

ARCTIC GRADE instrumentation cable RFOU(c) 150/250(300)V, S2/S6

Flame retardant halogen-free instrumentation cable. Oil & Mud resistant. Cold bend / Cold impact resistant



RFOU(c) 150/250(300)V

EPR/EPR/TCWB/EVA

NEK TS 606 CodeS2/S6 Arctic Grade

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

Application

Fixed installation for instrumentation, communication, Control and alarm systems in both EX- and safe areas. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the OIL & MUD resistance requirement in NEK TS 606:2009. Meets the cold bend / cold impact requirement in CSA 22.2 0.3-01 and IEC 60092-350 Clause 8.9 & Annex E at -40°C / -35°C.

Standards applied

IEC 60092-376 (2003-05)	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke
CSA 22.2 0.3-01 (-40°C/-35°C) / IEC 60092-352 Annex E (-40°C/-35°C)	- Cold Bend / Cold Impact

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	R	EP-rubber, IEC 60092-360 (EPR)
Pair / Triple / Quad twisting		Color coded cores twisted together and wrapped with polyester tape. Pairs/Triples are laid up collectively and screened by copper backed polyester tape with tinned copper drain wire. Pairs/triples are identified by numbers printed directly on the insulated conductors.
Inner covering	F	Flame retardant and halogen-free thermoset compound
Tape over inner covering		PET tape
Armour/screen	O	Tinned annealed copper wire braid
Tape over armour/screen		Rubberized Polyamide tape
Outer sheath	U	Flame retardant, halogen-free, mud and cold bend / cold impact resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 01 RFOU(C) 250V S2/S6 4PAIR 0.75mm ² IEC 60092-376 IEC 60332-3-22 ARCTIC GRADE Cold bend (-40 deg. C) / Cold impact (-35 deg. C)
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel,
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 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	0.6	1.1	10 ± 0.8	0.2	1.2	13.5 ± 0.8	275	81
2	2	0.75	1.1	0.6	1.1	10 ± 0.8	0.2	1.2	13.5 ± 0.8	275	81
4	2	0.75	1.1	0.6	1.1	11.5 ± 0.8	0.3	1.3	15.5 ± 0.8	390	138
