



Halogen-free, mud resistant, fire resistant instrumentation cable BFOU(i) 250V, S3/S7

Fire resistant, flame retardant halogen-free instrumentation cable. Mud resistant

BFOU(i) 250V

MGT/EPR/EPR/TCWB/EVA

NEK 606 CodeS3/S7

Operating temperature : 90°C
 Operating Voltage : 250V



Application

Fixed installation for instrumentation, communication, control and alarm systems in both EX- and safe areas, emergency and critical systems where requirement for fire resistance exists. Meets the mud resistant requirements in NEK 606.

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 60331-21	- Fire Resistant
IEC 600754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	B	Mica-tape + EP-rubber, IEC 60092-351 (EPR)
Pair / Triple / Quad twisting		Color coded cores twisted together. Pairs/Triples are screened by copper backed polyester tape with tinned copper drain wire. Each pair/triple is wrapped with polyester tape to prevent electrical contact with adjacent pairs/triples. Pairs/triples are identified by numbered tape or by numbers printed directly on the insulated conductors.
Lay up / Shielding		Individually shielded pairs/triples/quads are laid up in concentric layers and wrapped with a PETP tape.
Inner covering	F	Flame retardant and halogen-free thermoplastic compound
Tape over inner covering		PET tape
Armour/screen	O	Tinned annealed copper wire braid
Tape over armour/screen		PET tape
Outer sheath	U	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-359)
Marking text		Eg. "meter" "år" DRAKA NORSK KABEL BFOU(i) 250V S3/S7 16 PAIR 0,75 mm2 FLEX - FLAME IEC 60092-376 IEC 60331-21 IEC 60332-3-22 ETL Classified No. 3067229
Outer sheath colour		Grey or Blue



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 Braid Wire, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	2	0.75	1.1	0.6	1.1	7.5 ± 0.5	0.2	1.1	10.5 ± 0.8	200	56
1	2	0.75	1.1	0.6	1.1	7.5 ± 0.5	0.2	1.1	10.5 ± 0.8	200	56
2	2	0.75	1.1	0.6	1.1	11 ± 0.8	0.3	1.3	14.5 ± 0.8	360	137
2	2	0.75	1.1	0.6	1.1	11 ± 0.8	0.3	1.3	14.5 ± 0.8	360	137
4	2	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	1.4	16.5 ± 0.8	500	190
4	2	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	1.4	16.5 ± 0.8	500	190
8	2	0.75	1.1	0.6	1.1	17 ± 0.8	0.3	1.6	21.5 ± 1	810	296
8	2	0.75	1.1	0.6	1.1	17 ± 0.8	0.3	1.6	21.5 ± 1	810	296
12	2	0.75	1.1	0.6	1.3	20.5 ± 1	0.3	1.7	25 ± 1	1070	394
12	2	0.75	1.1	0.6	1.3	20.5 ± 1	0.3	1.7	25 ± 1	1070	394
16	2	0.75	1.1	0.6	1.4	23 ± 1	0.3	1.8	27.5 ± 1	1330	492
16	2	0.75	1.1	0.6	1.4	23 ± 1	0.3	1.8	27.5 ± 1	1330	492
24	2	0.75	1.1	0.6	1.8	29 ± 1	0.4	2.1	34.5 ± 1.5	2020	749
24	2	0.75	1.1	0.6	1.8	29 ± 1	0.4	2.1	34.5 ± 1.5	2020	749
1	3	0.75	1.1	0.6	1.1	8 ± 0.5	0.2	1.1	11 ± 0.8	225	70
1	3	0.75	1.1	0.6	1.1	8 ± 0.5	0.2	1.1	11 ± 0.8	225	70
2	3	0.75	1.1	0.6	1.1	12 ± 0.8	0.3	1.4	15.5 ± 0.8	420	151
2	3	0.75	1.1	0.6	1.1	12 ± 0.8	0.3	1.4	15.5 ± 0.8	420	151
4	3	0.75	1.1	0.6	1.1	14 ± 0.8	0.3	1.4	17.5 ± 0.8	570	218
4	3	0.75	1.1	0.6	1.1	14 ± 0.8	0.3	1.4	17.5 ± 0.8	570	218
8	3	0.75	1.1	0.6	1.1	18.5 ± 0.8	0.3	1.7	23 ± 1	980	377
8	3	0.75	1.1	0.6	1.1	18.5 ± 0.8	0.3	1.7	23 ± 1	980	377
12	3	0.75	1.1	0.6	1.3	22.5 ± 1	0.3	1.8	27 ± 1	1310	504
12	3	0.75	1.1	0.6	1.3	22.5 ± 1	0.3	1.8	27 ± 1	1310	504
16	3	0.75	1.1	0.6	1.4	25.5 ± 1	0.3	1.9	30 ± 1.5	1650	630
24	3	0.75	1.1	0.6	1.8	31.5 ± 1.5	0.4	2.2	37.5 ± 1.5	2500	963
24	3	0.75	1.1	0.6	1.8	31.5 ± 1.5	0.4	2.2	37.5 ± 1.5	2500	963
1	2	1.5	1.6	0.7	1.1	9 ± 0.5	0.2	1.1	12 ± 0.8	255	79
1	2	1.5	1.6	0.7	1.1	9 ± 0.5	0.2	1.1	12 ± 0.8	255	79
2	2	1.5	1.6	0.7	1.1	13 ± 0.8	0.3	1.4	17 ± 0.8	480	185
2	2	1.5	1.6	0.7	1.1	13 ± 0.8	0.3	1.4	17 ± 0.8	480	185
4	2	1.5	1.6	0.7	1.1	15.5 ± 0.8	0.3	1.5	19.5 ± 0.8	670	270
4	2	1.5	1.6	0.7	1.1	15.5 ± 0.8	0.3	1.5	19.5 ± 0.8	670	270



