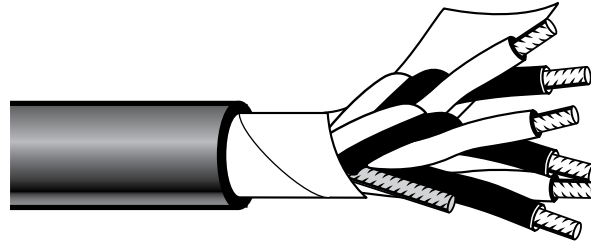


CABLED TWISTED PAIRS CONDUCTORS



Standard CL2 Cables

- NEC 725 Tray Cables
- Twisted Pairs (NLP Series)

National Wire & Cable Corporation manufactures a complete line of DUAL-RATED multiconductor NEC TRAY CABLE Type CL2, for signal, instrumentation and control uses. Also UL rated for use as 300 Volt Appliance Wiring Material (AWM). These are available as cables singles or pairs, with optional overall shield of aluminum-Mylar foil with drain wire.

Cabled conductors use stranded tinned copper wire with 0.010" wall of tough extruded poly-vinyl-chloride (PVC) insulation, rated for 300 Volt use under U.L. Style 2464.

All wires are color coded using 10 standard solid colors plus white with stripes. Cables singles are color coded the same as our NQ and NX cable families per MIL-STD-681. Cabled pairs are color coded the same as our NQP and NXP cable families. View Color Table in the National Wire Cable Designers Guide, page 7-13.

Conductors are helically cabled and laid for optimum flexibility, with a Mylar tape barrier wrap (or Mylar + Foil) applied between cabled wire bundle and outer jacket.

Shielded cables have an overall Aluminum-Mylar foil shielding tape helically wrapped over cable and a tinned uninsulated drain wire for shield connection. (Use FSJ part Number suffix.) For optional composite tinned copper CFI braid(s) + foil shielding, consult factory.

Outer jacket is a special highly flexible abrasion-resistant gray polyvinylchloride (PVC) thermoplastic. DUAL-RATED jacket compound meets the requirements of both U.L. AWM Style 2464 and U.L. 13 Type CL2 TRAY CABLE. Jacket is surface printed with both UL AWM 2464 and U.L. 13 Type CL2 TRAY CABLE identifiers. Jacket wall thickness is .032" nom.

Finished cables comply with applicable U.L. tests for N.E.C. Type CL2 TRAY CABLE Vertical Tray Flame Spread. All materials are flame-spread retardant and fungus resistant. The products are DUAL-RATED for AWM use as U.L. Style 2464 300 Volt, 80°C, OR for U.L. 13 Type CL2 TRAY CABLE 105°C use.

Standard Putups: 500 ft. and 1000 ft. No-deposit reels. For shorter quantities or specific lengths consult factory.

TECHNICAL DATA (ALL CABLES)	
Rated Working Voltage:	300 Volts for AWM uses.
Rated Temperature:	DUAL-RATED: +105°C or +80°C dependent on AGENCY intended use.
Insulation Breakdown Voltage:	Greater than 3400 Volts AC RMS as 60 Hz.
Capacitance:	Nominal capacitance from a wire to all else in a cable ranges from 25 to 45 PF/FT at 1 kHz, depending on AWG and position.
Insulation Leakage:	100 megohms/1000 ft. min. at 500 VDC from a conductor to all else in a cable, at 25°C,
U.L. Agency Voltage & Temperature Ratings:	UL rated: +80°C AWM, 300 VOLT per UL Style 2464. UL rated +105°C CL2 TRAY CABLE per UL 13, NEC Type CL2.
Bending Characteristics:	All cables are suitable for flexing to a circle diameter of 8 cable diameters from +105°C to -10°C. Recommended flex diameter should be greater than 20 cable diameters for flexing at -20°C.
Characteristic Impedance:	RF Impedance of twisted pairs or adjacent singles is: 87 ohms in AWG 24; 80 ohms in AWG 22. Suitable for digital signals.

