

Type LS Drilmar® Signal & Instrumentation

HF XLPE Insulated, SHF1 Jacketed, Drilling Rig and Marine Cable, 150/250 V

CME[®]
wire and cable

A Viakable Company

Features

Engineered for easiest installation.

Maximum conductor operating temperature: 90 °C as per IEC.

DRILMAR® HF XLPE Insulation:

- Low Smoke and Halogen Free XLPE meeting IEC 60092-360

- Rated at 90 °C.

SHF1 Jacket:

- Low Smoke and Halogen Free Polyolefin meeting IEC 60092-360

Completed cable offers superior flame resistance meeting:

- 7IEC 60332-1 and IEC 60332-3-22 Category A.
- Low smoke as per IEC 61034-2
- Halogen free as per IEC 60754-1.

Application

DRILMAR® Type LS cables are for use in signal transmission application where twisted groups of conductors are desired, also with overall or individual shielding to prevent electrostatic and/or electromagnetic interference.

Typical applications include: tank level indicators, fire and gas protection systems, communication systems, CO₂ systems, and smoke detectors.

Standards

IEC 60092-350

General construction and test methods of power, control and instrumentation cables for shipboard and offshore applications.

IEC 60092-351

Insulating materials for shipboard and offshore units, power, control, instrumentation, telecommunication and data cables.

IEC 60092-376

Cables for control and instrumentation circuits 150/250 V (300 V).

IEC 60092-359

Sheathing materials for shipboard power and telecommunication cables.

IEC 60092-352

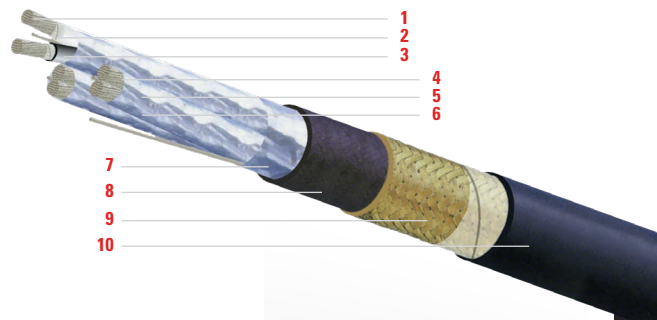
Electrical installations in ships - Part 352: Choice and installation of electrical cables.

IEEE 45 - 2002

Recommended Practice for Electrical Installations on Shipboard Cable, as noted in Clause 23.3 for products manufactured per IEC 60092-350 series.

Approvals

- Intertek, as Type HF XLPE/SHF1
- ABS, American Bureau of Shipping.
- DNV, Det Norske Veritas
- LRS, Lloyd's Register of Shipping.



Engineering Information

1. Conductor: Annealed flexible Tin Coated Copper, Class 5 as per IEC 60228.

Sizes: 0.5 mm² up to 2.5 mm².

2. Separator Tape: Suitable tape as required.

3. Insulation: Low Smoke Halogen Free flame retardant crosslinked polyethylene (HF XLPE).

4. Assembly: Insulated conductors twisted in pairs or triads.

5. Identification: Color coded with sequential printed numbers.

Pairs: Black and White.

Triads: Black, White and Red.

6. Cabling: Pairs/Triads cabled round with moisture and flame resistant fillers as required, and binder tape.

7. Optional Shielding: Individual and/or Overall Aluminum/Polyester tape, with drain wire, 100% coverage.

8. Jacket: Black Low Smoke Halogen Free flame retardant thermoplastic Polyolefin (SHF1).

9. Armor (optional): Standard - Tinned Copper Braid.

10. Jacket (overall): Black Low Smoke Halogen Free flame retardant thermoplastic Polyolefin (SHF1).

On request: Grey Jacket is available.

