

Halogen-free, fire resistant, unarmoured, mud resistant instrumentation cable BU(c)  
150/250(300)V, S14



Fire resistant, flame retardant halogen-free instrumentation cable. Mud resistant

## BU(c) 150/250(300)V

MGT/EPR/EVA

NEK TS 606 CodeS14

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 2) and safe areas, emergency and critical systems where requirement for fire resistance exists. Meets the mud resistant requirements in NEK TS 606:2009.

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

### Construction

	Code Letter	
<b>Conductor</b>		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
<b>Insulation</b>	<b>B</b>	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
<b>Pair / Triple / Quad twisting</b>		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.
<b>Inner covering</b>		No inner covering. (Additional tapes may be applied)
<b>Armour/screen</b>		No armour.
<b>Outer sheath</b>	<b>U</b>	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
<b>Marking text</b>		"meter" "year" DRAKA 01 BU(c) 250V S14 8 PAIR 0,75 mm <sup>2</sup> FLEX - FLAME IEC 60092-376 IEC 60331-1*) or IEC 60331-2*) IEC 60331-21**) IEC 60332-3-22
<b>Manufacturing unit</b>		DRAKA 01 = Draka Norsk Kabel,
<b>Outer sheath colour</b>		Grey or Blue

\*) IEC 60331-1 for cables with an overall diameter exceeding 20 mm and IEC 60331-2 for cables with an overall diameter not exceeding 20 mm

\*\*) IEC 60331-21 also at enhanced temperature 1000°C for 180 minutes



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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 <sup>2</sup>	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
2	2	0.75	1.1	0.6	1.1	10.5 ± 0.8	150	30
4	2	0.75	1.1	0.6	1.2	12.5 ± 0.8	230	55
8	2	0.75	1.1	0.6	1.4	17 ± 0.8	420	107
12	2	0.75	1.1	0.6	1.5	19.5 ± 0.8	570	158
12	2	0.75	1.1	0.6	1.5	19.5 ± 0.8	570	158
16	2	0.75	1.1	0.6	1.6	21.5 ± 1	720	209
19	2	0.75	1.1	0.6	1.6	22.5 ± 1	820	247
24	2	0.75	1.1	0.6	1.8	26.5 ± 1	1040	311
2	3	0.75	1.1	0.6	1.2	12 ± 0.8	200	43
4	3	0.75	1.1	0.6	1.3	14.5 ± 0.8	310	81
8	3	0.75	1.1	0.6	1.5	19.5 ± 0.8	590	158
12	3	0.75	1.1	0.6	1.6	22.5 ± 1	780	235
16	3	0.75	1.1	0.6	1.7	24.5 ± 1	1000	312
24	3	0.75	1.1	0.6	1.9	30 ± 1.5	1430	466
2	2	1.5	1.6	0.7	1.2	13 ± 0.8	225	62
4	2	1.5	1.6	0.7	1.3	15.5 ± 0.8	360	118
8	2	1.5	1.6	0.7	1.5	21 ± 1	660	229
12	2	1.5	1.6	0.7	1.7	24.5 ± 1	940	341
16	2	1.5	1.6	0.7	1.8	26.5 ± 1	1200	452
24	2	1.5	1.6	0.7	2.1	33 ± 1.5	1770	675
2	3	1.5	1.6	0.7	1.3	15 ± 0.8	310	90
4	3	1.5	1.6	0.7	1.4	17.5 ± 0.8	500	174
8	3	1.5	1.6	0.7	1.6	23.5 ± 1	930	342
12	3	1.5	1.6	0.7	1.8	28 ± 1	1300	509
16	3	1.5	1.6	0.7	1.9	30.5 ± 1.5	1670	677
24	3	1.5	1.6	0.7	2.2	37.5 ± 1.5	2470	1012
2	2	2.5	2.0	0.7	1.3	14.5 ± 0.8	295	96

