

FlexFlame RFOU(i) 250V S1/S5/S101 Instr. cable



Flame retardant halogen-free instrumentation cable.

RFOU(i) 150/250(300)V
EPR/EPR/TCWB/EVA

RFOU(i) 250V NEK TS 606 Code S101
RFOU(i) M 250V NEK TS 606 Code S1/S5/S101

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 (Zone 0, 1 & 2)- and safe areas. RFOU(i) M 250V for installation in areas exposed to MUD and drilling/cleaning fluids. Meets the Oil & Mud resistance requirement in NEK TS 606:2016.

IEC 60092-376 (2017-05)	- 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

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. 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 extruded 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 thermoset compound, SHF2 (IEC 60092-360)
Marking text (example)		"meter" "year/week" DRAKA 01 Part no. <SAP code> RFOU(i) M 250V S1/S5/S101 4 PAIR 0,75 mm ² IEC 60092-376 IEC 60332-3-22 Production no. <Prod.ordre no.>
Manufacturing unit		DRAKA 01 = Prysmian Group Norge AS
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	Mechanical cross-section of the braid, mm ²	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	6.5 ± 0.5	0.2	3.8	1.1	9.5 ± 0.5	180	53
2	2	0.75	1.1	0.6	1.1	9.5 ± 0.5	0.2	5.3	1.2	12.5 ± 0.8	265	84
4	2	0.75	1.1	0.6	1.1	11 ± 0.8	0.3	10.2	1.3	14.5 ± 0.8	412	163
8	2	0.75	1.1	0.6	1.1	14.5 ± 0.8	0.3	13.6	1.5	18.5 ± 0.8	660	261
12	2	0.75	1.1	0.6	1.1	17 ± 0.8	0.3	15.3	1.6	21 ± 1	850	342
16	2	0.75	1.1	0.6	1.5	19.5 ± 0.8	0.3	17.8	1.7	24 ± 1	1120	431
24	2	0.75	1.1	0.6	1.5	24 ± 1	0.3	20.4	1.9	28.5 ± 1	1520	585
1	3	0.75	1.1	0.6	1.1	7 ± 0.5	0.2	3.8	1.1	10 ± 0.8	193	59
2	3	0.75	1.1	0.6	1.1	10.5 ± 0.8	0.3	8.5	1.3	14 ± 0.8	350	132
4	3	0.75	1.1	0.6	1.1	12 ± 0.8	0.3	10.2	1.4	16 ± 0.8	485	191
8	3	0.75	1.1	0.6	1.1	16 ± 0.8	0.3	15.3	1.6	20 ± 1	785	327
16	3	0.75	1.1	0.6	1.5	22 ± 1	0.3	20.4	1.8	26.5 ± 1	1375	556
24	3	0.75	1.1	0.6	1.5	27 ± 1	0.3	25.4	2	32 ± 1.5	1915	785
1	2	1.5	1.55	0.7	1.1	8 ± 0.5	0.2	4.5	1.1	11 ± 0.8	230	75
2	2	1.5	1.55	0.7	1.1	11.5 ± 0.8	0.3	10.2	1.3	15 ± 0.8	410	161
4	2	1.5	1.55	0.7	1.1	13.5 ± 0.8	0.3	11.9	1.4	17.5 ± 0.8	575	239
8	2	1.5	1.55	0.7	1.1	18.5 ± 0.8	0.3	15.3	1.6	22.5 ± 1	930	399
12	2	1.5	1.55	0.7	1.1	21.5 ± 1	0.3	17.8	1.8	26 ± 1	1255	552
16	2	1.5	1.55	0.7	1.5	25 ± 1	0.3	20.4	1.9	29.5 ± 1	1650	698
24	2	1.5	1.55	0.7	1.5	30.5 ± 1.5	0.4	36.2	2.2	36 ± 1.5	2440	1103
1	3	1.5	1.55	0.7	1.1	8.5 ± 0.5	0.2	4.5	1.2	11.5 ± 0.8	260	88
2	3	1.5	1.55	0.7	1.1	13 ± 0.8	0.3	11.9	1.4	16.5 ± 0.8	485	203
4	3	1.5	1.55	0.7	1.1	15 ± 0.8	0.3	13.6	1.5	19 ± 0.8	700	308
8	3	1.5	1.55	0.7	1.1	20 ± 1	0.3	17.8	1.7	24 ± 1	1150	525
24	3	1.5	1.55	0.7	1.5	34 ± 1.5	0.4	40.7	2.3	39.5 ± 1.5	3060	1454
1	2	2.5	1.9	0.7	1.1	8.5 ± 0.5	0.2	4.5	1.2	12 ± 0.8	268	93
2	2	2.5	1.9	0.7	1.1	12.5 ± 0.8	0.3	11.9	1.4	16.5 ± 0.8	485	212
4	2	2.5	1.9	0.7	1.1	15 ± 0.8	0.3	13.6	1.5	19 ± 1	700	326
1	3	2.5	1.9	0.7	1.1	9.5 ± 0.5	0.2	5.3	1.2	12.5 ± 0.8	309	120

