



Halogen-free, mud resistant instrumentation cable RFOU(i) 250V, S1/S5

Flame retardant halogen-free instrumentation cable. Mud resistant

RFOU(i) 250V

EPR/EPR/TCWB/EVA

NEK 606 CodeS1/S5



Operating temperature : 90°C
Operating Voltage : 250V

Application

Fixed installation for instrumentation, communication, Control and alarm systems in both EX- and safe areas. 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 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	R	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 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 thermoset 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		E.g. "meter" "år" DRAKA NORSK KABEL RFOU(i) 250V S1/S5 4 PAIR 0,75 mm2 IEC 60092-376 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 ± 0.5	0.2	1.1	10 ± 0.8	185	56
1	2	0.75	1.1	0.6	1.1	7 ± 0.5	0.2	1.1	10 ± 0.8	185	56
2	2	0.75	1.1	0.6	1.1	10 ± 0.8	0.2	1.2	13 ± 0.8	280	89
2	2	0.75	1.1	0.6	1.1	10 ± 0.8	0.2	1.2	13 ± 0.8	280	89
4	2	0.75	1.1	0.6	1.1	11.5 ± 0.8	0.3	1.3	15 ± 0.8	440	173
4	2	0.75	1.1	0.6	1.1	11.5 ± 0.8	0.3	1.3	15 ± 0.8	440	173
8	2	0.75	1.1	0.6	1.1	15.5 ± 0.8	0.3	1.5	19.5 ± 0.8	720	279
8	2	0.75	1.1	0.6	1.1	15.5 ± 0.8	0.3	1.5	19.5 ± 0.8	720	279
12	2	0.75	1.1	0.6	1.3	18.5 ± 0.8	0.3	1.6	22.5 ± 1	940	369
12	2	0.75	1.1	0.6	1.3	18.5 ± 0.8	0.3	1.6	22.5 ± 1	940	369
16	2	0.75	1.1	0.6	1.4	20.5 ± 1	0.3	1.7	25 ± 1	1180	467
16	2	0.75	1.1	0.6	1.4	20.5 ± 1	0.3	1.7	25 ± 1	1180	467
24	2	0.75	1.1	0.6	1.6	25.5 ± 1	0.3	1.9	30.5 ± 1.5	1650	638
24	2	0.75	1.1	0.6	1.6	25.5 ± 1	0.3	1.9	30.5 ± 1.5	1650	638
1	3	0.75	1.1	0.6	1.1	7 ± 0.5	0.2	1.1	10.5 ± 0.8	200	63
1	3	0.75	1.1	0.6	1.1	7 ± 0.5	0.2	1.1	10.5 ± 0.8	200	63
2	3	0.75	1.1	0.6	1.1	11 ± 0.8	0.3	1.3	14.5 ± 0.8	380	151
2	3	0.75	1.1	0.6	1.1	11 ± 0.8	0.3	1.3	14.5 ± 0.8	380	151
4	3	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	1.4	16.5 ± 0.8	530	218
4	3	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	1.4	16.5 ± 0.8	530	218
8	3	0.75	1.1	0.6	1.1	17 ± 0.8	0.3	1.6	21.5 ± 1	870	352
8	3	0.75	1.1	0.6	1.1	17 ± 0.8	0.3	1.6	21.5 ± 1	870	352
12	3	0.75	1.1	0.6	1.3	20.5 ± 1	0.3	1.7	25 ± 1	1170	479
16	3	0.75	1.1	0.6	1.4	23 ± 1	0.3	1.8	28 ± 1	1470	605
16	3	0.75	1.1	0.6	1.4	23 ± 1	0.3	1.8	28 ± 1	1470	605
19	3	0.75	1.1	0.6	1.4	24 ± 1	0.3	1.8	29 ± 1	1630	681
24	3	0.75	1.1	0.6	1.8	29 ± 1	0.3	2	34.5 ± 1.5	2150	858
24	3	0.75	1.1	0.6	1.8	29 ± 1	0.3	2	34.5 ± 1.5	2150	858
1	2	1.5	1.6	0.7	1.1	8 ± 0.5	0.2	1.1	11 ± 0.8	230	72
1	2	1.5	1.6	0.7	1.1	8 ± 0.5	0.2	1.1	11 ± 0.8	230	72
2	2	1.5	1.6	0.7	1.1	12 ± 0.8	0.3	1.3	15.5 ± 0.8	420	169
2	2	1.5	1.6	0.7	1.1	12 ± 0.8	0.3	1.3	15.5 ± 0.8	420	169
4	2	1.5	1.6	0.7	1.1	14 ± 0.8	0.3	1.4	18 ± 0.8	600	253



