

Instrumentation & Data Cable

INST to AS/NZS 3808

High temperature PVC V90HT individually and overall screened with steel wire armouring

Application:

RALOS instrumentation cables are manufactured to the requirement of BS50288 as well as relevant Australia standard. Suitable for the interconnection of control equipment and instrument.

Construction:

Class 2 twisted pair annealed bare copper conductor to AS/NZS 1125 class 2. V90 PVC insulation to comply with AS/NZS3808. Laminated aluminium polyester tape individually and overall screened with stranded tinned copper 7/0.20mm drain wire galvanised steel wire armouring. UV-stabilised and flame-retardant to IEC 60332-1 black or blue 5V90 PVC sheath.

Rated Voltage:

110/150V

Inductance:

0.5 sq/mm 1.1mH/km @ 1KHz
1.5 sq/mm 0.95mH/km @ 1KHz

Capacitance:

0.5 sq/mm 0.145uF/km @ 1KHz
1.5 sq/mm 0.20uF/km @ 1KHz

L/R Ratio:

0.5 sq/mm 0.0157 mH/Ω
1.5 sq/mm 0.0365 mH/Ω

Minimum Bending Radius:

5 x cable diameter

Temperature Range:

Fixed: -20°C to +90°C

Colour Coding:

- Pairs: black and white with continuous numbering
- Triads: black, white & red with consecutive numbering



RALOS INST

Part No.	Nominal conductor area mm ² and no. of cores		Dia. of Conductor	Thickness of Insulation	Dia. of Insulation	Dia. after O-SCR	Thickness of Bedding	Dia. of Bedding	Dia. of Single GSW	Dia. after Armoured	Thickness of Outer Sheath	Overall Dia.	Approx Weight
	mm	mm											
INS1P0.5ESCSSWABK	0.5mm	2 pair	0.9	0.4	1.7	6.6	1.0	8.6	0.9	10.4	1.4	13.2	342
INS1P1.5ESCSSWABK	1.5mm	2 pair	1.5	0.4	2.3	8.7	1.0	10.7	0.9	12.5	1.4	15.3	445
INS2P0.5ESCSSWABK	0.5mm	3 pair	0.9	0.4	1.7	7.1	1.0	9.1	0.9	10.9	1.4	13.7	375
INS2P1.5ESCSSWABK	1.5mm	3 pair	1.5	0.4	2.3	9.4	1.0	11.4	0.9	13.2	1.4	16.0	502
INS4P0.5ESCSSWABK	0.5mm	4 pair	0.9	0.4	1.7	8.0	1.0	10.0	0.9	11.8	1.4	14.6	419
INS4P1.5ESCSSWABK	1.5mm	4 pair	1.5	0.4	2.3	10.5	1.0	12.5	0.9	14.3	1.4	17.1	572
INS6P0.5ESCSSWABK	0.5mm	6 pair	0.9	0.4	1.7	9.8	1.0	11.8	0.9	13.6	1.4	16.4	513
INS6P1.5ESCSSWABK	1.5mm	6 pair	1.5	0.4	2.3	13.0	1.0	15.0	0.9	16.8	1.6	20.0	743
INS8P0.5ESCSSWABK	0.5mm	8 pair	0.9	0.4	1.7	10.8	1.0	12.8	0.9	14.6	1.6	17.8	598
INS8P1.5ESCSSWABK	1.5mm	8 pair	1.5	0.4	2.3	14.3	1.0	16.3	1.25	18.8	1.6	22.0	993
INS10P0.5ESCSSWABK	0.5mm	10 pair	0.9	0.4	1.7	13.0	1.0	15.0	0.9	16.8	1.6	20.0	705
INS10P1.5ESCSSWABK	1.5mm	10 pair	1.5	0.4	2.3	17.3	1.0	19.3	1.25	21.8	1.6	25.0	1183
INS12P0.5ESCSSWABK	0.5mm	12 pair	0.9	0.4	1.7	13.5	1.0	15.5	0.9	17.3	1.6	20.5	757
INS12P1.5ESCSSWABK	1.5mm	12 pair	1.5	0.4	2.3	18.0	1.0	20.0	1.25	22.5	1.8	26.1	1309
INS16P0.5ESCSSWABK	0.5mm	16 pair	0.9	0.4	1.7	15.3	1.0	17.3	1.25	19.8	1.8	23.4	1051
INS16P1.5ESCSSWABK	1.5mm	16 pair	1.5	0.4	2.3	20.3	1.0	22.3	1.25	24.8	1.8	28.4	1550
INS20P0.5ESCSSWABK	0.5mm	20 pair	0.9	0.4	1.7	16.7	1.0	18.7	1.25	21.2	1.8	24.8	1181
INS20P1.5ESCSSWABK	1.5mm	20 pair	1.5	0.4	2.3	22.2	1.0	24.2	1.25	26.7	1.9	30.5	1765
INS24P0.5ESCSSWABK	0.5mm	24 pair	0.9	0.4	1.7	19.4	1.0	21.4	1.25	23.9	1.8	27.5	1362
INS24P1.5ESCSSWABK	1.5mm	24 pair	1.5	0.4	2.3	25.8	1.2	28.2	1.6	31.4	2.0	35.4	2370
INS36P0.5ESCSSWABK	0.5mm	36 pair	0.9	0.4	1.7	22.6	1.0	24.6	1.25	27.1	1.9	30.9	1721
INS36P1.5ESCSSWABK	1.5mm	36 pair	1.5	0.4	2.3	30.1	1.2	32.5	1.6	35.7	2.1	39.9	3041
INS50P0.5ESCSSWABK	0.5mm	50 pair	0.9	0.4	1.7	27.0	1.2	29.4	1.6	32.6	2.0	36.6	2390
INS50P1.5ESCSSWABK	1.5mm	50 pair	1.5	0.4	2.3	35.9	1.2	38.3	1.6	41.5	2.2	45.9	4220

