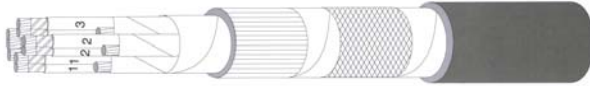


# FlexFlame BFOU(i) 150/250(300)V S3/S7 Instr. cable

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

## **BFOU(i) 150/250(300)V**

**MGT/EPR/EPR/TCWB/EVA**



**NEK TS 606 CodeS3/S7**

**Operating temperature : 90°C**  
**Operating Voltage : 150/250(300)V**

**Standards applied**

**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 TS 606:2009.

- |                         |                   |
|-------------------------|-------------------|
| 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 60331-1, -2, -21    | - Fire Resistant  |
| IEC 60754-1,2           | - Halogen Free    |
| IEC 61034-1,2           | - Low Smoke       |

**Construction**

	Code Letter	
<b>Conductor</b>		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
<b>Insulation</b>	<b>B</b>	Mica-tape + EP-rubber, IEC 60092-351 (EPR)
<b>Pair / Triple / Quad twisting</b>		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.
<b>Lay up / Shielding</b>		Individually shielded pairs/triples/quads are laid up in concentric layers and wrapped with a PETP tape.
<b>Inner covering</b>	<b>F</b>	Flame retardant and halogen-free thermoplastic compound
<b>Tape over inner covering</b>		PET tape
<b>Armour/screen</b>	<b>O</b>	Tinned annealed copper wire braid
<b>Tape over armour/screen</b>		PET tape
<b>Outer sheath</b>	<b>U</b>	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-359)
<b>Marking text</b>		Eg. "meter" "year" DRAKA 01 BFOU(i) 250V S3/S7 16 PAIR 0,75 mm <sup>2</sup> FLEX - FLAME IEC 60092-376 IEC 60331-21 IEC 60332-3-22
<b>Manufacturing unit</b>		DRAKA 01 = Draka Norsk Kabel
<b>Outer sheath colour</b>		Grey or Blue

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# FlexFlame BFOU(i) 150/250(300)V S3/S7 Instr. cable