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)
4	2	1.5	1.6	0.7	1.1	14 ± 0.8	0.3	1.4	18 ± 0.8	600	253
8	2	1.5	1.6	0.7	1.1	19 ± 0.8	0.3	1.6	23 ± 1	1000	424
8	2	1.5	1.6	0.7	1.1	19 ± 0.8	0.3	1.6	23 ± 1	1000	424
12	2	1.5	1.6	0.7	1.3	23 ± 1	0.3	1.8	27.5 ± 1	1370	585
12	2	1.5	1.6	0.7	1.3	23 ± 1	0.3	1.8	27.5 ± 1	1370	585
16	2	1.5	1.6	0.7	1.4	25.5 ± 1	0.3	1.9	30.5 ± 1.5	1730	747
16	2	1.5	1.6	0.7	1.4	25.5 ± 1	0.3	1.9	30.5 ± 1.5	1730	747
19	2	1.5	1.6	0.7	1.4	26.5 ± 1	0.3	1.9	31.5 ± 1.5	1940	875
19	2	1.5	1.6	0.7	1.4	26.5 ± 1	0.3	1.9	31.5 ± 1.5	1940	875
24	2	1.5	1.6	0.7	1.8	32 ± 1.5	0.4	2.2	38 ± 1.5	2660	1176
32	2	1.5	1.6	0.7	1.9	35.5 ± 1.5	0.4	2.3	42 ± 2	3320	1494
32	2	1.5	1.6	0.7	1.9	35.5 ± 1.5	0.4	2.3	42 ± 2	3320	1494
1	3	1.5	1.6	0.7	1.1	8.5 ± 0.5	0.2	1.1	11.5 ± 0.8	260	93
1	3	1.5	1.6	0.7	1.1	8.5 ± 0.5	0.2	1.1	11.5 ± 0.8	260	93
2	3	1.5	1.6	0.7	1.1	13.5 ± 0.8	0.3	1.4	17.5 ± 0.8	510	213
4	3	1.5	1.6	0.7	1.1	15.5 ± 0.8	0.3	1.5	20 ± 1	740	326
4	3	1.5	1.6	0.7	1.1	15.5 ± 0.8	0.3	1.5	20 ± 1	740	326
8	3	1.5	1.6	0.7	1.1	21 ± 1	0.3	1.7	25.5 ± 1	1250	561
8	3	1.5	1.6	0.7	1.1	21 ± 1	0.3	1.7	25.5 ± 1	1250	561
12	3	1.5	1.6	0.7	1.3	26 ± 1	0.3	1.9	30.5 ± 1.5	1730	780
12	3	1.5	1.6	0.7	1.3	26 ± 1	0.3	1.9	30.5 ± 1.5	1730	780
16	3	1.5	1.6	0.7	1.6	29.5 ± 1	0.3	2	34.5 ± 1.5	2250	998
16	3	1.5	1.6	0.7	1.6	29.5 ± 1	0.3	2	34.5 ± 1.5	2250	998
24	3	1.5	1.6	0.7	1.8	36.5 ± 1.5	0.4	2.3	42.5 ± 2	3370	1559
24	3	1.5	1.6	0.7	1.8	36.5 ± 1.5	0.4	2.3	42.5 ± 2	3370	1559
1	2	2.5	2	0.7	1.1	9 ± 0.5	0.2	1.1	12 ± 0.8	280	99
2	2	2.5	2	0.7	1.1	13.5 ± 0.8	0.3	1.4	17.5 ± 0.8	530	224



