

**Type P Instrument Triads Signal Cable Individual + Overall Shield
AL/PS tape (0.6/1kV) Fire Resistant**



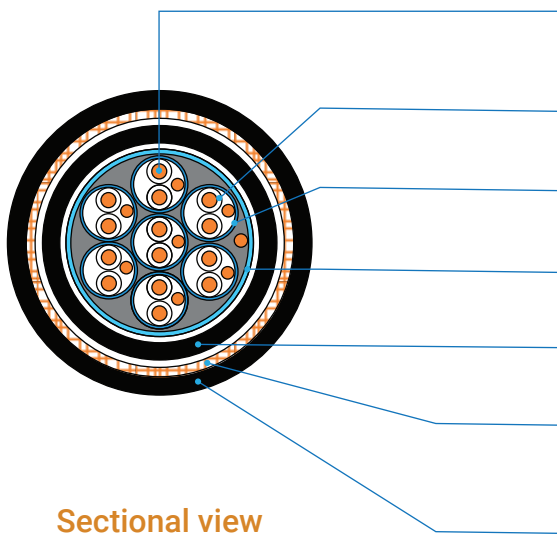
CABLE DESIGNATION

0.6/1kV FS-TP(IS-OS)PN, FS-TP(IS-OS)PNB, FS-TP(IS-OS)PNBS

APPLICATION STANDARD

Design guide	IEEE 1580(2010) , UL 1309(2017)
Insulation material	IEEE 1580, Type P UL 1309, XI10
Sheath material	IEEE 1580, Type N
Flame retardant	IEEE 1202 & IEC 60332-3 Category A
Fire resistance	IEC 60331-21(90min), IEC 60331-1,-2(120min), FS-type only
Cold bend / impact	CSA C22.2 NO. 2556(-40°C/-40°C) (Formerly CSA C22.2 NO.0.3)

CONSTRUCTION



Sectional view

Conductor

- Flexible stranded tinned annealed copper wires as per IEEE 1580
- A suitable separator tape(s) may be applied over the conductor

Insulation

XLPO (Type P) as per IEEE 1580 & XLPO (XI10) as per UL 1309

Individual shield

Polyester/aluminum tape (AL/PS tape) + Tinned copper drain wire

Overall shield

Polyester/aluminum tape (AL/PS tape) + Tinned copper drain wire

Jacket

Thermosetting Neoprene (Type N) as per IEEE 1580 & UL 1309

Armor

- Braid of commercial bronze wires
- A suitable separator tape(s) may be applied under / over the armor

Sheath

- Thermosetting Neoprene (Type N) as per IEEE 1580 & UL 1309
- Outer sheath color : Black

Fire resisting layer(optional)

Mica/glass tape (FS Type cable only)

Twisting

Two/Three Insulated cores shall be twisted together to form a pair / triad

Cabling

- Individual shielded 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

Core identification

Colored insulation plus

Arabic number printing on the insulation

Each core color : pair _ Black, White(or Red)

Type P Instrument Triads Signal Cable Individual + Overall Shield AL/PS tape (0.6/1kV) Fire Resistant

0.6/1kV FS-TT(IS-OS)PN, 0.6/1kV FS-TT(IS-OS)PNB, 0.6/1kV FS-TT(IS-OS)PNBS

No. of Triads	Conductor	Thickness of Insulation	Thickness of Jacket	Thickness of Sheath	Unarmor		Armor		Armor and Sheath	
	Nominal Area				Nom.Dia. Approx.	Weight Approx.	Nom.Dia. Approx.	Weight Approx.	Nom.Dia. Approx.	Weight Approx.
No.	AWG	mm/inch	mm/inch	mm/inch	mm/inch	kg/km	mm/inch	kg/km	mm/inch	kg/km
2T	18	0.76/0.030	1.52 / 0.060	2.03 / 0.080	17.4 / 0.685	340	19.2 / 0.756	520	23.7 / 0.933	750
3T			1.52 / 0.060	2.03 / 0.080	18.5 / 0.728	420	20.3 / 0.799	610	24.8 / 0.976	850
4T			1.52 / 0.060	2.03 / 0.080	20.3 / 0.799	520	22.1 / 0.870	730	26.6 / 1.047	980
5T			2.03 / 0.080	2.03 / 0.080	23.6 / 0.929	690	25.4 / 1.000	930	29.9 / 1.177	1,220
7T			2.03 / 0.080	2.03 / 0.080	26.7 / 1.051	890	28.5 / 1.122	1,160	33.0 / 1.299	1,480
8T			2.03 / 0.080	2.03 / 0.080	28.5 / 1.122	1,000	30.3 / 1.193	1,290	34.8 / 1.370	1,630
12T			2.03 / 0.080	2.03 / 0.080	34.0 / 1.339	1,410	35.8 / 1.409	1,750	40.3 / 1.587	2,160
16T			2.03 / 0.080	2.79 / 0.110	37.6 / 1.480	1,770	39.4 / 1.551	2,150	45.4 / 1.787	2,750
2T	16	0.76/0.030	1.52 / 0.060	2.03 / 0.080	18.0 / 0.709	380	19.8 / 0.780	570	24.3 / 0.957	800
3T			1.52 / 0.060	2.03 / 0.080	19.2 / 0.756	480	21.0 / 0.827	680	25.5 / 1.004	930
4T			2.03 / 0.080	2.03 / 0.080	22.2 / 0.874	650	24.0 / 0.945	880	28.5 / 1.122	1,160
5T			2.03 / 0.080	2.03 / 0.080	24.5 / 0.965	780	26.3 / 1.035	1,030	30.8 / 1.213	1,340
7T			2.03 / 0.080	2.03 / 0.080	27.7 / 1.091	1,020	29.5 / 1.161	1,300	34.0 / 1.339	1,640
8T			2.03 / 0.080	2.03 / 0.080	29.6 / 1.165	1,150	31.4 / 1.236	1,450	35.9 / 1.413	1,810
12T			2.03 / 0.080	2.03 / 0.080	35.4 / 1.394	1,630	37.2 / 1.465	1,990	41.7 / 1.642	2,410
16T			2.03 / 0.080	2.79 / 0.110	39.2 / 1.543	2,060	41.0 / 1.614	2,460	47.0 / 1.850	3,080

Note. For outer diameter, it is applied to ±5% manufacturing tolerance.