## 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 <sup>2</sup>	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm <sup>2</sup>	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	3.8	1.1	10.5 ± 0.8	200	54
1	2	0.75	1.1	0.6	1.1	7.5 ± 0.5	0.2	3.8	1.1	10.5 ± 0.8	200	55
1	2	0.75	1.1	0.6	1.1	7.5 ± 0.5	0.2	3.8	1.1	10.5 ± 0.8	200	54
1	4	0.75	1.1	0.6	1.1	8.5 ± 0.5	0.2	4.5	1.2	12 ± 0.8	250	74
2	2	0.75	1.1	0.6	1.1	11 ± 0.8	0.3	10.2	1.3	14.5 ± 0.8	360	133
2	2	0.75	1.1	0.6	1.1	11 ± 0.8	0.3	10.2	1.3	14.5 ± 0.8	360	133
4	2	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	11.9	1.4	16.5 ± 0.8	490	183
4	2	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	11.9	1.4	16.5 ± 0.8	490	183
8	2	0.75	1.1	0.6	1.1	17 ± 0.8	0.3	15.3	1.6	21.5 ± 1	780	283
8	2	0.75	1.1	0.6	1.1	17 ± 0.8	0.3	15.3	1.6	21.5 ± 1	780	283
12	2	0.75	1.1	0.6	1.4	20.5 ± 1	0.3	17.8	1.7	25 ± 1	1060	373
12	2	0.75	1.1	0.6	1.4	20.5 ± 1	0.3	17.8	1.7	25 ± 1	1060	373
16	2	0.75	1.1	0.6	1.9	24 ± 1	0.3	20.4	1.8	28.5 ± 1	1400	465
16	2	0.75	1.1	0.6	1.9	24 ± 1	0.3	20.4	1.8	28.5 ± 1	1400	465
19	2	0.75	1.1	0.6	1.9	25 ± 1	0.3	20.4	1.9	29.5 ± 1	1550	514
19	2	0.75	1.1	0.6	1.9	25 ± 1	0.3	20.4	1.9	29.5 ± 1	1550	514
24	2	0.75	1.1	0.6	2.3	30 ± 1.5	0.4	31.7	2.1	35.5 ± 1.5	2100	708
24	2	0.75	1.1	0.6	2.3	30 ± 1.5	0.4	31.7	2.1	35.5 ± 1.5	2100	708
1	3	0.75	1.1	0.6	1.1	8 ± 0.5	0.2	4.5	1.1	11 ± 0.8	220	68
1	3	0.75	1.1	0.6	1.1	8 ± 0.5	0.2	4.5	1.1	11 ± 0.8	220	68
2	3	0.75	1.1	0.6	1.1	12 ± 0.8	0.3	10.2	1.4	15.5 ± 0.8	410	146
2	3	0.75	1.1	0.6	1.1	12 ± 0.8	0.3	10.2	1.4	15.5 ± 0.8	410	146
4	3	0.75	1.1	0.6	1.1	14 ± 0.8	0.3	11.9	1.4	17.5 ± 0.8	570	209
4	3	0.75	1.1	0.6	1.1	14 ± 0.8	0.3	11.9	1.4	17.5 ± 0.8	570	209
8	3	0.75	1.1	0.6	1.1	18.5 ± 0.8	0.3	17.8	1.7	23 ± 1	960	359
8	3	0.75	1.1	0.6	1.1	18.5 ± 0.8	0.3	17.8	1.7	23 ± 1	960	359
12	3	0.75	1.1	0.6	1.4	22.5 ± 1	0.3	20.4	1.8	27.5 ± 1	1310	477
12	3	0.75	1.1	0.6	1.4	22.5 ± 1	0.3	20.4	1.8	27.5 ± 1	1310	477
16	3	0.75	1.1	0.6	2.1	26.5 ± 1	0.3	22.9	1.9	31.5 ± 1.5	1770	594
19	3	0.75	1.1	0.6	2.3	28 ± 1	0.3	22.9	2	33 ± 1.5	2000	663
24	3	0.75	1.1	0.6	2.5	33 ± 1.5	0.4	36.2	2.2	39 ± 1.5	2630	909
24	3	0.75	1.1	0.6	2.5	33 ± 1.5	0.4	36.2	2.2	39 ± 1.5	2630	909
1	2	1.5	1.6	0.7	1.1	9 ± 0.5	0.2	4.5	1.1	12 ± 0.8	255	79
1	2	1.5	1.6	0.7	1.1	9 ± 0.5	0.2	4.5	1.1	12 ± 0.8	255	79
2	2	1.5	1.6	0.7	1.1	13 ± 0.8	0.3	11.9	1.4	17 ± 0.8	480	184
2	2	1.5	1.6	0.7	1.1	13 ± 0.8	0.3	11.9	1.4	17 ± 0.8	480	184
4	2	1.5	1.6	0.7	1.1	15.5 ±	0.3	13.6	1.5	19.5 ±	670	269