4	2	0.75	1.1	0.6	1.1	11.5 ± 0.8	0.3	1.3	15.5 ± 0.8	390	138
8	2	0.75	1.1	0.6	1.1	15 ± 0.8	0.3	1.4	19.5 ± 0.8	600	223
8	2	0.75	1.1	0.6	1.1	15 ± 0.8	0.3	1.4	19.5 ± 0.8	600	223
16	2	0.75	1.1	0.6	1.9	20.5 ± 1	0.3	1.6	25 ± 1	1040	358
16	2	0.75	1.1	0.6	1.9	20.5 ± 1	0.3	1.6	25 ± 1	1040	358
24	2	0.75	1.1	0.6	2.1	25 ± 1	0.3	1.8	29.5 ± 1	1450	510
24	2	0.75	1.1	0.6	2.1	25 ± 1	0.3	1.8	29.5 ± 1	1450	510
2	3	0.75	1.1	0.6	1.1	11 ± 0.8	0.2	1.2	14.5 ± 0.8	320	95
2	3	0.75	1.1	0.6	1.1	11 ± 0.8	0.2	1.2	14.5 ± 0.8	320	95
4	3	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	1.3	16.5 ± 0.8	470	181
4	3	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	1.3	16.5 ± 0.8	470	181
8	3	0.75	1.1	0.6	1.1	17 ± 0.8	0.3	1.5	21 ± 1	740	291
8	3	0.75	1.1	0.6	1.1	17 ± 0.8	0.3	1.5	21 ± 1	740	291
16	3	0.75	1.1	0.6	2.1	23 ± 1	0.3	1.7	27.5 ± 1	1350	488
24	3	0.75	1.1	0.6	2.3	28 ± 1	0.3	1.9	33 ± 1.5	1860	667
24	3	0.75	1.1	0.6	2.3	28 ± 1	0.3	1.9	33 ± 1.5	1860	667
2	2	1.5	1.6	0.7	1.1	12 ± 0.8	0.3	1.3	16 ± 0.8	410	162
2	2	1.5	1.6	0.7	1.1	12 ± 0.8	0.3	1.3	16 ± 0.8	410	162
4	2	1.5	1.6	0.7	1.1	14 ± 0.8	0.3	1.4	18 ± 0.8	560	234
4	2	1.5	1.6	0.7	1.1	14 ± 0.8	0.3	1.4	18 ± 0.8	560	234
8	2	1.5	1.6	0.7	1.1	18.5 ± 0.8	0.3	1.6	23 ± 1	890	379
8	2	1.5	1.6	0.7	1.1	18.5 ± 0.8	0.3	1.6	23 ± 1	890	379
16	2	1.5	1.6	0.7	1.9	25 ± 1	0.3	1.8	30 ± 1.5	1580	651
16	2	1.5	1.6	0.7	1.9	25 ± 1	0.3	1.8	30 ± 1.5	1580	651
24	2	1.5	1.6	0.7	2.3	31 ± 1.5	0.3	2.1	36.5 ± 1.5	2270	924
2	3	1.5	1.6	0.7	1.1	13 ± 0.8	0.3	1.4	17.5 ± 0.8	490	190
4	3	1.5	1.6	0.7	1.1	15.5 ± 0.8	0.3	1.4	19.5 ± 0.8	670	291
8	3	1.5	1.6	0.7	1.1	21 ± 1	0.3	1.7	25.5 ± 1	1140	517
16	3	1.5	1.6	0.7	2.1	28 ± 1	0.3	1.9	33 ± 1.5	2090	903
16	3	1.5	1.6	0.7	2.1	28 ± 1	0.3	1.9	33 ± 1.5	2090	903
24	3	1.5	1.6	0.7	2.5	35 ± 1.5	0.4	2.2	41 ± 2	3100	1369
24	3	1.5	1.6	0.7	2.5	35 ± 1.5	0.4	2.2	41 ± 2	3100	1369
2	2	2.5	2	0.7	1.1	13.5 ± 0.8	0.3	1.4	17.5 ± 0.8	490	200
4	2	2.5	2	0.7	1.1	16 ± 0.8	0.3	1.4	20 ± 1	680	309
4	2	2.5	2	0.7	1.1	16 ± 0.8	0.3	1.4	20 ± 1	680	309
12	2	2.5	2	0.7	2.1	27 ± 1	0.3	1.8	31.5 ± 1.5	1730	759