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Part No.	Nominal conductor area mm ² and no. of cores		Thickness of		Dia. of Insulation	Dia. after O-SCR	Thickness of		Dia. of Bedding	Dia. of Single GSW	Dia. after Armoured	Thickness of Outer Sheath	Overall Dia.	Approx Weight
	mm	mm	mm	mm			mm	mm						
INS1TR0.5ESCSSWABK	0.5mm	2 triad	0.9	0.4	1.7	7.5	1.0	9.5	0.9	11.3	1.4	14.1	360	
INS1TR1.5ESCSSWABK	1.5mm	2 triad	1.5	0.4	2.3	9.9	1.0	11.9	0.9	13.7	1.4	16.5	505	
INS2TR0.5ESCSSWABK	0.5mm	3 triad	0.9	0.4	1.7	8.1	1.0	10.1	0.9	11.9	1.4	14.7	410	
INS2TR1.5ESCSSWABK	1.5mm	3 triad	1.5	0.4	2.3	10.7	1.0	12.7	0.9	14.5	1.5	17.5	590	
INS4TR0.5ESCSSWABK	0.5mm	4 triad	0.9	0.4	1.7	9.0	1.0	11.0	0.9	12.8	1.4	15.6	460	
INS4TR1.5ESCSSWABK	1.5mm	4 triad	1.5	0.4	2.3	12.0	1.0	14.0	0.9	15.8	1.5	18.8	682	
INS6TR0.5ESCSSWABK	0.5mm	6 triad	0.9	0.4	1.7	11.1	1.0	13.1	0.9	14.9	1.5	17.9	580	
INS6TR1.5ESCSSWABK	1.5mm	6 triad	1.5	0.4	2.3	14.8	1.0	16.8	1.25	19.3	1.6	22.5	1022	
INS8TR0.5ESCSSWABK	0.5mm	8 triad	0.9	0.4	1.7	12.2	1.0	14.2	0.9	16.0	1.5	19.0	680	
INS8TR1.5ESCSSWABK	1.5mm	8 triad	1.5	0.4	2.3	16.2	1.0	18.2	1.25	20.7	1.8	24.3	1209	
INS10TR0.5ESCSSWABK	0.5mm	10 triad	0.9	0.4	1.7	14.8	1.0	16.8	1.25	19.3	1.6	22.5	785	
INS10TR1.5ESCSSWABK	1.5mm	10 triad	1.5	0.4	2.3	19.6	1.0	21.6	1.25	24.1	1.8	27.7	1447	
INS12TR0.5ESCSSWABK	0.5mm	12 triad	0.9	0.4	1.7	15.3	1.0	17.3	1.25	19.8	1.8	23.4	880	
INS12TR1.5ESCSSWABK	1.5mm	12 triad	1.5	0.4	2.3	20.4	1.0	22.4	1.25	24.9	1.8	28.5	1585	
INS16TR0.5ESCSSWABK	0.5mm	16 triad	0.9	0.4	1.7	17.3	1.0	19.3	1.25	21.8	1.8	25.4	1200	
INS16TR1.5ESCSSWABK	1.5mm	16 triad	1.5	0.4	2.3	23.0	1.0	25.0	1.25	27.5	1.9	31.3	1915	
INS20TR0.5ESCSSWABK	0.5mm	20 triad	0.9	0.4	1.7	19.0	1.0	21.0	1.25	23.5	1.8	27.1	1410	
INS20TR1.5ESCSSWABK	1.5mm	20 triad	1.5	0.4	2.3	25.3	1.0	27.3	1.6	30.5	1.9	34.3	2427	
INS24TR0.5ESCSSWABK	0.5mm	24 triad	0.9	0.4	1.7	22.0	1.0	24.0	1.25	26.5	1.8	30.1	1650	
INS24TR1.5ESCSSWABK	1.5mm	24 triad	1.5	0.4	2.3	29.3	1.2	31.7	1.6	34.9	2.1	39.1	2918	
INS36TR0.5ESCSSWABK	0.5mm	36 triad	0.9	0.4	1.7	25.7	1.2	28.1	1.6	31.3	2.0	35.3	2450	
INS36TR1.5ESCSSWABK	1.5mm	36 triad	1.5	0.4	2.3	34.2	1.2	36.6	1.6	39.8	2.2	44.2	3815	
INS50TR0.5ESCSSWABK	0.5mm	50 triad	0.9	0.4	1.7	30.6	1.2	33.0	1.6	36.2	2.1	40.4	3400	
INS50TR1.5ESCSSWABK	1.5mm	50 triad	1.5	0.4	2.3	40.8	1.4	43.6	2.0	47.6	2.3	52.2	5295	