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

Ordering information

Part number	Description	Sheath Colour	GTIN 1m	EL No.
20110590	RFOU(I) M 1P 0.75mm ² S1/S5/S101 GY	GREY	7021528920000	1044620
20105042	RFOU(I) M 1P 0.75mm ² S1/S5/S101 BU	BLUE	7021528920017	1044619
20110591	RFOU(I) M 2P 0.75mm ² S1/S5/S101 GY	GREY	7021528920062	1044621
20110592	RFOU(I) M 2P 0.75mm ² S1/S5/S101 BU	BLUE	7021528920079	1044622
20110593	RFOU(I) M 4P 0.75mm ² S1/S5/S101 GY	GREY	7021528920185	1044623
20110849	RFOU(I) M 4P 0.75mm ² S1/S5/S101 BU	BLUE	7021528920192	1044624
20110594	RFOU(I) M 8P 0.75mm ² S1/S5/S101 GY	GREY	7021528920307	1044628
20104951	RFOU(I) M 8P 0.75mm ² S1/S5/S101 BU	BLUE	7021528920314	1044629
20110850	RFOU(I) M 12P 0.75mm ² S1/S5/S101 GY	GREY	7021528920369	1044630
20131006	RFOU(I) M 12P 0.75mm ² S1/S5/S101 BU	BLUE	7021528920376	1044631
20139433	RFOU(I) M 16P 0.75mm ² S1/S5/S101 GY	GREY	7021528920420	1044633
20195580	RFOU(I) M 16P 0.75mm ² S1/S5/S101 BU	BLUE	7021528920437	1044632
20110595	RFOU(I) M 24P 0.75mm ² S1/S5/S101 GY	GREY	7021528920482	1044636
20272645	RFOU(I) M 24P 0.75mm ² S1/S5/S101 BU	BLUE	7021528920499	-
20104949	RFOU(I) M 1T 0.75mm ² S1/S5/S101 GY	GREY	7021528920604	1044690
20110596	RFOU(I) M 1T 0.75mm ² S1/S5/S101 BU	BLUE	7021528920611	1044689
20110851	RFOU(I) M 2T 0.75mm ² S1/S5/S101 GY	GREY	7021528920666	1044691
20163220	RFOU(I) M 2T 0.75mm ² S1/S5/S101 BU	BLUE	7021528920673	1044692
20110852	RFOU(I) M 4T 0.75mm ² S1/S5/S101 GY	GREY	7021528920789	1044693
20166101	RFOU(I) M 4T 0.75mm ² S1/S5/S101 BU	BLUE	7021528920796	1044694
20137753	RFOU(I) M 8T 0.75mm ² S1/S5/S101 GY	GREY	7021528920901	1044697
20170926	RFOU(I) M 8T 0.75mm ² S1/S5/S101 BU	BLUE	7021528920918	1044698
20137754	RFOU(I) M 16T 0.75mm ² S1/S5/S101 GY	GREY	7021528921021	1044701
20137755	RFOU(I) M 24T 0.75mm ² S1/S5/S101 GY	GREY	7021528921083	1044707
20110597	RFOU(I) M 1P 1.5mm ² S1/S5/S101 GY	GREY	7021528922004	1044460
20110598	RFOU(I) M 1P 1.5mm ² S1/S5/S101 BU	BLUE	7021528922011	1044459
20110599	RFOU(I) M 2P 1.5mm ² S1/S5/S101 GY	GREY	7021528922066	1044661
