O-Route®

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



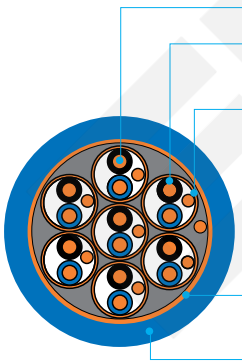
Cable Designation (S105, -)

250V RU(i), 250V RU(i&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
	Individual screen	(i)	- CU/PS or AL/PS tape + Tinned copper drain wire - In case of 1P, 1T for 250V RU(i&c), individual screen is omitted.
	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

Instrumentation & Communication Cable

250V RU(i), 250V RU(i&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	1.2	11.9	1.2	26.3	1,170	1,500	210
3P	0.75	7	1.2	0.6	1.2	12.5	1.2	26.3	1,170	1,500	250
4P	0.75	7	1.2	0.6	1.2	13.6	1.2	26.3	1,170	1,500	300
5P	0.75	7	1.2	0.6	1.3	15.3	1.3	26.3	1,170	1,500	380
6P	0.75	7	1.2	0.6	1.3	15.9	1.4	26.3	1,170	1,500	420
7P	0.75	7	1.2	0.6	1.3	15.9	1.4	26.3	1,170	1,500	440
8P	0.75	7	1.2	0.6	1.4	17.5	1.4	26.3	1,170	1,500	520
10P	0.75	7	1.2	0.6	1.5	19.9	1.7	26.3	1,170	1,500	660
12P	0.75	7	1.2	0.6	1.5	20.7	1.7	26.3	1,170	1,500	740
14P	0.75	7	1.2	0.6	1.5	21.7	1.7	26.3	1,170	1,500	830
16P	0.75	7	1.2	0.6	1.6	23.4	1.7	26.3	1,170	1,500	950
19P	0.75	7	1.2	0.6	1.6	23.9	1.7	26.3	1,170	1,500	1,050
24P	0.75	7	1.2	0.6	1.8	28.0	2.1	26.3	1,170	1,500	1,390
32P	0.75	7	1.2	0.6	1.9	30.5	2.0	26.3	1,170	1,500	1,730
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	12.6	1.2	19.3	1,050	1,500	240
3P	1.0	7	1.4	0.6	1.2	13.3	1.2	19.3	1,050	1,500	290
4P	1.0	7	1.4	0.6	1.3	14.7	1.4	19.3	1,050	1,500	360
5P	1.0	7	1.4	0.6	1.3	16.3	1.4	19.3	1,050	1,500	440
6P	1.0	7	1.4	0.6	1.4	17.0	1.5	19.3	1,050	1,500	500
7P	1.0	7	1.4	0.6	1.4	17.0	1.5	19.3	1,050	1,500	530
8P	1.0	7	1.4	0.6	1.4	18.6	1.5	19.3	1,050	1,500	610
10P	1.0	7	1.4	0.6	1.5	21.3	1.7	19.3	1,050	1,500	780
12P	1.0	7	1.4	0.6	1.6	22.2	1.8	19.3	1,050	1,500	890
