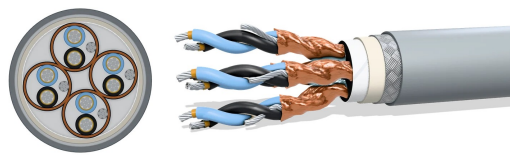


Application

BFOU(i) 250 V is a fire-resistant, flame-retardant, halogen-free instrumentation cable for fixed installation on offshore units, drilling rigs, FPSOs and ships, designed to NEK TS 606 and IEC 60092-376.

The tinned copper conductors carry a mica-tape fire barrier under halogen-free EPR insulation; each pair or triple is individually screened, and the assembly is protected by a halogen-free inner sheath, a braid of tinned copper wires and a halogen-free, mud-resistant thermoset outer sheath. The cable maintains circuit integrity under fire conditions acc. to IEC 60331 and is intended for instrumentation, communication, control, alarm and emergency-shutdown circuits in safe and hazardous areas, including installations exposed to oil, drilling fluids and mud. It is not intended for power distribution.



CONSTRUCTION

Conductor	Tinned annealed stranded copper, class 2 acc. to IEC 60228. Class 5 (flexible) on request.
Fire barrier	Mica-glass tape applied over the conductor.
Insulation	Halogen-free EPR compound.
Screen	Individual screen over each pair/triple: copper-laminated polyester tape with tinned copper drain wire; screened elements laid up and wrapped with polyester tape.
Armour	Braid of tinned copper wires over a halogen-free inner sheath.
Sheath	Halogen-free, flame-retardant and mud-resistant thermoset compound (SHF2), grey; blue for intrinsically safe circuits.
Core identification	Pair: black / light blue; triple: black / light blue / brown; elements progressively numbered.

ELECTRICAL & THERMAL PROPERTIES

Rated voltage Uo/U	150/250 V (max. operating voltage 300 V).
Test voltage	1.5 kV.
Standard	NEK TS 606; design acc. to IEC 60092-376; conductors acc. to IEC 60228.
Fire-resistant	Circuit integrity acc. to IEC 60331-21.
Flame-retardant	Acc. to IEC 60332-1-2 and IEC 60332-3-22 Cat. A.
Halogen-free	Acc. to IEC 60754-1/-2; low smoke density acc. to IEC 61034-1/-2.
Mud-resistant	Yes, sheath resistant to oil and drilling mud acc. to NEK TS 606.
Max. conductor temperature	+90 °C.
Permitted outer cable temperature, fixed	-20 °C to +90 °C.
Min. bending radius, fixed	6 × outer diameter (8 × outer diameter during installation).
Reaction to fire (CPR)	Outside the scope of EN 50575 (shipboard / offshore cable, classified under IEC 60092 and marine type approval, not for permanent installation in construction works).

DIMENSIONS & TECHNICAL DATA

Pairs × mm ²	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
1 × 0.75	26.3	12.1	225
2 × 0.75	26.3	16.7	405
3 × 0.75	26.3	17.5	540
4 × 0.75	26.3	18.6	610
5 × 0.75	26.3	20.2	705
6 × 0.75	26.3	21.7	805
7 × 0.75	26.3	21.7	830
8 × 0.75	26.3	23.6	905
9 × 0.75	26.3	25.1	1000
10 × 0.75	26.3	26.2	1030
12 × 0.75	26.3	26.8	1145
14 × 0.75	26.3	28.2	1205
15 × 0.75	26.3	30	1305
16 × 0.75	26.3	30.6	1415
18 × 0.75	26.3	32.1	1475
19 × 0.75	26.3	32.7	1575
20 × 0.75	26.3	34.1	1700
21 × 0.75	26.3	35	1765
23 × 0.75	26.3	35.5	1895
24 × 0.75	26.3	37.7	1980
27 × 0.75	26.3	38.7	2165
30 × 0.75	26.3	39.9	2335
33 × 0.75	26.3	41.5	2535
37 × 0.75	26.3	42.7	2725
1 × 1	19.3	12.5	245
2 × 1	19.3	17.6	450
3 × 1	19.3	18.3	600
4 × 1	19.3	19.3	625
5 × 1	19.3	21.1	920
6 × 1	19.3	22.8	950
7 × 1	19.3	22.8	860
8 × 1	19.3	24.7	985
9 × 1	19.3	26.3	1135
10 × 1	19.3	27.4	1170
12 × 1	19.3	28.3	1300
14 × 1	19.3	29.5	1380
15 × 1	19.3	31.6	1510
16 × 1	19.3	32.1	1620
18 × 1	19.3	34.2	1745
19 × 1	19.3	34.5	1830
20 × 1	19.3	36	1975
21 × 1	19.3	37.3	2135
23 × 1	19.3	37.9	2295
24 × 1	19.3	39.8	2335
27 × 1	19.3	40.6	2500

