

RFOU (c) 150/250 (300)V S2 S6

EPR/ERP/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 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 numbered tape or by numbers printed directly on the insulated conductors.
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(c) 250V S2/S6 8 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 Dimension

Article Code	Number of elements	Number of cores in element	Size Cross-Section in mm ²	Nominal diameter inner covering, mm	Diameter braid wire, mm	Mechanical cross section of the braid, mm ²	Nominal diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)
N22D02P.75BNNGR1	2	2	0.75	10	0.2	5.3	13	270
N22D02P.75BNNBL1	2	2	0.75	10	0.2	5.3	13	270
N22D04P.75BNNGR1	4	2	0.75	11.5	0.3	8.5	15	390
N22D04P.75BNNBL1	4	2	0.75	11.5	0.3	8.5	15	390
N22D08P.75BNNGR1	8	2	0.75	15	0.3	11.9	19	600
N22D08P.75BNNBL1	8	2	0.75	15	0.3	11.9	19	600
N22D12P.75BNNGR1	12	2	0.75	18	0.3	15.3	22	820
N22D12P.75BNNBL1	12	2	0.75	18	0.3	15.3	22	820
N22D16P.75BNNGR1	16	2	0.75	20.5	0.3	15.3	24.5	1040
N22D16P.75BNNBL1	16	2	0.75	20.5	0.3	15.3	24.5	1040
N22D19P.75BNNGR1	19	2	0.75	21.5	0.3	17.8	25.5	1160
N22D24P.75BNNGR1	24	2	0.75	25	0.3	20.4	29.5	1450
N22D24P.75BNNBL1	24	2	0.75	25	0.3	20.4	29.5	1450
N22D02T.75BXXGR1	2	3	0.75	11	0.2	5.3	14	310
N22D02T.75BXXBL1	2	3	0.75	11	0.2	5.3	14	310
N22D04T.75BXXGR1	4	3	0.75	12.5	0.3	10.2	16.5	470
N22D04T.75BXXBL1	4	3	0.75	12.5	0.3	10.2	16.5	470
N22D08T.75BXXGR1	8	3	0.75	17	0.3	13.6	21	740
N22D08T.75BXXBL1	8	3	0.75	17	0.3	13.6	21	740
N22D12T.75BXXGR1	12	3	0.75	20	0.3	15.3	24.5	1010
N22D12T.75BXXBL1	12	3	0.75	20	0.3	15.3	24.5	1010
N22D16T.75BXXGR1	16	3	0.75	23	0.3	17.8	27.5	1350
N22D24T.75BXXGR1	24	3	0.75	28	0.3	20.4	33	1860
N22D24T.75BXXBL1	24	3	0.75	28	0.3	20.4	33	1860
N22D02P1.5BNNGR1	2	2	1.5	12	0.3	10.2	15.5	410
N22D02P1.5BNNBL1	2	2	1.5	12	0.3	10.2	15.5	410
N22D04P1.5BNNGR1	4	2	1.5	14	0.3	11.9	18	560
N22D04P1.5BNNBL1	4	2	1.5	14	0.3	11.9	18	560
N22D08P1.5BNNGR1	8	2	1.5	18.5	0.3	15.3	23	890
N22D08P1.5BNNBL1	8	2	1.5	18.5	0.3	15.3	23	890
N22D10P1.5BNNGR1	10	2	1.5	21	0.3	17.8	25.5	1070
N22D10P1.5BNNBL1	10	2	1.5	21	0.3	17.8	25.5	1070
N22D12P1.5BNNGR1	12	2	1.5	22	0.3	17.8	26.5	1210
N22D12P1.5BNNBL1	12	2	1.5	22	0.3	17.8	26.5	1210
N22D16P1.5BNNGR1	16	2	1.5	25	0.3	20.4	29.5	1580
N22D16P1.5BNNBL1	16	2	1.5	25	0.3	20.4	29.5	1580
N22D19P1.5BNNGR1	19	2	1.5	26.5	0.3	20.4	31	1750
N22D24P1.5BNNGR1	24	2	1.5	31	0.3	25.4	36.5	2270
N22D32P1.5BNNGR1	32	2	1.5	34	0.4	36.2	40	2890

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Article Code	Number of elements	Number of cores in element	Size Cross-Section in mm ²	Nominal diameter inner covering, mm	Diameter braid wire, mm	Mechanical cross section of the braid, mm ²	Nominal diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)
N22D32P1.5BNNBL1	32	2	1.5	34	0.4	36.2	40	2890
N22D02T1.5BXXGR1	2	3	1.5	13	0.3	10.2	17	480
N22D02T1.5BXXBL1	2	3	1.5	13	0.3	10.2	17	480
N22D04T1.5BXXGR1	4	3	1.5	15.5	0.3	11.9	19.5	670
N22D08T1.5BXXGR1	8	3	1.5	21	0.3	17.8	25.5	1130
N22D12T1.5BXXGR1	12	3	1.5	24.5	0.3	20.4	29.5	1560
N22D12T1.5BXXBL1	12	3	1.5	24.5	0.3	20.4	29.5	1560
N22D16T1.5BXXGR1	16	3	1.5	28	0.3	22.9	33	2080
N22D16T1.5BXXBL1	16	3	1.5	28	0.3	22.9	33	2080
N22D24T1.5BXXGR1	24	3	1.5	35	0.4	36.2	41	3110
N22D24T1.5BXXBL1	24	3	1.5	35	0.4	36.2	41	3110
N22D02T2.5BXXGR1	2	2	2.5	13.5	0.3	10.2	17.5	490
N22D04T2.5BXXGR1	4	2	2.5	16	0.3	11.9	19.5	680
N22D04T2.5BXXBL1	4	2	2.5	16	0.3	11.9	19.5	680
N22D12T2.5BXXGR1	12	2	2.5	27	0.3	20.4	31.5	1740

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

1) The maximum current rating applies to one cable directly in the ground, at a soil temperature of 20 °C and a soil thermal resistivity for 2.5 K.m/W, in accordance with NEN 1010:2007. For 2 cores loaded cables table A.524 column 7 is applicable and for 3 cores loaded cables table A.526 column 7 is applicable. For 4 and 5 cores cables the maximum current is given for 3 cores loaded. Correction factors for other circumstances are given in table A.5216 and A.5219. The correction factor for a soil thermal resistivity of 1 K.m/W amounts 1.5.

NOTICE

Incore Cables has endeavored to ensure the accuracy of the data in this publication, however we cannot be liable for the consequences of errors or omissions. All data is subject to change without notice. The installer and/or user assumes all liability for the consequences of the installation and/or use of any of our products in contravention of any applicable law, regulation or code.

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