14P	1.0	7	1.4	0.6	1.6	23.4	1.8	19.3	1,050	1,500	990
16P	1.0	7	1.4	0.6	1.7	25.1	1.9	19.3	1,050	1,500	1,150
19P	1.0	7	1.4	0.6	1.7	25.7	1.9	19.3	1,050	1,500	1,260
24P	1.0	7	1.4	0.6	1.9	30.2	2.0	19.3	1,050	1,500	1,670
32P	1.0	7	1.4	0.6	2.0	32.8	2.1	19.3	1,050	1,500	2,080
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	1.3	14.4	1.4	12.9	1,020	1,500	320
3P	1.5	7	1.7	0.7	1.3	15.3	1.4	12.9	1,020	1,500	380
4P	1.5	7	1.7	0.7	1.4	16.9	1.5	12.9	1,020	1,500	470
5P	1.5	7	1.7	0.7	1.4	18.9	1.5	12.9	1,020	1,500	570
6P	1.5	7	1.7	0.7	1.5	19.7	1.6	12.9	1,020	1,500	650
7P	1.5	7	1.7	0.7	1.5	19.7	1.6	12.9	1,020	1,500	690
8P	1.5	7	1.7	0.7	1.5	21.6	1.6	12.9	1,020	1,500	800
10P	1.5	7	1.7	0.7	1.7	24.8	1.8	12.9	1,020	1,500	1,040
12P	1.5	7	1.7	0.7	1.7	25.9	1.8	12.9	1,020	1,500	1,160
14P	1.5	7	1.7	0.7	1.7	27.2	1.8	12.9	1,020	1,500	1,300
16P	1.5	7	1.7	0.7	1.8	29.3	1.9	12.9	1,020	1,500	1,510
19P	1.5	7	1.7	0.7	1.8	30.0	1.9	12.9	1,020	1,500	1,660
24P	1.5	7	1.7	0.7	2.0	35.2	2.1	12.9	1,020	1,500	2,200
32P	1.5	7	1.7	0.7	2.2	38.4	2.3	12.9	1,020	1,500	2,780
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	15.9	1.3	8.02	850	1,500	400
3P	2.5	7	2.2	0.7	1.4	16.9	1.4	8.02	850	1,500	500
4P	2.5	7	2.2	0.7	1.4	18.6	1.4	8.02	850	1,500	610
5P	2.5	7	2.2	0.7	1.5	21.0	1.5	8.02	850	1,500	760
6P	2.5	7	2.2	0.7	1.5	21.8	1.6	8.02	850	1,500	850
7P	2.5	7	2.2	0.7	1.5	21.8	1.6	8.02	850	1,500	910
8P	2.5	7	2.2	0.7	1.6	24.1	1.6	8.02	850	1,500	1,080
10P	2.5	7	2.2	0.7	1.8	27.6	1.8	8.02	850	1,500	1,390
12P	2.5	7	2.2	0.7	1.8	28.8	1.9	8.02	850	1,500	1,570
14P	2.5	7	2.2	0.7	1.9	30.5	1.9	8.02	850	1,500	1,790
16P	2.5	7	2.2	0.7	1.9	32.7	1.9	8.02	850	1,500	2,040
19P	2.5	7	2.2	0.7	2.0	33.5	2.0	8.02	850	1,500	2,290
24P	2.5	7	2.2	0.7	2.2	39.4	2.2	8.02	850	1,500	3,020
32P	2.5	7	2.2	0.7	2.3	42.9	2.4	8.02	850	1,500	3,790

