	0.1319	0.1375	0.1487	0.1739
2	0.1832	0.1944	0.2031	0.2148	0.2477
3	0.1866	0.1993	0.2102	0.2299	0.2733
4	0.2036	0.2188	0.2314	0.2538	0.3347
5	0.2215	0.2411	0.2538	0.2791	0.4395
6	0.2373	0.2583	0.2722	0.3306	0.4795
7	0.2373	0.2583	0.2722	0.3306	0.4795
8	0.2681	0.3210	0.3390	0.4482	0.5427
9	0.3184	0.3434	0.4388	0.4881	0.5884
10	0.3336	0.4333	0.4594	0.5114	0.6118
11	0.3376	0.4398	0.4659	0.5179	0.6183
12	0.3490	0.4511	0.4797	0.5291	0.6894
13	0.4239	0.4678	0.4993	0.5542	0.7153
14	0.4362	0.4678	0.4993	0.5542	1.3096
15	0.4503	0.4968	0.5283	0.5803	1.4666
16	0.4568	0.4968	0.5348	0.5870	1.5058
17	0.4790	0.5164	0.5570	0.6176	0.9134
18	0.4790	0.5229	0.5570	0.6176	0.9134
19	0.4855	0.5229	0.5570	0.6176	0.9134
20	0.5181	0.5609	0.6019	0.7147	0.9760
21	0.5181	0.5609	0.6019	0.7147	0.9855
22	0.5432	0.5889	0.6813	0.8479	1.0403
23	0.5432	0.5889	0.6813	0.8479	1.0403
24	0.5657	0.6608	0.7093	0.8842	1.1638
25	0.5657	0.6608	0.7093	0.8842	1.1638
26	0.5722	0.6740	0.7223	0.9037	1.1833
27	0.5806	0.6871	0.7354	0.9268	1.1996
28	0.5976	0.7075	0.7584	0.9542	1.2487
29	0.5976	0.7075	0.7584	0.9542	1.2487
30	0.5976	0.7075	0.7584	0.9542	1.2487

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Effective from: 01st January 2023

Steel Factors for Instrumentation Cables - Fe POS					
Pair Instrumentation Over all Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
31	0.6816	0.7409	0.8977	0.9996	1.4648
32	0.6816	0.7409	0.8977	0.9996	1.4648
33	0.6816	0.7409	0.8977	0.9996	1.4648
34	0.7020	0.8710	0.9298	1.0270	1.5216
35	0.7020	0.8710	0.9298	1.0270	1.5216
36	0.7085	0.8775	0.9363	1.0335	1.5281
37	0.7085	0.8775	0.9363	1.0335	1.5281
38	0.7365	0.9006	0.9637	1.1527	1.5857
39	0.7430	0.9071	0.9702	1.1592	1.5924
40	0.7430	0.9071	0.9702	1.1592	1.5924
41	0.8667	0.9482	1.0023	1.2101	1.7887
42	0.8667	0.9547	1.0091	1.2101	1.7887
43	0.8732	0.9547	1.0091	1.2101	1.7952
44	0.9006	0.9822	1.0454	1.2540	1.8537
45	0.9006	0.9822	1.0519	1.2540	1.8537
46	0.9006	0.9887	1.0519	1.2540	1.8602
47	0.9071	0.9887	1.0519	1.2605	1.8602
48	0.9166	1.0028	1.1527	1.3661	1.8922
49	0.9392	1.0208	1.1756	1.4664	1.9433
50	0.9392	1.0275	1.1756	1.4729	1.9433
51	0.9457	1.0322	1.1830	1.4795	2.0691
52	0.9457	1.0322	1.1895	1.4795	2.0691
53	0.9457	1.0322	1.1895	1.4795	2.0756
54	0.9594	1.1369	1.2106	1.5222	2.2459
55	0.9731	1.1485	1.2222	1.5222	2.2794
56	0.9796	1.1485	1.2287	1.5222	2.2859
57	0.9796	1.1485	1.2287	1.5290	2.2859
58	0.9981	1.1877	1.2614	1.5791	2.3308
59	0.9981	1.1877	1.2614	1.5791	2.3376
60	1.0048	1.1877	1.2679	1.5856	2.3376
61	1.0048	1.1877	1.2679	1.5856	2.3376

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Polymer Factors for Instrumentation Cables - POC POS					
Pair Instrumentation Over all Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
1	0.1073	0.1190	0.1233	0.1364	0.1643
2	0.1769	0.1953	0.2106	0.2312	0.2889
3	0.1793	0.1984	0.2032	0.2378	0.2973
4	0.2042	0.2255	0.2443	0.2752	0.3505
5	0.2341	0.2627	0.2861	0.3158	0.4240
6	0.2653	0.2941	0.3174	0.3753	0.4998
7	0.2595	0.2865	0.3079	0.3627	0.4801
8	0.3001	0.3380	0.3611	0.4188	0.5607
9	0.3312	0.3665	0.4117	0.4739	0.6256
10	0.3663	0.4074	0.4531	0.5212	0.6909
11	0.3686	0.4097	0.4551	0.5227	0.6923
12	0.3781	0.4336	0.4657	0.5307	0.7345
13	0.4030	0.4598	0.4929	0.5811	0.7763
14	0.4127	0.4717	0.5069	0.5979	0.8025
15	0.4571	0.5059	0.5601	0.6380	0.8792
16	0.4701	0.5207	0.5762	0.6575	0.9070
17	0.4964	0.5643	0.6033	0.7089	0.9729
18	0.5095	0.5792	0.6203	0.7298	1.0039
19	0.5090	0.5777	0.6180	0.7257	0.9972
20	0.5469	0.6235	0.6856	0.7822	1.0884
21	0.5554	0.6330	0.6959	0.7939	1.1049
22	0.5887	0.6679	0.7421	0.8704	1.2232
23	0.5966	0.6772	0.7525	0.8823	1.2413
24	0.6391	0.7092	0.7728	0.9293	1.3121
25	0.6473	0.7184	0.7831	0.9412	1.3301
26	0.6591	0.7320	0.7981	0.9582	1.3528
27	0.6624	0.7597	0.8297	0.9897	1.3569
28	0.6889	0.7840	0.8602	1.0276	1.4266
29	0.6986	0.7956	0.8730	1.0428	1.4493
30	0.7068	0.8049	0.8831	1.0548	1.4676