Pairs × mm2	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
30 × 1	19.3	42.1	2720
33 × 1	19.3	43.6	2940
37 × 1	19.3	45.4	3230
1 × 1.5	12.9	13.5	295
2 × 1.5	12.9	19.2	545
3 × 1.5	12.9	20.2	725
4 × 1.5	12.9	21.5	770
5 × 1.5	12.9	23.4	975
6 × 1.5	12.9	25.4	1130
7 × 1.5	12.9	25.4	1170
8 × 1.5	12.9	27.5	1225
9 × 1.5	12.9	29.4	1405
10 × 1.5	12.9	30.9	1440
12 × 1.5	12.9	31.6	1680
14 × 1.5	12.9	33.6	1750
15 × 1.5	12.9	36	1910
16 × 1.5	12.9	36.9	2055
18 × 1.5	12.9	38.9	2260
19 × 1.5	12.9	39.3	2395
20 × 1.5	12.9	40.8	2540
21 × 1.5	12.9	42.1	2660
23 × 1.5	12.9	42.7	2865
24 × 1.5	12.9	45.2	3080
27 × 1.5	12.9	46.1	3155
30 × 1.5	12.9	47.8	3440
32 × 1.5	12.9	49	3685
33 × 1.5	12.9	49.7	3740
37 × 1.5	12.9	51.2	4040
1 × 2.5	8.02	14	340
2 × 2.5	8.02	18.5	560
3 × 2.5	8.02	21.6	865
4 × 2.5	8.02	23.2	1010
5 × 2.5	8.02	25.3	1185
6 × 2.5	8.02	27.4	1370
7 × 2.5	8.02	27.4	1430
8 × 2.5	8.02	29.9	1560
9 × 2.5	8.02	31.9	1780
10 × 2.5	8.02	33.8	1775
12 × 2.5	8.02	34.6	1965
14 × 2.5	8.02	36.9	2275
15 × 2.5	8.02	39.5	2480
16 × 2.5	8.02	40.1	2590
18 × 2.5	8.02	42.3	2825
19 × 2.5	8.02	42.7	2930
20 × 2.5	8.02	44.8	3240
21 × 2.5	8.02	46.1	3375
23 × 2.5	8.02	46.9	3560

Pairs × mm2	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
24 × 2.5	8.02	49.1	3660
27 × 2.5	8.02	50.3	4000
30 × 2.5	8.02	52.2	4370
33 × 2.5	8.02	54.1	4735
37 × 2.5	8.02	56.4	5225

Triples × mm2	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
1 × 0.75	26.3	11.9	245
2 × 0.75	26.3	15.5	420
3 × 0.75	26.3	18.4	580
4 × 0.75	26.3	19.7	675
7 × 0.75	26.3	23.6	960
8 × 0.75	26.3	25	980
12 × 0.75	26.3	29.6	1435
16 × 0.75	26.3	32.6	1770
19 × 0.75	26.3	34.4	1985
24 × 0.75	26.3	39.6	2580
1 × 1	19.3	12.6	275
2 × 1	19.3	18.8	640
3 × 1	19.3	19.3	665
4 × 1	19.3	20.9	775
5 × 1	19.3	22.8	965
6 × 1	19.3	25.4	1135
7 × 1	19.3	25.4	1180
8 × 1	19.3	27	1270
9 × 1	19.3	28.9	1450
10 × 1	19.3	31.1	1455
12 × 1	19.3	32	1685
14 × 1	19.3	33.8	1820
15 × 1	19.3	34.8	1935
16 × 1	19.3	36	2105
18 × 1	19.3	38.1	2310
19 × 1	19.3	38.6	2355
20 × 1	19.3	39.6	2590
21 × 1	19.3	40.4	2685
23 × 1	19.3	42	2935
24 × 1	19.3	42.8	3145
27 × 1	19.3	45.3	3255
30 × 1	19.3	47.4	3565
32 × 1	19.3	48.6	3755
1 × 1.5	12.9	13.6	325
2 × 1.5	12.9	18.5	560
3 × 1.5	12.9	21.4	800
4 × 1.5	12.9	23.7	975
5 × 1.5	12.9	25.4	1195
6 × 1.5	12.9	28.3	1405
7 × 1.5	12.9	28.3	1470

Triples × mm ²	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
8 × 1.5	12.9	30.2	1585
9 × 1.5	12.9	32.6	1835
10 × 1.5	12.9	35.1	1935
12 × 1.5	12.9	36.8	2115
14 × 1.5	12.9	38.3	2360
15 × 1.5	12.9	39.7	2530
16 × 1.5	12.9	40.8	2775
18 × 1.5	12.9	42.9	2905
19 × 1.5	12.9	43.3	3200
20 × 1.5	12.9	44.9	3305
21 × 1.5	12.9	45.8	3430
23 × 1.5	12.9	47.7	3755
24 × 1.5	12.9	48.6	3925
27 × 1.5	12.9	51.1	4115
30 × 1.5	12.9	53.5	4510
32 × 1.5	12.9	55.5	4850
1 × 2.5	8.02	14.5	380
2 × 2.5	8.02	22.5	950
3 × 2.5	8.02	23.4	1055
4 × 2.5	8.02	25.3	1250
5 × 2.5	8.02	27.4	1460
6 × 2.5	8.02	30.7	1735
7 × 2.5	8.02	30.7	1830
8 × 2.5	8.02	33.3	2025
9 × 2.5	8.02	35.4	2290
10 × 2.5	8.02	38.8	2405
12 × 2.5	8.02	40	2685
14 × 2.5	8.02	41.9	3000
15 × 2.5	8.02	43.1	3190
16 × 2.5	8.02	44.9	3420
18 × 2.5	8.02	47.2	3740
19 × 2.5	8.02	47.6	3885
20 × 2.5	8.02	48.9	4185
21 × 2.5	8.02	50	4370
23 × 2.5	8.02	52.1	4760
24 × 2.5	8.02	53	4785
27 × 2.5	8.02	56.2	5335
30 × 2.5	8.02	58.8	5855
32 × 2.5	8.02	60.6	6215

Outer diameters, weights and conductor resistance are the nominal manufacturer values of the leading reference source (pair constructions $n \times 2 \times \text{mm}^2$ and triple constructions $n \times 3 \times \text{mm}^2$, tinned class-2 conductors); all values are indicative and non-binding.