Instrumentation & Communication Cable

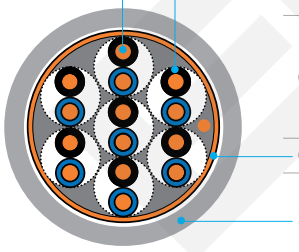
Cable Designation (S106)

250V RU(c)

Application Standard

- Design guide	: NEK-606 & IEC 60092-376
- Flame retardant	: IEC 60332-1 & IEC 60332-3 Category A
- Halogen content	: IEC 60754-1, 0.5%
- Cold bend / impact	: CSA C22.2 No. 2556 or IEC 60092-350 Annex.E Method 1 (-40/-35)
- Mud / Oil resistant	: NEK 606 (Category a,b,c,d)
- Smoke light transmittance	: IEC 61034, 60%
- Sunlight (UV) resistant	: UL 1581

Construction

Sectional view	Classification	Code	Construction detail
	Conductor		- Stranded tinned annealed copper wires as per IEC 60228, Class 2
	Insulation	R	- EPR as per IEC 60092-360
	Twisting		- Two/Three Insulated cores shall be twisted together to form a pair/Triad
	Cabling		- Twisted pairs / triads shall be cabled - Flame retardant & non-hygroscopic fillers may be used - Suitable tape(s) may be applied on the cabled core - A Filler may be applied to obtain a circular Cable
	Collective screen	(c)	- CU/PS or AL/PS tape + Tinned copper drain wire
	Sheath	U	- SHF2 as per IEC 60092-360 - **Option** : NEK 606 Category a,b,c,d Mud or oil resistant - Outer sheath color : Grey (Non-IS Type) or Blue (IS Type)
	Core identification		- Each Pair / Triad : Core color ① Pair : Black, Light blue ② Triad : Black, Light blue, Brown - Multi Pairs / Triads : Number printing on the insulation or numbered tape

Note. Flexible cable (Class5 Conductor) can be supplied

O-Route®

NEK-606, IEC 60092-350, 353, 354, 376

250V RU(c)