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Polymer Factors for Instrumentation Cables - POC POS					
Pair Instrumentation Over all Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
31	0.7560	0.8780	0.9578	1.1024	1.5753
32	0.7697	0.8938	0.9758	1.1240	1.6084
33	0.7779	0.9032	0.9861	1.1361	1.6264
34	0.7987	0.9317	1.0110	1.1942	1.7045
35	0.8091	0.9436	1.0243	1.2102	1.7280
36	0.8262	0.9638	1.0472	1.2375	1.7693
37	0.8229	0.9590	1.0410	1.2289	1.7551
38	0.8727	0.9860	1.1023	1.2989	1.8217
39	0.8829	0.9978	1.1157	1.3145	1.8450
40	0.8940	1.0105	1.1294	1.3312	1.8695
41	0.9316	1.0705	1.1559	1.3625	1.9523
42	0.9508	1.0932	1.1812	1.3931	1.9981
43	0.9612	1.1051	1.1946	1.4088	2.0213
44	0.9826	1.1299	1.2540	1.4754	2.0903
45	0.9928	1.1417	1.2670	1.4911	2.1134
46	0.9940	1.1426	1.2678	1.4908	2.1130
47	1.0045	1.1545	1.2808	1.5065	2.1360
48	1.0393	1.1897	1.3007	1.5488	2.1913
49	1.0763	1.2267	1.3312	1.5929	2.2877
50	1.0865	1.2388	1.3443	1.6085	2.3107
51	1.0948	1.2487	1.3897	1.6248	2.3319
52	1.1058	1.2610	1.4037	1.6412	2.3565
53	1.1160	1.2729	1.4167	1.6566	2.3795
54	1.1474	1.3198	1.4514	1.6900	2.4387
55	1.1556	1.3256	1.4625	1.7421	2.4952
56	1.1713	1.3441	1.4836	1.7674	2.5333
57	1.1815	1.3560	1.4967	1.7829	2.5563
58	1.2046	1.4175	1.5269	1.8573	2.6381
59	1.2150	1.4294	1.5400	1.8727	2.6611
60	1.2290	1.4458	1.5585	1.8950	2.6946
61	1.2281	1.4440	1.5557	1.8907	2.6872

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IEEMA (PVC)/Instrumentation Cable/2022**Effective from: 01st January 2023**

Copper Factors for Instrumentation Cables - Cu PIS					
Pair Instrumentation Individual and Over all Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
1	0.0170	0.0216	0.0267	0.0363	0.0545
2	0.0330	0.0430	0.0524	0.0709	0.1080
3	0.0472	0.0621	0.0759	0.1039	0.1594
4	0.0605	0.0814	0.0997	0.1369	0.2109
5	0.0745	0.1005	0.1235	0.1699	0.2625
6	0.0886	0.1196	0.1473	0.2030	0.3140
7	0.1027	0.1390	0.1713	0.2365	0.3665
8	0.1167	0.1583	0.1951	0.2696	0.4181
9	0.1308	0.1773	0.2188	0.3026	0.4696
10	0.1446	0.1967	0.2426	0.3359	0.5213
11	0.1586	0.2158	0.2665	0.3689	0.5730
12	0.1727	0.2349	0.2902	0.4019	0.6247
13	0.1867	0.2542	0.3140	0.4352	0.6764
14	0.2005	0.2733	0.3378	0.4683	0.7281
15	0.2143	0.2921	0.3610	0.5002	0.7780
16	0.2284	0.3112	0.3846	0.5333	0.8295
17	0.2422	0.3303	0.4084	0.5664	0.8812
18	0.2562	0.3496	0.4322	0.5996	0.9326
19	0.2705	0.3692	0.4567	0.6339	0.9863
20	0.2846	0.3886	0.4808	0.6670	1.0381
21	0.2986	0.4076	0.5045	0.7000	1.0897
22	0.3127	0.4270	0.5283	0.7332	1.1414
23	0.3265	0.4461	0.5521	0.7663	1.1931
24	0.3405	0.4652	0.5758	0.7993	1.2448
25	0.3546	0.4845	0.5996	0.8326	1.2963
26	0.3686	0.5036	0.6235	0.8656	1.3480
27	0.3819	0.5219	0.6460	0.8969	1.3966
28	0.3960	0.5410	0.6697	0.9299	1.4481
29	0.4098	0.5603	0.6935	0.9630	1.4998
30	0.4238	0.5794	0.7173	0.9960	1.5513

IEEMA(PVC)/Instrumentation Cable/2022/ 10 of 27

IEEMA (PVC)/Instrumentation Cable/2022**Effective from: 01st January 2023**

Copper Factors for Instrumentation Cables - Cu PIS					
Pair Instrumentation Individual and Over all Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
31	0.4387	0.5995	0.7424	1.0313	1.6064
32	0.4525	0.6189	0.7661	1.0644	1.6582
33	0.4665	0.6380	0.7899	1.0974	1.7096
34	0.4805	0.6573	0.8137	1.1306	1.7613
35	0.4946	0.6764	0.8375	1.1637	1.8130
36	0.5084	0.6955	0.8613	1.1967	1.8647
37	0.5225	0.7148	0.8850	1.2300	1.9164
38	0.5365	0.7339	0.9088	1.2630	1.9681
39	0.5496	0.7518	0.9309	1.2936	2.0153
40	0.5636	0.7710	0.9546	1.3266	2.0667
41	0.5777	0.7901	0.9784	1.3596	2.1184
42	0.5915	0.8093	1.0022	1.3927	2.1699
43	0.6065	0.8298	1.0280	1.4284	2.2263
44	0.6206	0.8492	1.0518	1.4617	2.2780
45	0.6344	0.8683	1.0756	1.4947	2.3298
46	0.6484	0.8876	1.0993	1.5277	2.3814
47	0.6625	0.9067	1.1231	1.5610	2.4331
48	0.6766	0.9258	1.1469	1.5941	2.4846
49	0.6905	0.9451	1.1707	1.6271	2.5362
50	0.7044	0.9642	1.1945	1.6604	2.5880
51	0.7185	0.9836	1.2183	1.6935	2.6397
52	0.7325	1.0026	1.2420	1.7265	2.6914
53	0.7465	1.0217	1.2658	1.7597	2.7430
54	0.7603	1.0410	1.2896	1.7928	2.7948
55	0.7731	1.0584	1.3109	1.8223	2.8402
56	0.7872	1.0775	1.3347	1.8553	2.8917
57	0.8013	1.0966	1.3585	1.8884	2.9434
58	0.8151	1.1159	1.3823	1.9214	2.9948
59	0.8303	1.1370	1.4086	1.9584	3.0530
60	0.8444	1.1561	1.4326	1.9915	3.1047
61	0.8585	1.1754	1.4564	2.0245	3.1564

