

SHIELDED SINGLES CONDUCTORS



Military & UL Grade

- Single Conductors (NTS Series)
- RFI Shielded Cables

Meets U.L. Style 2343 or 2344 for Computer Use

National Wire & Cable Corp. manufactures a complete line of flexible signal and control cables in which each conductor is individually shielded and plastic-jacketed. Conforming to MIL-C-27072, these cables provide extended temperature, rough usage, military shielding, excellent flexibility. Provides a minimum of crosstalk between signal channels, plus complete isolation between shields. Excellent for analog signals. All jackets are moisture proof and suitable for use in duct, conduit, aerial, or burial installations.

Conductors are stranded tinned copper with .010" vinyl primary insulation plus .004" nylon insulation over the vinyl per MIL-DTL-16878/17. Insulation for 600 volts working rating at 105°C. Color-coding: White. All conductors are 19 strand.

Shielding is tinned copper braid with 85-90% coverage per MIL-C-7078, and shield angle below 40 degrees for easy pushback.

Jackets over shields are extruded white polyvinylchloride plastic per MIL-I-631, Type F. Each subcable is individually identified by color code per MIL-STD-681, starting with color #9. View Color Table in the National Wire Cable Designers Guide, page 7-12..

All sub-components are planetary cabled and contra-helically laid with a mylar tape serve over the cable bundle. The overall sheath is abrasion- resistant black 105°C vinyl thermoplastic per MIL-I-631, Type F.

Optional overall shielding of cabled bundle is 85-90% minimum coverage of tinned copper braid applied per MIL-C-7078 over the tape serve under sheath.

TECHNICAL DATA (ALL CABLES)

Insulation Breakdown Voltage:	Greater than 5000 volts AC RMS, 60 Hz.
Insulation Leakage Resistance:	200 Megohms/1000 ft. at 500 VDC from any conductor to all else in cable.
Sheath Leakage Resistance:	10 Megohms/1000 ft. min. at 500 VDC from overall shield through sheath to saline bath at 25°C.
Usable Temperature Range:	Suitable for continuous use from +105°C to -56°C when stationary. Flexing service: +105°C to -25°C.
Bending Characteristics:	All cables are suitable for flexing to a circle diameter of 6 cable diameters from +105°C to -20°C. Recommended flex diameter should be greater than 20 cable diameters for flexing at -40°C. For continuous flexing applications consult factory.
Crosstalk:	Common-mode, adjacent subcables: Worst case, -80 db @ 1 Mhz; totaling to -100 db below 100 Mhz. (Ref. MIL-C-23437 for test method.) For 100 ft. test length.

Capacitance (pfd/ft.):

AWG	WIRE-SHIELD
16	132
18	117
20	97
22	83
24	72
26	62

NTS SERIES UNSHIELDED - 26, 24, 22, 20, 18 and 16 AWG

Part No.	No. of Wires	Cond AWG	Cond Dia.	Jacket Wall	Nom. O.D. Inches	Nom. O.D. MM	Weight 1000 ft KG/KM
NTS-726J	7	26	.095	.062	.413	10.5	94 139
NTS-1226J	12	26	.095	.062	.523	13.28	145 216
NTS-1926J	19	26	.095	.062	.603	15.32	208 310
NTS-2726J	27	26	.095	.062	.713	18.11	281 418
NTS-3726J	37	26	.095	.062	.793	20.14	367 546
NTS-4826J	48	26	.095	.085	.944	24.2	503 748
NTS-724J	7	24	.106	.062	.446	11.33	106 158
NTS-1224J	12	24	.106	.062	.569	14.45	165 246
NTS-1924J	19	24	.106	.062	.659	16.74	237 353
NTS-2724J	27	24	.106	.062	.781	19.84	323 481
NTS-3724J	37	24	.106	.085	.916	23.3	460 684
NTS-4824J	48	24	.106	.085	1.033	26.2	576 857
NTS-722J	7	22	.112	.062	.464	11.79	119 177
NTS-1222J	12	22	.112	.062	.594	15.09	186 277
NTS-1922J	19	22	.112	.062	.688	17.48	269 400
NTS-2722J	27	22	.112	.062	.818	20.78	367 546
NTS-3722J	37	22	.112	.085	.958	24.3	522 777
NTS-4822J	48	22	.112	.085	1.081	27.5	655 975
NTS-720J	7	20	.120	.062	.488	12.40	140 208
NTS-1220J	12	20	.120	.062	.627	15.93	221 329
NTS-1920J	19	20	.120	.062	.728	18.49	323 481
NTS-2720J	27	20	.120	.085	.913	23.2	401 597
NTS-3720J	37	20	.120	.085	1.014	25.8	626 931
NTS-718J	7	18	.130	.062	.518	13.16	171 254
NTS-1218J	12	18	.130	.062	.669	16.99	273 406
NTS-1918J	19	18	.130	.062	.778	19.76	404 601
NTS-2718J	27	18	.130	.085	.975	24.8	597 888
NTS-716J	7	16	.142	.062	.554	14.07	193 287
NTS-1216J	12	16	.142	.062	.719	18.26	310 461
NTS-1916J	19	16	.142	.085	.884	22.45	498 741

