

SPECIFICATION CONTROL DRAWING

7724C3864

CHEMINAX

77 OHM, AWG 24, 19 STRANDS OF AWG 36,
OPTIMIZED DOUBLE SHIELDS, DATA BUS CABLE, MIL-STD-1553

Date: 9-21-22
Revision: F

THIS SPECIFICATION SHEET FORMS A PART OF THE LATEST ISSUE OF RAYCHEM SPECIFICATION 1200.

CONSTRUCTION DETAILS

ELECTRICAL CHARACTERISTICS

DIMENSIONS ARE NOMINAL VALUES IN INCHES, UNLESS OTHERWISE DESIGNATED.

CHARACTERISTIC IMPEDANCE	77 ± 5 ohms, Method C at 1 MHz
MUTUAL CAPACITANCE	30.0 pF/ft. (maximum)
ATTENUATION	1.4 dB/100 ft. (maximum) at 1 MHz
SURFACE TRANSFER IMPEDANCE	10 milliohms/meter (maximum) at 30 MHz

ADDITIONAL REQUIREMENTS

**COMPONENT WIRE PRIOR TO CABLING
(Test procedures per SAE AS22759)**

CONDUCTOR RESISTANCE	26.5 ohms/1000 ft. (nominal)
CROSSLINKING PROOF TEST	300 ± 3°C for 1 hour, .625 inch mandrel, .375 lb, 2.5 kV dielectric test
INSULATION (DIELECTRIC) ELONGATION	50% (minimum)
TENSILE STRENGTH	5000 lbf/in ² (minimum)
INSULATION FLAWS SPARK TEST	3.0 kV (rms)
IMPULSE TEST	8.0 kV (peak)
INSULATION RESISTANCE	5000 megohms for 1000 ft. (minimum)
LOW TEMPERATURE-COLD BEND	-65 ± 3°C for 4 hours, .750 inch mandrel, 1.00 lb, 2.5 kV dielectric test
SHRINKAGE	200 ± 3°C for 1 hour, .125 inch (maximum) in 12 inches

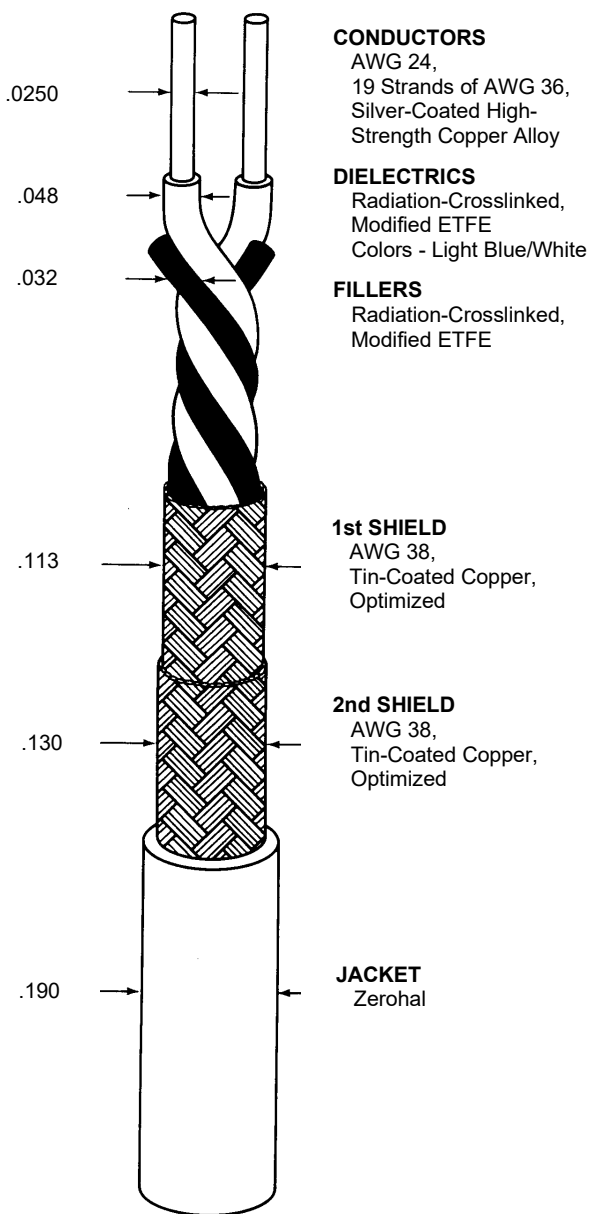
FINISHED CABLE

CABLE LAY LENGTH	.75 inch (minimum), 1.25 inches (maximum)
FLAMMABILITY	Method B, except 45 seconds (maximum)
HEAT SHOCK	225°C
JACKET ELONGATION	150% (minimum)
TENSILE STRENGTH	1200 lbf/in ² (minimum)
JACKET FLAWS SPARK TEST	1.0 kV (rms)
IMPULSE TEST	6.0 kV (peak)
JACKET THICKNESS	.030 inch (nominal)
LOW TEMPERATURE-COLD BEND	-30°C/5.00 inch mandrel
VOLTAGE WITHSTAND (DIELECTRIC)	1500 volts (rms)
VOLTAGE WITHSTAND (Post Environmental)	1000 volts (rms), 1 minute

WEIGHT 29.6 lbs/1000 ft. (nominal)

ENGINEERING REFERENCE

TEMPERATURE RATING 105°C (maximum)



CONDUCTORS
AWG 24,
19 Strands of AWG 36,
Silver-Coated High-
Strength Copper Alloy

DIELECTRICS
Radiation-Crosslinked,
Modified ETFE
Colors - Light Blue/White

FILLERS
Radiation-Crosslinked,
Modified ETFE

1st SHIELD
AWG 38,
Tin-Coated Copper,
Optimized

2nd SHIELD
AWG 38,
Tin-Coated Copper,
Optimized

JACKET
Zerohal

Designate outer jacket color with a dash number in accordance with MIL-STD-681. Unless otherwise specified, outer jacket color will be black (designated by a "-0" appended to the part number, e.g. 7724C3864-0). Other codes and suffixes may be added to the part number, as necessary, to capture any additional requirements imposed by the purchase order.

Users should evaluate the suitability of this product for their application. Specifications are subject to change without notice. Tyco Electronics Corporation also reserves the right to make changes in materials or processing, which do not affect compliance with any specification, without notification to Buyer.