IEEMA(PVC)/Instrumentation Cable/2022/ 11 of 27

IEEMA (PVC)/Instrumentation Cable/2022**Effective from: 01st January 2023**

Steel Factors for Instrumentation Cables - Fe PIS					
Pair Instrumentation Individual and Over all Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
1	0.1326	0.1381	0.1465	0.1575	0.1824
2	0.1958	0.2059	0.2146	0.2305	0.2619
3	0.2020	0.2159	0.2299	0.2494	0.3248
4	0.2201	0.2385	0.2494	0.2747	0.4298
5	0.2424	0.2594	0.2748	0.3332	0.4763
6	0.2597	0.3083	0.3279	0.4356	0.5097
7	0.2597	0.3083	0.3279	0.4356	0.5097
8	0.3224	0.4083	0.4450	0.4849	0.5823
9	0.4068	0.4497	0.4784	0.5278	0.6805
10	0.4299	0.4643	0.4904	0.5395	0.7919
11	0.4450	0.4795	0.5056	0.5575	0.8173
12	0.4562	0.4907	0.5194	0.5742	0.8447
13	0.4730	0.5100	0.5416	0.6453	0.8768
14	0.4730	0.5100	0.5481	0.6453	0.8833
15	0.5020	0.5390	0.5732	0.6826	0.9351
16	0.5020	0.5455	0.5797	0.6891	0.9416
17	0.5241	0.5735	0.6529	0.8202	0.9874
18	0.5306	0.5735	0.6529	0.8202	0.9874
19	0.5306	0.5735	0.6597	0.8267	0.9939
20	0.5546	0.6643	0.7076	0.8826	1.1405
21	0.5661	0.6690	0.7124	0.8920	1.1479
22	0.6430	0.6996	0.8427	0.9288	1.3591
23	0.6430	0.6996	0.8427	0.9288	1.3591
24	0.6660	0.8207	0.8790	0.9700	1.4233
25	0.6660	0.8207	0.8790	0.9700	1.4233
26	0.6792	0.8337	0.8920	0.9830	1.4428
27	0.6923	0.8521	0.9057	1.0014	1.4642
28	0.8070	0.8795	0.9378	1.1149	1.5144
29	0.8070	0.8795	0.9378	1.1149	1.5144
30	0.8070	0.8795	0.9378	1.1149	1.5144

IEEMA(PVC)/Instrumentation Cable/2022/ 12 of 27

IEEMA (PVC)/Instrumentation Cable/2022**Effective from: 01st January 2023**

Steel Factors for Instrumentation Cables - Fe PIS					
Pair Instrumentation Individual and Over all Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
31	0.8521	0.9199	0.9782	1.1673	1.7114
32	0.8521	0.9199	0.9782	1.1673	1.7114
33	0.8521	0.9199	0.9782	1.1673	1.7114
34	0.8795	0.9520	1.0895	1.3672	1.7766
35	0.8795	0.9520	1.0895	1.3737	1.7831
36	0.8795	0.9585	1.0962	1.3737	1.7831
37	0.8860	0.9585	1.0962	1.3737	1.7896
38	0.9134	1.0714	1.1380	1.4230	1.9677
39	0.9134	1.0779	1.1445	1.4230	1.9742
40	0.9199	1.0779	1.1445	1.4295	1.9742
41	0.9520	1.1153	1.1836	1.4863	2.1971
42	0.9520	1.1221	1.1836	1.4863	2.1971
43	0.9520	1.1221	1.1836	1.4928	2.2036
44	1.0719	1.1548	1.3877	1.5430	2.2705
45	1.0719	1.1548	1.3877	1.5495	2.2770
46	1.0719	1.1613	1.3877	1.5495	2.2770
47	1.0784	1.1613	1.3877	1.5495	2.2770
48	1.0826	1.1776	1.4156	1.6981	2.3170
49	1.1111	1.3598	1.4370	1.7237	2.3735
50	1.1111	1.3598	1.4370	1.7237	2.3802
51	1.1221	1.3672	1.4583	1.7557	2.3906
52	1.1221	1.3672	1.4583	1.7557	2.3971
53	1.1221	1.3737	1.4583	1.7557	2.3971
54	1.1432	1.3951	1.4928	1.7878	2.4421
55	1.1613	1.4099	1.5076	1.8133	2.4820
56	1.1613	1.4164	1.5076	1.8133	2.4820
57	1.1613	1.4164	1.5076	1.8198	2.4885
58	1.1897	1.4592	1.6774	2.1030	2.7680
59	1.1962	1.4592	1.6774	2.1030	2.7680
60	1.1962	1.4657	1.6774	2.1095	2.7745
61	1.1962	1.4657	1.6841	2.1095	2.7745

IEEMA(PVC)/Instrumentation Cable/2022/ 13 of 27

IEEMA (PVC)/Instrumentation Cable/2022**Effective from: 01st January 2023**

Polymer Factors for Instrumentation Cables - POC PIS					
Pair Instrumentation Individual and Over all Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
1	0.1160	0.1170	0.1337	0.1346	0.1726
2	0.1950	0.2126	0.2285	0.2551	0.3100
3	0.1994	0.2191	0.2285	0.2644	0.3325
4	0.2289	0.2539	0.2723	0.3023	0.3985
5	0.2646	0.2885	0.3127	0.3540	0.4774
6	0.2929	0.3300	0.3576	0.4166	0.5515
7	0.2871	0.3226	0.3488	0.4046	0.5321
8	0.3429	0.3764	0.4043	0.4615	0.6250
9	0.3738	0.4275	0.4532	0.5160	0.7060
10	0.4110	0.4502	0.4997	0.5736	0.7657
11	0.4160	0.4702	0.5016	0.5718	0.7794
12	0.4433	0.4977	0.5299	0.6039	0.8152
13	0.4655	0.5268	0.5573	0.6607	0.8838
14	0.4767	0.5404	0.5731	0.6797	0.9122
15	0.5117	0.5772	0.6371	0.7281	0.9941
16	0.5266	0.5934	0.6557	0.7490	1.0244
17	0.5703	0.6232	0.6879	0.8042	1.0892
18	0.5846	0.6400	0.7071	0.8270	1.1223
19	0.5847	0.6397	0.7055	0.8238	1.1161
20	0.6153	0.6933	0.7631	0.8880	1.2007
21	0.6386	0.7250	0.7969	0.9252	1.2473
22	0.6811	0.7649	0.8360	0.9930	1.3768
23	0.6903	0.7753	0.8476	1.0062	1.3963
24	0.7362	0.8267	0.9054	1.0685	1.4608
25	0.7453	0.8371	0.9168	1.0817	1.4803
26	0.7606	0.8539	0.9355	1.1026	1.5077
27	0.7717	0.8870	0.9672	1.1344	1.5577
28	0.8026	0.9217	0.9932	1.1768	1.6222
29	0.8132	0.9343	1.0073	1.1934	1.6463
30	0.8224	0.9447	1.0186	1.2066	1.6659