UNSHIELDED 24, 22 AWG				
Part No.	No. of Pairs	Cond AWG	Nom. O.D.	Weight LB/K ft.
NLP-224J	2	24	.218	21
NLP-324J	3	24	.230	26
NLP-424J	4	24	.253	31
NLP-524J	5	24	.279	37
NLP-624J	6	24	.306	42
NLP-724J	7	24	.292	46
NLP-824J	8	24	.367	54
NLP-924J	9	24	.350	60
NLP-1024J	10	24	.367	64
NLP-1224J	12	24	.379	73
NLP-1524J	15	24	.429	88
NLP-1924J	19	24	.442	106
NLP-2724J	27	24	.529	144
NLP-222J	2	22	.238	26
NLP-322J	3	22	.252	33
NLP-422J	4	22	.278	40
NLP-522J	5	22	.308	47
NLP-622J	6	22	.338	55
NLP-722J	7	22	.323	61
NLP-822J	8	22	.408	71
NLP-922J	9	22	.388	79
NLP-1022J	10	22	.408	85
NLP-1222J	12	22	.422	97
NLP-1522J	15	22	.478	118
NLP-1922J	19	22	.493	143
NLP-2722J	27	22	.592	197

OVERALL BRAIDED SHIELD 24, 22 AWG				
Part No.	No. of Pairs	Cond AWG	Nom. O.D.	Weight LB/K ft.
NLP-224SJ	2	24	.238	34
NLP-324SJ	3	24	.250	40
NLP-424SJ	4	24	.273	47
NLP-524SJ	5	24	.299	54
NLP-624SJ	6	24	.326	62
NLP-724SJ	7	24	.312	66
NLP-824SJ	8	24	.387	78
NLP-924SJ	9	24	.370	85
NLP-1024SJ	10	24	.387	89
NLP-1224SJ	12	24	.404	109
NLP-1524SJ	15	24	.454	129
NLP-1924SJ	19	24	.467	149
NLP-2724SJ	27	24	.554	198
NLP-222SJ	2	22	.258	41
NLP-322SJ	3	22	.272	49
NLP-422SJ	4	22	.298	58
NLP-522SJ	5	22	.328	67
NLP-622SJ	6	22	.358	77
NLP-722SJ	7	22	.343	83
NLP-822SJ	8	22	.433	108
NLP-922SJ	9	22	.413	119
NLP-1022SJ	10	22	.433	124
NLP-1222SJ	12	22	.447	139
NLP-1522SJ	15	22	.503	165
NLP-1922SJ	19	22	.518	193
NLP-2722SJ	27	22	.617	257

OVERALL FOIL SHIELD WITH DRAIN 24, 22 AWG				
Part No.	No. of Pairs	Cond AWG	Nom. O.D.	Weight LB/K ft.
NLP-224FSJ	2	24	.220	22
NLP-324FSJ	3	24	.232	27
NLP-424FSJ	4	24	.255	32
NLP-524FSJ	5	24	.281	38
NLP-624FSJ	6	24	.308	44
NLP-724FSJ	7	24	.294	48
NLP-824FSJ	8	24	.369	55
NLP-924FSJ	9	24	.352	61
NLP-1024FSJ	10	24	.369	65
NLP-1224FSJ	12	24	.381	74
NLP-1524FSJ	15	24	.431	89
NLP-1924FSJ	19	24	.444	107
NLP-2724FSJ	27	24	.531	146
NLP-222FSJ	2	22	.240	28
NLP-322FSJ	3	22	.254	35
NLP-422FSJ	4	22	.280	42
NLP-522FSJ	5	22	.310	50
NLP-622FSJ	6	22	.340	57
NLP-722FSJ	7	22	.325	63
NLP-822FSJ	8	22	.410	732
NLP-922FSJ	9	22	.390	81
NLP-1022FSJ	10	22	.410	87
NLP-1222FSJ	12	22	.424	99
NLP-1522FSJ	15	22	.480	120
NLP-1922FSJ	19	22	.495	146
NLP-2722FSJ	27	22	.594	199

RoHS COMPLIANT PRODUCTS:

