



Shipline TI(i) 250V Instrumentation cable

Flame retardant halogen-free instrumentation cable. Unbraided. Shielded.

TI(i) 250V

HFXLPE/PO



Operating temperature : 90°C
Operating Voltage : 250V

Application

Unarmoured shielded cable for fixed installation in ships where cable protection is not required. Suitable for use on instrumentation and communication systems. Can be installed and operated both indoors and outdoors.

Standards applied

IEC 60092-376 (2003-05)	- Design
IEC 60228 class 2	- Conductor
IEC 60092-351	- Insulation
IEC 60092-359	- Sheath
IEC 60332-1	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 600754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Annealed stranded circular copper, IEC 60228 class 2
Insulation	T	Crosslinked Polyethylene, IEC 60092-351 (HFXLPE)
Pair / Triple / Quad twisting		Numbered white cores are twisted together and wrapped with polyester tape. Pairs/Quads are laid up and individually shielded by aluminium backed polyester tape with tinned copper drain wire. Each pair/quad is wrapped with polyester tape to prevent electrical contact with adjacent pairs/quads. Pairs/quads are identified by numbers printed on the insulated cores.
Lay up / Shielding		Individually shielded pairs are laid up in concentric layers and wrapped with a PETP tape.
Inner covering		No inner covering. (Additional tapes may be applied)
Armour/screen		No armour.
Outer sheath	I	Flame retardant halogen-free thermoplastic compound, SHF1
Marking text		E.g. "meter" "år" DRAKA 01 TI(i) 250V 4 PAIR 0,75 mm ² IEC 60092-376 IEC 60332-3-22 ShipLine
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel, DRAKA 02 = Draka Kabel BV Amsterdam, DRAKA 03 = Draka Kabel BV Emmen
Outer sheath colour		Grey



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Core identification instrumentation cables

The pairs have the following number identification according to IEC 60092-376

Pair no. 1	Core no. 1 - 2
Pair no. 2	3 - 4
Pair no. 3	5 - 6
Pair no. 4	7 - 8
Pair no. 5	etc - etc
The two pair cable may also be built up as a star quad	1 - 3 - 2 - 4
Triple no.1	1-2-3
Triple no.2	4-5-6
Triple no. 3	7-8-9
Triple no. 4	etc. – etc.

Range and dimensions

Number of elements	No of cores in element	Cross section core, mm ²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	2	0.5	0.9	0.4	1	5.5 ± 0.5	40	13
1	4	0.5	0.9	0.4	1	6 ± 0.5	49	17.5
1	2	0.75	1.1	0.5	1	6.5 ± 0.5	55	18.5
1	4	0.75	1.1	0.5	1	7 ± 0.5	65	26
7	2	0.75	1.1	0.5	1.2	14 ± 0.8	260	129
14	2	0.75	1.1	0.5	1.4	20 ± 1	490	257
1	3	0.75	1.1	0.5	1	6.5 ± 0.5	65	26
2	3	0.75	1.1	0.5	1.1	11 ± 0.8	125	51
7	3	0.75	1.1	0.5	1.3	16 ± 0.8	340	178
1	2	1.5	1.6	0.6	1	7.5 ± 0.5	80	35

Electrical values instrumentation cables

Type	Capacitance, approx. (nF/km)	Inductance, approx., (mH/km)	Resistance at 20°C, max. (Ohm/km)
Shielded pair 0,5 mm ²	75	0.63	40.4
Shielded triple 0,5 mm ²	75	0.63	40.4
Shielded quad 0,5 mm ²	65	0.51	40.4
Shielded pair 0,75 mm ²	70	0.64	26.0
Shielded triple 0,75 mm ²	70	0.64	26.0
Shielded quad 0,75 mm ²	60	0.51	26.0

Ordering information

Part number	Description	Sheath Colour	EAN No. DNK	EL No.	KDN Part number	EAN no. KDN
832000	TI(I) 250V 1PAIR 0.5mm ²	GREY	7021528320008	1045880	-	-
832002	TI(I) 250V 1QUAD 0.5mm ²	GREY	7021528320022	1045881	-	-
832050	TI(I) 250V 1PAIR 0.75mm ²	GREY	7021528320503	1045900	-	-
832052	TI(I) 250V 1QUAD 0.75mm ²	GREY	7021528320527	1045901	-	-
832058	TI(I) 250V 7PAIR 0.75mm ²	GREY	7021528320589	-	-	-
832062	TI(I) 250V 14PAIR 0.75mm ²	GREY	7021528320626	-	-	-
832280	TI(I) 250V 1TRIP 0.75mm ²	GREY	7021528322804	-	-	-
832282	TI(I) 250V 2TRIP 0.75mm ²	GREY	7021528322828	-	-	-
832286	TI(I) 250V 7TRIP 0.75mm ²	GREY	7021528322866	-	-	-
832600	TI(I) 250V 1PAIR 1.5mm ²	GREY	7021528326000	-	-	-



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Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm ²	-10°C