IEEMA(PVC)/Instrumentation Cable/2022/ 14 of 27

IEEMA (PVC)/Instrumentation Cable/2022**Effective from: 01st January 2023**

Polymer Factors for Instrumentation Cables - POC PIS					
Pair Instrumentation Individual and Over all Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
31	0.8880	0.9893	1.1008	1.2919	1.7863
32	0.9027	1.0067	1.1205	1.3155	1.8214
33	0.9119	1.0171	1.1318	1.3286	1.8409
34	0.9402	1.0727	1.1664	1.3727	1.9228
35	0.9521	1.0861	1.1815	1.3903	1.9486
36	0.9707	1.1082	1.2061	1.4202	1.9929
37	0.9677	1.1041	1.2008	1.4122	1.9796
38	0.9956	1.1427	1.2649	1.4803	2.0606
39	1.0073	1.1561	1.2800	1.4978	2.0860
40	1.0194	1.1703	1.2955	1.5162	2.1129
41	1.0780	1.2328	1.3608	1.5876	2.2506
42	1.0983	1.2567	1.3876	1.6200	2.2985
43	1.1100	1.2701	1.4024	1.6374	2.3240
44	1.1484	1.3302	1.4412	1.7017	2.4034
45	1.1600	1.3436	1.4560	1.7192	2.4289
46	1.1625	1.3459	1.4582	1.7209	2.4308
47	1.1741	1.3593	1.4731	1.7383	2.4561
48	1.2063	1.3716	1.5157	1.7940	2.5204
49	1.2427	1.4171	1.5582	1.8357	2.6182
50	1.2544	1.4305	1.5731	1.8529	2.6434
51	1.2683	1.4765	1.5845	1.9048	2.6621
52	1.2806	1.4904	1.6002	1.9233	2.6891
53	1.2920	1.5038	1.6148	1.9404	2.7143
54	1.3260	1.5068	1.6580	1.9807	2.7652
55	1.3342	1.5463	1.7031	1.9972	2.8202
56	1.3514	1.5668	1.7258	2.0247	2.8611
57	1.3630	1.5799	1.7404	2.0418	2.8864
58	1.4284	1.6246	1.8115	2.1284	3.0240
59	1.4398	1.6377	1.8261	2.1458	3.0492
60	1.4556	1.6557	1.8465	2.1704	3.0854
61	1.4552	1.6549	1.8446	2.1669	3.0793

IEEMA(PVC)/Instrumentation Cable/2022/ 15 of 27

IEEMA (PVC)/Instrumentation Cable/2022

Effective from: 01st January 2023

Copper Factors for Instrumentation Cables - Cu TOS					
Triad Instrumentation Over all Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
1	0.0187	0.0263	0.0332	0.0472	0.0748
2	0.0330	0.0481	0.0619	0.0900	0.1457
3	0.0472	0.0699	0.0907	0.1326	0.2160
4	0.0614	0.0917	0.1194	0.1751	0.2866
5	0.0757	0.1135	0.1481	0.2178	0.3569
6	0.0896	0.1350	0.1763	0.2600	0.4265
7	0.1038	0.1565	0.2047	0.3024	0.4968
8	0.1181	0.1783	0.2334	0.3449	0.5671
9	0.1323	0.2001	0.2621	0.3876	0.6374
10	0.1462	0.2216	0.2906	0.4300	0.7075
11	0.1604	0.2434	0.3193	0.4725	0.7779
12	0.1746	0.2652	0.3477	0.5152	0.8482
13	0.1891	0.2875	0.3772	0.5589	0.9208
14	0.2033	0.3093	0.4059	0.6016	0.9911
15	0.2176	0.3310	0.4346	0.6443	1.0616
16	0.2318	0.3526	0.4633	0.6867	1.1322
17	0.2455	0.3736	0.4907	0.7277	1.1998
18	0.2597	0.3954	0.5194	0.7704	1.2699
19	0.2736	0.4169	0.5479	0.8128	1.3402
20	0.2879	0.4387	0.5766	0.8553	1.4105
21	0.3021	0.4605	0.6050	0.8979	1.4808
22	0.3163	0.4820	0.6337	0.9404	1.5512
23	0.3303	0.5038	0.6622	0.9829	1.6215
24	0.3453	0.5266	0.6924	1.0278	1.6958
25	0.3595	0.5484	0.7211	1.0705	1.7664
26	0.3737	0.5701	0.7498	1.1132	1.8367
27	0.3879	0.5919	0.7785	1.1557	1.9073
28	0.4011	0.6122	0.8052	1.1956	1.9729
29	0.4153	0.6340	0.8339	1.2380	2.0432
30	0.4295	0.6557	0.8623	1.2805	2.1135

IEEMA(PVC)/Instrumentation Cable/2022/ 16 of 27

IEEMA (PVC)/Instrumentation Cable/2022**Effective from: 01st January 2023**

Copper Factors for Instrumentation Cables - Cu TOS					
Triad Instrumentation Over all Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
31	0.4438	0.6773	0.8910	1.3232	2.1838
32	0.4577	0.6991	0.9195	1.3656	2.2541
33	0.4720	0.7209	0.9482	1.4081	2.3244
34	0.4862	0.7424	0.9766	1.4508	2.3948
35	0.5014	0.7659	1.0076	1.4967	2.4709
36	0.5156	0.7877	1.0363	1.5394	2.5414
37	0.5298	0.8095	1.0650	1.5821	2.6117
38	0.5440	0.8313	1.0937	1.6248	2.6823
39	0.5570	0.8510	1.1196	1.6632	2.7461
40	0.5712	0.8726	1.1483	1.7060	2.8165
41	0.5852	0.8943	1.1768	1.7484	2.8868
42	0.5994	0.9161	1.2055	1.7909	2.9571
43	0.6136	0.9377	1.2339	1.8336	3.0274
44	0.6278	0.9594	1.2626	1.8760	3.0975
45	0.6420	0.9810	1.2911	1.9185	3.1678
46	0.6577	1.0050	1.3228	1.9657	3.2459
47	0.6717	1.0268	1.3515	2.0083	3.3165
48	0.6859	1.0486	1.3802	2.0511	3.3868
49	0.7001	1.0704	1.4089	2.0938	3.4574
50	0.7144	1.0922	1.4376	2.1362	3.5279
51	0.7286	1.1139	1.4663	2.1789	3.5983
52	0.7411	1.1330	1.4913	2.2163	3.6601
53	0.7553	1.1547	1.5199	2.2588	3.7302
54	0.7695	1.1763	1.5484	2.3013	3.8005
55	0.7835	1.1980	1.5771	2.3439	3.8708
56	0.7976	1.2199	1.6058	2.3864	3.9411
57	0.8119	1.2414	1.6342	2.4289	4.0115
58	0.8261	1.2631	1.6630	2.4715	4.0818
59	0.8421	1.2879	1.6954	2.5200	4.1621
60	0.8563	1.3097	1.7241	2.5627	4.2324
61	0.8705	1.3315	1.7528	2.6051	4.3030