No. of Pairs	Conductor			Thickness of Insulation	Thickness of sheath	Overall diameter		Conductor Resistance (at 20℃) (Max.)	Insulation Resistance (at 20℃) (Min.)	Test Voltage	Cable Weight Approx.
	Nominal Area	Max. No. of wires	Max. overall dia.			Nominal	Toler-ance				
No.	mm^2	EA	mm	mm	mm	mm	±mm	Ω/km	MΩ-km	V/5min.	kg/km
1P	0.75	7	1.2	0.6	1.0	7.5	1.0	26.3	1,170	1,500	90
2P	0.75	7	1.2	0.6	1.1	10.9	1.1	26.3	1,170	1,500	170
3P	0.75	7	1.2	0.6	1.2	11.7	1.3	26.3	1,170	1,500	210
4P	0.75	7	1.2	0.6	1.2	12.5	1.3	26.3	1,170	1,500	240
5P	0.75	7	1.2	0.6	1.2	13.9	1.3	26.3	1,170	1,500	290
6P	0.75	7	1.2	0.6	1.3	15.1	1.4	26.3	1,170	1,500	350
7P	0.75	7	1.2	0.6	1.3	15.1	1.4	26.3	1,170	1,500	360
8P	0.75	7	1.2	0.6	1.3	16.0	1.4	26.3	1,170	1,500	410
10P	0.75	7	1.2	0.6	1.4	18.1	1.5	26.3	1,170	1,500	510
12P	0.75	7	1.2	0.6	1.4	18.8	1.5	26.3	1,170	1,500	560
14P	0.75	7	1.2	0.6	1.5	19.6	1.7	26.3	1,170	1,500	630
16P	0.75	7	1.2	0.6	1.5	21.1	1.7	26.3	1,170	1,500	720
19P	0.75	7	1.2	0.6	1.6	22.1	1.8	26.3	1,170	1,500	820
24P	0.75	7	1.2	0.6	1.7	25.2	2.0	26.3	1,170	1,500	1,040
32P	0.75	7	1.2	0.6	1.8	28.8	2.1	26.3	1,170	1,500	1,350
1P	1.0	7	1.4	0.6	1.0	7.9	1.0	19.3	1,050	1,500	110
2P	1.0	7	1.4	0.6	1.2	11.7	1.3	19.3	1,050	1,500	200
3P	1.0	7	1.4	0.6	1.2	12.6	1.3	19.3	1,050	1,500	240
4P	1.0	7	1.4	0.6	1.2	13.3	1.3	19.3	1,050	1,500	280
5P	1.0	7	1.4	0.6	1.3	15.1	1.4	19.3	1,050	1,500	350
6P	1.0	7	1.4	0.6	1.3	16.1	1.4	19.3	1,050	1,500	400
7P	1.0	7	1.4	0.6	1.3	16.1	1.4	19.3	1,050	1,500	420
8P	1.0	7	1.4	0.6	1.4	17.2	1.5	19.3	1,050	1,500	480
10P	1.0	7	1.4	0.6	1.5	19.4	1.6	19.3	1,050	1,500	610
12P	1.0	7	1.4	0.6	1.5	20.3	1.6	19.3	1,050	1,500	680
14P	1.0	7	1.4	0.6	1.5	21.1	1.7	19.3	1,050	1,500	750
16P	1.0	7	1.4	0.6	1.6	22.7	1.8	19.3	1,050	1,500	860
19P	1.0	7	1.4	0.6	1.6	23.8	1.8	19.3	1,050	1,500	970
24P	1.0	7	1.4	0.6	1.7	27.1	1.9	19.3	1,050	1,500	1,230
32P	1.0	7	1.4	0.6	1.9	31.0	2.1	19.3	1,050	1,500	1,630
1P	1.5	7	1.7	0.7	1.1	9.0	1.2	12.9	1,020	1,500	140
2P	1.5	7	1.7	0.7	1.2	13.5	1.2	12.9	1,020	1,500	260
3P	1.5	7	1.7	0.7	1.3	14.6	1.3	12.9	1,020	1,500	320
4P	1.5	7	1.7	0.7	1.3	15.5	1.3	12.9	1,020	1,500	380
5P	1.5	7	1.7	0.7	1.4	17.6	1.4	12.9	1,020	1,500	470
6P	1.5	7	1.7	0.7	1.4	18.8	1.5	12.9	1,020	1,500	540
7P	1.5	7	1.7	0.7	1.4	18.8	1.5	12.9	1,020	1,500	570
8P	1.5	7	1.7	0.7	1.5	20.2	1.5	12.9	1,020	1,500	650
10P	1.5	7	1.7	0.7	1.6	22.8	1.6	12.9	1,020	1,500	820
12P	1.5	7	1.7	0.7	1.6	23.8	1.7	12.9	1,020	1,500	920
14P	1.5	7	1.7	0.7	1.7	24.8	1.9	12.9	1,020	1,500	1,040
16P	1.5	7	1.7	0.7	1.7	26.7	1.9	12.9	1,020	1,500	1,180
19P	1.5	7	1.7	0.7	1.8	28.0	2.0	12.9	1,020	1,500	1,350
24P	1.5	7	1.7	0.7	1.9	32.1	2.0	12.9	1,020	1,500	1,720
32P	1.5	7	1.7	0.7	2.1	36.7	2.1	12.9	1,020	1,500	2,270
1P	2.5	7	2.2	0.7	1.1	9.9	1.1	8.02	850	1,500	170
2P	2.5	7	2.2	0.7	1.3	15.1	1.3	8.02	850	1,500	340
3P	2.5	7	2.2	0.7	1.3	16.1	1.3	8.02	850	1,500	420
4P	2.5	7	2.2	0.7	1.4	17.3	1.3	8.02	850	1,500	510
5P	2.5	7	2.2	0.7	1.5	19.5	1.6	8.02	850	1,500	630
6P	2.5	7	2.2	0.7	1.5	21.0	1.6	8.02	850	1,500	730
7P	2.5	7	2.2	0.7	1.5	21.0	1.6	8.02	850	1,500	770
8P	2.5	7	2.2	0.7	1.6	22.5	1.7	8.02	850	1,500	890
10P	2.5	7	2.2	0.7	1.7	25.5	1.7	8.02	850	1,500	1,120
12P	2.5	7	2.2	0.7	1.7	26.6	1.8	8.02	850	1,500	1,260
14P	2.5	7	2.2	0.7	1.8	27.7	2.0	8.02	850	1,500	1,420
16P	2.5	7	2.2	0.7	1.8	30.0	2.0	8.02	850	1,500	1,620
19P	2.5	7	2.2	0.7	1.9	31.5	2.1	8.02	850	1,500	1,860
24P	2.5	7	2.2	0.7	2.1	36.0	2.2	8.02	850	1,500	2,400
32P	2.5	7	2.2	0.7	2.3	41.2	2.4	8.02	850	1,500	3,180