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.
892000	RFOU(I) 1PAIR 0.75mm ² S1/S5	GREY	Yes	7021528920000	1044620
892001	RFOU(I) 1PAIR 0.75mm ² S1/S5	BLUE	Yes	7021528920017	1044619
892006	RFOU(I) 2PAIR 0.75mm ² S1/S5	GREY	Yes	7021528920062	1044621
892007	RFOU(I) 2PAIR 0.75mm ² S1/S5	BLUE	-	7021528920079	1044622
892018	RFOU(I) 4PAIR 0.75mm ² S1/S5	GREY	Yes	7021528920185	1044623
892019	RFOU(I) 4PAIR 0.75mm ² S1/S5	BLUE	-	7021528920192	1044624
892030	RFOU(I) 8PAIR 0.75mm ² S1/S5	GREY	Yes	7021528920307	1044628
892031	RFOU(I) 8PAIR 0.75mm ² S1/S5	BLUE	-	7021528920314	1044629
892036	RFOU(I) 12PAIR 0.75mm ² S1/S5	GREY	-	7021528920369	1044630
892037	RFOU(I) 12PAIR 0.75mm ² S1/S5	BLUE	-	7021528920376	1044631
892042	RFOU(I) 16PAIR 0.75mm ² S1/S5	GREY	-	7021528920420	1044633
892043	RFOU(I) 16PAIR 0.75mm ² S1/S5	BLUE	-	7021528920437	1044632
892048	RFOU(I) 24PAIR 0.75mm ² S1/S5	GREY	-	7021528920482	1044636
892049	RFOU(I) 24PAIR 0.75mm ² S1/S5	BLUE	-	7021528920499	1044637
892060	RFOU(I) 1TRIP 0.75mm ² S1/S5	GREY	Yes	7021528920604	1044690
892061	RFOU(I) 1TRIP 0.75mm ² S1/S5	BLUE	Yes	7021528920611	1044689
892066	RFOU(I) 2TRIP 0.75mm ² S1/S5	GREY	-	7021528920666	1044691
892067	RFOU(I) 2TRIP 0.75mm ² S1/S5	BLUE	-	7021528920673	1044692
892078	RFOU(I) 4TRIP 0.75mm ² S1/S5	GREY	-	7021528920789	1044693
892079	RFOU(I) 4TRIP 0.75mm ² S1/S5	BLUE	-	7021528920796	1044694
892090	RFOU(I) 8TRIP 0.75mm ² S1/S5	GREY	-	7021528920901	1044697
892091	RFOU(I) 8TRIP 0.75mm ² S1/S5	BLUE	-	7021528920918	1044698
892097	RFOU(I) 12TRIP 0.75mm ² S1/S5	BLUE	-	7021528920970	1044700
892102	RFOU(I) 16TRIP 0.75mm ² S1/S5	GREY	-	7021528921021	1044701
892103	RFOU(I) 16TRIP 0.75mm ² S1/S5	BLUE	-	7021528921038	1044702
892106	RFOU(I) 19TRIP 0.75mm ² S1/S5	GREY	-	7021528921069	-
892108	RFOU(I) 24TRIP 0.75mm ² S1/S5	GREY	-	7021528921083	1044707
892109	RFOU(I) 24TRIP 0.75mm ² S1/S5	BLUE	-	7021528921090	1044708
892200	RFOU(I) 1PAIR 1.5mm ² S1/S5	GREY	Yes	7021528922004	1044460
892201	RFOU(I) 1PAIR 1.5mm ² S1/S5	BLUE	-	7021528922011	1044459
892206	RFOU(I) 2PAIR 1.5mm ² S1/S5	GREY	-	7021528922066	1044661
892207	RFOU(I) 2PAIR 1.5mm ² S1/S5	BLUE	-	7021528922073	1044662
892218	RFOU(I) 4PAIR 1.5mm ² S1/S5	GREY	-	7021528922189	1044663
892219	RFOU(I) 4PAIR 1.5mm ² S1/S5	BLUE	-	7021528922196	1044664
892230	RFOU(I) 8PAIR 1.5mm ² S1/S5	GREY	-	7021528922301	1044668
892231	RFOU(I) 8PAIR 1.5mm ² S1/S5	BLUE	-	7021528922318	1044669
892236	RFOU(I) 12PAIR 1.5mm ² S1/S5	GREY	-	7021528922363	1044670
892237	RFOU(I) 12PAIR 1.5mm ² S1/S5	BLUE	-	7021528922370	1044671
892242	RFOU(I) 16PAIR 1.5mm ² S1/S5	GREY	-	7021528922424	1044673
892243	RFOU(I) 16PAIR 1.5mm ² S1/S5	BLUE	-	7021528922431	1044672
892245	RFOU(I) 19PAIR 1.5mm ² S1/S5	GREY	-	7021528922455	1044674
892246	RFOU(I) 19PAIR 1.5mm ² S1/S5	BLUE	-	7021528922462	-
892249	RFOU(I) 24PAIR 1.5mm ² S1/S5	BLUE	-	7021528922493	1044679
892254	RFOU(I) 32PAIR 1.5mm ² S1/S5	GREY	-	7021528922547	-
892255	RFOU(I) 32PAIR 1.5mm ² S1/S5	BLUE	-	7021528922554	-



Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
892260	RFOU(l) 1TRIP 1.5mm ² S1/S5	GREY	Yes	7021528922608	1044560
892261	RFOU(l) 1TRIP 1.5mm ² S1/S5	BLUE	-	7021528922615	1044559
892266	RFOU(l) 2TRIP 1.5mm ² S1/S5	GREY	-	7021528922660	1044762
892278	RFOU(l) 4TRIP 1.5mm ² S1/S5	GREY	-	7021528922783	1044764
892279	RFOU(l) 4TRIP 1.5mm ² S1/S5	BLUE	-	7021528922790	-
892290	RFOU(l) 8TRIP 1.5mm ² S1/S5	GREY	-	7021528922905	1044768
892291	RFOU(l) 8TRIP 1.5mm ² S1/S5	BLUE	-	7021528922912	1044769
892296	RFOU(l) 12TRIP 1.5mm ² S1/S5	GREY	-	7021528922967	1044770
892297	RFOU(l) 12TRIP 1.5mm ² S1/S5	BLUE	-	7021528922974	1044771
892302	RFOU(l) 16TRIP 1.5mm ² S1/S5	GREY	-	7021528923025	1044773
892303	RFOU(l) 16TRIP 1.5mm ² S1/S5	BLUE	-	7021528923032	1044772
892308	RFOU(l) 24TRIP 1.5mm ² S1/S5	GREY	-	7021528923087	1044779
892309	RFOU(l) 24TRIP 1.5mm ² S1/S5	BLUE	-	7021528923094	1044780
892400	RFOU(l) 1PAIR 2.5mm ² S1/S5	GREY	-	7021528924008	-
892406	RFOU(l) 2PAIR 2.5mm ² S1/S5	GREY	-	7021528924060	-

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