## FlexFlame BFOU(i) 150/250(300)V S3/S7 Instr. cable

Number of elements	No of cores in element	Cross section core, mm <sup>2</sup>	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm <sup>2</sup>	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
4	2	1.5	1.6	0.7	1.1	0.8 15.5 ± 0.8	0.3	13.6	1.5	0.8 19.5 ± 0.8	670	269
8	2	1.5	1.6	0.7	1.1	21 ± 1	0.3	17.8	1.7	25.5 ± 1	1100	446
8	2	1.5	1.6	0.7	1.1	21 ± 1	0.3	17.8	1.7	25.5 ± 1	1100	446
12	2	1.5	1.6	0.7	1.4	25.5 ± 1	0.3	20.4	1.9	30.5 ± 1.5	1540	606
12	2	1.5	1.6	0.7	1.4	25.5 ± 1	0.3	20.4	1.9	30.5 ± 1.5	1540	606
16	2	1.5	1.6	0.7	2.1	30 ± 1.5	0.3	22.9	2	35 ± 1.5	2080	766
16	2	1.5	1.6	0.7	2.1	30 ± 1.5	0.3	22.9	2	35 ± 1.5	2080	766
19	2	1.5	1.6	0.7	2.1	31 ± 1.5	0.4	36.2	2.1	36.5 ± 1.5	2460	998
24	2	1.5	1.6	0.7	2.3	36.5 ± 1.5	0.4	40.7	2.3	43 ± 2	3100	1211
24	2	1.5	1.6	0.7	2.3	36.5 ± 1.5	0.4	40.7	2.3	43 ± 2	3100	1211
1	3	1.5	1.6	0.7	1.1	9.5 ± 0.5	0.2	4.5	1.2	12.5 ± 0.8	290	93
1	3	1.5	1.6	0.7	1.1	9.5 ± 0.5	0.2	4.5	1.2	12.5 ± 0.8	290	93
2	3	1.5	1.6	0.7	1.1	14.5 ± 0.8	0.3	11.9	1.5	18.5 ± 0.8	560	213
2	3	1.5	1.6	0.7	1.1	14.5 ± 0.8	0.3	11.9	1.5	18.5 ± 0.8	560	213
4	3	1.5	1.6	0.7	1.1	17 ± 0.8	0.3	15.3	1.6	21 ± 1	830	342
4	3	1.5	1.6	0.7	1.1	17 ± 0.8	0.3	15.3	1.6	21 ± 1	830	342
8	3	1.5	1.6	0.7	1.1	22.5 ± 1	0.3	20.4	1.8	27 ± 1	1390	584
8	3	1.5	1.6	0.7	1.1	22.5 ± 1	0.3	20.4	1.8	27 ± 1	1390	584
12	3	1.5	1.6	0.7	1.6	28.5 ± 1	0.3	22.9	2	33.5 ± 1.5	1990	802
12	3	1.5	1.6	0.7	1.6	28.5 ± 1	0.3	22.9	2	33.5 ± 1.5	1990	802
16	3	1.5	1.6	0.7	2.3	33 ± 1.5	0.4	36.2	2.2	39 ± 1.5	2820	1123
16	3	1.5	1.6	0.7	2.3	33 ± 1.5	0.4	36.2	2.2	39 ± 1.5	2820	1123
24	3	1.5	1.6	0.7	2.7	41 ± 2	0.4	45.2	2.5	47.5 ± 2	4050	1596
24	3	1.5	1.6	0.7	2.7	41 ± 2	0.4	45.2	2.5	47.5 ± 2	4050	1596
1	2	2.5	2	0.7	1.1	9.5 ± 0.5	0.2	4.5	1.2	13 ± 0.8	300	99
1	2	2.5	2	0.7	1.1	9.5 ± 0.5	0.2	4.5	1.2	13 ± 0.8	300	99
2	2	2.5	2	0.7	1.1	14.5 ± 0.8	0.3	11.9	1.5	18.5 ± 0.8	560	225
4	2	2.5	2	0.7	1.1	17 ± 0.8	0.3	15.3	1.6	21.5 ± 1	830	367
8	2	2.5	2	0.7	1.1	23.5 ± 1	0.3	20.4	1.8	28 ± 1	1390	633
16	2	2.5	2	0.7	2.3	33.5 ± 1.5	0.4	36.2	2.2	39.5 ± 1.5	2820	1221
1	3	2.5	2	0.7	1.1	10.5 ± 0.8	0.2	5.3	1.2	13.5 ± 0.8	350	129
8	3	2.5	2	0.7	1.3	25.5 ± 1	0.3	22.9	2	30.5 ± 1.5	1820	844
12	3	2.5	2	0.7	2.6	33.5 ± 1.5	0.4	36.2	2.2	39.5 ± 1.5	2940	1284

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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)
Shielded pair 0,75 mm <sup>2</sup>	110	0,67	26,3	12,7
Shielded triple 0,75 mm <sup>2</sup>	110	0,67	26,3	12,7
Shielded pair 1,5 mm <sup>2</sup>	125	0,63	12,9	24,4
Shielded triple 1,5 mm <sup>2</sup>	125	0,63	12,9	24,4
Shielded pair 2,5 mm <sup>2</sup>	145	0,59	8,02	36,8
Shielded triple 2,5 mm <sup>2</sup>	145	0,59	8,02	36,8