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

UNSHIELDED 24, 22 AWG				
Part No.	No. of Pairs	Cond AWG	Nom. O.D.	Weight LB/K ft.
NRLP-224J	2	24	.218	21
NRLP-324J	3	24	.230	26
NRLP-424J	4	24	.253	31
NRLP-524J	5	24	.279	37
NRLP-624J	6	24	.306	42
NRLP-724J	7	24	.292	46
NRLP-824J	8	24	.367	54
NRLP-924J	9	24	.350	60
NRLP-1024J	10	24	.367	64
NRLP-1224J	12	24	.379	73
NRLP-1524J	15	24	.429	88
NRLP-1924J	19	24	.442	106
NRLP-2724J	27	24	.529	144
NRLP-222J	2	22	.238	26
NRLP-322J	3	22	.252	33
NRLP-422J	4	22	.278	40
NRLP-522J	5	22	.308	47
NRLP-622J	6	22	.338	55
NRLP-722J	7	22	.323	61
NRLP-822J	8	22	.408	71
NRLP-922J	9	22	.388	79
NRLP-1022J	10	22	.408	85
NRLP-1222J	12	22	.422	97
NRLP-1522J	15	22	.478	118
NRLP-1922J	19	22	.493	143
NRLP-2722J	27	22	.592	197

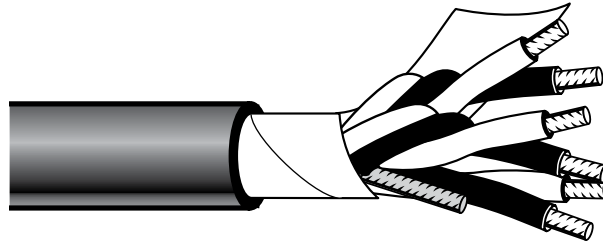
OVERALL BRAIDED SHIELD 24, 22 AWG				
Part No.	No. of Pairs	Cond AWG	Nom. O.D.	Weight LB/K ft.
NRLP-224SJ	2	24	.238	34
NRLP-324SJ	3	24	.250	40
NRLP-424SJ	4	24	.273	47
NRLP-524SJ	5	24	.299	54
NRLP-624SJ	6	24	.326	62
NRLP-724SJ	7	24	.312	66
NRLP-824SJ	8	24	.387	78
NRLP-924SJ	9	24	.370	85
NRLP-1024SJ	10	24	.387	89
NRLP-1224SJ	12	24	.404	109
NRLP-1524SJ	15	24	.454	129
NRLP-1924SJ	19	24	.467	149
NRLP-2724SJ	27	24	.554	198
NRLP-222SJ	2	22	.258	41
NRLP-322SJ	3	22	.272	49
NRLP-422SJ	4	22	.298	58
NRLP-522SJ	5	22	.328	67
NRLP-622SJ	6	22	.358	77
NRLP-722SJ	7	22	.343	83
NRLP-822SJ	8	22	.433	108
NRLP-922SJ	9	22	.413	119
NRLP-1022SJ	10	22	.433	124
NRLP-1222SJ	12	22	.447	139
NRLP-1522SJ	15	22	.503	165
NRLP-1922SJ	19	22	.518	193
NRLP-2722SJ	27	22	.617	257

OVERALL FOIL SHIELD WITH DRAIN 24, 22 AWG				
Part No.	No. of Pairs	Cond AWG	Nom. O.D.	Weight LB/K ft.
NRLP-224FSJ	2	24	.220	22
NRLP-324FSJ	3	24	.232	27
NRLP-424FSJ	4	24	.255	32
NRLP-524FSJ	5	24	.281	38
NRLP-624FSJ	6	24	.308	44
NRLP-724FSJ	7	24	.294	48
NRLP-824FSJ	8	24	.369	55
NRLP-924FSJ	9	24	.352	61
NRLP-1024FSJ	10	24	.369	65
NRLP-1224FSJ	12	24	.381	74
NRLP-1524FSJ	15	24	.431	89
NRLP-1924FSJ	19	24	.444	107
NRLP-2724FSJ	27	24	.531	146
NRLP-222FSJ	2	22	.240	28
NRLP-322FSJ	3	22	.254	35
NRLP-422FSJ	4	22	.280	42
NRLP-522FSJ	5	22	.310	50
NRLP-622FSJ	6	22	.340	57
NRLP-722FSJ	7	22	.325	63
NRLP-822FSJ	8	22	.410	732
NRLP-922FSJ	9	22	.390	81
NRLP-1022FSJ	10	22	.410	87
NRLP-1222FSJ	12	22	.424	99
NRLP-1522FSJ	15	22	.480	120
NRLP-1922FSJ	19	22	.495	146
NRLP-2722FSJ	27	22	.594	199

CABLED TWISTED PAIRS CONDUCTORS

Standard CL2 Cables

- NEC 725 Tray Cables
- Twisted Pairs (NLP Series)



For color code of pairs, View Color Table on page 5-15.

