RFOU (i) S1/S5 & RFOU (i) EMC

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

NEK TS 606 Code S1/S5, IEC 60092-376-Design guidelines

Flame retardant, halogen-free instrumentation cable.
Mud resistant

CONSTRUCTION

	Code letter	
Conductors		Tinned annealed circular stranded copper according to IEC 60228 class 2 or class 5
Insulation	**R**	EP rubber thermosetting compound, 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 numbers printed directly on the insulated conductors
Lay up/Shielding		Individually shielded pairs/triples/quads are laid up in concentric layers and wrapped with polyester tape
Inner covering	**F**	Flame retardant and halogen-free thermosetting compound
Armour/screen	**O**	PET tape & Tinned annealed copper wire braid
For EMC cable		Cu/PET tape under the braid
Separator		Suitable tape between the braid and outer sheath
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermosetting compound SHF2 (IEC 60092-360)
Colour of outer sheath*		Grey or blue
Standard marking		E.g. TF KABLE 3 RFOU (i) 250 V S1/S5 2 PAIR 0.75 mm² IEC 60332-3-22 IEC 60092-376

* Black outer sheathing is available on request

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CHARACTERISTIC

Maximum conductor operating temperature:	+90°C
Maximum conductor temperature during short circuit:	+250°C
Lowest ambient temperature for fixed installation:	-40°C
Lowest installation temperature:	-15°C
Oil resistance:	IEC 60092-360 SHF2, I RM 902 (100°C /24h)
Mud resistance:	NEK 606 (SHF MUD, SHF2)
Minimum bending radius:	6 D D – overall diameter of cable

Fire performance

Flame retardant	IEC 60332-3-22 (Category A)
Smoke emission:	IEC 61034-2
Corrosive gas emission:	IEC 60754-1

Applications

- Fixed installation for instrumentation, communication, control and alarm system in both EX- and safe areas
- Meets the MUD resistance requirement in NEK TS 606
- For fixed wiring installations on Oil and Gas Rigs, Shipboard and other marine applications requiring screened cable for EMC
- Other industrial applications

Approvals

DNV-GL, ABS

Details related to particular Approvals are informative only. Please contact manufacturer to confirm whether the required cross-sections are covered by the Certificate.

Standard length cable packing:	1,000 m on drums Other forms of packing and delivery are available on request

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Size	Class of conductor	Insulation thickness	Thickness of inner sheath	Diameter of braid wire	Thickness of outer sheath	Approximate overall diameter	Approximate net weight of cable
N × 2 × mm²		**mm**	**mm**	**mm**	**mm**	**mm**	**kg/km**
1 × 2 × 0.75	2	0.6	1.1	0.2	1.1	10.3	148
2 × 2 × 0.75	2	0.6	1.1	0.2	1.2	14.4	248
4 × 2 × 0.75	2	0.6	1.1	0.3	1.3	15.6	355
8 × 2 × 0.75	2	0.6	1.1	0.3	1.5	19.2	554
12 × 2 × 0.75	2	0.6	1.4	0.3	1.6	22.9	775
16 × 2 × 0.75	2	0.6	1.9	0.3	1.7	26.5	1,024
19 × 2 × 0.75	2	0.6	1.9	0.3	1.7	28.1	1,153
24 × 2 × 0.75	2	0.6	2.1	0.3	1.9	31.3	1,421
1 × 3 × 0.75	2	0.6	1.1	0.2	1.1	10.6	162
2 × 3 × 0.75	2	0.6	1.1	0.3	1.3	15.2	308
4 × 3 × 0.75	2	0.6	1.1	0.3	1.4	17	429
8 × 3 × 0.75	2	0.6	1.1	0.3	1.6	21.7	698
12 × 3 × 0.75	2	0.6	1.4	0.3	1.7	25.5	972
16 × 3 × 0.75	2	0.6	2.1	0.3	1.8	29.8	1,310
19 × 3 × 0.75	2	0.6	2.1	0.3	1.8	31.7	1,482
24 × 3 × 0.75	2	0.6	2.5	0.4	2	36.1	1,859
1 × 2 × 1.5	2	0.7	1.1	0.2	1.1	11.6	187
2 × 2 × 1.5	2	0.7	1.1	0.3	1.3	17.6	384
4 × 2 × 1.5	2	0.7	1.1	0.3	1.4	20.0	546
8 × 2 × 1.5	2	0.7	1.1	0.3	1.7	23.1	809
12 × 2 × 1.5	2	0.7	1.4	0.3	1.8	27.8	1,156
16 × 2 × 1.5	2	0.7	1.9	0.3	1.9	32.1	1,524
19 × 2 × 1.5	2	0.7	1.9	0.3	1.9	34.2	1,732
24 × 2 × 1.5	2	0.7	2.3	0.4	2.2	39.1	2,287
1 × 3 × 1.5	2	0.7	1.1	0.2	1.1	12.2	216
2 × 3 × 1.5	2	0.7	1.1	0.3	1.4	18	428
4 × 3 × 1.5	2	0.7	1.1	0.3	1.5	20.2	622
8 × 3 × 1.5	2	0.7	1.1	0.3	1.8	26.3	1,047
12 × 3 × 1.5	2	0.7	1.4	0.3	1.9	31.1	1,488
16 × 3 × 1.5	2	0.7	2.3	0.4	2	37.1	2,030
24 × 3 × 1.5	2	0.7	2.5	0.4	2.3	44.1	2,983
1 × 2 × 2.5	2	0.7	1.1	0.2	1.1	12.4	222

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2 × 2 × 2.5	2	0.7	1.1	0.3	1.4	14.6	368
4 × 2 × 2.5	2	0.7	1.1	0.3	1.5	20.5	637

Without approvals

Size	Class of conductor	Insulation thickness	Thickness of inner sheath	Diameter of braid wire	Thickness of outer sheath	Approximate overall diameter	Approximate net weight of cable
N × 2 × mm²		**mm**	**mm**	**mm**	**mm**	**mm**	**kg/km**
5 × 2 × 0.75	2	0.6	1.1	0.3	1.3	18.1	444
10 × 2 × 0.75	2	0.6	1.1	0.3	1.5	24.1	734
20 × 2 × 0.75	2	0.6	1.9	0.3	1.7	31.9	1,321
4 × 2 × 2.5	2	0.7	1.1	0.3	1.5	21.9	677
8 × 2 × 2.5	2	0.7	1.1	0.3	1.7	29.9	1,167
16 × 2 × 2.5	2	0.7	1.1	0.3	1.9	37.2	1,969
24 × 2 × 2.5	2	0.7	1.2	0.4	2.2	46.7	2,968
1 × 3 × 2.5	2	0.7	1	0.2	1.2	13.0	265
4 × 3 × 2.5	2	0.7	1.1	0.3	1.5	24.0	840
16 × 3 × 2.5	2	0.7	1.2	0.4	2.1	42.2	2,705
1 × 4 × 2.5	2	0.7	1	0.2	1.2	13.9	309
4 × 3 × 1	2	0.6	1	0.3	1.4	22.5	635