



600/1000V twisted pair control cables to AS/NZS 2373

Application

These cables are used in control, supervisory, protection and instrumentation circuits or used as pilot cables. They commonly occur in power stations, substations or in industrial applications.

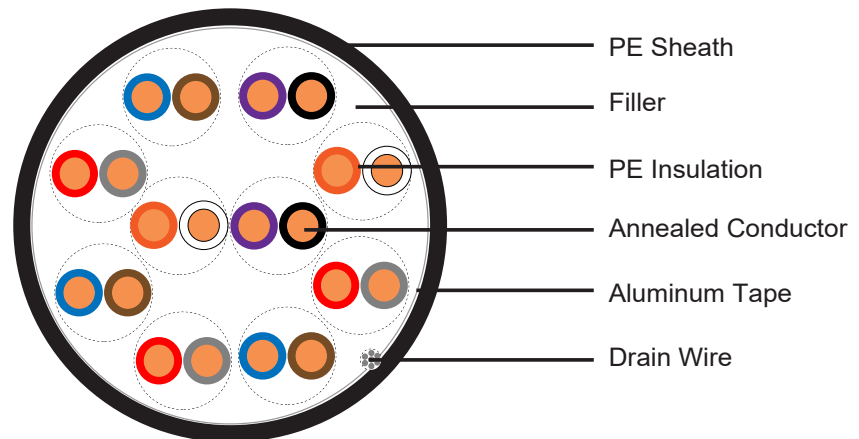
Standard

AS/NZS 2373

Rated voltage

600/1000V

Construction



Conductor: Single wire plain annealed copper, complying with AS/NZS 1125.

Insulation: PE complying with AS/NZS 3808.

Lay-up: An adequate number of separate, identifiable lengths of lay of twisted pairs shall be used to minimize crosstalk.

Fillers and Tapes: Fillers, binder and wrapping tapes shall be of suitable non-metallic materials.

Collective screen: Copper tape or aluminum (min. thickness of 0.07mm) or aluminum/polyester tape (min. thickness of 0.023)

Drain wire: Tinned copper consisting of seven wires of at least 0.25 mm nominal diameter for aluminum tape.

Armor (optional): Steel tape or steel wire complying with AS/NZS 5000.1

Sheath: PE, 4V-75 or HFS-75-TP complying with AS/NZS 3808.

Parameter

Nominal cross-sectional area of conductor (mm ²)	Nominal diameter (mm)	Insulation thickness (mm)	Sheath thickness (mm)		Maximum d.c. resistance at 20°C (Ω/km)
0.64	0.90	0.8	10-pair	1.8	28.3
			30-pair	1.9	
			50-pair	2.1	
			100-pair	2.4	
1.0	1.13	0.8	10-pair	1.8	18.1
			30-pair	2.0	
			50-pair	2.2	
			100-pair	2.5	

1.27	1.27	0.8	10-pair	1.8	14.3
			30-pair	2.1	
			50-pair	2.2	
			100-pair	2.6	
1.5	1.38	0.8	10-pair	1.8	12.1
			30-pair	2.1	
			50-pair	2.2	
			100-pair	2.6	

Other size could also be provided upon request.

Lay-up formation

Cable size	No. of pairs in centre and successive layers					
	Centre	1st	2nd	3rd	4th	5th
10-pair	2	8	-	-	-	-
30-pair	4	10	16	-	-	-
50-pair	3	9	16	22	-	-
100-pair	2	8	14	20	25	31

Color Code

When the twisted pairs in the cable are identified by colors, the color coding of the pairs shall progress in sequence from the center of the cable as given in the following table. alternatively, each pair may contain a black and a white insulated core. One or both cores in each pair shall be numbered in a contrasting color. The numbering of pairs shall progress in sequence from the center of the cable.

Centre or Layers	Insulation color						
	Pair 1	Pair 2	Pair 3	Pair 4	Pair 5	Pair 6	Last Pair
1-pair center	Orange-white						
2-pair center	Orange-white	Violet-black					
3-pair center	Orange-white	Red-grey	Violet-black				
4-pair center	Orange-white	Red-grey	Blue-brown	Violet-black			
Layers	Orange-white	Red-grey	Blue-brown	Red-grey	Blue-brown	*	Violet-black

*Pair colors shall repeat from red-grey