Technical Data

Type LS-Triads Signal & Instrumentation, 0.5 mm², Overall Shield

Conductor	Unarmored					Armored					Armored and Sheathed					
	Number of Triads	Part Number	Nominal OD		Net Weight		Part Number	Nominal OD		Net Weight		Part Number	Nominal OD		Net Weight	
			in	mm	lb/kft	kg/km		in	mm	lb/kft	kg/km		in	mm	lb/kft	kg/km
1	DTT00.5LSSH-F-1	0.25	6.4	39	58	DTT00.5LSSH-F-T1	0.28	7.2	69	102	DTT00.5LSSH-F-TS1	0.36	9.1	94	140	
2	DTT00.5LSSH-F-2	0.41	10.4	74	111	DTT00.5LSSH-F-T2	0.46	11.7	149	221	DTT00.5LSSH-F-TS2	0.55	13.8	192	286	
3	DTT00.5LSSH-F-3	0.44	11.0	93	138	DTT00.5LSSH-F-T3	0.49	12.3	172	255	DTT00.5LSSH-F-TS3	0.57	14.5	217	323	
4	DTT00.5LSSH-F-4	0.48	12.2	117	175	DTT00.5LSSH-F-T4	0.53	13.5	204	303	DTT00.5LSSH-F-TS4	0.62	15.6	254	377	
5	DTT00.5LSSH-F-5	0.53	13.4	138	206	DTT00.5LSSH-F-T5	0.58	14.6	233	346	DTT00.5LSSH-F-TS5	0.67	17.0	292	434	
6	DTT00.5LSSH-F-6	0.58	14.8	166	247	DTT00.5LSSH-F-T6	0.63	16.1	270	401	DTT00.5LSSH-F-TS6	0.72	18.4	334	497	
7	DTT00.5LSSH-F-7	0.58	14.8	182	271	DTT00.5LSSH-F-T7	0.63	16.1	286	425	DTT00.5LSSH-F-TS7	0.72	18.4	350	521	
8	DTT00.5LSSH-F-8	0.69	17.4	216	321	DTT00.5LSSH-F-T8	0.74	18.7	337	502	DTT00.5LSSH-F-TS8	0.84	21.2	419	623	
10	DTT00.5LSSH-F-10	0.74	18.9	256	381	DTT00.5LSSH-F-T10	0.79	20.1	387	576	DTT00.5LSSH-F-TS10	0.89	22.7	475	706	
12	DTT00.5LSSH-F-12	0.78	19.7	298	443	DTT00.5LSSH-F-T12	0.83	21.0	435	647	DTT00.5LSSH-F-TS12	0.93	23.5	525	782	
14	DTT00.5LSSH-F-14	0.81	20.7	336	499	DTT00.5LSSH-F-T14	0.86	21.9	479	713	DTT00.5LSSH-F-TS14	0.97	24.7	582	866	
16	DTT00.5LSSH-F-16	0.86	21.8	374	557	DTT00.5LSSH-F-T16	0.91	23.1	525	781	DTT00.5LSSH-F-TS16	1.02	25.8	633	942	
17	DTT00.5LSSH-F-17	0.91	23.1	403	599	DTT00.5LSSH-F-T17	0.96	24.4	562	837	DTT00.5LSSH-F-TS17	1.07	27.1	676	1006	
19	DTT00.5LSSH-F-19	0.91	23.1	435	647	DTT00.5LSSH-F-T19	0.96	24.4	594	885	DTT00.5LSSH-F-TS19	1.07	27.1	708	1054	
20	DTT00.5LSSH-F-20	0.96	24.3	458	681	DTT00.5LSSH-F-T20	1.01	25.6	625	931	DTT00.5LSSH-F-TS20	1.11	28.3	744	1107	
24	DTT00.5LSSH-F-24	1.06	27.0	546	812	DTT00.5LSSH-F-T24	1.11	28.2	731	1088	DTT00.5LSSH-F-TS24	1.23	31.2	875	1303	

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product.

Ampacities: Refer to beginning of section.