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250V RU(c)

No. of Triads	Conductor			Thickness of Insulation	Thickness of sheath	Overall diameter		Conductor Resistance (at 20℃) (Max.)	Insulation Resistance (at 20℃) (Min.)	Test Voltage	Cable Weight Approx.
	Nominal Area	Max. No. of wires	Max. overall dia.			Nominal	Toler-ance				
No.	mm²	EA	mm	mm	mm	mm	±mm	Ω/km	MΩ-km	V/5min.	kg/km
1T	0.75	7	1.2	0.6	1.0	7.9	1.0	26.3	1,170	1,500	110
2T	0.75	7	1.2	0.6	1.2	12.1	1.2	26.3	1,170	1,500	220
3T	0.75	7	1.2	0.6	1.2	12.8	1.2	26.3	1,170	1,500	260
4T	0.75	7	1.2	0.6	1.3	14.1	1.3	26.3	1,170	1,500	320
5T	0.75	7	1.2	0.6	1.3	15.6	1.3	26.3	1,170	1,500	380
6T	0.75	7	1.2	0.6	1.4	17.7	1.4	26.3	1,170	1,500	480
7T	0.75	7	1.2	0.6	1.4	17.7	1.4	26.3	1,170	1,500	500
8T	0.75	7	1.2	0.6	1.4	18.9	1.5	26.3	1,170	1,500	570
10T	0.75	7	1.2	0.6	1.5	21.5	1.7	26.3	1,170	1,500	710
12T	0.75	7	1.2	0.6	1.6	22.9	1.7	26.3	1,170	1,500	830
14T	0.75	7	1.2	0.6	1.6	23.8	1.7	26.3	1,170	1,500	920
16T	0.75	7	1.2	0.6	1.7	25.3	1.9	26.3	1,170	1,500	1,040
19T	0.75	7	1.2	0.6	1.8	27.5	2.0	26.3	1,170	1,500	1,230
24T	0.75	7	1.2	0.6	1.9	30.5	2.0	26.3	1,170	1,500	1,520
32T	0.75	7	1.2	0.6	2.0	35.1	2.2	26.3	1,170	1,500	2,000
1T	1.0	7	1.4	0.6	1.0	8.3	1.1	19.3	1,050	1,500	120
2T	1.0	7	1.4	0.6	1.2	12.8	1.2	19.3	1,050	1,500	250
3T	1.0	7	1.4	0.6	1.2	13.6	1.2	19.3	1,050	1,500	300
4T	1.0	7	1.4	0.6	1.3	15.1	1.4	19.3	1,050	1,500	370
5T	1.0	7	1.4	0.6	1.3	16.6	1.4	19.3	1,050	1,500	450
6T	1.0	7	1.4	0.6	1.4	18.8	1.5	19.3	1,050	1,500	560
7T	1.0	7	1.4	0.6	1.4	18.8	1.5	19.3	1,050	1,500	590
8T	1.0	7	1.4	0.6	1.5	20.3	1.5	19.3	1,050	1,500	680
10T	1.0	7	1.4	0.6	1.6	23.1	1.7	19.3	1,050	1,500	860
12T	1.0	7	1.4	0.6	1.6	24.3	1.8	19.3	1,050	1,500	970
14T	1.0	7	1.4	0.6	1.7	25.4	1.9	19.3	1,050	1,500	1,100