## 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)
Unshielded pair 0,75 mm <sup>2</sup>	100	0,67	26,3	12,7
Unshielded triple 0,75 mm <sup>2</sup>	100	0,67	26,3	12,7
Unshielded pair 1,5 mm <sup>2</sup>	110	0,63	12,9	24,4
Unshielded triple 1,5 mm <sup>2</sup>	110	0,63	12,9	24,4
Unshielded pair 2,5 mm <sup>2</sup>	125	0,59	8,02	36,8
Unshielded triple 2,5 mm <sup>2</sup>	125	0,59	8,02	36,8

## Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20110778		BU(C) 250V 2PAIR 0.75mm <sup>2</sup> S14	GREY	-	7021528968064	1064106
20115554		BU(C) 250V 4PAIR 0.75mm <sup>2</sup> S14	GREY	-	7021528968187	1064118
20109519		BU(C) 250V 8PAIR 0.75mm <sup>2</sup> S14	GREY	-	7021528968309	1064130
20119162		BU(C) 250V 12PAIR 0.75mm <sup>2</sup> S14	GREY	-	7021528968361	1064136
	896837	BU(C) 250V 12PAIR 0.75mm <sup>2</sup> S14	BLUE	-	7021528968378	-
20119164		BU(C) 250V 16PAIR 0.75mm <sup>2</sup> S14	GREY	-	7021528968422	1064142
	896845	BU(C) 250V 19PAIR 0.75mm <sup>2</sup> S14	GREY	-	7021528968453	1064145
20115190		BU(C) 250V 24PAIR 0.75mm <sup>2</sup> S14	GREY	-	7021528968484	1064148
20109520		BU(C) 250V 2TRIP 0.75mm <sup>2</sup> S14	GREY	-	7021528968668	1064166
20109521		BU(C) 250V 4TRIP 0.75mm <sup>2</sup> S14	GREY	-	7021528968781	1064178
20109522		BU(C) 250V 8TRIP 0.75mm <sup>2</sup> S14	GREY	-	7021528968903	1064190
	896896	BU(C) 250V 12TRIP 0.75mm <sup>2</sup> S14	GREY	-	7021528968965	1064196

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20119166		BU(C) 250V 16TRIP 0.75mm <sup>2</sup> S14	GREY	-	7021528969023	1064203
	896908	BU(C) 250V 24TRIP 0.75mm <sup>2</sup> S14	GREY	-	7021528969085	1064208
	897006	BU(C) 250V 2PAIR 1.5mm <sup>2</sup> S14	GREY	-	7021528970067	1064306
	897018	BU(C) 250V 4PAIR 1.5mm <sup>2</sup> S14	GREY	-	7021528970180	1064318
	897030	BU(C) 250V 8PAIR 1.5mm <sup>2</sup> S14	GREY	-	7021528970302	1064330
	897036	BU(C) 250V 12PAIR 1.5mm <sup>2</sup> S14	GREY	-	7021528970364	1064336
	897042	BU(C) 250V 16PAIR 1.5mm <sup>2</sup> S14	GREY	-	7021528970425	1064342
	897048	BU(C) 250V 24PAIR 1.5mm <sup>2</sup> S14	GREY	-	7021528970487	1064348
	897066	BU(C) 250V 2TRIP 1.5mm <sup>2</sup> S14	GREY	-	7021528970661	1064366
	897078	BU(C) 250V 4TRIP 1.5mm <sup>2</sup> S14	GREY	-	7021528970784	1064378
	897090	BU(C) 250V 8TRIP 1.5mm <sup>2</sup> S14	GREY	-	7021528970906	1064390
	897096	BU(C) 250V 12TRIP 1.5mm <sup>2</sup> S14	GREY	-	7021528970968	1064396
	897102	BU(C) 250V 16TRIP 1.5mm <sup>2</sup> S14	GREY	-	7021528971026	1064402
	897108	BU(C) 250V 24TRIP 1.5mm <sup>2</sup> S14	GREY	-	7021528971088	1064408
20109523		BU(C) 250V 2PAIR 2.5mm <sup>2</sup> S14	GREY	-	7021528972061	-

### 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 /mm <sup>2</sup>	-20°C



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