IEEMA(PVC)/Instrumentation Cable/2022/ 17 of 27

IEEMA (PVC)/Instrumentation Cable/2022

Effective from: 01st January 2023

Steel Factors for Instrumentation Cables - Fe TOS					
Triad Instrumentation Over all Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
1	0.1297	0.1368	0.1449	0.1548	0.1812
2	0.1977	0.2144	0.2271	0.2478	0.3074
3	0.2103	0.2286	0.2410	0.2658	0.3600
4	0.2314	0.2481	0.2632	0.3018	0.4608
5	0.2508	0.2718	0.3018	0.3615	0.5070
6	0.2733	0.3394	0.3587	0.4618	0.5563
7	0.2733	0.3394	0.3587	0.4618	0.5563
8	0.3480	0.4473	0.4702	0.5221	0.6339
9	0.4098	0.4877	0.5138	0.5777	0.7457
10	0.4611	0.5047	0.5334	0.5973	0.8776
11	0.4611	0.5047	0.5334	0.5973	0.8776
12	0.4788	0.5251	0.5540	0.6140	0.9115
13	0.5047	0.5511	0.5854	0.7015	0.9588
14	0.5047	0.5511	0.5854	0.7015	0.9588
15	0.5308	0.5799	0.6170	0.7387	1.0177
16	0.5308	0.5799	0.6170	0.7387	1.0177
17	0.5624	0.6144	0.7092	0.8290	1.0809
18	0.5624	0.6144	0.7092	0.8290	1.0809
19	0.5624	0.6144	0.7092	0.8290	1.0809
20	0.5911	0.6982	0.7444	0.9319	1.2189
21	0.5911	0.7029	0.7491	0.9366	1.2336
22	0.6318	0.7418	0.7925	0.9907	1.3783
23	0.6318	0.7418	0.7925	0.9907	1.3783
24	0.7168	0.7787	0.9414	1.0428	1.5368
25	0.7168	0.7787	0.9414	1.0428	1.5368
26	0.7168	0.7787	0.9414	1.0428	1.5368
27	0.7298	0.9077	0.9615	1.0677	1.5788
28	0.7568	0.9418	1.0001	1.1885	1.6428
29	0.7568	0.9418	1.0001	1.1885	1.6428
30	0.7568	0.9418	1.0001	1.1885	1.6428

IEEMA(PVC)/Instrumentation Cable/2022/ 18 of 27

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IEEMA (PVC)/Instrumentation Cable/2022

Effective from: 01st January 2023

Steel Factors for Instrumentation Cables - Fe TOS					
Triad Instrumentation Over all Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
31	0.8331	0.9757	1.0432	1.2432	1.8271
32	0.8331	0.9757	1.0432	1.2432	1.8271
33	0.8331	0.9757	1.0432	1.2432	1.8271
34	0.9309	1.0144	1.0876	1.2942	1.9165
35	0.9309	1.0144	1.0876	1.2942	1.9165
36	0.9309	1.0144	1.0876	1.2942	1.9165
37	0.9309	1.0144	1.0876	1.2942	1.9165
38	0.9710	1.0617	1.2161	1.5235	1.9944
39	0.9710	1.0617	1.2161	1.5235	1.9944
40	0.9710	1.0617	1.2161	1.5235	1.9944
41	1.0096	1.1889	1.2716	1.5793	2.3468
42	1.0096	1.1889	1.2716	1.5793	2.3468
43	1.0096	1.1889	1.2716	1.5793	2.3468
44	1.0527	1.2372	1.3171	1.6498	2.4498
45	1.0527	1.2372	1.3171	1.6498	2.4498
46	1.0527	1.2372	1.3171	1.6498	2.4498
47	1.0527	1.2372	1.3171	1.6498	2.4498
48	1.0729	1.2600	1.3382	1.6777	2.4895
49	1.1737	1.2811	1.5449	1.8497	2.5629
50	1.1737	1.2811	1.5449	1.8497	2.5629
51	1.1784	1.2885	1.5514	1.8638	2.5629
52	1.1784	1.2885	1.5514	1.8638	2.5629
53	1.1784	1.2947	1.5514	1.8638	2.5629
54	1.2053	1.3158	1.5802	1.8959	2.6141
55	1.2174	1.5032	1.6007	1.9212	2.6540
56	1.2174	1.5032	1.6007	1.9212	2.6540
57	1.2174	1.5032	1.6007	1.9212	2.6540
58	1.2631	1.5457	1.6572	1.9852	2.9483
59	1.2631	1.5457	1.6572	1.9852	2.9483
60	1.2631	1.5457	1.6572	1.9852	2.9483
61	1.2631	1.5457	1.6572	1.9852	2.9483