Type LS-Triads Signal & Instrumentation, 0.75 mm², Overall Shield

Conductor	Unarmored					Armored					Armored and Sheathed					
	Number of Triads	Part Number	Nominal OD		Net Weight		Part Number	Nominal OD		Net Weight		Part Number	Nominal OD		Net Weight	
			in	mm	lb/kft	kg/km		in	mm	lb/kft	kg/km		in	mm	lb/kft	kg/km
1	DTT00.75LSSH-F-1	0.28	7.2	51	75	DTT00.75LSSH-F-T1	0.32	8.0	84	125	DTT00.75LSSH-F-TS1	0.39	10.0	112	166	
2	DTT00.75LSSH-F-2	0.49	12.4	102	152	DTT00.75LSSH-F-T2	0.54	13.6	189	282	DTT00.75LSSH-F-TS2	0.62	15.8	240	356	
3	DTT00.75LSSH-F-3	0.52	13.1	129	193	DTT00.75LSSH-F-T3	0.57	14.4	222	330	DTT00.75LSSH-F-TS3	0.66	16.7	280	417	
4	DTT00.75LSSH-F-4	0.57	14.6	165	246	DTT00.75LSSH-F-T4	0.62	15.8	268	398	DTT00.75LSSH-F-TS4	0.72	18.2	331	493	
5	DTT00.75LSSH-F-5	0.63	16.0	196	292	DTT00.75LSSH-F-T5	0.68	17.2	308	458	DTT00.75LSSH-F-TS5	0.77	19.6	377	560	
6	DTT00.75LSSH-F-6	0.69	17.6	233	347	DTT00.75LSSH-F-T6	0.74	18.8	356	530	DTT00.75LSSH-F-TS6	0.84	21.4	438	652	
7	DTT00.75LSSH-F-7	0.69	17.6	257	383	DTT00.75LSSH-F-T7	0.74	18.8	380	565	DTT00.75LSSH-F-TS7	0.84	21.4	462	688	
8	DTT00.75LSSH-F-8	0.82	20.7	304	453	DTT00.75LSSH-F-T8	0.87	22.0	448	667	DTT00.75LSSH-F-TS8	0.97	24.7	551	820	
10	DTT00.75LSSH-F-10	0.89	22.7	368	548	DTT00.75LSSH-F-T10	0.94	24.0	525	782	DTT00.75LSSH-F-TS10	1.05	26.7	637	948	
12	DTT00.75LSSH-F-12	0.92	23.4	421	626	DTT00.75LSSH-F-T12	0.97	24.7	583	867	DTT00.75LSSH-F-TS12	1.08	27.4	698	1039	
14	DTT00.75LSSH-F-14	0.98	24.8	485	721	DTT00.75LSSH-F-T14	1.03	26.1	656	976	DTT00.75LSSH-F-TS14	1.15	29.1	790	1175	
16	DTT00.75LSSH-F-16	1.03	26.2	542	806	DTT00.75LSSH-F-T16	1.08	27.5	722	1075	DTT00.75LSSH-F-TS16	1.20	30.5	862	1283	
17	DTT00.75LSSH-F-17	1.10	27.9	586	873	DTT00.75LSSH-F-T17	1.15	29.2	778	1158	DTT00.75LSSH-F-TS17	1.27	32.2	926	1379	
19	DTT00.75LSSH-F-19	1.10	27.9	635	944	DTT00.75LSSH-F-T19	1.15	29.2	826	1230	DTT00.75LSSH-F-TS19	1.27	32.2	975	1451	
20	DTT00.75LSSH-F-20	1.15	29.3	668	994	DTT00.75LSSH-F-T20	1.20	30.6	870	1294	DTT00.75LSSH-F-TS20	1.33	33.8	1036	1542	
24	DTT00.75LSSH-F-24	1.28	32.6	796	1185	DTT00.75LSSH-F-T24	1.35	34.2	1077	1602	DTT00.75LSSH-F-TS24	1.48	37.6	1275	1897	

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product.

Ampacities: Refer to beginning of section.

