RFOU (i) 150/250 (300)V S1 S5

EPR/EVA/TCWB/EVA

Halogen-free, mud resistant, flame retardant instrumentation cable

Application

Fixed installation for instrumentation, communication, Control and alarm systems in both EX (Zone 0, 1 & 2) and safe areas. Meets the mud resistant requirements in NEK TS 606:2009.

Construction

Conductor	: Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	: 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	: Flame retardant and halogen-free thermoset compound
Tape over inner covering	: PET tape
Armour	: Tinned annealed copper wire braid
Tape over amour	: PET tape
Outer sheath	: Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC60092-360)
Marking text	: E.g. "meter" "year" manufacturer RFOU(i) 250V S1/S5 4 PAIR 0,75 mm2 IEC 60092-376 IEC 60332-3-22

Core Identification

Pair	: Black, light blue
Triple	: Black, light blue, brown
Quad	: Black, light blue, brown, grey

Outer Sheath Colours

Available colours	: Grey or blue

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Installation recommendations

Min. Bending Radius during Installation : 8xD
Min. Bending Radius Fix Installed : 6xD
Max. Conductor Operating Temperature : 90°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

Range and Dimensions

Article Code	Number of elements	Number of cores in element	Size Cross-Section in mm²	Nominal diameter inner covering, mm	Diameter braid wire, mm	Mechanical cross section of the braid, mm²	Nominal diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)
N23D01P.75BNNGR1	1	2	0.75	7	0.2	3.8	10	185
N23D01P.75BNNBL1	1	2	0.75	7	0.2	3.8	10	185
N23D02P.75BNNGR1	2	2	0.75	10	0.2	5.3	13	275
N23D02P.75BNNBL1	2	2	0.75	10	0.2	5.3	13	275
N23D04P.75BNNGR1	4	2	0.75	11.5	0.3	10.2	15	430
N23D04P.75BNNBL1	4	2	0.75	11.5	0.3	10.2	15	430
N23D08P.75BNNGR1	8	2	0.75	15.5	0.3	13.6	19.5	690
N23D08P.75BNNBL1	8	2	0.75	15.5	0.3	13.6	19.5	690
N23D12P.75BNNGR1	12	2	0.75	18.5	0.3	15.3	23	940
N23D12P.75BNNBL1	12	2	0.75	18.5	0.3	15.3	23	940
N23D16P.75BNNGR1	16	2	0.75	21.5	0.3	17.8	26	1240
N23D16P.75BNNBL1	16	2	0.75	21.5	0.3	17.8	26	1240
N23D19P.75BNNGR1	19	2	0.75	22.5	0.3	17.8	27	1360
N23D19P.75BNNBL1	19	2	0.75	22.5	0.3	17.8	27	1360
N23D24P.75BNNGR1	24	2	0.75	26.5	0.3	20.4	31.5	1720
N23D24P.75BNNBL1	24	2	0.75	26.5	0.3	20.4	31.5	1720
N23D01T.75BXXGR1	1	3	0.75	7.5	0.2	3.8	10.5	200
N23D01T.75BXXBL1	1	3	0.75	7.5	0.2	3.8	10.5	200
N23D02T.75BXXGR1	2	3	0.75	11	0.3	8.5	14.5	360
N23D02T.75BXXBL1	2	3	0.75	11	0.3	8.5	14.5	360
N23D04T.75BXXGR1	4	3	0.75	12.5	0.3	10.2	16.5	510
N23D04T.75BXXBL1	4	3	0.75	12.5	0.3	10.2	16.5	510
N23D08T.75BXXGR1	8	3	0.75	17	0.3	13.6	21.5	800
N23D08T.75BXXBL1	8	3	0.75	17	0.3	13.6	21.5	800
N23D12T.75BXXGR1	12	3	0.75	21	0.3	17.8	25.5	1160
N23D12T.75BXXBL1	12	3	0.75	21	0.3	17.8	25.5	1160
N23D16T.75BXXGR1	16	3	0.75	24.5	0.3	17.8	29.5	1540
N23D16T.75BXXBL1	16	3	0.75	24.5	0.3	17.8	29.5	1540
N23D19T.75BXXGR1	19	3	0.75	25.5	0.3	20.4	30	1720
N23D19T.75BXXBL1	19	3	0.75	25.5	0.3	20.4	30	1720
N23D24T.75BXXGR1	24	3	0.75	30.5	0.3	22.9	36	2240
N23D24T.75BXXBL1	24	3	0.75	30.5	0.3	22.9	36	2240
N23D01P1.5BNNGR1	1	2	1.5	8	0.2	3.8	11	230
N23D01P1.5BNNBL1	1	2	1.5	8	0.2	3.8	11	230
N23D02P1.5BNNGR1	2	2	1.5	12	0.3	10.2	15.5	420
N23D02P1.5BNNBL1	2	2	1.5	12	0.3	10.2	15.5	420
N23D04P1.5BNNGR1	4	2	1.5	14	0.3	11.9	18	600
N23D04P1.5BNNBL1	4	2	1.5	14	0.3	11.9	18	600
N23D08P1.5BNNGR1	8	2	1.5	19	0.3	15.3	23.5	980