16T	1.0	7	1.4	0.6	1.7	27.1	1.9	19.3	1,050	1,500	1,230
19T	1.0	7	1.4	0.6	1.8	29.4	2.0	19.3	1,050	1,500	1,450
24T	1.0	7	1.4	0.6	2.0	32.8	2.1	19.3	1,050	1,500	1,830
32T	1.0	7	1.4	0.6	2.1	37.7	2.3	19.3	1,050	1,500	2,410
1T	1.5	7	1.7	0.7	1.1	9.6	1.1	12.9	1,020	1,500	160
2T	1.5	7	1.7	0.7	1.3	15.0	1.3	12.9	1,020	1,500	330
3T	1.5	7	1.7	0.7	1.3	15.9	1.3	12.9	1,020	1,500	400
4T	1.5	7	1.7	0.7	1.4	17.6	1.3	12.9	1,020	1,500	500
5T	1.5	7	1.7	0.7	1.5	19.6	1.6	12.9	1,020	1,500	620
6T	1.5	7	1.7	0.7	1.6	22.2	1.7	12.9	1,020	1,500	780
7T	1.5	7	1.7	0.7	1.6	22.2	1.7	12.9	1,020	1,500	820
8T	1.5	7	1.7	0.7	1.6	23.8	1.7	12.9	1,020	1,500	920
10T	1.5	7	1.7	0.7	1.7	27.1	1.8	12.9	1,020	1,500	1,170
12T	1.5	7	1.7	0.7	1.8	28.8	1.9	12.9	1,020	1,500	1,360
14T	1.5	7	1.7	0.7	1.9	30.2	1.9	12.9	1,020	1,500	1,530
16T	1.5	7	1.7	0.7	1.9	32.2	2.0	12.9	1,020	1,500	1,730
19T	1.5	7	1.7	0.7	2.0	34.9	2.1	12.9	1,020	1,500	2,030
24T	1.5	7	1.7	0.7	2.2	38.8	2.3	12.9	1,020	1,500	2,560
32T	1.5	7	1.7	0.7	2.4	44.8	2.5	12.9	1,020	1,500	3,420
1T	2.5	7	2.2	0.7	1.1	10.4	1.0	8.02	850	1,500	200
2T	2.5	7	2.2	0.7	1.3	16.4	1.2	8.02	850	1,500	430
3T	2.5	7	2.2	0.7	1.4	17.7	1.2	8.02	850	1,500	540
4T	2.5	7	2.2	0.7	1.4	19.4	1.3	8.02	850	1,500	660
5T	2.5	7	2.2	0.7	1.5	21.7	1.4	8.02	850	1,500	820
6T	2.5	7	2.2	0.7	1.6	24.7	1.6	8.02	850	1,500	1,020
7T	2.5	7	2.2	0.7	1.6	24.7	1.6	8.02	850	1,500	1,090
8T	2.5	7	2.2	0.7	1.7	26.6	1.6	8.02	850	1,500	1,260
10T	2.5	7	2.2	0.7	1.9	30.5	1.7	8.02	850	1,500	1,620
12T	2.5	7	2.2	0.7	1.9	32.3	1.7	8.02	850	1,500	1,850
14T	2.5	7	2.2	0.7	2.0	33.8	1.7	8.02	850	1,500	2,100
16T	2.5	7	2.2	0.7	2.1	36.0	1.9	8.02	850	1,500	2,400
19T	2.5	7	2.2	0.7	2.2	39.1	1.9	8.02	850	1,500	2,830
24T	2.5	7	2.2	0.7	2.3	43.5	2.1	8.02	850	1,500	3,520
32T	2.5	7	2.2	0.7	2.6	50.3	2.3	8.02	850	1,500	4,750