Technical Data *continued*

Type LS-Triads Signal & Instrumentation, 1.0 mm², Overall Shield

Conductor	Unarmored					Armored					Armored and Sheathed					
	Number of Triads	Part Number	Nominal OD		Net Weight		Tinned Copper					Tinned Copper				
			in	mm	lb/kft	kg/km	Part Number	in	mm	lb/kft	kg/km	Part Number	in	mm	lb/kft	kg/km
1	DTTO1.0LSSH-F-1	0.30	7.6	60	89	DTTO1.0LSSH-F-T1	0.33	8.4	95	142	DTTO1.0LSSH-F-TS1	0.41	10.4	124	185	
2	DTTO1.0LSSH-F-2	0.52	13.2	120	178	DTTO1.0LSSH-F-T2	0.57	14.5	213	317	DTTO1.0LSSH-F-TS2	0.66	16.8	271	404	
3	DTTO1.0LSSH-F-3	0.56	14.2	160	238	DTTO1.0LSSH-F-T3	0.61	15.5	260	387	DTTO1.0LSSH-F-TS3	0.70	17.8	322	479	
4	DTTO1.0LSSH-F-4	0.61	15.6	197	293	DTTO1.0LSSH-F-T4	0.66	16.8	306	455	DTTO1.0LSSH-F-TS4	0.76	19.2	373	556	
5	DTTO1.0LSSH-F-5	0.68	17.2	240	358	DTTO1.0LSSH-F-T5	0.73	18.5	361	537	DTTO1.0LSSH-F-TS5	0.83	21.1	441	657	
6	DTTO1.0LSSH-F-6	0.74	18.8	279	415	DTTO1.0LSSH-F-T6	0.79	20.1	410	610	DTTO1.0LSSH-F-TS6	0.89	22.6	497	739	
7	DTTO1.0LSSH-F-7	0.74	18.8	309	461	DTTO1.0LSSH-F-T7	0.79	20.1	440	655	DTTO1.0LSSH-F-TS7	0.89	22.6	527	785	
8	DTTO1.0LSSH-F-8	0.88	22.4	370	551	DTTO1.0LSSH-F-T8	0.93	23.6	525	781	DTTO1.0LSSH-F-TS8	1.04	26.4	635	945	
10	DTTO1.0LSSH-F-10	0.96	24.3	442	658	DTTO1.0LSSH-F-T10	1.01	25.6	610	908	DTTO1.0LSSH-F-TS10	1.12	28.3	729	1085	
12	DTTO1.0LSSH-F-12	1.00	25.3	516	768	DTTO1.0LSSH-F-T12	1.05	26.6	691	1028	DTTO1.0LSSH-F-TS12	1.16	29.6	827	1230	
14	DTTO1.0LSSH-F-14	1.05	26.6	586	871	DTTO1.0LSSH-F-T14	1.10	27.9	769	1145	DTTO1.0LSSH-F-TS14	1.22	30.9	911	1356	
16	DTTO1.0LSSH-F-16	1.12	28.4	667	993	DTTO1.0LSSH-F-T16	1.17	29.6	863	1284	DTTO1.0LSSH-F-TS16	1.29	32.6	1013	1508	
17	DTTO1.0LSSH-F-17	1.18	29.9	708	1054	DTTO1.0LSSH-F-T17	1.23	31.2	914	1360	DTTO1.0LSSH-F-TS17	1.35	34.4	1083	1612	
19	DTTO1.0LSSH-F-19	1.18	29.9	769	1144	DTTO1.0LSSH-F-T19	1.23	31.2	975	1450	DTTO1.0LSSH-F-TS19	1.35	34.4	1144	1703	
20	DTTO1.0LSSH-F-20	1.25	31.7	820	1221	DTTO1.0LSSH-F-T20	1.31	33.3	1094	1628	DTTO1.0LSSH-F-TS20	1.44	36.5	1274	896	
24	DTTO1.0LSSH-F-24	1.39	35.2	977	1454	DTTO1.0LSSH-F-T24	1.45	36.8	1280	1904	DTTO1.0LSSH-F-TS24	1.58	40.2	1492	2220	

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product.

Ampacities: Refer to beginning of section.

