

BFOU (i) 150/250 (300)V S3 S7

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	: Mica-tape + 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.
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 BFOU(i) 250V S3/S7 16 PAIR 0,75 mm2 FLEX - FLAME IEC 60092-376 IEC 60331-1) or IEC 60331-2, IEC 60331-21, 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 60331-1, -2, -21	Fire Resistant
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 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)
N29D01P.75BNNGR1	1	2	0.75	7.5	0.2	3.8	10.5	200
N29D01P.75BNNBL1	1	2	0.75	7.5	0.2	3.8	10.5	200
N29D01P.75BBCGR1	1	4	0.75	8.5	0.2	4.5	12	250
N29D02P.75BNNGR1	2	2	0.75	11	0.3	10.2	14.5	360
N29D02P.75BNNBL1	2	2	0.75	11	0.3	10.2	14.5	360
N29D04P.75BNNGR1	4	2	0.75	12.5	0.3	11.9	16.5	490
N29D04P.75BNNBL1	4	2	0.75	12.5	0.3	11.9	16.5	490
N29D08P.75BNNGR1	8	2	0.75	17	0.3	15.3	21.5	780
N29D08P.75BNNBL1	8	2	0.75	17	0.3	15.3	21.5	780
N29D12P.75BNNGR1	12	2	0.75	20.5	0.3	17.8	25	1060
N29D12P.75BNNBL1	12	2	0.75	20.5	0.3	17.8	25	1060
N29D16P.75BNNGR1	16	2	0.75	24	0.3	20.4	28.5	1400
N29D16P.75BNNBL1	16	2	0.75	24	0.3	20.4	28.5	1400
N29D19P.75BNNGR1	19	2	0.75	25	0.3	20.4	29.5	1550
N29D19P.75BNNBL1	19	2	0.75	25	0.3	20.4	29.5	1550
N29D24P.75BNNGR1	24	2	0.75	30	0.4	31.7	35.5	2100
N29D24P.75BNNBL1	24	2	0.75	30	0.4	31.7	35.5	2100
N29D01T.75BXXGR1	1	3	0.75	8	0.2	4.5	11	220
N29D01T.75BXXBL1	1	3	0.75	8	0.2	4.5	11	220
N29D02T.75BXXGR1	2	3	0.75	12	0.3	10.2	15.5	410
N29D02T.75BXXBL1	2	3	0.75	12	0.3	10.2	15.5	410
N29D04T.75BXXGR1	4	3	0.75	14	0.3	11.9	17.5	570
N29D04T.75BXXBL1	4	3	0.75	14	0.3	11.9	17.5	570
N29D08T.75BXXGR1	8	3	0.75	18.5	0.3	17.8	23	960
N29D08T.75BXXBL1	8	3	0.75	18.5	0.3	17.8	23	960
N29D12T.75BXXGR1	12	3	0.75	22.5	0.3	20.4	27.5	1310
N29D12T.75BXXBL1	12	3	0.75	22.5	0.3	20.4	27.5	1310
N29D16T.75BXXGR1	16	3	0.75	26.5	0.3	22.9	31.5	1770
N29D16T.75BXXBL1	16	3	0.75	26.5	0.3	22.9	31.5	1770
N29D19T.75BXXGR1	19	3	0.75	28	0.3	22.9	33	2000
N29D24T.75BXXGR1	24	3	0.75	33	0.4	36.2	39	2630
N29D24T.75BXXBL1	24	3	0.75	33	0.4	36.2	39	2630
N29D01P1.5BNNGR1	1	2	1.5	9	0.2	4.5	12	260
N29D01P1.5BNNBL1	1	2	1.5	9	0.2	4.5	12	260
N29D02P1.5BNNGR1	2	2	1.5	13	0.3	11.9	17	470
N29D02P1.5BNNBL1	2	2	1.5	13	0.3	11.9	17	470
N29D04P1.5BNNGR1	4	2	1.5	15.5	0.3	13.6	19.5	670
N29D04P1.5BNNBL1	4	2	1.5	15.5	0.3	13.6	19.5	670

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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)
N29D08P1.5BNNGR1	8	2	1.5	21	0.3	17.8	25.5	1090
N29D08P1.5BNNBL1	8	2	1.5	21	0.3	17.8	25.5	1090
N29D12P1.5BNNGR1	12	2	1.5	25.5	0.3	20.4	30.5	1530
N29D12P1.5BNNBL1	12	2	1.5	25.5	0.3	20.4	30.5	1530
N29D16P1.5BNNGR1	16	2	1.5	30	0.3	22.9	35	2060
N29D16P1.5BNNBL1	16	2	1.5	30	0.3	22.9	35	2060
N29D19P1.5BNNGR1	19	2	1.5	31	0.4	36.2	36.5	2440
N29D24P1.5BNNGR1	24	2	1.5	36.5	0.4	40.7	43	3080
N29D24P1.5BNNBL1	24	2	1.5	36.5	0.4	40.7	43	3080
N29D01T1.5BXXGR1	1	3	1.5	9.5	0.2	4.5	12.5	290
N29D01T1.5BXXBL1	1	3	1.5	9.5	0.2	4.5	12.5	290
N29D02T1.5BXXGR1	2	3	1.5	14.5	0.3	11.9	18.5	550
N29D02T1.5BXXBL1	2	3	1.5	14.5	0.3	11.9	18.5	550
N29D04T1.5BXXGR1	4	3	1.5	17	0.3	15.3	21	820
N29D04T1.5BXXBL1	4	3	1.5	17	0.3	15.3	21	820
N29D08T1.5BXXGR1	8	3	1.5	22.5	0.3	20.4	27	1370
N29D08T1.5BXXBL1	8	3	1.5	22.5	0.3	20.4	27	1370
N29D12T1.5BXXGR1	12	3	1.5	28.5	0.3	22.9	33.5	1970
N29D12T1.5BXXBL1	12	3	1.5	28.5	0.3	22.9	33.5	1970
N29D16T1.5BXXGR1	16	3	1.5	36.5	0.4	36.2	42.5	3060
N29D16T1.5BXXBL1	16	3	1.5	36.5	0.4	36.2	42.5	3060
N29D24T1.5BXXGR1	24	3	1.5	45.5	0.4	45.2	52	4400
N29D24T1.5BXXBL1	24	3	1.5	45.5	0.4	45.2	52	4400
N29D01P2.5BNNGR1	1	2	2.5	9.5	0.2	4.5	13	300
N29D01P2.5BNNBL1	1	2	2.5	9.5	0.2	4.5	13	300
N29D02P2.5BNNGR1	2	2	2.5	14.5	0.3	11.9	18.5	560
N29D04P2.5BNNGR1	4	2	2.5	17	0.3	15.3	21.5	830
N29D08P2.5BNNGR1	8	2	2.5	23.5	0.3	20.4	28	1390
N29D12P2.5BNNGR1	12	2	2.5	30	0.3	22.9	35.5	2170
N29D16P2.5BNNGR1	16	2	2.5	36.5	0.4	36.2	42.5	3040
N29D01T1.5BXXGR1	1	3	2.5	10.5	0.2	5.3	13.5	350
N29D08T1.5BXXGR1	8	3	2.5	25.5	0.3	22.9	30.5	1820
N29D12T1.5BXXGR1	12	3	2.5	33.5	0.4	36.2	39.5	2940

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	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
Shielded 16 and 24 triple 1,5 mm ²	105	0.71	12.9	24.4
Shielded 16 pair 2.5 mm ²	110	0.66	8.02	41.1

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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