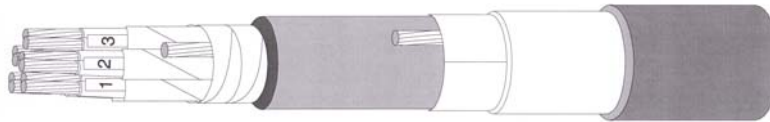


PetroBlock TFLP(c) 250V Instrumentation cable



Flame retardant cable for instrumentation and telecommunication. Screened cable for outdoor and underground installation. The PetroBlock barrier provides excellent protection against moisture, hydrocarbons and other chemicals and solvents in the ground.

TFLP(c) 250V
XLPE/LSTPE/AL/PA/PVC

Operating temperature : 90°C
Operating Voltage : 250V

Standards applied

IEC 60092-376 - Design
IEC 60228 class 2 - Conductor
IEC 60092-351 - Insulation
IEC 60092-359 - Sheath
IEC 60332-1 - Flame Retardant

Application

Fixed installation outdoor and underground for instrumentation and communication systems in harsh environments both in EX- and safe areas.

Construction

	Code Letter	
Conductor		Annealed stranded circular copper(SCC), IEC 60228 class 2
Insulation	T	Crosslinked Polyethylene, IEC 60092-351 (HFXLPE)
Pair / Triple / Quad twisting		Color coded cores twisted together to a pair/triple and wrapped with polyester tape. Pairs/Triples are laid up collectively and shielded by aluminium backed polyester tape with tinned copper drain wire. Pairs/triples are identified by numbered tape or by numbers printed directly on the insulated conductors.
Inner covering	F	Flame retardant and halogen-free thermoplastic compound
Armour/screen	L	The PetroBlock barrier. Aluminium foil longitudinally wrapped and laminated to a polyamide sheath. A flexible tinned drain wire underneath the aluminium foil.
Outer sheath	P	Polyvinyl chloride (PVC), IEC 60092-359(ST2)
Marking text		E.g. "meter" "år" DRAKA NORSK KABEL TFLP(c) 250V 4 PAIR 0,75 mm2 S206 IEC 60092-376 IEC 60332-1
Outer sheath colour		Grey or Blue

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Core identification instrumentation cables

