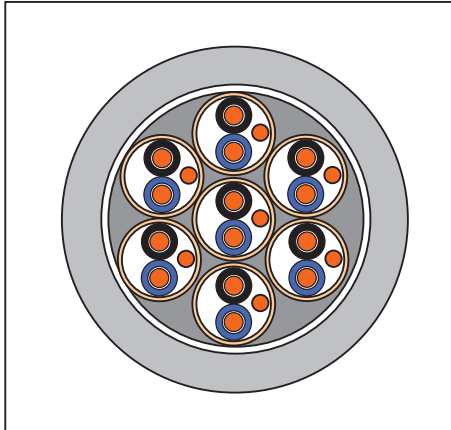


Attached Table 16. Fire resistant Instrumentation Cable (with Individual screen)

◆ CABLE DESIGNATION



◆ CABLE DESIGNATION

250V BU(i)

◆ APPLICATION STANDARD

- Design guide : IEC 60092-350 & IEC 60092-376
- Insulation material : IEC 60092-351, HF EPR
- Sheath material : IEC 60092-359, SHF2
- Flame retardant : IEC 60332-1 & IEC 60332-3 Category A
- Fire resistance : IEC 600331-21 or -31
- Halogen content : IEC 60754-1, 0.5%↓
- Smoke emission : IEC 61034, 60%↑
- Fluorine content : IEC 60684-2, 0.1%↓
- pH and conductivity : IEC 60754-2, pH 4.3↑ & conductivity 10μS/mm↓
- Cold bend/impact : CSA 22.2 NO. 0.3(-40℃/-35℃)
- Mud resistant : NEK 606 (Mud type only)
- Sunlight(UV) resistant : UL 1581
- Max. rated conductor temperature : 90℃

◆ CONSTRUCTION

Classification	Code	Construction Detail
1. Conductor		- Stranded tinned annealed copper wires as per IEC 60228, Class 2
2. Fire resisting layer	B	- Mica/glass tape
3. Insulation		- HF EPR as per IEC 60092-351
4. Twisting		- Two/Three Insulated cores shall be twisted together to form a pair/triad
5. Individual screen	(i)	- Screened by copper or aluminium backed polyester tape with tinned copper drain wire. - Each pair/triad is wrapped with polyester tape to prevent electrical contact with adjacent pairs/triads
6. Cabling		- Screened pairs/triads shall be cabled. - Flame retardant & non-hygroscopic fillers may be used . - Suitable tape(s) may be applied on the cabled core.
7. Sheath	U	- SHF2 or SHF MUD as per IEC 60092-359 - Outer sheath color : Grey - Any other color scheme may be applicable when purchaser required.

Table 16-1

CABLE TYPE : 250V BU(i) (PAIR TYPE)