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Article Code	Number of elements	Number of cores in element	Size Cross-Section in mm²	Nominal diameter inner covering, mm	Diameter braid wire, mm	Mechanical cross section of the braid, mm²	Nominal diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)
N23D08P1.5BNNBL1	8	2	1.5	19	0.3	15.3	23.5	980
N23D12P1.5BNNGR1	12	2	1.5	23	0.3	17.8	28	1380
N23D12P1.5BNNBL1	12	2	1.5	23	0.3	17.8	28	1380
N23D16P1.5BNNGR1	16	2	1.5	26.5	0.3	20.4	31.5	1830
N23D16P1.5BNNBL1	16	2	1.5	26.5	0.3	20.4	31.5	1830
N23D19P1.5BNNGR1	19	2	1.5	27.5	0.3	22.9	32.5	2040
N23D19P1.5BNNBL1	19	2	1.5	27.5	0.3	22.9	32.5	2040
N23D24P1.5BNNGR1	24	2	1.5	33	0.4	36.2	39	2790
N23D24P1.5BNNBL1	24	2	1.5	33	0.4	36.2	39	2790
N23D32P1.5BNNGR1	32	2	1.5	37	0.4	40.7	43	3440
N23D32P1.5BNNBL1	32	2	1.5	37	0.4	40.7	43	3440
N23D01T1.5BXXGR1	1	3	1.5	8.5	0.2	4.5	11.5	260
N23D01T1.5BXXBL1	1	3	1.5	8.5	0.2	4.5	11.5	260
N23D02T1.5BXXGR1	2	3	1.5	13.5	0.3	11.9	17.5	510
N23D02T1.5BXXBL1	2	3	1.5	13.5	0.3	11.9	17.5	510
N23D04T1.5BXXGR1	4	3	1.5	15.5	0.3	13.6	20	740
N23D04T1.5BXXBL1	4	3	1.5	15.5	0.3	13.6	20	740
N23D08T1.5BXXGR1	8	3	1.5	21.5	0.3	17.8	26	1230
N23D08T1.5BXXBL1	8	3	1.5	21.5	0.3	17.8	26	1230
N23D12T1.5BXXGR1	12	3	1.5	26	0.3	20.4	31	1740
N23D12T1.5BXXBL1	12	3	1.5	26	0.3	20.4	31	1740
N23D16T1.5BXXGR1	16	3	1.5	31	0.3	22.9	36	2420
N23D16T1.5BXXBL1	16	3	1.5	31	0.3	22.9	36	2420
N23D24T1.5BXXGR1	24	3	1.5	38	0.4	40.7	44	3570
N23D24T1.5BXXBL1	24	3	1.5	38	0.4	40.7	44	3570
N23D01P2.5BNNGR1	1	2	2.5	9	0.2	4.5	12	280
N23D01P2.5BNNBL1	1	2	2.5	9	0.2	4.5	12	280
N23D02P2.5BNNGR1	2	2	2.5	13.5	0.3	11.9	17.5	530
N23D02P2.5BNNBL1	2	2	2.5	13.5	0.3	11.9	17.5	530
N23D04P2.5BNNGR1	4	2	2.5	16	0.3	13.6	20	770
N23D04P2.5BNNBL1	4	2	2.5	16	0.3	13.6	20	770

Note: Subject to change without prior notice.
Nominal diameter can have a tolerance of -5% or +5%.

Electrical value 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 mm²	110	0,67	26,3	12,7
Shielded triple 0,75 mm²	110	0,67	26,3	12,7
Shielded pair 1,5 mm²	125	0,63	12,9	24,4
Shielded triple 1,5 mm²	125	0,63	12,9	24,4
Shielded pair 2,5 mm²	145	0,59	8,02	36,8
Shielded triple 2,5 mm²	145	0,59	8,02	36,8

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