Pair - Black - Light Blue

Triple - Black - Light Blue - Brown

Quad - Black - Light Blue - Brown - Grey

Range and dimensions

Number of elements	No of cores in element	Cross section core, mm ²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Moisture Barrier, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
2	2	0.75	1.1	0.5	1.1	10 ± 0.8	13.5 ± 0.8	1.2	15.5 ± 0.8	270	39
2	2	0.75	1.1	0.5	1.1	10 ± 0.8	13.5 ± 0.8	1.2	15.5 ± 0.8	270	39
4	2	0.75	1.1	0.5	1.1	11.5 ± 0.8	15 ± 0.8	1.3	17.5 ± 0.8	350	67
4	2	0.75	1.1	0.5	1.1	11.5 ± 0.8	15 ± 0.8	1.3	17.5 ± 0.8	350	67
8	2	0.75	1.1	0.5	1.1	15.5 ± 0.8	18.5 ± 0.8	1.4	21.5 ± 1	530	123
10	2	0.75	1.1	0.5	1.2	17.5 ± 0.8	20.5 ± 1	1.5	23.5 ± 1	620	151
10	2	0.75	1.1	0.5	1.2	17.5 ± 0.8	20.5 ± 1	1.5	23.5 ± 1	620	151
16	2	0.75	1.1	0.5	1.4	20 ± 1	23 ± 1	1.6	26.5 ± 1	830	235
16	2	0.75	1.1	0.5	1.4	20 ± 1	23 ± 1	1.6	26.5 ± 1	830	235
24	2	0.75	1.1	0.5	1.6	24.5 ± 1	27.5 ± 1	1.7	31 ± 1.5	1140	346
24	2	0.75	1.1	0.5	1.6	24.5 ± 1	27.5 ± 1	1.7	31 ± 1.5	1140	346
2	3	0.75	1.1	0.5	1.1	11.5 ± 0.8	14.5 ± 0.8	1.3	17 ± 0.8	320	53
2	3	0.75	1.1	0.5	1.1	11.5 ± 0.8	14.5 ± 0.8	1.3	17 ± 0.8	320	53
4	3	0.75	1.1	0.5	1.1	13 ± 0.8	16.5 ± 0.8	1.3	19 ± 0.8	420	95
4	3	0.75	1.1	0.5	1.1	13 ± 0.8	16.5 ± 0.8	1.3	19 ± 0.8	420	95
8	3	0.75	1.1	0.5	1.1	17 ± 0.8	20 ± 1	1.5	23 ± 1	650	179
10	3	0.75	1.1	0.5	1.2	20 ± 1	23 ± 1	1.6	26 ± 1	820	221
10	3	0.75	1.1	0.5	1.2	20 ± 1	23 ± 1	1.6	26 ± 1	820	221
16	3	0.75	1.1	0.5	1.4	22.5 ± 1	25.5 ± 1	1.7	29 ± 1	1060	347
16	3	0.75	1.1	0.5	1.4	22.5 ± 1	25.5 ± 1	1.7	29 ± 1	1060	347
24	3	0.75	1.1	0.5	1.6	27.5 ± 1	31.5 ± 1.5	1.9	35 ± 1.5	1500	514
24	3	0.75	1.1	0.5	1.6	27.5 ± 1	31.5 ± 1.5	1.9	35 ± 1.5	1500	514
2	2	1.5	1.6	0.6	1.1	12.5 ± 0.8	16 ± 0.8	1.3	18.5 ± 0.8	370	69
2	2	1.5	1.6	0.6	1.1	12.5 ± 0.8	16 ± 0.8	1.3	18.5 ± 0.8	370	69
4	2	1.5	1.6	0.6	1.1	14.5 ± 0.8	18 ± 0.8	1.4	20.5 ± 1	490	125
4	2	1.5	1.6	0.6	1.1	14.5 ± 0.8	18 ± 0.8	1.4	20.5 ± 1	490	125
8	2	1.5	1.6	0.6	1.1	19 ± 0.8	22.5 ± 1	1.5	25.5 ± 1	770	237
10	2	1.5	1.6	0.6	1.2	22.5 ± 1	25.5 ± 1	1.6	28.5 ± 1	910	293
10	2	1.5	1.6	0.6	1.2	22.5 ± 1	25.5 ± 1	1.6	28.5 ± 1	910	293
16	2	1.5	1.6	0.6	1.4	25.5 ± 1	29 ± 1	1.8	32.5 ± 1	1300	461