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 Braid Wire, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
8	2	1.5	1.6	0.7	1.1	21 ± 1	0.3	1.7	25.5 ± 1	1120	449
8	2	1.5	1.6	0.7	1.1	21 ± 1	0.3	1.7	25.5 ± 1	1120	449
12	2	1.5	1.6	0.7	1.3	25 ± 1	0.3	1.9	30 ± 1.5	1530	611
12	2	1.5	1.6	0.7	1.3	25 ± 1	0.3	1.9	30 ± 1.5	1530	611
16	2	1.5	1.6	0.7	1.6	29 ± 1	0.3	2	34 ± 1.5	1970	773
16	2	1.5	1.6	0.7	1.6	29 ± 1	0.3	2	34 ± 1.5	1970	773
24	2	1.5	1.6	0.7	1.8	35.5 ± 1.5	0.4	2.3	42 ± 2	2970	1221
1	3	1.5	1.6	0.7	1.1	9.5 ± 0.5	0.2	1.2	12.5 ± 0.8	290	93
1	3	1.5	1.6	0.7	1.1	9.5 ± 0.5	0.2	1.2	12.5 ± 0.8	290	93
2	3	1.5	1.6	0.7	1.1	14.5 ± 0.8	0.3	1.5	18.5 ± 0.8	560	213
4	3	1.5	1.6	0.7	1.1	17 ± 0.8	0.3	1.6	21 ± 1	830	343
4	3	1.5	1.6	0.7	1.1	17 ± 0.8	0.3	1.6	21 ± 1	830	343
8	3	1.5	1.6	0.7	1.1	22.5 ± 1	0.3	1.8	27 ± 1	1390	586
8	3	1.5	1.6	0.7	1.1	22.5 ± 1	0.3	1.8	27 ± 1	1390	586
12	3	1.5	1.6	0.7	1.5	28.5 ± 1	0.3	2	33.5 ± 1.5	1970	806
12	3	1.5	1.6	0.7	1.5	28.5 ± 1	0.3	2	33.5 ± 1.5	1970	806
16	3	1.5	1.6	0.7	1.6	31.5 ± 1.5	0.4	2.2	37.5 ± 1.5	2680	1175
16	3	1.5	1.6	0.7	1.6	31.5 ± 1.5	0.4	2.2	37.5 ± 1.5	2680	1175
24	3	1.5	1.6	0.7	2	39.5 ± 1.5	0.4	2.5	46.5 ± 2	3830	1605
24	3	1.5	1.6	0.7	2	39.5 ± 1.5	0.4	2.5	46.5 ± 2	3830	1605
1	2	2.5	2	0.7	1.1	9.5 ± 0.5	0.2	1.2	13 ± 0.8	300	99
1	2	2.5	2	0.7	1.1	9.5 ± 0.5	0.2	1.2	13 ± 0.8	300	99
1	2	2.5	2	0.7	1.1	9.5 ± 0.5	0.2	1.2	13 ± 0.8	300	99
2	2	2.5	2	0.7	1.1	14.5 ± 0.8	0.3	1.5	18.5 ± 0.8	560	225
4	2	2.5	2	0.7	1.1	17 ± 0.8	0.3	1.6	21.5 ± 1	830	366
16	2	2.5	2	0.7	1.6	32 ± 1.5	0.4	2.2	38 ± 1.5	2630	1218
1	3	2.5	2	0.7	1.1	10.5 ± 0.8	0.2	1.2	13.5 ± 0.8	350	129
8	3	2.5	2	0.7	1.3	25.5 ± 1	0.3	2	30.5 ± 1.5	1820	841