NTS SERIES OVERALL SHIELDED - 26, 24, 22, 20, 18 and 16 AWG

Part No.	No. of Wires	Cond AWG	Cond Dia.	Jacket Wall	Nom. O.D. Inches	Nom. O.D. MM	Weight 1000 ft KG/KM
NTS-726SJ	7	26	.095	.062	.433	11.00	116 171
NTS-1226SJ	12	26	.095	.062	.548	13.92	188 280
NTS-1926SJ	19	26	.095	.062	.628	15.95	258 384
NTS-2726SJ	27	26	.095	.062	.738	18.75	340 506
NTS-3726SJ	37	26	.095	.062	.818	20.78	434 646
NTS-4826SJ	48	26	.095	.085	.969	24.60	580 863
NTS-724SJ	7	24	.106	.063	.471	11.96	140 208
NTS-1224SJ	12	24	.106	.062	.594	15.09	210 312
NTS-1924SJ	19	24	.106	.062	.683	17.35	291 433
NTS-2724SJ	27	24	.106	.062	.806	20.47	389 579
NTS-3724SJ	37	24	.106	.035	.941	23.9	535 796
NTS-4824SJ	48	24	.106	.085	1.058	26.9	662 985
NTS-722SJ	7	22	.112	.062	.489	12.42	154 229
NTS-1222SJ	12	22	.112	.062	.619	15.72	233 347
NTS-1922SJ	19	22	.112	.062	.713	18.11	326 485
NTS-2722SJ	27	22	.112	.085	.889	22.58	473 704
NTS-3722SJ	37	22	.112	.085	.983	25.0	600 893
NTS-4822SJ	48	22	.112	.085	1.106	28.1	746 1110
NTS-720SJ	7	20	.120	.062	.513	13.03	177 263
NTS-1220SJ	12	20	.120	.062	.652	16.56	271 403
NTS-1920SJ	19	20	.120	.062	.753	19.13	382 568
NTS-2720SJ	27	20	.120	.085	.938	23.80	555 826
NTS-3720SJ	37	20	.120	.085	1.039	26.40	711 1058
NTS-718SJ	7	18	.130	.062	.543	13.79	211 314
NTS-1218SJ	12	18	.130	.062	.694	17.63	327 487
NTS-1918SJ	19	18	.130	.063	.803	20.40	469 698
NTS-2718SJ	27	18	.130	.085	1.000	25.4	677 1007
NTS-716SJ	7	16	.142	.062	.579	14.71	237 353
NTS-1216SJ	12	16	.142	.062	.744	18.90	370 551
NTS-1916SJ	19	16	.142	.085	.909	23.1	567 844

SHIELDED SINGLE CONDUCTORS - NTS Series



RoHS COMPLIANT PRODUCTS:

all RoHS products have the letter "R" written into the second position of the Part No.

NRTS SERIES UNSHIELDED - 26, 24, 22, 20, 18 and 16 AWG							
Part No.	No. of Wires	Cond AWG	Cond Dia.	Jacket Wall	Nom. O.D. Inches	MM	Weight 1000 ft KG/KM
NRTS-726J	7	26	.095	.062	.413	10.5	94 139
NRTS-1226J	12	26	.095	.062	.523	13.28	145 216
NRTS-1926J	19	26	.095	.062	.603	15.32	208 310
NRTS-2726J	27	26	.095	.062	.713	18.11	281 418
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NRTS-2718J	27	18	.130	.085	.975	24.8	597 888
NRTS-716J	7	16	.142	.062	.554	14.07	193 287
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NRTS-1224SJ	12	24	.106	.062	.594	15.09	210 312
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NRTS-2724SJ	27	24	.106	.062	.806	20.47	389 579
NRTS-3724SJ	37	24	.106	.035	.941	23.9	535 796
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