UNSHIELDED 20, 18 AWG				
Part No.	No. of Pairs	Cond AWG	Nom. O.D.	Weight LB/K ft.
NLP-220J	2	20	.265	35
NLP-320J	3	20	.281	45
NLP-420J	4	20	.312	56
NLP-520J	5	20	.346	68
NLP-620J	6	20	.381	79
NLP-720J	7	20	.364	89
NLP-820J	8	20	.462	103
NLP-920J	9	20	.439	115
NLP-1020J	10	20	.462	124
NLP-1220J	12	20	.478	144
NLP-1520J	15	20	.544	176
NLP-1920J	19	20	.561	216
NLP-2720J	27	20	.675	300
NLP-218J	2	18	.299	46
NLP-318J	3	18	.318	61
NLP-418J	4	18	.354	77
NLP-518J	5	18	.394	94
NLP-618J	6	18	.435	110
NLP-718J	7	18	.415	124
NLP-1218J	12	18	.549	203

OVERALL BRAIDED SHIELD 20, 18 AWG				
Part No.	No. of Pairs	Cond AWG	Nom. O.D.	Weight LB/K ft.
NLP-220SJ	2	20	.285	52
NLP-320SJ	3	20	.301	64
NLP-420SJ	4	20	.332	77
NLP-520SJ	5	20	.366	91
NLP-620SJ	6	20	.401	105
NLP-720SJ	7	20	.384	114
NLP-820SJ	8	20	.488	146
NLP-920SJ	9	20	.464	161
NLP-1020SJ	10	20	.488	170
NLP-1220SJ	12	20	.503	192
NLP-1520SJ	15	20	.569	230
NLP-1920SJ	19	20	.586	273
NLP-2720SJ	27	20	.701	369
NLP-218SJ	2	18	.319	66
NLP-318SJ	3	18	.338	83
NLP-418SJ	4	18	.374	101
NLP-518SJ	5	18	.420	130
NLP-618SJ	6	18	.460	151
NLP-718SJ	7	18	.440	164
NLP-1218SJ	12	18	.574	258

OVERALL FOIL SHIELD WITH DRAIN 20, 18 AWG				
Part No.	No. of Pairs	Cond AWG	Nom. O.D.	Weight LB/K ft.
NLP-220FSJ	2	20	.267	39
NLP-320FSJ	3	20	.293	49
NLP-420FSJ	4	20	.314	60
NLP-520FSJ	5	20	.348	72
NLP-620FSJ	6	20	.383	83
NLP-720FSJ	7	20	.366	93
NLP-820FSJ	8	20	.464	107
NLP-920FSJ	9	20	.441	119
NLP-1020FSJ	10	20	.464	128
NLP-1220FSJ	12	20	.480	148
NLP-1520FSJ	15	20	.546	180
NLP-1920FSJ	19	20	.563	220
NLP-2720FSJ	27	20	.677	304
NLP-218FSJ	2	18	.301	52
NLP-318FSJ	3	18	.320	67
NLP-418FSJ	4	18	.356	83
NLP-518FSJ	5	18	.396	99
NLP-618FSJ	6	18	.437	116
NLP-718FSJ	7	18	.417	130
NLP-1218FSJ	12	18	.551	209

NOTES:

1. Available in other conductor sizes.
2. Available in other jacket colors.

OTHER SPECIAL PURPOSE CABLES

ANTENNA ROTOR CABLE						
Part No.	No. Cond	AWG/Str.	Ins. OD	Jkt Wall	Nom. OD	Weight Lb/M'
NQ 818J	8	18/19	.068 pvc	.032	.320	73

LOW CAPACITANCE MICROPHONE CABLE (ULTRA-LIMP, ULTRA QUIET)						
Part No.	No. Cond	AWG/Str.	Ins. OD	Jkt Wall	Nom. OD	Weight Lb/M'
S10-8819	2	24/105 BC	0.060" pe	.040"	.220"	24.
S10-9109	4	24/41 BC	0.054" pe	.045"	.245"	29.