IEEMA(PVC)/Instrumentation Cable/2022/ 19 of 27

IEEMA (PVC)/Instrumentation Cable/2022**Effective from: 01st January 2023**

Polymer Factors for Instrumentation Cables- POC TOS					
Triad Instrumentation Over all Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
1	0.1229	0.1291	0.1414	0.1489	0.1884
2	0.2057	0.2293	0.2513	0.2848	0.3773
3	0.2162	0.2401	0.2603	0.2928	0.3895
4	0.2476	0.2776	0.3028	0.3474	0.4491
5	0.3007	0.3324	0.3591	0.4109	0.5423
6	0.3409	0.3830	0.4160	0.4857	0.6385
7	0.3359	0.3761	0.4075	0.4736	0.6191
8	0.3928	0.4376	0.4710	0.5411	0.7471
9	0.4365	0.5025	0.5432	0.6170	0.7832
10	0.4650	0.5354	0.5725	0.6541	0.8422
11	0.4646	0.5341	0.5707	0.6508	0.8370
12	0.4979	0.5485	0.6093	0.6925	0.9559
13	0.5451	0.6171	0.6637	0.7627	1.0687
14	0.5596	0.6338	0.6824	0.7846	1.1018
15	0.5993	0.6833	0.7553	0.8638	1.2061
16	0.6116	0.6972	0.7706	0.8817	1.2332
17	0.6501	0.7380	0.8235	0.9587	1.3575
18	0.6661	0.7565	0.8442	0.9837	1.3951
19	0.6652	0.7548	0.8416	0.9788	1.3870
20	0.7224	0.8058	0.8816	1.0300	1.4613
21	0.7156	0.8209	0.8967	1.0453	1.4777
22	0.7648	0.8706	0.9617	1.1454	1.6106
23	0.7760	0.8835	0.9759	1.1621	1.6359
24	0.8429	0.9776	1.0735	1.2715	1.8169
25	0.8552	0.9915	1.0890	1.2895	1.8439
26	0.8555	0.9913	1.0882	1.2875	1.8410
27	0.8921	1.0375	1.1338	1.3352	1.9078
28	0.9283	1.0803	1.1820	1.3945	2.0054
29	0.9428	1.0970	1.2004	1.4164	2.0384
30	0.9549	1.1110	1.2159	1.4344	2.0654

IEEMA(PVC)/Instrumentation Cable/2022/ 20 of 27

IEEMA (PVC)/Instrumentation Cable/2022**Effective from: 01st January 2023**

Polymer Factors for Instrumentation Cables- POC TOS					
Triad Instrumentation Over all Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
31	1.0261	1.1842	1.2887	1.5200	2.1807
32	1.0166	1.1742	1.2775	1.5077	2.1664
33	1.0279	1.1871	1.2918	1.5244	2.1916
34	1.0685	1.2293	1.3712	1.6104	2.2888
35	1.1108	1.2776	1.4252	1.6731	2.3798
36	1.1310	1.3013	1.4517	1.7053	2.4287
37	1.1260	1.2944	1.4432	1.6932	2.4094
38	1.2035	1.3712	1.4990	1.7877	2.5696
39	1.2155	1.3852	1.5145	1.8057	2.5969
40	1.2282	1.3997	1.5304	1.8243	2.6253
41	1.2651	1.4536	1.6138	1.9154	2.7553
42	1.2883	1.4811	1.6445	1.9525	2.8112
43	1.2624	1.4515	1.6112	1.9140	2.7575
44	1.3297	1.5317	1.6899	2.0110	2.8738
45	1.3410	1.5446	1.7042	2.0277	2.8988
46	1.3813	1.5900	1.7544	2.0850	2.9804
47	1.3935	1.6039	1.7699	2.1030	3.0074
48	1.4100	1.6502	1.8248	2.1518	3.1155
49	1.4594	1.6887	1.8761	2.2154	3.1799
50	1.4717	1.7027	1.8914	2.2333	3.2069
51	1.4823	1.7156	1.9048	2.2488	3.2389
52	1.4955	1.7306	1.9213	2.2681	3.2683
53	1.5137	1.7528	1.9463	2.2984	3.3133
54	1.5536	1.8012	1.9945	2.3870	3.4241
55	1.5932	1.8237	2.0406	2.4005	3.4925
56	1.5625	1.7894	2.0022	2.3567	3.4329
57	1.5737	1.8024	2.0164	2.3735	3.4581
58	1.6163	1.8777	2.0706	2.4604	3.5647
59	1.6801	1.9501	2.1518	2.5549	3.7008
60	1.6959	1.9686	2.1725	2.5798	3.7387
61	1.7055	1.9792	2.1846	2.5930	3.7578

IEEMA(PVC)/Instrumentation Cable/2022/ 21 of 27

IEEMA (PVC)/Instrumentation Cable/2022**Effective from: 01st January 2023**

Copper Factors for Instrumentation Cables - Cu TIS					
Triad Instrumentation Individual & Overall Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
1	0.0215	0.0289	0.0364	0.0509	0.0782
2	0.0424	0.0575	0.0713	0.0993	0.1551
3	0.0614	0.0841	0.1048	0.1466	0.2302
4	0.0802	0.1104	0.1381	0.1939	0.3054
5	0.0992	0.1368	0.1714	0.2414	0.3805
6	0.1177	0.1631	0.2044	0.2882	0.4546
7	0.1366	0.1895	0.2377	0.3352	0.5295
8	0.1556	0.2158	0.2709	0.3824	0.6047
9	0.1743	0.2422	0.3042	0.4297	0.6795
10	0.1932	0.2686	0.3375	0.4769	0.7544
11	0.2122	0.2949	0.3708	0.5242	0.8296
12	0.2309	0.3215	0.4040	0.5715	0.9045
13	0.2502	0.3483	0.4383	0.6200	0.9816
14	0.2691	0.3750	0.4716	0.6673	1.0568
15	0.2880	0.4013	0.5048	0.7145	1.1319
16	0.3068	0.4276	0.5383	0.7618	1.2073
17	0.3251	0.4532	0.5703	0.8076	1.2794
18	0.3442	0.4798	0.6039	0.8548	1.3543
19	0.3629	0.5062	0.6371	0.9018	1.4295
20	0.3817	0.5326	0.6704	0.9491	1.5044
21	0.4005	0.5588	0.7036	0.9963	1.5795
22	0.4195	0.5852	0.7369	1.0436	1.6544
23	0.4383	0.6116	0.7702	1.0909	1.7293
24	0.4578	0.6392	0.8050	1.1404	1.8084
25	0.4769	0.6658	0.8385	1.1877	1.8835
26	0.4957	0.6921	0.8718	1.2352	1.9587
27	0.5147	0.7184	0.9050	1.2824	2.0338
28	0.5325	0.7436	0.9365	1.3269	2.1042
29	0.5515	0.7699	0.9698	1.3742	2.1794
30	0.5703	0.7965	1.0031	1.4212	2.2542