Type LS-Triads Signal & Instrumentation, 1.5 mm², Overall Shield

Conductor	Unarmored					Armored					Armored and Sheathed					
	Number of Triads	Part Number	Nominal OD		Net Weight		Tinned Copper					Tinned Copper				
			in	mm	lb/kft	kg/km	Part Number	in	mm	lb/kft	kg/km	Part Number	in	mm	lb/kft	kg/km
1	DTTO1.5LSSH-F-1	0.35	8.8	82	122	DTTO1.5LSSH-F-T1	0.38	9.7	122	182	DTTO1.5LSSH-F-TS1	0.46	11.6	155	230	
2	DTTO1.5LSSH-F-2	0.61	15.5	164	244	DTTO1.5LSSH-F-T2	0.66	16.7	273	406	DTTO1.5LSSH-F-TS2	0.75	19.1	340	505	
3	DTTO1.5LSSH-F-3	0.65	16.4	213	317	DTTO1.5LSSH-F-T3	0.70	17.7	328	488	DTTO1.5LSSH-F-TS3	0.79	20.0	398	593	
4	DTTO1.5LSSH-F-4	0.72	18.2	271	403	DTTO1.5LSSH-F-T4	0.77	19.5	398	592	DTTO1.5LSSH-F-TS4	0.87	22.0	483	718	
5	DTTO1.5LSSH-F-5	0.80	20.2	331	492	DTTO1.5LSSH-F-T5	0.85	21.5	471	701	DTTO1.5LSSH-F-TS5	0.95	24.0	564	839	
6	DTTO1.5LSSH-F-6	0.87	22.2	391	582	DTTO1.5LSSH-F-T6	0.92	23.5	544	810	DTTO1.5LSSH-F-TS6	1.03	26.2	654	974	
7	DTTO1.5LSSH-F-7	0.87	22.2	435	647	DTTO1.5LSSH-F-T7	0.92	23.5	588	876	DTTO1.5LSSH-F-TS7	1.03	26.2	698	1039	
8	DTTO1.5LSSH-F-8	1.03	26.2	510	759	DTTO1.5LSSH-F-T8	1.08	27.5	691	1028	DTTO1.5LSSH-F-TS8	1.20	30.5	831	1237	
10	DTTO1.5LSSH-F-10	1.14	28.8	625	929	DTTO1.5LSSH-F-T10	1.19	30.1	823	1224	DTTO1.5LSSH-F-TS10	1.31	33.3	987	1468	
12	DTTO1.5LSSH-F-12	1.17	29.8	719	1070	DTTO1.5LSSH-F-T12	1.22	31.1	923	1374	DTTO1.5LSSH-F-TS12	1.35	34.3	1092	1626	
14	DTTO1.5LSSH-F-14	1.24	31.6	828	1232	DTTO1.5LSSH-F-T14	1.31	33.2	1100	1638	DTTO1.5LSSH-F-TS14	1.43	36.4	1281	1906	
16	DTTO1.5LSSH-F-16	1.32	33.6	939	1397	DTTO1.5LSSH-F-T16	1.39	35.2	1228	1828	DTTO1.5LSSH-F-TS16	1.52	38.6	1431	2130	
17	DTTO1.5LSSH-F-17	1.39	35.4	997	1483	DTTO1.5LSSH-F-T17	1.46	37.0	1301	1937	DTTO1.5LSSH-F-TS17	1.59	40.4	1515	2254	
19	DTTO1.5LSSH-F-19	1.39	35.4	1084	1614	DTTO1.5LSSH-F-T19	1.46	37.0	1389	2067	DTTO1.5LSSH-F-TS19	1.59	40.4	1602	2385	
20	DTTO1.5LSSH-F-20	1.48	37.5	1154	1718	DTTO1.5LSSH-F-T20	1.54	39.1	1476	2197	DTTO1.5LSSH-F-TS20	1.68	42.6	1712	2548	
24	DTTO1.5LSSH-F-24	1.65	41.9	1392	2071	DTTO1.5LSSH-F-T24	1.71	43.5	1751	2605	DTTO1.5LSSH-F-TS24	1.86	47.2	2027	3017	

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product.

Ampacities: Refer to beginning of section.

