



Shipline FR, BXOI(i) 250V Instrumentation cable

Fire resistant and flame retardant halogen-free instrumentation cable. Braided. Individual pair shielded.

BXOI(I) 250V

MGT/HFXLPE/TCWB/PO



Operating temperature : 90°C
Operating Voltage : 250V

Application

Armoured fire resistant cable for fixed installation in ships where cable protection is required. Recommended for instrumentation, communication, control, alarm, emergency and critical systems. Can be installed and operated both indoors and outdoors.

Standards applied	
IEC 60092-376	- 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 60331-21	- Fire Resistant
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	B	Mica-tape + HFXLPE, 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	X	PET tape
Armour/screen	O	Tinned copper wire braid
Tape over armour/screen		Additional tape may be applied
Outer sheath	I	Flame retardant halogen-free thermoplastic compound, SHF1
Marking text		"meter" "år" DRAKA 01 BXOI(i) 250V 2 PAIR 0,75 mm ² IEC 60092-376 IEC 60331-21 IEC60332-3-22 ShipLine
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel, DRAKA 02 = Draka Kabel BV Amsterdam, DRAKA 03 = Draka Kabel BV Emmen
Outer sheath colour		Green



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Core identification instrumentation cables

The pairs have the following number identification according to IEC 60092-376	Core no.
Pair no. 1	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

Range and dimensions

Number of elements	No of cores in element	Cross section core, mm ²	Conductor Diameter, mm	Insulation Thickness, mm	Diameter Braid Wire, 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	0.7	0.2	1.2	13.5 ± 0.8	195	89
4	2	0.75	1.1	0.7	0.3	1.3	16 ± 0.8	310	157
7	2	0.75	1.1	0.7	0.3	1.4	19.5 ± 0.8	470	245
10	2	0.75	1.1	0.7	0.3	1.6	25 ± 1	670	333
14	2	0.75	1.1	0.7	0.3	1.6	27 ± 1	820	407
19	2	0.75	1.1	0.7	0.3	1.7	30 ± 1.5	1040	524
24	2	0.75	1.1	0.7	0.3	1.9	35.5 ± 1.5	1300	640
2	2	1.5	1.6	0.7	0.3	1.3	16 ± 0.8	300	169
4	2	1.5	1.6	0.7	0.3	1.4	18.5 ± 0.8	440	254
7	2	1.5	1.6	0.7	0.3	1.5	22.5 ± 1	670	391
10	2	1.5	1.6	0.7	0.3	1.7	29 ± 1	920	519
14	2	1.5	1.6	0.7	0.3	1.8	31.5 ± 1.5	1180	681
19	2	1.5	1.6	0.7	0.3	1.9	35 ± 1.5	1500	878
24	2	1.5	1.6	0.7	0.4	2.2	42 ± 2	2000	1180

Electrical values instrumentation cables

Type	Capacitance, approx. (nF/km)	Inductance, approx. (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/km)
Shielded pair/triple 0,75 mm ²	65	0.75	24.5	15.31
Shielded pair/triple 1,5 mm ²	75	0.67	12.1	27.69

Ordering information

Part number	Description	Sheath Colour	EAN No. DNK	EL No.	KDN Part number	EAN no. KDN
839902	BXOI(I) 250V 2PAIR 0.75mm ²	GREEN	7021528399028	1065022	-	-
839904	BXOI(I) 250V 4PAIR 0.75mm ²	GREEN	7021528399042	1065023	-	-
839906	BXOI(I) 250V 7PAIR 0.75mm ²	GREEN	7021528399066	1065024	-	-
839908	BXOI(I) 250V 10PAIR 0.75mm ²	GREEN	7021528399080	1065025	-	-
839910	BXOI(I) 250V 14PAIR 0.75mm ²	GREEN	7021528399103	1065026	-	-
839912	BXOI(I) 250V 19PAIR 0.75mm ²	GREEN	7021528399127	1065027	-	-
839914	BXOI(I) 250V 24PAIR 0.75mm ²	GREEN	7021528399141	1065028	-	-
839952	BXOI(I) 250V 2PAIR 1.5mm ²	GREEN	7021528399523	1065062	-	-
839954	BXOI(I) 250V 4PAIR 1.5mm ²	GREEN	7021528399547	1065063	-	-
839956	BXOI(I) 250V 7PAIR 1.5mm ²	GREEN	7021528399561	1065064	-	-
839958	BXOI(I) 250V 10PAIR 1.5mm ²	GREEN	7021528399585	1065065	-	-
839960	BXOI(I) 250V 14PAIR 1.5mm ²	GREEN	7021528399608	1065066	-	-
839962	BXOI(I) 250V 19PAIR 1.5mm ²	GREEN	7021528399622	1065067	-	-
839964	BXOI(I) 250V 24PAIR 1.5mm ²	GREEN	7021528399646	1065068	-	-



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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