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	100	0,67	26,3	12,7
Unshielded triple 0,75 mm ²	100	0,67	26,3	12,7
Unshielded pair 1,5 mm ²	110	0,63	12,9	24,4
Unshielded triple 1,5 mm ²	110	0,63	12,9	24,4
Unshielded pair 2,5 mm ²	125	0,59	8,02	36,8
Unshielded triple 2,5 mm ²	125	0,59	8,02	36,8
Unshielded 24 pair 2,5 mm ²	95	0,66	8,02	36,8
Unshielded 16 triple 2,5 mm ²	95	0,66	8,02	36,8

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	812606	RFOU(C) 2PAIR 0.75mm ² S2/S6 Cold	GREY	-	7021528126068	-
	812607	RFOU(C) 2PAIR 0.75mm ² S2/S6 Cold	BLUE	-	7021528126075	-
	812618	RFOU(C) 4PAIR 0.75mm ² S2/S6 Cold	GREY	-	7021528126181	-
	812619	RFOU(C) 4PAIR 0.75mm ² S2/S6 Cold	BLUE	-	7021528126198	-
	812630	RFOU(C) 8PAIR 0.75mm ² S2/S6 Cold	GREY	-	7021528126303	-
	812631	RFOU(C) 8PAIR 0.75mm ² S2/S6 Cold	BLUE	-	7021528126310	-
	812642	RFOU(C) 16PAIR 0.75mm ² S2/S6 Cold	GREY	-	7021528126426	-
	812643	RFOU(C) 16PAIR 0.75mm ² S2/S6 Cold	BLUE	-	7021528126433	-
	812648	RFOU(C) 24PAIR 0.75mm ² S2/S6 Cold	GREY	-	7021528126488	-
	812649	RFOU(C) 24PAIR 0.75mm ² S2/S6 Cold	BLUE	-	7021528126495	-
	812666	RFOU(C) 2TRIP 0.75mm ² S2/S6 Cold	GREY	-	7021528126662	-
	812667	RFOU(C) 2TRIP 0.75mm ² S2/S6 Cold	BLUE	-	7021528126679	-
	812678	RFOU(C) 4TRIP 0.75mm ² S2/S6 Cold	GREY	-	7021528126785	-
	812679	RFOU(C) 4TRIP 0.75mm ² S2/S6 Cold	BLUE	-	7021528126792	-
	812690	RFOU(C) 8TRIP 0.75mm ² S2/S6 Cold	GREY	-	7021528126907	-
	812691	RFOU(C) 8TRIP 0.75mm ² S2/S6 Cold	BLUE	-	7021528126914	-
	812702	RFOU(C) 16TRIP 0.75mm ² S2/S6 Cold	GREY	-	7021528127027	-
	812708	RFOU(C) 24TRIP 0.75mm ² S2/S6 Cold	GREY	-	7021528127089	-
	812709	RFOU(C) 24TRIP 0.75mm ² S2/S6 Cold	BLUE	-	7021528127096	-
	812806	RFOU(C) 2PAIR 1.5mm ² S2/S6 Cold	GREY	-	7021528128062	-
	812807	RFOU(C) 2PAIR 1.5mm ² S2/S6 Cold	BLUE	-	7021528128079	-
	812818	RFOU(C) 4PAIR 1.5mm ² S2/S6 Cold	GREY	-	7021528128185	-
	812819	RFOU(C) 4PAIR 1.5mm ² S2/S6 Cold	BLUE	-	7021528128192	-
	812830	RFOU(C) 8PAIR 1.5mm ² S2/S6 Cold	GREY	-	7021528128307	-
	812831	RFOU(C) 8PAIR 1.5mm ² S2/S6 Cold	BLUE	-	7021528128314	-
	812842	RFOU(C) 16PAIR 1.5mm ² S2/S6 Cold	GREY	-	7021528128420	-
	812843	RFOU(C) 16PAIR 1.5mm ² S2/S6 Cold	BLUE	-	7021528128437	-
	812848	RFOU(C) 24PAIR 1.5mm ² S2/S6 Cold	GREY	-	7021528128482	-
	812866	RFOU(C) 2TRIP 1.5mm ² S2/S6 Cold	GREY	-	7021528128666	-
	812878	RFOU(C) 4TRIP 1.5mm ² S2/S6 Cold	GREY	-	7021528128789	-
	812891	RFOU(C) 8TRIP 1.5mm ² S2/S6 Cold	BLUE	-	7021528128918	-
	812902	RFOU(C) 16TRIP 1.5mm ² S2/S6 Cold	GREY	-	7021528129021	-
	812903	RFOU(C) 16TRIP 1.5mm ² S2/S6 Cold	BLUE	-	7021528129038	-
	812908	RFOU(C) 24TRIP 1.5mm ² S2/S6 Cold	GREY	-	7021528129083	-
	812909	RFOU(C) 24TRIP 1.5mm ² S2/S6 Cold	BLUE	-	7021528129090	-
	813006	RFOU(C) 2PAIR 2.5mm ² S2/S6 Cold	GREY	-	7021528130065	-
	813018	RFOU(C) 4PAIR 2.5mm ² S2/S6 Cold	GREY	-	7021528130188	-
	813019	RFOU(C) 4PAIR 2.5mm ² S2/S6 Cold	BLUE	-	7021528130195	-
	813036	RFOU(C) 12PAIR 2.5mm ² S2/S6 Cold	GREY	-	7021528130362	-

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	-40°C



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