

SHIELDED INSTRUMENT CABLE

MIL-C-27072

National Wire & Cable Corp. manufactures a line of shielded instrument cables for MILITARY and UL applications.

All insulated wires use double-insulated (ie: Nylon-armored over PVC vinyl primary insulation) stranded tinned copper wires per MIL-W-16878/17. (BN) All 19 strand. Shields are full Military 90% min. coverage tinned copper braid. Overall sheath is tough, flexible white PVC compound.

Meets MIL-C-27072 as subcable.**(105°C, 600 volt)
Standard putups: 500 & 1000 ft. on no-deposit reels. Special lengths to order.

**Using type I wire, shielded, with Class B jacket

NOTE: Can be supplied cabled into highly flexible multicables with overall shield and sheath. See our type NTS/NTP cable families. Meets MIL-W-16878/17 UL Style 1004 for 80°C Service, and UL Style 1005 for 90°C Service, except where noted.



Thermoplastic Jacket Overall Braided Tinned Copper Shield Thermoplastic Insulation

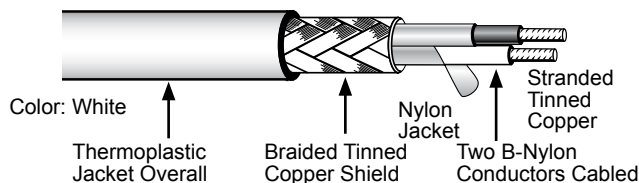
SINGLE CONDUCTOR SHIELDED AND JACKETED

- -54°C to +105°C
- 600 Volts (Working)

The color table for single conductors can be viewed in the National Wire Cable Designers Guide, page 7-12.

CONDUCTOR INSULATION COLOR: WHITE

GAUGE OF CONDUCTORS	PART NO.	NUMBER OF STRANDS PER COND.	GAUGE OF STRANDS	O/A DIAM. OF STRANDED CONDUCTOR		NOMINAL VALUES OF CAPACITANCE PER FOOT		NOM. WT.	
				IN.	mm	WIRE- WIRE pt/FT	WIRE-SHIELD pt/FT	LBS per 1000-ft	Kg/Km
26	NB1938N1SJ	19	38	.087	2.21	-	65.1	6.2	9.2
24	NB1936N1SJ	19	36	.097	2.46	-	74.8	8.1	12.1
22	NB1934N1SJ	19	34	.110	2.79	-	82.8	9.6	14.3
20	NB1932N1SJ	19	32	.120	3.05	-	101.0	15.1	22.5
18	NB1930N1SJ	19	30	.123	3.12	-	115.0	15.1	22.5
16	NB1929N1SJ	19	29	.134	3.40	-	123.0	18.0	26.8



Color: White Thermoplastic Jacket Overall Braided Tinned Copper Shield Nylon Jacket Stranded Tinned Copper Two B-Nylon Conductors Cabled

TWO CONDUCTOR, TWISTED SHIELDED AND JACKETED

- -54°C to +105°C
- 600 Volts (Working)

CONDUCTOR INSULATION COLORS: BLACK & WHITE or RED & BLUE

GAUGE OF CONDUCTORS	PART NO.	NUMBER OF STRANDS PER COND.	GAUGE OF STRANDS	O/A DIAM. OF STRANDED CONDUCTOR		NOMINAL VALUES OF CAPACITANCE PER FOOT		NOM. WT.	
				IN.	mm	WIRE- WIRE pt/FT	WIRE-SHIELD pt/FT	LBS per 1000-ft	Kg/Km
26	NB1938N2SJ	19	38	.150	3.81	31.2	56.9	14.	20.8
24	NB1936N2SJ	19	36	.155	3.94	35.9	65.5	18.	26.8
22	NB1934N2SJ	19	34	.170	4.32	39.7	72.4	21.	31.2
20	NB1932N2SJ	19	32	.190	4.83	48.5	88.4	27.	40.2
18	NB1930N2SJ	19	30	.215	5.46	55.1	101.0	32.	47.6
16	NB1929N2SJ	19	29	.235	5.99	59.0	123.0	35.	52.1

*Note: Other conductor combinations available on request

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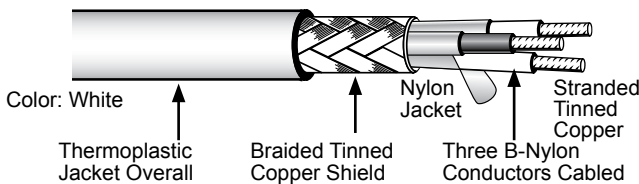
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Meets MIL-C-27072 as subcable. ** (105°C, 600 volt)
Standard putups: 500 & 1000 ft. on no-deposit reels. Special lengths to order.