No. of Pairs	Conductor			Thickness of Insulation	Thickness of sheath	Overall diameter		Conductor Resistance (at 20 °C) (Max.)	Insulation Resistance (at 20 °C) (Min.)	Test Voltage	Cable Weight Approx.
	Nominal Area	Max. dia. of wires	Max. overall dia.			Nominal	Tolerance				
No.	SQMM	mm	mm	mm	mm	mm	±mm	Ω/km	MΩ-km	V/5min.	kg/km
01P	0.75	7	1.2	0.6	1.0	7.6	0.5	26.3	1,170	1,500	90
02P	0.75	7	1.2	0.6	1.2	12.3	0.7	26.3	1,170	1,500	180
03P	0.75	7	1.2	0.6	1.2	13.0	0.7	26.3	1,170	1,500	230
04P	0.75	7	1.2	0.6	1.3	14.5	0.7	26.3	1,170	1,500	290
05P	0.75	7	1.2	0.6	1.3	16.1	0.8	26.3	1,170	1,500	340
06P	0.75	7	1.2	0.6	1.4	16.9	0.8	26.3	1,170	1,500	400
07P	0.75	7	1.2	0.6	1.4	16.9	0.8	26.3	1,170	1,500	430
08P	0.75	7	1.2	0.6	1.4	18.5	0.9	26.3	1,170	1,500	490
10P	0.75	7	1.2	0.6	1.5	21.2	0.9	26.3	1,170	1,500	610
12P	0.75	7	1.2	0.6	1.6	22.2	1.0	26.3	1,170	1,500	710
14P	0.75	7	1.2	0.6	1.6	23.3	1.0	26.3	1,170	1,500	800
16P	0.75	7	1.2	0.6	1.7	25.2	1.1	26.3	1,170	1,500	910
19P	0.75	7	1.2	0.6	1.7	25.7	1.1	26.3	1,170	1,500	1,030
24P	0.75	7	1.2	0.6	1.8	30.2	1.2	26.3	1,170	1,500	1,320
32P	0.75	7	1.2	0.6	1.9	32.9	1.3	26.3	1,170	1,500	1,680
01P	1.0	7	1.4	0.6	1.0	8.0	0.5	19.3	1,050	1,500	100
02P	1.0	7	1.4	0.6	1.2	13.0	0.7	19.3	1,050	1,500	200
03P	1.0	7	1.4	0.6	1.2	13.8	0.7	19.3	1,050	1,500	260
04P	1.0	7	1.4	0.6	1.3	15.3	0.8	19.3	1,050	1,500	330
05P	1.0	7	1.4	0.6	1.4	17.3	0.8	19.3	1,050	1,500	410
06P	1.0	7	1.4	0.6	1.4	17.9	0.8	19.3	1,050	1,500	460
07P	1.0	7	1.4	0.6	1.4	17.9	0.8	19.3	1,050	1,500	510
08P	1.0	7	1.4	0.6	1.5	19.8	0.9	19.3	1,050	1,500	590
10P	1.0	7	1.4	0.6	1.6	22.7	1.0	19.3	1,050	1,500	730
12P	1.0	7	1.4	0.6	1.6	23.6	1.0	19.3	1,050	1,500	830
14P	1.0	7	1.4	0.6	1.7	24.9	1.0	19.3	1,050	1,500	960
16P	1.0	7	1.4	0.6	1.7	26.7	1.1	19.3	1,050	1,500	1,070
19P	1.0	7	1.4	0.6	1.7	27.3	1.1	19.3	1,050	1,500	1,230
24P	1.0	7	1.4	0.6	1.9	32.3	1.3	19.3	1,050	1,500	1,580
32P	1.0	7	1.4	0.6	2.0	35.2	1.4	19.3	1,050	1,500	2,030

Table 16-2

CABLE TYPE : 250V BU(i) (PAIR TYPE)

No. of Pairs	Conductor			Thickness of Insulation	Thickness of sheath	Overall diameter		Conductor Resistance (at 20 °C) (Max.)	Insulation Resistance (at 20 °C) (Min.)	Test Voltage	Cable Weight Approx.
	Nominal Area	Max. dia. of wires	Max. overall dia.			Nominal	Tolerance				
No.	SQMM	mm	mm	mm	mm	mm	±mm	Ω/km	MΩ-km	V/5min.	kg/km
01P	1.5	7	1.7	0.7	1.1	9.2	0.6	12.9	1,020	1,500	130
02P	1.5	7	1.7	0.7	1.3	15.0	0.8	12.9	1,020	1,500	260
03P	1.5	7	1.7	0.7	1.3	15.9	0.8	12.9	1,020	1,500	330
04P	1.5	7	1.7	0.7	1.4	17.6	0.8	12.9	1,020	1,500	420
05P	1.5	7	1.7	0.7	1.5	19.9	0.9	12.9	1,020	1,500	520
06P	1.5	7	1.7	0.7	1.5	20.6	0.9	12.9	1,020	1,500	590
07P	1.5	7	1.7	0.7	1.5	20.6	0.9	12.9	1,020	1,500	650
08P	1.5	7	1.7	0.7	1.6	22.8	1.0	12.9	1,020	1,500	750
10P	1.5	7	1.7	0.7	1.7	26.1	1.1	12.9	1,020	1,500	930
12P	1.5	7	1.7	0.7	1.7	27.2	1.1	12.9	1,020	1,500	1,070
14P	1.5	7	1.7	0.7	1.8	28.7	1.2	12.9	1,020	1,500	1,230
16P	1.5	7	1.7	0.7	1.9	31.2	1.2	12.9	1,020	1,500	1,420
19P	1.5	7	1.7	0.7	1.9	31.9	1.3	12.9	1,020	1,500	1,620
24P	1.5	7	1.7	0.7	2.1	37.5	1.4	12.9	1,020	1,500	2,060
32P	1.5	7	1.7	0.7	2.2	40.8	1.5	12.9	1,020	1,500	2,630
01P	2.5	7	2.2	0.7	1.1	10.0	0.6	8.02	850	1,500	160
02P	2.5	7	2.2	0.7	1.3	16.4	0.8	8.02	850	1,500	320
03P	2.5	7	2.2	0.7	1.4	17.6	0.8	8.02	850	1,500	430
04P	2.5	7	2.2	0.7	1.5	19.5	0.9	8.02	850	1,500	540
05P	2.5	7	2.2	0.7	1.5	21.8	1.0	8.02	850	1,500	660
06P	2.5	7	2.2	0.7	1.6	22.8	1.0	8.02	850	1,500	770
07P	2.5	7	2.2	0.7	1.6	22.8	1.0	8.02	850	1,500	850
08P	2.5	7	2.2	0.7	1.7	25.3	1.1	8.02	850	1,500	980
10P	2.5	7	2.2	0.7	1.8	29.1	1.2	8.02	850	1,500	1,230
12P	2.5	7	2.2	0.7	1.9	30.5	1.2	8.02	850	1,500	1,440
14P	2.5	7	2.2	0.7	1.9	32.0	1.3	8.02	850	1,500	1,640
16P	2.5	7	2.2	0.7	2.0	34.5	1.3	8.02	850	1,500	1,860
19P	2.5	7	2.2	0.7	2.0	35.3	1.4	8.02	850	1,500	2,130
24P	2.5	7	2.2	0.7	2.3	41.7	1.6	8.02	850	1,500	2,740
32P	2.5	7	2.2	0.7	2.4	45.3	1.7	8.02	850	1,500	3,510