### Ordering information

Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
893200	BFOU(I) 1PAIR 0.75mm <sup>2</sup> S3/S7	GREY	Yes	7021528932003	1043820
89320083	BFOU(I) 1PAIR 0.75mm <sup>2</sup> S3/S7	GREY	Yes	7021528932003	1043820SDC
893201	BFOU(I) 1PAIR 0.75mm <sup>2</sup> S3/S7	BLUE	Yes	7021528932010	1043819
893203	BFOU(I) 1QUAD 0.75mm <sup>2</sup> S3/S7	GREY	-	7021528932034	-
893206	BFOU(I) 2PAIR 0.75mm <sup>2</sup> S3/S7	GREY	Yes	7021528932065	1044020
893207	BFOU(I) 2PAIR 0.75mm <sup>2</sup> S3/S7	BLUE	-	7021528932072	1044019
893218	BFOU(I) 4PAIR 0.75mm <sup>2</sup> S3/S7	GREY	Yes	7021528932188	1044021
893219	BFOU(I) 4PAIR 0.75mm <sup>2</sup> S3/S7	BLUE	-	7021528932195	1044022
893230	BFOU(I) 8PAIR 0.75mm <sup>2</sup> S3/S7	GREY	Yes	7021528932300	1044028
893231	BFOU(I) 8PAIR 0.75mm <sup>2</sup> S3/S7	BLUE	-	7021528932317	1044029
893236	BFOU(I) 12PAIR 0.75mm <sup>2</sup> S3/S7	GREY	-	7021528932362	1044030
893237	BFOU(I) 12PAIR 0.75mm <sup>2</sup> S3/S7	BLUE	-	7021528932379	1044031
893242	BFOU(I) 16PAIR 0.75mm <sup>2</sup> S3/S7	GREY	Yes	7021528932423	1044033
893243	BFOU(I) 16PAIR 0.75mm <sup>2</sup> S3/S7	BLUE	-	7021528932430	1044034
893245	BFOU(I) 19PAIR 0.75mm <sup>2</sup> S3/S7	GREY	Yes	7021528932454	-
893246	BFOU(I) 19PAIR 0.75mm <sup>2</sup> S3/S7	BLUE	Yes	7021528932461	-
893248	BFOU(I) 24PAIR 0.75mm <sup>2</sup> S3/S7	GREY	-	7021528932485	1044036
893249	BFOU(I) 24PAIR 0.75mm <sup>2</sup> S3/S7	BLUE	-	7021528932492	1044037
893260	BFOU(I) 1TRIP 0.75mm <sup>2</sup> S3/S7	GREY	Yes	7021528932607	1043920
893261	BFOU(I) 1TRIP 0.75mm <sup>2</sup> S3/S7	BLUE	Yes	7021528932614	1043919
893266	BFOU(I) 2TRIP 0.75mm <sup>2</sup> S3/S7	GREY	-	7021528932669	1044121
893267	BFOU(I) 2TRIP 0.75mm <sup>2</sup> S3/S7	BLUE	-	7021528932676	1044122
893278	BFOU(I) 4TRIP 0.75mm <sup>2</sup> S3/S7	GREY	-	7021528932782	1044123
893279	BFOU(I) 4TRIP 0.75mm <sup>2</sup> S3/S7	BLUE	-	7021528932799	1044124
893290	BFOU(I) 8TRIP 0.75mm <sup>2</sup> S3/S7	GREY	Yes	7021528932904	1044128
893291	BFOU(I) 8TRIP 0.75mm <sup>2</sup> S3/S7	BLUE	-	7021528932911	1044129
893296	BFOU(I) 12TRIP 0.75mm <sup>2</sup> S3/S7	GREY	-	7021528932966	1044130
893297	BFOU(I) 12TRIP 0.75mm <sup>2</sup> S3/S7	BLUE	-	7021528932973	1044131
893302	BFOU(I) 16TRIP 0.75mm <sup>2</sup> S3/S7	GREY	-	7021528933024	1044132
893305	BFOU(I) 19TRIP 0.75mm <sup>2</sup> S3/S7	GREY	-	7021528933055	-
893308	BFOU(I) 24TRIP 0.75mm <sup>2</sup> S3/S7	GREY	-	7021528933086	1044138
893309	BFOU(I) 24TRIP 0.75mm <sup>2</sup> S3/S7	BLUE	-	7021528933093	1044139
893400	BFOU(I) 1PAIR 1.5mm <sup>2</sup> S3/S7	GREY	Yes	7021528934007	1043860
893401	BFOU(I) 1PAIR 1.5mm <sup>2</sup> S3/S7	BLUE	Yes	7021528934014	1043859
893406	BFOU(I) 2PAIR 1.5mm <sup>2</sup> S3/S7	GREY	Yes	7021528934069	1044060
893407	BFOU(I) 2PAIR 1.5mm <sup>2</sup> S3/S7	BLUE	-	7021528934076	1044061
893418	BFOU(I) 4PAIR 1.5mm <sup>2</sup> S3/S7	GREY	Yes	7021528934182	1044063
893419	BFOU(I) 4PAIR 1.5mm <sup>2</sup> S3/S7	BLUE	-	7021528934199	1044064
893430	BFOU(I) 8PAIR 1.5mm <sup>2</sup> S3/S7	GREY	Yes	7021528934304	1044068
893431	BFOU(I) 8PAIR 1.5mm <sup>2</sup> S3/S7	BLUE	-	7021528934311	1044069
893436	BFOU(I) 12PAIR 1.5mm <sup>2</sup> S3/S7	GREY	Yes	7021528934366	1044070
893437	BFOU(I) 12PAIR 1.5mm <sup>2</sup> S3/S7	BLUE	-	7021528934373	1044071
893442	BFOU(I) 16PAIR 1.5mm <sup>2</sup> S3/S7	GREY	Yes	7021528934427	1044073
893443	BFOU(I) 16PAIR 1.5mm <sup>2</sup> S3/S7	BLUE	-	7021528934434	1044074
893445	BFOU(I) 19PAIR 1.5mm <sup>2</sup> S3/S7	GREY	Yes	7021528934458	-
893448	BFOU(I) 24PAIR 1.5mm <sup>2</sup> S3/S7	GREY	-	7021528934489	1044076