**Using type I wire, shielded, with Class B jacket

NOTE: Can be supplied cabled into highly flexible multicables with overall shield and sheath. See our type NTT/NTQ cable families.

TECHNICAL SPECIFICATIONS	
Military:	600 VAC Working
UL Agency:	300 VAC Working
Spark Test:	Passes 3400 VAC Stress on every wire.
Hipot Test:	Passes 1500 VAC as finished cable.
Puncture:	Nominal 5000 VAC as insulated.
Temp:	Military: working -40°C to +105°C UL Agency: working -40°C to +80°C
Cold Bend:	Cables can be formed into a circle diameter of 6 cable diameters to temperatures as low as -20°C. Recommended flex diameters should be greater than 20 cables diameters for bending at -40°C.
Leakage:	200 megohms/1000 feet min. @ 500 VDC from any conductor to all else in cable. (@25°C). 10 megohms/1000 feet @ 500 vdc from overall shield through sheath to water bath. (@25°C)
Capacitance	See tables below

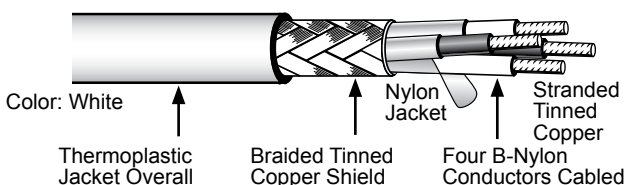


THREE CONDUCTOR SHIELDED AND JACKETED

- -54°C to +105°C
- 600 Volts (Working)

CONDUCTOR INSULATION COLOR: WHITE

GAUGE OF CONDUCTORS	PART NO.	NUMBER OF STRANDS PER COND.	GAUGE OF STRANDS	O/A DIAM. OF STRANDED CONDUCTOR		NOMINAL VALUES OF CAPACITANCE PER FOOT		NOM. WT.	
				IN.	mm	WIRE- WIRE pt/FT	WIRE-SHIELD pt/FT	LBS per 1000-ft	Kg/Km
26	NB1938N3SJ	19	38	.154	3.91	29.6	53.3	16.2	24.1
24	NB1936N3SJ	19	36	.165	4.19	34.0	61.4	21.0	31.2
22	NB1934N3SJ	19	34	.178	4.52	37.7	67.9	23.3	34.7
20	NB1932N3SJ	19	32	.199	5.05	46.0	82.8	29.8	44.3
18	NB1930N3SJ	19	30	.229	5.82	52.3	94.2	39.5	58.8
16	NB1929N3SJ	19	29	.254	6.45	55.9	101.0	48.0	71.4



FOUR CONDUCTOR SHIELDED AND JACKETED

- -54°C to +105°C
- 600 Volts (Working)

CONDUCTOR INSULATION COLORS: BLACK, WHITE RED, GREEN

GAUGE OF CONDUCTORS	PART NO.	NUMBER OF STRANDS PER COND.	GAUGE OF STRANDS	O/A DIAM. OF STRANDED CONDUCTOR		NOMINAL VALUES OF CAPACITANCE PER FOOT		NOM. WT.	
				IN.	mm	WIRE- WIRE pt/FT	WIRE-SHIELD pt/FT	LBS per 1000-ft	Kg/Km
26	NB1938N4SJ	19	38	.166	4.22	27.3	54.0	19.0	28.3
24	NB1936N4SJ	19	36	.178	4.52	31.4	62.1	22.2	33.0
22	NB1934N4SJ	19	34	.195	4.95	34.8	68.7	28.0	41.7
20	NB1932N4SJ	19	32	.211	5.36	42.4	83.9	35.7	53.1
18	NB1930N4SJ	19	30	.240	6.10	48.2	95.4	48.1	71.6
16	NB1929N4SJ	19	29	.262	6.65	51.6	102.0	58.4	86.6

*Note: Other conductor combinations available on request