IEEMA(PVC)/Instrumentation Cable/2022/ 22 of 27

IEEMA (PVC)/Instrumentation Cable/2022**Effective from: 01st January 2023**

Copper Factors for Instrumentation Cables - Cu TIS					
Triad Instrumentation Individual & Overall Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
31	0.5891	0.8228	1.0363	1.4685	2.3291
32	0.6079	0.8492	1.0696	1.5158	2.4043
33	0.6269	0.8756	1.1029	1.5630	2.4791
34	0.6457	0.9019	1.1361	1.6103	2.5543
35	0.6657	0.9300	1.1719	1.6611	2.6352
36	0.6845	0.9566	1.2052	1.7083	2.7103
37	0.7035	0.9829	1.2387	1.7556	2.7855
38	0.7223	1.0096	1.2720	1.8031	2.8606
39	0.7399	1.0339	1.3028	1.8464	2.9293
40	0.7588	1.0602	1.3360	1.8936	3.0041
41	0.7777	1.0866	1.3693	1.9409	3.0790
42	0.7965	1.1132	1.4026	1.9879	3.1542
43	0.8152	1.1395	1.4358	2.0352	3.2291
44	0.8343	1.1659	1.4691	2.0825	3.3039
45	0.8531	1.1923	1.5024	2.1298	3.3791
46	0.8735	1.2208	1.5386	2.1815	3.4617
47	0.8923	1.2474	1.5721	2.2290	3.5368
48	0.9111	1.2738	1.6054	2.2763	3.6120
49	0.9301	1.3004	1.6387	2.3235	3.6874
50	0.9489	1.3267	1.6722	2.3708	3.7625
51	0.9680	1.3531	1.7055	2.4183	3.8377
52	0.9850	1.3769	1.7352	2.4603	3.9040
53	1.0038	1.4032	1.7685	2.5076	3.9789
54	1.0228	1.4296	1.8017	2.5546	4.0538
55	1.0416	1.4562	1.8353	2.6019	4.1290
56	1.0604	1.4826	1.8685	2.6491	4.2039
57	1.0792	1.5089	1.9018	2.6964	4.2788
58	1.0982	1.5353	1.9350	2.7437	4.3539
59	1.1190	1.5646	1.9723	2.7966	4.4388
60	1.1377	1.5912	2.0056	2.8442	4.5139
61	1.1568	1.6176	2.0389	2.8915	4.5891

IEEMA(PVC)/Instrumentation Cable/2022/ 23 of 27

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IEEMA (PVC)/Instrumentation Cable/2022**Effective from: 01st January 2023**

Steel Factors for Instrumentation Cables - Fe TIS					
Triad Instrumentation Individual & Overall Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
1	0.1381	0.1465	0.1545	0.1660	0.1939
2	0.2145	0.2315	0.2437	0.2647	0.4189
3	0.2272	0.2454	0.2594	0.3135	0.4447
4	0.2482	0.2679	0.3137	0.3800	0.4943
5	0.2720	0.3347	0.3525	0.4544	0.5463
6	0.3332	0.4250	0.4544	0.4972	0.5919
7	0.3332	0.4250	0.4544	0.4972	0.5919
8	0.4453	0.4798	0.5121	0.5575	0.8243
9	0.4834	0.5298	0.5617	0.6635	0.9033
10	0.5030	0.5523	0.5813	0.6886	0.9444
11	0.5030	0.5523	0.5813	0.6886	0.9444
12	0.5233	0.5636	0.6016	0.7134	0.9783
13	0.5494	0.5954	0.6813	0.8492	1.0326
14	0.5494	0.5954	0.6813	0.8492	1.0326
15	0.5787	0.6842	0.7213	0.9080	1.1759
16	0.5787	0.6842	0.7213	0.9080	1.1759
17	0.6620	0.7242	0.8699	0.9513	1.4008
18	0.6620	0.7242	0.8699	0.9513	1.4008
19	0.6620	0.7242	0.8699	0.9513	1.4008
20	0.6944	0.8634	0.9127	1.0052	1.4699
21	0.6944	0.8681	0.9174	1.0147	1.4847
22	0.7766	0.9179	0.9765	1.1553	1.5695
23	0.7766	0.9179	0.9765	1.1553	1.5695
24	0.8793	0.9608	1.0241	1.2109	1.7861
25	0.8793	0.9608	1.0241	1.2109	1.7861
26	0.8793	0.9608	1.0241	1.2109	1.7861
27	0.9020	0.9907	1.1282	1.3071	1.8248
28	0.9359	1.0985	1.1674	1.4573	2.0168
29	0.9359	1.0985	1.1674	1.4573	2.0168
30	0.9359	1.0985	1.1674	1.4573	2.0168

IEEMA(PVC)/Instrumentation Cable/2022/ 24 of 27

IEEMA (PVC)/Instrumentation Cable/2022**Effective from: 01st January 2023**

Steel Factors for Instrumentation Cables - Fe TIS					
Triad Instrumentation Individual & Overall Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
31	0.9698	1.1419	1.2156	1.5135	2.2294
32	0.9698	1.1419	1.2156	1.5135	2.2294
33	0.9698	1.1419	1.2156	1.5135	2.2294
34	1.0938	1.1932	1.4220	1.5767	2.3315
35	1.0938	1.1932	1.4220	1.5767	2.3315
36	1.0938	1.1932	1.4220	1.5767	2.3315
37	1.0938	1.1932	1.4220	1.5767	2.3315
38	1.1329	1.4024	1.4861	1.7654	2.4344
39	1.1329	1.4024	1.4861	1.7654	2.4344
40	1.1329	1.4024	1.4861	1.7654	2.4344
41	1.1885	1.4656	1.5495	1.8551	2.5362
42	1.1885	1.4656	1.5495	1.8551	2.5362
43	1.1885	1.4656	1.5495	1.8551	2.5362
44	1.2987	1.5149	1.7334	2.0413	2.8585
45	1.2987	1.5149	1.7334	2.0413	2.8585
46	1.2987	1.5149	1.7334	2.0413	2.8585
47	1.2987	1.5149	1.7334	2.0413	2.8585
48	1.3286	1.5431	1.7728	2.2075	2.9159
49	1.4442	1.7095	1.8049	2.2592	2.9742
50	1.4442	1.7095	1.8049	2.2592	2.9742
51	1.4516	1.7095	1.8164	2.2772	3.0028
52	1.4516	1.7095	1.8164	2.2772	3.0028
53	1.4516	1.7095	1.8164	2.2772	3.0093
54	1.4795	1.7481	1.8624	2.3276	3.2700
55	1.5009	1.7671	1.8806	2.3506	3.5370
56	1.5009	1.7671	1.8806	2.3506	3.5370
57	1.5009	1.7671	1.8806	2.3506	3.5370
58	1.5430	1.8246	1.9406	2.4190	3.6397
59	1.5430	1.8246	1.9406	2.4190	3.6397
60	1.5430	1.8246	1.9406	2.4190	3.6397
61	1.5430	1.8246	1.9406	2.4190	3.6397