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Number of elements	No of cores in element	Cross section core, mm ²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Moisture Barrier, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
									1.5		
16	2	1.5	1.6	0.6	1.4	25.5 ± 1	29 ± 1	1.8	32.5 ± 1.5	1300	461
24	2	1.5	1.6	0.6	1.8	32 ± 1.5	35.5 ± 1.5	2	39.5 ± 1.5	1870	684
24	2	1.5	1.6	0.6	1.8	32 ± 1.5	35.5 ± 1.5	2	39.5 ± 1.5	1870	684
2	3	1.5	1.6	0.6	1.1	14 ± 0.8	17.5 ± 0.8	1.3	20 ± 1	430	97
2	3	1.5	1.6	0.6	1.1	14 ± 0.8	17.5 ± 0.8	1.3	20 ± 1	430	97
4	3	1.5	1.6	0.6	1.1	16.5 ± 0.8	20 ± 1	1.4	22.5 ± 1	600	181
4	3	1.5	1.6	0.6	1.1	16.5 ± 0.8	20 ± 1	1.4	22.5 ± 1	600	181
8	3	1.5	1.6	0.6	1.1	21 ± 1	24.5 ± 1	1.6	27.5 ± 1	970	349
10	3	1.5	1.6	0.6	1.2	25.5 ± 1	29 ± 1	1.8	32.5 ± 1.5	1220	433
10	3	1.5	1.6	0.6	1.2	25.5 ± 1	29 ± 1	1.8	32.5 ± 1.5	1220	433
12	3	1.5	1.6	0.6	1.2	25.5 ± 1	28.5 ± 1	1.8	32.1 ± 1.5	1309	492
16	3	1.5	1.6	0.6	1.4	29 ± 1	32.5 ± 1.5	1.9	36.5 ± 1.5	1700	685
16	3	1.5	1.6	0.6	1.4	29 ± 1	32.5 ± 1.5	1.9	36.5 ± 1.5	1700	682
24	3	1.5	1.6	0.6	1.8	36 ± 1.5	39.5 ± 1.5	2.2	44 ± 2	2460	1021
24	3	1.5	1.6	0.6	1.8	36 ± 1.5	39.5 ± 1.5	2.2	44 ± 2	2460	1016
2	2	2.5	2	0.6	1.1	14 ± 0.8	17.5 ± 0.8	1.4	20 ± 1	450	107
4	2	2.5	2	0.6	1.1	16.5 ± 0.8	20 ± 1	1.4	22.5 ± 1	610	199
8	2	2.5	2	0.6	1.1	21.5 ± 1	25 ± 1	1.6	28 ± 1	1000	384
10	2	2.5	2	0.6	1.2	25.5 ± 1	29 ± 1	1.8	32.5 ± 1.5	1240	476
10	2	2.5	2	0.6	1.2	25.5 ± 1	29 ± 1	1.8	32.5 ± 1.5	1240	476
12	2	2.5	2	0.6	1.3	26.5 ± 1	30 ± 1.5	1.8	33.5 ± 1.5	1390	568
16	2	2.5	2	0.6	1.4	29 ± 1	32.5 ± 1.5	1.9	36.5 ± 1.5	1730	752
24	2	2.5	2	0.6	1.8	36 ± 1.5	39.5 ± 1.5	2.2	44 ± 2	2520	1120
8	3	2.5	2	0.6	1.1	24 ± 1	27 ± 1	1.7	30.5 ± 1.5	1290	569
24	3	2.5	2	0.6	1.8	41 ± 2	45 ± 2	2.3	49.5 ± 2	3370	1675

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Electrical values instrumentation cables

Type	Capacitance, approx. (nF/km)	Inductance, approx. (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/Ohm)
Unshielded pair 0,75 mm ²	70	0,64	26,0	12,3
Unshielded triple 0,75 mm ²	70	0,64	26,0	12,3
Unshielded pair 1,5 mm ²	75	0,60	12,8	23,4
Unshielded triple 1,5 mm ²	75	0,60	12,8	23,4
Unshielded pair 2,5 mm ²	85	0,57	7,86	36,3
Unshielded triple 2,5 mm ²	85	0,57	7,86	36,3