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)
Shielded pair 0,75 mm ²	110	0,67	24,8	14,3
Shielded triple 0,75 mm ²	110	0,67	24,8	14,3
Shielded pair 1,5 mm ²	125	0,63	12,2	26,6
Shielded triple 1,5 mm ²	125	0,63	12,2	26,6
Shielded pair 2,5 mm ²	145	0,59	7,56	39,0
Shielded triple 2,5 mm ²	145	0,59	7,56	39,0

Ordering information

Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
893200	BFOU(I) 1PAIR 0.75mm ² S3/S7	GREY	Yes	7021528932003	1043820
893201	BFOU(I) 1PAIR 0.75mm ² S3/S7	BLUE	Yes	7021528932010	1043819
893206	BFOU(I) 2PAIR 0.75mm ² S3/S7	GREY	Yes	7021528932065	1044020
893207	BFOU(I) 2PAIR 0.75mm ² S3/S7	BLUE	-	7021528932072	1044019
893218	BFOU(I) 4PAIR 0.75mm ² S3/S7	GREY	Yes	7021528932188	1044021
893219	BFOU(I) 4PAIR 0.75mm ² S3/S7	BLUE	-	7021528932195	1044022
893230	BFOU(I) 8PAIR 0.75mm ² S3/S7	GREY	Yes	7021528932300	1044028
893231	BFOU(I) 8PAIR 0.75mm ² S3/S7	BLUE	-	7021528932317	1044029
893236	BFOU(I) 12PAIR 0.75mm ² S3/S7	GREY	-	7021528932362	1044030
893237	BFOU(I) 12PAIR 0.75mm ² S3/S7	BLUE	-	7021528932379	1044031
893242	BFOU(I) 16PAIR 0.75mm ² S3/S7	GREY	Yes	7021528932423	1044033
893243	BFOU(I) 16PAIR 0.75mm ² S3/S7	BLUE	-	7021528932430	1044034
893248	BFOU(I) 24PAIR 0.75mm ² S3/S7	GREY	-	7021528932485	1044036
893249	BFOU(I) 24PAIR 0.75mm ² S3/S7	BLUE	-	7021528932492	1044037
893260	BFOU(I) 1TRIP 0.75mm ² S3/S7	GREY	Yes	7021528932607	1043920
893261	BFOU(I) 1TRIP 0.75mm ² S3/S7	BLUE	Yes	7021528932614	1043919
893266	BFOU(I) 2TRIP 0.75mm ² S3/S7	GREY	-	7021528932669	1044121
893267	BFOU(I) 2TRIP 0.75mm ² S3/S7	BLUE	-	7021528932676	1044122
893278	BFOU(I) 4TRIP 0.75mm ² S3/S7	GREY	-	7021528932782	1044123
893279	BFOU(I) 4TRIP 0.75mm ² S3/S7	BLUE	-	7021528932799	1044124
893290	BFOU(I) 8TRIP 0.75mm ² S3/S7	GREY	Yes	7021528932904	1044128
893291	BFOU(I) 8TRIP 0.75mm ² S3/S7	BLUE	-	7021528932911	1044129
893296	BFOU(I) 12TRIP 0.75mm ² S3/S7	GREY	-	7021528932966	1044130
893297	BFOU(I) 12TRIP 0.75mm ² S3/S7	BLUE	-	7021528932973	1044131
893302	BFOU(I) 16TRIP 0.75mm ² S3/S7	GREY	-	7021528933024	1044132
893308	BFOU(I) 24TRIP 0.75mm ² S3/S7	GREY	-	7021528933086	1044138
893309	BFOU(I) 24TRIP 0.75mm ² S3/S7	BLUE	-	7021528933093	1044139
893400	BFOU(I) 1PAIR 1.5mm ² S3/S7	GREY	Yes	7021528934007	1043860
893401	BFOU(I) 1PAIR 1.5mm ² S3/S7	BLUE	Yes	7021528934014	1043859
893406	BFOU(I) 2PAIR 1.5mm ² S3/S7	GREY	Yes	7021528934069	1044060
893407	BFOU(I) 2PAIR 1.5mm ² S3/S7	BLUE	-	7021528934076	1044061
893418	BFOU(I) 4PAIR 1.5mm ² S3/S7	GREY	Yes	7021528934182	1044063
893419	BFOU(I) 4PAIR 1.5mm ² S3/S7	BLUE	-	7021528934199	1044064
893430	BFOU(I) 8PAIR 1.5mm ² S3/S7	GREY	Yes	7021528934304	1044068
893431	BFOU(I) 8PAIR 1.5mm ² S3/S7	BLUE	-	7021528934311	1044069
893436	BFOU(I) 12PAIR 1.5mm ² S3/S7	GREY	Yes	7021528934366	1044070
893437	BFOU(I) 12PAIR 1.5mm ² S3/S7	BLUE	-	7021528934373	1044071
893442	BFOU(I) 16PAIR 1.5mm ² S3/S7	GREY	Yes	7021528934427	1044073
893443	BFOU(I) 16PAIR 1.5mm ² S3/S7	BLUE	-	7021528934434	1044074
893448	BFOU(I) 24PAIR 1.5mm ² S3/S7	GREY	-	7021528934489	1044076
893460	BFOU(I) 1TRIP 1.5mm ² S3/S7	GREY	Yes	7021528934601	1044170
893461	BFOU(I) 1TRIP 1.5mm ² S3/S7	BLUE	Yes	7021528934618	1044169
893466	BFOU(I) 2TRIP 1.5mm ² S3/S7	GREY	-	7021528934663	1044171
893478	BFOU(I) 4TRIP 1.5mm ² S3/S7	GREY	-	7021528934786	1044173
893479	BFOU(I) 4TRIP 1.5mm ² S3/S7	BLUE	-	7021528934793	1044174



Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
893490	BFOU(I) 8TRIP 1.5mm ² S3/S7	GREY	-	7021528934908	1044177
893491	BFOU(I) 8TRIP 1.5mm ² S3/S7	BLUE	-	7021528934915	1044178
893496	BFOU(I) 12TRIP 1.5mm ² S3/S7	GREY	-	7021528934960	1044179
893497	BFOU(I) 12TRIP 1.5mm ² S3/S7	BLUE	-	7021528934977	1044180
893502	BFOU(I) 16TRIP 1.5mm ² S3/S7	GREY	-	7021528935028	1044181
893503	BFOU(I) 16TRIP 1.5mm ² S3/S7	BLUE	-	7021528935035	1044182
893508	BFOU(I) 24TRIP 1.5mm ² S3/S7	GREY	-	7021528935080	1044193
893509	BFOU(I) 24TRIP 1.5mm ² S3/S7	BLUE	-	7021528935097	1044194
893600	BFOU(I) 1PAIR 2.5mm ² S3/S7	GREY	Yes	7021528936001	1044140
893601	BFOU(I) 1PAIR 2.5mm ² S3/S7	BLUE	-	7021528936018	-
893602	BFOU(I) 1PAIR 2.5mm ²	BLACK	-	7021528936025	-
893606	BFOU(I) 2PAIR 2.5mm ² S3/S7	GREY	-	7021528936063	-
893618	BFOU(I) 4PAIR 2.5mm ² S3/S7	GREY	-	7021528936186	-
893642	BFOU(I) 16PAIR 2.5mm ² S3/S7	GREY	-	7021528936421	-
893660	BFOU(I) 1TRIP 2.5mm ² S3/S7	GREY	-	7021528936605	-
893690	BFOU(I) 8TRIP 2.5mm ² S3/S7	GREY	-	7021528936902	-

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	-20°C