20111211	RFOU(I) M 2P 1.5mm ² S1/S5/S101 BU	BLUE	7021528922073	1044662
20110600	RFOU(I) M 4P 1.5mm ² S1/S5/S101 GY	GREY	7021528922189	1044663
20110601	RFOU(I) M 4P 1.5mm ² S1/S5/S101 BU	BLUE	7021528922196	1044664
20110602	RFOU(I) M 8P 1.5mm ² S1/S5/S101 GY	GREY	7021528922301	1044668
20110603	RFOU(I) M 8P 1.5mm ² S1/S5/S101 BU	BLUE	7021528922318	1044669
20110604	RFOU(I) M 12P 1.5mm ² S1/S5/S101 GY	GREY	7021528922363	1044670
20110605	RFOU(I) M 12P 1.5mm ² S1/S5/S101 BU	BLUE	7021528922370	1044671
20110606	RFOU(I) M 16P 1.5mm ² S1/S5/S101 GY	GREY	7021528922424	1044673
20110607	RFOU(I) M 16P 1.5mm ² S1/S5/S101 BU	BLUE	7021528922431	1044672
20110853	RFOU(I) M 24P 1.5mm ² S1/S5/S101 BU	BLUE	7021528922493	1044679
20110608	RFOU(I) M 1T 1.5mm ² S1/S5/S101 GY	GREY	7021528922608	1044560
20110609	RFOU(I) M 1T 1.5mm ² S1/S5/S101 BU	BLUE	7021528922615	1044559
20163884	RFOU(I) M 2T 1.5mm ² S1/S5/S101 GY	GREY	7021528922660	1044762
20159122	RFOU(I) M 2T 1.5mm ² S1/S5/S101 BU	BLUE	7021528922677	-
20170928	RFOU(I) M 4T 1.5mm ² S1/S5/S101 GY	GREY	7021528922783	1044764
20164156	RFOU(I) M 4T 1.5mm ² S1/S5/S101 BU	BLUE	7021528922790	1044765
20110610	RFOU(I) M 8T 1.5mm ² S1/S5/S101 GY	GREY	7021528922905	1044768

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Part number	Description	Sheath Colour	GTIN 1m	EL No.
20164157	RFOU(I) M 8T 1.5mm ² S1/S5/S101 BU	BLUE	7021528922912	1044769
20172658	RFOU(I) M 12T 1.5mm ² S1/S5/S101 GY	GREY	7021528922967	1044770
20170935	RFOU(I) M 24T 1.5mm ² S1/S5/S101 GY	GREY	7021528923087	1044779
20170940	RFOU(I) M 24T 1.5mm ² S1/S5/S101 BU	BLUE	7021528923094	1044780
20110854	RFOU(I) M 1P 2.5mm ² S1/S5/S101 GY	GREY	7021528924008	-
20110855	RFOU(I) M 2P 2.5mm ² S1/S5/S101 GY	GREY	7021528924060	-
20110856	RFOU(I) M 4P 2.5mm ² S1/S5/S101 GY	GREY	7021528924183	-
20169824	RFOU(I) M 1T 2.5mm ² S1/S5/S101 GY	GREY	7021528924602	-

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 x total cross section (mm ²) of conductors	-20°C

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