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Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
893449	BFOU(I) 24PAIR 1.5mm <sup>2</sup> S3/S7	BLUE	-	7021528934496	-
893460	BFOU(I) 1TRIP 1.5mm <sup>2</sup> S3/S7	GREY	Yes	7021528934601	1044170
893461	BFOU(I) 1TRIP 1.5mm <sup>2</sup> S3/S7	BLUE	Yes	7021528934618	1044169
893466	BFOU(I) 2TRIP 1.5mm <sup>2</sup> S3/S7	GREY	-	7021528934663	1044171
893467	BFOU(I) 2TRIP 1.5mm <sup>2</sup> S3/S7	BLUE	-	7021528934670	-
893478	BFOU(I) 4TRIP 1.5mm <sup>2</sup> S3/S7	GREY	-	7021528934786	1044173
893479	BFOU(I) 4TRIP 1.5mm <sup>2</sup> S3/S7	BLUE	-	7021528934793	1044174
893490	BFOU(I) 8TRIP 1.5mm <sup>2</sup> S3/S7	GREY	-	7021528934908	1044177
893491	BFOU(I) 8TRIP 1.5mm <sup>2</sup> S3/S7	BLUE	-	7021528934915	1044178
893496	BFOU(I) 12TRIP 1.5mm <sup>2</sup> S3/S7	GREY	-	7021528934960	1044179
893497	BFOU(I) 12TRIP 1.5mm <sup>2</sup> S3/S7	BLUE	-	7021528934977	1044180
893502	BFOU(I) 16TRIP 1.5mm <sup>2</sup> S3/S7	GREY	-	7021528935028	1044181
893503	BFOU(I) 16TRIP 1.5mm <sup>2</sup> S3/S7	BLUE	-	7021528935035	1044182
893508	BFOU(I) 24TRIP 1.5mm <sup>2</sup> S3/S7	GREY	-	7021528935080	1044193
893509	BFOU(I) 24TRIP 1.5mm <sup>2</sup> S3/S7	BLUE	-	7021528935097	1044194
893600	BFOU(I) 1PAIR 2.5mm <sup>2</sup> S3/S7	GREY	Yes	7021528936001	1044140
893601	BFOU(I) 1PAIR 2.5mm <sup>2</sup> S3/S7	BLUE	-	7021528936018	-
893606	BFOU(I) 2PAIR 2.5mm <sup>2</sup> S3/S7	GREY	-	7021528936063	-
893618	BFOU(I) 4PAIR 2.5mm <sup>2</sup> S3/S7	GREY	-	7021528936186	-
893630	BFOU(I) 8PAIR 2.5mm <sup>2</sup> S3/S7	GREY	-	7021528936308	-
893642	BFOU(I) 16PAIR 2.5mm <sup>2</sup> S3/S7	GREY	-	7021528936421	-
893660	BFOU(I) 1TRIP 2.5mm <sup>2</sup> S3/S7	GREY	-	7021528936605	-
893690	BFOU(I) 8TRIP 2.5mm <sup>2</sup> S3/S7	GREY	-	7021528936902	-
893696	BFOU(I) 12TRIP 2.5mm <sup>2</sup> S3/S7	GREY	-	7021528936964	-

### 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 <sup>2</sup>	-20°C