Technical Data *continued*

Type LS-Triads Signal & Instrumentation, 2.5 mm², Overall Shield

Conductor	Unarmored					Armored					Armored and Sheathed					
	Number of Triads	Part Number	Nominal OD		Net Weight		Tinned Copper					Tinned Copper				
			in	mm	lb/kft	kg/km	Part Number	in	mm	lb/kft	kg/km	Part Number	in	mm	lb/kft	kg/km
1	DTT02.5LSSH-F-1	0.39	9.8	112	167	DTT02.5LSSH-F-T1	0.42	10.6	157	233	DTT02.5LSSH-F-TS1	0.50	12.8	197	293	
2	DTT02.5LSSH-F-2	0.70	17.7	230	342	DTT02.5LSSH-F-T2	0.75	18.9	353	526	DTT02.5LSSH-F-TS2	0.85	21.5	436	648	
3	DTT02.5LSSH-F-3	0.74	18.8	303	452	DTT02.5LSSH-F-T3	0.79	20.0	434	646	DTT02.5LSSH-F-TS3	0.89	22.6	521	775	
4	DTT02.5LSSH-F-4	0.82	20.8	388	577	DTT02.5LSSH-F-T4	0.87	22.1	532	792	DTT02.5LSSH-F-TS4	0.98	24.8	636	946	
5	DTT02.5LSSH-F-5	0.91	23.0	472	703	DTT02.5LSSH-F-T5	0.96	24.3	631	940	DTT02.5LSSH-F-TS5	1.06	27.0	745	1108	
6	DTT02.5LSSH-F-6	1.00	25.4	561	835	DTT02.5LSSH-F-T6	1.05	26.6	736	1095	DTT02.5LSSH-F-TS6	1.17	29.6	872	1298	
7	DTT02.5LSSH-F-7	1.00	25.4	628	935	DTT02.5LSSH-F-T7	1.05	26.6	803	1196	DTT02.5LSSH-F-TS7	1.17	29.6	940	1398	
8	DTT02.5LSSH-F-8	1.19	30.3	746	1111	DTT02.5LSSH-F-T8	1.26	31.9	1008	1500	DTT02.5LSSH-F-TS8	1.38	35.1	1181	1758	
10	DTT02.5LSSH-F-10	1.31	33.2	911	1356	DTT02.5LSSH-F-T10	1.37	34.8	1198	1782	DTT02.5LSSH-F-TS10	1.51	38.2	1399	2082	
12	DTT02.5LSSH-F-12	1.35	34.3	1054	1569	DTT02.5LSSH-F-T12	1.42	35.9	1350	2009	DTT02.5LSSH-F-TS12	1.55	39.3	1557	2318	
14	DTT02.5LSSH-F-14	1.43	36.4	1215	1808	DTT02.5LSSH-F-T14	1.50	38.0	1528	2274	DTT02.5LSSH-F-TS14	1.64	41.6	1757	2615	
16	DTT02.5LSSH-F-16	1.52	38.6	1378	2051	DTT02.5LSSH-F-T16	1.58	40.2	1710	2545	DTT02.5LSSH-F-TS16	1.72	43.8	1952	2905	
17	DTT02.5LSSH-F-17	1.61	40.8	1463	2177	DTT02.5LSSH-F-T17	1.67	42.4	1813	2698	DTT02.5LSSH-F-TS17	1.82	46.2	2083	3100	
19	DTT02.5LSSH-F-19	1.61	40.8	1598	2378	DTT02.5LSSH-F-T19	1.67	42.4	1948	2899	DTT02.5LSSH-F-TS19	1.82	46.2	2218	3300	
20	DTT02.5LSSH-F-20	1.70	43.2	1701	2531	DTT02.5LSSH-F-T20	1.76	44.8	2071	3082	DTT02.5LSSH-F-TS20	1.91	48.6	2356	3505	
24	DTT02.5LSSH-F-24	1.90	48.2	2041	3038	DTT02.5LSSH-F-T24	1.96	49.8	2453	3651	DTT02.5LSSH-F-TS24	2.13	54.0	2809	4180	

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product.

Ampacities: Refer to beginning of section.