Table 16-3

CABLE TYPE : 250V BU(i)

(TRIAD TYPE)

No. of Pairs	Conductor			Thickness of Insulation	Thickness of sheath	Overall diameter		Conductor Resistance (at 20 °C) (Max.)	Insulation Resistance (at 20 °C) (Min.)	Test Voltage	Cable Weight Approx.
	Nominal Area	Max. dia. of wires	Max. overall dia.			Nominal	Tolerance				
No.	SQMM	mm	mm	mm	mm	mm	±mm	Ω/km	MΩ-km	V/5min.	kg/km
01T	0.75	7	1.2	0.6	1.0	8.0	0.5	26.3	1,170	1,500	110
02T	0.75	7	1.2	0.6	1.2	13.1	0.7	26.3	1,170	1,500	220
03T	0.75	7	1.2	0.6	1.3	14.1	0.7	26.3	1,170	1,500	290
04T	0.75	7	1.2	0.6	1.3	15.5	0.8	26.3	1,170	1,500	350
05T	0.75	7	1.2	0.6	1.4	17.3	0.8	26.3	1,170	1,500	430
06T	0.75	7	1.2	0.6	1.5	19.7	0.9	26.3	1,170	1,500	520
07T	0.75	7	1.2	0.6	1.5	19.7	0.9	26.3	1,170	1,500	580
08T	0.75	7	1.2	0.6	1.5	21.1	0.9	26.3	1,170	1,500	640
10T	0.75	7	1.2	0.6	1.6	24.0	1.0	26.3	1,170	1,500	800
12T	0.75	7	1.2	0.6	1.7	25.6	1.1	26.3	1,170	1,500	940
14T	0.75	7	1.2	0.6	1.7	26.7	1.1	26.3	1,170	1,500	1,060
16T	0.75	7	1.2	0.6	1.8	28.6	1.2	26.3	1,170	1,500	1,200
19T	0.75	7	1.2	0.6	1.9	31.2	1.2	26.3	1,170	1,500	1,430
24T	0.75	7	1.2	0.6	2.0	34.6	1.3	26.3	1,170	1,500	1,770
32T	0.75	7	1.2	0.6	2.2	40.0	1.5	26.3	1,170	1,500	2,320
01T	1.0	7	1.4	0.6	1.1	8.7	0.6	19.3	1,050	1,500	130
02T	1.0	7	1.4	0.6	1.3	14.2	0.7	19.3	1,050	1,500	260
03T	1.0	7	1.4	0.6	1.3	15.1	0.8	19.3	1,050	1,500	330
04T	1.0	7	1.4	0.6	1.4	16.8	0.8	19.3	1,050	1,500	420
05T	1.0	7	1.4	0.6	1.4	18.5	0.9	19.3	1,050	1,500	510
06T	1.0	7	1.4	0.6	1.5	21.1	0.9	19.3	1,050	1,500	610
07T	1.0	7	1.4	0.6	1.5	21.1	0.9	19.3	1,050	1,500	680
08T	1.0	7	1.4	0.6	1.6	22.8	1.0	19.3	1,050	1,500	770
10T	1.0	7	1.4	0.6	1.7	26.0	1.1	19.3	1,050	1,500	960
12T	1.0	7	1.4	0.6	1.8	27.7	1.1	19.3	1,050	1,500	1,130
14T	1.0	7	1.4	0.6	1.8	29.0	1.2	19.3	1,050	1,500	1,290
16T	1.0	7	1.4	0.6	1.9	31.0	1.2	19.3	1,050	1,500	1,470
19T	1.0	7	1.4	0.6	2.0	33.6	1.3	19.3	1,050	1,500	1,720
24T	1.0	7	1.4	0.6	2.1	37.4	1.4	19.3	1,050	1,500	2,130
32T	1.0	7	1.4	0.6	2.3	43.1	1.6	19.3	1,050	1,500	2,790