IEEMA(PVC)/Instrumentation Cable/2022/ 25 of 27

IEEMA (PVC)/Instrumentation Cable/2022

Effective from: 01st January 2023

Polymer Factors for Instrumentation Cables - POC TIS					
Triad Instrumentation Individual & Overall Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
1	0.1233	0.1405	0.1426	0.1613	0.1850
2	0.2242	0.2528	0.2738	0.3046	0.4104
3	0.2400	0.2650	0.2849	0.3215	0.4184
4	0.2742	0.3014	0.3310	0.3834	0.4974
5	0.3246	0.3703	0.3970	0.4439	0.5936
6	0.3775	0.4204	0.4510	0.5193	0.6968
7	0.3728	0.4137	0.4426	0.5075	0.6780
8	0.4318	0.4754	0.5285	0.6006	0.7373
9	0.4958	0.5431	0.6012	0.6901	0.9313
10	0.5245	0.5763	0.6377	0.7265	1.0061
11	0.5251	0.5761	0.6374	0.7245	1.0027
12	0.5427	0.6139	0.6794	0.7750	1.0612
13	0.6086	0.6688	0.7406	0.8635	1.1738
14	0.6242	0.6868	0.7605	0.8869	1.2085
15	0.6704	0.7650	0.8358	0.9798	1.3294
16	0.6836	0.7799	0.8523	0.9993	1.3582
17	0.7305	0.8266	0.9070	1.0719	1.4969
18	0.7479	0.8465	0.9296	1.0986	1.5369
19	0.7475	0.8452	0.9271	1.0942	1.5293
20	0.7870	0.9151	1.0070	1.1562	1.6060
21	0.8033	0.9079	0.9987	1.1738	1.6249
22	0.8594	0.9988	1.0821	1.2805	1.7817
23	0.8717	1.0127	1.0977	1.2984	1.8085
24	0.9577	1.1053	1.2035	1.4129	2.0025
25	0.9710	1.1202	1.2200	1.4321	2.0313
26	0.9723	1.1212	1.2207	1.4316	2.0296
27	1.0239	1.1690	1.2765	1.4892	2.0989
28	1.0623	1.2236	1.3284	1.5790	2.2108
29	1.0779	1.2416	1.3481	1.6024	2.2455
30	1.0909	1.2568	1.3649	1.6217	2.2740

IEEMA(PVC)/Instrumentation Cable/2022/ 26 of 27

IEEMA (PVC)/Instrumentation Cable/2022**Effective from: 01st January 2023**

Polymer Factors for Instrumentation Cables - POC TIS					
Triad Instrumentation Individual & Overall Screen Cables					
Cable size in sq.mm No. of Pairs	0.5 sq.mm	0.75 sq.mm	1.0 sq.mm	1.5 sq.mm	2.5 sq.mm
31	1.1639	1.3365	1.4418	1.7150	2.4025
32	1.1558	1.3281	1.4320	1.7047	2.3902
33	1.1681	1.3420	1.4475	1.7226	2.4170
34	1.2195	1.3857	1.5425	1.8070	2.5685
35	1.2628	1.4355	1.5977	1.8713	2.6613
36	1.2845	1.4606	1.6260	1.9052	2.7126
37	1.2798	1.4541	1.6179	1.8936	2.6935
38	1.3479	1.5470	1.6986	2.0001	2.8623
39	1.3612	1.5622	1.7154	2.0196	2.8910
40	1.3750	1.5780	1.7326	2.0398	2.9211
41	1.4230	1.6564	1.8307	2.1352	3.0490
42	1.4472	1.6848	1.8627	2.1738	3.1065
43	1.4222	1.6565	1.8308	2.1365	3.0543
44	1.5099	1.7490	1.9168	2.2371	3.2019
45	1.5221	1.7631	1.9322	2.2551	3.2289
46	1.5638	1.8095	1.9837	2.3138	3.3120
47	1.5767	1.8246	2.0005	2.3330	3.3408
48	1.6219	1.8739	2.0627	2.4040	3.4196
49	1.6659	1.9210	2.1084	2.5024	3.5355
50	1.6789	1.9360	2.1251	2.5219	3.5643
51	1.6909	1.9494	2.1391	2.5385	3.6401
52	1.7051	1.9658	2.1571	2.5592	3.6713
53	1.7253	1.9892	2.1841	2.5912	3.7191
54	1.7741	2.0439	2.2294	2.6525	3.8075
55	1.8258	2.0989	2.2897	2.7070	3.8918
56	1.7964	2.0660	2.2528	2.6651	3.8346
57	1.8087	2.0802	2.2684	2.6831	3.8614
58	1.8452	2.1171	2.3549	2.7792	3.9710
59	1.9100	2.1908	2.4374	2.8747	4.1088
60	1.9272	2.2110	2.4599	2.9016	4.1488
61	1.9381	2.2233	2.4733	2.9170	4.1700

IEEMA(PVC)/Instrumentation Cable/2022/ 27 of 27



**BHARAT HEAVY ELECTRICALS
LIMITED**
PROJECT ENGINEERING MANAGEMENT

BHEL PEM,PPEI
PLOT No.25, SECTOR-16A,
NOIDA-201301 (U.P.)
PHONE: 0120-4368761

Ref. No: GEM/2024/B/4972144/CORRIGENDA/01

Date: 28.05.2024

PROJECT: 1 X 660 MW WBPDCS SAGARDIGHI EXTN UNIT V

CORRIGENDA/ADDENDA-01

Tender Enquiry No: GEM/2024/B/4972144, Dtd- 22.05.2024

DUE DATE
01-06-2024
BY 05:00 PM (IST)

With reference to tender for “**SCREENED CONTROL CABLE**” invited vide above Enquiry Ref. No., following corrigenda is being issued:

DESCRIPTION	FOR	READ AS
EARNEST MONEY DEPOSIT (EMD)	Applicable – Rs. 2,50,000/-	Not Applicable
PVC formula & factors	Not attached	As per IEEMA circular Ref No. 05/DIV/CAB/05 dtd-31 Jan 2023 (Attached as Annexure I)

Bidders are requested to submit their offer/revised offer accordingly, on or before due date & time.

Thanking You.
For & on Behalf of BHEL,

DEVENDRA SINGH
MGR/PG-1

BHEL/PS-PEM
POWER PROJECT ENGINEERING INSTITUTE,
PLOT NO. 25, SECTOR - 16A, NOIDA (UP)

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