Ordering information

Part number	Description	Sheath Colour	EAN No. DNK	EL No.
857806	TFLP(C) 2PAIR 0.75mm ² S206	GREY	7021528578065	-
857807	TFLP(C) 2PAIR 0.75mm ² S206	BLUE	7021528578072	-
857818	TFLP(C) 4PAIR 0.75mm ² S206	GREY	7021528578188	-
857819	TFLP(C) 4PAIR 0.75mm ² S206	BLUE	7021528578195	-
857830	TFLP(C) 8PAIR 0.75mm ² S206	GREY	7021528578300	-
857833	TFLP(C) 10PAIR 0.75mm ² S206	GREY	7021528578331	-
857834	TFLP(C) 10PAIR 0.75mm ² S206	BLUE	7021528578348	-
857842	TFLP(C) 16PAIR 0.75mm ² S206	GREY	7021528578423	-
857843	TFLP(C) 16PAIR 0.75mm ² S206	BLUE	7021528578430	-
857848	TFLP(C) 24PAIR 0.75mm ² S206	GREY	7021528578485	-
857849	TFLP(C) 24PAIR 0.75mm ² S206	BLUE	7021528578492	-
857866	TFLP(C) 2TRIP 0.75mm ² S206	GREY	7021528578669	-
857867	TFLP(C) 2TRIP 0.75mm ² S206	BLUE	7021528578676	-
857878	TFLP(C) 4TRIP 0.75mm ² S206	GREY	7021528578782	-
857879	TFLP(C) 4TRIP 0.75mm ² S206	BLUE	7021528578799	-
857890	TFLP(C) 8TRIP 0.75mm ² S206	GREY	7021528578904	-
857893	TFLP(C) 10TRIP 0.75mm ² S206	GREY	7021528578935	-
857894	TFLP(C) 10TRIP 0.75mm ² S206	BLUE	7021528578942	-
857902	TFLP(C) 16TRIP 0.75mm ² S206	GREY	7021528579024	-
857903	TFLP(C) 16TRIP 0.75mm ² S206	BLUE	7021528579031	-
857908	TFLP(C) 24TRIP 0.75mm ² S206	GREY	7021528579086	-
857909	TFLP(C) 24TRIP 0.75mm ² S206	BLUE	7021528579093	-
858006	TFLP(C) 2PAIR 1.5mm ² S206	GREY	7021528580068	-
858007	TFLP(C) 2PAIR 1.5mm ² S206	BLUE	7021528580075	-
858018	TFLP(C) 4PAIR 1.5mm ² S206	GREY	7021528580181	-
858019	TFLP(C) 4PAIR 1.5mm ² S206	BLUE	7021528580198	-
858030	TFLP(C) 8PAIR 1.5mm ² S206	GREY	7021528580303	-
858033	TFLP(C) 10PAIR 1.5mm ² S206	GREY	7021528580334	-
858034	TFLP(C) 10PAIR 1.5mm ² S206	BLUE	7021528580341	-
858042	TFLP(C) 16PAIR 1.5mm ² S206	GREY	7021528580426	-
858043	TFLP(C) 16PAIR 1.5mm ² S206	BLUE	7021528580433	-
858048	TFLP(C) 24PAIR 1.5mm ² S206	GREY	7021528580488	-
858049	TFLP(C) 24PAIR 1.5mm ² S206	BLUE	7021528580495	-
858066	TFLP(C) 2TRIP 1.5mm ² S206	GREY	7021528580662	-
858067	TFLP(C) 2TRIP 1.5mm ² S206	BLUE	7021528580679	-
858078	TFLP(C) 4TRIP 1.5mm ² S206	GREY	7021528580785	-
858079	TFLP(C) 4TRIP 1.5mm ² S206	BLUE	7021528580792	-
858090	TFLP(C) 8TRIP 1.5mm ² S206	GREY	7021528580907	-
858093	TFLP(C) 10TRIP 1.5mm ² S206	GREY	7021528580938	-
858094	TFLP(C) 10TRIP 1.5mm ² S206	BLUE	7021528580945	-
858096	TFLP(C) 12TRIP 1.5mm ² S206	GREY	7021528580969	-
858102	TFLP(C) 16TRIP 1.5mm ² S206	GREY	7021528581027	-

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Part number	Description	Sheath Colour	EAN No. DNK	EL No.
858103	TFLP(C) 16TRIP 1.5mm ² S206	BLUE	7021528581034	-
858108	TFLP(C) 24TRIP 1.5mm ² S206	GREY	7021528581089	-
858109	TFLP(C) 24TRIP 1.5mm ² S206	BLUE	7021528581096	-
858206	TFLP(C) 2PAIR 2.5mm ² S206	GREY	7021528582062	-
858218	TFLP(C) 4PAIR 2.5mm ² S206	GREY	7021528582185	-
858230	TFLP(C) 8PAIR 2.5mm ² S206	GREY	7021528582307	-
858233	TFLP(C) 10PAIR 2.5mm ² S206	GREY	7021528582338	-
858234	TFLP(C) 10PAIR 2.5mm ² S206	BLUE	7021528582345	-
858236	TFLP(C) 12PAIR 2.5mm ² S206	GREY	7021528582369	-
858242	TFLP(C) 16PAIR 2.5mm ² S206	GREY	7021528582420	-
858248	TFLP(C) 24PAIR 2.5mm ² S206	GREY	7021528582482	-
858290	TFLP(C) 8TRIP 2.5mm ² S206	GREY	7021528582901	-
858308	TFLP(C) 24TRIP 2.5mm ² S206	GREY	7021528583083	-

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
20 x D	12 x D	50 N /mm ²	-10°C