

# SPECIFICATION CONTROL DRAWING

**82/1142**

TITLE FOUR CONDUCTOR CABLE, SHIELDED, JACKETED, OUTER SPACE, FLEXIBLE, 600 VOLT

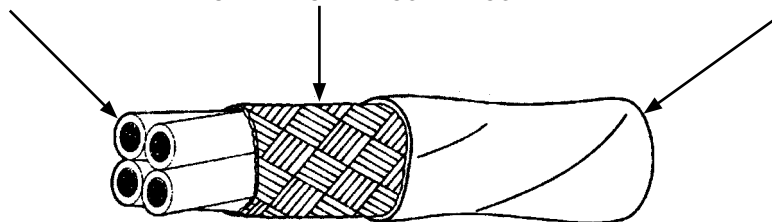
Date 4-18-13

Revision B

This specification sheet forms a part of the latest issue of Raychem Specification 80.

COMPONENT WIRES - 82/0112

SHIELD - SILVER-COATED COPPER

JACKET - LOW OUTGASSING,  
RADIATION-CROSSLINKED,  
MODIFIED FLEXIBLE ETFE

## CABLE CONSTRUCTION DETAILS

PART NUMBER 1/	CONDUCTOR SIZE (AWG)	SHIELD SIZE (AWG)	JACKET THICKNESS (in.)		OUTSIDE DIAMETER (in.)		MAXIMUM WEIGHT (lbs/1000 ft.)
			MINIMUM	NOMINAL	NOMINAL	MAXIMUM	
82/1142-28-*	28	38	.005	.008	.103	.118	10.9
82/1142-26-*	26	38	.006	.009	.115	.132	12.8

## CABLE RATINGS AND ADDITIONAL REQUIREMENTS

### TEMPERATURE RATING: 150°C

Maximum continuous conductor temperature

VOLTAGE RATING: 600 volts (rms) at sea level

CROSSLINKING PROOF TEST: 300 ± 3°C for 1 hour

DIELECTRIC WITHSTAND: 1500 volts (rms), 60 Hz

JACKET COLOR: White preferred

JACKET ELONGATION AND TENSILE STRENGTH:

Elongation, 100% (minimum)

Tensile Strength, 3000 lbf/in<sup>2</sup> (minimum)

JACKET FLAWS:

Spark Test, 1500 volts (rms)

Impulse Dielectric Test, 6.0 kV (peak)

RADIATION RESISTANCE (Test per Raychem Spec 55/):

500 megarads

### SECANT MODULUS (Test per ASTM D 882):

4.0 x 10<sup>4</sup> lbf/in<sup>2</sup> (maximum),

2% strain, 2 inch jaw separation, 0.2 inch/minute

SHIELD COVERAGE: 85% (minimum)

VACUUM STABILITY (Test per ASTM E 595):

Total Mass Loss (TML), 1.00% (maximum)

Volatile Condensable Material (VCM), 0.10% (maximum)

VOLTAGE WITHSTAND (Post Environmental):

1000 volts (rms), 60 Hz, 1 minute

### PART NUMBER:

The “\*\*” in the part numbers above shall be replaced by color code designators with a slash separating the component wire colors and a dash separating the component wire colors from the jacket color. Colors shown do not necessarily reflect the sequence of manufacturing.

NOTE: Nominal values are for information only.  
Nominal values are not requirements.

1/ Example: AWG 28, black, brown, red and orange component wires;  
white jacket: 82/1142-28-0/1/2/3-9

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.

1/ COLORS AND COLOR CODE DESIGNATORS SHALL BE IN ACCORDANCE WITH MIL-STD-681. HOWEVER, DUE TO LENGTH LIMITATIONS OF THE RAYCHEM PART NUMBER, AN ALTERNATIVE COLOR CODE MAY REPLACE MIL-STD-681 COLOR CODE DESIGNATORS. (EXAMPLE: “901/902...” MAY BE REPLACED BY “Axxx”.) OTHER CODES AND SUFFIXES MAY BE ADDED TO THE PART NUMBER AS NECESSARY, TO CAPTURE ANY ADDITIONAL REQUIREMENTS IMPOSED BY THE PURCHASE ORDER.