SPECIFICATION CONTROL DRAWING

10614

CHEMINAX

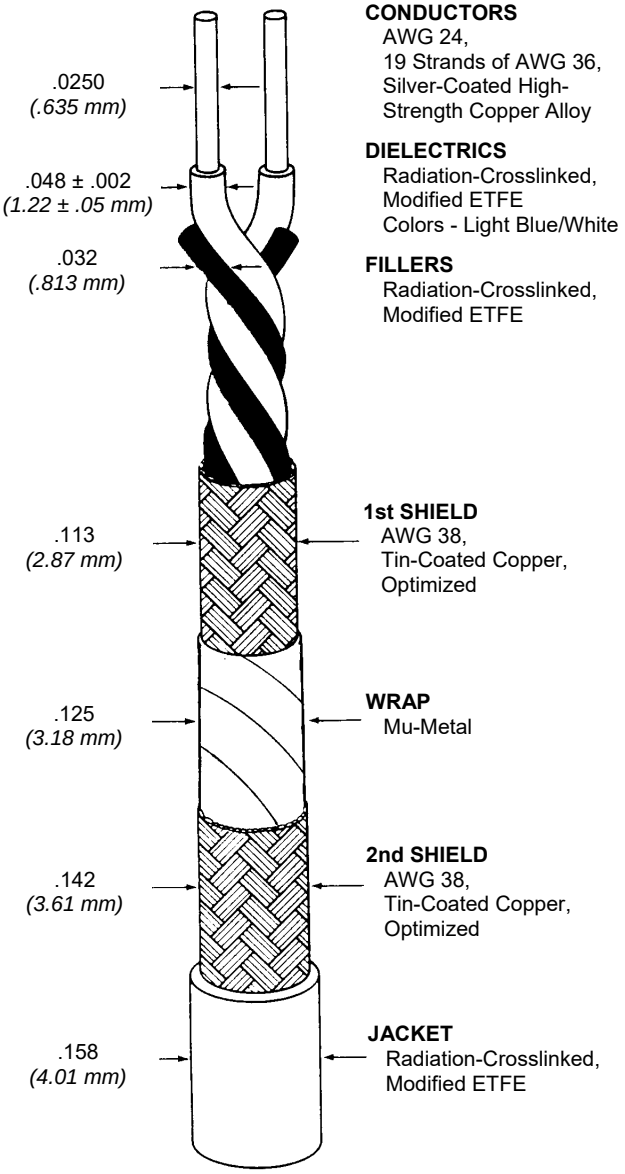
77 OHM, AWG 24, 19 STRANDS OF AWG 36, EMP HARDENED,
DATA BUS CABLE, MIL-STD-1553

Date: 2-13-18
Revision: K

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

CONSTRUCTION DETAILS

DIMENSIONS ARE NOMINAL VALUES IN INCHES, UNLESS OTHERWISE DESIGNATED.



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

WRAP
Mu-Metal

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

JACKET
Radiation-Crosslinked, Modified ETFE

The conductor AWG size and outer jacket color will be appended to the part number. Unless otherwise specified, outer jacket color will be white designated by a "-9" in accordance with MIL-STD-681, (e.g. 10614-24-9).

Other codes and suffixes may be added to the part number, as necessary, to capture any additional requirements imposed by the purchase order.

ELECTRICAL CHARACTERISTICS

CHARACTERISTIC IMPEDANCE	77 ± 5 ohms, Method C at 1 MHz
MUTUAL CAPACITANCE	30.0 pF/ft. *(98.4 pF/m)* (maximum)
ATTENUATION	1.4 dB/100 ft. *(4.59 dB/100 m)* (maximum) at 1 MHz
SURFACE TRANSFER IMPEDANCE (Per SAE AS85485)	0.2 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. *(86.9 ohms/km)* (nominal)
CROSSLINKING PROOF TEST	300 ± 3°C for 1 hour, .500 inch *(12.7 mm)* mandrel, .375 lb *(170 g)*, 2.5 kV dielectric test
INSULATION (DIELECTRIC)	
ELONGATION	50% (minimum)
TENSILE STRENGTH	5000 lbf/in^2 *(34.5 N/mm^2)* (minimum)
INSULATION FLAWS	
SPARK TEST	3.0 kV (rms)
IMPULSE TEST	8.0 kV (peak)
INSULATION RESISTANCE	5000 megohms for 1000 ft. *(1524 megohms-km)* (minimum)
LOW TEMPERATURE-COLD BEND	-65 ± 3°C for 4 hours, .750 inch *(19.1 mm)* mandrel, 1.00 lb *(454 g)*, 2.5 kV dielectric test
SHRINKAGE	200 ± 3°C for 1 hour, .125 inch *(3.18 mm)* (maximum) in 12 inches *(305 mm)*

FINISHED CABLE
(Test procedures per NEMA WC 27500, unless otherwise specified)

BLOCKING	200°C for 6 hours
CABLE LAY LENGTH	.75 inch *(19.1 mm)* (minimum), 1.25 inches *(31.8 mm)* (maximum)
CROSSLINKED VERIFICATION	300 ± 5°C for 6 hours, 6.00 inch *(152 mm)* mandrel
FLAMMABILITY (Method B of Spec 1200)	3 seconds (maximum); 3 inches *(76.2 mm)* (maximum); no flaming of facial tissue
JACKET	
ELONGATION	50% (minimum)
TENSILE STRENGTH	5000 lbf/in^2 *(34.5 N/mm^2)* (minimum)
JACKET FLAWS	
SPARK TEST	1.0 kV (rms)
IMPULSE TEST	6.0 kV (peak)
JACKET THICKNESS	.008 inch *(.203 mm)* (nominal)
LOW TEMPERATURE-COLD BEND	-55 ± 5°C for 4 hours, 6.00 inch *(152 mm)* mandrel
VOLTAGE WITHSTAND (DIELECTRIC)	1000 volts (rms) (minimum)
WRAP	.002 inch *(.051 mm)* thick (nominal), 25% overlap (minimum)
WEIGHT	29.1 lbs/1000 ft. *(43.3 kg/km)* (maximum)

CABLE IDENTIFICATION: Outer jacket shall be marked in contrasting color at 12 inch *(305 mm)* (nominal) intervals between marks as follows: "10614 RAYCHEM"

ENGINEERING REFERENCE

TEMPERATURE RATING	150°C (maximum)

Raychem Wire & Cable
501 Oakside Avenue
Redwood City, California 94063-3800
Phone: 1-800-522-6752 Fax: 1-650-361-6297