TRANSDUCER CABLE, SHIELDED (FOR LOW LEVEL USE)						
Part No.	No. Cond	AWG/Str.	Ins. OD	Jkt Wall	Nom. OD	Weight Lb/M'
S10-6023	4	22/19	0.054 PVC	.030"	.210	31.

SEISMIC GEOPHONE CABLE (DIGITAL SIGNALS)						
Part No.	No. Cond	AWG/Str.	Ins. OD	Jkt Wall	Nom. OD	Weight Lb/M'
D-2362	2	20/19	130 Ohm	.045	.370	54.

RoHS COMPLIANT PRODUCTS:

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

UNSHIELDED 20, 18 AWG				
Part No.	No. of Pairs	Cond AWG	Nom. O.D.	Weight LB/K ft.
NRLP-220J	2	20	.265	35
NRLP-320J	3	20	.281	45
NRLP-420J	4	20	.312	56
NRLP-520J	5	20	.346	68
NRLP-620J	6	20	.381	79
NRLP-720J	7	20	.364	89
NRLP-820J	8	20	.462	103
NRLP-920J	9	20	.439	115
NRLP-1020J	10	20	.462	124
NRLP-1220J	12	20	.478	144
NRLP-1520J	15	20	.544	176
NRLP-1920J	19	20	.561	216
NRLP-2720J	27	20	.675	300
NRLP-218J	2	18	.299	46
NRLP-318J	3	18	.318	61
NRLP-418J	4	18	.354	77
NRLP-518J	5	18	.394	94
NRLP-618J	6	18	.435	110
NRLP-718J	7	18	.415	124
NRLP-1218J	12	18	.549	203

OVERALL BRAIDED SHIELD 20, 18 AWG				
Part No.	No. of Pairs	Cond AWG	Nom. O.D.	Weight LB/K ft.
NRLP-220SJ	2	20	.285	52
NRLP-320SJ	3	20	.301	64
NRLP-420SJ	4	20	.332	77
NRLP-520SJ	5	20	.366	91
NRLP-620SJ	6	20	.401	105
NRLP-720SJ	7	20	.384	114
NRLP-820SJ	8	20	.488	146
NRLP-920SJ	9	20	.464	161
NRLP-1020SJ	10	20	.488	170
NRLP-1220SJ	12	20	.503	192
NRLP-1520SJ	15	20	.569	230
NRLP-1920SJ	19	20	.586	273
NRLP-2720SJ	27	20	.701	369
NRLP-218SJ	2	18	.319	66
NRLP-318SJ	3	18	.338	83
NRLP-418SJ	4	18	.374	101
NRLP-518SJ	5	18	.420	130
NRLP-618SJ	6	18	.460	151
NRLP-718SJ	7	18	.440	164
NRLP-1218SJ	12	18	.574	258

OVERALL FOIL SHIELD WITH DRAIN 20, 18 AWG				
Part No.	No. of Pairs	Cond AWG	Nom. O.D.	Weight LB/K ft.
NRLP-220FSJ	2	20	.267	39
NRLP-320FSJ	3	20	.293	49
NRLP-420FSJ	4	20	.314	60
NRLP-520FSJ	5	20	.348	72
NRLP-620FSJ	6	20	.383	83
NRLP-720FSJ	7	20	.366	93
NRLP-820FSJ	8	20	.464	107
NRLP-920FSJ	9	20	.441	119
NRLP-1020FSJ	10	20	.464	128
NRLP-1220FSJ	12	20	.480	148
NRLP-1520FSJ	15	20	.546	180
NRLP-1920FSJ	19	20	.563	220
NRLP-2720FSJ	27	20	.677	304
NRLP-218FSJ	2	18	.301	52
NRLP-318FSJ	3	18	.320	67
NRLP-418FSJ	4	18	.356	83
NRLP-518FSJ	5	18	.396	99
NRLP-618FSJ	6	18	.437	116
NRLP-718FSJ	7	18	.417	130
NRLP-1218FSJ	12	18	.551	209

NOTES:

1. Available in other conductor sizes.
2. Available in other jacket colors.