Table 16-4

CABLE TYPE : 250V BU(i)

(TRIAD TYPE)

No. of Pairs	Conductor			Thickness of Insulation	Thickness of sheath	Overall diameter		Conductor Resistance (at 20°C) (Max.)	Insulation Resistance (at 20°C) (Min.)	Test Voltage	Cable Weight Approx.
	Nominal Area	Max. dia. of wires	Max. overall dia.			Nominal	Tolerance				
No.	SQMM	mm	mm	mm	mm	mm	±mm	Ω/km	MΩ-km	V/5min.	kg/km
01T	1.5	7	1.7	0.7	1.1	9.8	0.6	12.9	1,020	1,500	160
02T	1.5	7	1.7	0.7	1.3	16.1	0.8	12.9	1,020	1,500	320
03T	1.5	7	1.7	0.7	1.4	17.4	0.8	12.9	1,020	1,500	430
04T	1.5	7	1.7	0.7	1.4	19.1	0.9	12.9	1,020	1,500	530
05T	1.5	7	1.7	0.7	1.5	21.4	0.9	12.9	1,020	1,500	660
06T	1.5	7	1.7	0.7	1.6	24.4	1.0	12.9	1,020	1,500	790
07T	1.5	7	1.7	0.7	1.6	24.4	1.0	12.9	1,020	1,500	880
08T	1.5	7	1.7	0.7	1.7	26.3	1.1	12.9	1,020	1,500	1,000
10T	1.5	7	1.7	0.7	1.8	30.2	1.2	12.9	1,020	1,500	1,260
12T	1.5	7	1.7	0.7	1.9	32.1	1.3	12.9	1,020	1,500	1,480
14T	1.5	7	1.7	0.7	2.0	33.7	1.3	12.9	1,020	1,500	1,700
16T	1.5	7	1.7	0.7	2.1	36.0	1.4	12.9	1,020	1,500	1,930
19T	1.5	7	1.7	0.7	2.2	39.0	1.5	12.9	1,020	1,500	2,260
24T	1.5	7	1.7	0.7	2.3	43.4	1.6	12.9	1,020	1,500	2,790
32T	1.5	7	1.7	0.7	2.6	50.2	1.8	12.9	1,020	1,500	3,700
01T	2.5	7	2.2	0.7	1.1	10.6	0.6	8.02	850	1,500	200
02T	2.5	7	2.2	0.7	1.4	17.7	0.8	8.02	850	1,500	410
03T	2.5	7	2.2	0.7	1.4	18.9	0.9	8.02	850	1,500	550
04T	2.5	7	2.2	0.7	1.5	21.0	0.9	8.02	850	1,500	700
05T	2.5	7	2.2	0.7	1.6	23.5	1.0	8.02	850	1,500	860
06T	2.5	7	2.2	0.7	1.7	26.8	1.1	8.02	850	1,500	1,040
07T	2.5	7	2.2	0.7	1.7	26.8	1.1	8.02	850	1,500	1,160
08T	2.5	7	2.2	0.7	1.8	29.1	1.2	8.02	850	1,500	1,340
10T	2.5	7	2.2	0.7	2.0	33.4	1.3	8.02	850	1,500	1,680
12T	2.5	7	2.2	0.7	2.0	35.3	1.4	8.02	850	1,500	1,950
14T	2.5	7	2.2	0.7	2.1	37.1	1.4	8.02	850	1,500	2,240
16T	2.5	7	2.2	0.7	2.2	39.6	1.5	8.02	850	1,500	2,550
19T	2.5	7	2.2	0.7	2.3	42.9	1.6	8.02	850	1,500	2,990
24T	2.5	7	2.2	0.7	2.5	47.9	1.7	8.02	850	1,500	3,740
32T	2.5	7	2.2	0.7	2.8	55.4	2.0	8.02	850	1,500	4,940