O-Route®

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

250V RU(i), 250V RU(i&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.	mm^2	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	12.6	1.2	26.3	1,170	1,500	250
3T	0.75	7	1.2	0.6	1.2	13.4	1.2	26.3	1,170	1,500	300
4T	0.75	7	1.2	0.6	1.3	14.8	1.3	26.3	1,170	1,500	370
5T	0.75	7	1.2	0.6	1.3	16.4	1.4	26.3	1,170	1,500	450
6T	0.75	7	1.2	0.6	1.4	18.6	1.5	26.3	1,170	1,500	560
7T	0.75	7	1.2	0.6	1.4	18.6	1.5	26.3	1,170	1,500	590
8T	0.75	7	1.2	0.6	1.5	19.9	1.6	26.3	1,170	1,500	680
10T	0.75	7	1.2	0.6	1.6	22.6	1.8	26.3	1,170	1,500	860
12T	0.75	7	1.2	0.6	1.6	24.0	1.8	26.3	1,170	1,500	970
14T	0.75	7	1.2	0.6	1.7	25.1	1.9	26.3	1,170	1,500	1,100
16T	0.75	7	1.2	0.6	1.7	26.7	1.9	26.3	1,170	1,500	1,240
19T	0.75	7	1.2	0.6	1.8	28.9	2.0	26.3	1,170	1,500	1,460
24T	0.75	7	1.2	0.6	1.9	32.2	2.0	26.3	1,170	1,500	1,820
32T	0.75	7	1.2	0.6	2.1	37.1	2.2	26.3	1,170	1,500	2,420
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	13.4	1.2	19.3	1,050	1,500	280
3T	1.0	7	1.4	0.6	1.3	14.2	1.3	19.3	1,050	1,500	350
4T	1.0	7	1.4	0.6	1.3	15.7	1.3	19.3	1,050	1,500	430
5T	1.0	7	1.4	0.6	1.4	17.5	1.3	19.3	1,050	1,500	530
6T	1.0	7	1.4	0.6	1.5	19.8	1.6	19.3	1,050	1,500	660
7T	1.0	7	1.4	0.6	1.5	19.8	1.6	19.3	1,050	1,500	700
8T	1.0	7	1.4	0.6	1.5	21.2	1.6	19.3	1,050	1,500	800
10T	1.0	7	1.4	0.6	1.6	24.1	1.7	19.3	1,050	1,500	1,000
12T	1.0	7	1.4	0.6	1.7	25.7	1.8	19.3	1,050	1,500	1,170
14T	1.0	7	1.4	0.6	1.7	26.7	1.8	19.3	1,050	1,500	1,300
16T	1.0	7	1.4	0.6	1.8	28.5	1.9	19.3	1,050	1,500	1,480
19T	1.0	7	1.4	0.6	1.9	30.9	2.1	19.3	1,050	1,500	1,750
24T	1.0	7	1.4	0.6	2.0	34.4	2.1	19.3	1,050	1,500	2,180
32T	1.0	7	1.4	0.6	2.2	39.7	2.3	19.3	1,050	1,500	2,900
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	15.5	1.3	12.9	1,020	1,500	370
3T	1.5	7	1.7	0.7	1.3	16.4	1.3	12.9	1,020	1,500	450
4T	1.5	7	1.7	0.7	1.4	18.2	1.4	12.9	1,020	1,500	570
5T	1.5	7	1.7	0.7	1.5	20.4	1.5	12.9	1,020	1,500	710
6T	1.5	7	1.7	0.7	1.6	23.1	1.6	12.9	1,020	1,500	880
7T	1.5	7	1.7	0.7	1.6	23.1	1.6	12.9	1,020	1,500	930
8T	1.5	7	1.7	0.7	1.7	24.8	1.8	12.9	1,020	1,500	1,070
10T	1.5	7	1.7	0.7	1.8	28.4	1.9	12.9	1,020	1,500	1,360
12T	1.5	7	1.7	0.7	1.8	30.0	1.9	12.9	1,020	1,500	1,550
14T	1.5	7	1.7	0.7	1.9	31.5	1.9	12.9	1,020	1,500	1,760
16T	1.5	7	1.7	0.7	2.0	33.5	2.0	12.9	1,020	1,500	2,010
19T	1.5	7	1.7	0.7	2.1	36.4	2.2	12.9	1,020	1,500	2,370
24T	1.5	7	1.7	0.7	2.2	40.4	2.2	12.9	1,020	1,500	2,940
32T	1.5	7	1.7	0.7	2.5	46.7	2.6	12.9	1,020	1,500	3,980
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	1.4	17.2	1.2	8.02	850	1,500	490
3T	2.5	7	2.2	0.7	1.4	18.2	1.3	8.02	850	1,500	600
4T	2.5	7	2.2	0.7	1.5	20.2	1.3	8.02	850	1,500	760
5T	2.5	7	2.2	0.7	1.6	22.6	1.4	8.02	850	1,500	950
6T	2.5	7	2.2	0.7	1.7	25.7	1.6	8.02	850	1,500	1,170
7T	2.5	7	2.2	0.7	1.7	25.7	1.6	8.02	850	1,500	1,260
8T	2.5	7	2.2	0.7	1.7	27.5	1.6	8.02	850	1,500	1,420
10T	2.5	7	2.2	0.7	1.9	31.6	1.7	8.02	850	1,500	1,830
12T	2.5	7	2.2	0.7	2.0	33.6	1.7	8.02	850	1,500	2,140
14T	2.5	7	2.2	0.7	2.0	35.0	1.8	8.02	850	1,500	2,390
16T	2.5	7	2.2	0.7	2.1	37.4	1.8	8.02	850	1,500	2,730
19T	2.5	7	2.2	0.7	2.2	40.5	1.9	8.02	850	1,500	3,220
24T	2.5	7	2.2	0.7	2.4	45.2	2.2	8.02	850	1,500	4,060
32T	2.5	7	2.2	0.7	2.7	52.1	2.5	8.02	850	1,500	5,470